Value Reconciliation in Trade Law in Light of Criteria on Process and Production Methods

– A Comparative Study of the EU, the U.S. and the WTO

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Summary

With respect to many products the threat to public health and the environment may stem from the physical properties of products. However, in recent decades emphasis has increasingly been shifted toward a more holistic understanding of the environmental impacts of products. Namely, the negative effects may not only relate to the physical properties of the end product, but may come, for example, from the emissions during the production phase. In other words, the process and production methods (PPMs) affects the environmental impacts of products.

The focus of this book is on the relationship between environmental PPM-criteria adopted by EU member states and U.S. states on the one hand and trade law on the other hand. In particular, what challenges do PPM-criteria present to established legal tests applicable under WTO law, EU free movement law and the U.S. dormant Commerce Clause? In addition, it is examined whether the legal tests reflect efficiency as a core value and whether there may be some other values reconciled under legal tests in trade law. The research questions are examined against the backdrop of recent and emerging cases relating to the renewables sector and more specifically measures such as feed-in-tariffs and renewable portfolio standards, support schemes for biofuels and sustainability criteria in public procurement.

Tiivistelmä

Monet tuotteet ovat niiden fyysisten ominaisuuksien johdosta haitallisia kansanterveydelle tai ympäristölle. Viimeisten vuosikymmenten aikana on kuitenkin kiinnitetty yhä enemmän huomiota tuotteiden ympäristövaikutuksiin kokonaisvaltaisemmin. On nimittäin niin, että haitalliset vaikutukset eivät suinkaan rajoitu lopputuotteen fyysisiin ominaisuuksiin vaan voivat liittyä myös esimerkiksi tuotantoprosessin aikana syntyneisiin päästöihin. Toisin sanoen, tuotantomenetelmillä on merkitystä tuotteiden ympäristövaikutuksiin.

Tässä kirjassa on tutkittu Euroopan unionin jäsenvaltioiden ja Yhdysvaltain osavaltioiden asettamia tuotantomenetelmiä koskevia ympäristökriteereitä sekä niiden suhdetta vapaakauppasääntöihin. Tarkastelun alla ovat vapaakauppajärjestö WTO:n normisto, EU:n vapaan liikkuvuuden periaatteet sekä Yhdysvaltojen perustuslaista kumpuavat osavaltioiden välistä kauppaa koskevat säännöt. Millaisia haasteita syntyy, kun tuotantomenetelmiä koskeviin kriteereihin sovelletaan niitä samoja vakiintuneita oikeudellisia testejä, joita on sovellettu muuhunkin valtiolliseen sääntelyyn? Mielenkiinto kohdistuu myös siihen, palvelevatko oikeudelliset testit tehokkuutta eräänlaisena keskeisenä arvona ja onko mahdollisesti myös muita arvoja, jotka vaikutusta vapaakaupan testien raameissa tehtävään punnintaan. Tutkimuskysymysten tarkastelussa käytännön haasteet on pääosin johdettu viimeaikaisista oikeustapauksista liittyen uusiutuvan energian kannustinjärjestelmiin. Tällaisia järjestelmiä ovat esimerkiksi syöttötariffit, kiintiöt, biopolttoaineiden tukijärjestelmät sekä kestävyyskriteerit julkisissa hankinnoissa.

Acknowledgements

The story of this doctoral thesis begins in late 2010. While working at a small law firm I discussed with my Master thesis supervisor, professor Juha Raitio, about the potential of working in academia. It was through him that I came to know about the Institute for European Studies (IES) at Vrije Universiteit Brussel. I am equally thankful for his help and guidance with respect to my professional life.

For a long time, no suitable project became available in Belgium. In 2011 my interest in publishing came to the attention of professor Dan Frände, who suggested I would apply for a position as his assistant at University of Helsinki while Dan Helenius acted as visiting researcher in Sweden. What I needed to know about writing a doctoral thesis, I would learn from them. Valuable advice and cutting-edge humor were also delivered by Joakim Frände. In addition, during my time there, I had the honor to discuss various ideas with Merita Kettunen, Heli Korkka, Samuli Miettinen, Tuomas Hupli, Kati Nieminen, Sakari Melander, Patrick Günsberg and Kaj Grönqvist.

By spring 2012 I had almost forgot about the opportunities in Belgium, when suddenly a call for a project on economic law and the energy sector was published. After a successful application process professor Harri Kalimo was appointed as my supervisor. The content of this book is built around ideas that have spurred out of our numerous brain-storming meetings on anything from coherence to quantification. Together we combined legal and economic argumentation in order to produce new knowledge. All analysis and material could easily have been combined into several books, on topics ranging from competition law to state aid. In the end, the theme and final scope of this book was perhaps determined largely by chance. Be that as it may, I am forever grateful for the hard work he has put into commenting my drafts and for untying the knots when I got stuck. Importantly, he never hesitated when I needed assistance in practical matters unrelated to work.

The three other members of my advisory committee at IES all brought something different to the mix. Frank Hoffmeister (European Commission) offered thoughts about the link between research and policy-making in practice. In contrast, professor Tuomas Mylly (U. of Turku) enriched my understanding of legal theory and methodology. Claire Dupont (UGent), in turn, challenged my lawyer-mindset with insights from the field of political science.

During my time at the IES many colleagues, students and affiliates contributed to the project that now will come to an end with the publication of this book. I think here of my discussions on biofuels with Filip Sedefov, Maria Koliasta and Byron Maniatis, on competition law with Ben Van Rompuy and Klaudia Majcher, on free movement of persons with Serena D'Agostino and professor Jamal Shahin, on bilateral environmental protection programs with Ernesto Roessing, on international energy law with Carlos Soria Rodriguez, on democracy with Ferran Davesa, on post-colonialism with Esther Marijnen, on international investment law with Jacintha Liem, on publishing with Irene Wieczorek and on sustainability with Ólöf Söebech.

Working in Brussels was not only about exchanging thoughts. It was also about feeling at home. In this context the compassionate approach of Trisha Meyer cannot be emphasized enough. Others include Günes Ünüvar, who introduced me to the city, and Tomas Maltby, who familiarized me with pub quiz tradition at Flagey. Later Silviu Piros, Anamaria Bacsin, Mathias Holvoet, Daniel Fiott, Katja Biedenkopf, Auke Williams and Alexandra Mihai all played a part in creating a good environment.

Furthermore, my years in Brussels coincided with the resurrection of Belgian football. Tomas Wyns always had a thought to share on Anderlecht, while my high-school friend Sunniva Hansson moved to town and joined me for a couple of games. My own skills were put to test by Tom Verthé, Benoit Demeester and many others.

Brussels also proved to be a great city to create new connections. For example, I had the honor to discuss economic law in a time of crisis with Jan Strupczewski and was offered pedagogic training by Heidi Maurer (Maastricht U.). I even met Finns, such as Johanna Kentala-Lehtonen and Jarkko Paldanius. The latter was a great motivator as we both struggled in our efforts to improve our French. The projects I participated in also took me to unexpected places. At one point, I was discussing the limits of negative advertisement in Finland and the U.S. with professor Bill Kovacic on the Island of Seili.

The close collaboration with University of Turku further improved my understanding of economic law, and thus contributed to the making of this book. I learnt about intellectual property law from Daniel Acquah and Ali Imran, free movement law from professor Jukka Snell and investment law from Ahmad Ghouri. I also had interesting debates on biofuels with Gurwinder Singh, negotiation strategies with Daniel Valtakari, legal methodology with Lassi Jyrkkiö and legal theory with professor Juha Lavapuro.

I want to thank the participants at various conferences who have commented my papers. I should especially mention Yelena Bakulina, Robert Rybski as well as two experts on Chinese biofuels law, Taotao Yue and Lei Guo. A conference of particular value for my work was organized by the University of Eastern Finland on the topic of energy transition. Several of the experts from there, such as professor Kim Talus and Sirja-Leena Penttinen, have offered me important encouragement. In addition, my collaboration with Seita Romppanen led not only to co-authorship, but to a better understanding of regulatory certainty in the field of biofuels.

Important progress in writing this book was finally made in early 2015 when I was accepted as a visiting researcher under the guidance of professor Dan Farber at University of California, Berkeley. In fact, this was the six months when a lion share of the text was produced. I am in debt to Farber for his advice on how to get the most out of my time at Berkeley. Important inspiration and information were also provided by Steve Weissman in his class on US energy law and in the lectures of professor John Yoo on the U.S. Commerce Clause. These proved to be crucial for the success of my book project. In addition, during my time in California I had the opportunity to discuss WTO law with Tomohiko Kobayashi (Otaru U. of Commerce), biofuels with Daniel Szabo and Chinese energy policy with Xiufeng Feng. Last but not least, through Berkeley Energy and Resources Collaborative I came in touch with Adrian Gomez, with whom I reflected on innovation and clean transportation.

This book got its finishing touches when I was back in Helsinki working for the government. It took a few years before I got to return to Brussels for my internal defense, which was eloquently chaired by Marie Lamensch (VUB). The event proved to be an opportunity to debate interesting new perspectives brought into the discussion by professor Geert Van Calster (KU Leuven) and professor Gareth Davies (Vrije Universiteit Amsterdam), who both acted as reviewers. As professor Davies kindly agreed to also act as my opponent, I can now look forward to continue that exchange of thoughts in August in Turku. Finally, I wish to address a special thank you to my friends Nathalie Patty in The Hague and Amy Panteli, who at the time lived in Luxembourg, for their patience and encouragement during my time in Belgium.

Helsinki, 22 July 2019

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Abbreviations

AB	Appellate Body
AG	Advocate General
ASES	American Solar Energy Society
BISD	Basic Instruments and Selected Documents
Cert.	certiorari
Cf.	confer
C.F.R.	Code of Federal Regulations of the United States
ch	chapter
CJEU	Court of Justice of the European Union
Co.	Company
Commission	European Commission
COP	Conference of the Parties
Corp.	Corporation
CUP	Cambridge University Press
D. Ariz.	Unites States District Court, District of Arizona
D. Colo.	Unites States District Court, District of Colorado
D. Conn.	Unites States District Court, District of Connecticut
D. Del.	Unites States District Court, District of Delaware
D. Mass.	Unites States District Court, District of Massachusetts
D. Minn.	Unites States District Court, District of Minnesota
D. Or.	Unites States District Court, District of Oregon
Doc.	Document
DS	Dispute Settlement
EC	European Communities
ECIPE	European Centre for International Political Economy
ECJ	European Court of Justice
ECLI	European Case Law Identifier
ECR	European court reports
ed.	editor; edition
E.D. Cal.	United States District Court, Eastern District of California
E.D. Mich.	United States District Court, Eastern District of Michigan
eds.	editors
EEC	European Economic Community
EFTA	European Free Trade Association
EPA	Environmental Protection Agency
et al.	and others
ETS	Emissions Trading System
EU	European Union
EUI	European University Institute
FERC	Federal Energy Regulatory Commission
FIT	Feed-in-Tariff
F. Supp.	Federal Supplement
F. Supp. 2d.	Federal Supplement, Second Series
ff.	and the following
FIDE	Fédération Internationale pour le Droit Européen (International Federation for European Law)

fn	footnote
GATT	General Agreement on Tariffs and Trade
GATS	General Agreement in Trade on Services
GHG	Greenhouse gas
GO	Guarantee of Origin
GPA	Agreement on Government Procurement
GPP	Green Public Procurement
HUP	Harvard University Press
IA	Impact Assessment
ibid.	ibidem
ICJ	International Court of Justice
id.	idem
ILO	International Labour Organization
ILUC	indirect land use change
IPC	International Policy Council
iss.	issue
J.	Journal
L.	Law
LCA	life-cycle analysis
LCC	life-cycle costing
LCFS	Low Carbon Fuel Standard
Ltd.	Limited company
L. Q.	Law Quarterly
Mass. Gen. Laws Ann.	Massachusetts General Laws Annotated
MIT	Massachusetts Institute of Technology
Mo. App. Ct. W.D.	Missouri Court of Appeals, Western District
n.	note
NAFTA	North American Free Trade Agreement
N. D. Cal.	United States District Court, Northern District of California
N. D. Ill.	United States District Court, Northern District of Illinois
NGO	non-governmental organization
No.	number
N.Y.	Court of Appeals of the State of New York
N.Y.U.	New York University
OCDE	*see* OECD
OJ	Official Journal of the European Union
OECD	Organisation for Economic Co-operation and Development
OUP	Oxford University Press
p.	page
para.	Paragraph
paras	Paragraphs
P.C.I.J.	Permanent Court of International Justice
PPM	Process and production method(s)
REC	Renewable Energy Certificate
RED	Renewable Energy Directive
Rep.	Reports
Rev.	Review

RFS	Renewable Fuel Standard
RPS	Renewable Portfolio Standard
RTF	Renewable Trust Fund
SBC	System benefit charge
S.C.	Supreme Court of South Carolina
SCM Agreement	Agreement on Subsidies and Countervailing Measures
S. Ct.	Supreme Court
S.D.N.Y.	United States District Court, Southern District of New York
SPS Agreement	Agreement on the Application of Sanitary and Phytosanitary Measures
St. Thomas	Saint Thomas
Stat.	statute
SWD	Staff and joint staff working document
TBT Agreement	Agreement on Technical Barriers to Trade
TEU	Treaty on the European Union
TFEU	Treaty on the Functioning of the European Union
TTIP	Transatlantic Trade and Investment Partnership
U.	University
U.C.	University of California
UK	United Kingdom
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
U.N.T.S.	United Nations Treaty Series
U.S.	United States
U.S.C.	United States Code
v.	versus
vol.	volume
W.D.N.C.	United States District Court, Western District of North Carolina
WTO	World Trade Organization
1st Cir.	United States Court of Appeals for the First Circuit
2d Cir.	United States Court of Appeals for the Second Circuit
3d Cir.	United States Court of Appeals for the Third Circuit
4th Cir.	United States Court of Appeals for the Fourth Circuit
6th Cir.	United States Court of Appeals for the Sixth Circuit
7th Cir.	United States Court of Appeals for the Seventh Circuit
8th Cir.	United States Court of Appeals for the Eighth Circuit
9th Cir.	United States Court of Appeals for the Ninth Circuit
10th Cir.	United States Court of Appeals for the Tenth Circuit

Chapter 1 - Introduction

1.1. Setting the Scene

1.1.1. The Energy Transition in the EU and the U.S.

Climate change and its consequences have been and continue to be hot topics. In order to tackle the problem both the EU and the U.S. continuously develop their strategies. The energy sector has emerged as a focal point due to its importance in today's economy as well as the substantive share of emissions that can be attributed to it. Although each method of generating energy will have some negative impacts, there is a general consensus in the U.S. and the EU that current use of fossil fuels with their high greenhouse gas (GHG) emissions is unsustainable. Decades of international negotiations have, however, come short of effective global action.

A transformation of the energy sector is still taking place. The EU and the U.S. have adopted several legislative initiatives in order to deal with greenhouse gas emission levels and to push the transition toward sustainable energy. For example, the EU has developed a policy to promote energy from renewable resources.[1] A key objective of this strategy is to reduce the dependency on fossil fuel. These efforts can only be expected to intensify following the international deal struck at the 21st annual Conference of the Parties hosted by the United Nations Framework Convention on Climate Change (COP21),[2] despite the U.S. threatening to withdraw from the agreement in 2020.[3]

Countries have reacted to the modest global level progress in tackling climate change by introducing their own programs. In both the U.S. and the EU much discretion – and responsibility – has been left to the state legislator due to the lack of consensus even on federal or union level. The view on necessary measures to encourage sustainable development in the energy sector has not been uniform among states. Some U.S. States argue for a coal moratorium as cases presented in this book will illustrate, while others

[1] Commission Communication, Energy 2020: A strategy for competitive, sustainable and secure energy, COM (2010) 639 final; Commission Communication, Energy Roadmap 2050, COM (2011) 885 final; Commission Communication, A policy framework for climate and energy in the period from 2020 to 2030, COM (2014) 15 final.
[2] COP21, Adoption of the Paris Agreement, 12 Dec. 2015, UNFCCC/CP/2015/L.9.
[3] President Donald J. Trump, Speech at White House Rose Garden (1 June 2017) <https://www.youtube.com/watch?v=G3wE7MO1uSw> accessed 9 March 2018.

are dependent on coal. Similar controversies are present in the EU. Some Member States phase-out their nuclear power plants,[4] others build new reactors.[5] What is more, the definition of prioritized renewables, i.e. sustainable energy, varies not only on the global arena, but also from state to state.

1.1.2. Rules on Process and Production Methods

With respect to many products the threat to public health and the environment may stem from the physical properties of products. However, in recent decades emphasis has increasingly been shifted toward a more holistic understanding of the environmental impacts of products. Namely, the negative effects may not only relate to the physical properties of the end product, but may come, for example, from the emissions during the consumption or the production phase. In other words, even the process and production methods (PPMs) affect the environmental impacts of products.

PPMs are commonly divided into product-related PPMs and non-product-related PPMs.[6] Non-product-related PPMs are those that do not affect the physical properties of the end product. Electricity generated through various processes forms a good example. Product-related PPMs, in turn, cover PPMs that have an effect on the physical properties of the end product. The impact can be significant or minimal. The end products of different product-related PPMs can thus be anything from almost identical to completely different.

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[4] Decisions to dismantle reactors have been taken in Belgium and Germany. *See* Moniteur Belge, 28.02.2003 − Ed. 3, 31 Janvier 2003, Loi sur la sortie progressive de l'e´nergie nucle´aire a` des fins de production industrielle d'e´lectricite´, p. 9879; Kenneth Bruninx et al., Impact of the German nuclear phase-out on Europe's electricity generation—A comprehensive study, Energy Policy, 2013, vol. 60, issue C, 251-261. Sweden voted for a phase-out in a referendum in 1980 but decided in 2010 to replace old reactors with new ones. *See* Riksdagens protokoll 2009/10:139, torsdagen den 17 juni, <www.riksdagen.se/sv/Dokument-Lagar/Kammaren/Protokoll/Riksdagens-protokoll-2009101_GX09139/> accessed 9 March 2018.

[5] Decisions to expand nuclear power include Department of Energy & Climate Change, Application 12.04.09.04/170c, Decision on development consent, 19 March 2013 (United Kingdom); Décret n° 2007-534 du 10 avril 2007 autorisant la création de l'installation nucléaire de base dénommée Flamanville 3, comportant un réacteur nucléaire de type EPR, sur le site de Flamanville (France); Romanian Government Decision No. 643/2007 (decision on units 3 and 4 of the Cernavdoa Power Plant); Decisions of the Cabinet of Finland in plenary 6 May 2010, M 4/2010 vp, <https://www.eduskunta.fi/FI/vaski/Documents/m_4+2010.pdf> > accessed 9 March 2018; Hungarian Government Decision No. 1196/2012, 18 June 2012. *See* also Nemzeti Eenrgiastratgia 2030, Nemzeti Fejlesztsi Minisztrium, 2012, 71-75 (Hungary) and Commission Decision on the Aid Measure SA. 34947 (2013/C) (ex 2013/N) which the United Kingdom is planning to implement for support to the Hinkley Point C New Nuclear Power Station, Brussels, 8.10.2014, C(2014) 7142 final cor.

[6] Processes and Production Methods (PPMs): Conceptual Framework and Considerations on use of PPM-based Trade Measures (OCDE/GD(97)137, 1997) 33.

The energy sector is one area where the sustainability of PPMs has received a lot of attention. Heating and cooling, production of fuel and generating electricity can be realised with different methods and from a variety of resources. The PPM is different when for example generating electricity with wind turbines as compared to when it is generated from fossil fuels even if the final good, electricity, will be identical. The choice of PPM will be crucial for the environmental – and sometimes also social – impact of the activity.

Promoting sustainable PPMs in the energy sector will in many cases not have any major effect on the properties of the end products on the market. References in this work to PPMs will thus generally cover PPMs with the assumption that the effect on the end product is non-existent or relatively modest. The focus of this study is in other words on non-product-related PPMs and product-related PPMs that affect the end product to a fairly limited extent. An example of the latter would be methods to produce biofuel from various feedstock.

This study will examine measures to promote sustainable PPMs and the status of PPM-criteria under trade law. The energy sector will serve as the primary case study. With the objective to tackle environmental problems in mind, states have introduced rules to favour some PPMs in the energy sector and disadvantage others. Many states have opted to encourage renewables. This is also part of a more general trend of life-cycle thinking, where emphasis is put on environmental and social effects linked to not only consumption, but also production and end-of-life treatment of products.[7]

The views on sustainable development differ among states. Many states appear ready to use their domestic legal tools and market power to push forward their own sustainability agenda. This is in part carried out by promoting what the state considers sustainable and introducing restrictions on unsustainable PPMs. These strategies will affect both domestic producers and energy imported from out-of-state producers. It is here that conflicts may arise with the rules of trade law.

[7] Generally on life-cycle analysis (LCA) *see* Mary Ann Curran (ed.), *Life-Cycle Assessment Handbook – A Guide for Environmentally Sustainable Products* (Wiley 2012). *See* also Anoop Singh, Deepak Pant and Stig Irving Olsen (eds.), *Life Cycle Assessment of Renewable Energy Sources* (Springer 2013).

1.1.3. Measures to Promote Renewables

The costs of renewable energy are generally higher than for fossil fuels and energy prices are expected to increase up until 2030.[8] This situation has partly evolved due to long-lasting government support for fossil fuels. Consequently, new forms of government intervention is needed in order to make renewable energy competitive.

The energy transition is partly driven by strategies on union (federal) level, and partly by actions of individual states. Notable measures utilized to support renewable energy include subsidies and tax incentives. In public procurement sustainability criteria may be utilized in order to encourage the use of renewable resources. In addition, emissions trading schemes (ETS) have been established in order to penalize PPMs that cause extensive pollution.[9]

Perhaps the two most prominent forms of schemes designed for the energy sector are, however, feed-in-tariffs and renewable energy portfolio standards. A feed-in-tariff (FIT) is a fixed price level that is guaranteed for a pre-determined number of years for the facilities generating electricity from renewable resources. Electricity suppliers have an obligation to purchase the power generated from renewables for that price until the FIT expires and a new price level is determined. The price might be expressed either directly or as the market price for electricity plus a fixed premium. FITs are fairly common throughout Europe.

A renewable energy portfolio standard (RPS) functions quite differently. It is essentially a system in which a quota is set for the amount of energy that needs to come from renewable resources. The quota may be directed at either producers or at suppliers higher up the value chain, and may also be assigned to importers. Those generating energy from renewables receive renewable energy certificates (RECs). The quota can

[8] Commission Communication, Energy Roadmap 2050, COM (2011) 885 final 6-7.

[9] The EU has established an emissions trading system (ETS). *See* Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC, OJ L 275, 25.10.2003, 32. In the US, some states in the Northeast have put in place a cap-and-trade system referred to as the Regional Greenhouse Gas Initiative. *See* <www.rggi.org> accessed 3 March 2018. In addition, California has together with some Canadian provinces linked their cap-and-trade programs under the Western Climate Initiative. *See* <www.westernclimateinitiative.org> accessed 3 March 2018. The decision of California to establish a cap-and-trade system has been challenged in court as taxation incompatible with the state constitution. *See* Morning Star Packing Company v. California Air Resource Board, No. C075954 (Court of Appeals of California, Third Appellate District, 2014).

be fulfilled either by generating electricity at the company's own premises of by purchasing RECs from other companies that have a surplus.

Apart from FITs and RPSs there are also guarantees of origin (GO). Both GOs and RECs essentially verify that the original recipient of the guarantee or certificate has generated energy from renewables. However, unlike RECs, GOs are not usable in order to fill any quota. They work instead as labels indicating the PPM for energy generated through different methods. The GOs thus indirectly offer in particular end consumers some information on the environmental sustainability of the offered good. The GOs have been introduced to allow the market to voluntarily direct more demand at preferred sustainable options.[10]

In different states different forms of renewable energy may qualify for support schemes. When it comes to biofuels, the overall environmental performance of biofuels has become increasingly disputed.[11] Concerns have been raised about the effects that using biomass may have on biodiversity, and even the credentials of biomass in mitigating climate change have been put into question. Consequently, both the EU and the U.S. have developed specific criteria for sustainable biofuels.[12] Only sustainable biofuels alternatives as defined by specific sustainability criteria are eligible for support.[13] The

[10] An obligation to establish a system of GOs for renewable electricity can be found in Article 15 of EU Renewable Energy Directive (Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, OJ L 140, 5.6.2009, 16). In the new Renewable Energy Directive (RED 2) there will be an obligation to award GOs for any energy from renewables. *See* Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82, Article 19.

[11] *See*, e.g., Stewart Fast, Mike Brklacich and Marc Saner, 'A Geography-based Critique of New U.S. Biofuels Regulation' (2012) GCB Bioenergy 243 (2012); Seita Romppanen, 'Regulating Better Biofuels for the European Union' (2012) 21 European Energy & Environmental Law Rev. 123, 127–135.

[12] Max S. Jansson and Harri Kalimo, 'On a Common Road Towards Sustainable Biofuels? EU and U.S. Approaches on Regulating Biofuels' (2014) 8 Pittsburgh Journal of Environmental and Public Health Law 106.

[13] Provisions on biofuels sustainability criteria have been introduced in the Renewable Energy Directive of the EU. *See* Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, OJ L 140, 5.6.2009, 16; Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82. Comparable criteria have also been adopted in the US. *See* Renewable Fuel Standard 2 (40 C.F.R. 80 subpart M, 2015). *See* also Low Carbon Fuel Standard adopted by California (Assembly Bill 32, 2006 Leg. Regular Session, California 2006, amended Nov. 2015; California, Governor's Executive Order S-01-07). For more on these standards *see* Max. S. Jansson and Harri Kalimo, 'On a Common Road Towards Sustainable Biofuels? EU and U.S. Approaches on Regulating Biofuels' (2014) 8 Pittsburgh Journal of Environmental and Public Health Law 106.

objective with support schemes is to increase the share of biofuels especially in the transport sector.

1.1.4. Climate Change and PPM-Criteria from the Perspective of Different Fields of Law

The use of PPM-criteria in general, and driving forward the energy transition through measures promoting renewables in particular, can be approached from various perspectives. For example, the actions and inactions of states that have led to severe climate change could be assessed under fundamental rights doctrines and in particular the right to life. This is, however, a fairly novel approach that is being put to test in the near future.[14]

Furthermore, measures to promote certain PPMs could be examined through the lens of environmental law. This could cover analysis of international environmental agreements, which often unfortunately do not include enforceable remedies. Research on environmental law could also address the division of competence between state and union/federal levels of government in primary law. Moreover, the focus could be on sector specific environmental regulation and how it potentially can grant states the right to decide on PPM-criteria or even require them to implement such criteria.

PPM-criteria are perhaps the most controversial, when their application is extended to out-of-state production of goods later imported. Under such circumstances questions of their compatibility with trade law will arise. In this book the measures have been approached from the perspective of trade law. In contrast to the soft and fragmented character of international environmental law and energy law,[15] international trade law has developed its own institutions and dispute settlement system under the WTO. The institutionalization has contributed to the dominance of trade law in the international field. This does per se not translate into the dominance of free trade values over environmental values, but disputes have often become framed in a trade law context.

[14] *See* Juliana v. U.S., No. Case 6:15-cv-01517-TC (D. Or., case filed Sept. 10, 2015). The plaintiffs argue that by promoting fossil fuels and later allowing polluting activities to continue the U.S. has violated the 5th Amendment of the U.S. Constitution, which states that no person shall be deprived of life, liberty or property without due process of law.

[15] E.g. on the fragmented nature on international biofuels law *see* Max Jansson and Seita Romppanen, 'Biofuels', in Elisa Morgera and Kati Kulovesi (eds.), *Handbook on International Law and Natural Resources* (Edward Elgar 2016).

Agreements in the field of environment and energy may still affect the interpretation of international trade law.

The relationship between trade law on the one hand and the energy transition and PPM-criteria on the other hand, is of particular interest for two reasons. The first relates to the potential of new types of legal questions. Trade law is a fairly mature field of law with well-established legal tests. Strategies to face environmental problems through PPM-criteria and the energy transition have only gained more substantial ground the last couple of decades, with increasing intensity in recent years. It is plausible that measures including PPM-criteria may challenge some of the traditional wisdoms of trade law. The second reason for analysing the energy transition and PPM-criteria from the perspective of trade law has to do with the presence of values that often are regarded as standing in contradiction. The objectives of free trade and environmental protection provide fertile ground for a study on value reconciliation and the role of an efficiency rationale.

1.1.5. Research Questions

At the core of economic law, including trade law, lies the ideal of an efficient market.[16] Provisions on free trade aim to eliminate for that purpose market obstacles such as discrimination. Measures to promote renewables represent interventions to the market. They are thus bound to raise questions of compatibility with the rules on free trade. Similar tensions may emerge between measures to promote renewables, on the one hand, and areas such as public procurement law and law on subsidies, on the other hand. In this book a comparative analysis of value reconciliation tests in selected fields of economic law is presented.

With the current trend of diverging sustainability actions on state level, courts will have to engage in difficult value reconciliation when drawing the line between prohibited protectionism and measures necessary for promoting sustainability in the energy sector.

[16] In line with this, U.S. scholars have argued that the dormant Commerce Clause has been shaped to deal with protectionist measures in order to strengthen the union and enhance efficiency. *See* Donald Regan, 'The Supreme Court and State protectionism: Making Sense of the Dormant Commerce Clause' (1986) 84 Michigan Law Rev. 1091, 1119-1122; Richard B. Collins, 'Economic Union as a Constitutional Value' (1988) 63 N.Y.U. Law Rev. 43, 63-64; Julian N. Eule, 'Laying the Dormant Commerce Clause to Rest' (1982) 91 Yale L. J. 425, 434-435; Mark P. Gergen, 'The Selfish State and the Market' (1988) 66 Texas L. Rev. 1097, 1107. Rejecting efficiency as a principle of the Commerce Clause *see* e.g. Edward P. Lazarus, 'The Commerce Clause Limitation on the Power to Condemn a Relocation' (1987) 96 Yale L. J. 1343, 1362; Lisa Heinzerling, 'The Commercial Constitution' (1995) 1995 Supreme Court Rev. 217, 220.

This is further complicated by the fact that sustainability in itself is a concept that includes various, sometimes conflicting, environmental as well as social and economic factors. In other words, the transformation of the energy sector and the aspirations to develop a sustainable regime will bring value conflicts between various economic, environmental and social values to the fore.

Restrictions on unsustainable PPMs have already long ago raised heated debate in WTO law, where the U.S. has defended the implementation of such measures.[17] There has consequently been quite an intense academic discussion on PPM-criteria in the context of WTO law.[18] In contrast, there has been much less debate on the relationship between PPM-criteria and EU law.[19] A rare example of discussion on PPMs and EU free movement law arose when one Member State planned to adopt restrictions on unsustainable PPMs in the forestry.[20] With the growing importance of the energy sector and the increased emphasis on sustainability, it can be expected that these types of measures will be debated ever more frequently, as more legal cases emerge.[21]

The tests that are applied for the reconciliation of values in trade law will be scrutinized. Against this background, two main line of research questions will be tackled in this book. First, it is of interest what challenges state sustainability criteria in general, and PPM-criteria in particular, present to established legal tests in trade law and what solutions are available within the broad range of legal tests? The focus will be on the relationship between trade law and PPM-criteria in the energy sector. The second main research question of this book relates to the values reconciled through legal tests. What

[17] *See* e.g. US – Restrictions on Imports of Tuna, DS29, Panel Report, 16 June 1994 (US – Tuna, EC) (unadopted); US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct. 1998.

[18] *See* e.g. Laura, Nielsen, *The WTO, Animals and PPMs* (Brill 2007); Conrad, Christiane R., *Process and Production Methods (PPMs) in WTO Law – Interfacing trade and social goals* (CUP 2011); Robert Howse and Donald Regan, 'The Product/Process Distinction – An Illusory Basis for Disciplining 'Unilateralism' in Trade Policy' (2000) 11 European J. International Law 249; Sanford E. Gaines, 'Process and Production Methods: How to Produce Sound Policy for Environmental PPM-Based Trade Measures?' (2002) 27 Columbia J. Environmental Law 383.

[19] *See* however Laurens Ankersmit*, Green Trade and Fair Trade in and with the EU: Process-Based Measures within the EU Legal Order* (CUP 2017); Gareth Davies, ''Process and Production Method' – based Trade Restrictions in the EU', in Catherine Barnard (ed.) *Cambridge Yearbook of European Legal Studies 2007-2008* (Hart Publishing 2008).

[20] Dutch labels on sustainable forestry were disapproved by the Commission. *See* Jochem Wiers, *Trade and Environment in the EC and the WTO – A Legal Analysis* (Europa Law 2003) 360-361.

[21] Gareth Davies, ''Process and Production Method' – based Trade Restrictions in the EU', in Catherine Barnard (ed.) *Cambridge Yearbook of European Legal Studies 2007-2008* (Hart 2008) 69-73; J. H. H. Weiler, 'Epilogue: Towards a Common Law of International Trade', in J. H. H. Weiler (ed.), *The EU, the WTO and the NAFTA: Towards a Common Law of International Trade* (OUP 2000) 230.

type of values are given relevance in the reconciliation of values through legal tests in economic law and might the legal tests reflect efficiency as a core value? This question requires an analysis of the detailed elements of various legal tests, how the tests function in interplay with other tests and how they advance value reconciliation, here in particular with the tensions between free trade and environmental protection in mind.

The research questions are examined against the backdrop of recent and emerging cases relating to the renewables sector and more specifically measures such as FITs, RPSs and support schemes for biofuels. Other fields of economic law than trade law are covered to the extent that analogies will provide valuable comparison and insight. This concerns mainly sustainability criteria in public procurement, but also to a lesser extent subsidies and taxation.

It is important to note that the primary purpose here is not to assess the legality and compatibility with trade law of specific measures. Instead, the focus is the lessons emerging cases may offer for the legal tests more in general. The legality of any specific measure may depend also on other norms of primary or secondary law. That being said, the study will unavoidably offer some thoughts on the compliance of various PPM-criteria with provisions of economic law.

While the two main research questions were put forward above, the book also to varying degrees adds new knowledge through comparative legal methods. The study, as a whole, tackles the research questions by utilizing developments taking place under WTO, EU and U.S. law. In doing so, the question arises as to whether there is room for mutual learning between the jurisdictions. For example, could legal problems detected in EU free movement law potentially be dealt with through the introduction of elements from similar legal tests applied under the U.S. dormant Commerce Clause?

1.1.6. Key Concepts

This book is about free trade, value reconciliation and efficiency. It is thus in order to clarify these concepts and related terms.

Before describing value reconciliation, it is necessary to briefly discuss value balancing. Values are interests and or ideals that are considered important. Various values affect decision-making by courts and the legislature. Sometimes values stand in conflict with one another and what is law will depend on how the value conflict is resolved. Resolving the value conflict is particularly difficult when the values are

incommensurable in the sense that there is no obvious common scale.[22] For example, in evaluating a measure that promotes free trade but limits free speech, it is difficult to commensurate the increase in free trade with the loss of free speech because there is a lack of common unit. I shall later in this book return to the issue of incommensurability and legal tests in trade law.[23]

In a value balancing test, the judiciary will weigh values for which it identifies no common scale. Value balancing is a holistic exercise characterized by an open weighing of all values without strict boundaries. One could argue that it boils down to a decision based purely on the feeling of the judge after having taken all factors into account.

Even critics of judicial value balancing tests accept that it is unavoidable for the legislator to balance between different values.[24] This balancing of values will result in written law. Written law might in turn explicitly or more indirectly, for example through principles, include what I refer to as value reconciliation tests. Value reconciliation tests as defined in this book do not include the calculation of the net gain of a measure that restricts, for example, free trade (a cost) but advances, for example, free speech (a benefit). Admittedly, there is no clear-cut line between what is a value balancing test and what is a value reconciliation test. Yet, one may think of value reconciliation tests as more technical than value balancing tests. A value reconciliation test is a structured tool that has been designed by the legislator or has been developed through previous case law. In either case the test will often embody a balance of values already (largely) determined before the judges apply the test to the case at hand. Of interest to this study is what value reconciliation tests are applied and the underlying values that they reflect.

It should be emphasized that the distinction between value balancing and value reconciliation is only one way to understand legal tests. The distinction is made here merely in an attempt to facilitate the reader in understanding the comparison that is made between legal tests portrayed in this book.

Another concept that is used in this book is non-trade values. With this concept I simply refer to other values than free trade. Free trade is about non-discrimination and in some

[22] Francisco J. Urbina, 'Incommensurability and Balancing' (2015) 35 Oxford J. Legal Studies 575.
[23] *See* in particular section 3.1.6.2.
[24] Francisco J. Urbina, 'Incommensurability and Balancing' (2015) 35 Oxford J. Legal Studies 575, 603-604.

jurisdictions potentially also about market access more broadly. Non-trade values are values that may be referred to in an attempt to justify restrictions to free trade. Examples of non-trade values include public health and environmental protection. There are of course also non-trade values that generally do not serve to justify trade restrictions. One such example would be the objective of saving local jobs.

Free trade is a key value in this study together with the non-trade value of environmental protection. Both values may be understood in terms of efficiency and may through value reconciliation tests be reconciled with reference to this common denominator. Free trade is regarded as an efficiency value because an increase in free trade will intensify market competition and can be expected to benefit cost-efficient companies and consequently reduce prices. This is not to suggest that advancing free trade could or would not have, even significant, negative effects. Like free trade, also environmental protection is an efficiency value since an increase in environmental protection can reduce externalities and benefit companies that are environmentally cost-efficient. In other words, a change in environmental standards will modify the conditions of competition.

1.1.7. Structure

This first chapter of the book will provide a background to trade law in the EU, the U.S. and the WTO. It will also highlight specific court cases on PPM-criteria in the energy sector that have already emerged.

The second chapter will focus on tests related to defining what kind of discriminatory measures may be prima facie prohibited under trade law (law of prohibition). Like the rest of the book it will offer different approaches to the relationship between PPM-criteria and trade law in the form of value reconciliation tests. In particular, the relationship between trade law and efficiency will be explored.

The analysis in subsequent chapters will primarily concern value reconciliation tests related to the justification and proportionality of prima facie prohibited measures (law of justification). In the third chapter traditional tests applicable for reconciling in particular free trade and environmental values in trade law will be analysed. The value reconciliation process is examined against the backdrop of efficiency objectives. Traditional trade law tests, which normally have been considered well-functioning, will be analysed in order to determine how they may adapt to a potential increase in cases

relating to PPM-criteria and how challenges with respect to the application of tests could be tackled.

The fourth chapter will focus on the details of the design of PPM-criteria in light of the proportionality review. For example, it will be analysed how broad the scope of the criteria may be, what particular elements may be included in the criteria and how certification of compliance may be organized. The objective of the analysis is to identify tests that might be of particular relevance in examining the proportionality of specific models of PPM-criteria and thereby also identify the multitude of values reconciled in law of justification. The analysis will reveal the relevance of values that are primarily not of a free trade or environmental character. Thereafter, in the fifth chapter, it is examined what weight administrative costs may be given in the proportionality review. This is carried out by examining measures adopted for promoting the sustainability of the biofuels industry.

The idea of other values unrelated to free trade and environmental protection affecting the reconciliation of those two values is developed further in the sixth chapter. The chapter introduces the concept of extraterritoriality and the challenges it brings to value reconciliation in cases on PPM-criteria. The seventh and final chapter presents overall conclusions.

1.2. Theoretical Premises

1.2.1. My Method

The analysis of legal value reconciliation tests will provide valuable knowledge on the status of PPM-criteria under trade law and on whether specific systems of promoting renewables is compatible with the trade law regimes of the EU, the U.S. and the WTO. However, the main objective is to evaluate how the legal tests in the various regimes of trade law reconcile free trade and environmental values, whether the tests work in a PPM-context, whether the tests reflect efficiency and to identify any potential other values that may affect the value reconciliation. This approach should contribute to the understanding of trade law and unveil the values the law promotes.[25] The research falls in the grey-zone between normative criticism and unmasking underlying values.[26]

[25] No law is value neutral and unveiling the underlying values is part of legal research. *See* Rob van Gestel and Hans-Wolfgang Micklitz, 'Why Methods Matter in European Legal Scholarship' (2014) 20 European Law Journal 292, 311.
[26] On this greyzone *see* Kaarlo Tuori, *Critical Legal Positivism* (Ashgate 2002) 306.

The value reconciliation or value balancing tests that are identified in this work will be framed against an efficiency ideal in order to shed some light on the suitability of the identified legal tests for the reconciliation of free trade and environmental values. It must be highlighted that I do not argue efficiency to be the right or only possible criteria for analysing value reconciliation in trade law. There is no universal moral and hence also no agreement on the fundamentals of good law.[27] There is, however, a difference between, on the one hand, moral judgment in the form of a claim that certain criteria should be chosen because they are 'right' and, on the other hand, identifying what values or moral aspects are relevant in currently applicable law.[28] The approach taken in this study is closer to the latter. Admittedly, even if there is no moral judgment here that efficiency is the correct criteria, the values of the researcher may affect the judgment of which criteria are regarded as relevant in currently applicable law and chosen as important for the research.[29] The claim that efficiency is relevant under current regimes of economic law will be substantiated more in detail in sections below.

To some degree perhaps typical of an author with a civil law background, law is viewed as rules. This does not only refer to law as statutes, but also to a perception of case law as a logical pattern of rules, which in turn results in an exercise of organizing case law in search for general rules, or in other words fairly well-structured and precise legal tests. This approach may be contested when applied to WTO law, U.S. law and even EU law because the relevance of general rules – statutory or case law developed legal tests – might be weaker than in civil law. That beingd said, a degree of generalization and systematization is required, in order to identify the legal test applied in cases involving complex case-specific facts. The reasoning in individual cases may be linked to a historical context, a chronological evolution or some broad discretionary evaluation of justice. Yet, by utilizing case law to identify the mechanics of legal tests, a degree of generalization is achieved that enables the identification of broader trends. This justifies the approach to case law adopted in this study.

[27] Seyla Benhabib, *Selbst im Kontext* (Suhrkamp 1995).
[28] Julie Dickson, 'Methodology in Jurisprudence – A Critical Survey' (2004) 10 Legal Theory 117, 126-127, 139.
[29] H. L. A. Hart, 'Comment', in H. L. A. Hart and Ruth Gavison (eds.) *Issues in Contemporary Legal Philosophy: The Influence of H.L.A. Hart* (OUP 1987) 39.

1.2.2. An Economic Approach to Economic Law

1.2.2.1. Economic Law

Trade law, among other fields of law such as competition law, has been regarded as part of economic (constitutional) law.[30] The content of this book falls within the field of economic law. Yet, it does not tackle law that traditionally would be understood to regulate the relationship between private actors, such as law on cartels, mergers, and intellectual property. Instead it digs into the public domain of economic law, covering primarily trade.

Public international law covers public action of a state regardless of whether it is addressed toward private parties or other states. WTO rules on trade, public procurement and state aid are all examples of public and economic international law. They target the behaviour of one state in order to protect the interests of the other states, and often also the underlying private interests in those other states. Similarly, EU free movement law and U.S. rules on interstate commerce, as derived from the Commerce Clause of the U.S. Constitution, share the fundamental characteristic of creating binding rules for states. WTO law binds nation states, EU free movement law limits the action of Member States and U.S. constitutional law sets out what the states in the union may do. There is thus an obvious parallel between public international economic law, EU primary law and U.S. constitutional law, as all three target interstate (economic) relations. This book compares these three sets of trade law.

Another element of this study is formed out of the parallels drawn between value reconciliation tests in trade law on the one hand and public procurement law as well as law on subsidies on the other hand. Trade law and law on subsidies have made it into the Treaty of the Functioning of the European Union (TFEU)[31] and WTO agreements. In turn, in the U.S. rules on interstate trade have been derived from the constitution, but the constitution does not include any significant limitations on state subsidies. Solutions already developed in one field of economic law could potentially offer new solutions to the difficulties that arise in another field of law.

However, a word of caution is in order. While trade, subsidy and procurement law are closely linked and comparable in many aspects, some significant divergence can be

[30] Julio Baquero Cruz, *Between Competition and Free Movement – The Economic Constitutional Law of the European Community* (Hart 2002) 1.
[31] Consolidated version of the Treaty on the Functioning of the European Union, OJ C 202, 7.6.2016, 47.

detected. The differences might have affected and continue to affect the applicable legal tests, even if they on the surface could appear comparable. It should be noted that differences with respect to the level at which rules have been adopted are profound when comparing trade law with public procurement law. Unlike trade and subsidy law, procurement law has barely been constitutionalized at all in the three jurisdictions. In the EU, procurement law has been put into force through legal instruments of secondary law. More specifically, rules on public procurement have been codified in the procurement directive,[32] the utilities directive[33] and the directive on concession contracts.[34] In addition, there are separate remedies directives.[35] In turn, international procurement law has been codified in the Agreement on Government Procurement (GPA)[36]. The GPA was signed in 1994 and thoroughly revised in 2012. Apart from the EU and its 28 Member States[37] also 19 other WTO members[38] have signed the agreement. In mid 2019 nine states[39] were negotiating accession and another 23 states[40] had observer status. While the WTO dispute settlement system governs the GPA, very few cases have been referred to it. In the U.S. the approach to state measures in the

[32] Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65.
[33] Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC, OJ L 94, 28.3.2014, 243.
[34] Directive 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts, OJ L 94, 28.3.2014, 1.
[35] Council Directive 92/13/EEC of 25 January 1992 coordinating the laws, regulations and administrative provisions relating to the application of Community rules on the procurement procedures of entities operating in the water, energy, transport and telecommunications sectors, OJ L 76, 23.3.1992, 14; Council Directive 89/665/EEC of 21 December 1989 on the coordination of the laws, regulations and administrative provisions relating to the application of review procedures to the award of public supply and public works contracts, OJ L 395, 30.12.1989, 33; Directive 2007/66/EC of the European Parliament and of the Council of 11 December 2007 amending Council Directives 89/665/EEC and 92/13/EEC with regard to improving the effectiveness of review procedures concerning the award of public contracts, OJ L 335, 20.12.2007, 31.
[36] Agreement on Government Procurement, 1869 U.N.T.S. 508 (Text available at 1915 U.N.T.S. 103), with Protocol Amending the Agreement on Government Procurement, Geneva 30.3.2012 (amendments entered into force 2014).
[37] Reduced to 27 Member States after the exit of the United Kingdom from the EU. As a consequence of Brexit the UK would likely no longer be a party to the GPA until it independently accedes. *See* Ping Wang, 'Brexit and the WTO Agreement on Government Procurement ("GPA")' (2017) 26 Public Procurement Law Review 34.
[38] Armenia, Australia, Canada, Hong Kong, Iceland, Israel, Japan, South Korea, Liechtenstein, Moldova, Montenegro, New Zealand, Norway, Singapore, Switzerland, Chinese Taipei, United States, Ukraine and the Netherlands with respect to Aruba.
[39] Albania, China, Georgia, Jordan, Kyrgyz Republic, North Macedonia, Oman, Russia and Tajikistan.
[40] Afghanistan, Argentina, Bahrain, Belarus, Brazil, Cameroon, Chile, Colombia, Costa Rica, India, Indonesia, Kazakhstan, Malaysia, Mongolia, Panama, Pakistan, Paraguay, Saudi Arabia, Seychelles, Sri Lanka, Thailand, Turkey and Vietnam.

fields of trade and procurement has been even more diverged as U.S. federal law barely provides any guidance or restraints on state-level procurement policy.

1.2.2.2. Law and Economics

Law and economics represents a movement that links the two fields through the application of various methods. One influential stream of law and economics research has been empirical.[41] Hence, law and economics scholars have at times studied the economic effects or consequences of law.[42] For some the objective of such studies has been to identify efficient laws.[43] This could be reconciled with the approach of Bentham, who argued for a utilitarian approach to law reform.[44]

Posner has been a leading protagonist of law and economics. In accordance with his theory there is a certain rationality to efficiency and efficiency in law represent a theory on justice.[45] The interpretation of economic law is in this book framed against the idea of efficiency. Efficiency is an ambiguous concept. It is about achieving an objective without the waste of resources. What is then the objective to be achieved? Posner adopts utilitarianism as a starting point for social justice. The ultimate objective would then be to maximize total happiness. He, however, notes that several challenges arise. Perhaps the two most serious are the measurability of happiness and the utility monster. The latter refers to the risks that the well-being or even lives of some people are sacrificed in the process of maximizing total societal happiness. In addition, the boundaries of who should be included are not fully clear. Should one take into account the happiness of animals and of foreigners?[46]

Due to the problems described above, Posner's model replaces utility maximization with wealth maximization as a goal. Welfare may increase only if there is a willingness to pay in order to compensate for the other party's loss. The scale of wealth is monetary and the loss of one can be compensated by the gain of another. The destruction of life would under this model normally not increase wealth even when it could increase utility. Posner appears to have viewed wealth maximization as the best proxy for utility

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[41] Geoffrey Samuel, *Epistemology and Method in Law* (Ashgate 2003) 38.
[42] Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations* (Strahan & Cadell 1776); Alexis Jacquemin and Guy Schrans, *Le Droit Economique* (Presses Universitaires de France 1982) 90.
[43] Robert Cooter and Thomas Ulen, *Law and Economics* (1988) 1-10.
[44] Jeremy Bentham, *The Principles of Morals and Legislation* (Clarendon 1907, first published 1789).
[45] Richard A. Posner, *The Economics of Justice* (Harvard University Press 1981) 2-6.
[46] *Id.* 48-54, 79. *See* also J. J. C. Smart, 'An Outline of a System of Utilitarian Ethics', in J. J. C. Smart and Bernard Williams, *Utilitarianism: For and Against* (1967) 16.

maximization and the function of law would be to align incentives with this model.[47] It may offer happiness as well as protection of rights, and redistribution is justifiable to the extent it creates wealth.

Various theories on law and efficiency compete with other theories on justice. Legal positivists in international law have been criticized for putting too much emphasis on economic interests at the expense of these other theories of justice. For example, Dworkin was highly critical of Posner's model and proclaimed wealth not even to be a component of social value.[48] Perspectives on moral and social justice may denounce any form of efficiency as a goal.

Mathis has pointed out that Posner's wealth maximization model merely introduces a wealth monster, favouring the utility of the wealthy, who possess ability to pay.[49] One may add to this critique that at times utility and wealth may stand in conflict. Take the example of the non-discrimination principle in trade law. The prohibition of discrimination will improve conditions for competition and can thus be expected to increase wealth. The approach appears well aligned with wealth maximization. However, it would not take into account the utility loss experienced by those who prefer to favour the local economy. In case large groups of people have developed a strong preference for in-state goods utility might be reduced despite wealth being maximized. Utility and wealth maximization must thus be regarded to some extent as competing efficiency ideals. Non-discrimination would in other words not promote value neutral efficiency, but one of many alternative efficiency goals.

Law cannot be economically neutral. This applies even to constitutions.[50] They will reflect a certain economic system, which in turn rests on a set of values. Even within the framework of an efficiency analysis, already in itself a contested approach, competing arguments will arise. In an analysis of trade law that in part reflects on whether the applicable legal tests promote efficiency or not, one ought to be conscious about the ambiguity of the term and should also be sensitive to the exact nature of the efficiency rationale in legal regimes. It shall be illustrated in subsequent chapters of this

[47] Richard A. Posner, 'Wealth Maximization Revisited' (1985) 2 Notre Dame Journal of Law, Ethics and Public Policy 85, 98.
[48] Ronald M. Dworkin, 'Is Wealth a Value?' (1980) 9 J. Legal Studies 191, 194-200.
[49] Klaus Mathis, *Efficiency Instead of Justice?* (Springer 2009) (translation by Deborah Shannon) 183.
[50] Julio Baquero Cruz, *Between Competition and Free Movement – The Economic Constitutional Law of the European Community* (Hart 2002) 36-37, 76-80. Contrary *see* dissent by Justice Holmes in Lochner 198 U.S. 45 (1905).

work that the ambiguity of the term contributes to the fact that efficiency as an ideal may not always provide for only one possible solution.

After the works of Posner there has been some discussion on whether law and economics is a method or a legal theory.[51] Law and economics is not limited to the economic analysis of law but may also present itself as a branch of philosophy and a method to evaluate the interplay between efficiency and other values.[52] Law and economics is thus not any single method. Whatever the method in law and economics, it does not strive to replace legal dogmatics, but to complement it.[53] Furthermore, law and economics is here not perceived as a theory that would equate efficiency with justice or good law. Instead, law and economics is more of an overarching perspective, with a focus on the relationship between law and economic theories, including those on efficiency.

Several methodological and theoretical branches of law and economics appear to share a common interest in efficiency. One could therefore intuitively expect the relationship between the law and economics movement and economic law to be rather harmonious. Namely, there is a certain efficiency rationale underlying fields of economic law. Economic integration and trade law rests on the idea of comparative advantages and efficiency gains.[54] Equally, international and EU public procurement law serve the objective of geographically broader and more efficient markets. Moreover, state aid rules have been introduced to limit efficiency-reducing distortions on these open markets. The fact that economic law often proclaims to reflect an underlying economic rationale justifies a more detailed examination of whether it really adheres to an efficiency ideal and what form of efficiency it then may be. The law and economics approach offers a tool of self-reflection and potential criticism in economic law.

Law and economics as an approach may be applied to illustrate how economics, and in particular efficiency, can be relevant for solving legal issues, but also that economics can be applied to explain law.[55] It is here submitted that these two aspects are separable.

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[51] Geoffrey Samuel, *Epistemology and Method in Law* (Ashgate 2003) 108.
[52] Robin Paul Malloy, *Law and Economics: A Comparative Approach to Theory and Practice* (West 1990) 2-12.
[53] Edward L. Rubin, 'Law and the Methodology of Law' (1997) Wisconsin Law Review 521, 553.
[54] Stephen Kim Park, 'Bridging the Global Governance Gap; Reforming the Law of Trade Adjustment' (2012) 43 Georgia J. International Law 797, 803; Jeffrey L. Dunoff, 'The Death of the Trade Regime' (1999) 10 European J. International Law 733, 752.
[55] Richard A. Posner, *The Economics of Justice* (Harvard University Press 1981) 2-6.

The former considers efficiency as a valuable guiding light for the legislature in the process of legislating or judges in the process of interpreting. The efficiency rationale would here be adopted by the legislature or the judges as a conscious choice. In turn, the latter use of law and economics concerns the possibility to trace an efficiency rationale in existing law, regardless of whether or not the law has been shaped on the basis of efficiency considerations. When adopting the existing law legislature might have considered efficiency explicitly. However, existing law will also develop through case law and, as Posner points out,[56] that case law might reflect an efficiency rationale even if judges have not intentionally gone down such path. What follows from the above, is that the analysis of whether value reconciliation tests reflect an efficiency objective is not the same as an argument that efficiency should guide judges in the application of legal tests. The research conducted here strives to adhere to the former approach.

It should be emphasized that the approach adopted in this study does not equate with the application of economic arguments in the interpretation of statutes. The reliance on economic arguments in the interpretation of statutes is possible if, for example, efficiency is denoted as a so called 'real argument'.[57] In some jurisdictions, and under some economic approaches to law, efficiency is recognized as a valid method of interpretation in court proceedings. The real argument could be recognized as an independent rule of interpretation that may be utilized for any legal problem within the legal system. It is probably more common, however, that real arguments gain their force as legal arguments more indirectly. For example, the purpose of some legislation may be to promote some idea of efficiency. In economic law efficiency is often part of the purpose. In this particular situation efficiency could provide arguments in cases before the court because the purpose of the legislation is a widely accepted rule of interpretation that the efficiency argument may rely on.

In practice, cost-benefit analysis and economic argumentation has been applied by courts, albeit restrictively.[58] Common law jurisdictions have appeared more open to complementing their reasoning with such real arguments than civil law courts and that may be a reason behind the hypothesis that common law more than civil law moves

[56] *Ibid.*
[57] Kaarlo Tuori, *Critical Legal Positivism* (Ashgate 2002) 158.
[58] Edward L. Rubin, 'Law and the Methodology of Law' (1997) Wisconsin Law Review 521, 559-561; Ronald H. Coase, 'The Problem of Social Cost' (1960) 3 Journal of Law and Economics 1.

toward an efficiency ideal.[59] The primary purpose of this study is, however, neither to advocate economic argumentation nor to identify explicit use of it by courts in interpretation. The interest lies instead with how values are reconciled through the application of legal tests and how the applicable tests relate to efficiency, even when efficiency arguments might not have been explicitly relied upon by courts. It should further be emphasized that this study on value reconciliation tests and efficiency is different from a study on whether the existence of rules or tests as such makes the functioning of society more efficient.

Bearing in mind the criticism directed at law and economics, it should be pointed out that no theory is perfect and complete. Despite criticism, efficiency could still be regarded as one among many ingredients of justice. This study will illustrate how an efficiency rationale can be traced in the (implicit) underlying rationale of the tests applied in trade law but at the same time how it on its own would leave the system not only incomplete, but even deficient. Although a lot can be explained in terms of efficiency, some applicable legal tests will be difficult to explain in those terms. The weaknesses that the efficiency perspective will reveal allows for a form of criticism of efficiency 'from within' and subsequently leads to a view on the development of a more inclusive theory on trade law.

1.2.2.3. Externalities and Efficiency

Many commercial operations cause externalities.[60] Negative externalities arise in a society when the economic activity of one or many members causes costly harm to other members of the society who have no relation to the economic activity. A classic example is the pollution from a factory that affects the health of all in the region even if many do not operate the factory, work there or engage in transactions with the polluting company. These negative externalities are costly for the society as a whole while the company simultaneously can increase profits by disregarding the effects of pollution. The pollution may continue because what would be collectively rational does not correspond with what is individually rational.[61] The state might decide to force the

[59] Francesco Parisi, 'Positive, Normative and Functional Schools in Law and Economics' (2004) 18 European Journal of Law and Economics 259, 264.
[60] For more on externalities *see* James M. Buchanan and William Craig Stubblebine, 'Externality' (1962) 29 Economica 371. For a discussion on environmental externalities *see* Horst Siebert, *Economics of the Environment – Theory and Policy* (7th ed., Springer 2008).
[61] Klaus Mathis, *Efficiency Instead of Justice?* (Springer 2009) (translation by Deborah Shannon) 97-100.

polluters to internalize the negative externalities because the society, or the people, would otherwise bear a significant share of the burden.

Regulation that forces the polluter to take into account the societal costs of the pollution is said to cause an internalization of externalities. Internalization ensures that polluters cannot free ride and gain profits at the expense of public health. Instead, the polluters must take into account broader costs of their activities and thus gain an incentive to reduce the costs. Internalization can be regarded as reasonable.[62]

In some models, like for example an emissions trading (cap-and-trade) system, externalities are internalized through market pricing. Other alternatives to tackling externalities include bans on dirty production that relies on resources such as fossil fuels, as well as models promoting clean production from renewables. These measures have their own flaws. In some cases, externalities may not be internalized fully, while in other cases the measure may be so drastic that it actually over-compensates for the externalities. Despite the challenges in getting things just right in practice, addressing externalities improves efficiency.

Public sector driven internalization of environmental externalities represents only one perspective on the possibilities of a green economy.[63] According to libertarian policies, state intervention should be minimized even in the environmental sector. Libertarian policy proclaims that while internalization of externalities is needed, some state environmental regulation may go too far. Prohibitions and standards set by governments are regarded as less efficient than a model of clearly defined individual rights in resources together with reliance on social pressure.[64] A libertarian would thus, for example, likely prefer privately administered schemes that grant sustainability labels or tradable emissions certificates. In a model with tradable emissions certificates the state would still often regulate the number of certificates that need to be held by the producer, i.e. the cap, while polluters would enter a market where they can trade

[62] Robert Cooter and Thomas Ulen, *Law and Economics* (1988) 497-498.
[63] General Assembly, Preparatory for the United Nations Conference on Sustainable Development, First Session 17-19 May 2010, Progress to date and remaining gaps in the implementation of the outcomes of the major summits in the area of sustainable development, as well as an analysis of the themes of the Conference, Report of the Secretary General, 1 April 2010, A/Conf.216/PC/2, para 44.
[64] *Libertarian Party Platform*, Convention in Columbus, Ohio (June 2014), sec. 2.2. <https://www.lp.org/files/2014_LP_Platform.pdf> accessed 15 Dec. 2015.

emission rights. This system would clearly define rights and would lower transaction costs.[65]

All economic theories, including the free market ideal as well as the idea of internalizing externalities, are value-laden.[66] The emphasis on internalization of externalities through a multitude of government intervention as the optimal approach to addressing pollution and unsustainable PPMs could be questioned. For example, some may hold the view that environmental protection, social equality and the like, all have a value of their own fully separable from any notion of efficiency. Internalizing or otherwise addressing externalities would under such approach not offer sufficient protection. However, in the context of economic law, sustainable development has so far been primarily linked to human development and not been given independent value.[67]

The need to correct market failure has also caught the attention of some law and economics scholars.[68] Posner viewed it as the duty of the state to take care of the public goods and externalities. He also reflected on the relationship between efficiency and redistribution of wealth and power.[69] It is here submitted that addressing externalities is mainly redistributive in the sense that it transfers societal costs to private individuals on the ground that those costs originate from the activities of those individuals. The desirability of redistribution between poor and wealthy cannot be linked to any societally harmful activity by the wealthy in an equally direct manner. The redistribution between poor and wealthy groups is a different type of scenario even if both cases of redistribution may reduce externalities.

In sum, although internalizing or otherwise tackling externalities as an economic theory on efficiency is by no means value-neutral, it offers a valid approach to environmental protection that lies somewhere on the spectrum between the approaches of relying fully on market forces and treating the environmental protection as an objective in itself,

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[65] Reto Jacobs, *Marktwirtschaftlicher Umweltschutz aus rechtlicher Sicht: Zertifikatslösungen im Luftreinhalterecht der USA und der Schweiz* (Schulthess 1997) 33; Mathias Diehr, *Rechtschutz im Emissionszertifikate-Handelssystem* (Duncker & Humblot 2006) 27.

[66] Robin Paul Malloy, *Law and Economics: A Comparative Approach to Theory and Practice* (West 1990) 48-56; Kenneth L. Avio, 'Three Problems of Social Organisation: Institutional Law and Economics Meets Habermasian Law and Democracy' (2002) Cambridge J. Economics 501, 503.

[67] Emily Barrett Lydgate, 'Sustainable Development in the WTO: From Mutual Supportiveness to Balancing' (2012) 11 World Trade Review 621, 632-633.

[68] Especially the Yale school. *See* Francesco Parisi, 'Positive, Normative and Functional Schools in Law and Economics' (2004) 18 European Journal of Law and Economics 259, 264.

[69] Richard A. Posner, *The Economics of Justice* (Harvard University Press 1981) 103-106.

without consideration of its instrumental values. Approaching environmental protection as a question of externalities takes into account values that are not always thought of as efficiency values and integrates them in an economic theory. By framing the analysis of economic law against economic theory, it becomes possible to unveil such potential neglect of values that would be difficult to justify even from an economic standpoint. Again, one could speak of an effort to construct criticism of the economic approach 'from within'.

1.2.2.4. Value Reconciliation and Efficiency

The most fundamental controversies surrounding public economic law relate to the reconciliation of free trade and non-trade values. Examples of the latter would be environmental and social values. Some scholars have noted that environmental and social sustainability objectives may stand in conflict with free trade or economic sustainability.[70] Economic freedoms should in that case be reconciled with non-trade values. Statements on the need for balancing or reconciliation of values can be found, for example, in soft law instruments.[71]

Trade law regimes, in particular the WTO, have received criticism for an alleged bias in favour of free trade as a value.[72] The WTO, however, has proclaimed the objectives of free trade and environmental protection to be mutually supportive.[73] The reasoning has at times been that trade liberalization would improve efficiency and thus reduce social and environmental problems.[74] The credibility of such claim is questionable given the historical sustainability track record of developed countries. Economic, environmental and social goals may still be mutually supportive when viewed in light of the theory on externalities.

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[70] Christopher D. Stone, 'Deciphering Sustainable Development' (1994) 69 Chicago-Kent Law Review 977, 977; Emily Barrett Lydgate, 'Sustainable Development in the WTO: From Mutual Supportiveness to Balancing' (2012) 11 World Trade Review 621, 622, 630-634.

[71] United Nations, Plan of Implementation of the World Summit on Sustainable Development (2002) para. 139b.

[72] Robert Howse, 'Adjudicative Legitimacy and Treaty Interpretation in International Trade Law', in J. H. H. Weiler (ed), *The EU, the WTO and the NAFTA: Towards a Common Law of International Trade* (2000) 52-53; Oren Perez, *Ecological Sensitivity and Global Legal Pluralism: Rethinking the Trade and Environment Conflict* (Hart 2004) 51-65; John H. Jackson, *The World Trade Organization: Constitution and Jurisprudence* (Routledge 1998) 684-685.

[73] United Nations, Plan of Implementation of the World Summit on Sustainable Development (2002) para. 2; The 1994 Ministerial Decision on Trade and Environment, WTO, 14 April 1994. *See* also Harri Kalimo, *E-Cycling – Linking Trade and Environmental Law in the EC and the U.S.* (Transnational Publishers 2006) 14-16.

[74] WTO Ministerial Conference, 4th Session, Doha Ministerial Declaration, Doc WT/MIN(01)/DEC/1, adopted 14 November 2001, para. 6.

Pollution will cause externalities as long as the polluting plants can reap the benefits of producing and selling products without facing consequences for the societal costs of pollution. State measures that put a price tag on pollution will force polluters to internalize the societal costs of the pollution. Similarly, other restrictions on polluting activities will reduce negative externalities. Addressing externalities through legal measures enhances both environmental protection and efficiency, as the polluting plants are no longer allowed to free ride at the expense of public health. Thus, even if the non-trade values are often perceived as representing some other values than efficiency, they may still incorporate some economic ratio.

All pillars of sustainable development may shape and support a common ideal of efficiency. This does still not fully eliminate the need for value reconciliation tests. Various values are reconciled under principles or legal tests in all three jurisdictions. Legal tests may further the reconciliation of different values with an efficiency ideal. For example, the proportionality review might guard the efficiency ideal.[75] Discriminatory measures that do not promote efficiency may often struggle to survive the review, whereas measures that fit some description of efficiency might not be struck down.[76] Yet, the concept of efficiency leaves room for interpretation. Hence, value reconciliation will be necessary even when the objective is to not intervene with efficient state-level solutions. Tests that are part of the proportionality review will be analysed more in detail in subsequent chapters of this book.

The reconciliation of values is also needed as free trade and non-trade objectives are not fully mutually supportive under all circumstances.[77] In particular, the values prevalent in economic law could be interpreted to reach beyond efficiency. They would then reflect a broader idea of fairness.[78] For example, in the Brundtland report it was

[75] Robert Alexy, *A Theory of Constitutional Rights* (OUP 2002) (translation by Julian Rivers) 399; Aurelien Portuese, 'Principle of Proportionality as Principle of Economic Efficiency' (2013) 19 European Law Journal 612.

[76] State measures are not subject to any efficiency requirement as such. States can generally adopt non-discriminatory inefficient regulations.

[77] Emily Barrett Lydgate, 'Sustainable Development in the WTO: From Mutual Supportiveness to Balancing' (2012) 11 World Trade Review 621, 630-632.

[78] There is, for example, room for the argument that the protection of public morals or free speech is not about addressing externalities but about fundamental rights and values that should be on an equal footning with free trade. *See* Case C-271/08 *Commission v. Germany* [2010] ECR I-7091, Opinion of AG Trstenjak, para. 81; Case C-438/05 *International Transport Workers' Federation and Finnish Seamen's Union v. Viking Line ABP and OÜ Viking Line Eesti* [2007] ECR I-10779, Opinion of AG Poiares Maduro, para. 23. For a balancing exercise *see* Case C-112/00 *Eugen Schmidberger, Internationale Transporte und Planzüge v. Austria* [2003] ECR I-5659. For an emphasis on liberty over

emphasized that economic development should compromise neither present nor future generations.[79] Merely addressing current externalities would not necessarily cover the interests of future generations. In addition, fairness could be linked to redistribution with no efficiency gains between groups of present generations.

Furthermore, the reconciliation of values through tests is not only about reconciling free trade with one non-trade value, such as environmental protection. Namely, non-trade values are very divergent and may point in all different directions. For example, developing nations often see environmental protection as partly conflicting social sustainability goals.[80] The legal value reconciliation or balancing tests are valuable in managing these complexities of the real world. It should be acknowledged that although reconciling the multitude of non-trade values might in theory be fully compatible with the idea of reducing externalities, there will in practice be difficulties with measurability.

In sum, despite its deficiencies the efficiency theory nicely brings in line competing values in economic law and therefore forms a valid point of departure for an analysis. Through the theory on externalities, environmental sustainability can be coupled with an efficiency approach. Environmental sustainability does not need to stand in full conflict with the free trade objectives of economic law but can instead be read as part of its core. This is, however, merely theory. It is still far from evident that economic law and its tests for value reconciliation have advanced an efficiency rationale in practice and if so, what form of efficiency it would be. An analysis of the tests of trade law may shed some light on how well reality matches the theoretical approach adopted. In other words, what type of inefficiencies are spared under economic law and what values underlie such outcomes.

1.2.3. Comparative Law

1.2.3.1. Commonalities of Legal Cultures

National legislation often has its peculiarities, but many nations may still share a common legal culture or at least similarities with regards to the deepest and most

free market values *see* David Friedman, 'Free Market and Free Speech' (1987) 10 Harvard J. Law & Public Policy 1, 7.

[79] World Commission on Environment and Development, Our Common Future 43 (1987).

[80] Emily Barrett Lydgate, 'Sustainable Development in the WTO: From Mutual Supportiveness to Balancing' (2012) 11 World Trade Review 621, 634.

fundamental structures of law.[81] The principles are to be found at the deeper levels of law than the mere surface that consists of legal norms. Legal tests are part of the techniques applied in order to enforce underlying principles and values. These could be shared among legal cultures.

A comparative study on legal tests can function as a useful tool in the process of contributing to legal theory. [82] Of particular interest for this study are the values that underlie economic law in the different legal systems as well as the applicable principles and tests. Comparative law may target the legal tests applied for value reconciliation. In this respect, the study digs into questions on commonalities that have been rooted at a deeper level of legal systems than the mere surface.

Commonalities between jurisdictions are in some sense natural since laws often emerge as solutions to similar social problems.[83] In a globalized world the communication between the legal systems is ever more frequent and intense. Consequently, previous scholars have identified convergence between the free trade doctrines of the WTO and the EU.[84] It would even appear that, on the one side, civil law systems of many states in Europe and, on the other side, common law systems like the one in the U.S. tend to converge.[85]

This study has evolved from the observation that states have implemented different measures to promote renewable energy all over the world and that these forms of rules on sustainable process and production methods are being challenged under EU, U.S. and WTO law. At the same time, legal tests applied in trade law across the jurisdictions bear many similarities. The similarities with regards to both policy development and legal structures in other words motivate a comparative study.

[81] Kaarlo Tuori, *Critical Legal Positivism* (Ashgate 2002) 163-164, 183-191; Michel Rosenfeld, 'Justices at Work: An Introduction' (1997) 18 Cardozo Law Rev. 1609, 1609-1610.
[82] Generally on the value of comparative law for legal theory *see* Geoffrey Samuel, *Epistemology and Method in Law* (Ashgate 2003) 36.
[83] Christopher A. Whytock, 'Legal Origins, Functionalism, and the Future of Comparative Law' (2009) Brigham Young University Law Rev. 1879, 1879; Konrad Zweigert and Hein Kötz, *An Introduction to Comparative Law* (3rd ed., Clarendon 1998) (translation by Tony Weir) 34.
[84] J. H. H. Weiler, 'Epilogue: Towards a Common Law of International Trade', in J. H. H. Weiler (ed.), *The EU, the WTO and the NAFTA: Towards a Common Law of International Trade* (2000) 201-232.
[85] J. Paul Lomio, Henrik S. Spang-Hanssen and George D. Wilson, *Legal Research Methods in A Modern World: A Coursebook* (Djøf 2011) 6.

1.2.3.2. The Objectives of Comparison

Comparative analysis may strive to serve various objectives. In some cases, it has been awarded the status of a legal source.[86] The American legal culture has at least been argued to be open to such approach.[87] However, comparative law may equally provide new knowledge that is valuable for developing legislation as opposed to interpreting it. With globalization, the benefits of mutual understanding and learning can be expected to increase.[88]

Legal systems are complex networks of norms. Therefore, it will normally not be possible to transpose a legal solution directly to another jurisdiction. That should still not prevent the strengthening of mutual understanding, especially at the level of constitutional law. [89] Importantly, legal regimes can be developed as a result of the new insights that comparative law has to offer and may be harder to discover through other means.[90] Such new insights may be particularly valueable in the context of PPM-criteria. Namely, while the debate on the status of PPM-criteria under trade law has been going on for already a couple of decades, there is in each jurisdiction still to date quite little jurisprudence on them. Many of the same dilemmas are emerging in all three jurisdictions as PPM-criteria become more common and the challenges that relate to PPM-criteria are only gradually being resolved. In this state of play aspects and argumentation presented in one jurisdiction may enrich the debate in the context of another jurisdiction.

Mutual learning can advance coherence between different jurisdictions. Yet, fairly limited attention has been paid to the question of coherence between legal systems.[91] This study forms an effort to contribute to that area of legal research. Namely, it lays out a comparison of legal tests in the field of trade law across jurisdictions like the WTO, the U.S. and the EU, which all three exist on a level above the state-level.

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[86] *Compare* Stanford v. Kentucky 492 U.S. 361 (1989) *with* US v. Then 56 F.3d 464, 469 (2d Cir. 1995) (Justice Calabresi concurring).
[87] Mark Tushnet, 'The Possibilities of Comparative Constitutional Law' (1999) 108 The Yale Law Journal 1225, 1236 and 1281.
[88] *Id.* 1304-1306; J. Paul Lomio, Henrik S. Spang-Hanssen and George D. Wilson, *Legal Research Methods in A Modern World: A Coursebook* (Djøf 2011) 1.
[89] Lorenzo Zucca, 'Montesquieu, Methodological Pluralism and Comparative Constitutional Law' (2009) 5 European Constitutional L. Rev. 481, 482-484, 498-499; Konrad Zweigert and Hein Kötz, *An Introduction to Comparative Law* (3rd ed., Clarendon 1998) (translation by Tony Weir) 16-25.
[90] Geoffrey Samuel, *Epistemology and Method in Law* (Ashgate 2003) 111-112.
[91] Stefano Bertea, 'Looking For Coherence Within the European Community' (2005) 11 European Law Journal 154, 167.

Convergence or coherence between jurisdictions is not a value in itself. Rather, it may be a means to achieve for example economic efficiency and in that sense better markets,[92] or political stability. Full and final convergence is perhaps neither achievable nor desirable[93] but, as also this study aims to show, a common doctrinal core in economic law may be emerging.[94] Comparative legal research may in other words find parallels between legal systems that form pieces in the formation of legal theory in economic law.[95]

The practical relevance for mutual learning can be observed today already in the project of European integration. Namely, comparative law has played a big part in the elimination of fragmentation among European systems, consequently facilitating the emergence of a common internal market.[96] With globalization this path may reach even further. Up until recently the EU and the U.S. were negotiating a free trade agreement labelled Transatlantic Trade and Investment Partnership (TTIP). In order to make progress in negotiations and develop common standards and legal rules for free trade agreements it will be beneficial to understand the similarities and differences between the systems. One could even argue that coherence between or convergence of the systems would be in line with the objectives of such free trade collaboration. Similarly, mutual understanding and global coherence may facilitate negotiations in the WTO that have been trembling during the Doha Round.

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[92] T. Sandra Fung, 'Negotiating Regulatory Coherence: The Costs and Consequences of Disparate Regulatory Principles in the Transatlantic Trade and Investment Partnership Agreement Between the United States and the European Union' (2014) 47 Cornell International Law J. 446, 471; Reza Banakar, 'Power, Culture and Method in Comparative Law' (2009) 5 International Journal of Law in Context 69, 70; Simone Glanert, 'Speaking Language to Law – The Case of Europe' (2008) 28 Legal Studies 161, 161.

[93] Convergence would reduce regulatory competition. When different states try out different regulatory solutions to similar problems they may learn from each other and find the models that work the best. However, regulatory competition may fail when it comes to regulating externalities. *See* Miguel Poiares Maduro, *We the Court—The European Court of Justice and the European Economic Constitution* (Hart 1998) 137.

[94] J. H. H. Weiler, 'Cain and Abel – Convergence and Divergence in International Trade Law', in J. H. H. Weiler (ed.), *The EU, the WTO and the NAFTA: Towards a Common Law of International Trade* (2000) 1-4.

[95] This is in-line with the position that legal theory can be general and apply universally. *See* H. L. A. Hart, *The Concept of Law* (2nd ed., Clarendon 1994).

[96] Konrad Zweigert and Hein Kötz, *An Introduction to Comparative Law* (3rd ed., Clarendon 1998) (translation by Tony Weir) 15.

1.2.3.3. Methodological Challenges

Comparative law may not only be a viewpoint, but also a method.[97] According to Lomio it forms in essence the opposite approach to legal dogmatics.[98] It is true in the sense that comparative law requires a great deal of contextualization and is therefore part of a 'law in context' tradition.[99] The legal system as a whole forms part of the context when interpreting provisions or legal tests.[100]

It would appear difficult to completely separate any comparative or contextual approach from dogmatics. The study of law is primarily a study rules. These rules may include a number of legal tests and principles. The rules also reflect a set of values. Even in comparative law it is often necessary to start with dogmatic analysis of rules. Thereafter the rules may be compared with the broader legal and societal context in mind. Legal dogmatics is also necessary for identifying tests and values. Moving from the specific (rules) toward the more general (principles and values) then gives room for further contextualization that enables a meaningful comparison.

The socio-legal reality in each country is unique. In other words, the problems around the globe may not be identical, especially when there is a significant gap in terms of development between the countries.[101] It is therefore not surprising that scholars throughout history have not only pointed out the limits of mutual learning between jurisdictions, but also the dangers of drawing from foreign experiences.[102] In a discourse between legal systems there is a risk that wealthy developed countries dominate. For example, on the global arena comparative law may then become Eurocentric.[103]

The fact that sources and rules of interpretation are different from jurisdiction to jurisdiction adds an additional layer of complexity to comparative law. Norms that may

[97] Geoffrey Samuel, *Epistemology and Method in Law* (Ashgate 2003) 111-112.
[98] J. Paul Lomio, Henrik S. Spang-Hanssen and George D. Wilson, *Legal Research Methods in A Modern World: A Coursebook* (Djøf 2011) 60-61.
[99] Otto Kahn-Freund, 'On Uses and Misuses of Comparative Law' (1974) 37 Modern Law Rev. 1; Reza Banakar, 'Power, Culture and Method in Comparative Law' (2009) 5 International Journal of Law in Context 69, 72-73.
[100] Christopher A. Whytock, 'Legal Origins, Functionalism, and the Future of Comparative Law' (2009) Brigham Young University Law Rev. 1879, 1902.
[101] *Id.* 1886-1887.
[102] Charles de Secondant, Baron de Montesquieu, *De l'esprit des loix* (1748); Alan Watson, *Legal Transplants: An Approach to Comparative Law* (2nd ed., University of Georgia Press 1993).
[103] Reza Banakar, 'Power, Culture and Method in Comparative Law' (2009) 5 International Journal of Law in Context 69, 71-76.

appear similar are not always interpreted equally. Case law and the role of courts are emphasized in the U.S., which at times may result in a slightly more fragmented legal system.[104] In contrast, civil law puts more emphasis on inference and may not be equally receptive of economic argumentation.[105] International law and EU law could perhaps be placed somewhere in-between these two extremes. Article 31 of the Vienna Convention[106], which guides interpretation in international law, puts a high emphasis on the purpose of the agreement that is to be interpreted. Similarly, in EU law considerable weight is given to teleological interpretation.[107] In economic law this naturally invites economic argumentation.

Analysis of EU law may not fully rely on national methods or the methods of international law. While the EU method will largely build on national and international experiences, it is still emerging as its own unique approach.[108] In EU law there is less of a norm hierarchy than in a traditional civil law system that relies heavily on inference. This necessitates the development of stronger theory that will ensure the stability of the legal system.[109] Such approach should also benefit U.S. common law and international law if indeed these have evolved as more fragmented regimes to date. To put it differently, each of the three jurisdictions may learn from one another when it comes to legislative techniques, value reconciliation mechanism and fundamental legal theory even in cases where the specific content of the norms may in part be different.

1.2.3.4. Comparative Law and Economics

This research falls within the scope of comparative law and economics. The approach has been founded on the idea that law can be explained in terms of efficiency, as a fact and not necessarily as a normative statement.

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[104] J. Paul Lomio, Henrik S. Spang-Hanssen and George D. Wilson, *Legal Research Methods in A Modern World: A Coursebook* (Djøf 2011) 12-23, 77-78; Geoffrey Wilson, 'Comparative Legal Scholarship', in Mike McConville and Wing Hong Chui (eds.), *Research Methods of Law* (Edinburgh University 2007) 95.

[105] Klaus Mathis, *Efficiency Instead of Justice?* (Springer 2009) (translation by Deborah Shannon) 206.

[106] Vienna Convention on the Law of Treaties Signed at Vienna 23 May 1969, Entry into Force: 27 January 1980.

[107] Ernst-Ulrich Petersmann, 'Human Rights, International Economic Law and 'Constitutional Justice'' (2008) 19 The European Journal of International Law 769, 776; Case C-350/03 *Elisabeth Schulte and Wolfgang Schulte v. Deutsche Bausparkasse Badenia AG* [2005] ECR I-9215, para 71; Joined cases C-397/01 to C-403/01 *Pfeiffer and Others* [2004] ECR I-8835, para 120; Case C-121/90, *Jeen Lolkes Posthumus v. Rinze and Anne Oosterwoud* [1991] ECR I-5833, para 10.

[108] Rob van Gestel and Hans-Wolfgang Micklitz, 'Why Methods Matter in European Legal Scholarship' (2014) 20 European Law Journal 292, 297.

[109] *Id.* 311-312.

Mattei has emphasized that the comparative dimension of comparative law and economics often provides insight into concrete alternatives implemented in other jurisdictions instead of focusing on how legal rules (or tests) in the abstract divert from the efficiency rationale.[110] While the starting point in this book lies with concrete cases in the energy sector, the objective is, however, not to compare the legality of various measures. Rather, the interest is with the dynamics and comparability of legal tests of value reconciliation in trade law and their links to an efficiency rationale. Legal tests are examined in order to determine how they function and it is evaluated whether the tests may reflect some understanding of efficiency.

Approaching value reconciliation tests from the perspective of efficiency may reveal challenges in the application of legal tests. With the help of comparative law, ideas for solutions to those challenges may be derived from the analysis of the application of legal tests in other jurisdictions. The comparative approach may in other words offer further insight into value reconciliation tests. Ramello has applied the approach to intellectual property law and found that while efficiency is present in that field of economic law across various jurisdictions, other factors than efficiency may explain divergences.[111] Similarly, this work will through analysis and comparison of legal tests applied in EU, U.S. and WTO law identify values that may supplement or counterbalance efficiency.

1.3. Trade Law in the WTO, the EU and the U.S.

1.3.1. Free Trade, Free Movement and Interstate Commerce

Free trade has been an intensively debated topic for more than two centuries. Liberalization may create challenges with respect to social welfare and increase states' dependencies on each other, which may create outcomes comparable to colonialism.[112] Yet, free trade has been a fundamental element in both the creation of the United States

[110] Ugo Mattei, *Comparative Law and Economics* (University of Michigan Press 1998) 1-2.
[111] Giovanni B. Ramello, 'The Past, Present and Future of Comparative Law and Economics', in Theodore Eisenberg and Giovanni B. Ramello (eds.), *Comparative Law and Economics* (Edward Elgar 2016) 14-16.
[112] On the risks and potential negative aspects of free trade regimes *see* Friedrich List, *Das Nationale System der politischen Ökonomie* (4th ed., Verlag von Gustav Fisher 1922); Henry Clay, *Life and Speeches of Henry Clay, Volume II* (Greeley & M'Elrath 1843) 23-24; John Toye and Richard Toye, 'The Origins and Interpretation of the Prebisch-Singer Thesis' (2003) 35 History of Political Economy 437, 448.

and the European Union. An increase in market integration and interdependency may also stabilize political relations from the perspective of foreign affairs.

As part of a more general trend of globalism, states have gradually liberalized world trade. Trade law is the field of law that deals with cross-border trade. The global rules on trade can be found in World Trade Organization (WTO) agreements such as the General Agreement on Tariffs and Trade (GATT)[113] and the Agreement on Technical Barriers to Trade (TBT)[114]. The most fundamental provisions on trade in goods have been included in GATT, while the TBT agreement introduced further specifications on the use of technical regulations, standards and conformity assessment procedures. A technical regulation is defined in paragraph 1 of annex I as a "document which lays down product characteristics or their related processes and production methods, including the applicable administrative provisions, with which compliance is mandatory".[115]

Unions of states have liberalized their respective internal trade even further than is the case within the WTO and created a common market for their states. Examples include the EU and the U.S. Consequently, these unions also have their own union level trade law. In the case of interstate commerce across state borders in the U.S., the dormant Commerce Clause derived from the U.S. Constitution[116] will apply. In turn, for trade between EU Member States the applicable rules are referred to as EU free movement law and can be found in the Treaty on the Functioning of the European Union (TEFU).[117]

[113] General Agreement on Tariffs and Trade, Oct. 30, 1947, 61 Stat. A-11, 55 U.N.T.S. 194.
[114] Agreement on Technical Barriers to Trade, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1868 U.N.T.S. 120, 121.
[115] On the concept of mandatory *see* Peter Van den Bossche, *The Law and Policy of the World Trade Organization* (CUP 2008) 324; US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products, DS381 (US – Tuna, Mexico II), AB Report, 16 May 2012, paras 184-199.
[116] *See* U.S. Constitution Art. I, § 8, cl. 3, for the constitutional origins of the Dormant Commerce Clause.
[117] Art. 34-36 (outlining the fundamental principles on free movement of goods) and Art. 45-66 (on free movement of persons, services and capital as well as the right of establishment), Consolidated version of the Treaty on the Functioning of the European Union, OJ C 202, 7.6.2016, 47.

A Selection of Key Provisons in Trade Law

Jurisdiction	Article	Text
U.S.	U.S. Constitution Article I, Section 8, Clause 3	[The Congress shall have Power] To regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes;
EU	Article 34 Treaty on the Functioning of the European Union	Quantitative restrictions on imports and all measures having equivalent effect shall be prohibited between Member States.
EU	Article 36 Treaty on the Functioning of the European Union	The provisions of Articles 34 and 35 shall not preclude prohibitions or restrictions on imports, exports or goods in transit justified on grounds of public morality, public policy or public security; the protection of health and life of humans, animals or plants; the protection of national treasures possessing artistic, historic or archaeological value; or the protection of industrial and commercial property. Such prohibitions or restrictions shall not, however, constitute a means of arbitrary discrimination or a disguised restriction on trade between Member States.
WTO	Article I.1 General Agreement on Tariffs and Trade	With respect to customs duties and charges of any kind imposed on or in connection with importation or exportation or imposed on the international transfer of payments for imports or exports, and with respect to the method of levying such duties and charges, and with respect to all rules and formalities in connection with importation and exportation, and with respect to all matters referred to in paragraphs 2 and 4 of Article III, any advantage, favour, privilege or immunity granted by any contracting party to any product originating in or destined for any other country shall be accorded immediately and unconditionally to the like product originating in or destined for the territories of all other contracting parties.
WTO	Article III General Agreement on Tariffs and Trade	1. The contracting parties recognize that internal taxes and other internal charges, and laws, regulations and requirements affecting the internal sale, offering for sale, purchase, transportation, distribution or use of products, and internal quantitative regulations requiring the mixture, processing or use of products in specified amounts or proportions, should not be applied to imported or domestic products so as to afford protection to domestic production. 2. The products of the territory of any contracting party imported into the territory of any other contracting party shall not be subject, directly or indirectly, to internal taxes or other internal charges of any kind in excess of those applied, directly or indirectly, to like domestic products. Moreover, no contracting party shall otherwise apply

		internal taxes or other internal charges to imported or domestic products in a manner contrary to the principles set forth in paragraph 1. […] 4. The products of the territory of any contracting party imported into the territory of any other contracting party shall be accorded treatment no less favourable than that accorded to like products of national origin in respect of all laws, regulations and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution or use. The provisions of this paragraph shall not prevent the application of differential internal transportation charges which are based exclusively on the economic operation of the means of transport and not on the nationality of the product. […]
WTO	Article XI.1 General Agreement on Tariffs and Trade	No prohibitions or restrictions other than duties, taxes or other charges, whether made effective through quotas, import or export licences or other measures, shall be instituted or maintained by any contracting party on the importation of any product of the territory of any other contracting party or on the exportation or sale for export of any product destined for the territory of any other contracting party.
WTO	Article XX General Agreement on Tariffs and Trade	Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures: (a) necessary to protect public morals; (b) necessary to protect human, animal or plant life or health; […] (g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption; […]

1.3.2. The Non-Discrimination Principle

1.3.2.1. De Jure Discrimination

The guiding principle in trade law is the prohibition of discrimination. Discrimination occurs when similar goods, services and economic operators of other states are treated less favourably than their in-state counterparts. The prohibition covers both de jure and de facto discrimination. De jure discrimination is an explicit form of discrimination. Classic examples of de jure discrimination include bans on imports or explicitly treating imports less favourably than in-state articles of commerce.

While some scholars have interpreted de jure discrimination to cover merely discrimination on the basis of nationality, and not for example on the basis of residence, such definition is probably too narrow.[118] It is submitted that de jure discrimination occurs when state measures establish unequal treatment explicitly on the basis of geographic origin, be that nationality or something else. It would in other words capture measures that differentiate on the basis of the nationality of the producer, the destination of the good or the place of production.[119] Criteria on transport distance may be regarded as a comparable form of discrimination in that the link to geographical origin is direct. It should, however, be noted that different treatment on the basis of geographical origin is not automatically a case of discrimination. The different treatment of out-of-state origin must also be less favourable.[120]

The U.S. dormant Commerce Clause doctrine applies the term 'facial discrimination' instead of de jure discrimination to measures that explicitly differentiate purely on the basis of state origin.[121] For reasons of convenience the term de jure discrimination is primarily used in this work.

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[118] Marcus Klamert, *Services Liberalization in the EU and the WTO: Concepts, Standards, and Regulatory Approaches* (CUP 2015) 275.

[119] Outside the context of free movement of goods, it would also cover differentiation on the basis of residence, for example. *See* also on differentiation on the basis of where a health service was obtained Case C-120/95 *Nicolas Decker v. Caisse de maladie des employés privés* [1998] ECR I-1831, paras 34-36.

[120] *See* e.g. US – Section 337 of the Tariff Act of 1930, L/6439, Panel Report, 16 Jan. 1989 (adopted), para. 5.11.

[121] City of Philadelphia v. New Jersey, 437 U.S. 617 (1978); Wyoming v. Oklahoma, 502 U.S. 437 (1992); Oregon Waste Systems, Inc. v. Department of Environmental Quality of Oregon, 511 U.S. 93 (1994); Chemical Waste Management, Inc. v. Hunt, 504 U.S. 334 (1992).

1.3.2.2. De Facto Discrimination and Legal Tests

De facto discrimination is equally prohibited under trade law. De facto discrimination occurs when the effect of the facially neutral measure is discriminatory. For example, under EU law restrictions on advertisements in Sweden were declared de facto discriminatory because advertising was more important for imported products that otherwise would remain unfamiliar to consumers.[122]

The concept of de facto discrimination is familiar to EU and WTO law and roughly corresponds with the U.S. concept of undue burden on interstate commerce. Under the U.S. doctrine the concept of de facto discrimination is not relied on. The courts instead view these circumstances as undue burdens on interstate commerce that require justification. Like de facto discrimination, measures causing an undue burden on interstate commerce might be facially even-handed and have only incidental effects on interstate trade.[123] A case on the treatment of drummers, traveling salesmen, illustrates this well. The U.S. Supreme Court concluded that higher taxation on drummers was prima facie unconstitutional because out-of-state companies relied on such form of commerce to a higher degree.[124]

There are different tests to establish the exact scope of discrimination. Some observations on what constitutes prohibited discrimination are briefly offered in the remaining parts of this section. The careful reader will note that the thoughts presented will refer to jurisprudence on different provisions in respective jurisdictions. While there may exist arguments for a coherent interpretation across any particular agreement, such as for example GATT, it must still be acknowledged that divergence could occur. The purpose here is merely to give a general overview before tackling some tests in more detail in subsequent chapters of this book.

Elaboration on the tests of whether discrimination is at hand can be found in particular in WTO law. In order to confirm a case of discrimination of out-of-state products, the

[122] Case C-405/98 *Konsumentombudsmannen (KO) v. Gourmet International Products AB (GIP)* [2001] ECR I-1795, paras 21-24.
[123] *See* e.g. Bendix Autolite Corp. v. Midwesco Enterprises, 486 U.S. 888 (1988).
[124] Nippert v. City of Richmond, 327 U.S. 416 (1946). For a case before the discrimination tests emerged as the core of the doctrine *see* Robbins v. Shelby County Taxing District, 120 U.S. 489 (1887). *See* however refusals to invalidate restrictions on drummers and peddlers in Breard v. Alexandria, 341 U.S. 622 (1951); Caskey Baking Co. v. Virginia, 313 U.S. 117 (1941); Wagner v. City of Covington 251 U.S. 95 (1919).

in-state and out-of-state products compared must be 'like' or in competition. The likeness test will be analysed in more detail in chapter 2.[125]

Furthermore, for discrimination to occur the treatment of out-of-state products must be less favourable than like in-state products. Less favourable treatment has to do with inequality of opportunity and modification of conditions of competition.[126] Even if intent can be a strong indicator of discrimination,[127] it is not required, at least under WTO[128] and U.S. law.[129] In the U.S. it has been claimed that discriminatory intent would not even be sufficient on its own.[130] It is instead the effect on market conditions that is relevant.[131]

In the U.S., some district courts have required evidence of actual discriminatory effect.[132] In WTO law there is no requirement of any actual effect,[133] even if it has at times been indicated that actual effects may be of some significance to provide sufficient evidence of de facto discrimination.[134] It would appear to be sufficient to

[125] See section 2.2.
[126] US – Measures Affecting Alcoholic and Malt Beverages, DS23, Panel Report, 16 March 1992 (adopted), para. 5.31; US – Measures Affecting the Production and Sale of Clove Cigarettes, DS406, AB Report, 4 April 2012, para. 180; US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products, DS381 (US – Tuna, Mexico II), AB Report, 16 May 2012, para. 214; US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products (US – Tuna, Mexico II): Recourse to Article 21.5 of the DSU by Mexico, DS381, Panel Report, 14 April 2015, para. 7.494; US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products (US – Tuna, Mexico II): Recourse to Article 21.5 of the DSU by Mexico, DS381, AB Report, 20 Nov. 2015, paras 7.278 and 7.338.
[127] Canada — Certain Measures Concerning Periodicals, DS31, AB Report, 30 June 1997, p. 30-32.
[128] Japan – Taxes on Alcoholic Beverages, DS8, DS10 and DS11, AB Report, 4 Oct 1996, p. 27-28.
[129] Steven Ferrey, 'Renewable Orphans: Adopting Legal Renewable Standards at the State Level' (March 2006) 19 The Electricity Journal 52, 57; Dan T. Coenen, *Constitutional Law: The Commerce Clause* (Foundation Press 2004) 240.
[130] Daniel K. Lee and Timothy P. Duane, 'Putting the Dormant Commerce Clause Back to Sleep: Adapting the Doctrine to Support State Renewable Portfolio Standards' (2013) 43 Environmental Law 295, 325. *See* also Palmer v. Thompson, 403 U.S. 217, 225 (1971). Expression of uncertainty can be found in Henneford v. Silas Mason Co., 300 U.S. 577, 586 (1937); Alliance of Auto. Manufacturers v. Gwadosky 430 F.3d 30, 36 (1st Cir. 2005); Wal-Mart Stores, Inc. v. City of Turlock, 483 F. Supp. 2d 987, 1013 (E.D. Cal 2006).
[131] Brown-Forman Distillers Corp. v. New York State Liquor Authority, 476 US 573, 579 (1986).
[132] American Fuel & Petrochemical Manufacturers v. O'Keeffe, No. 3:15-cv-00467-AA, 2015 WL 5665232 (D. Or., Sept. 23, 2015); Energy and Environment Legal Institute et al v. Joshua Epel, 43 F. Supp. 3d 1171 (D. Colo. 2014).
[133] Thailand – Customs and Fiscal Measures on Cigarettes from the Philippines, DS371, AB Report, 17 June 2011, para. 134 (on Article III GATT); US – Certain Country of Origin Labelling (COOL) Requirements: Recourse to Article 21.5 of the DSU by Canada and Mexico, DS384, Panel Report, 20 Oct. 2014, para. 7.183 (on Article 2.1 TBT Agreement).
[134] This has been the position in particular in relation to Article XI GATT. *See* Argentina – Measures Affecting the Export of Bovine Hides and the Import of Finished Leather, DS155, Panel Report, 19 Dec. 2000, paras 11.20; Indonesia – Importation of Horticultural Products, Animals and Animal Products, DS477 and DS478, Panel Report, 22 Dec. 2016, para. 7.50. *See* also Argentina – Measures Affecting the Importation of Goods, DS438, DS444 and DS445, Panel Report, 22 Aug. 2014, paras 6.264, 6.451 and 6.476 (stating that no actual effect is required).

show that there is a genuine relationship between the measure and its adverse impacts.[135] This position may be understood so, that what matters is potential effect.[136] The approach of the European Court of Justice (ECJ) has been similar, as it has concluded that measures are prima facie prohibited when they are 'liable' to cause a discriminatory effect or that such effect 'cannot be precluded'.[137] The analysis of whether market shares may shift is thus done in abstract and no evidence of an actual shift is needed. It could be argued that also future market potential should be taken into account when considering whether there is a potential effect.

There is also the question of whether it constitutes discrimination to treat an out-of-state product less favourably than some in-state products, but at the same time more favourable than other in-state products. In this context it is crucial to differentiate between on the one hand de facto discrimination and on the other hand de jure discrimination or other different treatment with reference to geographical origin. De jure discrimination can be found to occur already when one individual out-of-state product is treated less favourably than an otherwise identical in-state product and it is irrelevant that the treatment of a broader category of similar in-state and out-of-state products is perhaps equal on average.[138]

In turn, in an analysis of potential de facto discrimination, it would not be sufficient to focus on differences in treatment of individual products. Namely, at least according to principles established in WTO law, the less favourable treatment of similar *individual* imported products is not sufficient to create de facto discrimination.[139] The effect on in-state products as a group should be compared with the effect on out-of-state products

[135] Thailand – Customs and Fiscal Measures on Cigarettes from the Philippines, DS371, AB Report, 17 June 2011, para. 134.
[136] China – Measures Related to the Exportation of Various Raw Materials, DS394, Panel Report, 5 July 2011, para. 7.1081 (on Article XI GATT).
[137] *See* e.g. joined cases C-34/95, C-35/95 and C-36/95 *Konsumentombudsmannen (KO) v. De Agostini (Svenska) Förlag AB and TV-Shop i Sverige AB* [1997] ECR I-3843, paras 42-47. *See* also case C-405/98 *Konsumentombudsmannen (KO) v. Gourmet International Products AB (GIP)* [2001] ECR I-1795, paras 21-24.
[138] Case C-213/96 *Outokumpu Oy* [1998] ECR I-1777, paras 34-36; Case C-152/89 *Commission v. Luxembourg* [1991] ECR I-3141, paras 20-22. Both cases concerned the application of the TFEU provision on non-discrimination in taxation. *See* also Associated Industries of Missouri v. Lohman 511 U.S. 641 (1994).
[139] Robert Howse, *The WTO System: Law, Politics and Legitimacy* (Cameron May 2007) 88-89; Federico Ortino, *Basic Legal Instruments for the Liberalization of Trade: A Comparative Analysis of EC and WTO Law* (Hart 2004) 338-339.

as a group.[140] Protection of the domestic industry occurs only if the domestic industry or an identifiable segment thereof is favoured as a group.[141] Under WTO law the effect has generally been regarded as discriminatory when the market opportunities of imports become worse than the opportunities for domestic products as a result of the measure.[142] Similarly, less favourable treatment would, as a rule, according to the U.S. Supreme Court exist only when the measure increases the total market share of in-state products.[143]

In some instances, an advantage is granted to a small category of (identical or at least 'more similar') products within the larger group of like products (i.e. products in competition). For example, among the broader category of dish washers (similar products) the subgroup of energy efficient dish washers might be treated more favourably. This different treatment is in itself not discriminatory. However, the favoured subgroup sometimes consists of products that are produced mainly domestically.[144] At least under WTO law there may be a breach of the national treatment (i.e. non-discrimination) principle even if only a small percentage of domestic products fall into the benefitted sub-category.[145] It should be pointed out, that also the absolute amounts of domestic or imported products that receive more favourable treatment is irrelevant.[146] A measure will cause less favourable treatment when it alters competition and consequently has a negative effect on the competitive position of imported products.[147]

[140] EC – Measures Affecting Asbestos and Products Containing Asbestos, DS135, AB Report, 12 March 2001, para. 100; US – Measures Affecting the Production and Sale of Clove Cigarettes, DS406, AB Report, 4 April 2012, paras 178-200.
[141] *Ibid.*
[142] US – Measures Affecting Alcoholic and Malt Beverages, DS23, Panel Report, 16 March 1992 (adopted), para. 5.31; US – Measures Affecting the Production and Sale of Clove Cigarettes, DS406, AB Report, 4 April 2012, para. 180; US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products, DS381 (US – Tuna, Mexico II), AB Report, 16 May 2012, para. 214.
[143] Exxon Corp. v. Governor of Maryland, 437 U.S. 117, 126 (1978). The way of application of this principle by the court is still puzzling in this particular case.
[144] *See* e.g. Japan – Taxes on Alcoholic Beverages, DS8, DS10 and DS11, Panel Report, 11 July 1996, para. 4.159.
[145] US – Measures Affecting Alcoholic and Malt Beverages, DS23, Panel Report, 16 March 1992 (adopted), para. 5.6.
[146] Chile – Taxes on Alcoholic Beverages, DS87, AB Report, 13 Dec. 1999, para. 67.
[147] Korea – Measures Affecting Imports of Fresh, Chilled and Frozen Beef, DS161, AB Report, 11 Dec. 2000, para. 137.

Derived from what was stated above, the focus should be on market shares.[148] It is here submitted that what should be compared is therefore the percentage of all domestic like products that fall into the favoured subcategory with the corresponding percentage for products imported from any given state. The market shares can be expected to change on aggregate in favour of the domestic industry when the percentage of in-state products (or traders) that benefit from the measure, is greater than the percentage of out-of-state products (or traders) that benefit from that same measure. Again, what matters is perhaps not the eventual actual shifts in market share, but the mere potential of a shift. Admittedly, markets may be complex and predictions on changes in competitive positions and market shares are not always this straight-forward. The method of calculation presented here must thus be understood as a baseline, that may need to be flexible with respect to case specific circumstances.

The fact that it is possible to imagine that like products are divided into more than two subcategories presents a further dilemma. For example, biofuels from different feedstock could be classified in several subgroups. Would there be discrimination in case domestic fuel is over-represented in, let us say, the most and the least favourably treated subgroups? This problem appears difficult to avoid in a regime that covers de facto discrimination.

In sum, trade law prohibits a broad variety of discriminatory measures. However, it also includes the possibility to justify discrimination with reference to, for example, the objective of ensuring protection of public health. The adopted measures must still be proportional in relation to the objective. The multi-step process that involves the examination of potential discrimination and grounds of justification aims at the reconciliation of values through legal tests.

1.3.3. Comparability of Free Trade Regimes

1.3.3.1. Prohibition of Discrimination, Efficiency and Political Rights

Each jurisdiction has its own history, context and legal texts. The EU, U.S. and WTO are all separate entities with very different competences, structure and function. Hence, any comparison of legal value reconciliation tests in trade law of these different jurisdictions must reflect awareness of the more fundamental context of those tests. Yet,

[148] Similarly in the context of U.S. law *see* Thomas Alcorn, 'The Constitutionality of California's Cap-and-Trade Program and Recommendations for Design of Future State Programs' (2013) 3 Michigan J. Environmental & Administrative L. 87, 142-143.

as will be illustrated in the next few subsections, the rules in all three jurisdictions have many commonalities despite differences in context and wording. Importantly, they reflect very similar basic objectives related to anti-protectionism. Moreover, the regimes to a large extent share the same structure of rules on prohibition balanced with rules on justification.[149]

The declared purpose in the preamble of the GATT was to raise the standard of living through higher rates of employment and income by pushing for higher demand, production and trade. The rationale of the WTO system, in the form expressed in the GATT, would thus appear to be linked to welfare and economic efficiency. The primary means to achieve these objectives was the reduction of tariffs and other barriers to trade as well as the elimination of discrimination. Most discriminatory measures are prohibited under Article III GATT, and Article I further requires states not to award any state more favourable treatment than it awards to any other state. The latter is referred to as the most favoured nation principle.

The WTO system incorporated the GATT in 1994. Since then the WTO also covers a wide range of other international agreements. One of them is the Agreement on Technical Barriers to Trade. Article 2.1 TBT prohibits discriminatory technical regulations. Moreover, as laid down in Article 2.2 TBT, measures may not be adopted with a view to create or the effect of creating unnecessary obstacles to trade. Since the TBT Agreement was adopted to further the objectives of GATT,[150] the agreements must be understood to generally rely on the same principles of law, although panels and ABs have clarified that the TBT agreement does provide for some additional obligations on nations.[151]

A central objective with the creation of a European Community was to enhance economic integration. It was believed that such development would improve efficiency on the common market and link nations closer together, decreasing the risks of conflicts and new wars. The backbone of EU law is the Treaty on the Functioning of the European Union (TFEU). In accordance with Articles 28 and 30 TFEU, neither customs

[149] Harri Kalimo, *E-Cycling – Linking Trade and Environmental Law in the EC and the U.S.* (Transnational 2006) 40-49.
[150] Preamble, Agreement on Technical Barriers to Trade, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1868 U.N.T.S. 120, 121.
[151] EC – Measures Affecting Asbestos and Products Containing Asbestos, DS135, AB Report, 12 March 2001, para 80; EC – Trade Description of Sardines, DS231, Panel Report, 29 May 2002, paras 7.14-19.

duties nor charges may be collected at internal borders and the Union has common duties on imports. Moreover, Article 34 TFEU prohibits quantitative restrictions on imports from other Member States and all measures having equivalent effect. The same principle is extended to exports in Article 35. These provisions guarantee the free movement of goods and the principle of non-discrimination, much like the WTO system does on a global level. With time the EU has also evolved into a political union and new elements, such as union citizenship, have emerged. Consequently, the principle of non-discrimination does no longer necessarily represent an economic ideal, but also something comparable to a fundamental right.[152]

The United States, in turn, is a federation of states. Thus, in some respects, and especially on the political level, it represents a union with even deeper levels of integration than the EU. Article I, Section 8, Clause 3 of the U.S. Constitution is called the Commerce Clause. This clause of the Constitution, declares that the Congress shall have the power to regulate commerce between the several states. The clause has been interpreted to have a 'negative' dimension. In other words, the power of the states to regulate in the field is limited by the fact that Congress has been given power to regulate the matter.[153] This negative dimension is also referred to as the dormant Commerce Clause.

The Supreme Court of the United States has shaped theories on what exactly the limitations to the power of the states to regulate commerce are. The prevailing test of law of prohibition under the dormant Commerce Clause builds on the ideals of anti-protectionism and non-discrimination.[154] Facial discrimination[155] and undue burdens

[152] J. H. H. Weiler, 'Does Europe Need a Constitution? Demos, Telos and the German Maastricht Decision' (1995) 1 European Law Journal 219; Miguel Poiares Maduro, *We the Court – The European Court of Justice and the European Economic Constitution* (Hart 1998) 168-175.
[153] Gibbons v. Ogden, 22 U.S. 1 (1824).
[154] The prohibition of discrimination can also be found in other parts of the U.S. Constitution. For example, Article IV, Section 2, Clause 1 requires states to award privileges and immunities equally to all U.S. citizens. Similarly, the Equal Protection Clause of the 14th Amendment stipulates that no person shall be discriminated against. Although these clauses have relevance outside the scope of commerce and discrimination on the grounds of state origin, they can still be applicable also in such context where simultaneously the dormant Commerce Clause would apply. *See* e.g. Minnesota v. Clover Leaf Creamery Co., 449 US 456 (1981) on the application of the Commerce Clause and the Equal Protection Clause. For a comparison of the forms of discrimination prohibited under the clauses *see* also Jennifer L. Larsen, 'Discrimination in the Dormant Commerce Clause' (2004) 49 South Dakota Law Rev. 844.
[155] *See* e.g. City of Philadelphia v. New Jersey, 437 U.S. 617 (1978).

on inter-state commerce are prohibited. The latter concept is, as previously explained, roughly understood as covering measures that de facto benefit in-state industry.[156]

In the U.S. the non-discrimination principle on the interstate market has been derived from a constitutional clause of federal competence. The dormant element of the clause is therefore firmly related to the objective of creating a union. The U.S. Supreme Court has also linked non-discrimination to political representation.[157] States may not regulate to the disadvantage of those interests that are not represented in the legislative process. Normally out-of-state interests would be among those lacking voice in the political and legislative process. Therefore, they may not be burdened by the implementation discriminatory measures. The Supreme Court has also applied the political representation test to conclude that discrimination may be justifiable when the discriminated out-of-state actors are virtually represented by some in-state interests.[158] Thus, it may be argued that the doctrine in the U.S. does not appear exclusively linked to the economic rationale of non-discrimination. This latter application of the political representation test has, however, received harsh criticism since out-of-state interests will not be effectively and sufficiently covered by in-state interests and representation.[159]

In sum, while all three regimes share the principle of non-discrimination and the economic and welfare objectives linked to trade liberalization, both in the EU and U.S. regimes the economic dimension of the principle has become intertwined with a political dimension.

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[156] The U.S. Supreme Court has found state standards on truck size and the characteristics of truck mud flaps to be prima facie prohibited. These may cause an undue burden on commerce because without mutual recognition the inter-state market becomes fragmented. There is also an element of de facto discrimination because in-state businesses adopt the state standard per default, whereas businesses active also in other states accrue costs in conforming with several standards. *See* South Carolina State Highway Department v. Barnwell Brothers Inc., 303 U.S. 177 (1938); Bibb v. Navajo Freight Lines Inc., 359 U.S. 520 (1959).

[157] Goldberg v. Sweet, 488 U.S. 252, 266 (1989); South Carolina State Highway Department v. Barnwell Brothers Inc., 303 U.S. 177, 185-186 (1938).

[158] West Lynn Creamery, Inc. v. Healy, 512 U.S. 186, 199-200 (1994).

[159] Anthony L. Moffa and Stephanie L. Safdi, 'Freedom From the Costs of Trade: A Principled Argument Against Dormant Commerce Clause Scrutiny of Goods Movement Policies' (2014) 21 N.Y.U. Environmental Law Journal 344, 377-379. *See* also Robert Verchick, 'The Commerce Clause, Environmental Justice, and the Interstate Garbage Wars' (1997) 70 Southern California L. Rev. 1239, 1250-1266.

1.3.3.2. Beyond the Non-Discrimination Principle

Below it will be illustrated how the WTO and the U.S. have for the most part not prohibited other market regulation than that of discriminatory nature, although some ambiguity remains. In contrast, in the EU free movement law non-discriminatory state measures that hinder market access may require justification.

Incorporating non-discriminatory measures within the scope of trade law may reflect several different ideals. On the one hand, it may lay the foundations of a neoliberal approach to free trade. The objective of the regime then moves in the direction of laissez-faire policy. On the other hand, the prohibition of some non-discriminatory measures could equally well only mark a delegation of competence. In other words, states bound by trade law would have relinquished their power to unilaterally or bilaterally regulate and restrict trade in some respects, but only with the intention to decide on such forms of trade regulation multilaterally, either within the union they are part of or on a global arena. The competence delegation theory, reflecting an ideal of unionism or multilateralism, links to political unity and is separate from the economic rationale.

Market Access Obstacles on the EU Internal Market

Article 34 TFEU on the free movement of goods does not refer to discrimination. In accordance with the provision quantitative restrictions on imports and measures with equivalent effect are prima facie prohibited. The ECJ has declared that measures hindering market access are prohibited.[160] The scope of market access hinders remains diffuse. The court has stated that measures do not hinder market access if the effect is 'too uncertain and indirect'.[161] A careful analysis of the case law would appear to

[160] Case C-110/05 *Commission v. Italy* (*Trailers*) [2009] ECR I-519, para. 37; Case C-142/05 *Åklagaren v. Percy Mickelsson and Joakim Roos* (*Mickelsson*) [2009] ECR I-4273, para. 24; Case C-337/95 *Parfums Christian Dior SA and Parfums Christian Dior BV v. Evora BV* [1997] ECR I-6013, para. 51; Case C-98/01 *Commission v. United Kingdom* (*BAA*) [2003] ECR I-4641, para. 47; Case C-465/05 *Commission v. Italy* (*Private Security Services*) [2007] ECR I-11091, paras 100–102; Case C-400/08 *Commission v. Spain* (*Hypermarkets*) [2011] ECR I-1915, para. 64; Case C-565/08 *Commission v. Italy* (*Lawyer Tariffs*) [2011] ECR I-2101, paras 49–54; Case C-518/06 *Commission v. Italy* (*Motor Vehicle Insurance*) [2009] ECR, I-3491, paras 64–70. *See* also Case C-412/93 *Société d'Importation Edouard Leclerc-Siplec v. TF1 Publicité SA and M6 Publicité SA* [1995] ECR I-179, Opinion of AG Jacobs, paras 38–49; Case C-176/96 *Jyri Lehtonen and Castors Canada Dry Namur-Braine ASBL v. Fédération royale belge des sociétés de basket-ball ASBL (FRBSB)* [2000] ECR I-2681, Opinion of AG Alber, paras 47–48.

[161] Case C-69/88 *H. Krantz GmbH & Co. v. Ontvanger der Directe Belastingen and Netherlands State* [1990] ECR I-583, para. 11; Case C-379/92 *Criminal proceedings against Matteo Peralta* [1994] ECR I-3453, para. 24; Case C-96/94 *Centro Servizi Spediporto Srl v. Spedizioni Marittima del Golfo Srl* [1995] ECR I-2883, para. 41; Case C-67/97 *Criminal proceedings against Ditlev Bluhme* [1998] ECR I-8033, para. 22; Case C-412/97 *ED Srl v. Italo Fenocchio* [1999] ECR I-3845, para. 11; Case C-211/08

suggest that restrictions on trade become prohibited market access hinders when they are so drastic that the probability of some market participant being denied access to market becomes sufficiently high.[162] It is in principle possible that some PPM-criteria, in particular full bans on some unsustainable PPMs, could be declared prima facie prohibited under the test of market access hinders.

Under EU free movement law, the test of hinders to market access has already been applied to non-discriminatory measures. The scope of prima facie prohibited measures has thus been extended further than in, for example, WTO law, where parties have at least not yet challenged comparable non-discriminatory measures, as will be laid out below. In case this difference will persist, it may be explained by the higher degree of integration and harmonization on the European market.

Poiares Maduro has argued that the EU obstacle approach that allows the court to declare even non-discriminatory trade obstacles as prima facie prohibited is not designed on any neoliberal vision. Instead, he regards it as a doctrine that shifts more decision-making power to the EU, although he admits that deregulation of the market may form an unintended consequence.[163] It is true that the broad scope of prima facie prohibited measures will offer the ECJ more frequent opportunities to balance or reconcile different values. In this sense, the obstacle approach increases the power of the ECJ. In case the ECJ concludes that a measure is prima facie prohibited and cannot be justified, even the EU legislator could not regulate to the contrary without a change to the TFEU.

Non-Discriminatory Measures under the U.S. Dormant Commerce Clause

Throughout the history of the U.S. Constitution, the Supreme Court has struggled with the definition of prima facie prohibited measures under the dormant Commerce Clause

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Commission v. Spain [2010] ECR I-5267, para. 72; Case C-602/10 *Volksbank Romania v. Autoritatea Na¸tionala˘ pentru Protec¸tia Consumatorilor,* ECLI:EU:C:2012:443, para 81. The test has also been applied in relation to free movement of workers in Case C-190/98 *Volker Graf v. Filzmoser Maschinenbau GmbH* [2000] ECR I-493, paras 24-25; Joined cases C-418/93, C-419/93, C-420/93, C-421/93, C-460/93, C-461/93, C-462/93, C-464/93, C-9/94, C-10/94, C-11/94, C-14/94, C-15/94, C-23/94, C-24/94 & C-332/94 *Semeraro Casa Uno e.a. / Sindaco del Comune di Erbusco e.a. (Sindaco),* [1996] ECR I-2975, para. 32.

[162] Max. S. Jansson and Harri Kalimo, 'De Minimis Meets "Market Access": Transformations in the Substance – and the Syntax – of EU free movement law?' (2014) 51 Common Market Law Rev. 523. The test has deficiencies with respect to legal certainty and is admittedly difficult to apply in practice. Even the harshest critic of such elements can, however, not deny that the Court has gone beyond testing for discrimination.

[163] Miguel Poiares Maduro, *We the Court—The European Court of Justice and the European Economic Constitution* (Hart 1998) 67-72.

but has now settled for an analysis that relies heavily on the principle of non-discrimination.[164] Even in recent years lower courts have not always fully followed this principle. For example, one court ruled that a non-discriminatory ban on *foie gras* was prima facie prohibited. This surprising finding did not affect the outcome as the court concluded that there were justifiable grounds for the trade restriction.[165] This approach to non-discriminatory measures would still resemble the European test of hinders to market access, but the Supreme Court has never confirmed it.

In conclusion, non-discrimination still forms the core in the U.S. doctrine and there are very few signs that law of prohibition would extend far beyond it, as has been the case in EU free movement law. However, the Supreme Court has developed a test unique to the U.S. doctrine that could extend beyond the prohibition of discrimination. Namely, the court has occasionally declared measures with extraterritorial effects to be prohibited without looking for discrimination. I shall return to the nature of the test of extraterritoriality in law of prohibition later in this book.[166]

The Scope of Article XI GATT

Articles I and III GATT prohibit discrimination of foreign products in relation to both domestic products and products of other foreign origin. Article GATT XI:1, in turn, declares that with the exception of duties, taxes and charges no prohibitions or restrictions in the form of quotas, import/export licences or other measures may be instituted or maintained on the importation or exportation of goods. The provision appears to target primarily restrictions implemented at the border of a state but does not explicitly refer to discrimination.

Could trade restrictions be prima facie prohibited under Article XI GATT even when they are non-discriminatory? Two aspects may here be relevant. First, could restrictions such as those on trading on Sundays and on the use of a good fall under the article even if no discriminatory effect is envisaged? Such restrictions would have a restrictive effect on the importation of goods, but the restrictions would not be directly "instituted or maintained on importation". Although these measures might affect the market

[164] Laurence H. Tribe, *American Constitutional Law* (3rd ed., Foundation Press, 1999) 1057-1059. Contrary *see* Harri Kalimo, *E-Cycling – Linking Trade and Environmental Law in the EC and the U.S.* (Transnational Publishers 2006) 53.
[165] Association des Eleveurs de Canards et d'Oies du Quebec v. Harris, 729 F.3d 937 (9th Cir. 2013). *See* also Brandon P. Denning, *Bittker on the regulation of Interstate and Foreign Commerce*, Supplement (Wolters Kluwer 2015) 15.
[166] *See* section 6.1.

access, it is still far from evident that these measures would be covered by Article XI. It is fully plausible that for Article XI to apply, the restrictive measure would need to be directly linked to the importation or exportation in the same way as quotas and license requirements are.

Secondly, could Article XI cover even restrictions on imports of goods that are not produced domestically? Such restrictions would not discriminate in the favour of the domestic industry and are here referred to as non-discriminatory measures. Some of these measures might of course discriminate between two foreign countries and thus be covered by Article I GATT. That is, however, a different topic, and one that I will return to below.

The wording of Article XI would suggest that it covers non-discriminatory restrictions and prohibitions on imports and exports. However, the preamble of GATT refers merely to the objective of eliminating discrimination. Moreover, the WTO is no political union and therefore it can also be expected that political rights have not affected the scope of trade law that radically. Instead, welfare through anti-protectionism continues to form the core.

Articles I and III GATT only prohibit discriminatory measures.[167] It has been argued that also Article XI reflects the right to non-discrimination and not market access.[168] In line with this, a couple of panels have stated that the rationale reflected in Articles III and XI is similar in that it is not trade flows but equal competitive opportunities that are protected.[169] Yet, there have been cases that cast some doubt on the complete exclusion of non-discriminatory measures from the scope of Article XI. First, one panel ruled that an import ban on a good that is not produced domestically would at least not

[167] Federico Ortino, *Basic Legal Instruments for the Liberalization of Trade: A Comparative Analysis of EC and WTO Law* (Hart 2004) 118-119; Robert Howse, *The WTO System: Law, Politics and Legitimacy* (Cameron May 2007) 85-87; Bernard M. Hoekman and Petros C. Mavroidis, *The World Trade Organization: Law and Economics* (Routledge 2007) 14.

[168] Sanford E. Gaines, 'Process and Production Methods: How to Produce Sound Policy for Environmental PPM-Based Trade Measures?' (2002) 27 Columbia J. Environmental Law 383, 392-293, 412; Robert Howse and Donald Regan, 'The Product/Process Distinction – An Illusory Basis for Disciplining 'Unilateralism' in Trade Policy' (2000) 11 European J. International Law 249, 251-257. This is an aspect partly not recognized in the criticism of EU biofuels law. *See* e.g. the market access reference in Fredrik Erixon, 'Biofuels Reform in the European Union: Why New ILUC Rules Will Reinforce the WTO Inconsistency of EU Biofuels Policy' (2013) ECIPE Occasional Paper (issue 3) 20.

[169] Argentina – Measures Affecting the Export of Bovine Hides and the Import of Finished Leather, DS155, Panel Report, 19 Dec. 2000, paras 11.20–21; Indonesia – Importation of Horticultural Products, Animals and Animal Products, DS477 and DS478, Panel Report, 22 Dec. 2016, paras 7.91, 7.110, 7.197-198, 7.235-236 and 7.396.

automatically trigger Article XI:1, leaving open the possibility that in some cases the article might still apply.[170] In a different case the appellate body (AB) stated that Article XI does not prohibit any condition or burden placed on importation or exportation, but only those that limit imports or exports.[171] Again, it does not foreclose the possibility that the article could cover non-discriminatory burdens.

Some scholars have gone so far as to argue that there is a tendency to go beyond strictly a test of discrimination.[172] However, looking at cases where Article XI:1 has been applied independently of Article III, it is difficult to find any concrete evidence that it would apply to non-discriminatory measures. Some cases have concerned quantitative restrictions on importation of textiles,[173] an import prohibition of retreaded tyres[174] as well as strict conditions for horticultural products and animals that only applied to imports.[175] One other case concerned Argentinian import restrictions on goods in general. For example, importers had to match their imports with exports, invest in Argentina, use local content in domestic production and give a sworn import declaration.[176] All requirements had discriminatory effects as they restricted imports but not Argentinian goods.

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[170] EC – Measures Affecting Asbestos and Products Containing Asbestos, DS135, Panel Report, 18 Sept. 2000, para 8.91.

[171] Argentina – Measures Affecting the Importation of Goods, DS438, DS444 and DS445, AB Report, 15 Jan. 2015, para. 5.217.

[172] Grainne de Burca, 'Unpacking the Concept of Discrimination in EU & International Trade Law', in Catherine Barnard and Joanne Scott (eds.), *The Law of the Single European Market, Unpacking Premises* (Hart 2002); Joanne Scott, 'On Kith and Kine (and Crustaceans): Trade and Environment in the EU and WTO', in J. H. H. Weiler (ed.), *The EU, the WTO, and the NAFTA: Towards a Common Law of International Trade?* (OUP 2000) 142-143; J. H. H. Weiler, 'Epilogue: Towards a Common Law of International Trade', in Joseph Weiler (ed.), *The EU, the WTO, and the NAFTA: Towards a Common Law of International Trade?* (OUP 2000) 201-231; Simon Lester, 'The Role of the International Trade Regime in Global Governance' (2011) UCLA Journal of International Law and Foreign Affairs 209, 272.

[173] Turkey – Restrictions on Imports of Textile and Clothings, DS34, Panel Report, 31 May 1999; India – Quantitative Restrictions on Imports of Agricultural, Textile and Industrial Products, DS90, Panel Report, 6 April 1999.

[174] Brazil – Measures Affecting Imports of Retreaded Tyres, DS332, Panel Report, 12 June 2007.

[175] Indonesia – Importation of Horticultural Products, Animals and Animal Products, DS477 and DS478, Panel Report, 22 Dec. 2016. The restrictions related to when the right to imports can be applied for, when the products can be imported, when the products should have been harvested, to whom the products can be sold, penalties for not fulfilling the granted import quota and a requirement to own storage facilities for the imports. *See* also Indonesia – Measures Concerning the Importation of Chicken Meat and Chicken Products, DS484, Panel Report, 17 Oct. 2017. This case concerned among other things the ban on imports of certain products with chicken and restrictions on when the right to import could be applied for and how long it was valid.

[176] Argentina – Measures Affecting the Importation of Goods, DS438, DS444 and DS445, AB Report, 15 Jan. 2015. Some importation formalities are still acceptable even if they only affect imported goods. *See* para. 5.243.

The conclusion that Articles III and XI GATT both cover cases of discrimination and neither cover any wide range of non-discriminatory measures raises the question as to the difference between the provisions. From the wording of Article III, it is clear that it prohibits discriminatory internal measures. Article XI, in turn, prohibits prohibitions and restrictions at the border. However, according to an interpretive note also Article III prohibits discriminatory measures implemented at the border.[177] The panel has gone so far as to suggest some degree of overlap between Articles III and XI,[178] but that position has not gained full support.[179]

Given that also Article III applies to discriminatory measures implemented at the border and that Article XI does not appear to cover non-discriminatory measures, we are faced with the question of what the independent value of Article XI might be, at least in the case of importation?

Rather surprisingly, some of the early cases where XI:1 was applied independently of Article III related to PPM-criteria. *US – Tuna I (Mexico)* and *US – Tuna (EC)*, decided in 1991 and 1994 respectively, concerned U.S. legislation on the importation of tuna. The U.S. had concerns over the encircling and killing of dolphins as a consequence of tuna fishing activities and applied restrictions for both foreign and domestic vessels on how tuna intended to be sold in the U.S. under a dolphin-safe label could be caught, but the rules differed in some respects. The panels in both cases concluded that the interpretative note Ad Article III was not applicable because the restrictions on PPMs did not affect the products "as such".[180] Instead, the panels went on to apply Article XI:1. The panel reports were never adopted but may still serve as guidelines for future panels.[181]

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[177] Note *Ad* Article III reads as follows: "Any internal tax or other internal charge, or any law, regulation or requirement of the kind referred to in paragraph 1 which applies to an imported product and to the like domestic product and is collected or enforced in the case of the imported product at the time or point of importation, is nevertheless to be regarded as an internal tax or other internal charge, or a law, regulation or requirement of the kind referred to in paragraph 1, and is accordingly subject to the provisions of Article III."

[178] India – Measures Affecting the Automotive Sector, DS146, Panel Report, 21 Dec. 2001, para. 7.224.

[179] Petros Mavroidis, *Trade in Goods* (OUP 2007) 59.

[180] US – Restrictions on Imports of Tuna, DS21, Panel Report, 3 Sept. 1991 (US – Tuna, Mexico I) (unadopted), para 5.14; US – Restrictions on Imports of Tuna, DS29, Panel Report, 16 June 1994 (US – Tuna, EC) (unadopted), para 5.8. *See* also US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, Panel Report, 15 May 1998, paras 7.15-16. The case concerned U.S. restrictions on the methods of catching shrimp without harming turtles. This PPM-rule was comparable to the one in the Tuna-Dolphin cases. This time the U.S. did not contest that the measure was prima facie prohibited under Article XI:1.

[181] Japan – Taxes on Alcoholic Beverages, DS8, DS10 and DS11, AB Report, 4 Oct. 1996, p. 14-15.

The panel reports in the tuna-dolphin cases would seem to suggest that when the PPM-criteria have no effect on the physical characteristics of the product (non-product related PPMs), Article III:4 would not be applicable. The most detailed defence of the application of Article XI, instead of Article III, to PPM-criteria has been offered by Gaines. Gaines points out that Articles III:1 and III:4 are only applicable to measures affecting the sale, distribution or use (etc.) of products. According to Gaines non-product related PPM-criteria would not affect the sale because the causation between compliance with the rule and the product price is too weak.[182] The test appears rather vague and the text does not contain any reference to a requirement that the measure affect "products as such" or their "physical characteristics". Hence, it is difficult to see why Article III:4 could not apply when the measure applies to products and includes PPM-criteria.[183] Moreover, panels have stated that Article III:4 applies even when the measure does not regulate the product or the conditions of sale directly.[184]

More recently, panels appear to have confirmed that Article III:4 GATT may apply to PPM-criteria. Namely, it was applied on a new U.S. law on the methods of fishing tuna[185] and later on Indonesian rules requiring that chicken meat has been halal

[182] Sanford E. Gaines, 'Process and Production Methods: How to Produce Sound Policy for Environmental PPM-Based Trade Measures?' (2002) 27 Columbia J. Environmental Law 383, 412-415. Other authors share the view on the applicability of Article XI and have analysed biofuels sustainability criteria in light of it. *See* Claudia Franziska Brühwiler and Heinz Hauser, 'Biofuels and WTO Disciplines' (2008) 63 Aussenwirtschaft 7, 27; Andrew D. Mitchell and Christopher Tran, 'The Consistency of the EU Renewable Energy Directive with the WTO Agreements' (Oct. 2009) Georgetown Business, Economics & Regulatory Law Research Paper No. 1485549, paras 25-27.

[183] *See* Jochem Wiers, *Trade and Environment in the EC and the WTO – A Legal Analysis* (Europa Law 2003) 277-278; Federico Ortino, *Basic Legal Instruments for the Liberalization of Trade: A Comparative Analysis of EC and WTO Law* (Hart 2004) 86-87; Tamara Perisin, *Free Movement of Goods and Limits to Regulatory Autonomy in the EU and WTO* (T.M.C. Asser 2009) 138; Robert Howse and Donald Regan, 'The Product/Process Distinction – An Illusory Basis for Disciplining 'Unilateralism' in Trade Policy' (2000) 11 European J. International Law 249, 254-257. *See* also Andrew D. Mitchell and Christopher Tran, 'The Consistency of the EU Renewable Energy Directive with the WTO Agreements' (Oct. 2009) Georgetown Business, Economics & Regulatory Law Research Paper No. 1485549, paras 21 and 24. Ackrill and Kay appear to endorse this view by suggesting a review of biofuels sustainability criteria in light of Article III. *See* Robert Ackrill and Adrian Kay, 'EU Biofuels Sustainability Standards and Certification Systems – How to Seek WTO-Compatibility' (2011) 62 J. Agricultural Economics 551, 555.

[184] US – Taxes on Automobiles, DS31, Panel Report, 11 Oct. 1994 (unadopted), para. 5.45; Italian Discrimination Against Imported Agricultural Machinery, L/833, Panel Report, 15 July 1958 (adopted), para. 12. *See* also US – Section 337 of the Tariff Act of 1930, L/6439, Panel Report, 16 Jan. 1989, (adopted), para. 5.10.

[185] US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products (US – Tuna, Mexico II): Recourse to Article 21.5 of the DSU by Mexico, DS381, Panel Report, 14 April 2015, paras 7.469-504.

slaughtered[186]. In *Indonesia – Chicken*[187] the panel attempted to elaborate on the difference in scope of Articles III and XI GATT. Indonesia had adopted a number of different restrictions on the importation of chicken. The relationship between Articles III:4 and XI was closely examined in the context of one of those measures. Namely, unlike (fresh) domestic chicken, thawed imported chicken could not be sold at local traditional markets. This measure would appear like an internal measure, and not a border measure. However, the fact that importers had to make a commitment at the time of importation not to sell the chicken at local markets made it a border measure.[188]

The panel in *Indonesia – Chicken* went on to explain that Article III applies to border measures if, and only if, an equivalent measure applies to both imported and domestic products. By equivalent measure the panel did not mean identical, but comparable. Border measures that would only apply to imported goods would not be examined under Article III:4. In the end the panel found that Article III:4 did not apply to the requirement of a commitment not to sell in traditional markets because there was no equivalent measure applied to domestic products.[189]

The reasoning of the panel in *Indonesia – Chicken* is well-aligned with the wording of the interpretative note to Article III. Namely, in accordance with the note, Article III is applicable to measures enforced on imports at the border in case those measures apply also to like domestic products.[190] This would leave Article XI some added value also in cases of importation. Article XI would ensure market access by prohibiting import restrictions even in cases where no comparable restrictions apply for similar domestic goods. This reflects the non-discrimination principle as such restrictions constitute one form of discrimination of imports. Hence, the context of GATT at least allows for the interpretation that Article XI does not cover non-discriminatory measures.

In sum, panels and appellate bodies have generally not extended the application of Article XI to non-discriminatory measures. Yet, this would not automatically mean that the scope of prima facie prohibited measures under GATT in all respects is narrower than under EU free movement law. Namely, under Article I more favorable treatment

[186] Indonesia – Measures Concerning the Importation of Chicken Meat and Chicken Products, DS484, Panel Report 17 Oct. 2017, paras 7.544-580.
[187] *Ibid.*
[188] *See id*., para. 7.191. The panel is not explicit on this point, but hints to it.
[189] *Id.* paras 7.189 and 7.193-195.
[190] *See* footnote 177 above.

of products from one country as compared with the treatment of like products of another country is prohibited. In compliance proceedings a panel has stated that this would cover even de facto discrimination of products of one country over products of another country.[191] Since most measures affect the competitive opportunities between goods in some way, there is the risk that Article I could be interpreted to have a very broad coverage. I leave it for future research to analyze this dilemma more in depth.

The TBT Agreement: Trade Restrictions and International Standards

This book does not include any detailed analysis of the status of PPM-criteria under the TBT Agreement.[192] Instead, with respect to WTO law, it will primarily focus on value reconciliation tests applied in the context of GATT. That being said, it is still recognized that PPM-criteria will have to comply with the TBT Agreement. It thus forms part of the relevant legal context and occasional references and parallels will be drawn to it. For this reason, the relationship between non-discriminatory measures and the TBT Agreement will briefly be explored.

Much like Articles I and III GATT, also Article 2.1 TBT clearly refers to discrimination in prohibiting technical regulations that treat imported products less favourably than like products of national origin. In contrast, Article 2.2 TBT is open for interpretation since it prohibits unnecessary obstacles to international trade. In its interpretation of Article 2.2 TBT the AB has built on its interpretation of the word "restriction" under Article XI GATT, and simultaneously highlighted that only unnecessary restrictions are prohibited and thus not all measures with trade restrictive effect.[193] Yet, the U.S. and Australia have in separate cases appeared to argue for the scope of Article 2.2 TBT to extend beyond the prohibition of discrimination.[194] The facts of the cases at hand were such that it never became necessary for the panels to specifically address that argument.

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[191] US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products (US – Tuna, Mexico II): Recourse to Article 21.5 of the DSU by Mexico, DS381, Panel Report, 14 April 2015, paras 7.415 and 7.439.

[192] For such an analysis *see* Christiane R. Conrad, *Process and Production Methods (PPMs) in WTO Law – Interfacing trade and social goals* (CUP 2011) 374-418.

[193] US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products, DS381 (US – Tuna, Mexico II), AB Report, 16 May 2012, para. 319.

[194] EC – Protection of Trademarks and Geographical Indications for Agricultural Products and Foodstuffs, DS290, Panel Report, 15 March 2005, paras 7.492-499; US – Certain Country of Origin Labelling (COOL) Requirements: Recourse to Article 21.5 of the DSU by Canada and Mexico, DS384, Panel Report, 20 Oct. 2014, para. 7.360.

Some guidance on the extent of prima facie prohibited trade restrictions could potentially be found by examining how those prohibited restrictions have been analysed against the grounds of justification put forward by the parties. A trade restrictive measure may be justified if it is not more trade restrictive than necessary for a legitimate objective. Dispute settlement bodies have therefore been forced to discuss the meaning of the term 'trade restrictive' also in the context of law of justification.

Unfortunately, no consistent approach can be detected. Some panels and appellate bodies have emphasized that trade restrictiveness should be interpreted broadly and that it refers to a limiting effect on trade.[195] Consequently, panels have on a couple of occasions examined the degree of restrictiveness without reflecting much on the discriminatory nature of the measures at hand.[196]

The issue arose also when U.S. country of origin labelling provisions for meat products were challenged in the WTO. The case is known as *US – COOL*. The AB stated that the discriminatory nature of the measure made it *considerably* trade restrictive.[197] This statement would suggest that trade restrictiveness can be broader than mere discrimination. However, the AB also seemed to hint that added costs as such do not amount to a restriction on trade.[198]

The AB in *US – COOL* found the U.S. to have violated Article 2.1 TBT but could not conclude whether it complied with Article 2.2 TBT. Later, a panel and an AB had the task of examining the compliance of the U.S. with the decision of the original AB. The panel in the compliance proceedings (i.e. *US – COOL Article 21.5*) on the one hand stated that trade restrictiveness relates to detrimental impacts on competitive conditions and not to actual effects on trade.[199] The panel also appeared to accept that an alternative measure may be less trade restrictive if the costs in the alternative labelling

[195] US – Certain Country of Origin Labelling (COOL) Requirements, DS384, Panel Report, 18 Nov. 2011, paras 7.572-575; US – Certain Country of Origin Labelling (COOL) Requirements, DS384, AB Report, 29 June 2012, paras 375, 381; US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products, DS381 (US – Tuna, Mexico II), AB Report, 16 May 2012, para. 319.
[196] US – Measures Affecting the Production and Sale of Clove Cigarettes, DS406, Panel Report, 2 Sept. 2011, paras 7.358-369; EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, Panel Report, 25 Nov. 2013, para 7.426 (The AB later overruled the finding that the TBT Agreement was applicable in the case).
[197] US – Certain Country of Origin Labelling (COOL) Requirements, DS384, AB Report, 29 June 2012, paras 477-490.
[198] *Ibid.*
[199] US – Certain Country of Origin Labelling (COOL) Requirements: Recourse to Article 21.5 of the DSU by Canada and Mexico, DS384, Panel Report, 20 Oct. 2014, para. 7.438.

system would become more evenly distributed among those who sell meat of different origin.[200] These statements linked a low level of trade restrictiveness with non-discrimination. On the other hand, the panel also took the view that trade restrictiveness is *not limited to* actual effects on trade or to market access.[201] Moreover, the panel seemed to suggest that high non-discriminatorily distributed costs could form a restriction on trade.[202] The AB in the compliance proceedings was equally ambiguous. It referred to trade restrictiveness as linked to competitive opportunities,[203] while also hinting that non-discriminatory measures could be trade restrictive.[204] In conclusion, little guidance is available on the interpretation of Article 2.2 TBT and some inconsistency prevails.

In accordance with Article 2.4 TBT nations are obliged to use international standards as a basis of their national technical regulation in case there exists an international standard that is effective and appropriate for fulfilling the legitimate objective that is pursued. There is no need to prove discrimination or any other potential form of trade restriction in case the state has not built on an international standard that is deemed appropriate for the pursued objective.[205] Thus WTO law has in the field of international trade already to some degree been extended beyond the prohibition of discrimination. However, for sustainable PPMs different standards are only beginning to emerge.

1.3.3.3. Grounds of Justification

Discriminatory, and perhaps even some non-discriminatory, measures are prima facie prohibited in trade law. A state that has adopted a prima facie prohibited measure may present legitimate objectives, also referred to as grounds of justifications, for the adopted measure. Prima facie prohibited measures can be justified if there exists a legitimate objective. In some respect, one could speak of these legitimate objectives as "non-trade" values that are protected within the system of free trade. The prohibition of discrimination together with grounds of justification creates a mechanism for the reconciliation of free trade values with non-trade values.

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[200] *Id*. paras 7.558-559.
[201] *Id.* para. 7.368.
[202] *Id.* para. 7.607.
[203] US – Certain Country of Origin Labelling (COOL) Requirements: Recourse to Article 21.5 of the DSU by Canada and Mexico, DS384, AB Report, 18 May 2015, para. 5.208.
[204] US – Certain Country of Origin Labelling (COOL) Requirements: Recourse to Article 21.5 of the DSU by Canada and Mexico, DS384, AB Report, 18 May 2015, at fn 643.
[205] EC – Trade Description of Sardines, DS231, AB Report, 26 Sept. 2002, paras 309-311.

The grounds of justification under GATT have been listed in Article XX. For example, measures necessary for the protection of either public morals or the protection of human, animal or plant life or health can be justified. Similarly, measures relating to the conservation of exhaustible natural resources can be justifiable. The objective of conservation of natural resources may be relied on only if the measure is made effective in conjunction with restrictions on domestic production or consumption. In this book de facto discriminatory PPM-criteria are assumed to be implemented so that they apply to both domestic production and imports. The measures primarily discussed in this book are thus as a rule made effective in conjunction with restrictions on domestic production.

Article 2.2 TBT also refers to the protection of health and environmental protection. In turn, Article 2.1 TBT lacks grounds of justifications. However, the Appellate Body has integrated the consideration of legitimate objectives in the test for less favourable treatment.[206] While this to some degree changes the dynamics of the specific tests, it should not alter the justification function of legitimate objectives.[207]

What is then the relationship between, on the one hand, the protection of health as a legitimate objective and, on the other hand, the objective of protecting the environment in general and the objective of protecting against pollution from the energy sector in particular? It could be argued that the pollution from energy production is so severe that it poses a risk for the health of humans, animals and plants at least in the long-term. Yet, it ought to also be taken into consideration that the grounds of justification are exemptions and should be interpreted narrowly.[208]

The WTO Appellate Body has stated that the interpretation of grounds of justification needs to be evolutionary, meaning that the text of the exemptions need to be read with contemporary values and concerns in mind.[209] The knowledge of the serious threats of

[206] US – Measures Affecting the Production and Sale of Clove Cigarettes, DS406, AB Report, 4 April 2012, paras 95-101, 173.
[207] EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, AB Report, 22 May 2014, paras 5.117-127.
[208] Canada – Import Restrictions on Ice Cream and Yoghurt, L/6568, Panel Report 27 Sept. 1989 (adopted), para. 59; US – Restrictions on Imports of Tuna, DS21, Panel Report, 3 Sept. 1991 (US – Tuna, Mexico I) (unadopted) paras 5.22, 5.31-32; US – Restrictions on Imports of Tuna, DS29, Panel Report 16 June 1994 (US – Tuna, EC) (unadopted) para. 5.26; Case 46/76 *W.J.G. Bauhuis v. The Netherlands State* [1977] ECR 5, para 12; Case 113/80 *Commission v. Ireland* [1981] ECR 1625, para. 7.
[209] US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct. 1998, paras 114, 128-130.

climate change on health as a consequence of environmentally unsustainable production has increasingly received international attention. Moreover, a fairly broad reading of the public health exemption is not only supported by the contemporary environmental context, but also by the more general international legal context. Namely, references to sustainable development can be found in the preamble of the WTO Agreement and a long list of other international agreements.[210] Thus, it is hardly surprising that in *US – Gasoline* the panel confirmed not only that environmental protection was a legitimate ground of justification linked to public health protection, but that clean air specifically was also an exhaustible natural resource.[211] Similarly, animals have been found to be exhaustible natural resources.[212] Exhaustible natural resources include both animals and non-living resources, potentially with the qualification that they are depleted faster than they can be recovered.[213]

The EU has gone down a similar path. In accordance with Article 36 TFEU prima facie prohibited measures may be justified on the grounds of, for example, public morality and the health and life of humans, animals and plants. The importance of the environment is in turn referred to in, for example, Articles 3, 11 and 37 TFEU. The ECJ has through its case law introduced so called mandatory requirements, which can serve as grounds of justification on top of those listed in Article 36.[214] The court has confirmed the protection of the environment in general[215] and mitigating climate

[210] UN Sustainable Development, UN Conference on Environment and Development, Rio de Janeiro (1992), Agenda 21 (on links to trade *see* para 2.5); U.N. Conference on Environment and Development, Rio Declaration on Environment and Development, U.N. Doc. A/CONF.151/26 (Vol.1) (Aug. 12, 1992), principle 12; WTO Ministerial Conference, 4th Session, Doha Ministerial Declaration (2001) WT/MIN(01)/DEC/1, para. 51; Marrakesh Agreement Establishing the WTO (1994) preamble, para. 1.
[211] US – Standards for Reformulated and Conventional Gasoline, DS2, Panel Report, 29 Jan. 1996, paras 6.21, 6.36-37; US – Standards for Reformulated and Conventional Gasoline, DS2, AB Report, 29 April 1996, p. 16-17.
[212] US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products (US – Tuna, Mexico II): Recourse to Article 21.5 of the DSU by Mexico, DS381, Panel Report, 14 April 2015, para. 7.521.
[213] *See* US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct. 1998, paras 127-134. Including the conservation of natural resources that are depleted fast as a ground of justification reflects a similar idea as the promotion of renewables. Namely, renewables can be defined as energy that can be obtained so that the resource is renewed at least at the same rate that it is replenished. *See* Jared Wiesner, 'A Grassroots Vehicle for Sustainable Energy: The Conservation Reserve Program & Renewable Energy' (2007) 31 William & Mary Environmental Law & Policy Rev. 571, 572.
[214] Case 120/78 *Rewe-Zentral AG v. Bundesmonopolverwaltung für Branntwein (Cassis de Dijon)* [1979] ECR 649, paras 8-10.
[215] Case 240/83 *Procureur de la Republique v. Association de defense des bruleurs d'huiles usages (ADBHU)* [1985] ECR 531, para. 15; Case 302/86 *Commission v. Denmark* (Danish Bottles) [1988] ECR 4607, paras 6-9.

change in particular[216] as mandatory requirements. In addition, the protection of biodiversity[217] and the promotion of renewable energy[218] are of such an importance for the environment that they may be considered as also enforcing the protection of health.

In the U.S., the doctrine of prima facie prohibited measures has entirely been developed by the courts and the same is consequently true for grounds of justification. The Supreme Court has confirmed that prima facie prohibited measures may be justified in case they serve a legitimate goal.[219] There can be little doubt that protection of health and safety are legitimate local goals.[220] The protection of the environment is related to these two goals, and is a valid ground of justification.[221] Hence, the mitigation of climate change and the protection against air pollution would also form legitimate goals under the U.S. dormant Commerce Clause.[222] Similarly to WTO law, the U.S. Supreme Court has even recognized the conservation of natural resources as another legitimate objective.[223]

All in all, the regimes also share a similar prohibition – justification syntax.[224] It is thus not difficult to concur with previous research that the U.S. dormant Commerce Clause doctrine is comparable to both WTO law and EU free movement law.[225]

The justification of discriminatory effects with reference to objectives such as public health or environmental protection has by Barrett Lydgate been regarded as an ethical

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[216] Joined cases C-204/12 to 208/12 *Essent Belgium NV v. Vlaamse Reguleringsinstantie voor de Elektriciteits - en Gasmarkt*, ECLI:EU:C:2014:2192, para. 91.
[217] Case C-67/97 *Criminal Proceedings against Ditlev Bluhme* [1998] ECR I-8033, para. 33; Case C-100/08 *Commission v. Belgium* [2009] ECR I-140, para. 93.
[218] Case C-379/98 *PreussenElektra AG v. Schhleswag AG* [2001] ECR I-2099, Opinion of AG Jacobs, paras 229-238; Case C-379/98 P*reussenElektra AG v. Schhleswag AG* [2001] ECR I-2099, para. 75; Case C-492/14 *Essent Belgium NV v. Vlaams Gewest and Others*, ECLI:EU:C:2016:732, para. 101.
[219] Hunt v. Washington State Apple Advertising Commission, 432 U.S. 333 (1977).
[220] Maine v. Taylor, 477 U.S. 131, 140-151 (1986); Dean Milk Co. v. City of Madison, Wisconsin, 340 U.S. 349, 354 (1951).
[221] C&A Carbone, Inc. v. Town of Clarkstown, New York, 511 U.S. 383 (1994); Fort Gratiot Sanitary Landfill, Inc. v. Michigan Department of Natural Resources, 504 U.S. 353 (1992); Oregon Waste Systems, Inc. v. Department of Environmental Quality of Oregon, 511 U.S. 93 (1994); Chemical Waste Management, Inc. v. Hunt, 504 U.S. 334 (1992); Hughes v. Oklahoma, 441 U.S. 322 (1979); Maine v. Taylor, 477 U.S. 131 (1986).
[222] New Energy Co. v. Limbach, 486 U.S. 269, 279 (1988); North Carolina ex red. Cooper v. Tennessee Valley Authority, 593 F. Supp. 2d 812, 821-823 (W.D.N.C. 2009). *See* also Daniel A. Farber, 'Climate Change, Federalism, and the Constitution' (2008) 50 Arizona L. Rev. 879, 923.
[223] Maine v. Taylor, 477 U.S. 131, 140-151 (1986); Minnesota v. Clover Leaf Creamery Co., 449 U.S. 456, 471-473 (1981).
[224] Harri Kalimo, *E-Cycling – Linking Trade and Environmental Law in the EC and the U.S.* (Transnational Publishers 2006) 40-49.
[225] Daniel A. Farber, 'Environmental Federalism in a Global Economy' (1997) 83 Virginia L. Rev. 1283, 1300.

defence against the risks of free trade.[226] In this study the grounds of justification are, however, considered from the viewpoint of the legitimacy to adopt measures that limit externalities. For example, measures to reduce pollution may tackle externalities and thus advance the protection of public health and of the environment. As will be discussed in this book, even the protection of public morals may be linked to externalities. Measures that reduce externalities promote efficiency and shall at least for that reason be justifiable.

1.4. Trade Law and the Energy Transition

1.4.1. State Action for Sustainable Energy

In the previous sections of this chapter recent trends in energy regulation and the fundamentals of trade law were laid out. In this fourth and final section the issues dealt with in the preceding sections will be brought together. Measures within the diverse range of emerging strategies to tackle climate change and promote the transition of the energy sector represent new forms of intervention in the market and may conflict with the objectives of free trade. This section will include a general description of a set of cases in which measures promoting renewable energy have been challenged with reference to trade law.

The mapping of recent case law and out-of-court disputes will be valuable for multiple reasons. First, it will illustrate the concrete circumstances where renewable energy regulation may test the limits of trade law. Secondly, it will reveal to what extent cases under EU, U.S. and WTO law may be similar or different. Thirdly, it will confirm that measures promoting renewable energy form an intriguing case study when examining the challenges that arise in the application of trade law on PPM-rules. Finally, it will expose the gaps that such choice of case study could leave.

1.4.2. The Energy Market and Unionism

Before presenting legal cases in the field of energy, a short introduction to the division of competences in the sector is in order.

An internal market has been created in Europe during the last few decades. In the energy sector this development has, however, lagged behind in comparison to trade in many other goods and services. The task of creating an energy union faces a few challenges.

[226] Emily Barrett Lydgate, 'Sustainable Development in the WTO: From Mutual Supportiveness to Balancing' (2012) 11 World Trade Review 621, 636.

Articles 192 and 194 TFEU require unanimity for the EU to legislate on measures that *significantly* affect the energy mix of each state. This seriously restricts EU competence in the energy sector. The EU is not yet a fully harmonized and united energy union despite some aspirations to make it one. Instead, the fragmented European internal energy market is an unfinished product of economic integration.

In 2009 the EU managed to adopt the Renewable Energy Directive (RED) in order to achieve 20 % energy consumption from renewables by 2020.[227] The EU has in years after that put a lot of emphasis on creating an energy union and completing the internal energy market.[228] The new Renewable Energy Directive that is planned to enter into force in 2021 (RED 2) establishes a binding target of 32 % for energy consumed in the EU to come from renewables by 2030.[229] Member States will have separate individual targets in order to collectively reach the union target. Each Member States will also under the directive separately commit to increase the share of renewables in the heating and cooling sector by a given annual share[230] and to reach 14 % renewables in the transport sector by 2030.[231] In order to achieve their target for the transport sector Member States must set quota requirements for fuel suppliers. The target for the transport sector may be reached for example with electricity from renewables or with sustainable biofuel and biogas.[232] As the 2009 RED, also the new RED 2 will include sustainability criteria for transport biofuels.[233] The sustainability criteria have been fully harmonized, which is evidence of the ambition, and also already the partial success, of the EU to create an energy union.

The responsibility to implement the EU energy strategy still lies with the Member States. The Member States have put in place schemes to support renewables but have also included provisions that limit the access to the national support to domestically

[227] Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, OJ L 140, 5.6.2009, 16.
[228] Commission Communication, A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy, COM (2015) 80 final.
[229] Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82, Article 3.
[230] *Id.* Art. 23.
[231] *Id.* Art. 25(1). The 14 % target can be fulfilled by relying on renewables in any part of the transport sector. In reality the share will be somewhat lower because non-renewables used for transport other than by road or rail are not accounted for.
[232] The contribution from electricity in road vehicles is counted four times its actual energy content. *Id.* Art. 27(2).
[233] *Id.* Art 29.

generated energy. These limitations to electricity support schemes have been declared legal by the ECJ because of fears that the objectives related to environmental sustainability could otherwise not be achieved.[234] Such provisions will at the same time, however, create fragmentation on the internal energy market and run counter to the stated objective of completing the energy union.[235]

In the U.S., although state energy markets differ quite significantly, constitutional unionism (federalism) has allowed the federal government to adopt some legislation that has laid the foundation for an energy union. For example, under the Federal Power Act it is the Federal Energy Regulatory Commission (FERC) that has exclusive power to regulate wholesale prices and to regulate interstate power sales and transmission.[236] Renewables are promoted under the Public Utilities Regulatory Policies Act[237] and interstate compacts are prohibited, generally forcing states to cooperate on a federal level.[238]

U.S. federalism and EU economic integration are somewhat different tracks for shaping an energy union. Yet, they both represent the idea of a union based on certain common values. On the global arena, such common values are naturally harder to identify. Consequently, WTO law may need to show flexibility and tolerance for divergence in its value reconciliation tests.

1.4.3. De Jure Discriminatory PPM-Criteria in the Electricity Sector

1.4.3.1. Developments in WTO Litigation

At the heart of the U.S., EU and the WTO trade regimes is the elimination of trade barriers, primarily discriminatory government measures. The objective of these efforts

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[234] *See* Case C-379/98 *PreussenElektra AG v. Schhleswag AG* [2001] ECR I-2099; Joined cases C-204/12 to C-208/12 *Essent Belgium NV v. Vlaamse Reguleringsinstantie voor de Elektriciteits- en Gasmarkt*, ECLI:EU:C:2014:2192; Case C-573/12 *Ålands Vindkraft AB v. Energimyndigheten*, ECLI:EU:C:2014:2037.

[235] On this objective *see* Commission Communication, A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy, COM (2015) 80 final.

[236] 16 U.S.C. § 824. *See* also Connecticut Light & Power Co. v Federal Power Commission, 324 U.S. 515 (1945); Jersey Central Power & Light Co. v. Federal Power Commission, 319 U.S. 61 (1943); Federal Power Commission v. Southern California Edison Co., 376 US 205 (1964); United States v. Public Utilities Commission of California, 345 U.S. 295 (1953); Florida Power & Light Co., 404 US (1972); Nantahala Power & Light Co., 476 U.S. 953 (1986); Mississippi Power & Light Co., v. Mississippi Ex. Rel. Moore, 487 U.S. 354 (1988); Northern Natural Gas Co. v. Kansas Corporation Commission, 372 U.S. 84 (1963).

[237] 16 U.S.C. § 2601 et seq; 16 U.S.C. § 824a-3(a). *See* also Steven Ferrey, 'Sustainable Energy, Environmental Policy, and States' Rights: Discerning the Energy Future Through the Eye of the Dormant Commerce Clause' (2004) 12 N.Y.U. Environmental L. J. 507, 618-627.

[238] U.S. Constitution, Article I, Section 10. *See* also Virginia v. Tennessee, 148 U.S. 503, 519 (1893).

is to improve the opportunities to create competitive advantages and consequently increase efficiency on the common market.

The design of incentive programs for renewables, such as feed-in-tariffs (FITs) or renewable energy portfolios (RPSs), are aimed at promoting sustainability but may simultaneously run the risk of conflicting with the ideals of free trade. This is particularly the case when there is some pressure to design the programs so as to explicitly favour the domestic renewables sector. There may be several reasons for such design, as for example national political pressure to create local jobs.

It is not uncommon that in-state and out-of-state electricity are treated differently. Sometimes such decisions may even be rooted in union level legislation. For example, under the new EU Renewable Energy Directive (RED 2) joint projects may be initiated between Member States and third countries. Under such projects electricity generated outside the EU but consumed inside the Member State will still not account toward the renewable energy target if the plant became operational before the summer of 2009 or in case the state where production takes place is not a signatory of human rights treaties.[239]

Cases on national measures that place stricter requirements on electricity generated out-of-state have so far not emerged under WTO law. There have not been any cases on the compatibility with GATT of PPM-criteria applicable in the electricity sector. The focus has not been on criteria on sustainable and domestic production, but instead on local content provisions, in which the de jure discriminatory element relates to the equipment utilized in generating electricity.[240] For example, Ontario in Canada had adopted a FIT under which benefits were only granted if a certain minimum of the equipment utilized in generating electricity was of local origin. In *Canada – Renewables* WTO dispute settlement bodies rejected this form of legislation as unjustifiable discrimination.[241] In

[239] Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82, Article 11(2).
[240] For more on local content provisions under WTO law *see* Thomas, Cottier 'Renewable Energy and WTO Law: More Policy Space or Enhanced Disciplines?' (2014) 5 Renewable Energy Law and Policy Rev. 40, 44-45.
[241] Canada – Certain Measures Affecting the Renewable Energy Generation Sector, DS412 and Canada - Measures Relating to the Feed-In Tariff Program, DS426, AB Report, 6 May 2013. *See* also India – Certain Measures Relating to Solar Cells and Solar Modules, DS456, AB Report, 16 Sept. 2016; European Union and certain Member States – Certain Measures Affecting the Renewable Energy Generation Sector, DS452, Request for consultations by China, 5 Nov. 2012; US – Certain Measures Relating to the Renewable Energy Sector, DS510, Request for consultations by India, 9 Sept. 2016 (Panel

many of this type of cases, the measure will be less discriminatory simply by removing the de jure discriminatory element, without endangering the objective to, for example, protect the environment. An out-of-state product with environmental friendly characteristics or produced with environmentally sustainable PPMs will presumably benefit the environment much in the same manner as any identical in-state competing product.

The lack of litigation on provisions favouring in-state generated power is likely at least in part a reflection of the modest levels of cross-border trade due to the limited transimission capacity. Moreover, there may exist justifications for discrimination in the power sector. The litigation on the potential grounds of justification that has already taken place in the context of EU law is laid out below.

1.4.3.2. Valid Grounds for De Jure Discrimination in the EU

In the EU, de jure discrimination has in practice rarely been found justifiable. In this respect, the situation is similar to that under WTO law and the U.S. dormant Commerce Clause. The electricity sector has, however, provided for some exceptions. Perhaps somewhat surprisingly, in examining renewable energy schemes with requirements of the electricity being generated in-state, valid grounds of justifications have been identified by the ECJ.

EU Member States have put in place schemes that support renewables but also commonly include provisions that limit the access of this support to energy generated domestically. For example, in *PreussenElektra*[242] the ECJ was presented with a case concerning the German system of feed-in-tariffs (FITs). According to German law, an energy supplier had to buy all renewable energy produced in the region of establishment for a fixed price. A supplier could get a partial reimbursement in case the renewable energy purchased exceeded five per cent of the total energy supply of that supplier. *PreussenElektra* claimed to have an interest in buying more affordable renewable energy from abroad and objected to the obligation of buying a large share of domestic energy on the grounds that this obligation reduced its capacity to import.

composed on 24 April 2018); US – Certain Measures Relating to Renewable Energy, DS563, Request for consultations by China, 14 Aug. 2018.

[242] Case C-379/98 *PreussenElektra AG v. Schhleswag AG* [2001] ECR I-2099.

At the turn of the century the ECJ analyzed the proportionality of the de jure discriminatory FIT in *PreussenElektra* and decided that in the current state of EU energy law, discrimination could be justified. Indicating that the situation could change with legislative reforms, the court controversially stated that it still in the late 90s could be too difficult for national administrations to confirm whether or not the electricity provided for by a foreign producer had been generated from renewable resources.[243]

The facts in two more recent cases have been similar to those in *PreussenElektra*. *Essent Belgium*[244] concerned the Renewable Portfolio Standard (RPS) implemented in Belgium. Belgian suppliers of energy all have to buy a number of 'green certificates' (RECs) from producers of renewable energy in order to fill a quota that is dependent on total supply volumes. Although the option is in theory not fully excluded by the national law, Belgian authorities had never accepted foreign RECs, nor awarded RECs to imports. *Ålands Vindkraft* was a similar case. It related to the Swedish system, where suppliers also have to buy green certificates (RECs). The system was, however, not contested by any Swedish energy supplier. The plaintiff was instead *Ålands Vindkraft*, a Finnish company producing wind power. It had asked the authorities of Sweden to award Swedish RECs for the power it supplied to the Swedish network but the request had been denied.[245]

In his opinion to *Ålands Vindkraft* Advocate General Bot reached the conclusion that differential treatment of imported electricity was no longer justifiable and that the Renewable Energy Directive should be considered invalid to the extent that it granted Member States the right to discriminate in that regard.[246] If this conclusion had also been adopted by the court, it would have meant the end of de jure discriminatory schemes. Assuming states would have repealed the requirement of in-state generation instead of cancelling their schemes completely, companies would have been presented with the opportunity to relocate their plants from one state to another without losing

[243] Case C-379/98 *PreussenElektra AG v. Schhleswag AG* [2001] ECR I-2099, paras 78-80. For criticism *see* Henrik Bjørnebye, *Investing in EU Energy Security – Exploring the Regulatory Approach to Tomorrow's Electricity Production* (Wolters Kluwer 2010) 108. Oddly, the ECJ had earlier appeared to indicate that it in fact could be possible to verify the PPM of electricity. *See* Case C-213/96 *Outokumpu Oy* [1998] ECR I-1777, para. 37-39.
[244] Joined cases C-204/12 to C-208/12 *Essent Belgium NV v. Vlaamse Reguleringsinstantie voor de Elektriciteits- en Gasmarkt*, ECLI:EU:C:2014:2192.
[245] Case C-573/12 *Ålands Vindkraft AB v. Energimyndigheten*, ECLI:EU:C:2014:2037.
[246] Case C-573/12 *Ålands Vindkraft AB v. Energimyndigheten*, Opinion of AG Bot, ECLI:EU:C:2014:37, paras 110-111.

any of the benefits available under the schemes. Renewable energy plants may have primarily been established in areas where production would be most efficient.[247] While this would have some positive effects, it is worthy of note that it would also have meant that in some states there would be less renewables and less diversification with respect to the energy mix.

The ECJ did in *Ålands Vindkraft* and *Essent Belgium* not follow the opinion of Advocate General Bot. Instead, the court took the same approach as in *PreussenElektra* and upheld the de jure discriminatory schemes. Would there then have been any reason for the court to divert from its precedent in *PreussenElektra*? Perhaps. After *PreussenElektra* a directive on renewable energy had been enacted. Articles 15 (9) and 15 (10) RED[248] provide that all Member States shall issue guarantees of origin (GOs) for electricity generated from renewable resources. The GOs shall be mutually recognized. Admittedly, the 2009 directive clearly distinguished between GOs and RECs.[249] Under the proposed new Renewables Energy Directive (RED 2) GOs would even have to be issued for all renewable energy.[250] Even if the distinction between GOs and RECs is not as explicit in the proposal for RED 2, the GO is still only intended to verify for the consumer that the electricity was generated from renewables. RECs are green certificates that can be used to claim benefits under support schemes.

Advocate General Bot had in his opinion in *Essent Belgium* argued that it is possible to verify the source of imported electricity and that that the argument relied on in *PreussenElektra* should therefore no longer be relevant.[251] The available GOs should normally provide the information necessary to conclude whether or not the electricity that was generated would fulfill the requirements for receiving RECs or gain any other

[247] Dörte Fouquet and Angela Guarrata, 'Judgment of 1st July 2014 in Ålands Vindkraft AB v Energimyndigheten, Comments on Case C-573/12' (2014) 5 Renewable Energy Law and Policy Rev. 52, 57.
[248] Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, OJ L 140, 5.6.2009, 16.
[249] Recital 52, Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, OJ L 140, 5.6.2009, 16.
[250] Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82, Article 19. It was under the original RED not compulsory to issue these guarantees of origin for heating and cooling produced from renewable sources. Those forms of energy are, however, not frequently subject to international trade due to difficulties of transfer.
[251] Joined cases C-204/12 to C-208/12 *Essent Belgium NV v Vlaamse Reguleringsinstantie voor de Elektriciteits- en Gasmarkt*, Opinion of AG Bot, ECLI:EU:C:2013:294, paras 102-103.

benefit for that matter.[252] The ECJ noted in *Ålands Vindkraft* that the reasoning in *PreussenElektra* was outdated.[253] Still, it did not agree with the AG and proclaimed that the origin of electricity is still too difficult to verify on the European market.[254] This left the impression that not much had changed with regards to legal argumentation from the time of *PreussenElektra* to *Ålands Vindkraft*.[255] Interestingly, a few months later in *Essent Belgium* it did not bring up that same argument. In both cases the ECJ still upheld the de jure discriminatory provisions of the national schemes.

The question of verification difficulties was also touched upon in the *E.ON Biofor* case. The company had imported biogas from Germany to Sweden through gas networks. In Sweden the carbon tax on biogas was relatively low. However, the Swedish authorities refused to grant the imported gas the status of biogas on the ground that it was too difficult to verify that the same amount of gas that was taken out of the cross-border network in Sweden as German biogas, had in fact gone into the network in Germany as biogas. In contrast, biogas that was put into the gas network in Sweden was granted carbon tax reliefs. The ECJ concluded that Sweden had failed to explain why it was more difficult to verify the origin of the gas when it had been unloaded on the network in another Member State. In the view of the court, it should not be impossible to verify that the same amount of biogas is unloaded on and extracted from the network.[256]

With the weakening or perhaps even rejection of the argument of verification difficulties in the energy sector a second argument might have been more vital for the outcome in *Ålands Vindkraft* and *Essent Belgium*. An argument for de jure discrimination presented in the judgments of 2014 was that Member State would otherwise not have control of the effects and costs of the programs.[257] The court in *Essent Belgium* emphasized that the proper functioning of the national support scheme and the demand for RECs had to be guaranteed.[258] The court seemed to imply that

[252] *See* also Angus Johnston et al., 'The Proposed New EU Renewables Directive: Interpretation, Problems and Prospects' (2008) 17 European Energy and Environmental Law Rev. 126, 136.
[253] Case C-573/12 *Ålands Vindkraft AB v. Energimyndigheten*, ECLI:EU:C:2014:2037, paras 84-86.
[254] *Id.*, paras 87-88.
[255] Sirja-Leena Penttinen, 'Ålands Vindkraft AB v Energimyndigheten – The Free Movement Law Perspective' (2015) 13 Oil, Gas & Energy Law Intelligence 11, 20.
[256] Case C-549/15 *E.ON Biofor Sverige AB v. Statens energimyndighet*, ECLI:EU:C:2017:490, paras 90-98.
[257] Case C-573/12 *Ålands Vindkraft AB v. Energimyndigheten*, ECLI:EU:C:2014:2037, paras 99, 103; Joined cases C-204/12 to C-208/12 *Essent Belgium NV v. Vlaamse Reguleringsinstantie voor de Elektriciteits- en Gasmarkt*, ECLI:EU:C:2014:2192, para. 102.
[258] Joined cases C-204/12 to C-208/12 *Essent Belgium NV v. Vlaamse Reguleringsinstantie voor de Elektriciteits- en Gasmarkt*, ECLI:EU:C:2014:2192, paras 101, 109.

without de jure discrimination the burden on some states would become too high, other states might free ride and in the end the stability of the renewable support systems would be endangered.[259]

A potential economic consequence of non-discriminatory support schemes would be that those generating electricity from renewable resources would start to search for the most beneficial national support schemes and offer their clean energy to those countries.[260] This would allow the economic and environmental benefits to leak out-of-state.[261]

The risk of free riding could endanger system stability. A non-discriminatory RPS may in a worst case scenario result in no new incentives for clean PPMs. Namely, granting RECs to out-of-state renewable energy projects would allow the quantity of RECs to increase drastically.[262] The influx of requests for RECs would especially originate from generating facilities in states that would not have any RPS system or would have very low quotas. From an environmental perspective this may be problematic because even if states would not be justified in prioritizing their own environment, the non-discriminatory RPS would invite generating facilities in states with no or low quotas to request RECs for their renewable energy, and the quota of the importing state would be saturated without there having been any increase in renewable energy globally.[263] The increase in RECs would drive prices down and retailers could fulfill their quota easily by buying cheaper dirty energy and separately very cheap RECs. Consequently, the environmental benefits of the RPS would be more or less nullified. Through

[259] Already hinting toward this *see* Armin Steinbach and Robert Brückmann, 'Renewable Energy and the Free Movement of Goods' (2015) 27 Journal of Environmental Law 1, 14.
[260] Proposal for a Directive of the European Parliament and of the Council on the promotion of electricity from renewable energy sources in the internal electricity market, COM (2000) 279 final, 6; Angus Johnston et al., 'The Proposed New EU Renewables Directive: Interpretation, Problems and Prospects' (2008) 17 European Energy and Environmental Law Rev. 126, 137; Angus Johnston and Guy Block, *EU Energy Law* 350 (OUP 2012).
[261] Kirsten H. Engel, 'The Dormant Commerce Clause Threat to Market-Based Environmental Regulation: The Case of Electricity Deregulation' (1999) 26 Ecology L. Q. 243, 246-250, 270-271; Anne Havemann, 'Surviving the Commerce Clause: How Maryland Can Square Its Renewable Energy Laws with the Federal Constitution' (2012) 71 Maryland L. Rev 848-885, 872; Patrick R. Jacobi, Note, 'Renewable Portfolio Standard Generator Applicability Requirements: How States Can Stop Worrying and Learn to Love the Dormant Commerce Clause' (2006) 30 Vermont L. Rev. 1079, 1095-1096.
[262] The surplus of RECs is already currently a problem. *See* Joel H. Mack et al., 'All RECs are Local: How In-State Generation Requirements Adversely Affect Development of a Robust REC Market' (2011) 4 The Electricity Journal 8, 17.
[263] Max Jansson, 'Free Movement of Electricity and the Revival of System Stability Justifications' (2017) 18 German Law Journal 595, 611-613.

discrimination the state may avoid free riding and the outcome might in that sense secure efficectiveness.[264]

Pure economic concerns cannot form valid grounds of justification. The system stability concern relating to schemes for promoting renewable energy does not appear to have been considered to constitute a pure economic concern but was perhaps viewed more as a structural question related to environmental protection.

Could the reasoning by the ECJ in *Ålands Vindkraft* and *Essent Belgium* apply equally to other forms of schemes, such as FITs? In both judgments the court emphasized that the RPS under scrutiny could only function properly in case there are market mechanisms ensuring that green certificates are available under fair terms for those subject to any quota obligations. In addition, any penalties for failing to fulfil their quota must be proportional.[265] Van Calster has interpreted the court to have set out the existence of market mechanisms as a requirement for any de jure discriminatory renewable energy scheme to survive the proportionality review. He notes that FITs would not meet such requirement.[266] However, the intention of the court might merely have been to state that well-functioning market mechanisms for trade in certificates are necessary for a RPS as the environmental objective would otherwise not be advanced. The court might in other words not have passed any judgments on the requirements that would apply to other types of schemes, such as FITs.

Szydzło has assumed that the reasoning of the ECJ in *Ålands Vindkraft* and *Essent Belgium* would apply equally to other forms of schemes, such as FITs.[267] There are good reasons for such an assumption. RPSs are schemes that rely on quota obligations and do not involve direct government spending. In contrast, FITs and grant programs rely on the public authorities offering direct financial support. An EU Member State might be concerned that too many applications come in and threaten financial stability. Still, as an alternative to de jure discrimination, the state could opt to limit the number of annually accepted applications. Capping FITs or subsidies will, however, create

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[264] *Ibid*.
[265] Case C-573/12 *Ålands Vindkraft AB v. Energimyndigheten*, ECLI:EU:C:2014:2037, paras 113-118; Joined cases C-204/12 to C-208/12 *Essent Belgium NV v. Vlaamse Reguleringsinstantie voor de Elektriciteits- en Gasmarkt*, ECLI:EU:C:2014:2192, paras 111-115.
[266] Geert, Van Calster, 'Climate Change and Renewable Energy as a Super Trump for EU Trade Law – However all Essent clear' (2014) 5 Renewable Energy Law and Policy Rev. 60, 64-65.
[267] Marek Szydło, 'How to reconcile national support for renewable energy with internal market obligations? The task for the EU legislature after *Ålands Vindkraft* and *Essent*' (2015) Common Market Law Rev. 489, 497.

some uncertainty as the producers cannot know when funds will run out.[268] In addition, states that implement programs to promote renewables may see their investment in clean and sustainable PPMs leak to other states. This will in turn discourage states from implementing such programs to protect the environment in the first place.[269] Supporting the relevance of these aspects is the fact that in *Ålands Vindkraft* and *Essent Belgium* the ECJ added that even for a RPS the elimination of the in-state requirement would risk resulting in reduced investor confidence.[270]

The proposed new Renewable Energy Directive (RED 2) reflects the case law developments. The Commission proposal included provisions that would have required Member States to gradually open up their renewable support schemes in the electricity sector to electricity generated in other Member States.[271] However, the final compromise text of the new directive puts more emphasis on the concerns of system stability and only encourages Member States to accept imported electricity for their support schemes. The Commission shall by 2023 reassess whether opening up the national schemes for imported electricity should be made obligatory.[272]

In 2016 the ECJ ruled on yet another case of preferences awarded to electricity from renewable resources generated in-state. The Belgian law under scrutiny in *Essent Belgium II* allowed electricity from renewable resources that was fed directly into the in-state distribution network to be distributed free of charge. Similar benefits were not granted for imported electricity. Unlike FITs and RPSs this scheme awarded benefits to suppliers and therefore did not provide direct and certain benefits to renewable energy producers. Therefore, the ECJ found the measure to be disproportional and unjustifiable.[273]

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[268] Max Jansson, 'Free Movement of Electricity and the Revival of System Stability Justifications' (2017) 18 German Law Journal 595, 613-614.
[269] Kirsten H. Engel, 'The Dormant Commerce Clause Threat to Market-Based Environmental Regulation: The Case of Electricity Deregulation' (1999) 26 Ecology Law Quarterly 243, 270.
[270] Case C-573/12 *Ålands Vindkraft AB v. Energimyndigheten*, ECLI:EU:C:2014:2037, paras 99, 103; Joined cases C-204/12 to C-208/12 *Essent Belgium NV v. Vlaamse Reguleringsinstantie voor de Elektriciteits- en Gasmarkt*, ECLI:EU:C:2014:2192, para. 102.
[271] Article 5 and recital 17, European Commission, Proposal for a Directive of the European Parliament and of the Council on the promotion of the use of energy from renewable sources (recast), COM(2016) 767 final.
[272] Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82, Article 5 as well as recitals 22-23.
[273] Case C-492/14 *Essent Belgium NV v. Vlaams Gewest and Others*, ECLI:EU:C:2016:732, paras 111-117.

The ECJ cases discussed in this subsection related to de jure discriminatory elements in schemes to promote renewable energy and sustainable PPMs. The energy union has not unlocked its true potential in part because de jure discrimination has been found to be justifiable in the electricicty sector. It is still important that in developing strategies with respect to promoting renewable energy, the EU and its Member States take into consideration the building blocks already laid out in EU free movement law. What is more, the EU can – perhaps even should – learn from experiences in the U.S discussed below.

1.4.3.3. Scepticism Toward Explicit Preference to In-State Origin in the U.S.

De jure discrimination occurs when importers of power from out-of-state plants are denied RECs by the authority in the importing state. Not accepting out-of-state power when granting renewable energy credits would clearly create less favorable treatment of imports. This is not the same as not accepting out-of-state RECs for the in-state RPS. Renewable energy credits (RECs) in different jurisdictions may represent very different attributes and are therefore not like products. There could hence be an obligation to grant foreign power RECs while there would be no obligation to accept foreign RECs.

The case of in-state requirements for RECs has received attention in the context of the dormant Commerce Clause. In the U.S. a debate has emerged as to whether or not various in-state requirements in a RPS are disproportionate.[274] American scholars have generally regarded in-state requirements to breach the dormant Commerce Clause[275]

[274] Nathan Endrud, 'State Renewable Portfolio Standards: Their Continued Validity and Relevance in Light of the Dormant Commerce Clause, the Supremacy Clause, and Possible Federal Legislation' (2008) 45 Harvard Journal on Legislation 259, 271-273; Patrick R. Jacobi, Note, 'Renewable Portfolio Standard Generator Applicability Requirements: How States Can Stop Worrying and Learn to Love the Dormant Commerce Clause' (2006) 30 Vermont L. Rev. 1079, 1128-34; Carolyn Elefant and Edward A. Holt, 'The Commerce Clause and Implications for State Renewable Portfolio Standard Programs' (2011) CleanEnergy States Alliance: State RPS Policy Report 4, 12; Anne Havemann, 'Surviving the Commerce Clause: How Maryland Can Square Its Renewable Energy Laws with the Federal Constitution' (2012) 71 Maryland L. Rev. 848, 884; Steven Ferrey, 'Renewable Orphans: Adopting Legal Renewable Standards at the State Level' (2006) 19 The Electricity Journal 52, 59-60; Trevor D. Stiles, 'Renewable Resources and the Dormant Commerce Clause' (2009) 4 Environmental and Energy Law and Policy Journal 34, 65. *Compare* with Daniel K. Lee and Timothy P. Duane, 'Putting the Dormant Commerce Clause Back to Sleep: Adapting the Doctrine to Support State Renewable Portfolio Standards' (2013) 43 Environmental Law 295, 333-334.

[275] Trevor D. Stiles, 'Renewable Resources and the Dormant Commerce Clause' 4 Environmental and Energy Law and Policy Journal 34, 64 (2009); Carolyn Elefant and Edward A. Holt, 'The Commerce Clause and Implications for State Renewable Portfolio Standard Programs' (2011) CleanEnergy States Alliance: State RPS Policy Report 4-15; Kirsten H. Engel, 'The Dormant Commerce Clause Threat to Market-Based Environmental Regulation: The Case of Electricity Deregulation' (1999) 26 Ecology Law Quarterly 243, 272-274; Steven Ferrey, 'Sustainable Energy, Environmental Policy, and States' Rights: Discerning the Energy Future Through the Eye of the Dormant Commerce Clause' (2004) 12 N. Y. U. Environmental L. J. 507, 583 and 642; Nathan Endrud, 'State Renewable Portfolio Standards: Their

and when the laws have been challenged states have so far quickly repealed the de jure discriminatory provision.[276] U.S. courts have thus often not had a chance to evaluate whether or not the arguments that the ECJ concluded to justify in-state requirements under EU law could also be given weight in the application of the dormant Commerce Clause. The U.S. Court of Appeals for the Seventh Circuit has on one occasion hinted that the in-state requirement would not be upheld even if that question was not specifically at stake in the case.[277]

Some American scholars have noted that by accepting only electricity generated in-state free riding may be avoided and the outcome might in that sense secure efficiency.[278] However, for this objective all out-of-state electricity would not necessarily need to be excluded from the RPS. The alternative to an absolute in-state generation requirement would be requirements placed on the out-of-state generating facility. Such provision could take the form of a requirement of grid interconnection with or delivery of electricity to the state where the support, for example in the form of RECs, is granted.[279] In an even stricter model the requirement for support would be that the electricity is consumed in the state granting the support. Although these alternatives would increase the administrative burden,[280] they would allow more competition than

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Continued Validity and Relevance in Light of the Dormant Commerce Clause, the Supremacy Clause, and Possible Federal Legislation' (2008) 45 Harvard Journal on Legislation' (2008) 259, 270; Patrick R. Jacobi, Note, 'Renewable Portfolio Standard Generator Applicability Requirements: How States Can Stop Worrying and Learn to Love the Dormant Commerce Clause' (2006) 30 Vermont L. Rev. 1079, 1111-1112.

[276] TransCanada Power Marketing v. Ian Bowles et al., No. 4:10-cv-40070-FDS (complaint April 16, 2010) (D. Mass.) (in-state requirement repealed, case settled); State, ex rel. Missouri Energy Development Association v. Public Service Commission, 386 S.W.3d 165 (Mo. App. Ct. W.D. 2012) (in-state requirement repealed, case dropped); Nichols and FuelCell Energy, Inc., v. Markell, et al, No. 1:12-cv-00777 (D. Del.) (complaint 2012) (in-state requirement repealed, case dropped 2015). *See also* Ohio Supreme Court, In the Matter of the Application of Champaign Wind, LLC, Slip Opinion No. 2016-Ohio-1513 (the court did not find it necessary to rule on the in-state requirement); In the Matter of the Commission's Review of its Rules for the Alternative Energy Portfolio Standard Contained in Chapter 4901:1-40 of the Ohio Code, Case No. 13-652-EL-ORD (Public Utilities Commission of Ohio 2014) (repealing the in-state requirement).

[277] Illinois Commerce Commission v. Federal Energy Regulatory Commission, 721 F.3d 764 (7th Cir. 2013).

[278] Kirsten H. Engel, 'The Dormant Commerce Clause Threat to Market-Based Environmental Regulation: The Case of Electricity Deregulation' (1999) 26 Ecology L. Q. 243, 323-331; Daniel K. Lee and Timothy P. Duane, 'Putting the Dormant Commerce Clause Back to Sleep: Adapting the Doctrine to Support State Renewable Portfolio Standards' (2013) 43 Environmental Law 295, 335.

[279] This type of requiremement is referred to as an option in the new RED 2. *See* Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82, Article 5(2).

[280] Nathan Endrud, 'State Renewable Portfolio Standards: Their Continued Validity and Relevance in Light of the Dormant Commerce Clause, the Supremacy Clause, and Possible Federal Legislation' (2008) 45 Harvard J. on Legislation 259, 272.

a model that shuts out all imports from the support scheme, while still offering a fair amount of stability for the scheme.

Connecticut has adopted a RPS and it grants RECs only to plants that generate electricity that is delivered to Connecticut. Although the model is de facto discriminatory, the U.S. Court of Appeals for the Second Circuit still found the RPS to be justifiable and proportional.[281] This appears in-line with the theory presented above on plausible alternatives to a complete rejection of REC-requests from out-of-state generation. It is unfortunate that these types of alternative models have not received much consideration in the EU.

It is in the context of de facto discrimination that the delicate questions pertaining to the relationship between trade and environment become most evident and it is in this context that PPM-criteria present a true dilemma. This book shall thus not dig deeper into the complexities linked to the justifiability of de jure discrimination. The above debate on that issue will only serve as a background. Instead, the focus will for the rest of the study shift to de facto discrimination.

1.4.4. De Facto Discriminatory PPM-Criteria for Electricity, Heating and Cooling

1.4.4.1. Promoting Renewables and Penalizing Other Energy Sources

The debate on the reconciliation of free trade and environmental protection in the context of the energy sector does not end at explicit preference of in-state goods and projects. Natural resources are distributed unevenly among states. Oil, natural gas and coal can be found in specific geographical regions. States rich in these fossil resources have been able to establish a valuable export industry in times when energy is one of the most fundamental commodities. Fossil fuels are still today often the cheapest option for energy.

The unequal distribution of natural resources means that encouraging the utilization of certain energy sources will advance the economic interests of some regions, while

[281] *Allco Finance v. Klee,* 16-2946, (2d Cir. 2017). The court mentioned two reasons. First, the burden on interstate commerce was not clearly excessive of the benefits. This represented the application of the traditional proportionality test referred to as the Pike balancing test. Secondly, the court noted that more renewable energy out-of-state would not serve the in-state interests relating to security of supply and environmental protection. This second point is more controversial as it would suggest that security of supply could be a valid ground of justification in this context and that states could prioritize their own environment over out-of-state environment. *Cf.* Max Jansson, 'Free Movement of Electricity and the Revival of System Stability Justifications' (2017) 18 German Law Journal 595, 606.

closing market opportunities for others. For example, all fossil fuels are not treated equally. In many developed countries the tax on petroleum is relatively high. In contrast, the tax on gas and coal tends to be much lower. What is more, the tax on gasoline is as a rule significantly higher than the tax on diesel, although diesel could be claimed to be more polluting.[282]

While the different treatment of various fossil fuels has not gained too much attention, the same is not true for recent strategic benefits granted to renewables. The call for an increased share of renewables in the energy mix threatens to substantially distort the traditional patterns of the market. As with fossil fuels, the access to various renewable resources, in order to generate solar power, hydro power, wind power or energy from biomass, is also uneven among states. For example, Austria has a strong hydroelectric industry, whereas Denmark has taken advantage of its windy shorelines and Spain has great solar power potential. In the U.S. the central area from North Dakota to Texas has steady winds, the Midwest dominates in corn supply for ethanol, the Southwest has great solar potential and some states have good access to geothermal energy. At the same time a state like West Virginia does not have such promising potential when it comes to renewables.[283] The preferred resources of a state may, sometimes without any discriminatory intent, be those with great local potential.

Even differential treatment of various renewables could in principle raise concerns of discrimination. In the context of RPS schemes U.S. states have adopted very different definitions of renewable energy.[284] Comparably, in the EU some states have left out large hydropower plants from the scope of renewables that receive beneficial status.[285]

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[282] For a WTO law analysis of differences in taxation of fossil fuels *see* Simonetta Zarrilli, 'Domestic Taxation of Energy Products and Multilateral Trade Rules: Is This a Case of Unlawful Discrimination?' (2003) 37 Journal of World Trade 359.

[283] T. Mai et al., 'Exploration of High-Penetration Renewable Electricity Futures' (2012) 1 Renewable Electricity Futures Study, NREL/TP-6A20-52409-1 (Golden, CO: National Renewable Energy Laboratory).

[284] Steven Ferrey, 'Threading the Constitutional Needle with Care: The Commerce Clause Threat to the New Infrastructure of Renewable Power' (2011-12) 7 Texas J. Oil, Gas and Energy L. 59, 65; Steven Ferrey, 'Follow the Money! Article I and Article VI Constitutional Barriers to Renewable Energy in the U.S. Future' (2012) 17 Virginia J. Law & Technology 89, 97-100. Even within the federal legal framework several definitions exist. *See* Steven Ferrey, 'Sustainable Energy, Environmental Policy, and States' Rights: Discerning the Energy Future Through the Eye of the Dormant Commerce Clause' (2004) 12 N.Y.U. Environmental L. J. 507, 573-577.

[285] Such states include Sweden, the Netherlands and the UK. *See* Danyel Reiche and Mischa Bechberger, 'Policy Differences in the Promotion of Renewable Energies in the EU Member States' (2004) 32 Energy Policy 843, 844; Yong Chen and Francis X. Johnson, 'Sweden: Greening the Power in a Context of Liberalization and Nuclear Ambivalence', in William M. Lafferty and Audun Ruud (eds.), *Promoting Sustainable Electricity in Europe – Challenging the Path Dependence of Dominant Energy Systems*

Other states have a broad definition of renewables, but differentiate between, for example, wind and solar power by implementing different feed-in-tariffs for them or set different quotas for different sources of renewable energy.[286] Some states have in turn decided to promote certain technology more than other technologies by creating carve-outs. A carve-out is a quota obligation for a specific technology, such as e.g. solar power, to be fulfilled by retailers in addition to the general quota for all renewables.[287] De facto discriminatory effects may occur in case states promote to the highest degree those renewables for which it has comparative advantages, for example as a consequence of its geography and weather conditions.

In sum, there are many potential circumstances where claims of de facto discrimination could arise. The next few subsections will briefly map the different cases related to energy that have already emerged. The cases offer a good overview of the type of context in which courts have been and will continue to be expected to reconcile free trade and environmental protection, while at the same time taking into account the particularities of PPM-criteria.

1.4.4.2. U.S. Law and the Power Sector

Legal regimes are formed out of a complex network of norms. Primary law on free trade is in other words not the only set of rules that apply to measures adopted to regulate PPMs. Some measures on PPMs may be prohibited by legal rules outside the scope of trade law. The range of measures that never fall under trade law scrutiny because they are prohibited by other norms vary significantly between the different jurisdictions.

In the U.S. federal and constitutional law shape the relevance of the dormant Commerce Clause for state-level PPM-criteria in the electricity sector. In accordance with Article VI of the U.S. Constitution, federal law covering a field will pre-empt any state legislation. This so called Supremacy Clause has to a large extent hindered states from

(Edward Elgar 2008) 219, 240-242; Maarten J. Arentsen, 'The Netherlands: Muddling Through in the Dutch Delta', in William M. Lafferty and Audun Ruud (eds.), *Promoting Sustainable Electricity in Europe – Challenging the Path Dependence of Dominant Energy Systems* (Edward Elgar 2008) 45, 51.

[286] Catherine Redgwell et al., 'Energy Law in Europe: Comparisons and Conclusions', in Martha Roggenkamp et al. (eds.), *Energy Law in Europe – National, EU and International Law and Institutions* (OUP 2001) 1030.

[287] On e.g. solar carve-outs *see* Steven Ferrey, 'Threading the Constitutional Needle with Care: The Commerce Clause Threat to the New Infrastructure of Renewable Power' (2011-12) 7 Texas J. Oil, Gas and Energy Law (2011-12) 59, 67-68.

adopting FITs. Namely, under the Federal Power Act it is FERC that has exclusive power to regulate wholesale prices and to regulate interstate power sales and transmission.[288] Consequently, establishing a FIT comparable to those implemented in European countries has been regarded to fall into the category of pre-empted state regulation.[289] There are, however, circumstances where states may still adopt FIT-programs and a few states have used this possibility.[290]

Dormant Commerce Clause cases on subsidies are also unlikely to emerge. Namely, subsidies are generally exempted from the scope of the clause.[291] There are, however, certain schemes that might not benefit from the exemption. According to the Supreme Court a tax scheme applicable to the whole sector may not be coupled with a de jure discriminatory subsidy.[292] The scope of the subsidy exemption will be revisited later in this book.[293]

As indicated above, not all subsidy scheme will benefit from the exemption to the dormant Commerce Clause. The ambiguity of the scope of the exemption might be relevant for some schemes in the power sector. For example, several states apply system benefit charges (SBC) on retail sales of power. These charges are generally paid by the retail customer and the proceeds go to a renewable trust fund (RTF) operated by a state authority. The funds are then used to subsidize renewable energy projects. There are states, which grant the subsidies also to out-of-state projects.[294] Normally, however, the subsidies are limited to in-state projects and are thus de jure discriminatory. The SBC and RTF schemes could potentially be prima facie prohibited and would then be

[288] 16 U.S.C. § 824. *See* also Connecticut Light & Power Co. v. Federal Power Commission, 324 U.S. 515 (1945); Jersey Central Power & Light Co. v. Federal Power Commission, 319 U.S. 61 (1943); Federal Power Commission v. Southern California Edison Co., 376 U.S. 205 (1964); United States v. Public Utilities Commission of California, 345 U.S. 295 (1953); Florida Power & Light Co., 404 U.S. (1972); Nantahala Power & Light Co., 476 U.S. 953 (1986); Mississippi Power & Light Co. v. Mississippi Ex. Rel. Moore, 487 U.S. 354 (1988); Northern Natural Gas Co. v. Kansas Corporation Commission, 372 U.S. 84 (1963).
[289] Steven Ferrey, 'Follow the Money! Article I and Article VI Constitutional Barriers to Renewable Energy in the U.S. Future', (2012) 17 Virginia J. Law & Technology 89, 110-120.
[290] U.S. Energy Information Administration, 'Feed-In Tariffs and similar programs' (4 June 2013) <https://www.eia.gov/electricity/policies/provider_programs.php> accessed 16 March 2018.
[291] Hughes v. Alexandria Scrap Corp., 426 U.S. 794, 809 (1976); New Energy Co. v. Limbach, 486 U.S. 269, 278 (1988); West Lynn Creamery, Inc. v. Healy, 512 U.S. 186, 199 (1994).
[292] West Lynn Creamery, Inc. v. Healy, 512 U.S. 186 (1994).
[293] *See* section 2.3.2.1.
[294] Mark Bolinger et al., 'Clean Energy Funds: An Overview of State Support for Renewable Energy' (April 2001) LBNL-7705, 19.

difficult to justify under the strict proportionality review that could apply.[295] This risk has spurred some debate over how the schemes could be redesigned in order to avoid Commerce Clause challenges.[296]

All in all, while FITs and subsidies may be challenged in the U.S., they are not the most likely dormant Commerce Clause cases. Instead, cases in the electricity sector have mostly concerned RPSs. Around half of the states in the U.S. have enacted a RPS to promote electricity from renewable resources. So far, no precedents would indicate that the Supreme Court would apply the same argument related to system stability that the ECJ has reverted to when it has found that even de jure discriminatory schemes are justifiable. Although the relevance of a system stability argument under U.S. law cannot be dismissed with complete certainty, it is worthy of note that some lower courts have opted not to apply, or even discuss, it.

The federal district court in Colorado had to rule on a case where the plaintiff, Energy and Environment Legal Institute (E&E Legal; formerly American Tradition Institute), was an institute representing electricity utilities and a coal company. It had brought a case against the State of Colorado, in which it argued that the state is breaching the Commerce Clause in promoting renewable energy through a RPS program. The institute seemed especially concerned over the competitive advantages created for wind power over fossil resources.[297] The district court adopted in *E&E Legal* the view that state RPSs should not benefit from any exemption and that they may be prima facie prohibited in case they have discriminatory effect. Importantly, the court applied a proportionality review for the RPS without any reference to a system stability

[295] Steven Ferrey, 'Renewable Orphans: Adopting Legal Renewable Standards at the State Level' (March 2006) 19 The Electricity Journal 52, 59.
[296] Kirsten H. Engel, 'The Dormant Commerce Clause Threat to Market-Based Environmental Regulation: The Case of Electricity Deregulation' (1999) 26 Ecology L. Q. 243, 304-305; Steven Ferrey, 'Threading the Constitutional Needle with Care: The Commerce Clause Threat to the New Infrastructure of Renewable Power' (2011-12) 7 Texas J. of Oil, Gas & Energy Law 59, 99-101; Steven Ferrey, 'Sustainable Energy, Environmental Policy, and States' Rights: Discerning the Energy Future Through the Eye of the Dormant Commerce Clause' (2004) 12 N.Y.U. Environmental L. J. 507, 595-610.
[297] Wind power has grown the most under RPS programs in the US and seems to get a large share of energy subsidies. *See* Ryan Wiser and Galen Barbose, 'Renewable Portfolio Standards in the United States: A Status Report with Data Through 2007' (2008) Lawrence Berkeley National Laboratory Report; Steven Ferrey, 'Sustainable Energy, Environmental Policy, and States' Rights: Discerning the Energy Future Through the Eye of the Dormant Commerce Clause' (2004) 12 N.Y.U. Environmental Law J. 507, 525.

argument.[298] This approach was upheld by the U.S. Court of Appeals for the Tenth Circuit.[299]

It should be noted that E&E Legal argued that some parts of the state regulations were facially discriminatory. However, the institute also maintained the position that eliminating the facially discriminatory elements of the RPS program would not be sufficient, since promoting wind power at the expense of the coal industry in other states places an undue burden on interstate commerce. Already the district court found the Colorado RPS to be prima facie prohibited due to an undue burden on interstate commerce and proceeded to a proportionality review.[300] The undue burden might stem from discriminatory effect. Measures promoting one resource over another could be de facto discriminatory if the state is relatively strong in utilizing that resource.[301] Although Colorado has relatively large coal reserves, it also sits on great potential for renewables, especially wind power. Similar claims of de facto discrimination could arise in challenges targeting RPS schemes all across the U.S. since the distribution of energy resources is fairly uneven. Some states are rich in coal[302] or gas, while other states have more hours of sun or wind per annum.[303] Measures to promote renewables taken by renewable intensive states, like for example California, would weaken the competiveness of the energy industries in other states that rely more on fossil fuels.

The court found that while the RPS adopted in Colorado burdened out-of-state commerce (read: coal heavy states), the burden was still not clearly excessive of the benefits. The test of balancing the burden with the benefits applicable in the context of the dormant Commerce Clause is referred to as the Pike balancing test. The application of the Pike balancing test confirmed the RPS to be constitutional. A verdict of

[298] Energy and Environment Legal Institute et al v. Joshua Epel, 43 F. Supp. 3d 1171 (D. Colo. 2014).
[299] Energy and Environment Legal Institute et al v. Joshua Epel, 793 F.3d 1169 (10th Cir. 2015).
[300] Energy and Environment Legal Institute et al v. Joshua Epel, 43 F. Supp. 3d 1171 (D. Colo. 2014).
[301] For examples of different strategies without de jure discriminatory in-state requirements *see* Steven Ferrey, 'Threading the Constitutional Needle with Care: The Commerce Clause Threat to the New Infrastructure of Renewable Power' (2011-12) 7 Texas J. Oil, Gas and Energy L. 59, 65-74.
[302] E.g. Pennsylvania, Ohio and North Dakota. *See* Richard Cowart, 'Addressing Leakage in a Cap-and-Trade System: Treating Imports as Sources' (2006) RAP White Paper 8; US Energy Information Administration, US Department of Energy, Annual Coal Report 2009 (2010) 32.
[303] Charles F. Kutcher et al., 'Tackling Climate Change in the U.S.: Potential Carbon Emission Reductions from Energy Efficiency and Renewable Energy by 2030' (2007) ASES Report, 22; Andy S. Kydes, 'Impacts of a Renewable Portfolio Generation Standard on US Energy Markets' (2007) 35 Energy Policy 809, 813-814.

unconstitutionality would have been a major set-back for the development of renewable energy.[304]

A RPS does commonly not only differentiate between renewable and fossil resources, but also between different renewables as it excludes some renewables from its scope. Similarly as in the case of *E&E Legal*, a court could also on the basis of such observations find undue burden on interstate commerce and test for proportionality. The question of the constitutionality of favouring one renewable over another has been referred to a court at least on one occasion. The case, however, did not relate to any RPS, but to the approval of a merger and the decision of Massachusetts' distribution company to sign a contract with only a wind power plant.[305] The lawsuit was dismissed for reasons unrelated to trade law and no proportionality review was thus ever carried out.

Another case on electricity, *North Dakota v. Heydinger*, concerned the decision by Minnesota to restrict the import of power from carbon dioxide intensive resources and to prohibit long-term contracts with plants that emit carbon dioxide over a certain threshold.[306] The measure affects negatively mainly coal plants and would benefit wind power.[307] Minnesota has essentially no coal industry[308] and a lot of potential for wind power. Hence, it would seem that the coal moratorium planned by Minnesota is de facto discriminatory, in fact almost comparable to facial discrimination.[309] In this case first the federal district court[310] and later the U.S. Court of Appeals for the Eight Circuit[311]

[304] Daniel K. Lee and Timothy P. Duane, 'Putting the Dormant Commerce Clause Back to Sleep: Adapting the Doctrine to Support State Renewable Portfolio Standards' (2013) 43 Environmental Law 295, 299.
[305] Town of Barnstable, Massachusetts v. Ann G. Berwick, 17 F.Supp. 3d 113 (D. Mass. 2014). In 2015 the 1st Circuit remanded the case back to the district court. *See* Town of Barnstable, Massachusetts, v. Angela M. O'Connor, Case no. 14-1597 (1st Cir. 2015). In 2016 the case was dismissed because the contract at stake had been terminated.
[306] Next Generation Energy Act, Minnesota Statutes § 216H.03, subdiv. 5-6; Daniel K. Lee and Timothy P. Duane, 'Putting the Dormant Commerce Clause Back to Sleep: Adapting the Doctrine to Support State Renewable Portfolio Standards' (2013) 43 Environmental Law, 295, 315-316.
[307] Patrick Zomer, Note, 'The Carbon Boarder War: Minnesota, North Dakota, and the Dormant Commerce Clause' (2010) 8 U. St. Thomas L. J. 60, 74-75.
[308] U.S. Energy Information Administration, U.S. Department of Energy, Annual Coal Report 2009 (2010). *See* also Patrick Zomer, Note, 'The Carbon Boarder War: Minnesota, North Dakota, and the Dormant Commerce Clause' (2010) 8 U. St. Thomas L. J. 60, 91-95.
[309] Patrick Zomer, Note, 'The Carbon Boarder War: Minnesota, North Dakota, and the Dormant Commerce Clause' (2010) 8 U. St. Thomas L. J. 60, 91-92.
[310] North Dakota v. Heydinger, 15 F. Supp. 3d 891 (D. Minn. 2014).
[311] North Dakota v. Heydinger, Cases no. 14-2156 and 14-2251 (8th Cir. 2016).

did not find sufficient arguments for justification and concluded that the scheme was unconstitutional.

The details of the analysis of justification and the differences for the different outcomes of value reconciliation in the Minnesota and the Colorado cases will be discussed later in this book.[312] At this stage, it is sufficient to conclude that cases on the proportionality of de facto discriminatory PPM-criteria applicable in the energy sector have already reached U.S. courts.

1.4.4.3. Rare Disputes in the EU

Similar challenges on the renewable energy agenda to those that have been filed in U.S. courts have not yet emerged in the EU. This has mostly to do with ECJ case law. It was previously described how even de jure discriminatory support schemes for sustainable electricity have been declared proportional and thus justifiable. Hence, it is only logical that the potential de facto discriminatory effect of other schemes has not been challenged.

The lack of cases in the electricity sector on de facto discrimination may be regarded to also reflect the weaker nature of the European energy union. First, Member States may in accordance with the strict norms on competence and legislative procedure in Articles 192 and 194 TFEU decide on their energy mix to the extent the EU has not legislated otherwise under the requirement of unanimity. There may exist a reluctance to question the national decisions even with reference to free movement law. Secondly, with regards to electricity limited cross-border grid-connections continue to put restraints on the volumes of cross-border trade.

On one occasion, however, the de facto discriminatory nature of a state measure targeting PPMs in the energy sector arose to the fore, although it never reached the courts. Namely, critical voices were raised when Austria in 2011 planned to ban the import of electricity from nuclear power.[313] A ban on the import of nuclear power would constitute a restriction on the import of a product, electricity, solely on the basis of process and production methods that have no impacts on the physical characteristics

[312] *See* section 6.1.6. *See* also section 2.3.3.1.

[313] Cat Contiguglia, 'Austria to ban import of nuclear fueled energy' (13 July 2011) <www.praguepost.cz/business/9422-austria-to-ban-import-of-nuclear-fueled-energy.html> accessed 28 April 2014.

of the end product. Austria did not appear concerned that it would not be able to verify the PPM of imports.

Austria has no nuclear power plants. The country, however, imports energy that is purchased at an exchange. The origin of this energy is rarely traced, but some of it comes from nuclear power plants. It was estimated that nuclear power covers just below four per cent of electricity consumed in Austria. At the same time, reportedly 80 per cent of the population opposes nuclear power and 74 per cent are in favour of an import ban.[314]

After reviewing the Austrian plan, the Commission advised the state to amend it and finally Austria opted to restrict the import of nuclear power less severely, by introducing a system of obligatory labelling. The labelling scheme is expected to lead to voluntary anti-nuclear commitments from retailers.[315] The position of the Commission might indicate intolerance of PPM-criteria that go so far as to create a complete market access ban. [316]

Is there any valid reason for the position held by the Commission, when the ECJ has accepted even de jure discriminatory PPM-criteria in the electricity sector? Perhaps. First, what Austria planned was a full ban, which at least in theory could be a more severe than the restrictions that result from FITs and RPSs. Secondly, the justifiability of de jure discrimination is primarily attributable to the risks of financial stability and

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[314] 'Atomstromverbot in Österreich Rechtlich Machtbar' (10 Oct. 2011) <www.greenpeace.org/austria/de/themen/atom/was-wir-tun/Raus-aus-Atomstrom/Rechtsgutachten-zu-Atomstrom-Importverbot/> accessed 23 March 2016.

[315] *See* the new §79a of the electricity law (Elektrizitätswirtschafts- und –organisationsgesetz), Beschluss des Nationalrates, Bundesgesetz, mit dem das Elektrizitätswirtschafts- und –organisationsgesetz 2010, das Gaswirtschaftsgesetz 2011 und das Energie-Control-Gesetz geändert warden, 2389 der Beilagen XXIV. GP (3 July 2013) <www.parlament.gv.at/PAKT/VHG/XXIV/BNR/BNR_00790/fname_314193.pdf> accessed 13 April 2014; Press Release from Austria's Parliament, Parlamentskorrespondenz Nr. 645 (4 July 2013) <www.parlament.gv.at/PAKT/PR/JAHR_2013/PK0645/> accessed 13 April 2014. *See* also 'Kein Verbot von Atomstromimport' (16 Jan. 2012) <http://derstandard.at/1326502878730/NGOs-enttaeuscht-Kein-Verbot-von-Atomstromimport> accessed 14 Feb. 2014; Markus Stingl, 'Kompromiss im Atom-Streit' (13 April 2012) <http://kurier.at/wirtschaft/kompromiss-im-atom-streit/774.061> accessed 14 Feb. 2014; Claus Hecking, 'Umstrittenes Umweltgezetz: Osterreich Stoppt Import von Atomstrom' (3 July 2013) <www.spiegel.de/wirtschaft/soziales/energiewende-oesterreichs-totaler-atomausstieg-a-909206.html> accessed 14 Feb. 2014; 'Raus Aus Atomstrom' (3 July 2013) <www.greenpeace.org/austria/de/themen/atom/was-wir-tun/Raus-aus-Atomstrom/> accessed 14 Feb. 2014; Craig Morris, 'Austria to Go 100 per cent Nuclear-Free' (24 July 2013) <www.renewablesinternational.net/austria-to-go-100-percent-nuclear-free/150/537/71512/> accessed 14 Feb. 2014.

[316] The Commission has tended to condemn unilateral PPM-criteria. This is well illustrated by the disapproval of Dutch labels on sustainable forestry already in 2003. *See* Jochem Wiers, *Trade and Environment in the EC and the WTO – A Legal Analysis* (Europa Law 2003) 360-361.

reshuffling that may arise when states implement schemes such as FITs and RPSs to promote sustainable power. However, when a state decides to restrict some PPMs through, for example, a market access ban, the stability justification would not actualize. Thus, the rules on promoting sustainable and restricting unsustainable energy might not necessarily be identical despite being in some respect just opposite sides of the same coin.

A comparison with the developments in the U.S. reveals that the interaction between different rules outside trade law has produced a rather different reality. Even if PPM-criteria are a sensitive topic in both jurisdictions and even if trade law principles are quite similar, the actual concrete measures that face litigation has been and will continue to be vastly different.

The lack of EU case law on de facto discrimination in the energy sector would suggest that proportionality tests would in practice rarely come into play. Yet, there are two important justifications for a more detailed analysis of also EU free movement law. First, the above discussion reveals that there might still be at least some energy cases where the proportionality principles would become relevant. Secondly, PPM-rules are designed also in other sectors than the electricity sector.

1.4.4.4. Measures to Curb Carbon Emissions in Light of WTO Law

States have adopted laws to reduce carbon emissions of their domestic industry, including the energy sector. As a consequence, the concern has arisen that competitiveness on the global market is lost. Companies in other jurisdictions would avoid these restrictions and could therefore increase their market share. Consequently, the real effect of the emissions mitigation law would be hampered. This problem could be tackled by establishing PPM-criteria and extending the application of the criteria also to products that are produced out-of-state but are later imported.

The EU has considered the option to either extend its Emissions Trading System (ETS) to emissions linked to imported products or to implement a border tax adjustment for carbon emissions. Some academic debate followed on the GATT compatibility of such measures.[317] Yet, in the end the EU, acknowledging the potential legal problems,

[317] Maureen Irish, 'Renewable Energy and Trade: Interpreting Against Fragmentation' (2013) The Canadian Yearbook of International Law 217, 233-235; Warren H. Maruyama, 'Climate Change and the WTO: Cap and Trade versus Carbon Tax?' (2011) 45 J. World Trade 679; Christine McIsaac, 'Opening a GATE to Reduced Global Emissions: Getting over and into the WTO' (2010) 44 J. World Trade 1053;

abandoned this path.[318] The only exception became the application of the ETS to flights to and from non-EU cities,[319] although also that piece of legislation was put on hold.[320] All in all, emissions trading systems with extraterritorial scope, import bans on goods produced with high levels of emissions and border adjustments for emissions in the production phase have remained a rarity, in part because of political sensitivity.[321]

Some discussion has, however, emerged on the relationship between GATT and measures to promote electricity from renewables with merely de facto discriminatory effect.[322] These measures could take the form of RPSs or FITs.[323] It still appears that these measures generally go unchallenged. Although the energy transition and the increased focus on renewables have again brought PPMs to the fore, it would appear

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Charles E. McLure, Jr, 'The GATT Legality of Border Adjustments for Carbon Taxes and the Cost of Emission Permits: A Riddle, Wrapped in a Mystery, Inside an Enigma' (2011) 11 Florida Tax Rev. 221; Paul-Erik Veel, 'Carbon Tariffs and the WTO: An Evaluation of Feasible Policies' (2009) 12 J. International Economic Law 749, 771-75; Ryan Vanden Brink, 'Competitiveness Border Adjustments in US Climate Change Proposals Violate GATT: Suggestions to Utilize GATT's Environmental Exceptions' (2010) 21 Colorado J. International Environmental Law & Policy 85; Tracey Epps and Andrew Green, *Reconciling Trade and Climate: How the WTO Can Help Address Climate Change* (Edward Elgar 2010); Ludvine Tamiotti, 'The Legal Interface Between Carbon Border Measures and Trade Rules' (2011) 11 Climate Policy 1202; Stéphanie Monjon and Philippe Quirion, 'A Border Adjustment for the EU ETS: Reconciling WTO Rules and Capacity to Tackle Carbon Leakage' (2011) 11 Climate Policy 1212; Rafael Leal-Arcas, 'Unilateral Trade-Related Climate Change Measures' (2012) 13 J. World Investment & Trade 888. *See* also Rafael Leal-Arcas and Andrew Filis, 'Legal Aspects of the Promotion of Renewable Energy within the EU and in Relation to the EU's Obligation in the WTO' (2014) 5 Renewable Energy Law and Policy Rev. 3, 21-22.

[318] Commission Communication, Analysis of options to move beyond 20% greenhouse gas emission reductions and assessing the risk of carbon leakage, COM (2010) 265 final, 11-12.

[319] Directive 2008/101/EC of the European Parliament and of the Council of 19 November 2008 amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community, OJ L 8, 13.1.2009, 3.

[320] Decision No 377/2013/EU of the European Parliament and of the Council of 24 April 2013 derogating temporarily from Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community, OJ L 113, 25.4.2013, 1.

[321] Robert Howse and Antonia L. Eliason, 'Domestic and International Strategies to Address Climate Change: An Overview of the WTO Legal Issues', in Thomas Cottier et al. (eds.) *International Trade Regulation and the Mitigation of Climate Change* (2010) 59.

[322] Rafael Leal-Arcas and Andrew Filis, 'Renewable Energy Disputes in the World Trade Organization' (2015) 13 Oil, Gas and Energy Law Intelligence, 32-33.

[323] Excluded from the scope of GATT are, however, in accordance with Article III.8(a) "laws, regulations or requirements governing the procurement by governmental agencies of products purchased for governmental purposes and not with a view to commercial resale or with a view to use in the production of goods for commercial sale". In *Canada – Renewables* this exemption was regarded not to apply for the FIT at hand. *See* Canada - Certain Measures Affecting the Renewable Energy Generation Sector, DS412 and Canada - Measures Relating to the Feed-In Tariff Program, DS426, AB Report, 6 May 2013, paras 5.68-79. For criticism *see* Maureen Irish, 'Renewable Energy and Trade: Interpreting Against Fragmentation' (2013) The Canadian Yearbook of International Law 217, 223-226. In principle, either Article III:8(a) or III:8(b) could potentially apply to some FIT under different circumstances. On Article III:8 *see* also EEC – Payments and Subsidies Paid to Processors and Producers of Oilseeds and Related Animal-Feed Proteins, L/6627, Panel Report, 14 Dec. 1989, (adopted); Arwell Davies, 'The GATT Article III:8(a) Procurement Derogation and *Canada – Renewable Energy*' (2015) 18 Journal of International Economic Law 543.

that conflicts in practice do not all too frequently arise in the WTO system. This is in part because the lack of interconnected grids and subsequent transmission contraints have limited international trade in the power sector. Cottier has, however, envisoned that cross-border trade in electricity will increase in the future, which could lead to new types of disputes.[324]

As highlighted by Wu and Salzman, local content requirements and other forms of de jure discrimination have so far dominated the field of energy disputes.[325] Relating in turn to de facto discrimination, the discussion on the legality of PPM-criteria in energy legislation might not get as much attention. Future discussion may come to evolve around whether the EU and others could put restrictions on the importation of resources, such as for example tar sands. Tar sands is allegedly one of the worst energy resources from an environmental perspective.[326] The Fuel Quality Directive of the EU requires fuel refiners to reduce the GHG intensity of sold fuel.[327] In October 2011 the Parliament decided that tar sands should be assigned a higher emissions value than conventional oil. Canada has stated that it would take legal action against such restrictions.[328] In the end no final agreement on any provision targeting tar sands was ever struck, and the idea of stricter limitations on tar sands was abandoned in December 2014.[329]

In the energy sector cases on de facto discrimination are perhaps most likely to emerge in relation to unequal treatment of various raw materials that can be utilized to produce the same final product, be that electricity, fuel or something else. That should not be interpreted to mean that questions relating to the status of PPM-criteria under WTO law could not become an issue of increased practical relevance. First, PPM-criteria are also adopted in other sectors than the energy sector. Secondly, although cases on PPM-

[324] Thomas, Cottier 'Renewable Energy and WTO Law: More Policy Space or Enhanced Disciplines?' (2014) 5 Renewable Energy Law and Policy Rev. 40, 47-48.
[325] Mark Wu and James Salzman, 'The Next Generation of Trade and Environmental Conflicts: The Rise of Green Industrial Policy' (2014) 108 Northwestern University L. Rev. 401.
[326] For an extensive critical review of the environmental and social sustainability *see* Toban Black et al (eds.), *A line in the Tar Sands – Struggles for Environmental Justice* (Between the Lines 2014).
[327] Directive 2009/30/EC of the European Parliament and of the Council of 23 April 2009 amending Directive 98/70/EC as regards the specification of petrol, diesel and gas-oil and introducing a mechanism to monitor and reduce greenhouse gas emissions and amending Council Directive 1999/32/EC as regards the specification of fuel used by inland waterway vessels and repealing Directive 93/12/EEC, OJ L 140, 5.6.2009, 88.
[328] Damian Carrington, 'Canada Threatens Trade War with EU over Tar Sands' (20 Feb. 2012) <www.theguardian.com/environment/2012/feb/20/canada-eu-tar-sands> accessed 25 Feb. 2016.
[329] James Crisp, 'Canada Tar Sands Will Not be Labelled 'Dirty' After All' (17 Dec. 2014) <www.euractiv.com/section/trade-society/news/canada-tar-sands-will-not-be-labelled-dirty-after-all/> accessed 12 Nov. 2017.

criteria do not seem imminent in the field of electricity trade, they may arise in the biofuels sector. The study is therefore in the following sections expanded into other fields of the energy sector, in particular biofuels for transportation.

1.4.5. The Fuel Industry and the Biofuels Sector

1.4.5.1. The Threat of WTO Litigation

Unlike electricity, feedstock and fuel are more easily traded on a global arena. *US – Gasoline* was already an early example of a case on fuel trade, environmental protection and de jure discrimination. In that case the appellate body found that U.S. rules on emission effects of gasoline were discriminatory, disproportional and breached GATT.[330]

Zarrilli has speculated that more cases on energy trade and de facto discrimination may come before the WTO in the future. For example, many states tax gasoline at a higher rate than diesel, despite some studies claiming the latter to cause more severe pollution. Countries with significant gasoline export could therefore potentially argue that such measures constitute unjustifiable discrimination.[331]

Leaving gasoline aside, it is noted that biofuel policies have been contentious. For example, anti-dumping measures adopted by the EU against Argentinian and Indonesian biofuels have been found to breach WTO law.[332] It also seems that pressing questions on energy PPM-criteria, de facto discrimination and GATT compatibility relate to biofuels. Although trade in biofuels is still quite modest, it is expected to increase in the near future.[333] Over 60 states worldwide already have in place some regime to promote biofuels.[334] Apart from subsidies, also tax reductions would appear common.[335] Only a few have, however, developed criteria to differentiate between

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[330] US – Standards for Reformulated and Conventional Gasoline, DS2, AB Report, 29 April 1996.
[331] Simonetta Zarrilli, 'Domestic Taxation of Energy Products and Multilateral Trade Rules: Is This a Case of Unlawful Discrimination?' (2003) 37 Journal of World Trade 359, 359-367.
[332] EU – Anti-Dumping Measures on Biodiesel from Argentinia, DS473, AB report, 6 Oct. 2016; EU – Anti-Dumping Measures on Biodiesel from Indonesia, DS480, Panel report, 25 Jan. 2018.
[333] Enrique Rene de Vera, 'The WTO and Biofuels: The Possibility of Unilateral Sustainability Requirements' (2008) 8 Chicago J. International Law 661, 666.
[334] Jim Lane, 'Biofuels Mandates Around the World: 2015', Biofuels Digest, (31 Dec. 2014); Renewable Energy Policy Network for the 21st Century (REN21), *Renewables Global Status Report* (2014), 14–15.
[335] Stephanie Switzer and Joseph A. McMahon, 'EU Biofuels Policy – Raising the Question of WTO Compatibility' (2011) 60 International & Comparative Law Quarterly 713, 725; Alan Swinbank, 'EU Policies on Bioenergy and their Potential Clash with the WTO' (2009) 60 J. Agricultural Economics 485, 492-495; Doaa Abdel Motaal, 'The Biofuels Landscape: Is There a Role for the WTO?' (2008) 42 Journal of World Trade 61, 71.

sustainable and unsustainable biofuels. Three schemes of biofuels sustainability criteria are worth mentioning here. The U.S. Renewable Fuel Standard 2 (RFS2)[336] requires gasoline refiners to place a share of their fuel purchases in biofuel that meets sustainability criteria or credits corresponding to such share. California's Low Carbon Fuel Standard (LCFS)[337] in turn requires fuel providers not to provide fuel exceeding on average a given carbon intensity value. Sustainable biofuels are attractive options because of their lower carbon intensity but the fuel providers may also ensure compliance by purchasing credits. Finally, EU directives[338] oblige Member States to promote biofuels that comply with drafted sustainability criteria. This may be executed by implementing for example subsidies, quotas or tax rebates.

Biofuels sustainability criteria are criteria on the sustainability of the PPMs. More than a decade ago, Gaines concluded that controversies on PPM-criteria within the WTO framework would remain modest in numbers.[339] Some scholars have argued that the lack of cases in the energy sector indicates that most current state strategies are in compliance with WTO law.[340] That is, however, not necessarily the case. The lack of litigation may equally have to do with the high costs of proceedings and the fact that many developing states lack the financial resources to challenge measures adopted by developed states. There is therefore reason to reflect on the compatibility of currently applied PPM-criteria with trade law.

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[336] 40 C.F.R. 80 subpart M.

[337] Assembly Bill 32, 2006 Leg. Regular Session (California 2006) (amended Nov. 2015); California, Governor's Executive Order S-01-07 (2007).

[338] Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, OJ L 140, 5.6.2009, 16; Directive 2009/30/EC of the European Parliament and of the Council of 23 April 2009 amending Directive 98/70/EC as regards the specification of petrol, diesel and gas-oil and introducing a mechanism to monitor and reduce greenhouse gas emissions and amending Council Directive 1999/32/EC as regards the specification of fuel used by inland waterway vessels and repealing Directive 93/12/EEC, OJ L 140, 5.6.2009, 88. In 2015 significant amendments were agreed upon to promote 2nd generation biofuels with no ILUC effects. *See* Directive 2015/1513 of the European Parliament and of the Council of 9 September 2015 amending Directive 98/70/EC relating to the quality of petrol and diesel fuels and amending Directive 2009/28/EC on the promotion of the use of energy from renewable sources, OJ L 239, 15.9.2015, 1. The Renewable Energy Directive of 2009 will in 2021 be replaced by a new directive. *See* Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82.

[339] Sanford E. Gaines, 'Process and Production Methods: How to Produce Sound Policy for Environmental PPM-Based Trade Measures?' (2002) 27 Columbia J. Environmental Law 383, 388.

[340] Robert Ackrill and Adrian Kay, 'EU Biofuels Sustainability Standards and Certification Systems – How to Seek WTO-Compatibility' (2011) 62 J. Agricultural Economics 551, 561; Kati Kulovesi, 'Real or Imagined Controversies? A Climate Law Perspective on the growing links between the International Trade and Climate Change Regimes' (2014) 6 Trade, Law and Development 55.

The EU and the two American biofuel sustainability schemes could potentially conflict with the rules of GATT in many respects. For example, while EU rapeseed biodiesel or U.S. corn ethanol would generally qualify as sustainable under their respective regimes, some imported fuel from other feedstock might not, despite comparable environmental impacts. In other words, the criteria might be designed to protect the market share of their own fuels.

Argentina, one of the main exporters to the EU, has initiated proceedings under the WTO system. The first case[341] was directed at the Spanish implementation of EU directives in a manner that guaranteed benefits almost exclusively to fuels produced in the EU. The incompatibility with GATT was evident and the EU settled the case.[342] However, in 2013 Argentina again filed a complaint in the WTO as regards EU sustainability criteria for biofuels and asked for consultations.[343] This second case targets the de facto discriminatory effects of the EU model.

The EU sustainability criteria challenged by Argentina rely in part on a life-cycle analysis of the GHG emissions of various biofuels. The GHG emission score will depend on, in particular, the feedstock and production process utilized. Biofuels is categorized as sustainable only in case the estimated GHG emissions are sufficiently low as compared to fossil fuel emissions (i.e. exceeds an emissions savings threshold). It should be highlighted that a biofuel classified as unsustainable will not be denied market access. However, financial prioritization in the form of subsidies to biofuels or obligatory quotas for biofuels can only be made available for those biofuels that comply with the sustainability criteria. In practice, it results in a system where compliance with the criteria becomes important for competitiveness on global markets.

Each producer can under the EU directive individually get the emissions levels for the production facility certified or may alternatively choose to rely on default values established for various production paths from different biomass feedstock. The

[341] European Union and a Member State – Certain Measures Concerning the Importation of Biodiesels, DS443, Request for consultations by Argentina, 17 Aug. 2012 (establishment of panel deferred 17 Dec. 2012).
[342] Fredrik Erixon, 'Biofuels Reform in the European Union: Why New ILUC Rules Will Reinforce the WTO Inconsistency of EU Biofuels Policy' (2013) ECIPE Occasional Paper (issue 3) 6.
[343] European Union and Certain Member States – Certain Measures on the Importation and Marketing of Biodiesel and Measures Supporting the Biodiesel Industry, DS459, Request for consultations by Argentina, 15 May 2013. For a discussion on the case *see* Rafael Leal-Arcas and Andrew Filis, 'Legal Aspects of the Promotion of Renewable Energy within the EU and in Relation to the EU's Obligation in the WTO' (2014) 5 Renewable Energy Law and Policy Rev. 3, 15-19.

availability of a low default value will be beneficial for the producers. If the producer can be assigned a sufficiently low default value, it will enjoy a lower administrative burden to get verified as a sustainable producer and, in addition, the sustainability classification will be available even if the producer actually emits higher levels of GHG emissions. Biofuels from soybean has in the EU been assigned a fairly high default value. Argentina exports to the EU biodiesel from soybeans and was not content with the emission threshold that the EU had chosen to adopt in defining sustainable biofuels.

What the appeal of Argentina seems to focus on is that the emissions savings threshold chosen by the EU is arbitrary and may have been chosen so as to secure that dominant domestic resources and production will be categorized as sustainable. In particular, Argentina is concerned about EU's original choice of a 35 % GHG emission savings threshold since soybean diesel, common in Argentina, has been assigned only a default value of 31 %. By the end of 2018 the case remained in standstill: no panel had been established, the case had not been withdrawn and no mutually agreed solution had been notified. It should in this context be pointed out that the emissions savings threshold has since been raised for new biofuels plants and will become even higher in the future.[344]

Additional challenges directed at biofuels sustainability schemes could emerge. The potential discriminatory effects of a scheme will depend on the specific elements of the adopted scheme. For example, Erixon has speculated that grandfathering provisions, which exempt old facilities from new stricter GHG savings requirements, might increase discriminatory effect.[345] Another relevant factor may be the choice of threshold for GHG emission savings that is required for sustainability. A third element could be the choice between calculating individual sustainability scores for each producer or assigning default values for certain combinations of feedstock and refinery process.

[344] Directive 2015/1513 of the European Parliament and of the Council of 9 September 2015 amending Directive 98/70/EC relating to the quality of petrol and diesel fuels and amending Directive 2009/28/EC on the promotion of the use of energy from renewable sources, OJ L 239, 15.9.2015, 1. *See* Article 1.3(a) amending Article 7b(2) of Directive 98/70/EC (the Fuel Quality Directive) and Article 2.5(a) amending Article 17(2) of the RED. *See* also Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82, Art. 25(2) and 29(10).

[345] Fredrik Erixon, 'Biofuels Reform in the European Union: Why New ILUC Rules Will Reinforce the WTO Inconsistency of EU Biofuels Policy' (2013) ECIPE Occasional Paper (issue 3) 20.

Potential discrimination is in part linked to the differences between developed and developing countries. It should be recalled that states have under WTO law some options to favour developing countries through taxation and import quotas.[346] The same could potentially apply also to the design of sustainability criteria for biofuels.[347] Yet, there is reason to believe that current models applied in the EU and the U.S. might have exactly the opposite effect. There is a risk that especially the biofuels industry of developing nations would lose competiveness due to the sustainability criteria. For example, taking into account emissions from land use change effects that takes place when biodiverse land is, either directly or indirectly, converted into land for cultivating biofuel feedstock might put developing countries at a disadvantage. Namely, biodiverse tropical forests are growing in some developing countries, which means that the risk of the biofuels industry having a negative effect on biodiverse land may be higher there. Consequently, biofuels from developing nations would be more likely to get poor sustainability ratings. This is particularly the case if the U.S. and the EU continue along the path of scrutinizing also indirect land use changes (ILUC). Another reason for why developing countries might get poor sustainability scores could stem from the fact that transportation will be long from developing countries to the markets of developed states, where most fuel still today is consumed.

According to de Vera measures to promote sustainable biofuels may be difficult to justify under WTO law.[348] The argument will be scrutinized more in detail in later parts of this book when justifiability is discussed.[349] In any case, under GATT and WTO law more generally, when it comes to measures promoting sustainable PPMs in the energy sector biofuels sustainability criteria would appear most prone to legal challenges. Sustainability criteria for solid biomass, if adopted, would form another likely target of claims of discrimination. The EU Commission has encouraged EU Member States to adopt sustainability criteria for solid biomass that is used for heating and electricity

[346] *See* Art. I(b) GATT; GATT Contracting Parties, Decision of November 28, 1979 on Differential and More Favorable Treatment, Reciprocity and Fuller Participation of Developing Countries, GATT 26th Supp. BISD 203 (1980); EC – Conditions for the Granting of Tariff Preferences to Developing Countries, DS246, AB Report, 7 April 2004, paras 66-76.
[347] Enrique Rene de Vera, 'The WTO and Biofuels: The Possibility of Unilateral Sustainability Requirements' (2008) 8 Chicago J. International Law 661, 675-679.
[348] *Ibid.* 674-675.
[349] *See* chapter 5.

generation.[350] Now union-wide criteria entered into force with the new Renewable Energy Directive (RED 2).[351]

It should be noted that potential de facto discriminatory effect of sustainability criteria does not constitute the only, and perhaps not even the biggest, hinder to global trade in biofuels. Tariffs are still legal under WTO law and have remained fairly high for biofuels, although some states have opted to implement lower tariffs either universally or for developing countries.[352] Moreover, the system is plagued by fragmentation. Ethanol is an alcohol with multiple end uses and subject to a much higher tariff than biodiesel.[353] Already for some time proposals for a more coherent approach have been tabled, but so far, the system has not been modified to classify environmental goods in general or biofuels in particular under a unified tariff class.[354] The issues related to tariff fragmentation are important but fall outside the scope of this thesis. The focus is instead on the tests for value reconciliation and justifiability of de facto discriminatory PPM-criteria.

1.4.5.2. Biofuels Sustainability Criteria under EU Free Movement Law

Free movement law cases on state-level PPM-criteria have not yet emerged in the EU. With respect to the energy sector the reasons are not the same for the biofuels sector as for the electricity sector. For the biofuels sector the reason is that fully harmonized sustainability criteria for biofuels (and bioliquids) have been adopted under the RED. These criteria are applicable for financial support for consumption of biofuels and for renewable energy quotas. Member States may according to Article 17 (8) RED not adopt stricter national criteria. A similar provison has been proposed for the new RED 2.[355]

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[350] Report from the Commission on sustainability requirements for the use of solid and gaseous biomass sources in electricity, heating and cooling COM (2010) 11 final, 8.

[351] Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82, Article 29 as well as recitals 94 and 101.

[352] Haniff Ahamat and Nasarudin Rahman, 'Restricting Biofuels Imports in the Name of the Environment: How Does the Application of WTO Rules Affect Developing Countries?' (2014) 7 J. East Asia & International Law 51, 75-76.

[353] Alan Swinbank, 'EU Policies on Bioenergy and their Potential Clash with the WTO' (2009) 60 J. Agricultural Economics 485, 490.

[354] Stephanie Switzer and Joseph A. McMahon, 'EU Biofuels Policy – Raising the Question of WTO Compatibility' (2011) 60 International & Comparative Law Quarterly 713, 734-735. The initiative to reduce tariffs for environmental goods can be found e.g. in WTO Ministerial Conference, 4th Session, Doha Ministerial Declaration, Doc WT/MIN(01)/DEC/1 (adopted 14 November 2001), para 31 (iii).

[355] Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82, Article 29(12).

The biofuels sustainability criteria apply, as mentioned, for renewable energy quotas. A ban on unsustainable biofuels would form a (zero) quota and might therefore also be covered by the directive. Due to the broad scope of harmonization there is barely any room for national PPM-criteria on biofuels criteria that could become a target for claims of discrimination.[356]

Under the 2009 RED Member States should achieve 10 % renewable energy in the transport sector by 2020. After 2015 amendments to the RED that target could no longer be fulfilled by only so called first generation biofuels from food and feed crops. These biofuels from feedstock associated with land use change were capped at seven per cent of final energy consumption in the transport sector.[357] Running somewhat at odds with Article 17(8) RED on the surface, the amended provisions encouraged states to provide extra incentives to so called advanced biofuels, produced from feedstock associated with no land use change.[358]

The proposed new Renewable Energy Directive (RED 2) clarifies the options of exceptions to the requirements of treating equally all biofuels that comply with EU sustainability criteria. Under RED 2 consumption of energy from renewables should reach 14 % in the transport sector by 2030. This should be achieved by the implementation of obligations on fuel suppliers in the road and rail transport sector. Separate lower targets have been implemented for advanced biofuels and the contribution from biofuels produced out of feed and food crops is capped.[359] It is clearly stated in the RED 2 that the prohibition of stricter national sustainability criteria is without prejudice to the right of awarding advanced biofuels additional support.[360] Advanced biofuels are, however, defined in the directive and Member States may not set any additional criteria.[361] Yet, questions with respect to trade law compatibility

[356] Taxation schemes could perhaps fall outside the scope of the RED if they do not constitute financial support for consumption. In that case taxation should be reviewed in light of EU primary law.
[357] Directive 2015/1513 of the European Parliament and of the Council of 9 September 2015 amending Directive 98/70/EC relating to the quality of petrol and diesel fuels and amending Directive 2009/28/EC on the promotion of the use of energy from renewable sources, OJ L 239, 15.9.2015, 1. *See* in particular recitals 7-8, annex II (adding a new annex IX) and Article 2(2) amending Article 3 of Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, OJ L 140, 5.6.2009, 16.
[358] *Ibid.*
[359] Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82, Article 25(1).
[360] *Id*., Art. 29(12).
[361] *Id*., Annex IX. The Commission may through delegated acts modify the annex. *See* Art. 28(6).

could arise from the fact that Member States may with reference to evidence of different levels of indirect land use change attributed to diffierent fuels introduce separate quotas for various first generation biofuels.[362]

Furthermore, under RED 2 Member States could develop national sustainability criteria in two specific cases. First, such criteria could be applied for solid biomass used for generating electricity or producing heating and cooling. Secondly, such criteria could be applied temporarily for biofuels in the outermost regions of the union.[363] The design of such national incentive schemes might naturally create controversies with reference to free movement law.

Finally, it should be kept in mind that the compatibility of the directive itself with the Treaty and free movement law could in principle be challenged. However, that type of cases have been rare.

1.4.5.3. Biofuels Sustainability Criteria and the Dormant Commerce Clause

In the U.S. the federal government has enacted the Renewable Fuel Standard (RFS2) in order to promote sustainable biofuels in the transport sector.[364] Dormant Commerce Clause cases will generally not emerge in a biofuels context as federal biofuels law has been adopted. The RFS2 pre-empts states from adopting laws to promote biofuels. State level schemes or restrictions on biofuels will be unconstitutional regardless of what their fate would have been under the dormant Commerce Clause.

However, the federal government has in the Clean Air Act granted California an exemption to implement its own system of promoting sustainable biofuels.[365] Other states may also opt for the Californian model instead of the RFS2 and a couple of states have already done so or expressed plans for doings so.[366]

California's LCFS and its potential future implementation by other states are not pre-empted by federal law. Hence, the question of their compliance with the dormant

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[362] *Id.*, Art. 26(1).
[363] Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82, Articles 29(13) and 29(14).
[364] 40 C.F.R. 80 subpart M. For more on the RFS2 and future outlooks *see* Timothy A. Salting and Jay P. Kesan, 'The Renewable Fuel Standard 3.0?: Moving Forward with the Federal Biofuel Mandate' (2014) 20 N.Y.U. Environmental Law J. 374.
[365] Clean Air Act, 42 U.S.C. § 7543(b) (2012).
[366] Washington has been legislating to implement a LCFS. Oregon has already adopted their own LCFS. *See* 2018 Washington Legislature HB 2338; Oregon Administrative Rules Chapter 340 Division 253 (Oregon Clean Fuels Program); 2009 Oregon Legislature HB 2186; 2015 Oregon Legislature SB 324.

Commerce Clause has arisen. Under the scheme fuel providers should not exceed an average level of carbon intensity. They may either opt to certify individual values for their fuel or then rely on the default value that has been determined for the PPM applied at the biofuels plant. In determining the default value for carbon intensity (GHG emissions), California's original LCFS took into account transport distance, transport methods, farming practices, land use change and the local electricity utilized in the biofuels plants. Out-of-state corn ethanol was awarded higher default values than Californian corn ethanol due to differences between production in California and in the Midwest in respect of local electricity generation used in the production process in the biofuels plants.[367] The reliance on cheap coal in the Midwest lead to the Californian legislator assigning a high estimate for emissions from the power used in the plants. One may have expected that Midwest corn ethanol would also have been burdened by a higher estimate of emissions from transportation. This was, however, not the case. Namely, corn ethanol produced in California often relies on feedstock from Midwest and transporting the heavy corn across the U.S. generally generates more transport emissions than transporting ready fuel from the Midwest to California.

The LCFS has been challenged in *Rocky Mountain Farmers Union*. Unlike the district court[368], the U.S. Court of Appeals for the Ninth Circuit did in this case not put much emphasis on the fact that the default values as part of the standard explicitly differentiated on the basis of geographical origin. Thus, the Court of Appeals did not adopt the strict proportionality review normally applicable in cases of de jure discrimination. Instead it took the position that the life-cycle approach that California relied on might only be subject to the more lenient Pike balancing test.[369] To put it differently, the U.S. Court of Appeals for the Ninth Circuit did not seem to equate the LCFS with cases of de jure discrimination. The court had to rule on several questions of law in the case, but importantly, it did not proceed into any proportionality review and did not point to any breach of the dormant Commerce Clause.

The challenge against California's LCFS did not end with the decision of the Court of Appeals. Namely, the court ended up remanding the case back to the district court. In particular, the district court was to examine whether the LCFS discriminated in purpose

[367] Assembly Bill 32, 2006 Leg. Regular Session (California 2006) (amended Nov. 2015); California, Governor's Executive Order S-01-07 (2007).
[368] Rocky Mountain Farmers Union v. Goldstene, 843 F. Supp. 2d 1071 (E.D. Cal. 2011).
[369] Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070 (9th Cir. 2013).

or effect. This is important, because even if the Court of Appeals had not equated the LCFS with de jure discrimination, the stricter proportionality review may apply even in some cases where the measure discriminates in purpose or effect, or in other words in cases of de facto discrimination. The exact conditions for strict scrutiny to apply instead of the Pike balancing test are rather ambiguous, as will be depicted later in this book.[370]

While the case had been pending in courts, California revised its LCFS. The revised LCFS of 2015 changed the default values for emissions to origin-neutral. In other words, Midwest and Californian corn ethanol received the same default value. However, for producers requesting the calculation of individual values of carbon intensity for their own production, factors such as transport distance and the emissions from using local electricity are still taken into account.

In a memorandum decision and order on a motion to dismiss the district court in 2017 stated that while neither the old nor the new LCFS had a discriminatory purpose, they still plausibly caused a discriminatory effect. The court would also find that it was plausible that there were not sufficient arguments for the justification of these effects.[371] The court could enter into final judgement without elaborating on those two issues because the plaintiffs voluntarily dismissed the claims. On appeal the arguments that the 2015 LCFS was facially discriminatory and that its purpose was discriminatory were rejected by the Ninth Circuit.[372] I shall discuss the case in several different contexts in this book.[373] It is worthy of note that in a similar challenge against Oregon's LCFS the same Court of Appeals dismissed all claims of unconstitutionality.[374]

In conclusion, while EU free movement law cases on the national transposition of biofuels sustainability criteria are not very likely to emerge, *Rocky Mountain Farmers Union* already offers an example of a case on the legality of biofuels sustainability criteria with the dormant Commerce Clause. This adds to the global tensions and

[370] *See* section 3.2.3.2.
[371] Rocky Mountain Farmers Union v. Corey, Memorandum Decision and Order Re Defendants' Motion to Dismiss, Lead Case: 1:09-cv-2234-LJO-BAM (E.D. Cal. 2017).
[372] Rocky Mountain Farmers Union v. Corey, case no. 17-16881 (9th Cir. 2019).
[373] *See* sections 3.2.2.7., 3.2.3.4-3.2.3.5., 5.2., 6.1.5-6.1.6 and 6.2.2.3. *See* also section 2.2.4.
[374] American Fuel & Petrochemical Manufacturers v. O'Keeffe, case no. 15-35834 (9th Cir. 2018); *see* also American Fuel & Petrochemical Manufacturers v. O'Keeffe, No. 3:15-cv-00467-AA, 2015 WL 5665232 (D. Or., Sept. 23, 2015).

speculations of WTO-compatibility of biofuels sustainability criteria adopted in developed countries.

1.4.6. Concluding Remarks on Emerging Cases

This book is a study on de facto discriminatory PPM-criteria and the problems that are linked to the assessment of such rules under trade law. The academic debate and the few cases that have already emerged in the different jurisdictions illustrate that promoting renewable energy is becoming a topical issue within trade law. The problem of reconciling free trade and the ideal of a clean energy sector has actualized in various contexts.

Of the three jurisdictions dealt with here, it is U.S. courts that have seen the largest number of cases filed before them. A large variety of cases on de jure discrimination and de facto discrimination in relation to PPM-criteria in both the electricity and the biofuels sector have already been argued before courts. In turn, under WTO law most cases on energy regulation have related to other aspects than PPM-criteria. However, Argentina's challenges on EU sustainability criteria for biofuels indicates that countries are continuously monitoring developments and even considering potential de facto discriminatory effects of PPM-criteria. Finally, there is the EU, where despite a lot of recent new developments in the energy sector, ECJ cases on PPM-criteria applicable to the energy sector have so far been confined to de jure discrimination. Yet, the debate on the relationship between EU free movement law and Austrian plans to restrict imports of electricity generated by nuclear fission illustrated that the electricity sector could be one of the sectors where the number of cases on PPM-criteria in the future could increase.

The analysis of the energy sector showed that so far cases on the trade law legality of de facto discriminatory PPM-criteria have not yet emerged in abundance. Although the energy sector has some limitations to be kept in mind, it still already today offers a number of good practical examples. Hence, some case studies included in this book center around measures adopted for the electricity and the biofuel sectors. Ultimately, the focus of the research is still on the application of legal tests in the context of PPM-criteria and not on the energy sector as such. The study is pertinent more generally across all sectors of commerce where PPMs are of relevance and therefore also cases on PPM-criteria outside the energy sector provide input.

In itself, the necessary reconciliation of free trade and environmental protection in cases on promoting renewable energy in particular, and sustainable PPMs in general, represents nothing new. It has been part of each trade regime already during their early decades and legal tests of value reconciliation have evolved with case law. Current trends in the energy sector will, however, present new challenges for the value reconciliation exercise. First, modern energy strategies relate to the environmental attributes of process and production methods or even the whole life-cycle of a product. This will raise questions with regards to traditional tests of economic law that have so far received limited attention. Secondly, questions regarding the supply of energy tend to trigger many issues and values, which are not always easy to align. For example, while renewables may reduce GHG-emissions, they may raise concerns of affordability, security of supply, hazardous waste (e.g. solar panels) or biodiversity (e.g. impacts of large hydro power plants). Subsequent chapters of this book will address this complexity.

Chapter 2 – Value Reconciliation Tests in Law of Prohibition

Trade law can be divided into two areas: law of prohibition and law of justification. The former covers rules and principles on how a prohibited restriction on trade is defined, whereas the latter covers rules and principles on how those restrictions can be justified. The objective of this chapter is to create a better understanding of the free trade objective and examine whether the tests of law of prohibition might include elements of value reconciliation, before then in subsequent chapters moving on to examining how the free trade objective is reconciled with objectives such as environmental protection in law of justification.

The definition of the restrictions on trade can be broken down into at least four main dimensions. It should, however, be noted that the dimensions are closely connected and that the legal tests may be intertwined. In any case, the first dimension relates to the form of the measure adopted. The form of the measure is here understood as a concept that covers the legal form. The focus is, for example, on whether the measure can take other forms than a written statute and whether the measure must establish binding rules. These issues will be examined in section 2.1.

The second dimension concerns the purpose and effect of the measure. In other words, whether discrimination or other elements, such as market access hindrance, is at hand. This dimension was touched upon already in part in chapter 1,[375] where the objective was to illustrate the types of energy cases in which a need to reconcile values has arisen. The second section of this chapter, section 2.2, will, however, address this dimension from a different perspective. Namely, it will present an analysis of which products are to be considered similar for the purposes of determining whether or not there is discrimination between like products.

As a rule, trade law covers state action. The economic form of the measure might differ in the sense that states regulate market conditions, standards and restrictions but also purchase on the market and grant subsidies. The variety of measures adopted, among other things, reflect the idea that the state might act in the capacity of market regulator and market participant. The identity of those covered by trade law and determining the capacity in which they must act to be bound by trade law forms the third dimension. It is in other words examined what type of state action may be exempted from trade law

[375] *See* section 1.3.2.

and what type of private action may be covered. This discussion will be included in section 2.3.

The traded object forms the fourth and final dimension. EU free movement law applies to the movement of goods, services, capital and persons but each element has been dedicated its own Articles in the TFEU.[376] According to the ECJ, oil[377] and electricity[378] are goods, as should also be any other form of energy. The GATT and the TBT Agreement apply to trade in products. In *US – Gasoline* the panel did not question the assumption made by both sides of the dispute that oil was a product.[379] In contrast to EU and WTO law, the dormant Commerce Clause does not differentiate between articles of commerce. Thus, the U.S. Supreme Court has had no problems finding it applicable to energy sources such as petroleum[380], coal[381], ethanol fuel[382] and electricity[383].[384]

With the objective to promote renewable energy, and in order to facilitate the internalization of externalities, states have created tradable products out of the environmental attributes of production. For example, in a cap-and-trade system (also known as emissions trading system, ETS) the amount of yearly emissions is capped and companies receive emissions allowances (i.e. emissions trading certificates, ETCs). Companies may trade these allowances. Similarly, in a RPS the state will set a quota for renewables for some group of market players, for example retailers or producers and importers. RECs are granted for energy generated from renewable resources and may be used to fulfil the assigned quota. Those receiving RECs may trade them. Energy companies that have been assigned a quota and use renewables below the quota may then purchase RECs from those that exceed their quota.

[376] Art. 34-36 and 45-66, Consolidated version of the Treaty on the Functioning of the European Union, OJ C 202, 7.6.2016, 47.
[377] Case 72/83 *Campus Oil limited and others v. Minister for Industry and Energy and others* [1984] ECR 2727, paras 12-20.
[378] Case C-158/94 *Commission v. Italy* [1997] ECR I-5789, paras 14-20.
[379] US – Standards for Reformulated and Conventional Gasoline, DS2, Panel Report, 29 January 1996.
[380] Exxon Corp. v. Governor of Maryland, 437 U.S. 117 (1978).
[381] Wyoming v. Oklahoma, 502 U.S. 437 (1992).
[382] New Energy Co. v. Limbach, 486 U.S. 269 (1988).
[383] New England Power Co. v. New Hampshire, 455 U.S. 33 (1982).
[384] There are, however, limits to what can be articles of commerce. *See* McBurney v. Young 133 S. Ct. 1709, 1720 (2013). The Court concluded that information files on state citizens were not articles of commerce.

While the REC is a certificate of financial value awarded for past activity, an ETC is a permit with financial value that entitles the holder to certain future activity. This difference is quite technical, but according to Engel pivotal. She argues that the ETC is a permit and hence, cannot be an article of commerce.[385]

The U.S. Court of Appeals for the 7th Circuit did not see any problem to apply trade law to tradable RECs when it stated that Michigan would be in breach of the dormant Commerce Clause because the in-state requirement in the RPS discriminated against out-of-state renewable energy.[386] Equally, in *Essent Belgium*, the ECJ did not hesitate to apply trade law to the Flemish authority's decision to only award RECs for renewable energy generated in Belgium. The Court refused to rule on whether RECs or GOs are goods. It, however, concluded that since RECs are presumably normally traded together with the electricity, restrictions on trade in RECs also restrict trade in electricity.[387]

If there is a restriction in the trade of the environmental attributes, that is almost automatically also going to affect the trade in the underlying energy, even when the certificates can be traded unbundled. Moreover, 'goods' and 'articles of commerce' are broad concepts. States cannot define what is and what is not an article of commerce.[388] Both arguments would arguably apply also in the case of an ETS and ETCs.

[385] *See* Kirsten H. Engel, 'The Dormant Commerce Clause Threat to Market-Based Environmental Regulation: The Case of Electricity Deregulation' (1999) 26 Ecology L. Q. 243, 259-261, 270.
[386] Illinois Commerce Commission v. Federal Energy Regulatory Commission, 721 F.3d 764 (7th Cir. 2013).
[387] Joined cases C-204/12 to 208/12 *Essent Belgium NV v. Vlaamse Reguleringsinstantie voor de Elektriciteits - en Gasmarkt,* ECLI:EU:C:2014:2192, paras 81-88.
[388] *See* City of Philadelphia v. New Jersey, 437 U.S. 617, 622 (1978); Kirsten H. Engel, 'The Dormant Commerce Clause Threat to Market-Based Environmental Regulation: The Case of Electricity Deregulation' (1999) 26 Ecology L. Q. 243, 260.

2.1. The Measure under Scrutiny in Trade Law

2.1.1. A Value Choice

The measure under scrutiny in trade law will often be a state regulation, but it can also take some other form. That will be the focus of this first section of chapter 2. The tests to determine whether the form of the measure is such, that the measure can be covered by trade law, falls within the realm of law of prohibition. In this sense, the tests are closely linked to the tests of discrimination discussed in chapter 1.[389] However, the discussion here in chapter 2 shifts the focus on whether some of the tests in law of prohibition could be linked to value choices.

In this section it will be examined what type of measures fall under trade law scrutiny. It is analyzed in what respect the scope of measures may be broad or narrow. The objective is to clarify whether or not requirements in trade law on the form of the measure might reflect a structural imbalance between the free trade and environmental protection, even when both components are viewed in terms of efficiency.

2.1.2. The Form of the State Measure

2.1.2.1. Regulations and Administrative Practices

Nations and states have adopted various measures in order to promote energy from renewable resources. These measures may take the form of restricting unsustainable production through requirements on retailers. Such measures can be classified as prohibitive (negative). Other measures may be positive in the sense that they establish support for certain sustainable producers. Both positive and negative action are often enacted as laws or through other binding regulations.

The different regimes on trade law express what may form a prima facie prohibited measure in different terms. In all jurisdictions state laws and regulation fall, as a rule, under the scope of trade law. Articles I and III GATT cover laws, regulations and requirements affecting internal sale, offering for sale, purchase, transportation, distribution or use. The term affecting shall be interpreted broadly.[390] Article I further mentions rules and formalities, whereas Article III.1 refers to quantitative regulations.

[389] *See* section 1.3.2.
[390] US – Certain Country of Origin Labelling (COOL) Requirements: Recourse to Article 21.5 of the DSU by Canada and Mexico, DS384, Panel Report, 20 Oct. 2014, paras 7.638-639.

An AB of the WTO has in 2002 hinted that apart from measures in the form of official and generally applicable documents, the GATT would also cover any discriminatory administrative practice.[391] For Article XI this had already earlier been confirmed on a few occasions.[392] The wording of that article is, however, broader compared to Articles I and III, as it prohibits 'restrictions' made effective through 'measures'. Still, Articles I and III should also cover administrative practices since terms such as 'requirements' and 'formalities' also have a quite broad meaning. Further support for that conclusion can be drawn from the interpretation of the chapeau of Article XX, which prohibits the application of otherwise justifiable measures in case they form, for example, arbitrary discrimination. This provision has been said to target the application of a measure,[393] which would cover also the administrative practices in implementing the rules.

The language of Article 34 TFEU resembles that of Article XI GATT. It prohibits quantitative restrictions and all measures having equivalent effect. Apart from any laws and regulations it has been interpreted to cover administrative practice, at least in case the practice is applied generally and consistently.[394] WTO law would probably also cover only general and consistently applied administrative practice since the long and costly litigation process would for practical reasons not be suitable for a challenge on some single exceptional government decision.

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[391] EC – Trade Description of Sardines, DS231, AB Report, 26 Sept. 2002, para. 281.

[392] Import, Distribution and Sale of Alcoholic Beverages by Canadian Marketing Agencies, L/6304, Panel Report, 5 Feb. 1988 (adopted), paras 4.24-25; US – Measures Affecting Alcoholic and Malt Beverages, DS23, Panel Report, 16 March 1992 (adopted), para. 5.63.

[393] US – Standards for Reformulated and Conventional Gasoline, DS2, AB Report, 29 April 1996, p. 22; US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct. 1998, paras 115-116, 160.

[394] Case 21/84 *Commission v. France (Postal Franking Machine)* [1985] ECR 1355, para. 13. Oddly, this would however not appear to apply for public procurement decisions, which are measures covered by EU free movement law even as individual measures not part of any general and consistent administrative practice. *See* Case 45/87 *Commission v. Ireland (Dundalk Water Supply)* [1988] ECR 4929; Case C-359/93 *Commission v. The Netherlands* [1995] ECR I-197, paras. 23-29; Case C-234/03 *Contse SA and others v. Instituto Nacional de Gestión (Ingesa), formerly Instituto Nacional de la Salud (Insalud)* [2005] ECR I-9315; Case C-226/09 *Commission v. Ireland* [2010] ECR I-11807, paras. 29, 41; Case C-231/03 *Consorzio Aziende Metano (Coname) v. Comune di Cingia de' Botti* [2005] ECR I-7287, paras. 17-22; Case C-260/04 *Commission v. Italy (Horse-race betting)* [2007] ECR I-7083, paras. 25-36; Adrian Tokar, 'Institutional Report', in Ulla Neergaard, Catherine Jacqueson and Grith Skovgaard Ølykke (eds.), *Public Procurement Law: Limitations, Opportunities and Paradoxes*, The XXVI FIDE Congress in Copenhagen, 2014 Congress Publications Vol. 3, 192. For criticism *see* Peter Kunzlik, 'Green Public Procurement – European Law, Environmental Standards and 'What To Buy' Decisions' (2013) 25 Journal of Environmental law 192.

On the basis of case law, the dormant Commerce Clause would at least prohibit discriminatory state regulation.[395] The U.S. Supreme Court has also applied the dormant Commerce Clause to state administrative decisions denying licenses for various forms of commerce.[396] It is noteworthy that the Supreme Court precedent extends the application even to single administrative decisions. Equally, no actual practice does necessarily need to have emerged in case the law authorizes a discriminatory practice and it is not too unlikely that it will be put into practice.[397] All in all, subjecting administrative practice to the provisions of the doctrine is important because it assures that states cannot circumvent trade law even if the adopted regulation is neutral.

2.1.2.2. Recommendations

In Austria, a significant majority of the population oppose nuclear power, as previously discussed.[398] Thus, the government originally planned to implement a system that would ban any import of electricity from nuclear power plants. In the end, it opted for a system of labelling instead. The system works so that facilities generating electricity receive energy certificates that indicate amount and source. In other words, they resemble RECs but can be issued with different codes to not only electricity from renewables, but also to electricity from fossil fuels or nuclear power. Electricity retailers are then required to buy energy certificates corresponding to the amount of electricity that they sell. [399]

The objective has all the time been to eliminate Austria's indirect contribution to the nuclear power industry. At the time of adopting the new law, both ministers and a

[395] John Attanasio and Joel K. Goldstein, *Understanding Constitutional Law* (4th ed. Lexisnexis, 2012) 212.
[396] HP Hood & Sons v. DuMond, 336 U.S. 525, 535 (1949); Buck v. Kuykendall, 267 U.S. 307 (1925).
[397] Brown-Forman Distillers Corp. v. New York State Liquor Authority, 476 U.S. 573, 582 n.5 (1986); HP Hood & Sons v. DuMond, 336 U.S. 525, 531, 545 (1949); Nathan Endrud, 'State Renewable Portfolio Standards: Their Continued Validity and Relevance in Light of the Dormant Commerce Clause, the Supremacy Clause, and Possible Federal Legislation' (2008) 45 Harvard Journal on Legislation 259, 276-279.
[398] *See* section 1.4.4.3.
[399] *See* the new §79a of the electricity law (Elektrizitätswirtschafts- und –organisationsgesetz), Beschluss des Nationalrates, Bundesgesetz, mit dem das Elektrizitätswirtschafts- und –organisationsgesetz 2010, das Gaswirtschaftsgesetz 2011 und das Energie-Control-Gesetz geändert warden, 2389 der Beilagen XXIV. GP (3 July 2013) <www.parlament.gv.at/PAKT/VHG/XXIV/BNR/BNR_00790/fname_314193.pdf> accessed 13 April 2014.

Parliament press release confirmed this.[400] The Austrian government expected the retailers in Austria to voluntarily commit to not purchase any nuclear power or to contribute to that industry in any way. In sum, Austria's government clearly was committed to recommend retailers not to import nuclear power. This European case raises the question as to whether a mere recommendation may fall foul of trade law?

Let us begin with assessing how WTO law has dealt with recommendations in general. An explicit prohibition to 'encourage' discriminatory behaviour can be found in Article 3.4 TBT. The central government may not issue recommendations for local government and NGOs to adopt discriminatory or other unjustifiable technical regulations in case the local government or NGO has legal powers to enforce the technical regulations. The existence of this provision that is applicable to quite specific circumstances may suggest that there might have been an intention to limit the scope of prohibited government recommendations at least in the context of the TBT agreement.

Article XI GATT prohibits "restrictions… made effective through…. measures". The concept of 'measures' could be seen as covering even recommendations. Yet, one may ask whether there are any 'restrictions' when there are merely non-binding recommendations that have actual restrictive effects? Perhaps. In contrast to 'measures', concepts such as rules, formalities, laws, regulations and requirements in Articles I and III do not seem to entail recommendations that do not take the form of a rule, law or regulation, but are instead part of a declaration, policy or the like. A measure that is not a rule, law, regulation or formality could be prohibited also when they constitute requirements. A requirement is something that is binding.

There are some arguments that could explain why the scope of measures could potentially be broader under Article XI. That article is applicable to restrictions on imports and exports. In other words, it applies to measures enforced at the border and thus do not apply to domestic products. If an import restriction is applied on goods all while substitutes are traded on the internal market without any similar restriction, the import restriction will in essence have the nature of a de jure discriminatory measure.

[400] Press Release from Austria's Parliament, Parlamentskorrespondenz Nr. 645 (4 July 2013) <www.parlament.gv.at/PAKT/PR/JAHR_2013/PK0645/> accessed 13 April 2014. *See* also Markus Stingl, 'Kompromiss im Atom-Streit' (13 April 2012) <http://kurier.at/wirtschaft/kompromiss-im-atom-streit/774.061> accessed 14 Nov. 2017; Claus Hecking, 'Umstrittenes Umweltgezetz: Osterreich Stoppt Import von Atomstrom' (3 July 2013) <www.spiegel.de/wirtschaft/soziales/energiewende-oesterreichs-totaler-atomausstieg-a-909206.html> accessed 14 Feb. 2014.

Prohibiting such recommendations may be less controversial than it would be to extend the prohibition of recommendations to internal measures that only have de facto discriminatory effect. This is of course under the presumption that Article XI does not extend to non-discriminatory trade restrictive measures.

Moving to an analysis of EU law, it should be noted that the EU Commission has at one point in time stated that 'measures' in the context of EU free movement law should be interpreted to include also recommendations.[401] The ECJ appears to have taken a similar position. In *Buy Irish*, the Court was faced with a case where the Commission challenged a campaign launched in Ireland to promote domestic goods. The Court first stated that the financing and other government involvement meant that the campaign could be attributed to the state.[402] Thereafter, the Court concluded that the campaign, despite its alleged limited practical effect, was a measure with potential effect comparable to binding measures. Hence, it fell under the scope of free movement law.[403]

The *Buy Irish* case related to a de jure discriminatory campaign. The same interpretation of the concept of measure should, however, apply uniformly in EU free movement law. The meaning of the same term in Article 34 TFEU should not vary depending on the de jure or de facto nature of discrimination. Recommendations that are not de jure discriminatory should therefore also under EU law be regarded as state measures. In conclusion, value choices by states do not escape tests of justification, including proportionality, merely by being formulated as recommendations.

2.1.2.3. GOs and Labels for Sustainable PPMs Established by States

States sometimes pursue important societal objectives and values by setting up labelling schemes that only gain their practical effect through the reactions of private parties on the market. For example, Article 15 RED requires each EU Member State to issue Guarantees of Origin for renewable electricity[404] and RED 2 will expand this to any

[401] Commission Directive 70/50 of 22 December 1969 based on the provisions of Article 33 (7), on the abolition of measures which have an effect equivalent to quantitative restrictions on imports and are not covered by other provisions adopted in pursuance of the EEC Treaty, OJ L 13, 19.1.1970, 29.
[402] Case 249/81 *Commission v. Ireland (Buy Irish)* [1982] ECR 4005, para. 15.
[403] *Id.*, paras 23-30. *See* also case C-227/06 *Commission v. Belgium* [2008] ECR I-46, para. 69; Case C-171/11 *Fra.bo SpA v. Deutsche Vereinigung des Gas- und Wasserfaches eV (DVGW) – Technisch-Wissenschaftlicher Verein*, ECLI:EU:C:2012:453, para. 23.
[404] Article 15, Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC [2009] OJ L 140, 5.6.2009, 16.

renewable energy.[405] These GOs are normally granted to plants generating power and contain information on the quantity of power and the resource utilized. The GOs only serve the function of illustrating to consumers the source of energy.[406]

RED 2 confirms that states may even grant GOs to non-renewables.[407] Let us return to the curious case of Austria. The population and the government are very much against nuclear power.[408] Worthy to note is also that Austria has a large domestic hydropower sector.[409] In January 2015 a new law entered into force in Austria that extended the issuance of GOs to also other sources of energy than renewables.[410] The purpose of the law is to encourage retailers to purchase any form of non-nuclear GOs,[411] and through this mechanism affect the market for nuclear power that is generated in power plants in neighbouring countries, especially just across the Austrian border in Czech Republic.[412] The tradable Austrian GOs are something in-between traditional GOs and tradable RECs. Purchasing non-nuclear GOs is voluntary and there is no obligatory quota to fulfil. Sweden had already earlier adopted a similar law,[413] but it has not attracted so

[405] Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82, Article 19.
[406] A power exchange must provide retailers with information of the shares of different energy sources that represent the mix of 'grey power' and this information is further provided for the consumers. *See* Article 3(9), Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC, OJ L 211, 14.8.2009, 55.
[407] Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82, Article 19(2).
[408] 'Atomstrom-Umfrage 2011' (28 June. 2011) <http://www.greenpeace.org/austria/de/themen/atom/was-wir-tun/Raus-aus-Atomstrom/Umfrage-zu-Atomstrom/> accessed 20 May 2014.
[409] E-Control, Key Statistics 2013, at 20-25, <http://www.e-control.at/documents/20903/-/-/6455d2e3-8e4e-458a-864c-6916c2586c6d> accessed 12 March 2016.
[410] *See* the new §79a of the electricity law (Elektrizitätswirtschafts- und –organisationsgesetz), Beschluss des Nationalrates, Bundesgesetz, mit dem das Elektrizitätswirtschafts- und –organisationsgesetz 2010, das Gaswirtschaftsgesetz 2011 und das Energie-Control-Gesetz geändert warden, 2389 der Beilagen XXIV. GP (3 July 2013) <www.parlament.gv.at/PAKT/VHG/XXIV/BNR/BNR_00790/fname_314193.pdf≥ accessed 13 April 2014. In the EU there is only an obligation to award GOs for renewables and for high efficiency cogeneration. *See* Article 14(10) and Annex X, Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC, OJ L 315, 14.11.2012, 1.
[411] Press Release from Austria's Parliament, Parlamentskorrespondenz Nr. 645 (4 July 2013) <www.parlament.gv.at/PAKT/PR/JAHR_2013/PK0645/≥ accessed 13 April 2014. *See* also Markus Stingl, 'Kompromiss im Atom-Streit' (13 April 2012) <http://kurier.at/wirtschaft/kompromiss-im-atom-streit/774.061> accessed 14 Nov. 2017; Claus Hecking, 'Umstrittenes Umweltgezetz: Osterreich Stoppt Import von Atomstrom' (3 July 2013) <www.spiegel.de/wirtschaft/soziales/energiewende-oesterreichs-totaler-atomausstieg-a-909206.html> accessed 14 Feb. 2014.
[412] For an unsuccessful challenge on the right to have nuclear parts close to the border *see* case C-115/08 *Land Oberösterreich v. ČEZ as.* [2009] ECR I-10265.
[413] Lag (2010:601) om ursprungsgarantier för el (especially § 1, 3 and 14); Förordning (2010:853) om ursprungsgarantier för el (especially § 2-3).

much attention since there is less of a consensus in Sweden among retailers and consumers of the need to avoid altogether some specific way of generating electricity; neither nuclear power, nor any other process.

The GOs in Austria are issued by transmission system operators and state controlled agencies administer the trade in GOs. The system is established by law and could potentially be a state measure under EU free movement law. The question is really whether there is any direct causa between the government action and the discrimination[414] and whether the lack of such causa would mean that the measure cannot be prima facie prohibited. In case the state labelling scheme includes some de jure discriminatory feature, the causa between the scheme and the discriminatory effect would be apparent.[415] However, the discriminatory effects of GO-systems stem primarily from market preferences of private parties.

The ECJ has ruled that states are responsible for the discriminatory effects of advertising bans even if the effect is partly dependent on consumer behaviour.[416] Those cases can, however, be distinguished from GO-systems in that an advertising ban prevents consumers from making informed conscious decisions, whereas the effects of a GO-system is exactly the opposite. In the case of GO-systems that are not de jure discriminatory, one could perhaps argue that the nexus between the state and the condemned (discriminatory) effects may be too weak for the system to be prima facie prohibited.

In cases on origin marking the ECJ has found the nexus to be sufficient. The requirement to indicate the origin on the products applied equally to all goods but it was evident that consumers would to some degree prefer domestic goods as a consequence of origin marking. The ECJ found that the measure was prohibited because it would enable customers to assert their prejudice against foreign goods.[417] Origin marking is still perhaps somewhat different from GOs. While origin marking

[414] …or restriction on market access.
[415] This was the situation for example in *Buy Irish*. *See* case 249/81 *Commission v. Ireland (Buy Irish)* [1982] ECR 4005.
[416] Joined cases C-34/95, C-35/95 and C-36/95 *Konsumentombudsmannen (KO) v. De Agostini (Svenska) Förlag AB and TV-Shop i Sverige AB* [1997] ECR I-3843, para. 43. *See* also Case C-405/98 *Konsumentombudsmannen (KO) v. Gourmet International Products AB (GIP)* [2001] ECR I-1795.
[417] Case 207/83 *Commission v. United Kingdom* [1985] ECR 1201, para. 17. *See* also case C-362/88, *GB-INNO-BM v. Confédération du commerce luxembourgeois* [1990] ECR I-667.

requirements might also not be jure discriminatory, they would still be explicitly linked to geographical origin.

The purpose of trade law has not been to question market behaviour. There is thus strong appeal in declaring origin neutral state labelling schemes that merely increase information on the market to fall outside the scope of prima facie prohibited state measures.[418] Admittedly, such approach would entail some risks. States have a tendency to be inventive and design new types of measures and it may be very difficult to distinguish whether the discriminatory effects can in full be attributed to some 'pure' consumer preferences or whether the detailed design of the system has increased the discriminatory effect. The state is responsible for each element of its design and the effects. Hence, there may be practical reasons to still examine government labelling schemes carefully in light of legal tests in law of justification even if there is no de jure discrimination.

2.1.3. Turning the Tables: Inaction on Externalities

The discussion on state measures was so far in this chapter focused on circumstances where promoting renewable energy or other forms of sustainability action in the form of state laws, recommendations or labelling schemes can constitute a measure in breach of trade law. This represents a traditional well-established approach under which measures taken to protect environmental or other legitimate values must be justified if discriminatory.

Fossil fuels are cheap and dominate the energy sector at least in part because their negative externalities have not been addressed by restrictions.[419] In case states decide to treat products produced with PPMs that cause different levels of externalities equally, could that not discriminate against states with clean and sustainable industries? The decision not to tackle pollution has generally not been throught to constitute a prima facie prohibited measure. This would, however, reflect a bias in trade law in favor of free trade at the expense of the objective to eliminate externalities.

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[418] *See* also Sanford E. Gaines, 'Process and Production Methods: How to Produce Sound Policy for Environmental PPM-Based Trade Measures?' (2002) 27 Columbia J. Environmental Law 383, 416. Gaines takes the position that voluntary eco-labels would not constitute government measures and would not be covered by GATT. This is certainly true for privately administered schemes. As pointed out here, it is less clear whether it should apply also for origin neutral state administered schemes.

[419] Uma Outka, 'Environmental Law and Fossil Fuels, Barriers to Renewable Energy' (2012) 65 Vanderbilt L. Rev., 1679, 1690-1691.

Under an alternative approach, the failure to address externalities could constitute a measure distorting free trade. From such perspective, the failure to take action to, for example, limit carbon dioxide emissions would be regarded as prima facie prohibited.[420] In principle, this would only be an extension of the non-intervention test already applied in EU free movement law.

The non-intervention test has been applied in a few cases. The objective of hindering Member States from circumventing their obligations under free movement law has invited the ECJ even to declare non-action by Member States to constitute 'measures'. This doctrine has been applied when France did not hinder its citizens from attacking shipments of imported fruit, vegetables and berries, and equally when Austria allowed protesting citizens to block a major transit route to Italy.[421] The ECJ concluded that the failure of the Member States to intervene was a conscious state measure. In sum, in accordance with the test, states have an obligation to intervene when private parties, perhaps through their market power, significantly disrupt or interfere with the business activities of other market participants.

There are some arguments for and against the application of the non-intervention test for determining the existence of a measure in the context of limited action to curb pollution. First there is the argument that the non-intervention test has been applied so far only in exceptional cases. What is more, these cases have concerned either de jure discrimination or direct restrictions on cross-border transit. However, there is again the counter-argument that the definition on what a 'measure' is should not depend on the nature of discrimination and that the test could therefore apply also to de facto discriminatory non-intervention in the area of tackling pollution. Secondly, there is the argument that a case of market failure with high levels of externalities caused by private parties would not represent a case of significant and direct interference with competing business activities. Here also, there exists a counter-argument. Namely, the polluting

[420] *Cf.* Farber's argument that a failure to regulate carbon emissions could constitute a subsidy. *See* Daniel A. Farber, 'Climate Policy in a System of Divided Powers: Dealing with Carbon Leakage and Regulatory Linkage' (2012) UC Berkeley Public Law Research Paper No. 2174024, 8. A later version of the article did not include this point. *See* Daniel A. Farber, 'Climate Policy and United States System of Divided Powers: Dealing with Carbon Leakage and Regulatory Linkage' (2014) 3 Transnational Environmental Law 31.

[421] Case C-265/95 *Commission v. France* [1997] ECR I-6959, paras 30-31; Case C-112/00 *Eugen Schmidberger, Internationale Transporte und Planzüge v. Austria* [2003] ECR I-5659, paras 57-64.

companies would harm the society and could therefore also be regarded to interfere with other businesses.

A new approach toward externalities would enable states and their businesses to demand justification from other states that create competitive advantages by allowing polluting activities that often end up affecting also the environment of neighboring states and the global climate. This would admittedly radically change trade law as we know it today. There would be much less restriants on what could constitute a prima facie prohibited measure if state inaction would fall under scrutiny in trade law; and it is submitted it should. States would still continue to have at their disposal grounds of justification and in case of scientific uncertainty the state would often be able to justify inaction.

The consequence of a strict approach to inaction would be that when a state despite overwhelming scientific evidence fails to address some environmental problem, it would be found to be in breach of the trade law if its inaction puts its in-state industry in a more favorable position. Admittedly, the downside of such change in perspective would be that courts would get an increasing amount of cases to handle since the broad scope resulting from covering also inaction could not be counterbalanced by excluding any measures that tackle externalities from the scope of 'measures' under trade law.

2.1.4. Imbalance Between Trade and Environment

Free trade and non-discrimination forms the rule in trade law and grounds of justification, for example related to environmental protection, form the exceptions. This may create a bias in favour of free trade and non-discrimination, in particular as exemptions are to be interpreted narrowly. In previous research it has, however, been pointed out that the outcome of value reconciliation may in principle be the same, regardless of which value is the main rule and which is the exception.[422]

More severe bias might instead arise from the fact that cases of state inaction almost never become scrutinized under value reconciliation tests. As portrayed in this chapter, trade law in each jurisdiction has left the scope of both covered objects of trade (i.e. articles of commerce) and the form of covered measures quite broad. Yet, a category of measures – inaction with respect to externalities – appears to so far not have come

[422] Harri Kalimo, *E-Cycling – Linking Trade and Environmental Law in the EC and the U.S.* (Transnational 2006) 40-49.

within the scope of scrutinized measures. Leaving inaction outside the scope of prima facie prohibited measures would result in a bias against so called non-trade values, including environmental and social values. The potential bias is only further highlighted by the fact that innovative state administered GO-systems and labelling schemes that intend to reduce externalities through market behavior in turn run a risk of being declared prima facie prohibited. This is not altered by that fact that such discriminatory schemes should as innovative means to address externalities often be justifiable, provided that they do not contain any de jure discriminatory elements.

The identified potential bias may provoke considerations of changes in litigation strategies and even in legal policy. The argument may gain further strength with the realization that externalities come with an economic cost, revealing an element of inefficiency in a field of law that in part has been built around the ideal of efficient markets.

The potential structural bias identified here justifies a thorough study on the reconciliation of free trade and environmental values. How are free trade and environmental protection reconciled when they clash in concrete practical cases? Is there any bias reflected also in the legal tests applied in the reconciliation? In the two remaining sections of this chapter legal tests that has been applied in law of prohibition will be examined, with a view to determine how well these tests are equipped for the purpose of reconciling free trade and non-trade values.

2.2. The Likeness (or Similarity) Test

2.2.1. Likeness and PPMs

Measures that cause discriminatory effects are prima facie prohibited under each trade law regime. Under the principle of non-discrimination, out-of-state products shall not be treated less favourably than similar in-state products. The existence of prohibited discriminatory effects, or de facto discrimination, is established through a two-tier test. First, the products compared must be similar or like. Secondly, the out-of-state group of like products must be treated less favourably.[423]

[423] In other fields of law the test for determining discrimination is in part different. For example, in U.S. laws on racial discrimination the mere discriminatory effect will not trigger any assumption of illegality unless it can be linked to further indications of a discriminatory purpose. *See* e.g. Washington v. Davis, 426 U.S. 229 (1976); Jennifer L. Larsen, 'Discrimination in the Dormant Commerce' (2004) 49 South Dakota Law Review 844, 857-858.

While the test of less favourable treatment clearly presents difficult questions, as illustrated in chapter 1,[424] so does also the test of likeness. Which elements of a product are relevant for determining likeness? Can two physically identical products be like products even if the process and production methods of one of them are much more sustainable than those relied on in producing the other?

This second section of chapter 2 will explain how the test of likeness/similarity has been shaped. The intention is to map the different elements of the test. This will enable an analysis of the underlying objective that the test reflects and how it may be linked to efficiency. In addition, it will be analysed how the likeness test might incorporate legitimate – in particular environmental – values. The objective is in other words to determine whether the test is applied as a value reconciliation test and whether it is a suitable tool for reconciling free trade and non-trade values. Measures adopted on PPMs in the energy sector will form the context for the discussion.

2.2.2. The Likeness Test in WTO Law

2.2.2.1. Competition and Intent

Being the most detailed regime with respect to likeness, WTO law provides a good starting point for the analysis. Articles I:1, III:2 and III:4 in the GATT and Article 2.1 in the TBT Agreement mention the concept of like products without specifying how likeness is to be assessed. The context of each provision must be acknowledged. Hence, the concept of like products is not to be interpreted fully identically under all provisions.[425]

In accordance with the first sentence of Article III:2 imported products shall not be taxed more heavily than like domestic products. Here, the concept of like has been interpreted to cover only almost identical products. The reason for the narrow interpretation is to be found in the broad scope of the rule put down in the second sentence of the same paragraph. Namely, in that sentence it has been established that taxation should in any case not be applied so as to afford protection to domestic products. It is further clarified in an interpretative note to Article III[426] that no less

[424] *See* section 1.3.2.
[425] Japan – Taxes on Alcoholic Beverages, DS8, DS10 and DS11, Panel Report, 11 July 1996, paras 6.21-6.23; Peter Van den Bossche, *The Law and Policy of the World Trade Organization* (CUP 2008) 329.
[426] Note Ad Article III:2 (Annex I of GATT).

favourable treatment should be afforded to directly competitive or substitutable products. What follows from this is that the second sentence does not only cover cases of actual substitutes, but also requires equal treatment of products that are capable of being substitutes.[427] In other words, the products must be treated similarly in case competition potentially could develop in the near future.[428] Hence, under III:2 as a whole, the category of products to be compared is rather broad, even if the concept of like products is narrow under Article III.2, first sentence.

Under Articles I:1 and III:4 the concept of like products is broader than the very narrow concept in III:2, first sentence. It has been argued that like products under these two GATT provisions would lie somewhere in between the narrow interpretation of Article III:2, first sentence, and the broad interpretation of product categories to be compared under the second sentence.[429] It is plausible that the full scope of like products and products in competition under Article III:2 might almost coincide with the scope of like products in other GATT provisions, such as Articles I:1 and III:4.

Although the concept of likeness under Article III:4 could be assumed to correspond to the coverage of like and substitutable products under III:2, the Appellate Body in *EC – Asbestos* refrained from taking a stance when confronted with that question.[430] Still, in applying Article III:4 in *EC – Asbestos*, the AB stated that two products would be like in case they were in competition with one another.[431] The same interpretation of likeness would appear to apply also for Article 2.1 TBT.[432]

There has previously existed a different interpretation of likeness. Article III:1 contains a provision according to which measures should not be applied so as to afford protection to domestic products. The article sets the foundations for the interpretation of the rest

[427] Korea – Taxes on Alcoholic Beverages, DS75, AB Report, 18 Jan. 1999, para. 114.
[428] Korea – Taxes on Alcoholic Beverages, DS75, Panel Report, 17 Sept. 1998, para. 10.48.
[429] On Art. I *see* Petros C. Mavroidis, *The General Agreement on Tariffs and Trade: A Commentary* (OUP 2005) 117.
[430] EC – Measures Affecting Asbestos and Products Containing Asbestos, DS135, AB Report 12 March 2001, paras 94-99.
[431] EC – Measures Affecting Asbestos and Products Containing Asbestos, DS135, AB Report 12 March 2001, paras 98-100. *See* also US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products (US – Tuna, Mexico II): Recourse to Article 21.5 of the DSU by Mexico, DS381, Panel Report, 14 April 2015, paras 7.473 (Article III:4) and 7.407-409 (Article I).
[432] US – Measures Affecting the Production and Sale of Clove Cigarettes, DS406, AB Report, 4 April 2012, paras 95-96, 111, 120; US – Certain Country of Origin Labelling (COOL) Requirements, DS384, AB Report 29 June 2012, para. 269; US – Certain Country of Origin Labelling (COOL) Requirements: Recourse to Article 21.5 of the DSU by Canada and Mexico, DS384, Panel Report, 20 Oct. 2014, para. 7.631.

of Article III and is directly referred to in Article III:2. The phrase 'so as to afford protection' was interpreted so that two products were only like if the different treatment of the products reflected protectionist intent.[433] The dispute settlement bodies seem to be abandoning the test.[434] In *Japan – Alcohol (1996)*[435] and *US – Gasoline*[436] the respective panels confirmed the interpretation that two products can be like regardless of what the intent of the regulation has been and this conclusion was not reversed by the Appellate Bodies. In sum, no test of subjective intent in determining likeness is applied anymore.[437]

2.2.2.2. The Four Factor Test

Even if the scope of like products is linked to the notion of competition, the panels have developed some more detailed criteria to assess the likeness of two products. In *Japan – Alcohol (1996)* the panel and the Appellate Body examined the concept of like products as well as the concept of substitutable products under Article III:2, second sentence. The case concerned EU's complaint that Japan levied a lower tax on sochu than on whiskey, cognac and white spirits. The panel and the AB stated that the physical characteristics, the tariff classification, the end-use as well as consumer tastes and habits are all relevant factors.[438] Furthermore, it was pointed out that the elasticity in substitution is a relevant indicator of substitutability, and needs to be considered in the overall assessment of likeness with respect to end-use, price and consumer behaviour.[439] However, even if the cross-price elasticity is relevant, it is perhaps not a decisive criterion on its own.

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[433] US – Taxes on Automobiles, DS31, Panel Report, 11 Oct 1994 (unadopted), paras 5.9-15; US – Measures Affecting Alcoholic and Malt Beverages, DS23, Panel Report, 16 March 1992 (adopted), paras 5.25, 5.71.

[434] Won-Mog Choi, "*Like Products" in International Trade Law – Towards a Consistent GATT/WTO Jurisprudence* (OUP 2003) 82.

[435] Japan – Taxes on Alcoholic Beverages, DS8, DS10 and DS11, Panel Report, 11 July 1996, paras 6.16, 6.33-35; Japan – Taxes on Alcoholic Beverages, DS8, DS10 and DS11, AB Report, 4 Oct 1996, p. 18-33.

[436] US – Standards for Reformulated and Conventional Gasoline, DS2, Panel Report, 29 January 1996, paras 6.5-6.13; US – Standards for Reformulated and Conventional Gasoline, DS2, AB Report, 29 April 1996.

[437] Jochem Wiers, *Trade and Environment in the EC and the WTO – A Legal Analysis* (Europa Law 2003) 323-324.

[438] Japan – Taxes on Alcoholic Beverages, DS8, DS10 and DS11, Panel Report, 11 July 1996, paras 6.21-6.28; Japan – Taxes on Alcoholic Beverages, DS8, DS10 and DS11, AB Report, 4 Oct. 1996, p. 19-23. *See* also Report of the Working Party on *Border Tax Adjustments,* BISD 18S/97 (1970) para. 18.

[439] Japan – Taxes on Alcoholic Beverages, DS8, DS10 and DS11, AB Report, 4 Oct. 1996, p. 25-26.

The factors mentioned in *Japan – Alcohol (1996)* have been repeated also in connection to likeness under non-tax provisions such as Articles I[440] and III:4 GATT[441] and 2.1 TBT[442].

The likeness of energy products can be approached from the perspective of the four-factor test outlined in previous cases. Physical properties constitute the first element of comparison. The claim has been made that energy products are not physically similar.[443] The statement applies to the energy resources but not to the electricity generated from those resources, as the end product will be fully identical regardless of resources utilized. In contrast, in comparing energy resources, such as coal or wind, there is indeed significant difference in the physical properties. Similarly, there are some physical differences between (transport) fuels made from different resources.

The assessment of physical difference was at stake in *EC – Asbestos*. The case emerged when Canada brought forward a complaint against EU's decision to ban the import of products containing asbestos. The Appellate Body seemed to accept that toxicity was a physical property. Hence, the more serious health risk of a product could render it different and non-substitutable from otherwise similar products.[444] Ex analogia, it could be argued that green energy is unlike other energy due to differences in effect on the environment. However, it must be pointed out that the argumentation in *EC – Asbestos* has already received harsh criticism.[445] In addition, the case in *EC – Asbestos* concerned the toxicity of the product itself and health hazards related in particularly to the physical use (consumption) of the product. In the case of energy, the difference in 'toxicity' would not relate to the physical properties of the product, but to the emissions that arise in the production phase.

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[440] US – Certain Measures Affecting Imports of Poultry from China, DS392, Panel Report, 29 Sept. 2010, paras 7.424–7.427, 7.429. *See* also Indonesia – Certain Measures Affecting the Automobile Industry, DS54, DS55, DS59 and DS64, Panel Report, 2 July 1998, para. 14.141.

[441] US – Standards for Reformulated and Conventional Gasoline, DS2, Panel Report, 29 January 1996, paras 6.8-6.9; EC – Measures Affecting Asbestos and Products Containing Asbestos, DS135, AB Report, 12 March 2001, paras 101 and 109; US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products (US – Tuna, Mexico II): Recourse to Article 21.5 of the DSU by Mexico, DS381, Panel Report, 14 April 2015, para. 7.472.

[442] US – Measures Affecting the Production and Sale of Clove Cigarettes, DS406, Panel Report, 2 Sept. 2011, para. 7.119.

[443] Simonetta Zarrilli, 'Domestic Taxation of Energy Products and Multilateral Trade Rules: Is This a Case of Unlawful Discrimination?' (2003) 37 J. World Trade 359, 376.

[444] EC – Measures Affecting Asbestos and Products Containing Asbestos, DS135, AB Report 12 March 2001, paras 113-141.

[445] *See* e.g. Tamara Perisin. *Free Movement of Goods and Limits to Regulatory Autonomy in the EU and WTO* (T.M.C. Asser 2009) 151.

The second factor to be taken into account in the assessment of likeness is the end-use of the products. Similar end-use means that the consumer consumes the products in the same situation for the same purpose.[446] Differences in PPMs for electricity would not affect the end use. For fuels the analysis is more complex. On the one hand, the PPMs will not affect the purpose of fuel to facilitate transportation. The end use is in this sense similar. On the other hand, the PPM might be reflected in the physical characteristics of the fuel, which means that all fuels cannot be utilized in similar engines. Is there a difference in end-use if one fuel is intended for use in one type of car engines and another fuel is used in a different type of engines?

Technology could influence substitutability. For example, a change in transport fuel may require a change of car or engine. An increase in cross-price elasticity would be expected to take place as the technological barriers to interchangeable use of resources diminish.

A further dimension related to end-use is worthy of note. According to the Appellate Body two products can be regarded as substitutes even if they are not perfect substitutes.[447] What is more, in accordance with the case law the actual primary use is less relevant than the theoretical capability to serve a function.[448] This suggests that the threshold for substitutability could be reached even when the degree of substitutability is relatively modest. In the energy sector the end-use can be for example electricity, transport fuel as well as heating and cooling. Electricity can be regarded as a product with broad end-use that is to *some degree* a substitute to transport fuels as well as to other methods of heating and cooling. How high the required threshold for substitutability is set will have significant relevance for trade law.

The third aspect to consider in examining likeness of energy products is consumer habits and tastes. The concept of consumers should probably be understood broadly as covering all types of consumers of energy. This means that it is not only the habits and tastes of private persons, but also the actions of industrial players that may matter.

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[446] Federico Ortino, *Basic Legal Instruments for the Liberalization of Trade: A Comparative Analysis of EC and WTO Law* (Hart 2004) 260.
[447] Canada – Certain Measures Concerning Periodicals, DS31, AB Report, 30 June 1997, p. 25-29; Korea – Taxes on Alcoholic Beverages, DS75, AB Report, 18 Jan. 1999, para. 118.
[448] EC – Measures Affecting Asbestos and Products Containing Asbestos, DS135, AB Report, 12 March 2001, para. 117; US – Measures Affecting the Production and Sale of Clove Cigarettes, DS406, AB Report, 4 April 2012, para. 125.

Giving relevance to consumer habits and tastes will mean that the market could to a large extent decide if green and dirty energy are like products.[449] The behaviour of consumers is to a high degree influenced by price. Therefore, the panel has confirmed that the price of two products may influence the assessment of likeness.[450] In other words, the cross-price elasticity of demand on a market without distortions would be of relevance, but it is often difficult to estimate because the measures under scrutiny often affect prices.

The price of transforming renewable resources into consumable energy is still at the moment higher than the use of many fossil fuels or nuclear power. Consequently, in case consumers main concern is with price, then the price difference would speak in favour of accepting energy from renewable resources as a different product than other forms of energy. Moreover, in the energy sector, the cross-price elasticity has been estimated to be strong only in the long term. However, a tendency of buyers reacting with decreasing delay to price changes in energy generated from one resource by switching to other resources was identified around the turn of the century.[451]

EC – Asbestos could be read as an invitation to take other aspects than price into account when assessing consumer habits and tastes. The Appellate Body appeared to accept the view that consumers would be expected to react to differences in the immediate health risks that the products pose as such through their physical characteristics. In *Indonesia – Chicken* the panel was more explicit with regards to the relationship between consumer tastes and health aspects. In 2016 Indonesia had amended some discriminatory elements of its laws on importation and sales of chicken. The legislation still included a requirement that businesses have cold storage facilities available for frozen and chilled chicken meat at the markets where the chicken was sold. This requirement burdened imported chicken more than domestic chicken. Namely, imported chicken is frozen before it is imported and sold, whereas domestic chicken is often sold fresh. Unlike imported chicken, domestic chicken was largely unaffected by the cold storage requirement applicable only to frozen chicken. The panel repeated the familiar statement that products in competition are like, but still went on to conclude

[449] Christina Voigt, *Sustainable Development as a Principle of International Law Resolving Conflicts Between Climate Measures and WTO Law* (Brill 2009) 219-220.
[450] Dominican Republic – Measures Affecting the Importation and Internal Sale of Cigarettes, DS302, Panel Report, 26 Nov. 2004, para. 7.336.
[451] Simonetta Zarrilli, 'Domestic Taxation of Energy Products and Multilateral Trade Rules: Is This a Case of Unlawful Discrimination?' (2003) J. World Trade 359, 361-364.

that frozen and fresh chicken are dissimilar products because without a cold storage requirement the physical properties of frozen chicken would change with a relevance for the healthiness and this would spur reactions from consumers.[452] While microbial growth is not an inherent part of chicken in the same way as unhealthy properties are inherent parts of asbestos, the thawing of frozen chicken would still affect the physical properties of the chicken and thus also affect how healthy the physical products is.

In *EC – Asbestos* and *Indonesia – Chicken* the health risks of the products were directly and immediately linked to the physical properties of the products. The toxicity was either an inherent property of the product (asbestos) or a result of unsustainable processing (not keeping the chicken cold after thawing it). In contrast, in the energy sector the health risks are less immediate and there are circumstances where the health risk does not directly stem from the physical properties of the products as in the cases described above. The health risk instead comes in the form of emissions from the PPMs. It is not the product that is toxic but the emissions. Moreover, in the cases of asbestos and bad chicken meat the health risks are primarily or even exclusively materialized for the parties directly dealing with or consuming (i.e. eating or using) the product. In contrast, with respect to unsustainable PPMs the negative health effects burden the general public. In conclusion, the principles shaped in *EC – Asbestos* and *Indonesia – Chicken* cannot be applied by analogy for cases on PPMs generally.

The choice of protecting the environment and conserving clean air through the support of sustainable PPMs is in part about efficiency but could at least be argued to partly be a question related to morals, and perhaps the morals of consumers. The case of differences in the environmental effects of PPMs differs from those on asbestos and chicken meat also in this respect. Some claim that consumer behaviour is guided by first and foremost the price and not by moral considerations.[453] Others disagree and claim that consumers will care for the environment and adopt their habits accordingly.[454] In sum, consumer tastes and habits could be used as an argument both for and against the likeness of various energy products.

[452] Indonesia – Measures Concerning the Importation of Chicken Meat and Chicken Products, DS484, Panel Report, 17 Oct. 2017, paras 7.309-320.
[453] Peter Van den Bossche, *The Law and Policy of the World Trade Organization* (CUP 2008) 380-381.
[454] Dale Arthur Oesterle, 'Just Say 'I Don't Know': A Recommendation for WTO Panels Dealing with Environmental Regulations' (2001) 3 Environmental L. Rev. 113, 130.

When dealing with energy trade, an AB has recently hinted that it might accept the view that consumers value energy produced with as little as possible detrimental effects on the environment.[455] What is more, the AB has stated that not only the prevailing, but also the potential consumer preferences should be taken into account.[456] Providing consumers with more information on the environmental effects of transforming resources into consumable energy would probably increase the relevance of this factor in consumer choice.

A working group has pointed out the need to examine consumer tastes and habits country by country.[457] In practice, this would mean that when a measure is taken by one government to differentiate between energy products from different resources, the assessment of consumer habits and tastes would only focus on local consumers. Consequently, states with more environmentally conscious consumers would be in a better position to argue for the legitimacy of their discriminatory PPM-criteria.

The tariff classification is the fourth and final element in the analysis of likeness. Here it is not decisive what tariffs the state imposing a contested measure has adopted, but how other countries classify the products in their tariff system.[458] In other words, relevance could here be given to international tariff classification or possibly classification in the majority of states.

Against this background it is worthy of note that once some resources have been transformed into electricity, the resource or PPM utilized is no longer relevant for tariff category in almost all states. In contrast, in the fuel sector the tariffs vary substantially. For example, the tariff for bioethanol is usually much higher than that for biodiesel.

In sum, the likeness test is built around the notions of competition and substitutability. In addition, the test relies on four factors in WTO law. Generally, it is important to note

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[455] *See* Canada –Certain Measures Affecting the Renewable Energy Generation Sector, DS412 and Canada - Measures Relating to the Feed-In Tariff Program, DS426, AB Report, 6 May 2013, paras 5.167-179. The relevant part of the decision related to the interpretation of the SCM Agreement (Agreement on Subsidies and Countervailing Measures, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1869 U.N.T.S. 14). Apart from focusing on both supply- and demand-side substitutability the AB also seemed to reason that government preferences for renewables reflect consumer preferences for renewables. *Cf.* Canada – Certain Measures Affecting the Renewable Energy Generation Sector, DS412 and Canada - Measures Relating to the Feed-In Tariff Program, DS426, Panel Report, 19 Dec. 2012, para. 7.318.

[456] Korea – Taxes on Alcoholic Beverages, DS75, AB Report, 18 Jan. 1999, para. 120.

[457] Report of the Working Party on *Border Tax Adjustments,* BISD 18S/97 (1970) para. 18.

[458] Spain – Tariff Treatment of Unroasted Coffee, L/5135, Panel Report, 11 June 1981 (adopted), para. 4.8.

that for most products the four factors may point in different directions and sometimes it may even be difficult to determine whether a specific factor points to similarity or dissimilarity.

The four factors are partly interlinked. The choice of PPM will not affect end-use and tariff classification unless the PPM affects the physical characteristics of the product. In turn, consumer habits and tastes may be affected by the choice of PPM independently of any changes to physical characteristics. Hence, in cases on PPM-criteria it becomes pivotal to at the outset determine the effects of the PPMs for the physical characteristics and for consumer tastes and habits. For fuels both these factors may to some degree provide arguments for dissimilarity, whereas for electricity consumer tastes and habits remains the only argument that could be relied on in arguing for dissimilarity. However, the same factors may equally provide arguments in favour of finding the products to be similar despite different PPMs.

2.2.2.3. Differences in PPMs, Overall Analysis and Teleological Arguments

Likeness is an overall analysis of the different elements and arguments under all four assessment criteria.[459] It has been argued that products need to be like under all assessment criteria in order to be regarded as like products.[460] In reality, the assessment has not appeared to be applied that strictly. For example, it is not unthinkable that two products would work as almost perfect substitutes and therefore be like products even if they are physically quite different or fall under different tariff classes in most states.

Many academics have argued that WTO panels would not accept two products to be unlike with sole reference to process and production methods.[461] In turn, Howse has

[459] EC – Measures Affecting Asbestos and Products Containing Asbestos, DS135, AB Report, 12 March 2001, para. 109.
[460] Federico Ortino, *Basic Legal Instruments for the Liberalization of Trade: A Comparative Analysis of EC and WTO Law* (Hart 2004) 334.
[461] Martha Roggenkamp et al. (eds.), *Energy Law in Europe – National, EU and International Law and Institutions* (OUP 2001) 87-89; Simonetta Zarrilli, 'Domestic Taxation of Energy Products and Multilateral Trade Rules: Is This a Case of Unlawful Discrimination?' (2003) 37 J. World Trade 359, 377-379; Robert Ackrill and Adrian Kay, 'EU Biofuels Sustainability Standards and Certification Systems – How to Seek WTO-Compatibility' (2011) 62 J. Agricultural Economics 551, 555-556; Andrew D. Mitchell and Christopher Tran, 'The Consistency of the EU Renewable Energy Directive with the WTO Agreements' (2009) Georgetown Business, Economics & Regulatory Law Research Paper No. 1485549, paras 13-17; Maureen Irish, 'Renewable Energy and Trade: Interpreting Against Fragmentation' (2013) The Canadian Yearbook of International Law 217, 223; Sanford E Gaines, 'Process and Production Methods: How to Produce Sound Policy for Environmental PPM-Based Trade Measures?' (2002) 27 Columbia J. Environmental L. 383, 418. *See* also Rex J. Zedalis, 'A Theory of the GATT "Like" Product Common Language Cases' (1994) 27 Vanderbilt J. Transnational Law 33, 73

argued that if there is a non-protectionist policy ground behind the plan to differentiate two products on the basis of PPM's, these products should not be considered like.[462] Wiers also views it plausible to argue that two very similar products are in fact unlike due to the difference in PPM.[463]

In *US – Malt Beverages* the panel concluded that beer produced in small and large breweries were like products.[464] The scale of production was hence irrelevant. Yet, this does not exclude the possibility that the PPMs could be.

In *Canada – Renewables* the AB examined a feed-in-tariff adopted by Ontario. The tariff was granted under the condition that the facility generating electricity utilized local products to a certain extent. Interestingly, in its examination of the application of GATT to the facts of the case the AB stated that PPMs may need to be taken into account in the assessment of likeness.[465] Yet, it found no need to complete this thought in the case at hand. More than two decades earlier the panel in *Japan – Alcohol (1987)* had similarly indicated that PPMs may matter as it briefly mentioned the manufacturing process of alcohol to be a criterion in the assessment of likeness.[466] That statement, however, related to the narrower concept of likeness under Article III.2 and may not be applicable in the context of non-tax WTO provisions, such as Article III:4 GATT.

In cases on U.S. laws introducing criteria on sustainable fishing methods the panels have had to compare both tuna caught with dolphin-safe methods to tuna caught with the effect of killing dolphins, and shrimp caught with turtle exclusion devices with shrimp caught without such devices. Since Article XI was applied in these environmental cases, the likeness test was never applied. However, in *US – Tuna (Mexico I)* the panel still actually indicated that the production method would not be

(with quotes from Third Committee: Commercial Policy, Summary Record of the Fortieth Meeting, UN Conference on Trade and Employment, UN Doc E/Conf.2/C.3/SR.40, 1947, 1).

[462] Robert Howse, *The WTO System: Law, Politics and Legitimacy* (Cameron May 2007) 90. *See* also Robert Howse and Donald Regan, 'The Product/Process Distinction: An Illusory Basis for Disciplining 'Unilateralism' in Trade Policy' (2000) 11 European Journal of International Law 249, 261-262.

[463] Jochem Wiers, *Trade and Environment in the EC and the WTO – A Legal Analysis* (Europa Law 2003) 91. *See* also Rafael Leal-Arcas and Andrew Filis, 'Renewable Energy Disputes in the World Trade Organization' (2015) 13 Oil, Gas and Energy Law Intelligence 32.

[464] US – Measures Affecting Alcoholic and Malt Beverages, DS23, Panel Report, 16 March 1992 (adopted), para. 5.19.

[465] Canada – Certain Measures Affecting the Renewable Energy Generation Sector, DS412 and Canada – Measures Relating to the Feed-In Tariff Program, DS426, AB Report, 6 May 2013, paras 5.63, 5.74 (fn 523).

[466] Japan – Customs Duties, Taxes and Labelling Practices on Imported Wines and Alcoholic Beverages, L/6216, Panel Report, 13 Oct. 1987 (adopted), para. 5.7.

relevant for assessing likeness.[467] This appears to have been implicitly confirmed in *US – Tuna (Mexico II)*.[468]

All in all, the WTO system reveals a complex multifactor test for likeness. It should be emphasized that the purpose of the WTO agreements on trade is to protect the market in each commodity from discrimination and a market ought to be defined with reference to real (or potential) competition. The outcome of an overall analysis of the four factors should therefore be applied under the broader 'framework test' of competition and substitutability.[469] This interpretation would confirm likeness as a primarily economic test and differences in PPMs would as such not be relevant. The differences in PPMs may still affect, for example, health risks and may thus be relevant for likeness when the differences in health risks affect the competition between products.[470] In other words, the PPMs may affect consumer choice and thus likeness.[471] However, the restrictive effect current legal structures may have on the evolution of consumer tastes must also be recognized.[472] Likeness is thus not only about current competition, but also about potential future competition.

2.2.2.4. Supply, Demand and the Value Chain

With competition as the core element of the likeness test, it becomes crucial to establish the level at which competition should occur. Substitutability and competition can be analysed for both the demand and supply side. This differentiation has received attention under the Agreement on Subsidies and Countervailing Measures (SCM Agreement)[473].

[467] US – Restrictions on Imports of Tuna, DS21, Panel Report, 3 Sept. 1991 (US – Tuna, Mexico I) (unadopted), para. 5.15.
[468] US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products, DS381 (US – Tuna, Mexico II), AB Report, 16 May 2012, para. 202. The conclusion that dolphin safe tuna was like any other tuna was not contested. *See* also US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products (US – Tuna, Mexico II): Recourse to Article 21.5 of the DSU by Mexico, DS381, Panel Report, 14 April 2015, para. 7.496.
[469] Critical of such economic analysis of likeness *see* dissent in EC – Measures Affecting Asbestos and Products Containing Asbestos, DS135, AB Report, 12 March 2001, para. 154.
[470] US – Measures Affecting the Production and Sale of Clove Cigarettes, DS406, AB Report, 4 April 2012, paras 119, 136.
[471] Enrique Rene de Vera, 'The WTO and Biofuels: The Possibility of Unilateral Sustainability Requirements' (2008) 8 Chicago J. International Law 661, 673.
[472] Stephanie Switzer and Joseph A. McMahon, 'EU Biofuels Policy – Raising the Question of WTO Compatibility' (2011) 60 International & Comparative Law Quarterly 713, 730. *See* also EC – Trade Description of Sardines, DS231, Panel Report, 29 May 2002, para. 7.127.
[473] Agreement on Subsidies and Countervailing Measures, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1869 U.N.T.S. 14.

The SCM Agreement introduces strict limits on the use of subsidies. Under the agreement, subsidies *specific* to an enterprise, industry, group of enterprises or group of industries within the jurisdiction of the granting authority, may be prohibited if they confer a *benefit*. It may be recalled that the *Canada – Renewables* case concerned local content requirements that were part of Ontario's FIT. In its analysis of a benefit the AB concluded that both supply and demand side substitutability had to be considered in determining the relevant market.[474]

Supply side substitutability has normally not been referred to in the application of GATT.[475] A rare exception can be found in *US – Automobiles*, which concerned the higher taxes applicable in the U.S. on expensive luxury cars and on cars with high fuel consumption. The panel appeared to reflect on the ability of different manufacturers to produce cars of different quality, price levels and fuel efficiency.[476]

Choi has reflected on arguments for the rejection of the relevance of supply side substitutability but eventually considered it as complementary, and thus decisive mainly in cases where it is high and demand side substitutability is disputed.[477] With indicators such as end-use as well as consumer tastes and habits, the focus has been on the demand side under GATT. It is submitted that this is in line with the purpose of the agreement to guarantee non-discrimination and improve efficiency. Lack of competition on the supply side should not allow states to segregate on demand side markets where the companies compete.

To complicate things further, there is often not simply supply from producers directly to end-consumers that express a demand. Instead, competition takes place at many stages of the value chain, including wholesale and retail. For example, there is often limited competition between biodiesel, bioethanol and gasoline on the retail level because customers drive cars with engines that only support certain fuels or blends. Competition at the wholesale level might be more intense and, importantly, the

[474] Canada – Certain Measures Affecting the Renewable Energy Generation Sector, DS412 and Canada - Measures Relating to the Feed-In Tariff Program, DS426, AB Report, 6 May 2013, para. 5.172. *See* also EC – Measures Affecting Trade in Large Civil Aircraft, DS316, AB Report, 18 May 2011, para 1121; Harri Kalimo, Filip Sedefov and Max Jansson, 'Market Definition as Value Reconciliation: The Case of Renewable Energy Promotion Under the WTO Agreement on Subsidies and Countervailing Measures' (2017) 17 International Environmental Agreements 427.
[475] Won-Mog Choi, "*Like Products" in International Trade Law – Towards a Consistent GATT/WTO Jurisprudence* (OUP 2003) 42-45.
[476] US – Taxes on Automobiles, DS31, Panel Report, 11 Oct. 1994 (unadopted), paras 5.14-15, 5.25-26.
[477] Won-Mog Choi, "*Like Products" in International Trade Law – Towards a Consistent GATT/WTO Jurisprudence* (OUP 2003) 33-49.

competition between various fuels is in part reflected in the competition between different motor manufacturers and between different cars. In other words, the fuels compete even if the competition does not take place when the fuel itself is purchased. This pattern of competition ought to be relevant in the analysis of likeness. Were it not, states would be able to nullify the objectives of the agreements by introducing discrimination before the retail level.[478]

2.2.2.5. The Energy Sector

In previous parts of section 2.2 it was argued that competition and substitutability form the core of the likeness test. The four factor test guides the analysis. Let us consider some concrete examples from the energy sector.

Electricity is similar with respect to physical properties, end use and tariff classification regardless of PPMs. Only a significant shift in consumer tastes and habits could reduce competition to the extent that electricity generated with different PPMs would not be considered like.

Fuels that can be used (or be blended for use) in similar engines are in fairly close competition. For example, biodiesel fuels are all like regardless of what feedstock has been used in production. Similarly, all bioethanol fuels are like barring any major change in sensitivity toward the life-cycle sustainability among consumers.

There is also the question of substitutaibility of biofuels with fossil fuels. On the one hand, biodiesel and petrodiesel may differ with respect to physical properties and tariff classification. On the other hand, various ratios of biodiesel and petrodiesel can be used in diesel-engines. There is therefore significant competition between petrodiesel and biodiesel. The degree of competition is admittedly hampered to some extent by the standardization of specific blend ratios. In other words, consumers are normally offered only certain pre-determined blends. Nevertheless, the competition would still currently seem to be sufficient for likeness as most consumers are not very sensitive to the differences in environmental impacts of the fuels. Consumer habits and tastes could of course change quickly. When consumers become more sensitive to how clean the fuels

[478] Similarly with respect to the definition of relevant market under the SCM Agreement *see* Harri Kalimo, Filip Sedefov and Max Jansson, 'Market Definition as Value Reconciliation: The Case of Renewable Energy Promotion Under the WTO Agreement on Subsidies and Countervailing Measures' (2017) 17 International Environmental Agreements 427, 438.

are, the substitutability of, for example, petrodiesel and biodiesel will decreaee and they will no longer be like products.

Various ratios of gasoline and bioethanol can be used in flex-fuel engines. The degree of substitutability could be argued to be high enough for petroleum and bioethanol to be like products. However, there is significant uncertainty with respect to that conclusion. Namely, many engines still run optimally with some specific ratio of the mix between bio-based fuel and petroleum-based fuel because the properties of various fuels differ to some degree. Perhaps it was this that the U.S. District Court for the District of Oregon had in mind when it found that petroleum does not compete with bioethanol.[479]

The case of fuels that cannot be used in similar engines is arguably even more complex. The degree of competition is lower between fuels that cannot be used to run the same engines. This concerns in particular the distinction between on the one hand (bio)diesel and on the other hand gasoline and bioethanol. As long as consumers are not highly sensitive of the PPMs, there will still exist some competition. Yet, it is not evident whether the degree of competition is sufficient for likeness. The competition for consumers will often take place when the companies and consumers purchase the vehicle and not when they purchase the fuel for final consumption. On the retail market for cars consumers pick between cars with various engines and the fuel that go into the engine will likely affect the decision to some degree. Estimating the competition between different fuels at the stage of purchasing vehicles is admittedly difficult due to the fact that the purchasing decision is also influenced by so many other factors than merely the fuel that the engine consumes. An analysis of likeness should also take into account that in the process of designing car models car manufacturers make decisions on the type of engine that would be used in the model and this decision will be affected in part by the fuel that is used in the engines. For these reasons fuel producers likely lobby for consumers and producers to favor the type of engines that run on their fuel. It is still quite obvious that the substitutability between biodiesel and bioethanol will be relatively low and would likely not be regarded as like products. Whether the degree of substitutability is sufficient for the fuels to be like under trade law must still be evaluated on a case-by-case basis.

[479] American Fuel & Petrochemical Manufacturers v. O'Keeffe, No. 3:15-cv-00467-AA, 2015 WL 5665232 (D. Or., Sept. 23, 2015).

Finally, similar difficulties arise when assessing the similarity between electricity and fuels. In applying the SCM Agreement the panel in *Canada - Renewables* stated that there would exist no close substitutes for electricity.[480] Indeed, in comparison with, for example, fuels the physical properties and tariffs are vastly different. However, both are capable of serving similar functions. From a broad perspective, the end use partly overlaps. Again, the degree of substitutability would be decisive for the outcome. Under current market conditions it is still highly unlikely that electricity and fuels would be found to be like products.

The system is not without gaps. Natural resources needed in the energy sector and equipment for various energy plants differ substantially when it comes to both physical characteristics and tariff classification, as well as under a narrow perception of end use. Products like coal, solar panels, wind turbines and equipment for nuclear reactors are not sufficiently like for equal treatment to be required. Consequently, states would have a lot of room for steering their energy policy without much risk of infringing the non-discrimination principle.

2.2.3. The Rarity of Likeness Tests in EU Law

Under EU free movement law, the test of likeness (similarity) is much less detailed than in WTO law. Article 110 TFEU on taxation includes a similar non-discrimination requirement as does the provisions on free movement. The ECJ has in the context of that article referred to physical characteristics, consumer needs and customs tariffs when assessing similarity.[481] In the case of taxation, there are, however, no grounds of justification listed in the Treaty. Instead, the ECJ appears to take into account legitimate objectives, such as public health, by relying on a narrow concept of similarity. The ECJ has in the context of taxation even stated that the process method may be a relevant factor in determining similarity.[482] Yet, like in WTO law, the narrower concept of likeness in the article on non-discriminatory taxation should preclude interpretation ex analogia in cases outside the context of taxation, such as those related to free movement of goods.

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[480] Canada – Certain Measures Affecting the Renewable Energy Generation Sector, DS412 and Canada – Measures Relating to the Feed-In Tariff Program, DS426, Panel Report 19 Dec 2012, para. 7.279.
[481] Case 45/75 *Rewe-Zentrale des Lebensmittel-Großhandels GmbH v. Hauptzollamt Landau*/Pfalz [1976] ECR 181, para. 12.
[482] Case 140/79 *Chemial Farmaceutici SpA v. DAF SpA* [1981] ECR 1, paras 12-15; Case 106/84 *Commission v. Denmark* [1986] ECR 833, para 12. *See* also joined cases C-393/04 and 41/05 *Air Liquid Industries Belgium SA v. Ville de Seraing and Province de Liege* [2006] ECR I-5293, para 58.

Outokumpu was a case on the excise duty charged on electricity in Finland. The duty was levied on imported electricity at a flat medium level rate. In contrast, the rate for domestic electricity was either higher or lower than that flat rate depending on the method of production. The ECJ did not apply free movement law, but instead the Treaty provision on non-discriminatory taxation. The court found that the law was unjustifiable, as importers were not even given the opportunity to demonstrate that their electricity had been generated with sustainable methods.[483] Interestingly, in the path to arriving at its eventual conclusion, the court appeared to suggest that differences in the production method employed do not necessarily make electricity from various sources dissimilar. Yet, simultaneously, the court stated that different treatment on the basis of differences in PPMs may be justifiable if it pursues legitimate objectives.[484] Given the fact that the Treaty provisions on taxation do not include any grounds of justification, it is rather unclear whether the court intended to create such grounds or whether it after all considered PPMs to affect likeness in the context of taxation. Whatever the answer, it might not resolve the dilemma for free movement provisions, which include grounds of justification in the Treaty and thus allow at least in theory for a broader concept of likeness.

In the context of public procurement law one Advocate General has argued that pollution levels, at least in the consumption phase, are of relevance for the likeness test.[485] However, the concept of likeness in the application of the equal treatment principle under public procurement directives might be narrower than the concept of likeness in free movement law. Namely, in the application of the equal treatment principle under the directives there exists no grounds of justification. Environmental values are thus already integrated into the evaluation of equality.

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[483] Case C-213/96 *Outokumpu Oy* [1998] ECR I-1777, para. 39. *See*, however, Geert van Calster, 'Climate Change and Renewable Energy as a Super Trump for EU Trade Law – However all Essent clear' (2014) 5 Renewable Energy Law and Policy Rev. 60, 62. Van Calster goes so far as to interpret the court to indicate that out-of-state electricity would have to be granted the lowest tax rate per default.

[484] Case C-213/96 *Outokumpu Oy* [1998] ECR I-1777, para. 30.

[485] *See* Case C-513/99 *Concordia Bus Finland Oy Ab v. Helsingin kaupunki and HKL-Bussiliikenne* [2002] ECR I-7213, Opinion of AG Mischo, para. 150. The AG is of the opinion that two companies are not in a comparable situation when one is able to offer gas powered buses and the other one only offers buses that run with more polluting fuel. The ECJ did at least not reject this line of reasoning, although it also did not explicitly confirm it. The case related to the application of the public procurement directive, but the same idea may be argued for when it comes to 'similarity' under the TFEU provisions. However, such nuanced likeness test not anchored in the test of substitutability could blur the line between prohibition and justification tests in free movement law.

In EU free movement law likeness tests have normally not been applied. Already the fact that likeness has rarely been reflected on in judgements might be seen to indicate that likeness is viewed as a broad concept. Some indications of a departure from a pure competition and substitutability test can, however, be traced. In particular, a controversial exception to treating likeness in terms of competition and substitutability can be found in *Walloon Waste*. In this case the ECJ concluded that domestic and foreign waste were not similar products.[486] The approach in *Walloon Waste* again raises the question of whether pollution in the production phase also could make a difference and if, for example, electricity from different resources could be unlike despite of a competitive relationship.[487]

It is submitted that products under free movement law are considered similar as long as there is a competitive relationship between them.[488] This competitive relationship should exist at least partially. Strong indications of such relationship would exist when the products have similar physical characteristics, the same intended use and fulfil the same consumer needs.[489] In other words, products could not be unlike only on the basis of different PPMs,[490] unless consumers in the future would become very sensitive to differences in PPMs so that the degree of competition would be significantly reduced.

In sum, the ECJ has rarely applied any likeness test in the context of free movement law since the likeness of the products compared in most cases has been evident and thus often not even been questioned. As was argued in relation to WTO law, the test of competition and substitutability is to be preferred. Indeed, when similarity has been debatable, the ECJ – and the EFTA Court – have on some occasions applied the test of competition. However, other cases have put this approach into question. A somewhat similar state of affairs can be detected in U.S. case law, as discussed below.

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[486] Case C-2/90 *Commission v. Belgium (Walloon Waste)* [1992] ECR I-4431, paras 34-37. *See* also Peter von Wilmowsky, 'Waste Disposal in the Internal Market: The State of Play After the ECJ's Ruling on the Walloon Import Ban' (1993) 30 Common Market Law Rev. 541.
[487] The problem of likeness in the context of electricity has been discussed in Andreas J. Gunst, 'Energy Trade in the European Common Market' (2003) 21 J. Energy & Natural Resources Law 447, 455.
[488] Case C-391/92 *Commission v. Greece (Infant Milk)* [1995] ECR I-1621, para 18.
[489] Case E-19/11 *Vín Tríó ehf. v. Iceland* [2012] EFTA Ct. Rep. 974, paras 60-66. For some reason in the latter case the EFTA Court cited case law on taxation provisions and did not recognize that the concept of similarity has been broader under the free movement provisions. The Court concluded that two alcoholic beverages were not like.
[490] *See* also Joanne Scott, 'On Kith and Kine (and Crustaceans): Trade and Environment in the EU and WTO' in Joseph Weiler (ed.), *The EU, the WTO, and the NAFTA: Towards a Common Law of International Trade?* (OUP 2000) 135.

2.2.4. Tests of Competition and Substitutability in U.S. Law

In U.S. case law the likeness test has been described in fairly vague terms. In *Bacchus* the Supreme Court concluded Hawaii okolehao liquor and fruit wines to be like products because there was 'some competition'.[491] The Court has in other cases stated that the objects of comparison must be similarly situated or substantially similar,[492] or that products shall be in competition, fully or partially, actually or prospectively.[493]

In *Clover Leaf Creamery* the Court seemed in its assessment of undue burden on commerce to implicitly suggest that nonreturnable milk bottles were similar to paperboard cartons, although the different treatment was in the end upheld for other reasons.[494] Another case evolved around Alaska's decision to implement a tax on salmon frozen on ships and then exported and canned in Washington. In-state canneries had to pay an even higher tax, while fresh frozen salmon sold on the in-state market was exempted from the tax. The Supreme Court concluded that no discrimination was at hands because fresh frozen salmon would not compete with salmon exported and canned out-of-state.[495] The focus on competition in defining likeness, and thus the relevant market, under the dormant Commerce Clause has led some authors to draw parallels with competition law, where the analysis of competition on relevant markets forms a core test.[496]

The manner in which the competition test has been applied under the dormant Commerce Clause has in some cases been fairly controversial. For example, in *GM v. Tracy*[497] at stake was a 'sales and use' tax on natural gas sales in Ohio. It applied to purchases from a wide range of distributors, but exempted gas purchased from the state's own regulated utility. As a preliminary remark, taxation falls under the dormant Commerce Clause and the test of likeness could therefore be expected to be identical regardless of whether the case concerns taxes or other state measures. In its ruling in

[491] Bacchus Imports, Ltd. v. Dias, 468 U.S. 263 (1984).
[492] Department of Revenue of Kentucky v. Davis, 553 U.S. 328, 342 (2008); United Haulers Association Inc v. Oneida Herkimer Solid Waste Management Authority, 550 U.S. 330, 342 (2007); General Motors Corp. v. Tracy, 519 U.S. 278, 298-299 (1997); Camps Newfound/Owatonna v. Town of Harrison, 520 U.S. 564, 582 (1997). *See* also Allstate Ins. Co. v Abbott, 495 F.3d 151, 163 (9th Cir. 2007).
[493] General Motors Corp. v. Tracy, 519 U.S. 278, 300 (1997).
[494] Minnesota v. Clover Leaf Creamery Co., 449 U.S. 456 (1981).
[495] Alaska v. Arctic Maid, 366 U.S. 199 (1961).
[496] Richard B. Collins, 'Economic Union as a Constitutional Value' 63 N.Y.U. Law Rev. 43 (1988) 75; Donald H. Regan, 'The Supreme Court and State Protectionism: Making Sense of the Dormant Commerce Clause' (1986) 84 Michigan Law Rev. 1091, 1095-1096.
[497] General Motors Corp. v. Tracy, 519 U.S. 278 (1997).

GM v. Tracy the Supreme Court took a unique approach to similarity as it declared that the competition on the non-captive market was not sufficient to make gas from the state utility and gas from other companies like products, because there would be no competition on the captive market.

A captive market is a market where the number of potential suppliers is unusually low. According to the court in *GM v. Tracy*, residential consumers in the captive market would continue to turn to the utility because they value 'stability of rate and supply'. While it is debatable how much competition and substitutability is required between products in order for them to be like, the reasons for not finding any competition in the energy market for residential customers did not seem fully convincing. The stability argument could have been introduced later at the justification stage of the analysis, when the Pike balancing test is applied.

The reasoning applied in *GM v. Tracy* was echoed by the district court in *LSP Transmission Holdings*.[498] The case concerned the electricity market in Minnesota, where local electricity utilities often are transmission owners with a monopoly on sale of electricity to consumers in their areas within the state. Hence, there is no competition in the retail market. In Minnesota new transmission lines are approved for construction from time to time. A state law gave incumbent electricity utilities the right construct and own the new transmission lines and other companies could get the opportunity only if the local incumbent expressed no interest. While there clearly was competition in the market for building transmission lines, the district court found that incumbent electricity utilities were not similarly situated as out-of-state transmission builders because there was essentially no competition in the market for electricity sales to consumers. This reasoning is controversial. The district court further emphasized that favoring incumbent electricity utilities ensured the reliability of electricity supply. This should, however, not be a factor in the evaluation of similarity, but instead a factor taken into account in examining grounds of justification.

Despite the fact that U.S. case law is open for criticism in some respects, it would seem to confirm the application of the competition test. Thus, differences in PPMs would be relevant only to the extent they affect the degree of substitutability and competition.

[498] LSP Transmission Holdings v. Lange et al., Civil No. 17-4490 (DWF/HB) (D. Minn 2017).

Non-trade factors, such as public health, would not be relevant per se, or in other words outside the framework of the competition test.[499]

There has also in the U.S. been some academic discussion on the relevance of PPMs for the assessment of likeness. It has been argued in the literature that all electric power is identical regardless of the resources utilized to generate the power.[500] However, there are also scholars who maintain that the differences in carbon emissions reflect real differences and that the products may be deemed unlike on the basis of their carbon score.[501]

Some case law has emerged on likeness in the energy sector. The U.S. Court of Appeals for the Second Circuit has found that RECs awarded by different states are not like products.[502] This is a well-reasoned position because the definition of a REC will differ from state to state. For example, while one state might award RECs to large hydropower plants, other might not. This does not mean that electricity from different states would be dissimilar products.

In line with the competition-oriented approach, the district court in *Rocky Mountain Farmers Union* would in 2011 appear to have taken the view that all ethanol fuels regardless of PPMs are like products since they are physically and chemically identical.[503] As may be recalled, the case concerned California's low carbon fuel standard (LCFS) that relied on life-cycle analysis and assigned to biofuels produced in different regions different default values for carbon emission. In particular, the value was different for Californian and Midwest corn ethanol. The district court found, among other things, that the LCFS was facially discriminatory and unconstitutional.

The U.S. Court of Appeals for the Ninth Circuit reversed the district court ruling in 2013. It concluded that the LCFS was not facially (i.e. de jure) discriminatory despite relying on factors related to geographic origin in the calculation of emissions levels.[504]

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[499] This can be contrasted with the approach to likeness under the Equal Protection Clause of the Constitution. *See* e.g. New York City Transit Authority v. Beazer, 440 U.S. 568 (1979). The Court concluded that drug addicts are not like other people with reference to health and safety.
[500] Lawrence Fogel, 'Serving a "Public Function": Why Regional Cap-and-Trade Programs Should Survive a Dormant Commerce Clause Challenge' (2010) Wisconsin Law Rev. 1313, 1330-1333.
[501] Daniel A. Farber, 'Climate Policy and United States System of Divided Powers: Dealing with Carbon Leakage and Regulatory Linkage' (2014) 3 Transnational Environmental Law 31, 40-42. *See* also Kirsten H. Engel, 'The Dormant Commerce Clause Threat to Market-Based Environmental Regulation: The Case of Electricity Deregulation' (1999) 26 Ecology L. Q. 243.
[502] Allco Finance v. Klee, Case no. 16-2946 (2nd Cir. 2017).
[503] Rocky Mountain Farmers Union v Goldstene, 843 F. Supp. 2d 1071, 1088 (E.D. Cal. 2011).
[504] Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070, 77 ERC 1077 (9th Cir. 2013).

Factors of relevance for estimating emissions levels included the resource mix for generating electricity in the state and the distance feedstock or fuel had to be transported during the production process. The ruling by the Court of Appeals, however, left unanswered the possibility of undue burden (de facto discrimination) and did not explicitly address the question of likeness. The case was remanded to the district court, which also did not explicitly rule on likeness. This time, however, in a memorandum decision and an order on the motion to dismiss the district court determined it was at least plausible that the LCFS had discriminatory effects.[505] This conclusion would suggest that it assumed that differences in PPMs had at least not affected likeness of corn ethanol fuels. On the basis of this case it would appear that ethanol fuels produced with different methods and different emissions levels (due to differences in transport distances and in the PPMs of the electricity used at the fuel production facilities) are like products.

In Oregon the district court examined a biofuels sustainability scheme similar to that of California's LCFS. The court, among other things, stated that petroleum and ethanol fuels are not like products.[506] This does not necessarily contradict with the court's findings in California. As noted in the discussion on WTO law, the degree of substitutability might be deemed sufficient between different ethanol fuels, but not between fuels that differ more significantly, such as petroleum and bioethanol. Yet, with modern flexible engines it might become increasingly more difficult to argue that petroleum and ethanol fuels do not compete to a sufficiently high degree.

2.2.5. Likeness and Value Balancing

The likeness (similarity) test is applied to identify groups of similar products and differentiate them from groups of products that are different. Products that are different do not need to receive similar treatment. The test, in other words, functions to identify a legitimate reason for differentiation. This legitimate reason is tightly linked to the lack of competition. After all, the core element of trade law is to protect fair and efficient non-discriminatory competition.

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[505] Rocky Mountain Farmers Union v. Corey, Memorandum Decision and Order Re Defendants' Motion to Dismiss, Lead Case: 1:09-cv-2234-LJO-BAM (E.D. Cal. 2017). The claims of discriminatory effects were voluntarily dismissed by the plaintiffs after the decision and therefore not addressed further by the district court or the Ninth Circuit. *See* Rocky Mountain Farmers Union v. Corey, case no. 17-16881 (9th Cir. 2019).

[506] American Fuel & Petrochemical Manufacturers v. O'Keeffe, No. 3:15-cv-00467-AA, 2015 WL 5665232 (D. Or., Sept. 23, 2015).

The EU and the U.S. have rarely invited considerations that would question likeness and thus appear to have accepted a rather broad interpretation of similarity. The limits to the scope of like products remain unknown because claims of discrimination between products that compete only to a limited extent have been rare. It is obvious that the scope of likeness should not be broadened too much. Some indirect form of competition can be found between very different products and a requirement of like treatment in such cases would paralyze regulators.

The WTO has perhaps been conscious of the risks of a broad concept of like products. Namely, it has developed a more nuanced test for assessing whether two products are like. This four factor test allows for taking into account the complexity of markets. EU and U.S. courts could undoubtedly benefit from drawing more attention to the details of a likeness test. At the same time there needs to be awareness of the risk that the WTO approach in turn presents. The downside of the four factor test is that it diverts attention away from the competition rationale. Likeness should not be determined by an overall weighing of likeness in terms of physical characteristics, end-use, consumer tastes and tariff classifications without any common benchmark. In case substitutability would not be used as a common benchmark, the overall weighing would have the characteristics of a value balancing test and would be haunted by problems of incommensurability.

The reasoning and outcome of WTO cases support the conclusion that competition and substitutability still forms the core of the likeness test. Other elements, including differences in PPMs, are to be considered under the likeness test only as supporting indicators. This last point is crucial, since a likeness test that would distance itself from competition, would trade away the core market objective of free trade and non-discrimination, for simplicity.

The idea of likeness as a concept evolving around competition reaffirms the economic rationale of trade law. Markets are, however, incredibly complex. Competition can take place on various levels of the value chain and at any level two products can be full substitutes or only substitutes to a minimal degree. These observations reveal the difficulty in determining which products ought to be considered like for the purposes of trade law. It is unfortunate that none of the three regimes have developed any more detailed guidance on how to assess whether the degree of competition is sufficient.

In sum, three points should be emphasized with regards to likeness. First, the EU and the U.S. should consider making more explicit the assessment of likeness. At least some of the four factors identified already in WTO law could be useful in the analysis of substitutability. Secondly, all three jurisdictions should be more specific about the degree of substitutability that is necessary for two products to be like. Finally, as a rule, in case the degree of substitutability identified as sufficient is fulfilled on the demand side on any level of the supply chain no further analysis of supply side competition should be required.

The implementation of the points listed above would not eliminate the necessity of case by case analysis altogether, although they would create certain boundaries to court discretion. Importantly, they would increase transparency and improve legal certainty.

2.3. The State as Market Participant

2.3.1. The Regulation – Participation Dichotomy

Discriminatory measures by states are as a rule prima facie prohibited under trade law. These prohibited measures often take the form of laws or other regulation. As discussed in the first section of this chapter,[507] the discriminatory effects could equally well arise from administrative practice or recommendations. Any of these would constitute a measure if it can be attributed to the state.

Private actors also take various measures. In particular, companies make decisions to buy and sell on the market. They might also establish purchasing policies. Private actors that adopt strategies on the basis of making a profit are usually regarded to participate on the market. In these activities companies have the right to make decisions that will favor products, sellers or buyers of some origin. In other words, private companies and organization are under trade law[508] free to discriminate on the basis of origin[509] in their trading activities.[510]

[507] *See* section 2.1.2.
[508] Private companies with a dominant position might breach competition law rules in case they discriminate.
[509] Companies could likely not discriminate on the basis of some other factors, such as race, because of legislation outside the scope of trade law.
[510] US v. Colgate & Co., 250 US 300, 307 (1919).

Market regulation is when the state exercises governmental powers that are unavailable to private parties.[511]In some cases public authorities may take on activities that resemble market participation more than market regulation. For example, a public authority might purchase something through public procurement. Another example would be the decision by a state to set up an entity to deal with recycling. The latter example depicts how the public sector may decide to intervene in the market, in particular if there is a market failure and the private companies have not managed to find business models that would serve both their private economic interests and the public (environmental) interests of the state (or general public) to tackle negative externalities.

There are various views on what rules should apply to state market participation. Although discriminatory state regulation of the market is prohibited in the U.S., similarly to EU and WTO regimes, a distinction is in the U.S. drawn between state regulation and market participation. U.S. courts have developed exemptions to the dormant Commerce Clause for various state measures that would fall under a broad understanding of market participation. Market participation can be regarded as an overarching concept for various forms of state action that are exempted from dormant Commerce Clause scrutiny. This market participant doctrine narrows the scope of law of prohibition.

As will be illustrated in this third section of chapter 2, the diverse range of market participant exemptions has inspired a debate as to whether also state measures to create new markets should be exempted from trade law and the non-discrimination principle. In this context it should be kept in mind that renewable energy has to some degree struggled to gain a foothold on the market because production costs are high compared to the alternative of fossil fuels. In addition, infrastructure has been built to serve fossil fuels and fossil fuels have for a long time received financial support. Similar market structures also create challenges for new sustainable PPMs in other markets than the energy market. One could potentially argue that in supporting renewable energy and sustainable PPMs the state is creating new markets and that these measures should be exempted from the non-discrimination principle in order to give states more freedom to promote sustainability.

[511] *See* e.g. Coalition for Competitive Electricity et al v. Zibelman, Case No. 16-CV-8164 (VEC) (S.D.N.Y. 2017).

An analysis of the relevance of the market participant exemptions for measures to promote sustainable PPMs in the energy sector will require some background and context. It is in order to introduce briefly various exemptions. Hence, this section 2.3 will start with an overview of exemptions applicable to the dormant Commerce Clause. Most of these exemptions will be linked to the idea of a distinction between the state as a market regulator and a market participant. Hence, it is examined more in detail how and under what conditions tests that belong to the family of market participation exemptions are applied. Recent trends and potential future development of the market participant doctrine are considered with the objective to shed light on the potential implications of these tests for schemes that are implemented by states in order to create new commercial opportunities for sustainable products. The ultimate objective is to evaluate the potential of market participant tests as means to reconcile values. Of particular interest is whether market participation and creation exemptions could form suitable tests for reconciling free trade and environmental values.

2.3.2. Exemptions to the Dormant Commerce Clause

2.3.2.1. Subsidies

Subsidies are closely related to trade law. They are, however, excluded from the scope of Article III GATT by Article III:8(b) and are instead covered by the Agreement on Subsidies and Countervailing Measures.[512] In the EU distortive subsidies are governed by Articles 107-109 TFEU (on state aid), but the general provisions on free movement could still also apply on top of the articles on state aid.[513]

In the U.S., the non-discrimination principle does not apply to subsidies due to an exemption to the dormant Commerce Clause introduced by the Supreme Court. A state may favor its own citizens when distributing subsidies. Thus, any de jure or de facto discriminatory subsidy will according to the Court comply with the U.S. Constitution even without any applicable ground of justification.[514] Oddly, the Supreme Court has still occasionally denied ever actually explicitly confirming the exemption.[515]

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[512] Agreement on Subsidies and Countervailing Measures, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1869 U.N.T.S. 14.
[513] Case C-379/98 *PreussenElektra AG v. Schhleswag AG* [2001] ECR I-2099.
[514] Hughes v. Alexandria Scrap Corp., 426 U.S. 794, 809 (1976); New Energy Co. v. Limbach, 486 U.S. 269, 278 (1988); West Lynn Creamery, Inc. v. Healy, 512 U.S. 186, 199 (1994).
[515] Camps Newfound/Owatonna v. Town of Harrison, 520 U.S. 564 (1997). La Puma has expressed doubt as to whether the exception really applies. *See* Christopher P. La Puma, 'Massachusetts Tax and Subsidy Scheme Violates Commerce Clause: West Lynn Creamery, Inc. v. Healy,' (1995) 47 Tax Law 641, 653.

As a rule, granting subsidies from *general funds* complies with the Constitution.[516] The scope of legal subsidies was, however, narrowed down in *West Lynn Creamery*.[517] The case concerned a tax in Massachusetts on all sales of raw milk from in-state and out-of-state dealers to in-state retailers. The proceeds of the tax were used directly to subsidize in-state dairy farmers. In other words, the pricing order consisted of a non-discriminatory tax and a discriminatory subsidy scheme, neither of which could be declared illegal on their own. The Supreme Court, however, concluded that the measure combined formed a scheme that violated the dormant Commerce Clause.[518] The Court relied on a test of political representation. Namely, in-state farmers would normally lobby against any tax on wholesale transactions, but due to the fact that they were fully compensated for the costs of the tax through the subsidy, they had no incentives to lobby against the tax.[519]

From an economic perspective the general exemption for subsidies would appear artificial and difficult to justify.[520] Bittker has therefore been critical of the doctrine and, for example, pointed out that illegal tax breaks and legal subsidies are two sides

[516] West Lynn Creamery, Inc. v. Healy, 512 U.S. 186, 199-200 (1994); Kirsten H. Engel, 'The Dormant Commerce Clause Threat to Market-Based Environmental Regulation: The Case of Electricity Deregulation' (1999) 26 Ecology L. Q. 243, 304-305; Steven Ferrey, 'Sustainable Energy, Environmental Policy, and States' Rights: Discerning the Energy Future Through the Eye of the Dormant Commerce Clause' (2004) 12 N.Y.U. Environmental Law J. 507, 588. For references to West Lynn Creamery in the field of energy regulation *see* Alliance for Clean Coal v. Miller, 44 F.3d 591 (7th Cir.1995); Alliance for Clean Coal v. Bayh, 72 F.3d 556 (7th Cir. 1995). The cases shed little light on the subsidy exemption.

[517] William L. Oemichen, 'Milk, State Taxes, State Subsidies, and the Commerce Clause: When States Cannot Tax an Agricultural Commodity to Fund a Subsidy for Its Struggling Industries, West Lynn Creamery, Inc. v. Healy, 114 S. Ct. 2205 (1994)' (1995) 18 Hamline L. Rev 415, 428. *See* also Dan T. Coenen, *Constitutional Law: The Commerce Clause* (Foundation Press 2004) 301; Dan T. Coenen and Walter Hellerstein, 'Suspect Linkage: The Interplay of State Taxing and Spending Measures in the Application of Constitutional Antidiscrimination Rules' (1997) 95 Michigan L. Rev. 2167, 2195-2201. *See* also Kirsten H. Engel, 'The Dormant Commerce Clause Threat to Market-Based Environmental Regulation: The Case of Electricity Deregulation' (1999) 26 Ecology L. Q. 243, 296-304.

[518] West Lynn Creamery, Inc. v. Healy, 512 U.S. 186, 199-205 (1994).

[519] *Id*. at 199-200.

[520] Laurence H. Tribe, *American Constitutional Law* (3rd ed., Foundation Press 1999) 1061; Nathan Endrud, 'State Renewable Portfolio Standards: Their Continued Validity and Relevance in Light of the Dormant Commerce Clause, the Supremacy Clause, and Possible Federal Legislation' (2008) 45 Harvard J. on Legislation 259, 269; Kirsten H. Engel, 'The Dormant Commerce Clause Threat to Market-Based Environmental Regulation: The Case of Electricity Deregulation' (1999) 26 Ecology L. Q. 243, 335. Yet Engel suggests that the exemption could in fact be expanded.

of the same coin.[521] The exemption of subsidies will allow states to circumvent the prohibition of protectionist measures by granting subsidies to in-state businesses.[522]

One theory in support of exempting subsidies relies on the principle that taxpayers should have the right to enjoy the benefits that are established with the help of their funds.[523] This relates to the concerns that out-of-state persons and entities would otherwise be able to free ride.[524] Although certainly a legitimate concern, it is still difficult to distinguish subsidies from other state measures on the basis of this theory.

There are perhaps some differences between subsidies and other measures. For example, subsidies must often be renewed, whereas discriminatory tax breaks or other regulations may apply until revoked. This is still not a difference that exists per definition, as it is dependent on legislative choices.

It has been pointed out that in-state voters could be expected to react in case the state legislature takes measures that include discriminatory elements that render them economically inefficient.[525] As such, this would apply for both subsidies and other measures. However, in comparison to measures such as tax breaks, subsidies could be argued to be more transparent.[526] Namely, taxpayers can see directly from state expenditures the amounts spent. This would mean that in the case of subsidies the feedback effect from voters could in theory have more force.

The transparency ideal in U.S. trade law reveals that within the framework of the constitutional economic norms exist non-trade values even outside the scope of grounds of justification. Criticism could naturally be directed at this development. When transparency and political representation have been given relevance, the focus has in part shifted away from pure economic logic. The fundamentals of the non-discrimination principle on the interstate market seem undermined by the creation of an exemption that reflects the ideal of transparency. The *West Lynn Creamery*

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[521] Boris I. Bittker, *Bittker on the Regulation of Interstate and Foreign Commerce* (Aspen 1999) para. 6-78. *See* also Stanley S. Surrey, 'Tax Incentives as a Device for Implementing Government Policy: A Comparison with Direct Government Expenditures' (1970) 83 Harvard L. Rev. 705, 717.
[522] Chemical Waste Management, Inc. v. Hunt, 504 U.S. 334 (1992), Justice Rehnquist dissenting.
[523] Reeves, Inc. v. Stake, 447 U.S. 429, 442 (1980).
[524] Laurence H. Tribe, *American Constitutional Law* (3rd ed., Foundation Press 1999) 1094-1095.
[525] John E. Nowak and Ronald D. Rotunda, *Principles of Constitutional Law* (4th ed., West 2010) 176.
[526] Dan T. Coenen, 'Business Subsidies and the Dormant Commerce Clause' (1998) 107 Yale L. J. 965, 985; Dan T. Coenen, 'Untangling the Market-Participant Exemption to the Dormant Commerce Clause' (1988) 88 Michigan L. Rev. 395; Dan T. Coenen, *Constitutional Law: The Commerce Clause* (Foundation Press 2004) 298-299; John E. Nowak and Ronald D. Rotunda, *Principles of Constitutional Law* (4th ed., West 2010) 185-187.

exemption to the general subsidies exemption illustrates how the U.S. doctrine struggles to uphold a principle that creates inconsistency in the application of the dormant Commerce Clause against the backdrop of economic reality. In any case, it would appear that transparency has influenced law of prohibition under the dormant Commerce Clause, although in a controversial manner. I shall return to the relevance of transparency in law of justification later in this book.[527]

The subsidy exemption is only one of several exemptions to the dormant Commerce Clause created by the U.S. Supreme Court. It is closely linked to what the courts often refer to as market participation. This is illustrated by a case on promoting low-GHG emission electricity generation. The case concerned a Zero-Emissions Credits (ZEC) Program implemented by New York. Nuclear power plants that deliver electricity to New York retail consumers are awarded credits that are bought by a state authority. This essentially forms a subsidy. Retailers are then required to purchase credits in proportion to their sales. Without considering any grounds of justification or proportionality the district court declared that adopting subsidies to benefit in-state taxpayers does not breach the dormant Commerce Clause. The court concluded that the program was justified as a subsidy but also added that it was a case of market participation and that the program would equally be legal under the market participant doctrine.[528] This highlights the close connection between the exemptions. Subsequent parts of this section will strive to bring clarity to the various types of cases that have traditionally been regarded as some form of market participation in a broad sense.

2.3.2.2. Public Entity Exemption

The public entity exemption is an exemption often placed into the broader category of market participant exemptions. The public entity exemption refers to the fact that state authorities are free to favour their public entities over any out-of-state (and in-state) competitors. This reflects the idea that a state may favour its own citizens when adopting the role as market participant.[529]

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[527] *See* sections 3.1.9. and 4.2.2.
[528] Coalition for Competitive Electricity et al v. Zibelman, Case No. 16-CV-8164 (VEC) (S.D.N.Y. 2017).
[529] Erwin Chemerinsky, *Constitutional Law: Principles and Policies* (3rd ed., Aspen 2006) 449.

The public and the private actors on the market are in some sense not considered to be similar. For example, in *United Haulers*[530] the Supreme Court examined a state requirement that all waste be processed at a public in-state facility before export. The Court emphasized that waste processing was a typical government function. It also argued that public entities are not comparable to private businesses on the market. Hence, although the scheme was clearly facially (i.e. de jure) discriminatory, the Court exempted it from strict scrutiny. While the majority adopted that approach, it was unable to agree among itself whether the applicability of the public entity exemption meant that the measure automatically should survive the dormant Commerce Clause or if Pike balancing,[531] a more lenient proportionality test, should still be applied.[532] Be that as it may, the outcome was that a majority found the measure to be constitutional.[533] The public function that the Court referred to may be linked to the risk of externalities and market failure in the waste sector, were the trade subject to free competition.

In another case, *Department of Revenue of Kentucky v. Davis*[534], Kentucky had to defend its favorable tax treatment of its own state bonds. The Supreme Court argued that public bonds are different from other bonds and that the state was performing a public function. Here the public function would simply be the collection of funds. After having found the case to fall under an exemption,[535] the Court, unlike in *United Haulers*, refused to analyze the case in light of any proportionality review. The Court deemed such balancing to fall under the competence of Congress and to be unsuitable for a court to undertake. The case is also peculiar in the sense, that unlike most cases

[530] United Haulers Association., Inc. v. Oneida-Herkimer Solid Waste Management Authority, 550 U.S. 330 (2007).
[531] *See* chapter 3 for more details on the Pike balancing test.
[532] Justice Roberts delivered the opinion of the court, except for the part in which Pike balancing was applied. Three justices joined in full. Justice Scalia concurred in everything but the application of Pike balancing in the case. Justice Thomas, concurring, viewed the measure as constitutional because he rejected the applicability of any dormant Commerce Clause. Justice Alito filed a dissenting opinion, in which two justices joined.
[533] *Compare* with C&A Carbone, Inc. v. Town of Clarkstown, New York, 511 U.S. 383 (1994). In that case the state favored a private processing facility. However, the facility had entered into a contract to sell its business to a public entity for a nominal sum after a few years. Yet, the Court concluded that the measure violated the dormant Commerce Clause. This illustrates that the line between private and public is not clear-cut. The faith of public-private partnerships under the public entity exemption remains unknown.
[534] Department of Revenue of Kentucky v. Davis, 553 U.S. 328 (2008).
[535] Notably the Court referred to the market participant exemption even in this case, although, as the treatment favored a public entity, it would arguably have been more suitable to differentiate the case from other market participant cases and use the concept of public entity exemption.

that have benefitted from an exemption, which will be discussed later in this chapter, the Kentucky law did not relate to any market failure, but merely to a public function.

In sum, the public entity exemption grants the state regulator the authority to treat in-state public market participants more favorably than out-of-state and in-state private companies. This rests on the observation that they are not similar to private market participants at least when they perform some traditional government function.

2.3.2.3. The Market Participant Exemption Sensu Stricto

State regulation that favors state enterprises or other public entities participating on the market is one thing. State enterprises participating on the market and taking discriminatory decisions is another,[536] even if they are closely related. The state acts as a market participant in both cases, but under the public entity exemption it is the state market participant that is favored, whereas under the market participant exemption sensu stricto it is the state market participant that is favoring some private entities.

In *Hughes v. Alexandria*[537] the Supreme Court had to evaluate a decision by Maryland to enter into the market of end-of-life treatment of old cars. A public authority was established to deal with what was regarded as a market failure. The authority purchased demolished cars at a premium provided that the private processor of old cars could show documentation of ownership of the cars. Because of the premium, the system was from an economic point of view equal to a subsidy.[538] Discrimination arose since the requirements on documentation on in particular car ownership were more stringent for out-of-state processors. Yet, the Court found that the system complied with the Constitution because the public authority was regarded as a purchasing market participant and could therefore discriminate against out-of-state processors.

The Supreme Court has ruled that states can decide how, with whom and for whose benefit it deals.[539] In *Hughes v. Alexandria* the court echoed this principle. It emphasized that when participating in the market, states are similar to private traders and are burdened by the same market constraints. This argumentation is interesting, since under the public entity exemption it was precisely the difference between public

[536] In Department of Revenue of Kentucky v. Davis, 553 U.S. 328 (2008) the Supreme Court did not appear to acknowledge this taxonomy and categorized all these cases as market participation of the state.
[537] Hughes v. Alexandria Scrap Corp., 426 U.S. 794 (1976).
[538] On subsidies and the dormant Commerce Clause *see* sections 1.4.4.2. and 2.3.2.1.
[539] Heim v. McCall, 239 US 175 (1915).

and private market participants that justified the exemption. The Court also pointed out that states should be able to benefit the in-state taxpayers that fund the public utility. However, this argument does not seem justifiable in light of the economic rationale of the dormant Commerce Clause doctrine more in general. There is economically hardly any difference if the state benefits its own taxpayers through discriminatory regulation, taxation or decisions by utilities it owns and controls.

It is not surprising, that the market participant exemption has been met with great criticism in the academic literature.[540] In fact, the Supreme Court itself has never been unanimous on its applicability.[541] All that being said, it has still often gained majority approval in the Supreme Court. In *Reves v. Stakes* the court had to deal with a decision by South Dakota to operate a cement plant. Like in *Hughes v. Alexandria* the decision appeared to have been originally motivated by concerns of market failure. In times of shortage the plant restricted its sales to only in-state buyers. The Supreme Court concluded that the state in its capacity as a seller was a market participant and could take measures that aimed at ensuring its taxpayers received the benefits instead of out-of-state free riders.[542]

On the one hand, there certainly is some appeal to the argument reflected in some U.S. Supreme Court cases, that a state may in the capacity of market participant tackle free riding and market failure.[543] A parallel may be drawn to the public entity exemption and the references that the Supreme Court has made to the right to favour states when they perform 'a public function'. In cases such as *United Haulers*, *Hughes v. Alexandria* and *Reves v. Stakes*, the state was either trying to create a market that would otherwise not exist or tackling externalities that would otherwise be ignored. In order to ensure that the state shall have sufficient incentives to do so, the Court allows more state discretion in the design of the measure, even to the extent that there may be discrimination.

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[540] Christine H. Kellett, 'The Market Participant Doctrine: No Longer "Good Sense" or "Sound Law"'(1990) 9 Temple Environmental Law & Technology J. 169; Jonathan D. Varat, 'State "Citizenship" and Interstate Equality' (1981) 48 University of Chicago Law Review 487; Laurence H. Tribe, *Constitutional Choices* (HUP 1985); Harri Kalimo, *E-Cycling – Linking Trade and Environmental Law in the EC and the U.S.* (Transnational Publishers 2006) 380.

[541] For harsh criticism of the exemption *see* South-Central Timber Development v. Wunnicke, 467 U.S. 82, 102-103 (1984), Justice Rehnquist dissenting.

[542] Reeves, Inc. v. Stake, 447 U.S. 429, 442 (1980).

[543] *See* also Laurence H. Tribe, *American Constitutional Law* (3rd ed., Foundation Press 1999) 1095.

On the other hand, the market participant exemptions in the U.S. doctrine blur the line between law of prohibition and law of justification. The reference in some cases to circumstances of 'market failure' would indicate that some non-trade values have received attention already at the stage of law of prohibition. The market participant exemptions would not seem necessary for tackling concerns of market failures, since such aspects would be protected by the application of the grounds of justification.

Finally, it is should be pointed out that the market participant tests have not always been linked to market failure. Admittedly, in *Reves v. Stakes* the authority was a seller and in the *Hughes v. Alexandria* it was a buyer on highly imperfect markets. However, according to the Supreme Court state utilities may discriminate also when they are acting neither as a buyer or seller on highly imperfect markets. More specifically, the exemption has applied also, for example, when new employees were hired for state financed projects.[544] Furthermore, the Supreme Court of South Carolina has applied the doctrine when the state granted loans.[545] Similarly, the public entity exemption was applied in *Department of Revenue of Kentucky v. Davis*, which concerned the constitutionality of a tax break to those who invest in state bonds and thus was not linked to any market failure. In case these market participant exemptions are indeed not limited by any market failure test, they would be even more difficult to defend with reference to any economic rationale. What is more, once a state has adopted a discriminatory law, other states have retaliated by introducing similar laws.[546]

All in all, the regulation – participation distinction is a much more formalistic test than the value reconciliation tests in law of justification.[547] The choice for a formalistic approach in U.S. law might find some legitimization or explanation in perceived deficiencies in the proportionality tests applicable in law of justification of the dormant Commerce Clause. I shall return to this point in the chapters on law of justification.

[544] White v. Massachusetts Council of Construction Employers, 460 U.S. 204 (1983).
[545] Carll v. South Carolina Jobs-Economic Development Authority 327 S.E.2d 331 (S.C. 1985).
[546] Kingsley S. Osei, 'The Best of Both Worlds: Reciprocal Preference and Punitive Retaliation in Public Contracts' (2011) 40 Public Contracts L. J. 715.
[547] *Cf.* formalism in EU free movement law as a consequence of the decision in joined cases C-267/91 and C-268/91 *Criminal proceedings against Bernhard Keck and Daniel Mithouard* [1993] ECR I-6097. For criticism *see* e.g. L.W. Gormley, 'Reasoning Renounced? The Remarkable Judgment in Keck and Mithouard' (1994) 5 European Business Law Rev. 63.

2.3.2.4. Market Participation, Public Procurement and the Private-Public Divide

A contracting authority that makes an individual procurement decision would in principle be a market participant, even if it would often not tackle any market failure with its decision to procure. Consequently, it has been argued that a decision by a U.S. public authority to favor, for example, locally produced food would not be prima facie prohibited.[548] A merely de facto discriminatory procurement provision to buy sustainable food or energy would then also fall under the market participant exception. It is, however, submitted that there may be pressure for the interpretation of the market participant exemption under the U.S. dormant Commerce Clause to move in a different direction due to the fact that the U.S. has now become a party to the Government Procurement Agreement (GPA), which includes the requirements of non-discrimination and equal treatment.

In some cases the state regulator might decide to require the market participating authority, for example procuring authorities, to discriminate. This situation resembles but is not identical to any of the exempted cases described above. It is instead a form of self-regulation that might also enjoy an exemption from the dormant Commerce Clause. Namely, U.S. Courts of Appeals have applied the market participant exemption to cases where state laws have given preference to in-state goods or bidders in procurement procedures.[549] No difference appears to have been made between requiring market participants to discriminate and merely granting them a right to do so. It is also worthy of note, that even if it in the case of discriminatory procurement laws often have been the legislator/regulator that introduces discrimination, it has been equated with market participatory discrimination. The procurement laws have regulated the behavior of contracting authorities, which have been regarded as market participants.

The position on discriminatory public procurement laws of the Courts of Appeals may gain some support from a Supreme Court judgment in a case, *White*, concerning a city

[548] Jason C. Czarnezki, 'States as Market Participants in the U.S. and the EU? - Public Purchasing and the Environment' (2013) 2 Swedish Institute For European Policy Studies, 10-11; Amy S. Ackerman, 'Buy Healthy, Buy Local: An Analysis of Potential Legal Challenges to State and Local Government Purchase Preferences, (2011) 43 Urban Lawyer Journal 1015.

[549] Big County Foods Inc v. Anchorage School District, 952 F.2d 1173 (9th Cir. 1992); Smith Setzer & Sons, Inc. v S.C. Procurement Review Panel, 20 F.3d 1311 (4th Cir. 1994). *See* also J.F. Shea Co., Inc. v. Chicago, 992 F.2d 745, 747 (7th Cir. 1993); Trojan Technologies v. Pennsylvania, 916 F.2d 903 (3d Cir. 1990); Jason C. Czarnezki, 'States as Market Participants in the U.S. and the EU? - Public Purchasing and the Environment' (2013) 2 Swedish Institute For European Policy Studies, 17-20.

ordinance that required projects financed with public financing to have 50 % local workers employed. It was here the private party receiving the public contract that would take the final discriminatory hiring decisions. The market participant exemption was ruled to apply to regulations that require governmental agencies or publicly financed entities to discriminate.[550]

Even if the state regulator might require or allow procuring authorities or other publicly financed entities to discriminate, it is clear that it may not normally require private market participants without any link to the public sector to discriminate. Hence, even in U.S. law it might be important to draw the line between private and public. This is done through a nexus test.

U.S. courts have ruled that when there is a contractual relationship between the private party and the state, for example through public procurement or other mechanisms of extensive public funding, the state might be free to require the private company to discriminate in its market activities, by selling or buying in-state goods or by employing state residents.[551] This principle does, however, not apply when the state has merely granted a subsidy to the company, since there is no on-going contractual relationship that would create sufficient nexus.[552] The whole doctrine invites abuse, since states may through the creation of a strong contractual nexus with private parties aim at securing that their requirements of discriminatory behavior survives Commerce Clause challenges.

A doctrine on the applicability of the market participant exemption to state laws that require public entities and publicly financed enterprises to discriminate has perhaps emerged. Yet, it should again be noted that the measures under scrutiny in *White* and the in cases on the application of the market participant exemption to public procurement regulation are all from a time prior to U.S. accession to the GPA. The non-discrimination principle in that agreement might create pressure to limit the scope of the market participant exemption in a public procurement context.

At least one U.S. Court of Appeals has rejected the application of the market participant exemption to a state law related to public procurement. More specifically, the court examined in *WCM Windows* a state law that required contractors to employ only local

[550] White v. Massachusetts Council of Construction Employers, 460 U.S. 204 (1983).
[551] *Ibid*. *See* also Big County Foods Inc v. Anchorage School District, 952 F.2d 1173 (9th Cir. 1992).
[552] *Cf.* South-Central Timber Development v. Wunnicke, 467 U.S. 82 (1984).

workers in public projects. One could view this as a state law that required private parties to discriminate and that it therefore should not enjoy any exemption. However, in essence it was a question of a state law that required market participants (contracting authorities) to require private parties (the contractors) to discriminate. Therefore, there was at least some room for the argument that the exemption could have applied in accordance with *White*.

The court in *WCM Windows* did not give relevance to the fact that it in the case were private contractors that would take the final discriminatory measure. Instead, the court emphasized that the discriminatory law was not only applied to cases where the state government was involved directly in the administration or the financing of the procuring authority but extended to all local public purchasers. In other words, the court distinguished between the state government and local authorities despite the latter being part of the state government. In the end, the court took the view that the discriminatory regulation on procurement would not be exempted.[553] Yet, the differentiation between the state and local authorities that are part of the state appears formalistic and it is difficult to see why such distinction should be drawn. In conclusion, in case the exemption applies to state laws requiring discrimination in public procurement, the exemption should logically apply regardless of whether the market participant is the central state government or some subordinate local authority.

As with the market participant exemptions generally, also the application of the exemption on some discriminatory public procurement laws is rather controversial. For example, while acknowledging that the exemption has applied under some circumstances to procurement laws, Czarnezki has still argued that in case state procurement laws encouraging local purchasing authorities to adopt sustainable procurement have discriminatory effect, they would need to be considered under law of justification.[554]

2.3.2.5. Limits to the Market Participant Exemptions

The scope of the exemptions is highly important because of the drastic consequences. When the market participation exemptions kicks in, normally no further proportionality

[553] WCM Window Co v. Bernardi 730 F.2d 486 (7th Cir. 1984); Benjamin C. Bair, 'The Dormant Commerce Clause and State-Mandated Preference Laws in Public Contracting: Developing a More Substantive Application of the Market Participant Exemption' (1995) 93 Michigan L. Rev. 2308.
[554] Jason C. Czarnezki, 'States as Market Participants in the U.S. and the EU? - Public Purchasing and the Environment' (2013) 2 Swedish Institute For European Policy Studies, 25-26.

review has been applied.[555] This offers flexibility for example for states to promote renewable energy. As described in the subsections above, the various types of market participant exemptions may perhaps not be limited by any market failure test. Moreover, it is unclear what the Supreme Court has meant when it has stated that one type of market participant exemption, namely the public entity exemption, applies when the state serves a public function.

There are some known limits to the market participant exemption. Naturally, the exemption only exempts a measure from dormant Commerce Clause scrutiny, and not from any potential breach of some other part of the Constitution.[556] What may be regarded as more of a true exception to the market participant doctrine is that when the state measure also simultaneously falls within the scope of prohibited extraterritorial regulation[557], the latter doctrine prevails, and no exemption applies.[558]

Another limitation relates to the definition of participation. As discussed above relating to public procurement, a state might participate in the market even when it is only in a contractual relationship with a private enterprise actually carrying out the business.[559] Activities not covered by that relationship but relating to business operations of the private party after completion of the contract or otherwise outside the sphere of any contract with the public sector, would certainly not fall under the exemption. For example, Alaska Department of Natural Resources had at one point in time the intention to sell timber. It required that the buyer would process the timber in-state. This requirement breached the dormant Commerce Clause because the market participant exemption would not apply. The court viewed the processing market not to be part of the market that the state participated in.[560]

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[555] White v. Massachusetts Council of Construction Employers, 460 U.S. 204 (1983); Reeves, Inc. v. Stake, 447 U.S. 429, 442 (1980); Hughes v. Alexandria Scrap Corp., 426 U.S. 794 (1976). *See*, however, Department of Revenue of Kentucky v. Davis, 553 U.S. 328 (2008). There the Court stated that previous case law has been inconsistent as to whether a lenient proportionality review should take place for de jure discriminatory measures that are covered by the market participant exemption. The review has, however, only been applied in the context of one type of market participant exemption; the public entity exemption.

[556] On the Foreign Commerce Clause *see* e.g. Brannon P. Denning and Jack H. McCall, Jr., 'The Constitutionality of State and Local "Sanctions" against Foreign Countries: Affairs of State, States' Affairs, or a Sorry State of Affairs?' (1999) 26 Hastings Constitutional L. Q. 307.

[557] For a discussion on extraterritoriality in law of prohibition *see* section 6.1.

[558] Air Transport Association of America v. City of San Francisco, 992 F. Supp. 1149 (N.D. Cal. 1998).

[559] Dan T. Coenen, *Constitutional Law: The Commerce Clause* (Foundation Press 2004) 311-313.

[560] South-Central Timber Development v. Wunnicke, 467 U.S. 82 (1984).

Finally, the Supreme Court has also ruled that states may not restrict the export of natural resources.[561] Coenen has suggested that trade in natural resources would form an exception to the market participant doctrine.[562] It would, however, not seem necessary to interpret the cases on natural resources as exceptions. The cases concerned circumstances where the states had regulated the export of natural resources by private enterprises. The mere fact that the resources were within state boundaries did not make it a market participant in the first place.

2.3.3. From Market Participation to Market Creation?

2.3.3.1. Market Creation and the U.S. Dormant Commerce Clause

As discussed previously, many, although not all, of the market participant exemption cases have related to states addressing market failures. In addition, the public entity exemption has been linked to the notion of public function. A state might address market failure or serve a public function when creating new markets. Therefore, some scholars have speculated as to whether markets created by the state could be exempted from the dormant Commerce Clause.[563] On the one hand, when states create markets it is often through regulation and not participation. On the other hand, the market participant exemptions have relied primarily on the theory that states should be able to benefit from what they have created.[564]

States in the U.S. have a lot of liberty in designing their energy market. A RPS and the associated tradable RECs are created by the state. The state does not with such schemes participate in the market for electricity generation, wholesale or retail. Ferrey has argued that market creation is a form of regulation and since the trade in RECs will occur between private parties no exemption should apply. [565] However, the fate of market creation is not easy to judge, since the exemptions to the dormant Commerce Clause form a doctrine that has developed slowly and has not yet gained any definite form.

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[561] Sporhase v. Nebraska ex rel. Douglas, 458 U.S. 941, 953-954 (1982); Pennsylvania v. West Virginia, 262 U.S. 553, 599 (1923). *See* also Hughes v. Oklahoma, 441 U.S. 322 (1979).
[562] Dan T. Coenen, *Constitutional Law: The Commerce Clause* (Foundation Press, 2004) 309-310.
[563] Laurence H. Tribe, *Constitutional Choices* (HUP 1985) 146; Daniel K. Lee and Timothy P. Duane, 'Putting the Dormant Commerce Clause Back to Sleep: Adapting the Doctrine to Support State Renewable Portfolio Standards' (2013) 43 Environmental Law 295, 359-360.
[564] Dan T. Coenen, 'Untangling the Market-Participant Exemption to the Dormant Commerce Clause' (1988) 88 Michigan L. Rev. 395, 422.
[565] Steven Ferrey, 'Threading the Constitutional Needle with Care: The Commerce Clause Threat to the New Infrastructure of Renewable Power' (2011-12) 7 Texas J. Oil, Gas & Energy L. 59, 103-105.

Fogel has discussed the applicability of the market participant exemptions on another form of promoting clean energy: the cap and trade system.[566] A state cap and trade system for GHG emissions would set a cap on in-state emissions. Allowances that grant the right to emit GHG emissions are created by the state. These allowances are then distributed or auctioned to companies. Companies emitting less GHG emissions can sell their allowances to companies emitting more GHG emissions. This system will increase costs for the in-state industry that needs to ensure it has a sufficient amount of allowances. If interstate trade is not restricted, in-state producers will lose market share to out-of-state companies that are not subject to a similar scheme at home and thus are allowed to emit more. A restriction on access of out-of-state products to the in-state market is in this context called a leakage law.

A leakage law will burden the out-of-state industry. Fogel has argued that the most palpable harm of a leakage law probably falls on the local community as they do not get access to less expensive imported products and that this could justify the law.[567] This is debatable, as the provisions, like any other discrimination, restricting interstate trade, restricts the market opportunities of out-of-state industries. As another argument in defending the legality of cap and trade systems with leakage laws Fogel classifies the cap and trade system as a public-private partnership. He argues that such model could potentially fall under the market participant exemptions.[568]

It should be noted that the cap and trade system is a state-controlled program to promote clean air. Importantly, preventing the benefits of the program from being fully undermined due to leakage can be seen as a public function addressing market failure.[569] These arguments would also apply with similar force to RPS schemes. Yet, it should be recalled that states take many measures for public benefit that still are categorized as regulations and in such cases the legitimate objectives of the public

[566] Lawrence Fogel, 'Serving a "Public Function": Why Regional Cap-and-Trade Programs Should Survive a Dormant Commerce Clause Challenge' (2010) Wisconsin L. Rev. 1313.
[567] *Id.* 1342-1344.
[568] *Id.* 1347-1349.
[569] *Id*. 1345-1346. *See* however Steven Ferrey, 'Goblets of Fire: Potential Constitutional Impediments to the Regulation of Global Warming' (2008) 35 Ecology L. Q. 835, 882. Acknowledging that the cap and trade system is created by the state, Ferrey still puts emphasis on the fact that even in a cap and trade system the parties doing the trading are private companies. The discussion on cap-and-trade systems could thus be linked to the debate on whether public-private partnerships should benefit from the exemptions to the Clause. On this problem *see* Dan T. Coenen, 'Where United Haulers Might Take Us: The Future of the State-Self-Promotion Exception to the Dormant Commerce Clause' (2010) 95 Iowa L. Rev. 541, 571.

function only come into play in law of justification. The case for a market creation exemption appears difficult to defend.

Furthermore, it should be emphasized that there are some differences between creating a cap and trade system and a RPS. In a cap and trade system the state creates products (emission allowances) and the market in that same product. In a RPS the state also creates some products (RECs) and the market for them. However, in the context of a RPS one might also need to consider whether the market in an underlying product, renewable energy, already exists or has been created through the RPS. It is not clear whether this consideration is of significance. It could be argued that in the case of cap and trade systems the market is always non-existent before it is created, while the "degree" of creation might in the case of a RPS depend on how developed the market in the renewables that will be supported has been before the state actually intervenes with its supporting measures. Hence, even if a market creation exemption would apply, it would still not be evident that it would extend to a RPS.

Some indications of the fate of a market creation exemption claim could perhaps be found in Supreme Court precedents. The Supreme Court has stated that a state may decide on the burdens on commerce, in case such commerce would not exist without subsidies having been granted.[570] It could be argued, that the same principle should apply to markets that would not exist if the state had not created the tradable good. This would be the case of RECs created by states to allow for trade under a RPS scheme. The RECs are virtual creations that represent the environmental advantages of renewables.[571] The credits are awarded with the objective of internalizing the externalities of non-renewables and they only exist through the decision of a state to create them. Yet, as noted above, trade in the underlying energy often exists even without any RECs.

In 2013 the Supreme Court appeared to endorse a market creation exemption in *McBurney v. Young*. The plaintiff challenged a Virginia law that denied out-of-state residents access to state documents. It is debatable as to whether those documents were

[570] Hughes v. Alexandria Scrap Corp., 426 U.S. 794, 815 (1976).
[571] Daniel K. Lee and Timothy P. Duane, 'Putting the Dormant Commerce Clause Back to Sleep: Adapting the Doctrine to Support State Renewable Portfolio Standards' (2013) 43 Environmental Law 295, 335; Steven Ferrey, 'Threading the Constitutional Needle with Care: The Commerce Clause Threat to the New Infrastructure of Renewable Power' (2011-12) 7 Texas J. of Oil, Gas & Energy L. 59, 102-103.

articles of the commerce in the first place. The court, however, also made the following argument:

"*We have held that a State does not violate the dormant Commerce Clause when, having created a market through a state program, it "limits benefits generated by [that] state program to those who fund the state treasury and whom the State was created to serve." […] "Such policies, while perhaps 'protectionist' in a loose sense, reflect the essential and patently unobjectionable purpose of state government – to serve the citizens of the State."*[572]

Arguments against a market creation exemption can equally be found in Supreme Court cases. For example, the Court has struck down state measures that limit the access of out-of-state vehicles to its roads, even if building roads could be seen as creation of new markets.[573] Coenen has argued that construction and maintenance of channels of commerce, such as highways, form an exception to the market participant doctrine.[574]

The decision to create a road network is an active and productive measure. Moreover, it is offering all traders a network to utilize, and in that sense creates markets for various articles of commerce. Precedent would thus suggest, that offering a network that enables trade does not make the state a market participant. To some extent this resembles a state decision to set up a system for trade in RECs. If accepted, this view would mean that no market creation exemption would apply.

Altogether Supreme Court case law offers arguments both for and against a market creation exemption. Given that there still is limited guidance from the Supreme Court, some recent case law from lower courts with respect to the concept of market creation should be taken note of. For example, *Allco Finance* concerned the RPS adopted by Connecticut. The state grants RECs only to electricity that is delivered to the transmission network of New England, which covers Connecticut and a number of other states. In its decision, the district court[575] briefly referred to market creation,

[572] McBurney v. Young 133 S. Ct. 1709 (2013). *See* also Dan Farber, 'Constitutional Issues in Cap and Trade: New Light From an Unexpected Source' (June 17, 2013) <http://legal-planet.org/2013/06/17/constitutional-issues-in-cap-and-trade-new-light-from-an-unexpected-source/> accessed 13 May 2017.
[573] Bibb v. Navajo Freight Lines, Inc., 359 U.S. 520 (1959); Kassel v. Consolidated Freightways Corp., 450 U.S. 662 (1981).
[574] Dan T. Coenen, *Constitutional Law: The Commerce Clause* (Foundation Press 2004) 312, 340-342.
[575] Allco Finance v. Klee, case no. 3:15-cv-608 (CSH) and 3:16-cv-508 (CSH) (D. Conn. Aug. 18, 2016).

whereas the U.S. Court of Appeals for the Second Circuit[576] gave such an aspect no thought. Neither court found any violation of the dormant Commerce Clause.

It is also worthy to recall the case of *E&E Legal,* in which the U.S. District Court for the District of Colorado examined the state RPS. The court upheld the state RPS without any reference to a market creation exemption.[577] Instead the court concluded that the program did not breach the prohibition of extraterritorial regulation and to the extent the program might have had discriminatory effects, they were justified on environmental grounds. The U.S. Court of Appeals for the Tenth Circuit was only asked to examine the case from the perspective of extraterritoriality[578] and in the end affirmed the ruling.[579] Market creation was thus never on the table.

The confusion that prevails with respect to market participation exemptions generally and the issue of market creation in particular is apparent from a couple of recent district court decisions on state programs of awarding zero-emission credits to nuclear power plants. As explained already above,[580] New York has adopted ZEC program under which the state authority purchases credits from nuclear power plants that deliver electricity to New York retail customers. This was challenged in *Coalition for Competitive Electricity*. While the district court concluded that it formed a subsidy exempted from any closer scrutiny under the dormant Commerce Clause, it also referred to the argumentation of the district court in *Allco Finance* and echoed the idea that a state acts as a market participant when it creates RECs/ZECs. The court did not seem to give relevance to the fact that in *Allco Finance* the Court of Appeals, unlike the district court, did not put emphasis on market creation.

In its analysis of market participation and creation the district court in *Coalition for Competitive Electricity* also pointed out that the ZEC program did neither establish any "trade barrier" nor did it "prevent or regulate the flow of energy".[581] It is not entirely clear what the court intended to suggest with these expressions. Would a ZEC program or a RPS that has the effect of fully preventing market access be prima facie prohibited

[576] Allco Finance v. Klee, Case no. 16-2946 (2nd Cir. 2017).
[577] Energy and Environment Legal Institute et al v. Joshua Epel, 43 F. Supp. 3d 1171 (D. Colo. 2014).
[578] For more on the case and extraterritoriality *see* section 6.1.6.
[579] Energy and Environment Legal Institute et al v. Joshua Epel, 793 F.3d 1169 (10th Cir. 2015). The 10th circuit did not find the RPS to constitute extraterritorial regulation.
[580] *See* section 2.3.2.1.
[581] Coalition for Competitive Electricity et al v. Zibelman, Case No. 16-CV-8164 (VEC) (S.D.N.Y. 2017).

regulation and not market creation or participation? The Second Circuit affirmed the judgment of the district court but did not rule on the merits of the Commerce Clause claim because the plaintiffs lacked standing.[582]

Illinois has adopted a ZEC program that on many accounts resembles that of New York. The state will award ZECs to qualifying energy generating facilities. It is generally expected that those facilities will be two in-state nuclear power plants. Electricity utilities will then be obligated to purchase ZECs from those two plants. The district court in *Old Mill Creek*[583] did not directly apply any subsidy, market participant or market creation exemption. Instead, it started by examining the program and found that there was no evidence of facial discrimination because the criteria for selecting the qualified energy generating facilities were objective. Interestingly, only after this finding did the court advance the idea that the creation of ZEC has created a new market in a new "credit commodity". Importantly, the district court acknowledged that the implementation of the ZEC program could still affect the wholesale market in electricity. It is submitted that the market in credits and the market in electricity are closely connected. Despite seemingly recognizing this, the district court without much elaboration concluded that the burden on interstate trade in electricity was still only incidental.

As a consequence of not relying on any exemption, the district court in *Old Mill Creek* had to evaluate whether any burden on interstate commerce (i.e. de facto discrimination) could be justifiable. Under the applicable proportionality test, the Pike balancing test,[584] it is assessed whether the burden is clearly excessive of the benefits. Given that the court had found the burden to be incidental, it was as such not controversial that it went on to conclude that the ZEC program survived the Pike balancing test. The court emphasized the benefits of reduced GHG emissions. Yet, it should be noted that the court also took the unorthodox approach of adding to its arguments that also the right to market participation and market creation formed a legitimate objective that should be weighed against the burden on interstate commerce. The decision was affirmed by the Seventh Circuit Court.[585]

[582] Coalition for Competitive Electricity v. Zibelman, case no. 17-2654-cv (2d Cir. 2018).
[583] Village of Old Mill Creek v. Star, No. 17 CV 1163-1164 (N.D. Illinois 2017).
[584] *See* chapter 3 for more details on the Pike balancing test.
[585] Electric Power Supply Association v. Star, cases nos. 17-2433 & 17-2445 (7th Cir. 2018).

Courts, and in particular the Supreme Court, ought to elaborate more on the reasons for the market participant exemption. A better understanding of the reasons behind the market participation exemptions would offer better tools to evaluate the arguments for any market creation exemption. A market creation exemption could strengthen the position of strategies to internalize or otherwise tackle externalities. At the same time, the exemptions invite even de jure discrimination that may not be necessary for addressing externalities. Thus, market participation and creation exemptions would not appear to promote efficiency. The whole idea of a market creation exemption is questionable from the perspective of economic theory. This is why it is submitted here that such an exemption should not be introduced. It would be vital that if courts still opt to apply any such exemption, they explain why it is reasonable to deviate from an economic ratio in economic law.

2.3.3.2. Market Creation and the Agreement on Subsidies and Countervailing Measures

The Agreement on Subsidies and Countervailing Measures[586] (SCM Agreement) is part of WTO law. It may be recalled that subsidies that are specific to an enterprise, an industry, a group of enterprises or a group of industries within the jurisdiction of the granting authority, do not comply with the SCM Agreement under certain conditions. For example, subsidies are prohibited if they are contingent on export performance or the use of domestic goods. In addition, subsidies are actionable in case they cause prejudice to the interests of other states, injury to their industry or nullifies benefits accruing under GATT.

In the SCM agreement a subsidy is defined as a financial contribution by a public body. Subsidies may also take the form of government income or price support. Regardless of form, an additional condition for the existence of a subsidy is that the contribution, income or support confers a benefit.

A few years ago, Ontario offered a FIT to companies that generated electricity from renewable resources, under the condition that the facilities utilized in-state equipment and labor to a sufficient degree. This system was challenged in *Canada – Renewables* and was found to clearly breach the non-discrimination principle in GATT.[587] The

[586] Agreement on Subsidies and Countervailing Measures, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1869 U.N.T.S. 14.
[587] Canada – Certain Measures Affecting the Renewable Energy Generation Sector, DS412 and Canada – Measures Relating to the Feed-In Tariff Program, DS426, AB Report, 6 May 2013.

Appellate Body concluded though, that the FIT was not a subsidy and therefore would not breach the SCM Agreement.

In applying the SCM Agreement, the AB pointed out two reasons why the FIT did not confer any benefit. First, the AB found that the electricity markets for fossil fuels and renewables are separate.[588] This narrow definition of the relevant market that in essence disregarded competition and substitutability has received harsh criticism.[589] Secondly, the AB introduced a market creation test. Namely, it claimed that the market for electricity from renewable resources would not exist without government regulation. According to the AB, the market could be created through FITs or quantity mandates.[590] The AB added that the measures by a government to create a market cannot distort the market because without the intervention the market would not exist in the first place.[591]

The market creation test has also received harsh criticism from commentators. First, there is little in the text of the SCM Agreement that would hint to any such test.[592] Secondly, it would be very difficult to draw the line between created and existing markets.[593] For example, the market for advanced biofuels would probably be regarded as a created market currently.[594] How long would the market need to exist and how competitive would the sector need to become before it is an existing market?

The most serious concern relating to the market creation test is that it will allow states to pursue industrial policy.[595] Namely, the measures to create new markets do not

[588] *Id*., paras 5.171-178.
[589] Luca Rubini, 'What does recent WTO litigation on renewable energy subsidies tell us about methodology in legal analysis? The good, the bad, and the ugly' (2014) EUI Working Papers – RSCAS 05; Luca Rubini, 'The wide and the narrow gate: Benchmarking in the SCM Agreement after the *Canada – Renewable Energy/FIT* ruling' (2015) EUI Working Papers – RSCAS 09, 7.
[590] Canada – Certain Measures Affecting the Renewable Energy Generation Sector, DS412 and Canada – Measures Relating to the Feed-In Tariff Program, DS426, AB Report, 6 May 2013, para. 5.175.
[591] *Id.,* para. 5.188.
[592] Luca Rubini, 'The wide and the narrow gate: Benchmarking in the SCM Agreement after the *Canada – Renewable Energy/FIT* ruling' (2015) EUI Working Papers – RSCAS 09, 9; Aaron Cosbey and Petros C. Mavroidis, 'A Turquoise Mess: Green Subsidies, Blue Industrial Policy and Renewable Energy: The Case for Redrafting the Subsidies Agreement of the WTO' (2014) EUI Working Paper Series – RSCAS 17, 1.
[593] Luca Rubini, 'The wide and the narrow gate. Benchmarking in the SCM Agreement after the *Canada – Renewable Energy/FIT* ruling' (2015) EUI Working Papers – RSCAS 09, 9; Aaron Cosbey and Petros C. Mavroidis, 'A Turquoise Mess: Green Subsidies, Blue Industrial Policy and Renewable Energy: The Case for Redrafting the Subsidies Agreement of the WTO' (2014) EUI Working Paper Series – RSCAS 17, 12-13.
[594] Harri Kalimo, Filip Sedefov and Max S. Jansson, 'Market Definition as Value Reconciliation: The Case of Renewable Energy Promotion Under the WTO Agreement on Subsidies and Countervailing Measures' (2017) 17 International Environmental Agreements: Politics Law and Economics 427.
[595] Aaron Cosbey and Petros C. Mavroidis, 'A Turquoise Mess: Green Subsidies, Blue Industrial Policy and Renewable Energy: The Case for Redrafting the Subsidies Agreement of the WTO' (2014) EUI

always rely only on objectives that are considered justifiable, such as environmental protection.[596] Even in the case at hand, *Canada – Renewables*, it was evident that the FIT was designed and introduced also in order to create local jobs.

The market creation test would significantly narrow the scope of what constitutes a subsidy under the SCM Agreement. Yet, the SCM Agreement is not meant to offer states a 'carte blanche', but to strike a delicate balance between conflicting interests and to mitigate uncertainty.[597] The narrow relevant market test and the market creation test do not appear well suited for reconciling the relevant values.

The problem with the SCM Agreement is that there are no applicable grounds of justification related to environmental protection. As a consequence, the AB was forced to adhere to 'legal acrobatics'.[598] In interpreting the SCM Agreement one will face a similar dilemma as when applying Article 2.1 TBT or Article 110 TFEU; without any explicit grounds of justification the method for value reconciliation must be searched for elsewhere.

An option would be to revise the SCM Agreement, for example by adding grounds of justification.[599] These grounds could be comparable to those in Article XX GATT or refer to the correction of market failures.[600] Whatever the solution, the consensus seems to be that the market creation test introduced in connection with the SCM Agreement is far from ideal. The test is a way to recognize that market failures justify government intervention and its application could be specified in the future. Yet, in focusing on the distinction between new and old markets the test would appear to miss more relevant

Working Paper Series – RSCAS 17, 1.

[596] Steve Charnovitz and Carolyn Fischer, 'Canada – Renewable Energy: Implications For WTO Law on Green and Not-so-green Subsidies', in Carlo Carraro (ed.), Climate Change and Sustainable Development, (2014) Nota Di Lavoro 94, Fondazione Eni Enrico Mattei, 45.

[597] US – Tax Treatment for "Foreign Sales Corporations": Recourse to Article 21.5 of the DSU by the EC, DS108, Panel Report, 20 Aug. 2001, para. 8.39.

[598] Aaron Cosbey and Petros Mavroidis, 'Heavy Fuel: Trade and Environment in the GATT/WTO Case Law' (2014) 23 Review of European, Comparative & International Environmental Law 23, 288-301; Aaron Cosbey and Petros Mavroidis, 'A Turquoise Mess: Green Subsidies, Blue Industrial Policy and Renewable Energy: The Case for Redrafting the Subsidies Agreement of the WTO' (2014) Journal of International Economic Law 11.

[599] Steve Charnovitz and Carolyn Fischer, 'Canada – Renewable Energy: Implications For WTO Law on Green and Not-so-green Subsidies', in Carlo Carraro (ed.), Climate Change and Sustainable Development, (2014) Nota Di Lavoro 94, Fondazione Eni Enrico Mattei, 51.

[600] Aaron Cosbey and Petros C. Mavroidis, 'A Turquoise Mess: Green Subsidies, Blue Industrial Policy and Renewable Energy: The Case for Redrafting the Subsidies Agreement of the WTO', (2014) EUI Working Paper Series – RSCAS 17, 24-27.

questions of value reconciliation, such as whether or not the subsidy is designed to efficiently achieve legitimate objectives.

2.3.4. A Comparison with EU Law

2.3.4.1. State Regulation Contra Market Participation in Public Procurement

The U.S. dormant Commerce Clause covers state regulation, whereas state market participation is not covered. EU free movement law is similar to the dormant Commerce Clause in that it covers state regulation. A difference between the two is that in contrast to the U.S. doctrine, no market participant exemption is applied for state participation in EU free movement law.

Some academic debate has emerged on an exemption to EU free movement law for public procurement. Before examining the exemption, some background information must be provided. First, all forms of economic activity on the internal market, including procurement are governed by the Articles of the TFEU. Public procurement shall therefore also fall under the scope of free movement law.[601] Secondly, EU free movement law applies only to 'measures'. Discriminatory national procurement laws are measures and may fall foul of free movement law.[602] Similarly, as discussed previously,[603] a general and consistently applied practice is also a measure covered by free movement law.[604] A single tender forms an administrative decision but is neither general nor consistently applied. It could be argued that individual decisions on the design of a call for tenders, including the technical specifications and the award criteria for that specific case, do not form any general and consistent administrative practice and should therefore be excluded from the category of measures that may constitute

[601] Case 45/87 *Commission v. Ireland (Dundalk Water Supply)* [1988] ECR 4929, Opinion of AG Darmon, para. 28; Case C-225/98 *Commission v. France* (*Nord-Pas-de-Calais*) [2000] ECR I-7445, para. 83; Case C-513/99 *Concordia Bus Finland Oy Ab, formerly Stagecoach Finland Oy Ab v. Helsingin kaupunki and HKL-Bussiliikenne* [2002] ECR I-7213, paras 63 and 82; Recital 1, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65; Recital 2, Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC, OJ L 94, 28.3.2014, 243; Recital 4, Directive 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts, OJ L 94, 28.3.2014, 1.

[602] Case 3/88 *Commission v. Italy* (Data Processing) [1989] ECR 4035, para. 9; Joined cases C-147/06 and C-148/06 *SECAP SpA and Santoroso Soc. coop. arl v. Comune di Torino* [2008] ECR I-3565, para. 35.

[603] *See* section 2.1.2.1.

[604] Case 21/84 *Commission v. France* (Postal Franking Machine) [1985] ECR 1355, para. 13; Case C-489/06 *Commission v. Greece* [2009] ECR I-1797, paras. 46-56.

prohibited restrictions on trade.[605] However, the ECJ has still applied EU free movement law to single procurements.[606] It is against this background that the discussion on a potential exemption for some procurement decisions has emerged.

The exemption proposed by some scholars would apply for de facto discriminatory public procurement decisions on what to buy (so called excluded buying decisions).[607] A prominent view in the field of public procurement is that public authorities should have a broad discretion in specifying the subject-matter of their contract.[608] An exemption to EU free movement law for decisions on what to buy could be regarded as linked to the market participant doctrine. In making decisions on what to buy public authorities would act as market participants.[609]

The potential exemption would not apply to de jure discriminatory procurement decisions and other procurement criteria closely linked to geographical origin, such as language requirements.[610] In addition, it is clear from the ECJ case law that it could not apply to decisions on 'from whom to buy'. For example, *Serrantoni* concerned an Italian law that prohibited members of permanent consortiums to submit bids in the

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[605] Peter Kunzlik, 'Green Public Procurement – European Law, Environmental Standards and 'What To Buy' Decisions' (2013) 25 Journal of Environmental law 173, 193.

[606] Case 45/87 *Commission v. Ireland* (*Dundalk Water Supply*) [1988] ECR 4929; Case C-359/93 *Commission v The Netherlands* [1995] ECR I-197, paras. 23-29; Case C-234/03 *Contse SA and others v. Instituto Nacional de Gestión (Ingesa), formerly Instituto Nacional de la Salud (Insalud)* [2005] ECR I-9315. *See* also C-226/09 *Commission v. Ireland* [2010] ECR I-11807, paras. 29 and 41; Case C-231/03 *Consorzio Aziende Metano (Coname) v. Comune di Cingia de' Botti* [2005] ECR I-7287, paras. 17-22; C-260/04 *Commission v. Italy* (Horse-race betting) [2007] ECR I-7083, paras. 25-36; Adrian Tokar, Institutional Report, in Ulla Neergaard, Catherine Jacqueson and Grith Skovgaard Ølykke (eds.), Public Procurement Law: Limitations, Opportunities and Paradoxes, The XXVI FIDE Congress in Copenhagem, 2014 Congress Publications Vol. 3, 192.

[607] For arguments for an exemption *see* Peter Kunzlik, 'Green Public Procurement – European Law, Environmental Standards and 'What To Buy' Decisions' (2013) 25 J. Environmental Law 173, 188-193; Roberto Caranta, 'General Report', in Ulla Neergaard, Catherine Jacqueson and Grith Skovgaard Ølykke (eds.), *Public Procurement Law: Limitations, Opportunities and Paradoxes*, The XXVI FIDE Congress in Copenhagen, 2014 Congress Publications Vol. 3, 135-139; Sue Arrowsmith and Peter Kunzlik, 'EC Regulation of Public Procurement', in Sue Arrowsmith and Peter Kunzlik (eds.), *Social and Environmental Policies in EC Procurement Law* (CUP 2009) 59-68; Sue Arrowsmith, 'Application of the EC Treaty and directives to Horizontal Policies: A Critical Review, in Sue Arrowsmith and Peter Kunzlik (eds.), *Social and Environmental Policies in EC Procurement Law* (CUP 2009) 160-162.

[608] Catherine Weller and Janet Meissner Pritschard, 'Evolving CJEU Jurisprudence: Balancing Sustainability Considerations with the Requirements of the Internal market' (2013) EPPPL 55, 56; Buying Green! A Handbook on Environmental Public Procurement (2nd ed., European Commission 2011) 22.

[609] For a discussion on the state as regulator and buyer/consumer see Christopher McCrudden, Buying Social Justice: Equality, Government Procurement and Legal Change (OUP 2007) 538-568.

[610] Case 45/87 *Commission v. Ireland* (*Dundalk Water Supply*) [1988] ECR 4929; Case C-379/87 *Anita Groener v. Minister for Education and the City of Dublin Vocational Educational Committee* [1989] ECR 3976; Case C-281/98 *Roman Angonese v Cassa di Risparmio di Bolzano SpA* [2000] ECR I-4139; Case C-243/89 *Commission v. Denmark* (Storebealt) [1993] ECR I-3353, para. 45; Case 76/81 *SA Transporoute et Travaux v. Minister of Public Works* [1982] ECR 417, para. 14.

same tender as the consortium. The ECJ concluded that such law was in breach of the principle of equal treatment and the principle of proportionality.[611] The ECJ added that the law also constituted a prima facie prohibited non-discriminatory hinder to market access and was not justifiable due to the disproportionality of the measure in relation to its objectives.[612] Thus, the Court seemed to apply the tests of free movement law.

A more recent case, *Spezzino*, concerned an authority that gave preference to non-profit organizations in awarding contracts for ambulance services. The court applied free movement law and while it was prima facie prohibited to disfavour for-profit entities, the measures were in the end declared justifiable on social grounds.[613] Moreover, in *Libor*, the court had to assess the decision by an authority in Milan to exclude a bidder on the grounds of unpaid social security contributions. Albeit the provisions of the directives were not applicable to the case, the ECJ applied free movement law. Without any reflections on potential discrimination, the decision by the authority was regarded as a prima facie prohibited trade hinder. It could still be justified on grounds relating to ensuring "the reliability, diligence and responsibility of the tenderer and its proper conduct in relation to its employees".[614]

A prohibition on members of a consortium to compete with the consortium, giving preference to non-profit actors and excluding bidders with unpaid social security contributions can all be classified as decisions on from whom to buy. The ECJ has also applied free movement law in cases where purchasing authorities required the bidder to have offices in a specific region[615] or to be established in a specific region.[616] These cases could be regarded both as de jure discriminatory and as decisions on from whom to buy. Finally, the ECJ has found that direct awards may create prohibited hinders to

[611] Case 376/08 *Serrantoni Srl and Consorzio stabile edili Scrl v. Comune di Milano* [2009] ECR I-12169, paras. 31-46.
[612] *Id.* paras 41-45.
[613] Case C-113/13 *Azienda sanitaria locale n. 5 <<Spezzino>> and Others v. San Lorenzo Soc. Coop. sociale and Croce Verde Cogema Coop. Soc. Onlus*, ECLI:EU:C:2014:2440, paras 51-52, 65.
[614] Case C-358/12 *Consorzio Stabile Libor Lavori Pubblici v. Comune di Milano*, ECLI:EU:C:2014:2063, paras 24-41.
[615] Case C-360/89 *Commission v. Italy* [1992] ECR I-3401, paras 7-15; Case C-234/03 *Contse SA and others v. Instituto Nacional de Gestión Sanitaria (Ingesa), formerly Instituto Nacional de la Salud (Insalud)* [2005] ECR I-9315, paras 37-38, 41-46, 55, 56-67, 79.
[616] Case C-21/88 *Du Pont de Nemours Italiana SpA v. Unita sanitaria locale No 2 di Carrara* [1990] ECR I-889, para. 11-18; Case C-351/88 *Laboratori Bruneau Srl Unita sanitaria locale RM/24 di Monterotondo* [1991] ECR I-3641, paras 7-8.

the market access of foreign bidders.[617] Hence, decisions on how to buy would also not fall under any exemption.

It is sometimes difficult to draw a clear distinction between decisions on what to buy and from whom to buy it. Moreover, the ECJ has never confirmed the existence of this type of exemption. Unsurprisingly, the idea of an exemption for decisions on what to buy has received criticism.[618]

In case law on environmental sustainability criteria the ECJ has generally stated that free movement law applies but has not carried out any detailed analysis of discrimination.[619] For example, the *Concordia* case concerned a tender organized by the city of Helsinki for a bus route. The city had stated in the award criteria that additional points would be awarded on the basis of the pollution profile of the buses. In practise, the pollution profile criterion in *Concordia* eliminated most potential bidders from the race and one of the few transport undertakings eligible for those extra points was the city's own company. The ECJ stated that this did not mean that the tender design breached the procurement law principle of equal treatment.[620] Although the criteria also appeared to have discriminatory effect, the ECJ did not make any explicit conclusion on that point.

Wienstrom, in turn, was a case where a public authority in Austria had published a call for tenders for electricity. The authority had specified that the power must come from renewable resources. While some aspects of the criteria were incompatible with the directive and therefore never assessed under free movement law,[621] the Court also

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[617] Case C-458/03 *Parking Brixen GmbH v. Gemeinde Brixen and Stadtwerke Brixen AG* [2005] I-8585, para. 50; Case C-220/06 *Asociación Profesional de Empresas de Reparto y Manipulado de Correspondencia v Administración General del Estado (Correos),* ECLI:EU:C:2007:815, para. 76. *See also* Berend Jan Drijber and Helene Stergiou, 'Public Procurement Law and Internal Market Law' (2009) 46 C.M.L.Rev. 805, 817-819.

[618] Jörgen Hettne, 'Sustainable Public Procurement and the Single Market – Is There a Conflict of Interest?' (2013) 8 E.P.P.P.L. 31, 36-37; Agris Peedu, 'National Report – Estonia', in Ulla Neergaard, Catherine Jacqueson and Grith Skovgaard Ølykke (eds.), *Public Procurement Law: Limitations, Opportunities and Paradoxes*, The XXVI FIDE Congress in Copenhagen, 2014 Congress Publications Vol. 3, 330.

[619] Case C-513/99 *Concordia Bus Finland Oy Ab, formerly Stagecoach Finland Oy Ab v Helsingin kaupunki and HKL-Bussiliikenne* [2002] ECR I-7213, paras 63 and 82. On social sustainability criteria *see* also Case 31/87 *Gebroeders Beentjes BV v The Netherlands* [1988] ECR 4635, para. 37. For a discussion on whether there might have been discrimination at hand *see* Lawrence Gormley, 'Some Reflections on Public Procurement in the European Community' (1990) 1 European Business Law Review 63.

[620] Case C-513/99 *Concordia Bus Finland Oy Ab, formerly Stagecoach Finland Oy Ab v Helsingin kaupunki and HKL-Bussiliikenne* [2002] ECR I-7213, paras. 85-86.

[621] Similarly *see* Case C-368/10 *Commission v. Netherlands (Max Havelaar)*, ECLI:EU:C:2012:284. The case concerned the decision by a public authority in the Netherlands to purchase coffee machines and

examined whether it was in breach of free movement to assign environmental criteria a weight of 45 % in the comparison of bids. The ECJ simply concluded that no evidence had been presented that would suggest any breach of the Treaty provisions of free movement.[622]

In case the exemption for decisions on what to buy was implicitly considered and regarded applicable by the ECJ in *Concordia*, which concerned environmental effects in the consumption phase, would it also have applied in *Wienstrom*? The latter case concerned PPM-criteria, which fall somewhere in-between the categories of 'what to buy' and 'who can sell'. It has been argued that the lack of any proportionality review in *Wienstrom* would indicate that decisions on PPM-criteria belong to the category of decisions on what to buy and that these are exempted from free movement law review under a market participant doctrine.[623] Interestingly, in other academic works it has been argued that criteria on PPMs should not fall into the category of excluded buying decisions and would need to be justified.[624] Similarly to criteria on PPMs, criteria on delivery methods may or may not be categorized as decisions on what to buy.

A decision on who needs to be employed by the entity that gets the contract has not been viewed as part of excluded buying decisions.[625] There has been more uncertainty as to whether excluded buying decisions could cover the working conditions of those employed.[626] A recent case appears to now have rejected the possibility of referring to any exemption with respect to working condition criteria. A German authority had required that bidders guarantee that also their subcontractors carrying out work in other

apply criteria relating to labels that are awarded for producers with organic farming methods (ecological criteria) and who pay small-scale developing country producers a fair price (fair trade criteria).

[622] Case C-448/01 *EVN AG & Wienstrom GmbH v. Austria* [2003] ECR I-14527, para. 43.

[623] Peter Kunzlik, 'Green Public Procurement – European Law, Environmental Standards and 'What To Buy' Decisions' (2013) 25 Journal of Environmental Law 173, 189-191.

[624] Sue Arrowsmith and Peter Kunzlik, EC Regulation of Public Procurement, in Sue Arrowsmith and Peter Kunzlik (eds.), *Social and Environmental Policies in EC Procurement Law* (CUP 2009) 65-66; Sue Arrowsmith, Application of the EC Treaty and Directives to Horizontal Policies: A Critical Review, in Sue Arrowsmith and Peter Kunzlik (ed.), *Social and Environmental Policies in EC Procurement Law* (CUP 2009) 150 and 160. According to Arrowsmith most PPM-related criteria would however be justifiable.

[625] Sue Arrowsmith, Application of the EC Treaty and Directives to Horizontal Policies: A Critical Review, in Sue Arrowsmith and Peter Kunzlik (ed.), *Social and Environmental Policies in EC Procurement Law* (CUP 2009) 150; Case 31/87 *Gebroeders Beentjes BV v. The Netherlands* [1988] ECR 4635, para. 30; Case C-225/98 *Commission v. France (Nord-Pas-de-Calais)* [2000] ECR I-7445, para. 50.

[626] Sue Arrowsmith and Peter Kunzlik, EC Regulation of Public Procurement, in Sue Arrowsmith and Peter Kunzlik (eds.), *Social and Environmental Policies in EC Procurement Law* (CUP 2009) 68. This uncertainty also concerns criteria that prohibit child labour.

countries, such as Poland, comply with German minimum wage provisions. Interestingly, the ECJ did not seem to outright condemn the extraterritorial dimension of the requirement. However, it was very clear on the point that free movement law applied, that the requirement to pay German salaries in Poland was discriminatory and that, despite its social objective, the criterion was not proportional since the costs of living in Poland did not necessitate salaries of German levels.[627]

Much uncertainty remains with respect to the existence and application of an exemption on decisions by procuring public authorities on what to buy. There is thus a need for ECJ rulings clarifying the matter. It is argued here that the court should not develop any exemption to EU free movement law that would rely on the perception of the state authorities as market participants when they purchase for example goods and services.

Even if the case load could increase with no exemption for decisions on what to buy,[628] the solution should for several reasons not be the introduction of an exemption to free movement law. First, public authorities never act purely as market participants in the same way as private parties do but also consider the wider implications of their actions and often pursue social policy goals.[629] It is characteristic of the state to address externalities that profit-oriented companies may neglect due to their focus on company, and not societal, costs. Secondly, if public authorities had the right to define the market by a decision on what to buy,[630] it would open up for the risk of public authorities defining a narrow market with the effect, or even intent, of practically making bidding impossible for out-of-state companies that do not offer the same required goods, but still are competitors on the same market in the eyes of buyers and consumers more generally because they offer substitutes to the goods that the contracting authority has defined that it wants to purchase. The re-definition of the relevant market and like products taken by a public authority would be in contradiction with to the principle of non-discrimination and would be detrimental to free trade and efficiency. Thirdly, an exemption would create incoherence as states could carry out an industrial policy

[627] Case C-549/13 *Bundesdruckerei GmbH v Stadt Dortmund*, ECLI:EU:C:2014:2235, paras 30-34.
[628] For such concerns *see* Peter Kunzlik, 'Green Public Procurement – European Law, Environmental Standards and 'What To Buy' Decisions' (2013) 25 Journal of Environmental Law 173, 192-193.
[629] *See* e.g. Proposal for a Directive of the European Parliament and of the Council on public procurement, 20.12.2011, COM (2011) 896 final, p.2; Catherine Weller and Janet Meissner Pritschard, 'Evolving CJEU Jurisprudence: Balancing Sustainability Considerations with the Requirements of the Internal market' (2013) EPPPL 55.
[630] For this suggestion *see* Peter Kunzlik, 'Green Public Procurement – European Law, Environmental Standards and 'What To Buy' Decisions' (2013) 25 Journal of Environmental Law 173, 192.

agenda through public procurement even if the same objectives could not be pursued through other measures. Finally, the risks of a continuously high case load could partly be mitigated by Commission guidance and clear rulings by the ECJ on how public tenders ought to be designed in order to comply with free movement law.

In conclusion, the idea of market participant exemptions has generally been rejected in EU free movement law. Yet, the peculiar case of public procurement decisions illustrated that some pressure to go down that path can also be identified in EU free movement law. Admittedly, the proposed exemption may be less controversial if it applies only when there has been some individual decision by an authority and not when national procurement laws or general and consistent procurement practices define what to buy with the intent or consequence of favoring in-state products or bidders.

2.3.4.2. Private Market Participation and Private Regulation

Private market participation is not covered by the U.S. dormant Commerce Clause. In turn, the status of private regulation has not been challenged in the U.S. This would indicate that it is regarded as also not covered.

Similarly to U.S. law, EU free movement law does at least as a rule not cover private market participation. The ECJ has clarified that it is measures enacted by states that fall under the rules of free movement law and that private parties cannot breach Article 34.[631] However, the ECJ has also ruled that measures by private parties can be covered by the rules on free movement under certain conditions.

First of all, measures by private parties are covered by free movement law in case there is a sufficient nexus between the private and the public. Under EU free movement law the state is responsible for the actions of private companies and organizations if it has established the private entity, defines its objectives, appoints its management, delegates power to it through either laws or contracts, or if the entity is fully or at least primarily financed by the state.[632] Comparably under GATT panels have concluded that sufficient

[631] Case 311/85 *ASBL Vereniging van Vlaamse Reisbureaus v. ASBL Sociale Dienst van de Plaatselijke en Gewestelijke Overheidsdiensten* [1987] ECR 3801, para. 30; Case C-159/00 *Sapod Audic v. Eco-Emballages SA* [2002] ECR I-5031, para. 74. *See* also Case 8/74 *Procureur du Roi v. Benoît and Gustave Dassonville* [1974] ECR 837, para. 5.

[632] Case 249/81 *Commission v. Ireland (Buy Irish)* [1982] ECR 4005, para. 15; Case 222/82 *Apple and Pear Development Council v. K. J. Lewis Ltd and others* [1983] ECR 4083, para. 17; Case C-16/94 *Édouard Dubois & Fils SA and Général Cargo Services SA v. Garonor Exploitation SA* [1995] ECR I-2421, para. 20; Case C-325/00 *Commission v. Germany* [2002] ECR I-9977, paras 17-21; Case C-171/11 *Fra.bo SpA v. Deutsche Vereinigung des Gas- und Wasserfaches eV (DVGW) – Technisch-Wissenschaftlicher Verein*, ECLI:EU:C:2012:453, paras 27-32.

nexus exists in case the company adopting the discriminatory measure is a trading monopoly established by the state.[633] The nexus test has been introduced with the purpose of hindering states from circumventing the law by working through private organizations.

The test of sufficient nexus is not the only doctrine on the applicability of EU free movement law to measures by private parties. The ECJ has ruled that a 'group or an organization that exercises certain power over individuals and can impose conditions' as well as organizations that 'regulate in a collective manner' are bound by free movement law.[634] These have generally been organizations that have some form of exclusive rights recognized in law, such as trade unions and bar associations. However, also sports organizations, which are a type of natural monopoly, are caught by the 'collective regulation' test. In sum, EU free movement law appears, perhaps unlike the dormant Commerce Clause, to cover even some private regulation. On the one hand, this approach blurs the line between free movement law and competition law, where companies with a dominant position on the market are prohibited from discriminating because such action would constitute abuse of the dominant position.[635] On the other hand, the application of the non-discrimination principle to private parties with regulatory powers could also be viewed to complement EU competition law.

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[633] Thailand – Restrictions on Importation of and Internal Taxes on Cigarettes, DS10, Panel Report, 5 Oct. 1990 (adopted), para. 79; Import, distribution and sale of Alcoholic Beverages by Canadian Marketing Agencies, L/6304, Panel Report, 5 Feb. 1988 (adopted), para. 4.26; Canada – Import, distribution and sale of Certain Alcoholic Drinks by Provincial Marketing Agencies, DS17, Panel Report, 16 Oct. 1991 (adopted), para. 5.15. Note also that Article 3.1 TBT states that WTO members must ensure that even non-governmental bodies respect Article 2 TBT, including the non-discrimination provisions. This requirement applies, however, only if the non-governmental body has a legal power to enforce technical regulations. The requirement of legal power to enforce indicates that a nexus to the legislative (regulating) functions of the state must exist.

[634] Case 36/74 *B.N.O. Walrave and L.J.N. Koch v. Association Union Cycliste Internationale, Koninklijke Nederlandsche Wielren Unie et Federación Española Ciclismo* [1974] ECR 1405, para. 17; Case 266/87 *The Queen v. Royal Pharmaceutical Society of Great Britain, ex parte Association of Pharmaceutical Importers and others* [1989] ECR 1295, para. 14; Case C-415/93 *Union Royale Belge des Sociétés de Football Association ASBL v. Jean-Marc Bosman, Royal Club Liégeois SA v. Jean-Marc Bosman and others and Union des Associations Européennes de Football (UEFA) v. Jean-Marc Bosman* [1995] ECR I-4921, paras 82-87; Joined cases C-51/96 and C-191/97 *Christelle Deliège v. Ligue Francophone de Judo et Disciplines Associées ASBL, Ligue Belge de Judo ASBL, Union Européenne de Judo* (C-51/96) *and François Pacquée* (C-191/97) [2000] ECR I-2549, para. 60; Case C-411/98 *Angelo Ferlini v. Centre Hospitalier de Luxembourg* [2000] ECR I-8081, para. 50; Case C-309/99 *J. C. J. Wouters, J. W. Savelbergh and Price Waterhouse Belastingadviseurs BV v. Algemene Raad van de Nederlandse Orde van Advocaten, intervener: Raad van de Balies van de Europese Gemeenschap* [2002] ECR I-1577, para. 120; Case C-341/05 *Laval un Partneri Ltd v. Svenska Byggnadsarbetareförbundet and Others* [2007] ECR I-11767, para. 98; Case C-438/05 *International Transport Workers' Federation and Finnish Seamen's Union v. Viking Line ABP and OÜ Viking Line Eesti* [2007] ECR I-10779, para. 33-37.

[635] *See* Article 102 TFEU.

Sustainability standards and related labels or certification have been developed by NGOs in many fields in order to complement government action. These voluntary certificates serve to inform consumers that, for example, products are not the result of unsustainable forestry or that food has been produced in accordance with principles of organic farming. These sustainability labels illustrate what has been called the privatization of regulation.[636]

Could the collective regulation test be applicable for voluntary private labelling schemes? In comparison with sports associations some, perhaps crucial, differences can be identified. Although the labelling scheme would regulate in a collective manner, it might perhaps not exercise sufficient power over companies, in particular as it could not impose conditions. Of course, a labelling scheme could even have a natural monopoly, but it is not clear whether that alone would be sufficient for free movement law to apply. First, companies have the option of not adopting the label. Secondly, there is still a real possibility of the introduction of competing labels to the market. In contrast, in the sports sector all clubs are bound by the rules of the national association and it is often unrealistic to expect competing associations. Having two competing sport associations with their separate national championships would disturb the functioning of the system in a fundamental way. Hence, the argument for the applicability of EU free movement law to measures by private parties is somewhat weaker in the case of labelling schemes.

Some authors have argued that in addition to the more established tests of collective regulation and state nexus, also 'powerful' private market actors would be bound by the provisions on free movement of goods.[637] This would appear to invite some form of de minimis test. Yet, the suggested approach would be problematic when put in the context of sustainability labels. A labelling organization would become powerful only once its labels have been widely adopted. However, it would not seem in line with the rationale of free trade that once consumers have made the choice of valuing highly some label, that scheme could prima facie breach the Treaty.

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[636] Tim Büthe and Walter Mattli, *The New Global Rulers: The Privatization of Regulation in the World Economy* (Princeton University Press 2012).

[637] Christoph Krenn, 'A Missing Piece in the Horizontal Effect "Jigsaw": Horizontal Direct Effect and the Free Movement of Goods' (2012) 49 Common Market Law Rev. 177; Gareth Davies, 'Freedom of Movement, Horizontal Effect, and Freedom of Contract' (2012) 20 European Review of Private Law 805, 813.

There have been cases that even a powerful regulator test could not explain. In a few odd cases on free movement of workers and services the ECJ has applied the free movement provisions on action taken by private parties on normal competitive markets. The Court also made no reference to any collective regulation or nexus test. Two of these cases have related to discrimination by companies of jobseekers. The third case related to discriminatory car insurance conditions. In justifying why free movement law applied to a measure by a private party the ECJ referred to TFEU Articles on EU citizenship and non-discrimination of nationality as well as to the fundamental nature of the freedoms. [638] It is unclear as to whether this far-reaching application of free movement law should apply only in cases of de jure discriminatory measures.[639]

The broad application of free movement law to private measures relating to the free movement of workers and services in a few odd cases does seem at odds with the statements in cases on trade in goods explicitly rejecting the applicability of EU free movement law to measures by private parties.[640] However, the cases where EU free movement law has been applied to measures by private parties without any reference either to the collective regulation or the nexus test have been rare. When it comes to trade in goods and services EU free movement law should normally not apply to private party measures other than those attributed to the state or those constituting collective private regulation. De jure discrimination of people (jobseekers) is perhaps such a severe threat to the idea of EU citizenship that it constitutes a special case under the Treaty rules, including free movement law.

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[638] Case 251/83 *Eberhard Haug-Adrion v. Frankfurter Versicherungs-AG* [1984] ECR 4277, paras 14-18 (free movement of workers/services), paras 19-23 (free movement of goods); Case C-281/98 *Roman Angonese v. Cassa di Risparmio di Bolzano SpA* [2000] ECR I-4193, paras 30-36; Case C-94/07 *Andrea Raccanelli v. Max-Planck-Gesellschaft zur Förderung der Wissenschaften eV* [2008] ECR I-5939, paras 40-46.

[639] One of the cases related to different treatment of cars with customs registration plates (indicating country of registration) and another to the different treatment of job applicants without a national language certificate. The cases are very close to de jure discrimination. The third case related to the opportunity of applicants to receive an employment contract instead of a grant. The ECJ left it to the national court to determine whether there was discrimination. It did, however, not explicitly state that the discrimination would only be prohibited if the criteria applied for receiving employment contracts were related directly to nationality.

[640] Case 311/85 *ASBL Vereniging van Vlaamse Reisbureaus v. ASBL Sociale Dienst van de Plaatselijke en Gewestelijke Overheidsdiensten* [1987] ECR 3801, para. 30; Case C-159/00 *Sapod Audic v. Eco-Emballages SA* [2002] ECR I-5031, para. 74. *See* also Case 8/74 *Procureur du Roi v. Benoît and Gustave Dassonville* [1974] ECR 837, para. 5.

2.3.4.3. Opposite Paths in the EU and the U.S.

Trade law in both the EU and the U.S. cover state regulation and as a rule neither cover private participation. There are still differences between the two jurisdictions in that the U.S. exempts state participation and the EU in turn covers some private regulation. Yet, the EU state nexus test for covering private party measures and the U.S. market participation tests for exempting state participation still share some common traits at the level of theory. They have emerged from the realization that the classic idea of the state as regulator and private parties as market actors does not hold in modern society. The complexities of both regulatory and market activities have, however, pushed EU and U.S. in part in opposite directions. While U.S. courts have carved exemptions for the state to the non-discrimination principle, the ECJ has expanded the scope of prima facie prohibited measures.

Both the EU and the U.S. model can be problematic for efficiency. The U.S. model is very favourable for environmental strategies but might invite unnecessary de jure discrimination. The EU model, in turn, might present a challenge for market-based solutions to externalities. However, it was observed that even if the ECJ has perhaps opened Pandora's box with the application of free movement law to a surprisingly broad range of cases of private party action, the case law would still on most accounts allow for the construction of tests that significantly limit the applicability of EU free movement law to measures by private parties and thus may well not extend to voluntary PPM-labelling schemes established and administered by private organizations. Furthermore, in the case of EU, grounds of justification provide a safeguard for market-based measures with legitimate objectives.

2.3.5 Market Participant Tests and the Economic Approach

The market participant tests have been applied under the dormant Commerce Clause already for quite some time. The idea of granting the state in its capacity as market participants more freedom to drive in-state policy has not been developed to the same extent under EU free movement law. This would suggest that the level of market integration is higher in the EU.

A thought underlying the market participant tests would appear to be that public bodies can be compared to private actors when they take on economic activities on the market. It has thus more or less implicitly been suggested that the public body should in this

capacity have comparable freedom. The rationale is somewhat similar to that of the principle of competitive neutrality familiar from competition law. In accordance with the competition neutrality principle the public and private actors should face a level playing field.[641] However, in competition law the concern is that the public sector would distort the market through benefits that public entities enjoy, whereas reversely the market participant exemption aims to address concerns that public entities would be in a less favorable position.

The problem with equating state market participants with private market participants is that the state rarely genuinely acts according to the same business logic as private parties. It is in practice also difficult to make a distinction between regulation and participation. That point became evident from the analysis of the case law, in which the market participant exemption has been applied even when there were regulatory elements at hand.

There have been further arguments made in connection with the application of the market participant exemptions. It was noted that they have been applied with reference to the right of the state to ensure that benefits are kept in-state when measures are funded by in-state taxpayers and carried out by the state. Yet, it is difficult to see how this argument can be reconciled with the objective of eliminating protectionism. Economically it would make no difference if the state favors the in-state industry through restrictive regulations or through publicly funded initiatives.

It could potentially be argued that discrimination by state market participants would not evolve into a significant problem since a state will be accountable to its voters when it decides to discriminate through state market participation.[642] However, the same, fairly weak, accountability applies also in case of discriminatory market regulation.

Yet another argument used in the context of applying the market participant exemptions have been that states should have more extensive freedom to carry out public functions and address market failures. The desire to tackle market failures is also reflected in the

[641] On this principle *see* e.g. Competitive Neutrality: Managing a Level Playing Field Between Public and Private Businesses (OECD 30 Aug. 2012).

[642] The accountability might be seen as weaker when the public function is served through a multistate program. *See* Robin K. Craig, 'Constitutional Contours for the Design and Implementation of Multistate Renewable Energy Programs and Projects' (2010) 81 U. Colorado L. Rev. 771, 795-796. Yet, it is submitted that the democratic accountability should be intact as long as the state has the option to withdraw. Therefore, the fate of both state and multistate programs under any exemption doctrine should be the same.

idea that the market participant exemption in the U.S. could motivate the application of a new market creation exemption. On the one hand, the exemptions would increase flexibility for public actors to advance innovative and sustainable solutions. On the other hand, the exemptions would simultaneously open the door for hidden, or sometimes even explicit, discriminatory elements. Market participation and market creation tests do not allow for advanced reconciliation of the values involved. As a consequence of applying exemptions the balance gets heavily tipped in favor of state restrictions on free trade. Naturally, allowing for some degree of discrimination could be necessary in order for companies introducing new (sustainable) technology to establish themselves on the market and gradually become competitive. The justifiability and proportionality, including the necessity, of the measure with all its discriminatory elements would, however, be better scrutinized under law of justification and the proportionality review.

The exemptions to the dormant Commerce Clause make it possible for states to adopt even de jure discriminatory measures when acting as market participants or when granting subsidies. At the same time many other forms of measures that have the same economic consequences are prohibited. It is difficult to identify any economically coherent theory underlying the dormant Commerce Clause. The exemptions risk creating contradictions with the efficiency rationale common in economic law. In other words, law of prohibition under the dormant Commerce Clause appears already to have been infiltrated by other values. The values underlying the idea of the state as a market participant or subsidizing entity seem to weigh more heavily than the value of non-discrimination in trade and related efficiency. As explained above, the value underlying the market participant exemption is the state's right to market participation on similar terms as private companies. In turn, the right for states to grant de jure discriminatory subsidies relates to the idea that subsidies are transparent, and that in-state voters will not re-elect legislators that implement unsound subsidies.

It is difficult to say what the direct cross-jurisdictional influence has been, but in EU public procurement law prominent scholars have argued in favor of a test that resembles the market participant exemptions applied in the U.S. Moreover, a market creation test, similar to that discussed in the context of U.S. law, has now recently been introduced in the application of SCM Agreement. At the very least, this underlines the commonalities between various fields of economic law even across jurisdictions.

The market participant and market creation exemptions represent classic formalism, where the exemption does not depend on the necessity of the discriminatory elements of the measure. For example, under the SCM Agreement the applicability of the market creation test would depend on whether the market is mature or new. The test is too rigid and does not even offer simplification that could be argued to bring clarity and legal certainty.

It is perhaps interesting to note that the formalism has been introduced by judicial bodies in the U.S. and in the WTO. Rigid rules do not always stem from codification (as perhaps is typical in civil law) but may also arise from judicial activism. It falls outside the scope of this book to examine the circumstances and principles under which new tests constructed through judicial activism become failures or success stories.

Conclusions on Value Reconciliation in Law of Prohibition

There has been extensive previous research into the clash between trade and environment.[643] Some of this research has focused on the strength of environmental protection as an argument in trade law and other fields of economic law. This framing of the problem may leave the impression that free trade and environmental protection lie in conflict and that a balance must be struck. Yet, many have been quick to point out that promoting trade and economic growth on the one hand, and sustainable development and environmental protection on the other hand, may in fact be mutually supportive.[644] In other words, they can be reconciled in a way that forces no compromise.

Assuming that trade and environment can be mutually supportive, we are faced with the question of how this has or should be ensured within the realms of economic law. Poncelet has called for a 'fair balance'.[645] Such a vague concept still reflects the idea of a need for compromise. The approach advocated in this study relies on the observation that environmental protection may strive to tackle externalities. Addressing externalities may serve the same efficiency ideal as the non-discrimination principle of free trade. The hypothesis in this study is therefore that economic law can be interpreted to reflect an efficiency ideal.

Moffa and Safdi have criticized the U.S. dormant Commerce Clause for not giving sufficient weight to the value of reducing externalities and for advancing a perception of economic efficiency that is not in line with the spirit of the Constitution.[646] Other scholars have, in turn, found that at least EU and WTO law have during the last couple of decades gradually become more favorable toward environmental protection.[647] Would that then indicate that the ever stronger emphasis on climate change and life-

[643] *See* e.g. Edith Brown Weiss, Nathalie Bernasconi-Osterwalder and John Howard Jackson, *Reconciling Trade and Environment* (Brill 2008) 1-4.
[644] WTO Ministerial Conference, 4th Session, Doha Ministerial Declaration, Doc WT/MIN(01)/DEC/1, adopted 14 November 2001, para. 31; Nicolas de Sadeleer, *Environmental Law and the Internal Market* (OUP 2014) 471-473; Charles Poncelet, 'Free Movement of Goods and Environmental Protection in EU Law: A Troubled Relationship?' (2013) 15 International Community Law Review 171, 181; Steve Charnovitz, *Path of World Trade Law in the 21st Century* (World Scientific 2014) chapter 11.
[645] Charles Poncelet, 'Free Movement of Goods and Environmental Protection in EU Law: A Troubled Relationship?' (2013) 15 International Community Law Review 171, 174.
[646] Anthony L. Moffa and Stephanie L. Safdi, 'Freedom From the Costs of Trade: A Principled Argument Against Dormant Commerce Clause Scrutiny of Goods Movement Policies' (2014) 21 N.Y.U. Environmental Law Journal 344, 347 and 380-385.
[647] Nicolas de Sadeleer, *Environmental Law and the Internal Market* (OUP 2014) 383; Aaron Cosbey and Petros C. Mavroidis, 'Heavy Fuel: Trade and Environment in the GATT/WTO Case Law' (2014) 23 Review of European, Comparative & International Environmental Law 288.

cycle analysis has pushed economic law, and in particular trade law, closer to a genuine efficiency theory that recognizes the true cost of externalities? This second chapter of the book provided several observations with respect to this question.

The optimism expressed here toward the reconciliation of trade and environment as fully mutually supportive serving the same efficiency objective does not imply that trade and environment are on an equal footing in trade law.[648] It was noted that trade law has not fully adhered to an efficiency rationale when it comes to the definition of 'measures' that may be prima facie prohibited. State measures to tackle externalities may be challenged under trade law and will be found prima facie prohibited if discriminatory. In contrast, state inaction and decisions not to address pollution caused by private parties has so far not been scrutinized under trade law, despite the fact that the emissions increase externalities and the inaction could have discriminatory effects in the sense that the in-state polluting companies may gain an international competitive advantage. Admittedly, this state of affairs has not been developed by courts. Instead, it would appear that the argument for scrutinizing state inaction in the wake of climate change has not yet been presented to the courts.

The fact that inaction has as a rule not been scrutinized creates a structural bias in favor of aggressive trade policy over environmental protection.[649] This is not altered by the fact that states should be successful in defending measures to reduce externalities. Since such measures may be prima facie prohibited states are forced to invest resources to design measures that to every detail will survive the proportionality review. This may delay or even hinder states from adopting such measures. At least from the perspective of efficiency, the optimal solution would not be to create market participant/creation exemptions for all state measures that tackle externalities since they may include unnecessary discriminatory elements. Instead the bias could be tackled by allowing parties to challenge the passive response of states to externalities under not only environmental law, but also trade law. This is not to suggest such test would be easy to construct; legally or politically.

[648] On the equality of trade and environment *see* Gerd Winter, 'The GATT and Environmental Protection: Problems of Construction' (2013) 15 Journal of Environmental Law 113.
[649] Similarly *see* Charles Poncelet, 'Free Movement of Goods and Environmental Protection in EU Law: A Troubled Relationship?' (2013) 15 International Community Law Review 171, 201.

While the above indicated deviations from the efficiency ideal, the analysis of tests in law of prohibition still confirmed that the efficiency ideal lies at the core of trade law. Namely, under trade law discriminatory measures are prima facie prohibited. Discrimination may only occur between like or similar products. It was argued that like products should be understood as products that are substitutes to a sufficient degree and thus are in competition, because such an approach would advance non-discrimination on relevant markets. Moreover, it was illustrated that this approach has generally been applied. Differences in PPMs would consequently not automatically make products unlike. A narrower definition would blur the line between law of prohibition and law of justification, as environmental and other grounds of justification would affect already the definition of discrimination. It would also allow states to advance protectionist objectives by differentiating between competing products, which would hamper efficiency with no environmental gain.

In fact, the category of like products should probably be understood as quite broad and it would to some extent even take into account the potential for competition in the foreseeable future. The forward-looking approach that tests for likeness in the foreseeable future would put pressure on states to eliminate artificial barriers to the marketability of new innovative products. For example, with respect to first and second generation biofuels in the transport sector, the future potential of various fuels indicates that at least long-term substitutability exists. There may be a gradual transformation toward likeness within the biofuel market. Eventually, different biofuels might even be substitutes to more traditional fuels.

In WTO law the likeness test has been the most detailed but also the most complex. Similarities and differences in physical characteristics, consumer tastes, end use and tariff classification are to be assessed. The four factors applied as indicators of likeness should, however, not be interpreted to be of independent value. Likeness can neither be confirmed nor excluded on the basis that three out of four factors point to that conclusion. The factors are merely to assist in the application of a holistic analysis of substitutability. The relevance of tariff classification as one of the four factors supporting the analysis of substitutability may be questioned, because unlike the other three factors, it is an outcome of legislative decision-making. However, the classification itself is internationally largely harmonized even if tariffs may vary significantly.

A detailed analysis of substitutability forms a well-reasoned economic approach. Unfortunately, the lack of details and transparency with respect to likeness in the EU and the U.S. has caused some incoherence. Moreover, it would be important in all jurisdictions to specify what degree of substitutability is needed for likeness. In complex cases the market analysis of substitutability may require similar depth as in competition law. I leave it to future research to determine whether even similar tools could be applied.

The application of the likeness test confirms that there is an underlying efficiency rationale that the courts across all three jurisdictions follow, but also that there has been pressure to divert from it. The likeness test has sometimes allowed for considerations of non-trade values. This does as such not yet form a side-step from the efficiency rationale since, for example, environmental aspects are relevant for substitutability if they affect consumer habits. However, a diversion from the efficiency rationale occurs in the application of the test[650] when the environmental aspects are considered beyond the context of substitutability.

The occasional diversions from the efficiency rationale become even more evident when examining the market participant and market creation exemptions in law of prohibition. Various exemptions to the U.S. dormant Commerce Clause, which all fall under the broad category of market participation exemptions, have been applied already for years. Public authorities have the power to discriminate when they act as market participants and do not regulate the market. While these exemptions give authorities more room to tackle environmental externalities, they also invite more disguised discrimination and do not serve any economic logic. The same applies to a potential market creation exemption, which has been the subject of discussion in the U.S. For example, by promoting renewable energy the state may help push new solutions over an economic market access barrier that it would not otherwise be able to overcome. However, exempting these measures altogether from closer scrutiny would allow states to use the exemption in order to incorporate discriminatory elements that do not serve the goal of reducing externalities.

[650] This is does not automatically result in a non-efficient outcome in the case at hand. That question is, however, outside the scope of this work.

Three more remarks on the market participant and market creation exemptions are in order. First, the exemptions put into question the conclusion by Moffa and Safdi that the dormant Commerce Clause does not sufficiently take into account externalities.[651] The problem is perhaps not that the dormant Commerce Clause lacks tools to take into account externalities, but that it offers so generous tools that the efficiency ideal is still not achieved. In case even a de jure discriminatory environmental protection scheme can rely on an exemption, the problem of externalities would be addressed, but simultaneously the de jure discriminatory elements would create unnecessary inefficiencies.

Secondly, the origins of the market creation doctrine can be found in the market participation doctrine and the reasons for the introduction of the latter did not necessarily lie in the objective to tackle externalities. Courts have tried to justify the exemptions with reference to the right of the state taxpayers to benefit from what they have funded and the state has created. In addition, the exemptions advance competition neutrality in the sense that state actors are granted the freedom to act and discriminate in much the same manner as private actors. It should again be noted that there appears to be strong links between trade and competition theory. Importantly, courts have sometimes, but not always, linked the application of the exemptions to circumstances of market failure. Under an economic approach market participant and market creation exemptions would be rejected in the US. However, if they are to stay, they ought to be coupled with the test of market failure.

Thirdly, the only instance of an unambiguous application of a market creation exemption was found in a case on the interpretation of the SCM Agreement. The approach of the WTO Appellate Body was understandable, because without such an exemption it would have struggled to find justification of subsidies to renewables altogether. The SCM Agreement does not include any environmental ground of justification of measures with discriminatory effect. The AB opted for the approach that perhaps guaranteed efficiency to the best possible extent given current legislative framework.

[651] Anthony L. Moffa and Stephanie L. Safdi, 'Freedom From the Costs of Trade: A Principled Argument Against Dormant Commerce Clause Scrutiny of Goods Movement Policies' (2014) 21 N.Y.U. Environmental Law Journal 344, 347 and 380-385.

In sum, with the increasing appreciation of sustainability and the ever more blurry distinction between the tasks of the private and the public sector, has come pressure to integrate values linked to sustainability into law of prohibition either through the test of similarity or through the application of market participant and market creation exemptions. These tendencies should be rejected. Market participant and market creation tests do not offer optimal tools for reconciling trade and non-trade values. The different trade, environmental and social values involved are instead to be reconciled through the application of a proportionality review. Consequently, the focus in subsequent chapters turn to grounds of justification and proportionality.

Chapter 3 – Value Reconciliation Tests in Law of Justification: Reconciling Free Trade and Environmental Protection

Measures that are prima facie prohibited may be legal provided that they serve a justifiable objective. For example, environmental protection may justify a scheme favoring environmentally sustainable PPMs in the energy sector.

Unfortunately, there is not always consensus on what should be regarded as sustainable PPMs. Even within the EU it has not been politically possible to reach any agreement on a priority list of different PPMs in the energy sector.[652] The diversity of environmental harm associated with each energy resource and type of plant result in a situation where environmental protection can be invoked as justification for favoring or restricting any given PPM in an effort to justify a measure. For example, the objectives of minimizing the risk of nuclear disasters, the climate change effects of fossil fuels and the ecological harm of some renewables would all in principle form valid grounds of justification. The potential for relying on sustainability as an argument for a wide variety of energy strategies is further underlined by the fact that a strategy to improve environmental sustainability of the energy sector as a whole could require at least some diversification.[653]

What follows from the above, is that the test of justification can only gain force from the design the proportionality review. In order for bans, quotas and similar measures to be justified, they must be proportionate in relation to their objectives. This third chapter of the book will focus on proportionality. The overall objective is to form a picture of how different tests under the proportionality review work in reconciling free trade and environmental protection.

The first section of chapter 3 will deal with tests of proportionality in EU free movement law and under GATT. Geradin has claimed that PPM-criteria will often struggle to meet the requirement of proportionality.[654] With this in mind, it is of particular interest to

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[652] Catherine Redgwell, 'Energy, Environment and Trade in the European Community' (1994) 12 J. Energy & Natural Resources L. 128, 147.

[653] The European Commission has stated that one of the objectives with the Renewable Energy Directive is the diversification of energy sources, although the reasons for this might relate more to energy security than environmental concerns. *See* Communication From the Commission to the European Council and the European Parliament – An Energy Policy For Europe 2007, COM (2007) 1 final, 10-15; Commission Communication, Energy Roadmap 2050, COM (2011) 885 final, 2.

[654] Damien Geradin, *Trade and the Environment – A Comparative Study of EC and US Law* (CUP 1997) 32-33. He concludes that unilateral PPM-criteria are very unlikely to be legal under EU free movement law.

examine the proportionality review in the context of PPM-criteria. The objective is to identify challenges that in the review of PPM-criteria might emerge from the application of classic proportionality tests, such as the test of suitability and the least restrictive measure test. Thereafter the potential relevance of other tests of proportionality will be examined with a view to find solutions to the dilemmas that can be linked to the application of the suitability test and the least restrictive measure test.

In the second section of chapter 3 the structure of the proportionality review under the U.S. dormant Commerce Clause will be analyzed with the objective to determine whether it could offer some valuable solutions to the challenges of reviewing the proportionality of PPM-criteria. It will be illustrated that the U.S. model in part suffers from similar deficiencies as the EU and WTO models and that while the U.S. model has some advantages, it is also plagued by some unique problems.

3.1. Proportionality Tests in WTO and EU Law

3.1.1. A Common Perception of Proportionality under the TFEU and the GATT

The proportionality tests are applied by the ECJ to confirm whether or not the measure is suitable and necessary for fulfilling the justifiable objective.[655] The necessity test includes a requirement that the measure is the least trade restrictive measure to achieve the justifiable objective. The same elements of proportionality can be traced in GATT, even if the structure may at first sight appear more nuanced and complex.

The proportionality principle in Article XX GATT is expressed in slightly different terms in relation to different grounds of justification. In accordance with Article XX(g) the measure must relate to the conservation of exhaustible natural resources. In turn, it has been stipulated in Article XX(b) that prima facie prohibited measures may be justified provided they are necessary to protect human, animal or plant life or health. The term 'necessary' deviates from the term 'relate' and it has been confirmed that the interpretation of these shall not be identical.[656]

Yet, the difference between 'relate' and 'necessary' is primarily technical. First, it will below be shown how they both include a suitability review. Secondly, while the necessity review perhaps in part is carried out under Article XX(b) but not Article XX(g), both paragraph (b) and (g) are still covered by the chapeau of Article XX, which prohibits "arbitrary and unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade".[657] It will be shown that the chapeau introduces a necessity review to cases that fall under XX(g). Thus, the chapeau brings about a coherent approach to proportionality under Article XX. There is essentially only one uniform proportionality test applicable under GATT and it bears strong resemblance to the proportionality test applicable in EU free movement law. It is therefore justifiable to build the detailed comparison of the different elements of the EU and WTO tests around the concepts of suitability and necessity.

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[655] Joined cases 279/84, 280/84, 285/84 and 286/84 *Walter Rau Lebensmittelwerke and others v. Commission* [1987] ECR 1069, para. 34; Case 302/86 *Commission v. Denmark* (Danish Bottles) [1988] ECR 4607, paras 6-12; Case C-131/93 *Commission v. Germany* [1994] ECR I-3303, paras 18-29; Case C-284/95 *Safety Hi-Tech Srl v S. & T. Srl* [1998] I-4301, paras 57-61; Case C-67/97 *Criminal Proceedings against Ditlev Bluhme* [1998] ECR I-8033, para. 37.

[656] US – Standards for Reformulated and Conventional Gasoline, DS2, AB Report, 29 April 1996, p. 17-18; Canada – Measures Affecting the Exports of Unprocessed Herring and Salmon, L/6268, Panel Report, 20 Nov. 1987 (adopted), paras 4.5-4.6.

[657] For a similar provision *see* Art. 3.5, United Nations Framework Convention on Climate Change 1771 U.N.T.S. 107 (1992).

Suitability and necessity of the measure constitute two core elements of the proportionality review in both EU and WTO law. The review of suitability and necessity can be deferential, meaning that states are given much freedom to pursue their national strategies. Alternatively, the review could be intense. Under an intense review courts would be stricter when reflecting on whether the state goes too far in pursuing an objective that as such is legitimate.

This first section of the chapter will offer a closer look at the suitability and necessity tests and will illustrate that the proportionality review has been deferential in some cases and more intense in other cases. Thereafter it will be assessed whether some other tests may additionally apply for determining the proportionality of PPM-criteria. The objective is to evaluate how much discretion states have in designing their strategies to tackle externalities in order to promote efficiency.

3.1.2. Suitability Tests

3.1.2.1. Inconsistent Approach in EU Law

The suitability test may be viewed as a test of causality. In the case of environmental PPM-criteria there must exist a sufficient link between the measure and the environmental objective. For criteria that apply even to imports, the causality chain consists of a few links. First, the measure should reduce the domestic demand of products produced with unsustainable methods. Secondly, there must also be a further link between the reduced domestic demand and a decrease in foreign production. Finally, there should exist a further link between the decrease in foreign production and decrease in foreign, and probably also cross-border, environmental harm.

It is far from evident how probable the positive outcomes of the measure must be in order for it to be suitable. In principle, evidence that the measure actually achieves the objective could be required or it could be required that the measure is expected to have an effect with some probability. Alternatively, it could be sufficient that the measure is logically capable to cause the desired effect. In a case concerning a restriction on the amount of dry matter in bread, the ECJ stated that the measure was unsuitable for the protection of health because there was 'no connection'.[658] The Court did at least not rule out the possibility that logical capability could have been sufficient.

[658] Case 130/80 *Criminal proceedings against Fabriek voor Hoogwaardige Voedingsprodukten Kelderman BV* [1981] ECR 527, para. 10.

When Finland tried to justify a system of prior authorization for the distribution of spirits, the ECJ stated that the measure would be proportionate only if it would 'effectively combat' the negative effects of alcohol consumption. This implied that there had to be an actual or at least an expected positive effect. It was, however, sufficient that the measure only partially had been able to reduce the problems related to public order and health.[659] In other cases the ECJ has been less explicit in how it views the suitability test. For example, with the aim to secure press diversity, Austria looked into restricting major newspapers from increasing their market share by including reader competitions in their papers. The ECJ stated that the measure was suitable only if such competitions would be capable of bringing about a change in demand through incentives. The Court left the assessment for the national court. It did so by stating that the national court must analyse the effects of the measure in light of the conditions on the national market.[660] The power to decide on this important step in the value reconciliation process was thus left for the national court.

Both the Finnish and the Austrian case would seem to suggest that a mere logically constructed theoretical capability of contribution to the aim might not be sufficient. A similar approach can be identified in other cases where the suitability has been difficult to assess. For example, the ECJ has concluded that a state may introduce gambling licenses in order to control the activity and reduce criminal activity in the sector. However, the suitability of setting a maximum number of licenses to be awarded was according to the ECJ dependent on the specific market circumstances and had to be assessed by the national court.[661]

In a recent case the ECJ appeared to be looking for expected positive effects. The case concerned a Belgian law that granted electricity from renewable resources distribution through the network free of charge if the electricity had been directly fed into the in-state network. The ECJ emphasized that the benefits of the law were directed at suppliers and not the producers, i.e. those generating green electricity. The court found potential benefits to green electricity generators to be too indirect, uncertain and risky. Therefore, there had not been established any genuine ability of the measure to achieve

[659] Case C-434/04 *Criminal Proceedings against Jan-Erik Anders Ahokainen and Mati Leppik* [2006] ECR I-9171, paras 38-39.
[660] Case C-368/95 *Vereinigte Familiapress Zeitungsverlags- und vertriebs GmbH v. Heinrich Bauer Verlag* [1997] ECR I-3689, paras 28-31.
[661] Joined cases C-338/04, C-359/04 and C-360/04 *Criminal proceedings against Massimiliano Placanica and Others* [2007] ECR I-1891, para. 58.

a legitimate objective.[662] While the Court thus seemed to reject the suitability of the measure, it oddly enough still went on to add that the measure would not be necessary as there would exist more effective and less discriminatory measures to promote renewables.[663]

In contrast to the cases depicted above, the Court can in principle decide to only reject proportionality if it finds no logical capability of the measure to have any effect.[664] The test of logical capability would form a very deferential test in the sense that it would not be too difficult for the state measure to reach the threshold. PPM-criteria would logically affect domestic demand and therefore also total global demand, the market share of foreign producers utilizing the targeted PPM, the environmental effects around the foreign production plant and at least in the long term the global environment.

The ECJ has at times adopted the more deferential approach. One case, *Zenatti*, concerned the decision of Italy to restrict the taking of bets to certain bodies. The ECJ stated that the measure would be suitable only if it 'reflected a concern to bring about genuine diminution in gambling opportunities' and was 'genuinely directed to realizing the objective'.[665] There was no explicit indication that an actual effect had to exist with any probability. Yet again the ECJ left it to the national court to determine whether the measure was proportional.

In conclusion, while the ECJ has often appeared to require that the measure can be expected to have positive effects with some unspecified probability, it has not been fully consistent. The suitability test has been plagued with both inconsistency and lack of clarity.

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[662] Case C-492/14 *Essent Belgium NV v. Vlaams Gewest and Others*, ECLI:EU:C:2016:732, para. 115.
[663] *Id*. para. 116.
[664] Similar interpretation of suitability is possible in other fields of EU law. *See* e.g. the test of not 'manifestly inappropriate' referred to in joined cases C-133/93, C-300/93 and C-362/93 *Antonio Crispoltoni v. Fattoria Autonoma Tabacchi and Giuseppe Natale and Antonio Pontillo v. Donatab Srl* [1994] ECR I-4863, para. 42; Case C-189/01 *H. Jippes, Afdeling Groningen van de Nederlandse Vereniging tot Bescherming van Dieren and Afdeling Assen en omstreken van de Nederlandse Vereniging tot Bescherming van Dieren v. Minister van Landbouw, Natuurbeheer en Visserij* [2001] ECR I-5689, paras 82-83; Case C-504/04 *Agrarproduktion Staebelow GmbH v. Landrat des Lankreises Bad Doberan* [2006] ECR I-679, paras 38-39.
[665] Case C-67/98 *Questore di Verona v. Diego Zenatti* [1999] ECR I-7289, paras 36-37.

3.1.2.2. Articles XX(b) and XX(g) GATT

There initially existed a lot of suspicion toward PPM-criteria in the context of WTO law.[666] In *US – Tuna (Mexico I)* the panel had to examine a U.S. law that introduced restrictions to the market for yellow-fin tuna. Tuna caught in the Eastern Tropical Pacific with certain methods that were hazardous for dolphins could not be sold in the U.S. labelled as dolphin-safe. The law targeted in particular tuna fishing with purse-seine nets and reflected disapproval of encircling of dolphins with the objective to maximize the tuna catch. This method causes high rates of distress among dolphins and even deaths. The reason for introducing these restrictions for fishing in the Eastern Tropical Pacific was that in the area the unsustainable fishing methods had been commonly relied on since tuna there tend to swim closely around dolphins.

The U.S. law had a significant effect on market access. It meant that tuna not caught with methods deemed sustainable under U.S. legislation could not be imported and sold in case the package contained a dolphin-safe label. There was of course the option of (re)packaging the product without the label, but such action would make the product less attractive for U.S. consumers.

The U.S. rule had a significant impact on Mexican fishers, who to a large extent were fishing in the Eastern Tropical Pacific with purse-seine nets. The panel's key finding was that the PPM-criteria were extraterritorial as they applied to PPMs adopted outside U.S. waters by non-U.S. vessels. The criteria were not justifiable in the first place for this reason.[667] In subsequent cases this approach has been abandoned.

Apart from its statement on extraterritoriality, the panel in *US – Tuna (Mexico I)* also provided some insight on the interpretation of Article XX(g) GATT. In accordance with Article XX(g) GATT the measure must relate to the conservation objective. The panel concluded that the law on PPMs for fishing tuna did not even relate to the protection of dolphins. In this context it should be noted that certain exemptions applied to the ban on dolphin-safe labelled tuna that had been caught with methods that as a rule were regarded as hazardous for dolphins. Imports were exempted from the ban on the use of dolphin-safe labels if, for example, the rate of incidental killings of dolphins was not

[666] Processes and Production Methods (PPMs): Conceptual Framework and Considerations on use of PPM- based Trade Measures' (OCDE/GD(97)137, 1997) 33.
[667] US – Restrictions on Imports of Tuna, DS21, Panel Report, 3 Sept. 1991 (US – Tuna, Mexico I) (unadopted), para. 5.27.

more than 25 % above the U.S. average for any given year. The reason provided for the conclusion that the measure did not relate to the protection of dolphins was that the maximum rate for killed dolphins by Mexican vessels was tied to the rate of killings by American vessels during any given year, which resulted in a very unpredictable standard for the Mexicans.[668] While it may have been arbitrary of the U.S. to make the market access of Mexican tuna labelled dolphin-safe dependent on such calculations, it also in my opinion seems controversial to imply that the relationship between the measure and the objective was non-existent.

Later development has however brought the interpretation of 'relate to' much closer to a suitability test, in the sense that the threshold for finding a relationship has become much lower.[669] In *US – Gasoline* the panel addressed the compatibility with GATT of a U.S. law on clean gasoline. On the basis on historical data each refiner was assigned a benchmark for fuel quality that it was obliged to meet in future years. The main problem with the model was that importers had fewer categories of data that they could rely on for the calculation of the benchmark. Reverting the conclusion of the panel,[670] the AB found that the measure in general would relate to the conservation of natural resources despite the fact that some de jure discriminatory elements of the measure would not necessarily relate to the conservation.[671] The AB also clarified that the test of relationship only required that the measure was primarily aimed at the objective, substantially related to it and was not merely incidentally and inadvertently aimed at it.[672] The criteria that a measure is primarily aimed at the objective is problematic in the sense that in cases with mixed objectives it may be difficult to determine which aim is primary. For example, is the primary aim of giving preference to short transportation distance environmental protection or boosting local industry?

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[668] *Id.* para. 5.33.
[669] Federico Ortino, *Basic Legal Instruments for the Liberalisation of Trade – A Comparative Analysis of EC and WTO Law* (Hart 2004) 225. Others have classified the 'relationship' test as a means and ends test. *See* e.g. Simon Lester et al, *World Trade Law: Text, Materials and Commentary* (Hart 2008) 383.
[670] US – Standards for Reformulated and Conventional Gasoline, DS2, Panel Report, 29 January 1996, para. 6.40.
[671] US – Standards for Reformulated and Conventional Gasoline, DS2, AB Report, 29 April 1996, p. 16-18. Similarly for a deferential review *see* Canada – Measures Affecting the Exports of Unprocessed Herring and Salmon, L/6268, Panel Report, 20 Nov. 1987 (adopted), paras 4.5-4.6; US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products (US – Tuna, Mexico II): Recourse to Article 21.5 of the DSU by Mexico, DS381, Panel Report, 14 April 2015, paras 7.533-536.
[672] US – Standards for Reformulated and Conventional Gasoline, DS2, AB Report, 29 April 1996, p. 15-20.

Similar criteria were laid out in *US – Shrimp*, which concerned a U.S. law on the use of turtle-exclusion devices when fishing shrimp. The criteria on fishing methods were designed to conserve turtles. According to the AB, the test of relationship requires that the measure reasonably related to the objective or, in other words, that the relationship was close and genuine. The AB concluded that the PPM-criteria on fishing related to turtle conservation. This was not altered by the fact with respect to shrimp originating from a country that did not by law require its shrimp fishing vessels to use devices that guarantee turtle safety, the law even banned imports of shrimp batches certified as sustainably caught.[673]

The suitability test in WTO law focuses on the measure in general and not on specific elements of the measure. We are still left with the question of whether it under WTO law would be sufficient that the measure is logically capable of having the positive effect aimed at or if the effect would need to be expected. Or perhaps even required to actually take place.

The relationship test includes under Article XX(g) GATT includes a suitability test. According to Perez the relationship does not require any proof that the measure has an actual effect.[674] One reason is that it would take too long for some effects to emerge in a verifiable form. Yet, this still leaves open the question of whether an actual effect would need to be expected or whether logical capability of an effect is sufficient.

In the application of the test of a relationship between the measure and the objective of conservation, the effectiveness of the measure has been referred to. *US – Tuna (EC)* was the second case where the panel had to examine U.S. criteria on dolphin-safe tuna-fishing methods. The panel stated that the test of relationship required that the measure was primarily aimed at the conservation objective but interpreted this phrase in a very narrow manner when it concluded that the PPM-criteria were not primarily aimed at conservation because they could only be effective were other states to change their policies.[675] For similar reasons the measure could not in the panel's view be considered

[673] US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct. 1998, paras 136-141. The AB still hinted that a measure might not relate to its objective in case it is disproportionately wide in its scope. This could have been interpreted as an introduction of a value reconciliation or balancing test already under the relationship test. These aspects are, however, normally addressed under the test of arbitrary discrimination, i.e. under the chapeau of Article XX GATT.
[674] Oren Perez, *Ecological Sensitivity and Global Legal Pluralism: Rethinking the Trade and Environment Conflict* (Hart 2004) 73.
[675] US – Restrictions on Imports of Tuna, DS29, Panel Report, 16 June 1994 (US – Tuna, EC) (unadopted), paras 5.22-27.

necessary for dolphin protection.[676] A couple of years later in *US – Gasoline* the AB hinted that the predictability of an effect could be of relevance and that the measure would at least not relate to the objective in case it realistically could never have any effect.[677] In *US – Shrimp* the AB stated that in the case at hand there was a direct connection between the measure and the objective and that it would be an effective tool to reach the objective.[678]

In the application of Article XX(g) the focus of the panels and the ABs has at times been on the expected effectiveness of the measure. While the intensity of the test has varied, there are no clear indications that mere logical capability to advance the legitimate objective would be sufficient. As stated by Voigt,[679] measures adopted to promote renewables, including sustainable biofuels, would still normally relate to the conservation of exhaustible natural resources. The decision whether to apply a test on expected effect or a test on logical capability will be relevant only under special circumstances, as will be illustrated later in this chapter.

The test under Article XX(b) may be compared with that applied under Article XX(g). In accordance with Article XX(b) measures necessary to protect public health may be justifiable. The choice of words has been slightly different in Article XX(b) GATT as compared to Article XX(g). Instead of 'relating' the term 'necessary' has been opted for. Yet, also this necessity test encapsulates a suitability requirement. Two cases may shed some light on the nature of the test.

Brazil – Tyres concerned an import ban on retreaded tyres. Brazil had not banned domestic retreaded tyres. Yet, its objective with the import ban was to reduce the number of waste tyres since studies had shown a link between an accumulation of waste tyres and certain tropical diseases. The idea was that by restricting imported retreaded tyres the demand for domestic waste tyres to be retreaded would increase. The panel examined some statistics and concluded that first, waste tyres pose a health risk and secondly, that the measure was capable of contributing to the objective of health

[676] US – Restrictions on Imports of Tuna, DS29, Panel Report, 16 June 1994 (US – Tuna, EC) (unadopted), paras 5.36-38. *See* also US – Restrictions on Imports of Tuna, DS21, Panel Report, 3 Sept. 1991 (US – Tuna, Mexico I) (unadopted), para. 5.28.
[677] US – Standards for Reformulated and Conventional Gasoline, DS2, AB Report, 29 April 1996, p. 21-22.
[678] US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct. 1998, paras 136-141.
[679] Christina Voigt, *Sustainable Development as a Principle of International Law Resolving Conflicts Between Climate Measures and WTO Law* (Brill 2009) 226-227.

protection.[680] The panel seemed to analyse whether the measure 'can reasonably be expected to contribute' to the objective.[681]

The AB in *Brazil – Tyres* stressed at one point that the hypothesis of contribution needed to be logical,[682] which forms a very deferential standard. However, in the same context it stressed that the measure would only be necessary if it was *apt to* produce a material contribution.[683] This contribution can be quantitative or qualitative.[684] In the end the AB found it likely that a contribution would stem from the import ban.

The AB in *Brazil – Tyres* seemed to reject any requirement of actual effect. Indeed, no actual contribution should be required since the positive effects of some measures, for example measures mitigating climate change, may only become visible with significant delay. Furthermore, the AB report in *Brazil – Tyres* could be read to suggest that some form of de minimis threshold for the probability of a real contribution applies.

Borrowing from the effects doctrine of competition law, Wiers has brought forward the idea that an environmental objective might only be defendable if the potential effect of the measure is direct, substantial and foreseeable.[685] This would equally suggest some form of probability threshold for expected effect.

Some further insight was provided in *EC – Seals*, which concerned the interpretation of whether an EU ban on seal products was necessary to protect public morals under Article XX(a) GATT. The ban included a few minor exemptions awarded to, for example, seal products that had been put on the market by Inuit hunters. The AB in *EC – Seals* stated that in a case on moral protection, there would be no need to analyse the

[680] Brazil – Measures Affecting Imports of Retreaded Tyres, DS332, Panel Report, 12 June 2007, paras 7.115-148.
[681] *Id.* 7.145-147.
[682] Brazil – Measures Affecting Imports of Retreaded Tyres, DS332, AB Report, 3 Dec. 2007, paras 149-155.
[683] *Ibid.*
[684] Brazil – Measures Affecting Imports of Retreaded Tyres, DS332, AB Report, 3 Dec. 2007, paras 146, 186. *See* also Korea – Measures Affecting Imports of Fresh, Chilled and Frozen Beef, DS161, AB Report, 11 Dec. 2000, paras 163-164; US – Measures Affecting the Cross-Border Supply of Gambling and Betting Services, DS285, AB Report, 7 April 2005, para. 306. Equally, the health risk need also not to be quantified. *See* EC – Measures Affecting Asbestos and Products Containing Asbestos, DS135, AB Report, 12 March 2001, paras 167, 172.
[685] Jochem Wiers, *Trade and Environment in the EC and the WTO – A Legal Analysis* (Europa Law 2003) 274.

risks to seals more in detail.[686] This already indicates a fairly deferential test. Could it be more deferential than under Articles XX(b) and XX(g)?

Admittedly, some could argue that the necessity test under Article XX(a) does not contain a similar suitability review as is applied under Articles XX(b) and XX(g). As a rule, similar concepts and tests should be interpreted consistently and in a coherent manner across all articles of GATT. Importantly, both Articles XX(a) and XX(b) include the concept 'necessary' as a basis for the suitability and necessity tests. However, it could be argued that a deferential suitability test under Article XX(a) could stem from the fact that the measure is easily deemed suitable to eliminate the link between domestic demand and the conduct perceived as immoral. In other words, when it comes to the objective of moral protection there might not be any need for a test on the contribution to seal protection since the measure already contributes to a cleaner conscious among the population of the state adopting the measure.

While the panel in *EC – Seals* had applied the test of *material* contribution actually achieved,[687] the AB seemed to reject it and focused on whether the measure was capable of making a contribution and does make some contribution.[688] Both the panel and the AB appeared to require more than a mere logical capability to achieve a contribution. Furthermore, the AB proclaimed that quantitative contribution was preferred over qualitative and that also potential future contribution would be relevant.[689] The requirement of expected contribution under the suitability analysis was in this case in part implicit. Namely, the idea had been brought forward that with the exemption for Inuit communities, imports of Norwegian and Canadian seal products might simply be replaced by Greenlandic products. The AB found no evidence that this would occur to any significant degree, implying that the ban could be expected to have a real effect. Although the AB concluded that the ban was necessary to protect public morals, the

[686] EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, AB Report, 22 May 2014, paras 5.198-199.
[687] EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, Panel Report, 25 Nov 2013, paras 7.624-639.
[688] EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, AB Report, 22 May 2014, paras 5.221-228, 5.242-247. Similarly in the context of Art. 2.2 TBT *see* US – Certain Country of Origin Labelling (COOL) Requirements: Recourse to Article 21.5 of the DSU by Canada and Mexico, DS384, AB Report, 18 May 2015, para 5.209. However, in that case the AB also appears to give weight to actual contributions to the objective. *See* para. 5.201 and fn 658 in the report.
[689] EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, AB Report, 22 May 2014, paras 5.221-228, 5.242-247.

measure would, as discussed later, in the end be found to breach the chapeau of Article XX in part due to the design of some exemptions under the measure.[690]

All in all, the test of suitability as applied under the concept of 'necessary' in Article XX(b) GATT would appear quite similar as under Article XX(g). The panels and ABs appear inclined to examine whether the measure can be expected to have the desired effect, although inconsistency can be traced. It is not evident what the probability of the effect should be. The state of affairs is not all too different from that in EU free movement law.

3.1.3. Necessity – The Least Restrictive Measure Test

3.1.3.1. EU – A Moderately Intense Review

In order for a measure to be proportional, it must, apart from suitable, also be necessary for the legitimate objective. A measure is not necessary if there is an alternative measure that is less trade restrictive and equally effective as the measure under review. The alternative measure should in other words guarantee an equal level of protection.[691] As long as full harmonization has not yet taken place, EU member states have usually been given the freedom to decide on the level of environmental protection.[692] Similarly, the member states have a wide margin of discretion in defining their moral values for the purposes of justification of trade restrictions.[693]

In theory, all measures could be regarded as necessary to achieve some specific level of protection. For example, a full sales ban is the only, and thus the least restrictive,[694] measure to promote the highest level of protection in case the product is unsustainable. However, the ECJ rarely applies such extremely deferential necessity test. For example, already in *Cassis de Dijon* the Court applied a more intense necessity test. The case concerned German rules on the minimum alcohol strength of certain liqueur beverages. The objective of the rule was to protect fair competition and consumer interests.

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[690] *See* section 4.2.5.
[691] Case C-473/98 *Kemikalieinspektionen v. Toolex Alpha AB* [2000] ECR I-5681, para. 40.
[692] Case 94/83 *Criminal proceedings against Albert Heijn BV* [1984] ECR 3263, para. 16; Case 54/85 *Ministere public against Xavier Mirepoix* [1986] ECR 1067, para. 15.
[693] Joanne Scott, 'On Kith and Kine (and Crustaceans): Trade and Environment in the EU and WTO', in Joseph Weiler (ed.), *The EU, the WTO, and the NAFTA: Towards a Common Law of International Trade?* (OUP 2000) 164.
[694] While sales bans would form more severe restrictions on trade than import bans, they would at least put domestic and imported goods (e.g. biofuels) on an even footing. Import bans would thus in the context of trade law be more trade restrictive (i.e. discriminatory) than bans on sales. *See* Andrew Mitchell and Tania Voon, 'Regulating Tobacco Flavors: Implications of WTO Law' (2011) 29 Boston University International Law J. 383, 408-409.

Namely, standardization of products in the form of minimum limits of alcohol content for beverages increases transparency. The purpose of the minimum alcohol percentage for the liqueur was to ensure that cheap beverages with low alcohol content would not confuse consumers and take over market share. Yet, the Court found the ban on low alcohol content liqueur beverages not to be necessary because other measures, like labelling, would be sufficient to address the same risks.[695]

The moderately intense necessity test allows for the ECJ to conclude that labelling, as a less restrictive alternative, is equally effective as the ban. However, in reality there is probably a theoretical difference in effectiveness. Namely, there is no guarantee that all consumers actually read the labels, and thus the ban would have been slightly more effective. The same logic would apply to the comparison of effectiveness of bans on (environmentally) unsustainable PPMs and labelling schemes for sustainable PPMs.

Might the proportionality review have been more intense merely because the offered alternative was labelling? There is some room for an argument that the intensity of the test should be relatively high when a labelling alternative is presented. This view would reflect the idea that labelling has some properties that makes is particularly desirable. Labelling increases information on the market and allows consumers to make informed decisions with respect to what PPMs and level of sustainability they prefer. Still, it is submitted that this is not sufficient reason for adopting the intense scrutiny of a ban or some other restrictive measure. Namely, with labelling a free rider problem will emerge. The state could argue that the ban is necessary in order to tackle the environmental externalities to a greater extent than consumers are willing to do voluntarily. The idea that labelling would form a special case justifying unusually strict scrutiny is also undermined by the fact that an intense test has been applied also in cases where the proposed alternative measure was not labelling.[696]

It may be recalled that the test applied in *Cassis de Dijon* could be described as having focused on whether or not there were less trade restrictive measures that achieve *almost* or *practically* the same level of protection. On some occasions the ECJ has however

[695] Case 120/78 *Rewe-Zentral AG v. Bundesmonopolverwaltung für Branntwein (Cassis de Dijon)* [1979] ECR 649, para. 13. *See* also J. H. H. Weiler, 'Epilogue: Towards a Common Law of International Trade', in J. H. H. Weiler (ed.), *The EU, the WTO and the NAFTA: Towards a Common Law of International Trade* (2000) 222. Weiler notes that the labeling alternative was almost as effective as the ban and that this was sufficient for giving preference to labelling in the eyes of the court.
[696] *See* e.g. Case C-265/06 *Commission v. Portugal* ECR [2008] I-2245, paras 40-48.

applied an even more intense review. The application of an intense proportionality review has resulted in the Court concluding that some equally effective alternative existed even when no alternative put forward would appear to even come close in effectiveness. One such case concerned Portugal's ban on the use of tinted film on car windows. The Court did not deem the ban necessary for inspecting e.g. the use of seat belts.[697] Unfortunately the Court did not explain what alternative measure would guarantee an equal level of protection. For example, the alternative of opening the car doors would clearly not be as effective for inspecting the use of seatbelts.

The intensity of the proportionality test applied by the ECJ has varied considerably from case to case and may not be the same for all cases of PPM-criteria. On the one hand, the review is often less intense under scientific uncertainty.[698] If we consider the plans of Austria to ban the import of nuclear power,[699] the fact that measures taken to limit nuclear power specifically, and the choice of energy policy in general, involves politically sensitive considerations and difficult balancing between the different environmental and social effects of various energy resources, would speak in favor of a less intense review. The gravity of nuclear accidents may also put pressure on the ECJ to allow more national discretion. On the other hand, the review may be more intense when the state taking the measure is in a clear minority.[700] The fact that the strict view on risks of nuclear power places Austria in a minority would seem to increase the chances of an intense review. In sum, it is difficult to predict the intensity of the review in a case concerning restrictions on nuclear power. The same may apply to PPM-criteria more in general since they, one the one hand, currently still in many fields represent a novel legislative approach not adopted by many states and, on the other hand, rely on science that often involves a significant degree of scientific uncertainty.

3.1.3.2. WTO – Necessity in Two Steps

A prima facie prohibited measure is according to Articles XX(a) and XX(b) GATT justifiable if it is necessary to protect the legitimate objective. In the case of Article

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[697] *Ibid.*
[698] Jukka Snell, *Goods and Services in EC Law: A Study on the Relationship Between the Freedoms* (OUP 2002) 212-213.
[699] For more on these past plans *see* sections 1.4.4.3 and 2.1.2.
[700] Damian Chalmers et al., *European Union Law* (CUP 2006) 833; Miguel Poiares Maduro, *We the Court: The European Court of Justice and the European Economic Constitution* (Hart 1998) 68-78.

XX(a) the legitimate objective is public morals and in the case of Article XX(b) it is human, animal or plant life or health.

Articles XX(a) and XX(b) explicitly refer to necessity. Unlike what was once suggested,[701] the proportionality review nowadays tends to begin with an analysis of 'necessity' for public morals or public health on a very general level. The necessity test is at this stage of the proportionality review not about the necessity of each individual element of the measure, but instead about the necessity of the measure more in general. Similarly, under Article XX(g) the analysis on whether a measure 'relates' to natural resource conservation will focus on whether the measure as a whole relates to the objective, with limited consideration given to the relationship between the justifiable objective and individual elements of the measure.[702]

The point made above may be illustrated with an example. In *EC – Seals* the AB was confronted with EU legislation that prohibited the import of seals and seal products. The import prohibition included some minor exemptions that, among other things, allowed for the import of seals killed by Inuit communities to continue. In the interpretation of necessity under Article XX(a) in relation to the protection of public morals, the AB concluded that even if the exemptions to the import ban were taken into account, the law would still contribute to its societal objective. In other words, even if the exemptions might not have been necessary for the main objective, the measure in general was still necessary. Pivotal was the test of the necessity of the measure in general and not of the individual elements, which may have been WTO-inconsistent (i.e. discriminatory). In this respect, the necessity test is rather deferential in the sense that it gives deference to states adopting their measures. The approach does not even seem to diverge from the proportionality review under XX(g), where 'relate' is used instead of 'necessary'.[703]

The examination of the necessity of a measure in general has at times resulted in such a deferential test that even measures with de jure discriminatory elements have survived

[701] US – Standards for Reformulated and Conventional Gasoline, DS2, Panel Report, 29 January 1996, para. 6.40. *See* also Robert Howse, *The WTO System: Law, Politics and Legitimacy* (Cameron May 2007) 168.
[702] US – Standards for Reformulated and Conventional Gasoline, DS2, AB Report, 29 April 1996, p. 11-22; EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, Panel Report, 25 Nov. 2013, paras 7.624-634. *See* also US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct. 1998, paras 138-141.
[703] EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, AB Report, 22 May 2014, paras 5.185, 5.192, 5.217.

the necessity test. In *Brazil – Tyres* the AB found the import ban on re-treaded tyres necessary. The ban was expected to create a higher demand in domestic tyres, which would encourage more re-treading of domestic waste tyres and thus reduce problems associated with waste tyres. Management schemes were in place for waste tyres but according to the AB the legislation would be less effective if not coupled with an import ban on retreaded tyres.[704]

The necessity test has had teeth in a few cases. For example, *Thailand – Cigarettes* concerned an import ban on cigarettes. The panel found the ban not to be necessary because the same objective to control the quality and quantity of cigarettes could be pursued through labelling and advertisement restrictions.[705] The measure was, however, de jure discriminatory, since domestic cigarettes could be sold on the market.[706] The case is already fairly old and additionally, it may be that the de jure discriminatory elements were decisive for the measure not surviving the necessity test.

As concluded above, the necessity test has been deferential in that it does not include a review of individual elements of the measure. The test has also been deferential from a different perspective. Under GATT each state may select its desired level of protection with respect to the legitimate objective. The necessity test then requires a comparison of the level of protection linked to the adopted measure and the level of protection linked to a proposed alternative measure. Under an intense review it could be concluded that a measure is not necessary if a less trade restrictive alternative ensures almost or practically the same level of protection. The approach has, however, been quite deferential, as WTO members have been able to fend off challenges against their measures. As was the case also in EU free movement law, any measure to promote the protection of public health could be the least restrictive alternative to achieve the desired level of protection.[707] For example, in *EC – Asbestos* the AB concluded that

[704] Brazil – Measures Affecting Imports of Retreaded Tyres, DS332, AB Report, 3 Dec. 2007, para. 170-175.
[705] Thailand – Restrictions on Importation of and Internal Taxes on Cigarettes, DS10, Panel Report, 5 Oct. 1990 (adopted), paras 75-81.
[706] *See* also US – Section 337 of the Tariff Act of 1930, L/6439, Panel Report, 16 Jan. 1989 (adopted), para. 5.26. The same level of protection must be targeted with respect to domestic and foreign products.
[707] In line with this *see* EC – Measures Affecting Asbestos and Products Containing Asbestos, DS135, AB Report, 12 March 2001, paras 168-172; US – Section 337 of the Tariff Act of 1930, L/6439, Panel Report, 16 Jan. 1989 (adopted), para. 5.26; US – Measures Affecting the Cross-Border Supply of Gambling and Betting Services, DS285, AB Report, 7 April 2005, paras 308-309; US – Standards for Reformulated and Conventional Gasoline, DS2, AB Report, 29 April 1996, p. 30; Brazil – Measures Affecting Imports of Retreaded Tyres, DS332, AB Report, 3 Dec. 2007, para. 140.

controlled use of asbestos would not provide the same level of protection as a ban on import and use.[708] States do not have to accept alternatives that contribute to the objective to a lesser degree.[709]

In the necessity review in *EC – Seals* both the panel and the AB considered the sustainability labels as an alternative to a full ban on seal products but found that labels ensuring the same level of protection would not be reasonably available in this case. In other words, the analysis of the degree of contribution to the objective of the alternative was linked to the analysis of the feasibility of such option.[710] Disregarding the particular facts of in *EC – Seals*, it is still interesting to note that the AB went to great lengths to show that a sustainability label would not ensure the same level of protection as a ban. This could be read to suggest that labels under some circumstances might ensure the same level of protection. Given that labels would at best normally ensure only almost the same level of protection, the reasoning in *EC – Seals* could be regarded as an indication that the necessity test might be more intense than the outcome of the necessity analysis in cases of the last two decades would suggest.

Perhaps the most controversial application of an intense necessity test came in *Korea – Beef*. The case concerned the dual retail system for beef in Korea. Imported beef had to be sold in separate specialized stores in order not to confuse consumers and to protect against fraud. The AB started by clarifying that there is a broad spectrum of thresholds between 'contribution' and 'indispensable' and that 'necessity' is closer to the latter than the former.[711] Against this backdrop the AB found recordkeeping requirements to be sufficient and the dual retail system thus to be unnecessary. Even if the dual retail system might have been marginally more effective, the AB did not view it as relevant.[712]

Korea – Beef could be read to indicate that the necessity test is not deferential to the extreme. Such conclusion has merit, because the test would otherwise risk not having

[708] EC – Measures Affecting Asbestos and Products Containing Asbestos, DS135, AB Report, 12 March 2001, para. 174.
[709] EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, AB Report, 22 May 2014, para. 5.273.
[710] EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, Panel Report, 25 Nov 2013, paras 7.478-505 and 7.639; EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, AB Report, 22 May 2014, paras 5.267-280.
[711] Korea – Measures Affecting Imports of Fresh, Chilled and Frozen Beef, DS161, AB Report, 11 Dec. 2000, para. 161.
[712] *Id.* paras 178-182.

any added value. Some parallels could be drawn to the EU model where harsh restrictions on imports may be disproportionate if for example labelling can achieve almost the same level of protection. It is, however, important to note the AB in *Korea – Beef* put the actual pursued level of protection into question by claiming that the objective of Korea cannot have been to eliminate fraud completely.[713] While this may be even more controversial from the perspective of state sovereignty, it is different from an intense necessity review where an alternative measure is found to guarantee more or less an equal level of protection.

There continue to exist unanswered questions on the WTO model as much as on the EU model. The interpretation of the concept of 'necessary' has generally mounted to a quite deferential test. There have, however, been some indications that it might not be deferential to the extreme. Be that as it may, the test of 'necessary' under Articles XX(a) and XX(b) still only forms the first step of a necessity review in cases where those articles are applicable. The chapeau of Article XX introduces a further necessity test.

The chapeau of Article XX prohibits "arbitrary and unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade". This provision applies regardless of which ground of justification has been relied on. In other words, even if the tests of 'relate' under Article XX(g) GATT and 'necessary' under Articles XX(a) and XX(b) may to some degree differ with regards to the initial parts of the proportionality review, each ground of justification is still covered by the chapeau. The chapeau covers the manner in which the state measure is applied.[714] The manner in which as measure is applied is generally revealed already by its design and structure.[715] In case a law includes arbitrary discrimination, then so will almost automatically also its implementation. Thus, neither legal provisions as such, nor their implementation may create arbitrary discrimination.[716]

[713] *Ibid.*
[714] US – Standards for Reformulated and Conventional Gasoline, DS2, AB Report, 29 April 1996, p. 22.
[715] US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products (US – Tuna, Mexico II): Recourse to Article 21.5 of the DSU by the United States and second recourse to Article 21.5 of the DSU by Mexico, DS381, AB report, 14 Dec. 2018, para. 6.270.
[716] *See* e.g. EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, Panel Report, 25 Nov 2013, para. 7.648.

In WTO law a necessity test has been integrated into the application of the chapeau. In some respect one could speak of a 'disguised necessity test'.[717] Unlike tests of whether the measure 'relates' to conservation or is 'necessary' to protect health, the review under the chapeau will examine the merits of each element of the measure at hands.[718] The necessity of the measure is thus evaluated with consideration given to the necessity of all its individual discriminatory elements. This structure of the proportionality review has in practice produced case law where almost every time the fate of the measure is not determined under the concepts of 'relating' and 'necessary' in Article XX GATT, but under the chapeau. This final step of the proportionality review has teeth. In addition, it ties the different initial forms of tests together to produce a coherent whole.

The chapeau targets hidden interests and disguised purposes.[719] It also reflects the principle of good faith,[720] which would hint to a test of purpose.[721] Yet, determining the purpose of a measure or its implementation is very difficult. Even explicit statements by individual officials might not reflect the purpose of the public authority as a collective actor. Hence, no separate test to determine purpose has ever been designed.

The purpose of the chapeau is to hinder the abuse of Article XX.[722] Under the chapeau the reasons behind the discriminatory elements of the measure under scrutiny must be in line with the justifiable environmental objective.[723] In other words, the design of the measure, with its discriminatory elements, must be rationally related to a justifiable policy aim.[724] A measure is not the least restrictive way to achieve an aim if it includes

[717] Arthur E. Appleton, 'GATT Article XX's Chapeau: A Disguised "Necessary" Test?" The WTO Appellate Body's Ruling in United States – Standards for Reformulated and Conventional Gasoline' (1997) 6 Review of European, Comparative & International Environmental Law 131.
[718] US – Standards for Reformulated and Conventional Gasoline, DS2, AB Report, 29 April 1996, p. 25.
[719] EC – Measures Affecting Asbestos and Products Containing Asbestos, DS135, Panel Report, 18 Sept 2000, paras 8.236-239.
[720] US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct. 1998, para. 158.
[721] *See* Simon Lester et al, *World Trade Law: Text, Materials and Commentary* (Hart 2008) 414.
[722] US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct. 1998, para. 150; US – Standards for Reformulated and Conventional Gasoline, DS2, AB Report, 29 April 1996, p. 22-23.
[723] Brazil – Measures Affecting Imports of Retreaded Tyres, DS332, AB Report, 3 Dec. 2007, paras 225-227. *See* also US – Taxes on Automobiles, DS31, 11 Oct. 1994 (unadopted). In this case the distinction made between two goods in the U.S. law was consistent with the environmental objective. Therefore, the law did not have the effect of affording protection to domestic production.
[724] EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, AB Report, 22 May 2014, para. 5.306; US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products (US – Tuna, Mexico II): Recourse to Article 21.5 of the DSU by Mexico, DS381, Panel Report, 14 April 2015, para. 7.553.

elements that increase discriminatory effect but have no rational relationship to a justifiable objective. The test under the chapeau is with respect to this aspect comparable to the proportionality approach under EU law, which requires that there is no other less trade restrictive alternative that would fulfil the justifiable objective equally well.

All in all, the chapeau includes a necessity review that carefully scrutinizes the specific design of the measure. But how intense is that review? Would a measure be declared unnecessary if a less discriminatory alternative would ensure almost the same level of protection? While this question would deserve more elaborate research, a few observations can be offered here.

US – Shrimp concerned a U.S. law that required the use of turtle-exclusion devices when harvesting shrimp. U.S. vessels had to use the devices. Importation of shrimp was possible from countries with a similar requirement. At the time of the WTO dispute there was on-going litigation in U.S. courts on whether sustainably harvested shrimp from countries that had not implemented a similar requirement could be imported. The original AB found that the design of the measure breached WTO law in part because the U.S. required the use of a particular device and did not accept equally effective methods.[725] The U.S. changed the implementation of the measure to allow also for other equally effective shrimp fishing methods. The law was still challenged by Malaysia in compliance proceedings, but this time the U.S. came out victorious.[726] The ban on unsustainably caught shrimp survived the chapeau without any consideration given to the less trade restrictive alternative of introducing sustainability labels. A reason for this might have been that Malaysia did not present labelling as an alternative. Yet, the case could also be read to suggest that the necessity review under the chapeau is quite deferential after all. If true, uniformity under Article XX as a whole could only be maintained if the necessity review in the interpretation 'necessary' in paragraphs (a) and (b) is equally deferential.

In case the GATT is more deferential than the EU with respect to the test of least restrictive measure, it could be explained by the fact that there in the EU has been a

[725] US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct. 1998, paras 161-164.
[726] US – Import Prohibition of Certain Shrimp and Shrimp Products: Recourse to Article 21.5 of the DSU by Malaysia, DS58, AB Report, 22 Oct. 2001.

higher degree of integration and harmonization among states, whereas in the context of the WTO state sovereignty might be given slightly more weight. At this point it must, however, be noted that according to an AB the chapeau includes also other tests than the test of a rational relationship between the discriminatory element of the measure and the justifiable objective.[727] It is submitted that the review under the chapeau of Article XX GATT is not constrained to a necessity test in the form of analysis of potential less discriminatory alternatives that fulfil the same objective. Although the AB making the statement referred to above did not explicitly lay out what other tests it was referring to, examples of other proportionality tests will be offered in later in this book.

3.1.3.3. Estimating the Difference in Effectiveness Between Alternative Measures

In cases of de facto discrimination, the suitability test and the necessity test have been fairly deferential in both the EU and the WTO. Member states may set strict standards of protection, while courts and panels will show deference when reviewing the justifiability of those measures. The tests have, however, not been deferential to the extreme. Under the necessity test, or more specifically the least restrictive measure test, a minimal additional benefit might, at least under EU free movement law, not always justify a measure that is more restrictive than the alternative. When the test of least restrictive measure is given some degree of intensity courts should be careful in how the difference in effectiveness of alternative measures is calculated.

In examining the proportionality of the measure, the court might conclude that it can be expected to make a genuine contribution to the legitimate objective. When testing for necessity of a ban on some unsustainable PPMs the court will go on to consider alternative measures. As alternatives to a ban on the unsustainable PPMs the state could, for example, adopt a quota for sustainable PPMs (e.g. RPS) or guarantee producers using sustainable PPMs a premium on top of the market price (e.g. FIT). For simplicity, it is here assumed that the alternatives considered would all also have an expected effect and would therefore equally be suitable.

The quota and the price premium would normally be less effective than a full ban. However, if the difference in effectiveness is sufficiently small, it would appear that

[727] US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products (US – Tuna, Mexico II): Recourse to Article 21.5 of the DSU by Mexico, DS381, AB Report, 20 Nov. 2015, para. 7.316.

the ban could sometimes be declared to be unnecessarily strict. The court will face the question of whether there is any less trade restrictive alternative to the ban, that would practically (i.e. almost) guarantee the same level of protection. How should the potential difference in level of protection be calculated? While courts have never been explicit on this point and do not tend to take on such technical and mathematical exercise, understanding different approaches to the problem is still important for consistent and unbiased application of the law. Therefore, some potential theories are developed below.

Let us assume that the objective with the ban would be to reduce pollution. The difference in effectiveness between the ban and the alternatives can be expressed in several different ways. First, the difference could be expressed in absolute terms. This would be a measure of units of pollution. Secondly, the difference could be expressed in terms of units relative to the perfect scenario of elimination all harmful pollution. In other words, it would be calculated how many percent the difference expressed in absolute terms (i.e. pollution units) is of all pollution experienced in the state adopting the PPM-criteria.

The problem with the two calculation alternatives presented above is that they are functions of the market size and power of the state adopting the PPM-criteria. A large state is more likely to have significant domestic demand and is therefore also more likely to import more in absolute terms. What follows is that, ceteris paribus, the difference in effect between the measure and the alternatives in a large state, say Germany, will probably be more significant than in a small state like Latvia. Consequently, the measure would be more likely to survive even moderately intense scrutiny if adopted by Germany. This will be the outcome regardless of whether the total amount of pollution experienced in the state adopting the PPM-criteria only includes pollution that comes from out-of-state production or also includes the pollution that used to come from in-state production but that has been fully eliminated by the PPM-criteria, either as a consequence of the same measure or with an earlier measure adopted already before the criteria were expanded to also apply for imports.

A third way to express the difference in effect between the adopted measure and alternatives should be considered. An option would be to calculate how many percent more the ban eliminates the harm as compared to the alternatives. This would be an estimate of how effective the ban is relative to how effective the alternative measure is.

In other words, it would be an estimation of relative effectiveness. The option of comparing two measures with reference to their relative effectiveness seems like the preferable option, as it would put states on an equal footing.

A final twist can be added. Sustainability labels that allow consumers to make the choice between the sustainable and unsustainable option could be considered as an alternative to bans, guaranteed market price premiums and quotas. Sustainability labels would be (almost) equally effective as a ban only if the state has consumers that are very sensitive to the PPMs and value the label highly. This would ironically mean that a state with highly sensitive consumers would face more difficulty in putting forward the case that sustainability labels are not equally effective and that a ban is the only way to achieve the desired level of protection.

In conclusion, courts should be aware of the various available methods of estimating the difference in effectiveness of measures. In addition, they need to be mindful of the potential consequences of adopting a particular method. It was submitted here that the moderately intense necessity review coupled with a focus on the relative effectiveness of the adopted measure and the proposed alternative is often a reasonable approach.

3.1.4. Scenarios of No Expected Effects

3.1.4.1. Market Power and the Case of a Ban on Nuclear Power

In principle, it may be that in some cases the prominent suitability test of 'expected contribution' leads to the conclusion that there is no expected effect of the implementation of PPM-criteria also on imports. Similarly, the necessity test enables for example the ECJ to conclude that it would not be necessary to take any measure at all because the benefits of a PPM-measure are too small or unlikely. In case the benefits are minimal, the ECJ may state that the same level of protection is achieved without any PPM-criteria for imports. This interpretation of the necessity test resembles those versions of the suitability test where a genuine contribution or expected effect is required.

Whether or not there will be any expected effects will depend on a number of factors. First, there must be some reduction in demand of the unsustainable PPMs in the state adopting the measure. Secondly, this must reduce total global demand of products from the state of production. Thirdly, that should reduce output in the state of production. Fourthly, reduced output must reduce the harmful effects. Lastly, it might even be

required under trade law that the benefits of the reduction in harmful effects in the state of production also with time become beneficial for the state adopting the measure.[728]

States may struggle to claim any expected effects of their PPM-criteria under some particular circumstances. In the electricity sector in general there is some risk that the effects of a ban on power from some PPM is nullified due to reshuffling.[729] This means that those generating power simply shift sales of unsustainable power to other states and the PPM-sensitive state gets sustainable power that was previously sold to other states. Normally, however, when the demand of products from specific PPMs decreases in one state and products of a sustainable PPM increases, there will be price signals to producers. The theory that the characteristics of the electricity sector allows for reshuffling to eliminate all effects of a ban on some PPMs is complex. It is highly debatable as to whether reshuffling could fully eliminate the benefits of extending PPM-criteria to imports. Hence, it is here not given too much weight.

A ban on nuclear power would, however, constitute a special case as there may exist additional reasons to fear that such measure will not have any expected effects. The most significant risks related to nuclear power plants are not linearly linked to levels of supply. In fact, the risks are probably almost constant for the plant if in operation. Thus, the benefit in the form of reduced public health and safety risks would only occur if demand drops sufficiently to cause plant closures. That in turn might occur only when the ban is adopted by a state with large volumes of imports. States with large volumes of imports are more likely to be states with large volumes of consumption. These are often economically powerful 'large' states, such as Germany. In sum, in the particular case of a ban on nuclear power the market power of the state may need to be exceptionally significant in order for the measure to have expected effects on first of all output, and secondly risks on the environment, public health and public safety.

In case bias in favor of large powerful states would be incorporated into EU free movement law, it would threaten the democratic foundations of the jurisprudence.

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[728] On whether or not this last step might be required *see* section 6.2-6.3.

[729] On the theory of reshuffling in the electricity sector *see* Thomas Alcorn, 'The Constitutionality of California's Cap-and-Trade Program and Recommendations for Design of Future State Programs' (2013) 3 Michigan J. Environmental & Administrative L. 87, 108-110, 117-118. *See* also Irmgard Kischko, 'Ein "Mascherl" fur den Atomstrom' (4 June 2013) <http://kurier.at/wirtschaft/wirtschaftspolitik/kennzeichnung-ein-mascherl-fuer-den-atomstrom/14.758.025> accessed 28 April 2014.

Large states already have a stronger presence in the legislative process in the EU.[730] The bias would thus increase their power.

The bias risk should perhaps be taken even more seriously in the context of WTO law, because even if the differences in market power are always to some extent a function of population size, the socio-economic dimension becomes more prominent when developing and even the least developed countries are involved. There have been concerns that the WTO system does not safeguard against eco-imperialism.[731] It is crucial for the legitimacy of the system that the design of the proportionality review does at least not increase such problems. Developing nations should have equal possibility to implement PPM-criteria even if it might not foster significant demand changes to also affect supply to a great extent.

The lack of expected effect in terms of public health and safety could of course in the case of a ban on nuclear power lead to the state defending its measure on moral grounds. A ban on nuclear power could clean the consciousness of the people in the state consuming the electricity as the contribution of their purchasing to the nuclear power industry has in theory been cut. The question would then be whether nuclear power is a question of public morals under trade law doctrine. I shall return to the moral defense later in this book.[732] It will in particular be submitted that the defense may be unsuccessful because the conclusion from a proportionality review may in this particular situation be that labelling serves the moral objective equally well.

3.1.4.2. Effect of Measure Negligible for Reasons Unrelated to Market Power

Other factors than market size and power of the state adopting the measure could render the measure without any expected effects. Consequently, not adopting any measure could, at least from one perspective, be practically equally effective. The expected effect test (suitability) and the least restrictive measure test (necessity) could again in these situations lead to the conclusion that the measure would not be proportional. In this subsection it is analyzed whether such conclusions could be problematic and if so, how the tests could be calibrated to avoid the problems.

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[730] Miguel Poiares Maduro, *We the Court – The European Court of Justice and the European Economic Constitution* (Hart 1998) 123-129.
[731] David Hunter et al, *International Environmental Law and Policy* (Foundation Press 1998) 1188. *See* also Petros Mavroidis, T*he General Agreement on Tariffs and Trade: A Commentary* (OUP 2005) 212.
[732] *See* sections 6.2-6.3.

First, it could be argued that even if adopting PPM-criteria would reduce in-state demand in products produced with unsustainable PPMs, and even if that would affect out-of-state supply, the measure would not be suitable and necessary in case the local environmental benefit does not reach the territory of the state adopting the measure.[733] Some environmental effects might never spread across borders if the environmental harm is so minimal and temporary that it has been fully nullified before it reaches other states. In that case the state planning PPM-criteria would not have any environmental interest and therefore not taking it into account would not pose any serious issue of bias. At the other end of the spectrum are GHG emissions that have a direct and immediate cross-border effect. Somewhere in between those two extremes are many forms of environmental effects. In contrast to GHG emissions, those effects are primarily local in nature but still spread across borders in the long term.

It has been argued that grounds of justification come into play only when there is a direct health risk.[734] This might not be the case when the effects only show in the long-term.[735] Yet, the severity of environmental effects would justify a broader understanding of health as a ground of justification.[736] Importantly, no bias against slowly accumulating but severe effects should exist. The problem may be addressed by taking into account long-term effects that eventually may become more than insignificant in their effect. Hence, many long-term effects should likely also justify discrimination and hinders to market access.[737]

Secondly, there should be no bias against effects that are highly unlikely but extremely severe when they materialize, such as in the case of a nuclear accident. Some challenges may arise in case the tests of suitability and necessity include considerations on whether the probability of an effect is sufficient enough. In assessing whether the environmental benefit is genuine, expected and worth protection with reference to the alternative of

[733] On this theory of a requirement that the environmental effect becomes cross-border *see* sections 6.2-6.3.
[734] Ludwig Krämer, 'Environmental Protection and Art. 30 EEC Treaty' (1993) 30 Common Market Law Rev. 111, 118; Andreas R. Ziegler, *Trade and Environmental Law in the European Community* (Clarendon 1996) 72.
[735] For a critical review of stretching the protection of health to long term effects *see* Jukka Snell, *Goods and Services in EC Law: A Study on the Relationship Between the Freedoms* (OUP 2002) 180.
[736] Henrik Bjørnebye, *Investing in EU Energy Security – Exploring the Regulatory Approach to Tomorrow's Electricity Production* (Wolters Kluwer 2010) 109-110.
[737] Case C-379/98 *PreussenElektra AG v. Schhleswag AG* [2001] ECR I-2099, Opinion of AG Jacobs, para. 232.

not taking any action, the low probability should on its own not be decisive. The potential magnitude of the effect should also be taken into account.

It seems plausible to account for long-term effects and the severity of the risks in the tests of suitability and necessity. Another type of bias may be more complex to address. When two states adopt an identical restriction on PPM-criteria applicable to both domestic production and imports, the state that is neighboring the states with polluting production is more likely to effectively reduce environmental harm from entering their territory than a state far away. It might be deemed necessary for the neighboring state to address the significant cross-border pollution with a ban on imports from unsustainable PPMs. A state further away might experience so little pollution from across its borders that adopting PPM-criteria for imports might not be deemed necessary under a moderately intense review. On the one hand, it might appear arbitrary that the distance from the polluting state could become decisive as to whether the measure is regarded necessary. This would further strengthen the argument for a deferential review. On the other hand, the distance to the polluting state is largely a random factor. The state that in reality will be burdened by more pollution will vary on a case by case basis and that there will perhaps not exist any systemic bias in favor of either state on this ground.[738]

3.1.5. The Intensity of the Proportionality Review

There has been some inconsistency in how the tests of suitability and necessity have been applied. It would appear that courts have often structured the tests to reflect a moderate degree of intensity. More specifically, test of suitability as a rule appears to take the form of a test for expected contribution to the legitimate objective. Moreover, there have been indications that under the test of least restrictive measure, the core test of the concept of necessity, measures may be declared disproportional already when the proposed alternative would not ensure exactly the same but only almost the same level of protection.

However, it could be argued that states should have the right to hinder their population from causing long-term damage to their own territory and limiting the demand for

[738] It could perhaps be argued that Germany's central location makes it more vulnerable for cross-border pollution as compared to for example Latvia. However, this could be countered with an argument that Latvia is more closely situated to less developed states in Eastern Europe, that might currently still pollute more.

unsustainable energy produced abroad is one of the few actions a state can take to address this concern. Although strict PPM-criteria adopted by a single small state may not have much effect in practice their importance may lie in that they increase incentives for other states to take similar action. In other words, it may be a necessary, although not sufficient, step toward decreasing the cross-border harm from the targeted PPM. The measure advances the sustainability objective in a broad sense. This purpose has been discussed in relation to plans of only one state to restrict the import of nuclear power and the incentives it may create for other states to join.[739]

There have traditionally existed arguments presented in support of a deferential approach, or in other words for granting states broad discretion in designing their measures. First, states claim sovereignty to define their level of protection. Secondly, interest groups that represent for example environmental concerns may argue that states should have the right to advance a very high level of protection. As illustrated in this chapter, the risk of bias relating to the size of the state adopting the measure that might emerge in very specific circumstances such as when a state adopts a ban on power from nuclear fission could form an additional argument in favor of a deferential review.

A very deferential approach would mean that the existence of alternatives, such as labelling, would usually not render the importing state's preferred measure disproportionate, and hence the approach would allow the state to maintain its measure. For example, the deferential approach would not encourage labelling to the same extent as a stricter or more intense approach would. Whether this would enhance or weaken democratic ideals is unclear. Gaines has put forward the question of whether it would be more democratic to grant states the right to pursue their objectives, such as sustainability, through restrictions enacted on the basis of the values of the majority of the domestic society or, alternatively, to increase consumer information and choice through labelling.[740] On the one hand, there is a certain appeal in delegating the decision to consumers so that everyone has a voice. On the other hand, also the state legislature

[739] 'Rechen-Trick: Österreich soll Atomstromfrei worden' (16 April 2012) <http://diepresse.com/home/wirtschaft/economist/749813/RechenTrick_Osterreich-soll-atomstromfrei-werden> accessed 17 Nov. 2017; Craig Morris, 'Austria to Discontinue Imports of Nuclear Power' (25 April 2012) <www.renewablesinternational.net/austria-to-discontinue-imports-of-nuclear-power/150/537/38088/> accessed 28 April 2014.

[740] Sanford E Gaines, 'Process and Production Methods: How to Produce Sound Policy for Environmental PPM-Based Trade Measures?' (2002) 27 Columbia J. Environmental L. 383, 403.

adopting the measure is backed by democratic legitimacy and may conclude, for example, that a labelling system would be insufficient for tackling externalities.

Putting the question of democratic legitimacy on the side for the time being, there is the more obvious downside of a deferential review. Namely, the logical capability test and the most deferential necessity test do not function as tools to determine the necessity of measures in cases where states advance one environmental objective, while simultaneously causing other forms of environmental harm. For example, as all energy resources have different effects, states would under a very deferential proportionality review be presented with an opportunity to defend a ban on electricity from any specific resource on health grounds.

A deferential approach to suitability and necessity would leave the tests without much force in cases of de facto discrimination and without a credible proportionality review the free trade system will be in danger of collapse. With a deferential suitability and necessity review there would therefore need to exist other elements of the proportionality review – certain subtests if one will – that would guarantee a genuine proportionality review with teeth. Yet, it ought to be emphasized that other tests of proportionality are not alternatives but complements to the tests of suitability and least restrictive measure. Hence, it is not submitted that they are relevant only when a very deferential approach is taken to the more classic tests of suitability and necessity. Various proportionality tests that could ensure that PPM-criteria are effectively scrutinized in law of justification will be explored in the remaining subsections to section 3.1. Some of the tests have already been applied in trade law, while other tests have been discussed among academics but have rarely been applied.

3.1.6. Proportionality Sensu Stricto

3.1.6.1. The Nature of the Test

Proportionality sensu stricto is a value balancing test. As an initial step in the application of the test it would be determined how the adopted measure affects different values. For example, it may be determined that the measure on the one hand causes decrease in free trade and, on the other hand, increases free speech or some form of environmental protection. An increase in, for example, free speech or hydropower will come with both costs and benefits. Thus, as a second step all costs and benefits related to the values would have to be determined. As a final third step, the decrease in one set

of values is balanced against the increase in another set of values. The test strives to establish the net gain of the measure. The outcome of this value balancing test would depend on the importance (weight) of the values and the degree to which they would be satisfied (intensity). Due to uncertainties in measurement one would also need to take account of a probability distribution.[741]

In the context of trade law proportionality sensu stricto requires the court to balance the trade restrictive[742] or discriminatory effect of the chosen measures against the benefits of that same measure. A measure is proportional sensu stricto if the restrictive effects on cross-border trade are not too high in relation to the environmental, social or other benefits of the measure. Depending on the exact design of the test, the balance could be required to be at some predefined acceptable level.[743] The test has been described as building on a cost benefit analysis[744], or even reasonableness.[745]

If applicable, the test of proportionality sensu strico would open up the possibility to conclude that a measure is necessary despite not perhaps strictly speaking being the least restrictive option that achieves the desired level of protection. Reversely, a measure could fail the test of proportionality sensu stricto even when it is the least restrictive alternative for achieving an objective.

Let us reflect more in detail on the difference between an intense proportionality review and proportionality sensu stricto. Under an intense proportionality review a court may declare that a measure is not necessary if there is a less restrictive and more or less identically effective alternative. The court will put into question the national objective only to a marginal effect. It is a fairly mild challenge on the level of protection that has been deemed necessary by the state and subsequently been adopted by it. In turn, under a review of proportionality sensu stricto the court will have much more freedom to

[741] Francisco J. Urbina, 'A Critique of Proportionality' (2012) 57 The American J. Jurisprudence 49, 54-55; Francisco J. Urbina, 'Incommensurability and Balancing' (2015) 35 Oxford J. Legal Studies 575, 589-590.
[742] This is not necessarily the same as the degree of discriminatory effect, especially when the measure is non-discriminatory but hinders market access.
[743] Portuese appears to have gone so far as to (implicitly) suggest that the net benefit should be maximized, indicating that the balance should be optimal. *See* Aurelien Portuese, 'Principle of Proportionality as Principle of Economic Efficiency' (2013) 19 European Law Journal 612.
[744] For a discussion on the cost-benefit analysis *see* Jukka Snell, *Goods and Services in EC Law: A Study on the Relationship Between the Freedoms* (OUP 2002) 200-212.
[745] Damien Geradin, *Trade and the Environment – A Comparative Study of EC and US Law* (CUP 1997) 28.

question the value of the objective set by the state. The court will essentially consider whether the burden and the benefits of the measure are in balance.

3.1.6.2. Criticism, Defense and Potential Relevance in Cases on PPM-Criteria

The balancing of different values is highly controversial as it will often be difficult to find a common scale for the different values. Estimating the net gain of a measure that decreases free trade but increases free speech or environmental protection can be regarded as a comparison of apples with oranges. This is the incommensurability critique directed at proportionality sensu stricto. There has been debate as to whether this is reason enough to reject the test or not.[746] How serious of an issue incommensurability is regarded to be links in part to the view on how much power judges should have in deciding difficult cases.

The incommensurability criticism directed at proportionality tests has in particular concerned the proportionality sensu stricto test, which is a value balancing test. This is not to suggest that incommensurability concerns could not also relate to some other elements of the proportionality review that in this book have been labelled value reconciliation tests. Those concerns should still be much less severe.

The harsh criticism of proportionality sensu stricto emerged in the context of human rights law, where it has been difficult to identify a common unit for comparison of different rights.[747] Similar challenges would exist in comparing free trade with some human rights. Weighing trade restrictive effects against environmental benefits would equally be regarded as problematic. Yet, it is argued here that trade restrictiveness and environmental benefits could at least in theory be expressed in similar terms. Namely,

[746] For arguments against proportionality sensu stricto as a judicial decision-making tool due to incommensurability *see* Francisco J. Urbina, 'A Critique of Proportionality' (2012) 57 The American J. Jurisprudence 49, 54-55; Francisco J. Urbina, 'Incommensurability and Balancing' (2015) 35 Oxford J. Legal Studies 575. For arguments on why incommensurability might not be a decisive problem *see* Bruce Chapman, 'Incommensurability, Proportionality, and Defeasibility' (2013) 12 Law, Probability and Risk 259; Timothy A. O. Endicott, 'Proportionality and Incommensurability', in Grant Huscroft, Bradley W. Miller and Gregorire Webber, *Proportionality and the Rule of Law: Rights Justifications, Reasoning* (CUP 2014); Paul-Erik N. Veel, 'Incommensurability, Proportionality, and Rational Legal Decision-Making' (2010) 4 Law & Ethics of Human Rights 178.

[747] Francisco J. Urbina, 'A Critique of Proportionality' (2012) 57 The American J. Jurisprudence 49; Francisco J. Urbina, 'Incommensurability and Balancing' (2015) 35 Oxford J. Legal Studies 575. On proportionality in economic law and incommensurability *see* Caroline Henckels, *Proportionality and Deference in Investor-State Arbitration – Balancing Investment Protection and Regulatory Autonomy* (CUP 2015) 164.

the effects of both discrimination and environmental externalities can, admittedly with some difficulty, be transposed into economic costs or, alternatively, loss of utility.

Admittedly, defining the strength of values with reference to utility or economic welfare is in itself a value-laden choice.[748] Moreover, it must be noted that in inter-state disputes the judge will be ill-equipped to estimate utility or welfare gains of measures. In other words, it will be difficult to commensurate the gains of the measure that promotes some values with the costs of the restriction on free trade. Yet, the existence of a potential common unit of comparison supports the position that proportionality sensu stricto should not be outright rejected without a more careful analysis.

What makes the test of proportionality sensu stricto particularly interesting in the context of discussing PPM-criteria, is that it could potentially ease the risk of bias that the tests of expected effect and least restrictive measure may otherwise cause. The situation where the actual environmental benefits of PPM-criteria will only be significant enough to render the measure suitable and necessary if it is a major importing state adopting the measure was portrayed as an unlikely but still potentially problematic scenario. Under some circumstances states with more market power would enjoy an advantage as their restrictions on PPMs of imports would be more likely to have an effect on the PPMs used in other states and would thus also be more likely to reduce the cross-border environmental harm. Under a test of proportionality sensu stricto the advantage that states with more market power enjoy would at least in part be outbalanced by the fact that their measures will also be more likely to have significant trade restrictive effects, at least if trade restrictiveness would here for the purpose of the test be understood in terms of trade volumes and not in terms of discrimination.

3.1.6.3. Implicit Rejection in WTO Law?

The test of proportionality sensu stricto would be a third prong of the proportionality review that would complement the tests of suitability and necessity. The application of proportionality sensu strico would mean that the test of least restrictive measure would not offer a definite conclusion on proportionality. Instead it would only form a component in the overall balancing test.

[748] *See* Francisco J. Urbina, 'Incommensurability and Balancing' (2015) 35 Oxford J. Legal Studies 575, 585-586.

Under Article XX GATT indications for proportionality sensu stricto should be searched for with respect to both the interpretation of the concept of 'necessary' as well as the chapeau. Let us start with the former.

The language adopted by panels and ABs in cases on GATT would at times imply an application of a test of proportionality sensu stricto. The AB has repeatedly stated that the concept of necessary under Article XX and the necessity test applied under that concept forms a holistic balancing exercise.[749] Factors to be taken into account are the trade restrictiveness of the measure, its contribution to the objective and the importance of the objective.[750] First, the trade restrictiveness should likely be understood as degree of discrimination, since the purpose of the agreement is to ensure equality of competitive conditions.[751] Secondly, as proclaimed in *Brazil – Tyres*, in case the restriction is severe, the contribution would need to be material.[752] This could be the case with respect to energy sector regulation because the protection of the environment and health have been regarded as highly important.[753]

It would still often be difficult for WTO bodies to find a justifiable basis for re-evaluating the importance of an objective that a state pursues. Several scholars have rejected the idea of proportionality sensu stricto in WTO law.[754] This is supported by the details of the reasoning.[755]

Despite the language in decisions to some disputes, there are very few signs of any real test of proportionality sensu stricto. Worthy of note is that in *EC – Seals*, and equally in *Brazil – Tyres*, the proclaimed holistic balancing did not deliver any unusually strict

[749] *See* e.g. Brazil – Measures Affecting Imports of Retreaded Tyres, DS332, AB Report, 3 Dec. 2007, para. 182; EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, AB Report, 22 May 2014, paras 5.214-215.
[750] Korea – Measures Affecting Imports of Fresh, Chilled and Frozen Beef, DS161, AB Report, 11 Dec. 2000, paras 162-166; Brazil – Measures Affecting Imports of Retreaded Tyres, DS332, AB Report, 3 Dec. 2007, paras 143, 178-182; EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, AB Report, 22 May 2014, para. 5.169. *See* also US – Measures Affecting the Cross-Border Supply of Gambling and Betting Services, DS285, AB Report, 7 April 2005, para. 306. The gambling case related to General Agreement on Trade in Services, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1B, 1869 U.N.T.S. 183, 33 I.L.M. 1167 (1994).
[751] Korea – Taxes on Alcoholic Beverages, DS75, AB Report, 18 Jan. 1999, para. 120.
[752] Brazil – Measures Affecting Imports of Retreaded Tyres, DS332, AB Report, 3 Dec. 2007, para. 150.
[753] *Id*. para. 144.
[754] Robert Howse, *The WTO System: Law, Politics and Legitimacy* (Cameron May 2007) 168; Federico Ortino, *Basic Legal Instruments for the Liberalisation of Trade – A Comparative Analysis of EC and WTO Law* (Hart 2004) 205; Tamara Perisin, *Free Movement of Goods and Limits to Regulatory Autonomy in the EU and WTO* (T.M.C. Asser 2009) 200-201.
[755] Donald H. Regan, 'The Moaning of "Necessity" in GATT Article XX and GATS Article XIV – The Myth of Cost-Benefit Balancing' (2007) 6 World Trade Review 347, 348.

or intense review of the state measure with respect to the interpretation of the term 'necessary' under Article XX GATT. The review was on the contrary quite deferential.

In *EC – Asbestos* the AB noted that a more serious health risk related to a good like asbestos would make it easier to argue that a ban was necessary.[756] Yet, it might not have been an expression related to proportionality sensu stricto, but merely a statement of the fact that with very hazardous substances it will be difficult to find a less restrictive alternative that guarantees health protection of a high level.[757]

In *Korea – Beef* the AB stated that the balancing exercise was comprehended in the test of least restrictive measure and did not engage in any comparison of burden and benefits beyond that.[758] The approach was thus similar to that adopted in for example *EC – Seals.* Yet, it may be recalled that although the balancing test was referred to in *Korea – Beef*, the AB stated that the objective of Korea cannot have been to eliminate fraud completely.[759] This could be read to indicate that the AB did question the level of protection sought by Korea and that the applied test thus had characteristics of proportionality sensu stricto.

After the test of necessity, the subsequent step in the proportionality review is the chapeau of Article XX GATT. The proportionality review under the chapeau has been described as a reasonableness test.[760] However, the application of the chapeau echoes the approach adopted under the test on whether the measure is necessary. The language adopted in reports would indicate that the idea of proportionality sensu stricto might apply but the details of the reasoning and the outcome of the analysis suggest otherwise. The AB has stated that the chapeau includes a test of balancing in casu.[761] It has also condemned a measure in part because the discriminatory effects were foreseeable.[762] Yet, the ABs normally do not appear to take on the task of putting the chosen

[756] EC – Measures Affecting Asbestos and Products Containing Asbestos, DS135, AB Report ,12 March 2001, para. 172.
[757] On this topic *see* generally Alan O. Sykes, 'The Least Restrictive Means' (2003) 70 University of Chicago Law Review 403, 409-411.
[758] Korea – Measures Affecting Imports of Fresh, Chilled and Frozen Beef, DS161, AB Report, 11 Dec .2000, paras 166-176.
[759] *Id.* 178-182.
[760] Jochem Wiers, *Trade and Environment in the EC and the WTO – A Legal Analysis* (Europa Law 2003) 249.
[761] US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct. 1998, para. 159.
[762] US – Standards for Reformulated and Conventional Gasoline, DS2, AB Report, 29 April 1996, p. 27-28.

environmental objectives into question by weighing their benefit against the burden on trade.[763]

There has been some speculation on whether the proportionality sensu stricto test could apply under the SPS Agreement.[764] That does, however, not render any support for a similar approach to GATT, because the terms and structure of the provisions in respective agreements are different.

3.1.6.4. Boundaries of Member State Discretion in the EU

There appears to exist similar hesitance to apply proportionality sensu stricto in EU free movement law. Although some have argued for the application of the test,[765] the ECJ has, however, generally been cautious not to go that far in its scrutiny of the Member State objective.[766] Krämer argued this to be a justified choice.[767]

Danish Bottles is probably the case where the ECJ came closest to applying a test of proportionality sensu stricto. In that case the court had to deal with a Danish requirement of prior approval for new models of beverage bottles. The number of approved bottles was limited because retailers were only capable of handling a limited number of bottle types for recycling. In addition to approved bottles, each producer could put on the Danish market a limited number of unapproved bottles. The unapproved bottles were not to be managed by the official takeback system and the number of such bottles was limited in order to ensure that the number of bottles not being reused would not increase too much.

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[763] On the interpretation of proportionality and the least restrictive measure test under the chapeau of Article XX GATT *see* also 3.1.3.2.

[764] *See* Federico Ortino, *Basic Legal Instruments for the Liberalisation of Trade – A Comparative Analysis of EC and WTO Law* (Hart 2004) 464-467. The SPS Agreement applies primarily to the prevention of risks related to diseases and to food safety. Measures adopted for those purposes should be consistent with scientific evidence. *See* Japan – Measures Affecting the Importation of Apples, DS245, Panel Report, 15 July 2003, para. 8.198. However, it should be noted that states still also under that agreement have some flexibility in determining appropriate level of protection. *See* Australia – Measures Affecting Importation of Salmon, DS18, AB Report, 20 Oct. 1998, paras 198-199.

[765] Gjermund Mathisen, 'Om proporsjonalitet som skranke for tiltak som gjør inngrep i EØS-avtalens fire friheter' (2007) 42 *Jussens Venner* 80, 87-89; Case C-434/04 *Criminal proceedings against Jan-Erik Anders Ahokainen and Mati Leppik* [2006] ECR I-9171, Opinion of A.G. Poiares Maduro, paras 23–26. *See* also Case C-169/91 *Council of the City of Stoke-On-Trent and Norwich City Council v. B & Q plc* [1992] ECR I-6635, para 15.

[766] Andreas R. Ziegler, *Trade and Environmental Law in the European Community* (Clarendon 1996) 102-103; Bram Delvaux, *EU Law and the Development of a Sustainable, Competitive and Secure Energy Policy – Opportunities and Shortcomings* (KU Leuven 2011) 158-161.

[767] Ludwig Krämer, 'Environmental Protection and Art. 30 EEC Treaty' (1993) 30 Common Market Law Rev. 111, 122-127.

The purpose of the system was to protect the environment. More specifically, the fear of Denmark was that because many retailers were unable to accept new models of bottles for return, bottles would not be returned and consequently also never be reused. The ECJ noted that the level of protection sought by Denmark was exceptionally high. It found that although the requirement that there is a system for all bottles to be returned and reused was proportionate, limiting the number of unapproved bottles on the market was still disproportionate.[768]

Denmark was allowed to require that the distributor of any type of bottle must accept at least that type of bottle for return. However, all stores were not capable of accepting all bottle models circulating on the market when the number of different models became significant. As a consequence of the ruling, Denmark had to accept that a large number of bottles, not part of the original takeback system, would remain uncollected as customers would not return the unapproved bottles to the store they had bought them from.

The Court could be understood to in practice have put into question the Danish objective of an exceptionally high degree of recycling. Hence, the approach of the Court can be interpreted as a test of proportionality sensu stricto. Be that as it may, the ruling in *Danish Bottles* at least confirms that there, due to Treaty obligations, are some boundaries to Member State discretion with respect to the chosen level of protection.[769] More recently the Court has ruled that Member States have a 'definite margin of discretion' regarding the level of protection that is adopted on moral grounds.[770] This seems to reaffirm that there is a limit to Member State discretion, although fairly wide margins of discretion are accepted.

The *Danish Bottles* case is not the rule, but more of an exception. The Court would generally appear not to apply proportionality sensu stricto. It should be noted that the test of proportionality sensu stricto is rather vague.[771] It is not evident what criteria

[768] Case 302/86 *Commission v. Denmark* (Danish Bottles) [1988] ECR 4607, paras 14-22.
[769] *See* also Sue Arrowsmith, 'Application of the EC Treaty and Directives to Horizontal Policies: A Critical Review', in Sue Arrowsmith and Peter Kunzlik (eds.), *Social and Environmental Policies in EC Procurement Law – New Directives and New Directions* (CUP 2009) 147, 243. In the context of applying free movement provisions on public procurement she suggests that the only boundary to member state discretion should be that states do not show lack of good faith, i.e. discriminatory intent.
[770] Case C-244/06 *Dynamic Medien Vertriebs GmbH v. Avides Media AG* [2008] ECR I-505, paras 39-44.
[771] Andrea Morrone, 'Constitutional Adjudication and the Principle of Reasonableness', in Giorgio Bongiovanni, Giovanni Sartor and Chiara Valentini (eds.), *Reasonableness and Law* (Springer 2009) 246.

should be applied in evaluating whether the state at the expense of free trade has adopted a level of protection that is too ambitious. There is a strong subjective element in the balancing exercise. Therefore, the legislator might be better suited to take on the task.[772] This would perhaps explain why the ECJ has been cautious and often refrains from applying the test. Admittedly, there is only a fine line between such an intense review of state measures and a test that rejects a measure because an alternative provides more or less the same level of protection. One may argue that the rejection of the test of proportionality sensu stricto similarly casts doubt over the applicability of an intense least restrictive measure test.

3.1.7. Internal Consistency and Policy Consistency

Recognizing that the test of proportionality sensu stricto is highly contested, the focus shifts to some other tests that could ensure a meaningful proportionality review and mitigate the risks of bias. In the application of the proportionality review some principles have already emerged that suggest proportionality is about more than just suitability and the test of least restrictive measure. One such principle is consistency. These types of principles may be of particular value in case a very deferential approach is adopted in the application of the more classic tests of suitability and necessity.

The ECJ has frequently ruled that measures can only be proportional if applied so as to attain the objective in a 'consistent and systematic manner'.[773] The test of consistency has multiple dimensions. At times, it has been linked to the undefined concept of coherence or a mere requirement that the measure in general makes sense in light of the

[772] Jochem Wiers, *Trade and Environment in the EC and the WTO – A Legal Analysis* (Europa Law 2003) 329. This view has also been presented as a criticism of the Pike test – a balancing test applied in the US Dormant Commerce Clause. *See* Lawrence Fogel, 'Serving a "Public Function": Why Regional Cap-and-Trade Programs Should Survive a Dormant Commerce Clause Challenge' (2010) Wisconsin Law Rev. 1313, 1344-1346.

[773] Case C-169/07 *Hartlauer Handelsgesellschaft mbH v. Wiener Landesregierung, Oberösterreichische Landesregierung* [2009] ECR I-1721, para. 55; Case C-42/07 *Liga Portuguesa de Futebol Profissional and Bwin International Ltd v. Departemente de Jogos da Santa Casa da Misericordia de Lisboa* [2009] ECR I-7633, para. 61; Case C-153/08 *Commission v. Spain* [2009] ECR I-9735, para. 38; Case C-169/08 *Presidente del Consiglio dei Ministri v. Regione Sardegna* [2009] ECR I-10821, para 42; Joined cases C-171/07 and C-172/07 *Apothekerkammer des Saarlandes and Others & Helga Neumann-Seiwert v. Saarland and Minsiterium für Justiz, gesundheit und Sociales* [2009] ECR I-4171, para. 42; Case C-531/06 *Commission v. Italy* [2009] ECR I-4103, para. 66; Joined cases C-570/07 and C-571/07 *Blanco Pérez and Chao Gómez v. Consejeria de Salud y Servicios Sanitarios* [2010] ECR I-4629, para. 94; Joined cases C-338/04, C-359/04 and C-360/04 *Criminal proceedings against Massimiliano Placanica, Christian Palazzese and Angelo Sorricchio* [2007] ECR I-1891, para. 53; Case 178/84 *Commission v. Germany* (*German Beer)* [1987] ECR 1227, para. 49; Case C-243/01 *Criminal proceedings against Piergiorgio Gambelli and Others* [2003] ECR I-13031, para. 67.

stated objective.[774] The focus has in other cases been on potential exemptions allowed under the national measure and their effect on consistency.[775] This could be categorized as a test on the internal consistency of the measure. The test of internal consistency in essence forms the same review that is already part of the tests of suitability and the test of least restrictive measure. Each element should be consistent with a legitimate aim or otherwise eliminating that element will constitute a less restrictive and equally effective alternative.

Consistency is assessed from a broader perspective when the objective the measure pursues is viewed in the light of other measures or even general policy of the state.[776] This can be characterized as a test on policy consistency. For example, a state cannot introduce a ban or strict licensing requirements for gambling services while it simultaneously increases its own activities in the gambling sector in order to collect revenues.[777] Similarly, states may not prohibit certain substances in drinks for health reasons while allowing them in other drinks.[778] In a third case the ECJ rejected a ban on dark film for car windows in part because cars readily manufactured with tinted windows were not banned, as that created an inconsistent policy.[779] Finally, in accordance with EU case law it would also appear that applying different rules for small and large companies might be inconsistent if the size of the company is not a factor affecting the magnitude of the risk that is tackled.[780]

Policy inconsistency may be a sign of disguised protectionism.[781] Hence, it appears appropriate to regard this test on inconsistency to form part of the proportionality review. However, the application of the policy consistency test can be difficult in practice. This has resulted in some incoherent ECJ case law. For example, France had

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[774] Joined cases C-570/07 and C-571/07 *Blanco Pérez and Chao Gómez v Consejeria de Salud y Servicios Sanitarios* [2010] ECR I-4629, Opinion of AG Poiares Maduro, paras 23, 31.
[775] *Id.* paras 36-37.
[776] Case E-3/06 *Ladbrokes Ltd. v. Norway* [2007] EFTA Ct. Rep. 86, para. 51; Gjermund Mathisen, 'Consistency and Coherence as Conditions for Justification of Member State Measures of Restricting Free Movement' (2010) 47 Common Market Law Rev. 1021, 1039-1040.
[777] Case C-67/98 *Questore di Verona v. Diego Zenatti* [1999] ECR I-7289, para. 36; Case C-243/01 *Criminal proceedings against Piergiorgio Gambelli and Others* [2003] ECR I-13031, para. 69; Joined cases C-338/04, C-359/04 and C-360/04 *Criminal proceedings against Massimiliano Placanica, Christian Palazzese and Angelo Sorricchio* [2007] ECR I-1891, para. 54.
[778] Case 178/84 *Commission v. Germany (German Beer)* [1987] ECR 1227, paras 48–49; Joined cases C-13/91 and C-113/91 *Criminal proceedings against Michel Debus* [1992] ECR I-3617, para. 25.
[779] Case C-265/06 *Commission v. Portugal* ECR [2008] I-2245, paras 43-44.
[780] Case C-79/01 *Payroll Data Services (Italy) Srl, ADP Europe SA and ADP GSI SA* [2002] ECR I-8923, para. 37.
[781] Gjermund Mathisen, 'Consistency and Coherence as Conditions for Justification of Member State Measures of Restricting Free Movement' (2010) 47 Common Market Law Rev. 1021, 1047-1048.

introduced restrictions on advertisements of alcohol. These restrictions applied only for TV-adverts, including adverts in connection with sporting events. In contrast, the ban did not cover other media, sports facilities or film sets.[782] Despite these facts the ECJ found no inconsistency and viewed the scope of the restrictions as elements within the freedom of the Member State to determine its level of protection.[783] In contrast, when the Court a few years later dealt with a ban on TV-adverts of cosmetic surgery that applied to national but not local TV networks, it found the law to be too inconsistent.[784]

In WTO law policy consistency could be analysed either under the concept of necessary in Article XX GATT or under the chapeau of that same article. Reference to the test has been made on a couple of occasions. *Korea – Beef* concerned the dual retail system that directed domestic and imported beef to different shops. The panel took note of the fact that there was no dual retail system in place for other types of meat. Yet, the AB later deemed it unnecessary to adopt a position on whether the necessity test included any requirement of policy consistency. Instead, it found that the lack of dual retail system for other types of meat could reveal reasonable alternatives.[785] In *EC – Seals* the AB was more straight-forward. It stated that an import ban on seal products could be necessary even if no corresponding ban applied to other animals.[786] This can be read as a rejection of at least any strict policy consistency test.

The WTO would appear to have been firmer in its rejection of the test than the EU. The reason for the potentially stronger relevance of policy consistency in the EU could be explained by the fact that the EU is a close union where Member States are expected to show loyalty and a will to cooperate.

Arguments for a policy inconsistency test under WTO law have emerged in the discussion of the compatibility of EU biofuels law with WTO rules, despite the reluctance by panels and ABs to apply any such test in previous cases. For example, Switzer and McMahon have pointed out that the EU had adopted sustainability criteria

[782] Case C-262/02 *Commission v. France* [2004] ECR I-6569, paras 3-4.
[783] *Id.* para. 33.
[784] Case C-500/06 *Corporación Dermoestética SA v. To Me Group Advertising Media* [2008] ECR I-5785, paras 35-40.
[785] Korea – Measures Affecting Imports of Fresh, Chilled and Frozen Beef, DS161, AB Report, 11 Dec. 2000, paras 168-172.
[786] EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, AB Report, 22 May 2014, para. 5.200.

for biofuels but for a long time not for solid biomass[787] and that the strategy of EU to tackle climate change in general, and the sustainability of bioenergy in particular, is far from consistent.[788] Erixon has added that the decision to start monitoring indirect land-use change only for biofuels and not in other sectors is arbitrary.[789] Indirect land-use change refers to cases where new plantations for the feedstock that is necessary for biofuels directly replace agricultural land, which then has an indirect effect on other types of land. The concern is here in particular that rain forests are cut down in order to make place for new areas of agricultural land. Biodiverse land areas may in this way be indirectly affected by the expansion of biofuels feedstock plantations.

From a broad perspective, some inconsistency may always be detected. It is therefore clear that perfect consistency cannot be required.[790] States must be able to begin somewhere when they wish to promote, for example, more sustainable PPMs. In other words, any policy consistency test should at least not be too strict. States should have the right to test the application of new environmental criteria in some sector and only after some time be expected to decide on whether the model is abandoned or whether it is expanded to other sectors.

What would the application of a policy consistency test in the context of PPM-criteria and environmental protection result in? It would probably not be inconsistent for a state to introduce harsh restrictions on one type of emissions but not on other types of emissions or on biodiversity. States may tackle those externalities they deem most severe. In contrast, prohibited policy inconsistency could perhaps be argued to occur when a state implements restrictions on certain emissions or some other form of environmental harm in one sector, but for a long time refrains from addressing the same environmental effect in another sector. This may especially be problematic if the state implements the restrictions in a sector where its domestic industry generally has good environmental performance and ignores the effects in a sector where its domestic

[787] This will change if the new Renewable Energy Directive enters into force in 2021 as planned. *See* Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82, Article 29 as well as recitals 94 and 101.
[788] Stephanie Switzer and Joseph A McMahon, 'EU Biofuels Policy – Raising the Question of WTO Compatibility' (2011) 60 International & Comparative Law Quarterly 713, 732.
[789] Fredrik Erixon, 'Biofuels Reform in the European Union: Why New ILUC Rules Will Reinforce the WTO Inconsistency of EU Biofuels Policy' (2013) ECIPE Occasional Paper (issue 3), 19.
[790] Gjermund Mathisen, 'Consistency and Coherence as Conditions for Justification of Member State Measures of Restricting Free Movement' (2010) 47 Common Market Law Rev. 1021, 1040-1041, 1046-1048.

environmental performance is poor. Although the approach to policy inconsistency appeared to traditionally have been less strict in WTO law than in EU law, it cannot be excluded that severe inconsistencies favourable to the domestic economy could be deemed arbitrary.

In sum, the policy consistency test would give the proportionality review some weight. Yet, it would likely apply only under quite limited circumstances as the WTO panels and ABs have not viewed such test favourably and also the ECJ has rarely applied the test.

3.1.8. Tests on Consistency or Inconsistency with International Science

3.1.8.1. Scientific Uncertainty and the Real Risk Test in EU Law

In the previous subsection it was analysed whether or not the proportionality review could include tests on the internal consistency of the measure or on the consistency of the measure in light of state policy. The consistency of the adopted measure could also be tested against other benchmarks. In this subsection it is submitted that international science is a suitable benchmark.

The ECJ has in its application of the necessity test examined the consistency of the objective of the measure with international scientific research.[791] Consequently, PPM-criteria with the objective to promote sustainability should not form all too drastic deviations from findings of the international scientific community. While the court has not elaborated on the concept of findings in international research, it is here understood as a fairly high degree of consensus among the international scientific community as a whole. In other words, the measure can be deemed inconsistent with international science only if there internationally is a sufficiently high degree of scientific consensus on what is unsustainable or otherwise negative for health or the environment.

In case there is genuine uncertainty in international research, a Member State can often justify restrictions with reference to the precautionary principle.[792] Scientific uncertainty should thus generally favour the state defending the measure adopted. It would provide states a broad margin of discretion.

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[791] Case 178/84 *Commission v. Germany (German Beer)* [1987] ECR 1227, para. 44; Case C-473/98 *Kemikalieinspektionen v. Toolex Alpha AB* [2000] ECR I-5681, paras 41-45.
[792] Case C-192/01 *Commission v. Denmark* [2003] ECR I-9693, paras 42-53; Case C-24/00 *Commission v. France* [2004] ECR I-1277, para. 56.

The ECJ has also occasionally stated that a measure is necessary only if it deals with risks that are real and not purely hypothetical.[793] This principle has been applied in cases related to food safety, where scientific uncertainty sometimes prevails regarding whether the food has harmful health effects or not. Whether or not a risk is sufficiently real will depend both on the probability of the risk materializing and the gravity of the outcome.

In the cases on food the ECJ has at times concluded that the measure was inconsistent with international science because there was no real risk.[794] Essentially, what the court might imply, is that there was a lack of scientific evidence of real risk and therefore it was very unlikely that the substance had any adverse health impact at all, and even if such risk against all odds would materialize, its magnitude would be minimal. In these cases rather theoretical scientific uncertainty was not sufficient to justify the measure. There are thus limits to how much EU Member States may benefit from scientific uncertainty.

The test of 'real risk' might potentially not have much relevance in the context of PPM-criteria introduced in the energy sector. The test appears to usually have been applied when both probability of any risk materializing and the magnitude of the potential effects were small. Fossil fuels and renewables are known with certainty to cause some real detrimental effects and the question of how significant the effects are does perhaps then not become relevant in the assessment of whether there is a real risk. Moreover, even if the magnitude of the negative effects to the environment from renewables would be evaluated, it may well be concluded that it is not insignificant.

Apart from renewables and fossil fuels, also nuclear power may be examined through the perspective of a real risk test. The risk of nuclear accidents is real in the sense that we know with certainty that at least some risk exists. The uncertainty relates only to the probability that the risk will materialize in any given time frame. In addition, the effect is enormous when such risk materializes.

[793] Case C-41/02 *Commission v. The Netherlands* [2004] ECR I-11375, paras 52-54.
[794] Case 178/84 *Commission v. Germany (German Beer)* [1987] ECR 1227, para. 44; Case C-228/91 *Commission v. Italy* [1993] ECR I-2701, para. 28.

3.1.8.2. GATT and Science

Under GATT the justifiable objective of a measure adopted by a state can be quite narrow in its scope. For example, a state would be justified in taking measures to protect not only animal populations, but even individual animals.[795] Moreover, each state can set its desired level of protection. This would suggest that states have a fair amount of discretion. However, there may exist some important limitations to that discretion. In particular, panels and ABs have in a couple of cases stated that international science supported the rationale of the measure.[796] The relevance of this finding was not specified.

Swinbank has highlighted the importance of credible science in the application of GATT.[797] The scientific evidence can be either quantitative or qualitative.[798] In *EC – Asbestos* the AB stated that states do not need to adopt a level of protection of health that corresponds with the view of the majority of the scientific community.[799] The AB still appeared to look into scientific evidence in order to verify whether it was justifiable to define PCG fibres as less hazardous than asbestos. It stressed that states in good faith were justified in relying on divergent opinions of qualified and respected sources.

The decision in *EC – Asbestos* would suggest that under circumstances of scientific uncertainty states are granted a degree of flexibility. A state may rely on its own preferences and, for example, the valuation of externalities of its people, in the design of sustainability criteria. The primary limitation is the requirement of at least some credible scientific support for the approach. This test does not appear too different from that applicable in EU free movement law, which requires that the measure does not contradict with international science. Under both tests a state will be justified in adopting a measure that only a minority of states and scientists find to advance

[795] US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products (US – Tuna, Mexico II): Recourse to Article 21.5 of the DSU by Mexico, DS381, Panel Report, 14 April 2015, para. 7.527.
[796] US – Measures Affecting the Production and Sale of Clove Cigarettes, DS406, Panel Report, 2 Sept. 2011, paras 7.400-417; EC – Measures Affecting Asbestos and Products Containing Asbestos, DS135, AB Report, 12 March 2001, para. 168.
[797] Alan Swinbank, 'EU Policies on Bioenergy and their Potential Clash with the WTO' (2009) 60 J. Agricultural Economics 485, 499.
[798] This can be derived from broad meaning given to 'contribution'. *See* Brazil – Measures Affecting Imports of Retreaded Tyres, DS332, AB Report, 3 Dec. 2007, para. 151; China – Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products, DS363, AB Report, 21 Dec. 2009, paras 253, 294.
[799] EC – Measures Affecting Asbestos and Products Containing Asbestos, DS135, AB Report, 12 March 2001, paras 168, 178.

environmental protection, as long as the minority among scientists is not so insignificant that it cannot be regarded to constitute credible scientific opinion.

Provisions of other WTO agreements emphasize explicitly the importance of international science. For example, it is stipulated in Article 2.4 TBT that states should build on appropriate and effective international standards. In accordance with the case law states may at least not implement standards that contradict the international benchmark.[800] It is not difficult to accept the argument that also under GATT a discriminatory measure would be declared arbitrary in case the environmental objective would be in outright conflict with international science. Whether or not the requirement of scientific evidence under the TBT Agreement, or the SPS Agreement for that matter, is stricter than under the GATT falls outside the scope of this study.

3.1.8.3. Narrow Definitions of Sustainability and International Science

Some discriminatory measures pursue a narrowly defined environmental objective. Unusually narrow definitions of sustainability from an international perspective could indicate discriminatory purpose. Environmental objectives as grounds of justification should not be tailored and abused for protectionist purposes.

Favoring a narrow category of PPMs might be in clear conflict with international science. Hence, measures to promote a narrowly defined category of sustainable PPMs might fail the proportionality review. Moreover, when the narrow definition of promoted sustainable PPMs due to scientific uncertainty does not conflict with international science but still is highly unorthodox internationally, it could potentially trigger a closer review of whether it still forms a disguised restriction on trade.[801]

How broad ought the perspective on environmental effects then be when considering the relationship between the state's adopted approach and international science? Outside the scope of free movement law, the ECJ has recognized that all interests must be taken account of in a proportionality assessment.[802] Applied in the context of free movement law, this principle would restrict states from justifying their measures with reference to some individual benefits recognized in international science when

[800] EC – Trade Description of Sardines, DS231, AB Report, 26 Sept. 2002, para. 243-257.
[801] *See* section 3.1.9.
[802] Joined cases C-96/03 and C-97/03 *A. Tempelman and Mr and Mrs T.H.J.M. van Schaijk v. Directeur van de Rijksdienst voor de keuring van Vee en Vlees* [2005] ECR I-1895, para. 48. The case concerned the interpretation of a directive on disease control.

sustainability as a whole is still harmed according to an almost unanimous international scientific consensus. The international scientific community itself defines how narrow an approach to environmental sustainability may be justifiable.

In the context of EU public procurement, where the free movement principles also apply, Arrowsmith has gone even further and argued that member states should not have the right to justify prima facie prohibited measures with reference only to one dimension of environmental protection. Instead, EU Member States would be well advised in performing a life-cycle analysis (LCA) before adopting trade restrictive measures. Otherwise, she argues, the policy of the Member State could be incoherent and arbitrary.[803] A life-cycle perspective will indeed likely be regarded as the scientifically justifiable approach. However, there is often much uncertainty surrounding the best balance between different effects included in a LCA. The review of state measures will thus not become overly strict and states will in most cases have considerable room to incorporate their national preferences. Obviously, the line between measures that are inconsistent with international science and measures that are unconventional but not inconsistent with international science due to the prevailing scientific uncertainty would need to be drawn. Tough questions will unavoidably come to the fore.

3.1.8.4. The Electricity Sector and Scientific Uncertainty

Disputes on PPM-criteria in the electricity sector have not yet emerged in great numbers under WTO law. They may arise as more grid interconnections are built and global trade in electricity increases. However, as has been the case under EU law, it may be that the disputes would initially relate only to de jure discrimination.

In the EU disputes on de facto discrimination might only be litigated if the ECJ was to change course in the future and decide that some de jure discriminatory support schemes are no longer justifiable. That being said, the debate on Austria's plan to ban nuclear power revealed that de facto discriminatory bans could face challenges even

[803] Sue Arrowsmith, 'Application of the EC Treaty and Directives to Horizontal Policies: A Critical Review', in Sue Arrowsmith and Peter Kunzlik (eds.), *Social and Environmental Policies in EC Procurement Law – New Directives and New Directions* (CUP 2009) 167-168, 173-176. *Compare* with Evelyne Clerc, 'Switzerland', in Ulla Neergaard, Catherine Jacqueson and Grith Skovgaard Ølykke (eds.), *Public Procurement Law: Limitations, Opportunities and Paradoxes*, The XXVI FIDE Congress in Copenhagen, 2014 Congress Publications Vol. 3, 151-152. Clerc explains how a court in Switzerland (which is not an EU Member State) found criteria on transportation emissions unjustifiable when they focused only on some factors that affect emission levels and ignored other factors.

under the current approach to de jure discriminatory support schemes. Would a ban on electricity from nuclear power then survive the test on lack of inconsistency with international science? Could a ban on some other PPM in the electricity sector be inconsistent with international science?

Various PPMs may have different attributes from the perspective of sustainability in general and environmental protection in particular. The interaction of various environmental – and perhaps even social – values in a particular set of circumstances will make it very difficult to reach international scientific consensus on what actually the sustainable solutions would be. In these types of situations, the degree of discretion for states would undoubtedly be broad, as the applicable test looks for sufficient evidence of inconsistency with international science or requires merely some scientific support for the measure.

The energy sector illustrates well the challenges that arise with different environmental and social values pointing in all possible directions. There is little international consensus on the optimal solutions for the environment or for sustainability. The benefits of PPM-criteria in the field of energy may relate to the effects of the favored and disfavored PPMs on GHGs, air quality, water quality, soil quality, biodiversity, waste accumulation (e.g. nuclear waste and solar panels), noise levels[804] (which may perhaps come from wind turbines), accident risks (incl. severity) as well as intermittency and risks of power cuts.

There is no consensus even within the EU on any complete priority list with regards to PPMs in the energy sector.[805] In fact, the Commission seems to accept that some form of diversification is needed.[806] The Commission has, however, stressed the negative impacts of especially coal in its communications, while taking a more cautious approach toward gas and nuclear.[807] This might reflect a view on findings in international science that also the Court could accept as a starting point.

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[804] *Cf.* Case C-389/96 *Aher-Waggon GmbH v. Germany* [1998] ECR I-4473, paras 18-19.

[805] A possible reason is the requirement of unanimous decisions on such an issue. *See* Catherine Redgwell, 'Energy, Environment and Trade in the European Community' (1994) 12 J. Energy & Natural Resources Law, 128, 147.

[806] Communication From the Commission to the European Council and the European Parliament – An Energy Policy For Europe 2007, COM (2007) 1 final, 10-15; Commission Communication, Energy Roadmap 2050, COM (2011) 885 final, 2.

[807] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Energy 2020, A strategy for competitive, sustainable and secure energy, COM (2010) 639 final, 5; Commission Communication,

It is difficult to predict whether courts would find that there is sufficient scientific consensus that some PPM, such as power from coal, is undoubtedly worse than nuclear power and that a ban on only nuclear power therefore would be inconsistent with international science. The risks associated with nuclear fission are of different nature than the risks of coal power, which complicates a comparison. In any case, states could at least opt to treat nuclear fission less favorably than most fossil fuels without falling foul of the test on scientific support.

There is scientific support for the risks of nuclear fission, but the focus on just those risks ignores the problems with GHG emissions from fossil fuels. Assuming that a ban on power from nuclear fission would be found not to contradict international science, could Austria then justify a full ban on electricity generated with nuclear fission, while not applying any severe restrictions on fossil fuels? In other words, would the difference in treatment between nuclear fission and other questionable resources for electricity, such as fossil fuels and in particular coal power, be so significant that the measure would, despite scientific uncertainty on the ranking of energy sector PPMs, be inconsistent with international science? Could awarding some PPM significantly more favorable treatment than some other PPM contradict with international science in case the difference in sustainability between those PPMs is not significant? Courts could potentially decide not render measures disproportional on the grounds of this type of test. Namely, courts have traditionally not questioned bans on goods that do not meet threshold values for toxic substances even if implementing such thresholds leads to very different treatment of products that are just below and just over such threshold value. It ought to be emphasized that these are hard cases and jurisprudence on the exact approach shines with its absence.

There are complex questions relating to Austria's past plans to ban power from nuclear fission. Plans to ban electricity generated with some other PPM may be easier to resolve. For example, a ban on energy from coal would likely not be inconsistent with international science. The test in WTO law of some scientific support for the adopted measure would warrant a similar conclusion. Coal power might even be regarded as so unsustainable by the international scientific community that treating it more favourably

Energy Roadmap 2050, COM (2011) 885 final, 13; Commission Communication, A policy framework for climate and energy in the period from 2020 to 2030, COM (2014) 15 final, 11-13.

than power from some other fossil fuels could contradict too much with environmental science.

Interestingly, at least with respect to the taxation of energy resources (i.e. not the power generated from those resources), coal receives more favourable treatment than oil in many states. The proportionality of such solutions has been questioned in the literature.[808] Measures on the treatment of energy resources are, however, not measures on PPMs. It should also be recalled that a proportionality review would need to be preceded by an analysis of whether the products are like products.[809] Different energy resources might not be like products and different treatment could therefore escape the proportionality review. That question falls outside the scope of this book, which deals with PPMs. In any case, the issue may be politically too sensitive to spark any dispute in the immediate future.

Returning to the analysis of PPM-measures, it is argued here that states could not with reference to scientific uncertainty justify schemes to ban energy from renewables or schemes to promote energy from fossil fuels more than energy from renewables on environmental grounds. Namely, at least in the EU there is a broad consensus that renewables should be prioritized.[810] Less favorable treatment of renewables would thus be inconsistent with what in the EU would be considered credible international environmental science. Even under WTO law it would be difficult to argue that there is some environmental scientific ground for promoting some fossil fuels more than renewables.

The inconsistency of a measure with international environmental science is, however, not the end of the matter. States might also present arguments for the application of some other ground of justification. In this context reference to security of supply could be a reason why states decide to support some category of fossil fuel plants. Security of supply may in times of serious local shortages justify temporary export restrictions

[808] Simonetta Zarrilli, 'Domestic Taxation of Energy Products and Multilateral Trade Rules: Is This a Case of Unlawful Discrimination?' (2003) 37 J. World Trade 359, 384-385. Zarrilli applies the traditional necessity test but under the approach presented in this book the relevant test would be that of 'policy inconsistency' or 'inconsistency with international science'.
[809] *See* discussion in section 2.2.
[810] Bram Delvaux, *EU Law and the Development of a Sustainable, Competitive and Secure Energy Policy – Opportunities and Shortcomings* (KU Leuven 2011) 162.

under GATT[811] and the TFEU[812] whereas there under U.S. law has been more skepticism with respect to this argument.[813] The topic discussed in this book is, however, not export but import restrictions. There would appear to exist three lines of reasoning with respect to the security of supply defense in that context.

First, security of supply could be necessary for public health.[814] However, in EU law security of supply forms a legitimate ground of justification only when without the trade restrictive measure, the state would not have enough energy access to guarantee the basic functions of society.[815] Hence, security of supply would rarely justify import restrictions in the EU energy sector.[816] The same is likely true under the dormant Commerce Clause.[817] There is also little reason to believe that the approach would be any different under Article XX GATT. Public health only becomes threatened when there is a serious shortage of supply.

Secondly, according to Article XX(j) states may adopt measures that are essential to the acquisition or distribution of products in general or local short supply. These are

[811] *See* Articles XI:2(a) and XX(j) GATT.
[812] Case C-503/99 *Commission v. Belgium* [2002] ECR I-4809, paras 46-55. *See* however also case C-463/00 *Commission v. Spain* [2003] ECR I-4581, paras 71-76; Case C-543/08 *Commission v. Portugal* [2010] ECR I-11241, paras 84-92.
[813] Sam Kalen, 'The Dormant Commerce Clause and the Environment', in James R. May (ed.) *Principles of Constitutional Environmental Law* (ABA 2011) 151.
[814] Henrik Bjørnebye, *Investing in EU Energy Security – Exploring the Regulatory Approach to Tomorrow's Electricity Production* (Wolters Kluwer 2010) 93-96.
[815] *See* Case 72/83 *Campus Oil limited and others v Minister for Industry and Energy and others* [1984] ECR 2727, paras 34, 47-49. *Compare* with Case C-347/88 *Commission v. Greece* [1990] ECR 4747, paras 47-50 and 60; Case C-398/98 *Commission v. Greece* [2001] ECR I-7915, paras 29-31. *See* also Case 231/83 *Henri Cullet and Chambre syndicale des réparateurs automobiles et détaillants de produits pétroliers v. Centre Leclerc à Toulouse and Centre Leclerc à Saint-Orens-de-Gameville* [1985] ECR 305, para 33; Carlos Padros and Endrius E. Cocciolo, 'Security of Energy Supply: When Could National Policy Take Precedence Over European Law?' (2010) 31 Energy L. J., 31, 53-54; Eugene D. Cross, Leigh Hancher and Piet J. Slot, 'EC Energy Law', in Martha Roggenkamp, Anita Rønne, Catherine Redgwell and Iñigo del Guayo (eds.), *Energy Law in Europe – National, EU and International Law and Institutions* (OUP 2001) 227.
[816] It was rejected as a ground of justification in a case on a RPS. *See* Joined cases C-204/12 to C-208/12 *Essent Belgium NV v Vlaamse Reguleringsinstantie voor de Elektriciteits- en Gasmarkt*, Opinion of AG Bot, ECLI:EU:C:2013:294, paras 102-103.
[817] References to security of supply have been rare in the context of dormant Commerce Clause cases on energy. *See* however *Allco Finance v. Klee,* 16-2946, (2d Cir. 2017). *See* also Anne Havemann, 'Surviving the Commerce Clause: How Maryland Can Square Its Renewable Energy Laws with the Federal Constitution' (2005) 71 Maryland L. Rev. 848, 873-874.

measures may, however, only last during the time of shortage.[818] Hence, Article XX(j) would not justify measures to promote some PPM generally.[819]

Finally, under Article XXI GATT measures may be adopted in times of war or emergency in international relations if necessary due to threats to essential national security interests. There has been discussion as to whether states due to the ambiguity of Article XXI GATT could argue that security of supply concerns should allow states under specific circumstances to justify for example de jure discriminatory import restrictions on oil (which is crucial for military transportation) and export restrictions on nuclear technology.[820] It is clear that the article should normally not provide any defense to measures promoting energy from fossil fuels.

In sum, states would be unsuccessful in justifying schemes supporting electricity from fossil fuel over electricity from renewables. In turn, it is more difficult to assess whether bans on electricity from nuclear power or some fossil fuels would survive the test on lack of inconsistency with international science. There should be significant room for state discretion due to scientific uncertainty but with the treath of climate change becoming more and more severe, the scientific community might reach a borad consensus that in particular coal power cannot be treated more favorably thany of the other options.

How might then a decision to promote certain renewables more than others be assessed? Some EU Member States have opted to treat some renewables more favorably than others. The RED encourages favourable treatment of all renewables but does not explicitly forbid differentiation outside the scope of the biofuels sector. The compromise text on the new Renewable Energy Directive (RED 2) includes the possibility of Member States to limit support to specific renewable energy technologies if it would lead to better results.[821] The improved results could in accordance with the proposal relate to the long-term potential of some technologies, diversification, grid

[818] European Union and its Member States – Certain Measures Relating to the Energy Sector, DS476, Panel report, 10 Aug. 2018. The panel concluded that the EU discriminated against Russia by facilitating certain infrastructure projects in the netural gas sector and that the discrimination was not justifiable because there was no shortage of supply of natural gas in the EU.
[819] On this article *see* James J. Nedumpara, 'Energy Security and the WTO Agreements' in Sajal Mathur (ed.) *Trade, the WTO and Energy Security* (Springer 2014) 48-49.
[820] Donald N. Zillman, 'Energy Trade and the National Security Exception to the GATT' (1994) 12 J. Energy & Natural Resources L. 117.
[821] Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82, Article 4(5).

integration costs, grid stability or stability on the raw material market. It must be emphasized that a reference to these objectives in RED 2 does not guarantee that reliance on all of them would survive scrutiny under trade law.

Whether or not all objectives listed in RED 2 are justifiable under EU free movement law might not be of much practical relevance. As illustrated previously, schemes to support electricity from renewables may, at least under EU law, include de jure discriminatory elements. Under these circumstances the question of whether different renewables could be treated differently under such support scheme will currently not arise. Assuming that de jure discrimination would no longer be justifiable at some point in the future, how would then a decision to promote electricity from some renewables more than others be approached if it caused de facto discrimination?

In the EU the difference between various renewables in terms of environmental benefits would likely not be regarded as significant and there would be no clear scientific consensus on any ranking. Hence, differences in levels of support would not be inconsistent with international science. What follows from the above, is that states would at least in most cases be able to successfully justify schemes that include carve outs or other forms of differentiation between renewables. Large hydropower[822] and some first generation solid biomass[823] might potentially be exceptions. Even if these have been included in the definition of renewables that are to be promoted under the RED, they can still generally be regarded as less sustainable renewables. Other renewables should generally not be treated less favorably than these two more controversial renewables.

[822] Some states have left out large hydropower plants. Such states include Sweden, the Netherlands and the UK. *See* Danyel Reiche and Mischa Bechberger, 'Policy Differences in the Promotion of Renewable Energies in the EU Member States' (2004) 32 Energy Policy 843, 844; Yong Chen and Francis X Johnson, 'Sweden: Greening the Power in a Context of Liberalization and Nuclear Ambivalence', in William M. Lafferty and Audun Ruud (eds.), *Promoting Sustainable Electricity in Europe – Challenging the Path Dependence of Dominant Energy Systems* (Edward Elgar 2008) 219, 240-242; Maarten J. Arentsen, 'The Netherlands: Muddling Through in the Dutch Delta', in William M. Lafferty and Audun Ruud (eds.), *Promoting Sustainable Electricity in Europe – Challenging the Path Dependence of Dominant Energy Systems* (Edward Elgar 2008) 45, 51.

[823] Criticism has been raised regarding the lack of sustainability criteria for solid biomass. Sustainability criteria for biomass fuel used for generating electricity or for heating and cooling should enter into force in 2021. *See* Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82, Article 29 as well as recitals 94 and 101. *See* also Report from the Commission to the Council and the European Parliament on sustainability requirements for the use of solid and gaseous biomass sources in electricity, heating and cooling, COM (2010) 66, 10.

On the basis of the discussion above, it may be concluded that EU Member States have the right to differentiate between renewables under free movement law. The EU Commission has even emphasized that more technology-specific supports are needed.[824] Interestingly, the Commission has with respect to the application of EU public procurement law occasionally still appeared to argue that Member States would not be justified in only promoting wind[825] or solar[826] energy. It is not evident why the approach to differentiation between renewables should be stricter under EU public procurement law than under EU free movement law. Public authorities have an obligation not to discriminate on the basis of origin as well as an obligation to treat bidders equally. Moreover, public authorities have broad discretion in defining what they wish to purchase. There should, however, be an objective reason for any criteria in the tender and the criteria much be proportional. It would not seem entirely impossible to, for example, make the case that awarding more points for companies who offer for wind power than those who offer solar power would survive those procurement law tests. Therefore, the reasons and legal arguments for the strict scrutiny of the design of renewable energy schemes under procurement law, as proposed by the Commission, remain unclear.

In conclusion, some important limits to state discretion stem from the tests on consistency with international science. Yet, with respect to the electricity sector those limits would not appear substantial due to the difficulty of comparing different effects and the general scientific uncertainty in the field. The same principles ought to apply also in the sector for heating and cooling. In general, under EU and WTO law states have a wide margin of discretion on what PPMs to support in the energy sector. Most measures would be upheld despite potential de facto discrimination. For EU Member States this means that they will retain significant flexibility with respect to designing national renewable support schemes in the electricity sector even if the ECJ at some

[824] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Energy 2020, A strategy for competitive, sustainable and secure energy, COM (2010) 639 final, 9. *See* also Angus Johnston et al., 'The Proposed New EU Renewables Directive: Interpretation, Problems and Prospects' (2008) European Energy and Environmental Law Rev. 126, 140-145.

[825] Interpretative communication of the Commission on the Community law applicable to public procurement and the possibilities for integrating environmental considerations into public procurement, COM (2001) 274 final, footnote 22.

[826] Green paper on the modernisation of EU public procurement policy – Towards a more efficient European Procurement Market, COM (2011) 15 final, 39.

point in time would reverse course and decide that de jure discriminatory support schemes for renewables elements in the electricity sector would no longer be justifiable.

3.1.8.5. The Transport Sector and Biofuels

In the transport sector liquid fuel is still currently more commonly relied on than electricity, biogas or natural gas. The EU, the U.S. and others promote sustainable biofuels over traditional fossil fuels in the transport sector. This has been done by drafting sustainability criteria that rank different production paths. The estimated emissions for different production paths depend on factors such as the specific biomass used and the chemical method applied in production. California's Low Carbon Fuel Standard (LCFS), which includes biofuels sustainability criteria, even takes into account in the sustainability calculations the distances for transporting biomass or fuel and the source of the electricity used in the production plant.

Current EU and U.S. biofuels schemes promote biofuels at the expense of fossil fuels. Moreover, the schemes strive to create additional incentives for producers to invest in second or later generation biofuels that have been produced with much lower GHG emissions than first generation biofuels. Schemes with these characteristics will likely not contradict international science. In contrast, promoting fossil fuels over second or later generation biofuels that can be produced with very low GHG emissions could constitute an example of measures that have no scientific support. In turn, when comparing the same broad class of natural resources – biomass – utilized for production of transport fuel the uncertainties with regards to the estimation of differences in environmental effects come to the fore. Yet, there is perhaps consensus within the scientific community that most second and later generation biofuels are better than first generation biofuels.

Much of the scientific uncertainty with respect to GHG emissions and sustainability in the biofuels sector relates to the emissions from indirect land-use change associated with first generation biofuels. Erixon has criticized EU's calculations of those emissions and their divergence from the results of other research. He has even gone so far as to suggest that the significant differences in the calculations of different researches illustrate a degree of unreliability and that the inclusion of indirect land use

change (ILUC) emissions in any legal criteria may therefore not be justifiable.[827] However, the uncertainty of the size of the effect should per se not be a valid reason to ignore it altogether.

Mitchell and Tran would accept criteria on land-use change provided that they are supported by scientific evidence.[828] This position does not contradict the applicable test of consistency with science. However, it is important that the requirement is not understood to mean that the criteria must comply with the view of any majority of the scientific community. Rather, some credible scientific support should be sufficient. The high degree of uncertainty on ILUC within a qualified international scientific community means that ILUC should survive the test on consistency with international science applicable under WTO law. Yet, even if this would suggest that states have discretion in making decisions on ILUC criteria, it should be emphasized that those criteria would still be subject to other tests under the proportionality review.[829]

3.1.9. Arbitrary Discrimination and Disguised Restrictions on Trade

The proportionality sensu stricto test was above concluded to generally not apply under GATT and EU free movement law. Yet, it was revealed that the test has never been outright rejected by panels and courts. What is more, there have in both jurisdictions been some indications that the test could potentially apply in some unspecified circumstances. Hence, it ought to be considered what kind of conditions might trigger a test of that character.

It is recalled that the chapeau of Article XX GATT is formed as a prohibition of arbitrary discrimination and disguised restrictions on trade. The ECJ has, on its part, rarely applied tests of arbitrary discrimination or disguised restrictions on trade. Therefore, some have even declared them dead letters in free movement law.[830] Yet, in

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[827] Fredrik Erixon, 'Biofuels Reform in the European Union: Why New ILUC Rules Will Reinforce the WTO Inconsistency of EU Biofuels Policy' (2013) ECIPE Occasional Paper (issue 3), 9-21.
[828] Andrew D. Mitchell and Christopher Tran, 'The Consistency of the EU Renewable Energy Directive with the WTO Agreements' (2009) Georgetown Business, Economics & Regulatory Law Research Paper No. 1485549, 9 (paras 30-31).
[829] *See* in particular section 4.1.4.3.
[830] Jukka Snell, *Goods and Services in EC Law: A Study of the Relationship Between the Freedoms* (OUP 2002) 181. For a discussion see Federico Ortino, *Basic Legal Instruments for the Liberalization of Trade: A Comparative Analysis of EC and WTO Law* (Hart 2004) 367, 428-432. The court has sometimes referred to arbitrary discrimination and disguised restrictions but in fact only applied the traditional tests of discrimination and justification. *See* joined cases C-1/90 and C-176/90 *Aragonesa de Publicidad Exterior SA and Publivía SAE v. Departamento de Sanidad y Seguridad Social de la Generalitat de Cataluña* [1991] ECR I-4151, paras 19-26.

some older case law the ECJ stated that measures principally affecting imported goods could constitute arbitrary discrimination.[831] In turn, a disguised restriction on trade occurs according to the ECJ when, even if the measure advances a justifiable objective, it is adopted for a discriminatory purpose.[832] These statements confirm that the tests may apply also under EU free movement law.

There is some room for the argument that a measure could prima facie form arbitrary discrimination or a disguised restriction on trade in case the effect is highly discriminatory and the approach to environmental protection, albeit supported by some credible international science, is still highly unorthodox. In addition, the test could in principle also capture cases where there are other strong indications of discriminatory purpose. Such indications could come in the form of official governmental statements. Any variation of tests of arbitrary discrimination or disguised restrictions on trade, with strong elements of proportionality sensu stricto, would undoubtedly be controversial, as explained in previous sections of this chapter.

It is submitted here that even if the tests of arbitrary discrimination or disguised restrictions on trade would include characteristics of proportionality sensu stricto, states should still be granted a right to present evidence of factors that overturn the prima facie presumption of disguised trade restrictions or arbitrary discrimination. As long as there is some credible international science supporting the reduction of externalities the measure could be upheld. The key question, that currently lacks any clear-cut answer, is whether the support from international science would need to be slightly more solid when the measure would be unorthodox, it would have significant discriminatory effects and/or there would exist dubious government statements on intent.

The tests of arbitrary discrimination and disguised restrictions on trade would perhaps be even more likely to be triggered in cases of policy inconsistency. In particular, the measure might be declared to be incompatible with trade law if the inconsistency is persistent and there, despite some international scientific support, still is much scientific uncertainty as to whether the measure advances the environmental objective. The approach would reinforce the idea of a close link between trade law and efficiency

[831] Case 152/78 *Commission v. France* [1980] ECR 2299, paras 17-19; Lorna Woods, *Free Movement of Goods and Services within the European Community* (Ashgate 2004) 112-113.
[832] Case 34/79 *Regina v. Maurice Donald Henn and John Frederick Ernest Darby* [1979] ECR 3795, paras 18-22; Lorna Woods, *Free Movement of Goods and Services within the European Community* (Ashgate 2004) 112-113.

because the measure could be struck down when there is reason to believe that another measure would be even more likely to reduce externalities and there are clear indications that the real intentions behind the design of the measure relate to protectionism. The risk of incompatibility with trade law would be further heightened if the discriminatory effects are significant or the government has released statements of discriminatory intent. If applicable, this test of arbitrary discrimination and disguised restrictions on trade would represent a holistic value balancing test.

Finally, assuming that the tests of arbitrary discrimination and disguised restrictions on trade would come into play in any of the scenarios described above, the question may arise as to whether the adopted measure in any case should be found compatible with trade law if the measure reflects the genuine environmental preferences of the people in the state adopting the measure. In case of indications of disguised protectionism, for example due to persistent policy inconsistency, official government statements or due to the combination of high discriminatory effects and an internationally unorthodox sustainability policy, the state could perhaps defend against claims of disguised restrictions on trade by submitting evidence on how it opted for the applied measure. In other words, whatever the nature of the test of disguised restrictions on trade, it could still include an analysis on how the adopted requirements were chosen. For example, a state that has adopted PPM-criteria, such as sustainability criteria for biofuels, could be transparent about how they balanced different values in order to arrive at the chosen sustainability model. It would in this context seem natural for the state to provide evidence that the adopted sustainability criteria are addressing externalities and that the criteria are representative of the public perception of sustainability. In other words, the criteria would be supported by consumers for environmental reasons and the implementation of the criteria would increase local utility. Whether this would be sufficient under any jurisdiction has never been confirmed.

There does not as such exist any requirement of transparency with respect to the process of how criteria are designed and chosen by a state. Nevertheless, in circumstances where strong indications of arbitrary discrimination or disguised restrictions on trade could arise, a state may do wisely in being transparent about its reasoning when designing PPM-criteria. Evidence on the motives is likely to be credible if the state already in the process of planning the adopted measure has gathered the data on national environmental preferences in order to support the measure. That way the state may

illustrate that the de facto discriminatory effects of its sustainability policies do not reflect any protectionist agenda when prioritizing elements of sustainability. What is more, encouraging such actions from states would simultaneously encourage states to strengthen the democratic legitimacy of the legislative process.

3.1.10. Beyond the Elimination of Negative Externalities

3.1.10.1. Environmentalism and Proportionality in Trade Law

States may rely on grounds of justification in order to justify measures designed to tackle externalities. In previous parts of this chapter it was argued that even measures with significant de facto discriminatory effects should as a rule be justifiable in case they represent the least restrictive method of achieving the pursued level of reduction in externalities. Equally, states should have the right to adopt a measure to address externalities even when the measure might simultaneously also serve some more protectionist objective, such as creating local jobs. In sum, there is a strong defense available under trade law for measures designed to tackle externaliies.

Could states justify de facto discriminatory measures that have been adopted to advance an environmental or social objective beyond the elimination of negative externalities? In principle, it could be argued that the proportionality review invites states to adopt measures that ensure an even higher level of protection than necessary for the elimination of externalities. The adopted measures could be the least restrictive measure for achieving such a high level of protection. The question is then whether some of the other tests introduced in this chapter restrict the possibility of an environmentalist agenda beyond the elimination of negative externalities.

The test on consistency – or lack thereof – with international science requires that the measure tackles real risks. In other words, the international science must support the existence of the problem. Moreover, there should be some scientific support for the adopted measure having positive and not detrimental effects with respect to the problem. The measure should at least according to some international science have the capability to spur development in the right direction. What is less clear, is whether the measure then can go beyond what according to an overwhelming majority of international scientists would be necessary for eliminating externalities.

It may be recalled that in *Danish Bottles*[833] the ECJ controversially rejected a national system of collecting bottles that would have ensured an exceptionally high rate of recycling. It is possible that the ECJ implicitly held the view that the system caused an economic burden on trade that was clearly excessive of the externalities that would have been avoided. Yet, the system that had been originally opted for by Denmark did not appear to have gone beyond the elimination of externalities.

Bundesdruckerei concerned the application of EU free movement law on public procurement.[834] In a tender for services the German city of Dortmund included a requirement that the bidders pay the German minimum wage also for work performed outside Germany. The ECJ recognized the need to protect against social dumping but concluded that the criterion was disproportional. The lower cost of living in other countries, such as Poland, did according to the court constitute a reason for why there was not a need for wages of the same standard.[835] This could be understood to have rested on the view that the German authority would not further any reduction of externalities with a requirement of a minimum pay that was disproportional to local costs of living.

All in all, the question of the justifiability of criteria that go beyond the elimination of externalities has not been explicitly dealt with in cases on GATT and EU free movement law. There is thus limited guidance on the topic. However, there is in particular in ECJ jurisprudence some indications that such criteria could be deemed disproportional.

3.1.10.2. Public Procurement as a Policy Tool

Although some uncertainty has existed in the past, it is today undisputable that under WTO law public authorities may in their tenders apply sustainability criteria that represent other than purely economic values.[836] McCrudden has used the term linkage to refer to the implementation of non-economic policies through sustainable public

[833] Case 302/86 *Commission v. Denmark* (Danish Bottles) [1988] ECR 4607.
[834] Case C-549/13 *Bundesdruckerei GmbH v. Stadt Dortmund*, ECLI:EU:C:2014:2235.
[835] *Id.* paras 31-34.
[836] Luca Tosoni, 'The Impact of the Revised WTO Government Procurement Agreement on the EU Procurement Rules from a Sustainability Perspective' (2013) European Procurement & Public Private Partnership Law Review 41, 46-47; Christopher McCrudden, *Buying Social Justice: Equality, Government Procurement and Legal Change* (OUP 2007) 486-487. Earlier some scholars have been more reluctant to interpret the GPA to cover non-economic criteria. *See* e.g. Christoph Spennemann, 'The WTO Agreement on Government Procurement: A Means of Furtherance of Human Rights?' (2001) Zeitschrift für Europarechtliche Studien 43, 60.

procurement. He advocates for an approach where procurement could be used also partly as a policy tool.[837] In this context it is important to identify potential limits to the use of procurement as a policy tool and to the implementation of non-economic values or policies.

Public authorities can introduce criteria with the objective of tackling externalities. Market failures create inefficiency and outcomes that can be regarded as unfair and the state is viewed to have a responsibility to deal with them in order to restore a fair balance. Exceptionally public authorities might plan to implement criteria that go beyond the elimination of externalities. In the environmental sphere criteria might even reflect the idea that the environment has fundamental value of its own regardless of how humans perceive its value in terms of utility. This type of criteria would go beyond both the elimination of externalities and maximizing utility. Moreover, some authorities may wish to implement social criteria that are more redistributive in nature. Those criteria would probably be adopted with a view on social fairness in mind. Redistribution can to a certain extent mitigate social externalities. However, of interest here are redistributive criteria that in the name of fairness go beyond the elimination of externalities. Such criteria do not increase welfare and might not even increase total utility.

Could the public authority then apply criteria that would go beyond the elimination of externalities? The public sector might be more likely than the private sector to adopt an agenda that stretches beyond the elimination of externalities. Emphasizing social and societal values in government market interventions can be important in securing legitimacy.[838] Perhaps the strongest argument for accepting social, environmental and other societal criteria beyond the elimination of externalities is more pragmatic. The calculation of the value of externalities tends to be subjective. It would therefore be hard to determine whether an authority has exceeded any boundaries in this respect. At most, a limitation could have practical effect when the sustainability is emphasized to

[837] Christopher McCrudden, 'Using Public Procurement to Achieve Social Outcomes' (2004) 28 Natural Resources Forum 257; Christopher McCrudden, *Buying Social Justice: Equality, Government Procurement and Legal Change* (OUP 2007).
[838] Karl Polanyi, *The Great Transformation* (Farrar & Rinehart 1944); John G. Ruggie, 'International Regimes, Transactions, and Change: Embedded Liberalism in the Postwar Economic Order' (1982) 36 International Organization 379.

such a degree that it is obvious that the intention has been to go beyond the elimination of externalities.

In turn, Priess and Pitschas have rejected the idea of criteria that cannot be assigned any economic value.[839] It could be argued that putting a very high emphasis on sustainability by implenting criteria that go beyond the elimination of externalities would reflect political choices. A rejection of redistributive sustainability policy in procurement could derive its theoretical justification from the view that purchasing public authorities should act as far as possible as market participants. The democratic legitimacy of regulative environmental or redistributive elements in procurement may be questioned on the ground that they would not be adopted through the ordinary legislative process involving the parliament. Public authorities that design sustainability criteria for procurement represent government administration and not the legislature.

Another argument against environmental and social criteria that do not address externalities can be formed by placing procurement in a broader legal context. A form of compensation above market value would occur if public authorities put an exceptionally high emphasis on environmentally or socially sustainable solutions. A prohibition on criteria that go beyond the elimination of externalities would restrict authorities from overcompensating bidders and would enhance coherence between procurement law and state aid legislation.

Apart from the more theoretical arguments, also legal texts give some indications of potential limitations to the use of PPM-criteria that would go beyond the elimination of externalities. This is in particular the case when it comes to the interpretation of the provisions on award criteria in the EU procurement directive. Under the EU procurement directive authorities should award the contract to the economically most advantageous bid.[840] The public authority shall define the specific award criteria it relies on to compares the bids. Criteria that address externalities add economic value. It could be argued that other non-economic criteria in turn may not be applied as award criteria because they do not add economic value. It may in this context also be noted

[839] Hans-Joachim Priess and Christian Pitschas, 'Secondary Criteria and their Compatibility with EC and WTO Procurement – The Case of the German Scientology Declaration' (2000) 9 Public Procurement Law Review 171, 190.
[840] Art. 67, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65.

that Article 68 of the EU procurement directive offers life-cycle costing as an option for the implementation of award criteria. The article on life-cycle costing refers merely to direct costs and externalities. It does not include the possibility to go beyond externalities in promoting sustainability.

Criteria on the sustainability of the PPM as part of award criteria was analysed by the ECJ in *Wienstrom*. The case concerned a tender by an Austrian authority that had decided to favour renewable energy. The weight of this element of sustainability was as high as 45 %. The ECJ applied the provisions of the procurement directive and concluded that the weight was not excessive in light of the importance of renewable energy.[841] This part of the ruling could be interpreted to suggest that the weight of sustainability criteria cannot be disproportional to the importance of the objective. The importance of the objective could in turn be defined as the value of the externality the authority aims to address. In some sense such test would put into question the environmental objective and would resemble a test of proportionality sensu stricto. Keeping in mind the controversial reception of such test in trade law it is hardly surprising that the court's phrasing in *Wienstrom* has been criticized.[842] Despite the criticism, the *Wienstrom* case on EU public procurement law gives some indication that criteria that go beyond the elimination of externalities may be problematic under the law as it stands today.

Wienstrom concerned award criteria that are used for comparing bids. In order to be compared bids must, however, correspond with the description of the goods or services in the call for tenders. The description of what the authority intends to purchase includes the technical specifications. In case criteria that reach beyond the elimination of externalities are prohibited as award criteria, it would seem logical that they may also not be applied as technical specifications. Otherwise an authority would face a situation where it could require that all bids comply with some strict environmental or social criteria but could not implement a model where complying with those same strict criteria would merely result in extra points in the comparison of bids.

[841] Case C-448/01 *EVN AG and Wienstrom GmbH v. Austria* [2003] ECR I-14527, para. 42.
[842] Sue Arrowsmith, 'Application of the EC Treaty and directives to horizontal policies: A Critical Review', in Sue Arrowsmith and Peter Kunzlik (eds.), *Social and Environmental Policies in EC Procurement Law* (CUP 2009) 243.

There may still be room for the argument that some criteria beyond the immediate reduction of externalities would be justifiable. Namely, it could be argued that a more long-term perspective should be opted for. Valuing new technologies at the rate they can reduce externalities today may underestimate their economic value in the long-term. For example, in the energy sector old traditional resources like coal, gas and oil may benefit from their deep integration in the system and the infrastructure of the sector.[843] In these circumstances it may be necessary to promote technologies for renewable energy beyond their current benefits in terms of the reduction of externalities so that the most sustainable solutions can overcome current market barriers. A high emphasis on environmental criteria could spur new investments and consequently new innovations in the field of environmental protection.[844] That in turn could help unlocking the full potential of sustainable PPMs and consequently increase future welfare and utility. In sum, the long-term elimination of externalities may be accelerated by criteria that go beyond the elimination of externalities at the time of implementation and such criteria may therefore be justifiable.

On a final note, it would be difficult to uphold limitations on criteria that go beyond the elimination of externalities in case states have the right to adopt some criteria with reference to the objective of maximizing utility. Therefore, it must be emphasized that the discussion above on sustainability criteria that go beyond the elimination of externalities has rested on the assumption that the rules on public procurement as well as the grounds of justification in trade law centre around welfare and not utility. Although there are good reasons for this assumption, it can still be questioned. The complex relationship between the objective of maximizing welfare and the objective of maximizing utility will be examined more in detail in chapter 6.

3.1.11. Conferring Powers

Some scholars examining EU free movement law have identified a trend toward a more strict or intese proportionality review.[845] In contrast, other previous research has found

[843] Carl Pope, 'World-Wide Effort on Clean Energy is What's Needed, Not a Carbon Price', *Inside Climate News* (17 Nov. 2014) <http://insideclimatenews.org/news/20141117/worldwide-effort-clean-energy-whats-needed-not-carbon-price> accessed 20 April 2016.
[844] Katriina Parikka-Alhola and Ari Nissinen, 'Environmental Impacts and the Most Economically Advantageous Tender in Public Procurement' (2012) 12 Journal of Public Procurement 43, 68.
[845] Catherine Barnard, 'Derogations, Justifications and the Four Freedoms: Is State Interest Really Protected?', in Catherine Barnard and Okeoghene Odudu, *The Outer Limits of European Union Law* (Hart 2009) 295.

that the ECJ in its application of the proportionality review has relaxed the review to find in favor of the party that adopted the environmental regulation on the grounds that the proposed alternative measure might not guarantee the same level of environmental protection.[846] This part of the book formed an attempt to map the current level of intensity.

Intense tests confer (too) much power to the EU. The above analysis of PPM-criteria revealed that intensity in the suitability test and the least restrictive measure test, which apply within the proportionality review of both EU free movement law and WTO law, could in certain exceptional circumstances create unwanted bias. Yet, a very deferential approach toward state measures by courts and other dispute resolution institutions in their application of classic tests of suitability and necessity could in turn deprive the proportionality review of its power. This underlines the importance of other tests within the proportionality review. Namely, proportionality tests beyond the suitability test and the least restrictive measure test may limit what type of criteria can be adopted.

Various types of consistency tests have figured in the discussion on proportionality. For example, under a policy consistency test a state would struggle to defend a decision to apply certain otherwise justifiable criteria only in sectors where those criteria favor the in-state industry. It was concluded that there has not been any definite clarity with respect to the applicability of a policy consistency test. In turn, the respective versions of the test on consistency with international science has been recognized in WTO law and EU free movement law. These tests give force to the proportionality principle even if there would be cases where the more traditional tests of suitability and least restrictive measure would not set out an intense review of state measures but would instead take a more deferential form. However, only measures that can be shown to be inconsistent with international science have been condemned. In both jurisdictions the tests have been applied so that they allow for flexibility under scientific uncertainty. This approach takes into account the concerns of scholars who argue that in reviewing state measures relating to public health and environmental protection courts should adopt a precautionary approach under scientific uncertainty and that it may be seen as a less severe mistake to allow a few too many protectionist measures than to strike down too

[846] Charles Poncelet, 'Free Movement of Goods and Environmental Protection in EU Law: A Troubled Relationship?' (2013) 15 International Community Law Review 171, 196-198.

many measures of legitimate environmental protection.[847] Despite the threshold for finding inconsistency having been fairly high, the tests still sets important limits for the design of PPM-criteria and other environmental criteria. Admittedly, difficult cases will emerge. For example, it is far from evident how inconsistency should be assessed when a state bans nuclear power.

Despite allowing for flexibility under scientific uncertainty, the application of the tests relating to consistency with international science still indicate that states that are part of a free trade regime also inevitably confer some power with respect to defining legitimate objectives, such as environmental protection, to a higher international level. States that are part of a common free trade regime will need to accept a common view at least when there is very strong scientific consensus. This would likely be the case when it comes to core elements of what is sustainable and environmentally desirable. A state that diverges from the international scientific consensus will struggle to defend its measure when it is put under trade law scrutiny.

The test of proportionality sensu stricto was explored as another potential approach. Such test would mean that a significant amount of power would be conferred to a higher level of decision-making. While inconsistency with international science was identified as a crucial test for proportionality in EU and WTO law, proportionality sensu stricto has not gained much foothold. Interestingly, the test of proportionality sensu stricto relies on a comparison of the burden and the benefits of the measure and an uncertain benefit could be viewed as a limited benefit. In case of proportionality sensu stricto, scientific uncertainty would thus work to the disadvantage of the state trying to justify its measure. The ECJ, for example, has in cases of scientific uncertainty opted for a more flexible approach.[848] That fact would further indicate the rejection of a strict test of proportionality sensu stricto.

Although proportionality sensu stricto has generally been rejected, some exceptional cases still illustrate how measures have been struck down as disproportional when they place an unorthodox weight on environmental or social sustainability. It may be that

[847] Nicolas de Sadeleer, *Environmental Law and the Internal Market* (OUP 2014) 384-385; Aaron Cosbey and Petros C. Mavroidis, 'Heavy Fuel: Trade and Environment in the GATT/WTO Case Law' (2014) 23 Review of European, Comparative & International Environmental Law 288.
[848] Case 174/82 *Criminal proceedings against Sandoz BV* [1983] ECR 2445, para. 16; Case 97/83 *Criminal proceedings against CMC Melkunie BV* [1984] ECR 2367, para. 18; Case 178/84 *Commission v. Germany (German Beer)* [1987] ECR 1227, para. 41.

measures clearly pushing an agenda beyond the elimination of externalities are deemed disproportional even when the state adopting the measure views it as increasing utility. A rejection of criteria that do not tackle externalities or add economic value in any other way would be in line with an efficiency rationale.

Finally, it cannot be excluded that some other test could introduce further limits to state discretion. For example, the content of the test of disguised restrictions on trade has remained diffuse. Perhaps statements of discriminatory purpose, policy inconsistency and high levels of discriminatory effect could form indicators of a disguised restriction. Even if such test would be opted for, states could make the case that measures designed on the basis of a transparent process of estimating externalities should be found proportional and justifiable. Such interpretation would advance efficiency in the sense that states could be aggressive in tackling externalities even when the strategy also advances the interests of the in-state economy, results in high levels of discriminatory effect or is part of a test phase during which criteria are applied in one sector before similar criteria are designed for other sectors.

In conclusion, the proportionality review has gained some teeth from tests relating to consistency with international science. In contrast, policy consistency tests and proportionality sensu stricto have rarely been applied. Yet, there have been some indications of those form of tests. It was submitted that if either test would gain more ground, in particular in the form of a test on disguised restrictions on trade, the intrusiveness of the test could be somewhat restrained by granting states the right to defend their internationally or domestically unusual measure with reference to a genuine and credible evaluation of externalities.

3.2. Proportionality Under the Dormant Commerce Clause

3.2.1. A System of Two Paths

The proportionality review under the dormant Commerce Clause differs considerably depending on whether there is de jure or de facto discrimination in the case at hand. There are in other words two different proportionality tests. The fact that the nature of the discrimination has a significant impact on the structure of the proportionality review sets the dormant Commerce Clause apart from EU free movement law and the GATT.

It may be recalled that measures with a de facto discriminatory effect are normally concluded by U.S. courts to be prima facie prohibited because they place an undue

burden on inter-state commerce. De facto discriminatory measures can still be justified if they serve a legitimate objective and are proportional. Under the dormant Commerce Clause both the definition of grounds of justification and the proportionality principle are incorporated in a test referred to as the Pike balancing test. Under the Pike balancing test, a measure is proportional unless the burden on interstate commerce is clearly excessive in relation to its putative local benefits.[849] A clearly excessive burden will exist if the measure unreasonably favours the local industry.[850] The analysis of whether the measure is within the limits of reasonable action calls for balancing the harm on interstate commerce with the benefits on, for example, health and environment. Even when there is a clear burden on interstate trade in the form of de facto discriminatory effect, the court may conclude that it is outweighed by the benefits.[851]

It was described in the first section of this chapter how the proportionality reviews in EU and WTO law have traditionally been built around the test of suitability and the test of least restrictive measure. As will be illustrated in this second section of the chapter, under the Pike balancing test there is less emphasis on identifying less restrictive alternative measures and more emphasis on holistic value balancing.

The U.S. system is peculiar in the sense that a different proportionality test applies to facially discriminatory measures. In case of facial discrimination, which can roughly be equated to de jure discrimination, the measure is disproportionate under the U.S. dormant Commerce Clause unless there are no other less discriminatory means to 'adequately' achieve the legitimate objective.[852] It has, however, occasionally also been stated that the alternative would need to protect the objective 'as well'.[853]

The strict scrutiny test under the dormant Commerce Clause strongly resembles the necessity test applied in EU free movement law, which relies on an analysis of least restrictive measure. De jure discrimination will almost never be necessary because the same objective can be achieved by merely eliminating the de jure discriminatory

[849] Pike v. Bruce Church, Inc., 397 U.S. 137, 142 (1970).
[850] Shamrock Farms Co. v. Veneman, 146 F.3d 1177, 1179 (9th Cir. 1998).
[851] Minnesota v. Clover Leaf Creamery Co, 449 U.S. 456 (1981). This same test could save RPSs. *See* Anne Havemann, 'Surviving the Commerce Clause: How Maryland Can Square Its Renewable Energy Laws with the Federal Constitution' (2005) 71 Maryland L. Rev. 848, 881.
[852] Dean Milk Co. v. City of Madison, Wisconsin, 340 U.S. 349, 354 (1951); Oregon Waste Systems, Inc. v. Department of Environmental Quality of Oregon, 511 U.S. 93, 101 (1994); Hughes v. Oklahoma, 441 U.S. 322, 336 (1979); Hunt v. Washington State Apple Advertising Commission, 432 U.S. 333, 353 (1977); Maine v. Taylor, 477 U.S. 131, 147 (1986).
[853] *See* Maine v. Taylor, 477 U.S. 131, 138 (1986).

elements from the measure.[854] The courts have applied a scrutiny so strict that measures are virtually per se invalid.[855] There are barely any cases where a de jure discriminatory measure would have survived strict scrutiny.

The strict scrutiny test may in principle also apply in case a measure has either significant discriminatory effects[856] or reflects a discriminatory purpose[857]. It may thus apply in some cases of de facto discrimination.[858] The application of the tests for determining whether strict scrutiny should apply instead of Pike balancing have, however, not been fully coherent.[859]

This second section of the chapter will provide an overview of proportionality under the U.S. dormant Commerce Clause. It will be examined how the different elements of the Pike balancing test and strict scrutiny should be interpreted. The objective is twofold. First, it is of interest whether the proportionality review might face similar challenges as those already identified in previous sections on the EU and the WTO. In particular, does the Pike balancing test include elements of proportionality sensu stricto, has it been crafted and applied in a manner that grants states a similar flexibility under scientific uncertainty as the proportionality review under EU and WTO law and finally, does it allow for any risks of state market power bias when applied to review PPM-criteria? Secondly, it is of equal interest whether the U.S. proportionality review, with a system of two different proportionality tests, will face some challenges that are unique to it.

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[854] On cases where de jure discrimination may be justified *see* section 1.4.3.2.
[855] Dean Milk Co. v. City of Madison, Wisconsin, 340 U.S. 349 (1951); Hunt v. Washington State Apple Advertising Commission, 432 U.S. 333 (1977); Maine v. Taylor, 477 U.S. 131 (1986). *See* also City of Philadelphia v. New Jersey, 437 U.S. 617, 624 (1978) ("…where simple economic protectionism is effected by state legislation, a virtually *per se* rule of invalidity has been erected. […] The clearest example of such legislation is a law that overtly blocks the flow of interstate commerce at a State's borders."). In that case the Supreme Court declared that the risks from in-state and imported waste were identical and did not find any justifiable reason to treat them differently.
[856] Brown-Forman Distillers Corp. v. New York State Liquor Authority, 476 U.S. 573, 579 (1986).
[857] The court will look on indicators such as language and preparatory works. *See* Perry v. Commerce Loan Co., 383 U.S. 392, 400 (1966); Bacchus Imports, Ltd. v. Dias, 468 U.S. 263, 270-271 (1984); Sporhase v. Nebraska ex rel. Douglas, 458 U.S. 941, 960 (1982); Minnesota v. Clover Leaf Creamery Co., 449 U.S. 456, 463 fn 7 (1981).
[858] Laurence H. Tribe, *American Constitutional Law* (3rd ed., Foundation Press 1999) 1073 (fn 38); Dan T. Coenen, *Constitutional Law: The Commerce Clause* (Foundation Press 2004) 220-221; Michael E. Smith, 'State Discriminations Against Interstate Commerce' (1986) 74 California L. Rev. 1203, 1243-1250; Jennifer L. Larsen, 'Discrimination in the Dormant Commerce Clause' (2004) 49 South Dakota L. Rev. 844. *See* also Bacchus Imports, Ltd. v. Dias, 468 U.S. 263 (1984).
[859] Puppies 'N Love et al. v. City of Phoenix, 116 F. Supp. 3d 971 (D. Ariz. 2015) at *9.

3.2.2. The Pike Balancing Test

3.2.2.1. The Suitability of a Measure to Serve a Legitimate Objective

In cases of even-handed regulations that burden inter-state commerce only incidentally, U.S. courts apply the Pike balancing test. These are the cases that in EU and WTO law normally are characterized as cases of de facto discrimination. Under the dormant Commerce Clause, the measure is proportionate as long as the burden on commerce is not clearly excessive of the benefit.[860] The Pike balancing test is a test under which two components are compared with one another. To put it differently, one component is balanced against another. On one side, there is the burden on interstate commerce. On the other side there are the environmental, social or other justifiable benefits. Pike balancing is thus a very different proportionality review than the strict scrutiny applicable in cases of facial discrimination.

The Pike balancing test might appear to be quite different from what is applied in EU and WTO law, but it still includes a consideration of suitability. In principle, each state has the right to choose its level of environmental protection in areas of no federal pre-emption. The argument for this form of flexibility is reflected in statements on the valuable function of states as laboratories for finding new solutions to common problems.[861] States are, however, not completely free to define what environmental protection or any other legitimate objective may entail or what constitutes suitable means to achieve it. For example, Wisconsin had banned long trucks on its roads with reference to safety concerns. The Supreme Court concluded that with shorter trucks there would be more vehicles on the roads and that it was too uncertain that the law would create any safety benefits.[862]

How uncertain is too uncertain? The measure has served a legitimate objective when there have been conflicting evidence with respect to the benefits of the measure[863] and even when there were substantial uncertainties surrounded the effects that the measure aimed to protect against.[864] In addition, the Supreme Court has stated that it is sufficient

[860] Pike v. Bruce Church, Inc., 397 U.S. 137, 142 (1970).
[861] *See* e.g. New State Ice v. Liebmann, 285 U.S. 262 (1932), Justice Brandeis dissenting.
[862] *See* Raymond Motor Transportation, Inc. v. Rice, 434 U.S. 429 (1978). *See* also Kassel v. Consolidated Freightways Corp., 450 U.S. 662 (1981).
[863] Minnesota v. Clover Leaf Creamery Co., 449 U.S. 456 (1981).
[864] Maine v. Taylor, 477 U.S. 131, 142-143 (1986). A legitimate objective existed to adopt a ban the import of baitfish because the effects were unpredictable and surrounded by substantial uncertainties.

that a measure advances or at least slightly contributes to the legitimate objective.[865] The threshold for suitability implies a significant tolerance for states taking action under uncertainties. Yet, the added value of a measure may not be too speculative.[866]

The case law would generally suggest that the measure must be expected to have an effect with some, often unspecified, probability. Hence, the test of suitability would roughly correspond with the same test under EU and WTO law. Still, there is some room for making the case that a more deferential review applies in the U.S. in the sense that states would be given broader discretion in designing their measures. The concept of 'advancing' an objective used by the courts could be given a broad meaning. This is what appeared to have been the case in *Minnesota v. Clover Leaf Creamery*, where the court declared that the focus should be on what the state is actually trying to achieve.[867] This would support the argument that it is sufficient that the measure is logically capable of advancing the objective that the state aims to achieve. The approach may be contrasted with the view of one WTO panel, which stated that a measure by one state striving for sustainability was not justifiable when its effectiveness was dependent on also other states taking action.[868] Given that the U.S. is a much more homogenous coalition of states than the WTO, it would admittedly appear counter-intuitive that the U.S. would adopt the most deferential approach to suitability.

All in all, as in the case of EU and WTO law, also under the dormant Commerce Clause there have been indications of a requirement of expected effect of the measure, but also signs of inconsistency in the application of the test.

3.2.2.2. The Burden on Interstate Commerce

The suitability test described above has in practice by courts not been applied as a separate step in the proportionality review. Instead, it has been integrated into the more holistic balancing exercise. To fully appreciate the dynamics of the Pike balancing test it is crucial to establish how the two components are defined. I shall begin with the burden on interstate commerce.

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[865] Massachusetts v. Environmental Protection Agency, 549 U.S. 497, 522-526 (2007); Oregon Waste Systems, Inc. v. Department of Environmental Quality of Oregon, 511 U.S. 93, 100-101 (1994); New Energy Co. v. Limbach, 486 U.S. 269, 278 (1988).
[866] Edgar v. MITE Corp., 457 U.S. 624, 645 (1982).
[867] Minnesota v. Clover Leaf Creamery Co., 449 U.S. 456, 471 (1981)
[868] US – Restrictions on Imports of Tuna, DS29, Panel Report, 16 June 1994 (US – Tuna, EC) (unadopted), paras 5.22-27.

A Renewable Portfolio Standard (RPS) with its quotas for electricity from renewables and a Low-Carbon Fuel Standard (LCFS) with a limit on the average carbon-intensity of fuels both promote cleaner PPMs in the energy sector. They are, however, even without any in-state or other geographical criteria, detrimental to states with a high market share in fossil fuels. They may thus not only restrict trade in the sense that all parties must comply with certain PPM-criteria, but they may also have discriminatory effects. Several scholars have stated that the burden on interstate trade of, for example, a RPS scheme would often still be fairly limited.[869] But what really determines the magnitude of the burden? Unfortunately, the Supreme Court has never been all too specific on that account.

The contemporary design of the dormant Commerce Clause is dedicated to the elimination of protectionism or discrimination. Some scholars have argued that the purpose of Pike balancing is to capture protectionist purpose.[870] Linking the test to discriminatory intent would suggest that discrimination is a pivotal factor in determining the magnitude of the trade burden.

Discrimination and protectionism occur when a state favours its local production.[871] The effect is generally a change in market shares. The concept of undue burden on interstate trade has frequently been linked to cases when less favourable treatment of imports allows domestic production to gain market share.[872] Consequently, the burden on interstate trade in Pike balancing could be assessed with reference to the expected change in the conditions on the market resulting in an increased in-state market share. The test would capture not only the economic disadvantage to some parts of the out-of-state industry, but also add into the equation that some out-of-state operators might in fact have benefited.[873] In short, the burden would often be high when the favoured PPM

[869] Patrick Zomer, Note, 'The Carbon Boarder War: Minnesota, North Dakota, and the Dormant Commerce Clause' (2010) 8 U. St. Thomas L. J. 60, 81-83; Steven Ferrey, 'Sustainable Energy, Environmental Policy, and States' Rights: Discerning the Energy Future Through the Eye of the Dormant Commerce Clause' (2004) 12 N.Y.U. Environmental L. J. 507, 603. *See* also Nathan Endrud, 'State Renewable Portfolio Standards: Their Continued Validity and Relevance in Light of the Dormant Commerce Clause, the Supremacy Clause, and Possible Federal Legislation' (2008) 45 Harvard Journal on Legislation 259, 271-272. Endrud highlights the fact that transmission capacity restraints will in any case keep levels of cross-border trade at low levels.

[870] Donald H. Regan, 'The Supreme Court and State Protectionism: Making Sense of the Dormant Commerce Clause' (1986) 84 Michigan L. Rev. 1091, 1092. *See* also Alliance for Clean Coal v. Miller, 44 F.3d 591, 593-597 (7th Cir. 1995).

[871] Donald H. Regan, 'The Supreme Court and State Protectionism: Making Sense of the Dormant Commerce Clause' (1986) 84 Michigan L. Rev. 1091, 1092-1095.

[872] *See* section 1.3.2.2.

[873] Dan T. Coenen, *Constitutional Law: The Commerce Clause* (Foundation Press 2004) 282-283.

is a segment of the industry where in-state companies either have a high share or at least high potential due to competitive advantages.

Coenen has argued that the burden should be defined as a cost and not as a degree of discrimination.[874] It is not fully obvious as to whether this represents a different approach. Discrimination results in changes in market shares and a decrease in volumes of imports (cross-border trade). There would be lower levels of specialisation exploiting local comparative advantages and this has a cost. However, Coenen might have meant something different. Namely, the nature of the test on burden changes significantly if the level of burden is defined as the estimated total costs that the measure has on trade irrespective of its effects on changes in market shares and patterns of cross-border trade. Such approach would reflect a broader interpretation of the objectives of a free trade regime. In that sense, such test would appear more in line with law of prohibition extending beyond mere tests of discrimination and covering, for example, some forms of non-discriminatory market access hinders. The argument for this perception of a burden is weakened by the fact that normally no such market access test has been applied under the dormant Commerce Clause. Discrimination as the basis of estimating the burden would therefore appear as the more convincing approach.

Havemann argues that the burden of a RPS would usually be fairly low.[875] In general, the fact that renewables can be exploited to a decent degree in most states should limit the burden created by measures linked to the energy transition, although there are of course some states unusually rich in gas or oil, which may lose even significant market share. The impact of a measure will likely be greater if only a narrow category of renewables is favoured or if there is a full ban on some PPMs instead of merely promoting other PPMs through a RPS. In the U.S. many states have adopted a RPS for the electricity sector. The burden on interstate commerce and thus also the proportionality of a RPS would not only depend on which types of renewables it covers. The geographical scope of the scheme could equally have implications.

A few things must be emphasized with respect to the burden on commerce created by RPSs. A state might stipulate that RECs are granted only if the electricity comes from a plant in a state that is interconnected to the grid of the state granting the credits. Under

[874] *Ibid.*
[875] Anne Havemann, 'Surviving the Commerce Clause: How Maryland Can Square Its Renewable Energy Laws with the Federal Constitution' (2012) 71 Maryland L. Rev 848, 879.

such RPS the electricity receiving beneficial treatment in the form of RECs could at least in theory always be delivered to the state granting the credits. It could be argued that the interconnection requirement that results in the rejection of a benefit to power suppliers that cannot deliver power to the state market does not create a burden on interstate trade. Namely, power without transmission access cannot compete on the market of the state that has adopted the RPS in question. The companies that have been denied RECs have not lost any market share on the market of the state that adopted the RPS. The requirement would thus have good chances to survive the Pike balancing test.

A state might fear that the interconnection requirement is insufficient to ensure the stability of the scheme. As an alternative to the interconnection requirement, the state could require that for receiving RECs the electricity must have actually been delivered to the state. Again, it could be claimed that companies of a state that do not deliver to the market of the regulating state cannot be discriminated on that market. However, there is the possibility that as a consequence of the RPS companies generating energy from renewables in-state strengthen their position on the domestic market to such an extent that they develop significant exporting capacity and thus become enabled to take market share from out-of-state energy companies. Importantly, under a delivery requirement all electricity from in-state qualifying plants relying on renewable resources would receive the benefits while out-of-state plants that despite the interconnection do not delivery would be left without the benefits. In other words, the requirement would create an in-state advantage directly linked to the geographical origin. Hence, it could be viewed as the type of de jure or facial discrimination that would trigger strict scrutiny instead of the more lenient Pike balancing test. At the very least, the burden on interstate trade would likely be established as significant.[876]

While an interconnection requirement might not increase the burden of a RPS on interstate trade, a delivery requirement could do so significantly. Instead of an interconnection or a delivery requirement states could decide to only grant RECs if it is confirmed that the electricity generated from renewables has been consumed within the state that grants the RECs. This model would on the one hand make it more difficult for producers to receive RECs but would on the other hand not automatically benefit the in-state industry in the way that a delivery requirement would. Under a consumption

[876] The model might still be preferred over a complete denial of RECs to any out-of-state production.

requirement RECs would not be granted to in-state exported production, out-of-state production that is not delivered to the state with the scheme and out-of-state production that is delivered but directly re-exported. Although a case-by-case analysis would be necessary, it seems likely that the scheme with a consumption requirement would have de facto discriminatory effects. In comparison to a delivery requirement the burden on interstate commerce of the consumption requirement would be lower with with respect to discriminatory effects on imports to the regulating state but would at the same time be higher with respect to the effects on exports from the regulating state. Namely, the consumption requirement model would deter companies from exporting power from the regulating state. All this makes it difficult to determine which model has a more severe burden on interstate commerce. While it might be that the consumption requirement places a less heavy burden, the conclusion on whether it would form a reasonable alternative would still depend on the mechanisms for verifying whether electricity from renewables has been consumed in-state or whether it was exported. Such verification may be difficult. Hence, if the interconnection requirement does not provide sufficient stability states may end up with a delivery requirement after all.

3.2.2.3. The Benefits

The starting point in an assessment of the benefit ought to be the legitimate objective. For example, in cases on sustainable PPMs, it would often be the protection of the environment. The magnitude of the benefit depends on its importance and the degree to which it is advanced.[877] Public health and safety have traditionally been regarded as strong grounds of justification.[878] Thus, even small advancements may be considered significant benefits. This principle should apply also for many forms of environmental protection, in particular because of its close link to public health.

More generally, how is an objective established to form a strong ground of justification with significant weight in terms of benefit? Determining the benefit is partly a question of scientific uncertainty as to the effects 8and externalities), but also quite simply a question of preferences. The value of biodiversity loss, social inequality and climate change may vary depending on local preferences. Whose preferences matter and how does scientific uncertainty affect the Pike balancing test?

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[877] John E. Nowak and Ronald D. Rotunda, *Principles of Constitutional Law* (4th ed., West 2010) 170.
[878] Laurence H. Tribe, *American Constitutional Law* (3rd ed., Foundation Press 1999) 1100; Dan T. Coenen, *Constitutional Law: The Commerce Clause* (Foundation Press 2004) 278-279.

In case federal law already to some extent guarantees protection, the relevant benefit of the state measure would only be the additional benefit it provides.[879] The question then turns to whether it is federal or state preferences that determine exactly how much additional benefit the state measure will bring. In a series of cases on rail and road safety, the Supreme Court concluded that although safety was a legitimate objective, the measure adopted by the states might not have advanced the objective at all or would at most create minimal benefit.[880] In other words, the benefit was too small with a too significant likelihood. The whole probability distribution of the potential benefit may be considered. Importantly, the cases seem to suggest that the Court adopts a federal perspective when determining the level of benefits measures create.

The cases on transport safety confirmed that the courts may question the state definition of the benefit at least in some respect. Justice Brennan has argued that the Court should still not second-guess the benefit as declared by the state unless it is illusory.[881] However, if the court could re-examine whether the measure produces no benefit, it should also logically have the power to conclude that the benefit is very insignificant or to some other degree lower than what the state claims.

States adopt safety regulations for the transport sector in order to reduce the number accidents and a benefit will exist in case causality can be established between the measure and the accident risk. The uncertainty surrounding the magnitude, or even the existence, of the claimed benefit relates to something that could in theory be measured and verified objectively with statistics. Thus, an argument for flexibility in terms of state level discretion would hardly have been convincing in the context of the transport safety cases.

The benefit analysis in the energy sector is multidimensional and more complex than in the transport safety cases. There is no objective manner to establish which PPMs deliver the environmentally (or socially) optimal aggregate outcome. Thus, in this context with more scientific uncertainty there would in principle exist more reason to

[879] Dan T. Coenen, *Constitutional Law: The Commerce Clause* (Foundation Press 2004) 283-284. Of course, in case of preemption by federal law the questions of justification and benefits would never even arise.
[880] Bibb v. Navajo Freight Lines, Inc., 359 U.S. 520 (1959); Southern Pacific Co. v. Arizona, 325 U.S. 761 (1945); Raymond Motor Transportation, Inc. v. Rice, 434 U.S. 429 (1978); Kassel v. Consolidated Freightways Corp., 450 U.S. 662 (1981).
[881] Justice Brennan (with whom Justice Marshall joins) concurring in Kassel v. Consolidated Freightways Corp., 450 U.S. 662, 679, 686 (1981).

grant some degree of state-level flexibility. A flexible approach would also provide states with greater prospects to perform their tasks as laboratories of democracy.[882]

The balance between state-level flexibility and federal control could be struck in many ways. It is clear that states should not have full freedom to determine the benefit as it could result in states implementing measures that promote environmental protection in a very narrow sense and that way abuse the grounds of justification. Consistency[883] with the findings of international or American scientists could play a part in estimating the level of the benefits.

The higher the uncertainty of the benefits in terms of a greater divergence of the policy from common federal or internationally policy and science, the more difficult it will be for the benefit to outweigh negative effects on interstate trade. It is less obvious how much weight should be given to genuine and bona fide determined preferences of the state population when estimating the magnitude of the benefit. In case genuine state sustainability preferences are paid respect to by the courts, they will likely find that a wide range of measures with PPM-criteria create benefits, even if some of the measures will be controversial from a federal (and perhaps international) perspective. This still remains to be seen.

Another question that still awaits to be confirmed by courts is whether in the application of the Pike balancing test the burden on interstate commerce should be balanced against the sum of all non-trade benefits or against the net amount of non-trade benefits. Namely, a measure that, in some way, serves a legitimate objective, such as environmental protection might have effects that are at the same time positive and negative to different aspects of that objective. While courts are rarely quite explicit on this point, determining net benefits should form a preliminary step in balancing values under the Pike test. It is in other words argued that benefits for the legitimate objective should in the application of the Pike balancing test be understood as net benefits.[884]

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[882] On the idea of states being laboratories of democracy *see* New State Ice Co. v. Liebmann, 285 U.S. 262, 311 (1932), Justice Brandeis dissenting; Gonzales v. Reich, 545 U.S. 1, 42-43 (2005) (Justice O'Connor dissenting, joined by Justice Rehnquist and Justice Thomas). *See* also Robert B. McKinstry Jr., 'Laboratories for Local Solutions for Global Problems: State, Local and Private Leadership in Developing Strategies to Mitigate the Causes and Effects of Climate Change' (2004) 12 Penn State Environmental L. Rev. 15.

[883] This should not be confused with the test of inconsistency which has applied under the U.S. dormant Commerce Clause for the purposes of striking down de jure discrimination. *See* Dan T. Coenen, *Constitutional Law: The Commerce Clause* (Foundation Press 2004) 289-290.

[884] Southern Pacific Co. v. Arizona, 325 U.S. 761 (1945). In the case the Supreme Court took into account both factors that would increase and decrease accident risks of trains.

This approach would not only limit the risks of hidden protectionism but would also constitute a reasonable rule from a sustainability perspective.

How should benefits then be estimated for measures in the energy sector? In the field of energy, GHG emissions are particularly relevant. GHG emissions are released at the phases of extraction of raw material, processing, transportation, manufacturing of equipment, use of final product and disposal. Some have even presented the view that high emissions of GHG's dominate all climate effects.[885] Global warming might cause several detrimental effects on the environment and the health of humans. Changes in the climate can cause extreme weather, flooding, droughts and water shortages.[886] Global warming caused by an increase in GHG emissions could also harm ecosystems and reduce biodiversity.[887] The changes might also increase the risk of diseases and pose a threat to agriculture. The total impacts of global warming are complex and difficult to predict.

GHG emissions are problematic because the increase in concentration is so rapid that the world cannot adapt.[888] In other words, climate change has become a problem as the ability of the world to absorb carbon dioxide is consumed too fast.[889] Zero GHG emissions might still not be necessary, or even ideal, because the world has a natural ability to absorb some emissions. Consequently, the marginal benefit of reduced GHG emissions will be lower when total emissions are reduced.

While high levels of GHG emissions can be attributed to fossil fuels, renewables are also not fully emissions free. Emissions will likely occur at the stage of production of the equipment and the facilities necessary for renewable energy. Renewables, such as wind power and hydropower, may also disturb the ecosystem, although in the aggregate the effects seem less severe. [890] Further supporting the conclusion that renewables are better for the environment than fossil fuels, is the fact that coal mine explosions and oil

[885] Thomas R. Karl and Kevin E. Trenberth, 'Modern Global Climate Change' (2003) 302 Science 1719, 1720.
[886] Climate Action Team, Biennial Report, State of California (2010).
[887] Intergovernmental Panel on Climate Change, Climate Change 2007: Synthesis Report, Summary for Policy Makers, Observed Changes in Climate and Their Effects (2007).
[888] David R. Hodas, 'State Law Responses to Global Warming: Is It Constitutional to Think Globally and Act Locally?' (2003) 21 Pace Environmental L. Rev. 53, 60.
[889] Karl S. Coplan, 'The Intercivilizational Inequities of Nuclear Power Weighed Against the Intergenerational Inequities of Carbon Based Energy' (2006) 17 Fordham Environmental L. Rev. 227, 228-229.
[890] Steven Ferrey, 'Power Future' (2005) 15 Duke Environmental Law & Policy Forum 261, 274.

leaks from e.g. tankers are environmental disasters that, even if rare, take place from time to time.[891]

Similarly as with renewables, the GHG emissions from nuclear power are negligible. Yet, like in the case of solar power, hazardous waste is generated from the operations. In the short and medium term, nuclear waste is more hazardous, but the extremely long-term accumulation of waste is more difficult to compare. A further risk associated with nuclear power is that of an accident. Nuclear accidents like Tshernobyl and Fukushima cause ecological disasters. The probability of an accident is still relatively small.

The environmental effects of various PPMs in the field of energy, in particular between nuclear fission and other options, are difficult to compare and preferences vary greatly. The fact that environmental harm often comes with a significant delay, especially in the case of climate change, adds further complexity. As if it was not complex enough with the broad scope of environmental effects in the energy sector, social effects could arguably also weigh in under the Pike balancing test. Otherwise measures restricting interstate trade only slightly but with potentially severe detrimental social effects, could be declared justifiable. For example, reliability of energy supply has social implications and can be linked to the protection of public health.

While reliability considerations should form part of the Pike balancing test, affordability would be a more controversial element. Several federal laws recognize the importance of improving sustainability while not endangering affordability. The laws thus emphasize environmental cost-efficiency.[892] Affordability of energy is clearly of social value. Some scholars have viewed the risks of energy poverty among low-income households as a factor that could nullify the benefits of a RPS.[893] However, PPM-criteria may not be the only way to tackle social inequality and affordability. Low-income households, who may struggle to afford essential basic levels of energy as a

[891] Anne Havemann, 'Surviving the Commerce Clause: How Maryland Can Square Its Renewable Energy Laws with the Federal Constitution' (2012) 71 Maryland L. Rev 848, 849-850.
[892] First, in the definition of renewables for purposes of foreign aid, the affordability of resources is given as a relevant factor for approving the project. *See* Foreign Relations and Intercourse 22 U.S.C. § 262j(b) (2000). Secondly, the Clean Air Act encourages the adoption of best available technology. How good a technology is shall depend on both its environmental credits as well as its costs. *See* Clean Air Act § 169(3), 42 U.S.C. § 7479(3). The need for environmental cost-efficiency has also been acknowledged on a state-level. For example, the purpose of the cap and trade system of California is to gain cost effective reductions of emissions with respect to overall societal effects. *See* California Health & Safety Code § 38501, 38505, 38562.
[893] Andy S. Kydes, 'Impacts of a Renewable Portfolio Generation Standard on US Energy Markets' (2007) 35 Energy Policy 809, 814.

consequence of government support for expensive renewable energy technology, could be compensated directly from public funds. Hence, it becomes more of an economic issue and its inclusion in the benefit analysis is subsequently more controversial.

Economic interests cannot work as legitimate grounds of justification.[894] Nonetheless, it has been argued that revenue generation could be given weight in the Pike balancing test.[895] It is argued here that when avoided costs or revenue generation takes place at the expense of out-of-state industry, then they should not weigh in as a benefit. In contrast, positive social effects of in-state redistribution of wealth may form a legitimate benefit. Likewise, when a cost is a loss for the in-state economy and restricting the loss or increasing the revenue does not take place directly at the cost of out-of-state wealth, then the benefit should perhaps also be taken into account. For example, GHG's from fossil fuels contributing to global warming is expected to raise sea levels, which would constitute a threat to landowners.[896] Adopting measures to tackle this risk could cause changes in market shares in the energy sector to the benefit of in-state industries. These in-state economic benefits would not be benefits under the Pike balancing test. However, the measure may also create both economic and ecological benefits in-state that would be unrelated to changes in market shares and the decrease in out-of-state wealth. For example, avoiding the loss of land on the globe may have an economic value. This type of benefit could be included in the balancing.

3.2.2.4. The Geographical Scope of the Environmental Benefits

A prima facie prohibited measure may be justifiable only if the burden is not clearly excessive of a local legitimate objective. The Pike balancing test can be deconstructed into a set of separate and distinct subtests. First, there is the test of whether the objective of the measure is a legitimate ground of justification. Secondly, there is the proportionality review, which includes the balancing and the test on whether the measure serves the objective as well as an alternative measure.

Non-local, i.e. extraterritorial, benefits appear not to form legitimate objectives as grounds of justification under the Pike test. Moreover, it would seem like the traditional wording of the test would also not allow for non-local benefits to be taken into account

[894] Foster-Fountain Packing Co. v. Haydel, 278 U.S. 1 (1928). The court in this case rejected local employment as a valid ground of justification.
[895] United Haulers Association, Inc. v. Oneida-Herkimer Solid Waste Management Authority, 550 U.S. 330, 346 (2007).
[896] *See* Massachusetts v. Environmental Protection Agency, 549 U.S. 497, 518-522 (2007).

in the balancing part of the Pike test. Coherence between the test of local legitimate objective (i.e. the definition of a ground of justification) and the definition of the benefits under the balancing test (i.e. the proportionality review) would mean that extraterritorial benefits and harm, whether environmental or of some other sort, would not be relevant at any stage of the Pike test.[897] A literal interpretation of the test set out by the Supreme Court in *Pike*[898] suggests that reducing pollution out-of-state would only be of relevance in the balancing test to the extent it creates an in-state environmental benefit.

The narrow focus on merely in-state benefits and harm in the balancing phase could cause some controversial outcomes. Let us consider a sequence of events. A state decides to ban coal power, including imports, in order to mitigate GHG emissions. As a consequence of the new state law coal companies in neighbouring states go bankrupt. The state adopting the ban will increase its market share because of great potential in natural gas. The measure has thus had discriminatory effect. Yet, this effect is in part limited by the fact that neighbouring states with water streams will be incentivized to expand their hydropower networks. In considering the net benefits of the measure, we note that reduced GHG emissions both in-state and out-of-state likely create local benefit. However, the increase in negative environmental effects of a greater number of large hydro power stations out-of-state will hardly burden the local environment of the state adopting the measure. These negative effects would thus almost not at all be accounted for under the Pike balancing test if the analysis of benefits and harm is restricted to the in-state effects.

Measures reducing GHG emissions in a limited geographical area of production will benefit a broad geographical area. A trade restrictive measure mitigating GHG emissions out-of-state could create even significant in-state benefit for the state adopting the measure. Even if the geographical scope of the net benefits taken into account in the Pike balancing test would be interpreted as very narrow, the benefits of GHG emission reduction action would increase both because of reduction in emissions in-state and reduction in emissions in any other state, no matter how distant. In contrast,

[897] Patrick Zomer, Note, 'The Carbon Boarder War: Minnesota, North Dakota, and the Dormant Commerce Clause' (2010) 8 U. St. Thomas L. J. 60, 86-87, *See* also C&A Carbone, Inc. v. Town of Clarkstown, New York, 511 U.S. 383, 393 (1994); Edgar v. MITE Corp., 457 U.S. 624, 644 (1982). For criticism of this position *see* Kirsten H. Engel, 'The Dormant Commerce Clause Threat to Market-Based Environmental Regulation: The Case of Electricity Deregulation' (1999) 26 Ecology L. Q. 243, 346-347.
[898] Pike v. Bruce Church, Inc., 397 U.S. 137, 142 (1970).

the harm of many other forms of pollution or disturbances to the ecosystem out-of-state would occur much less in the state adopting the measure than in the state where the harm originates. These other more local effects are common to renewables. Excluding out-of-state benefits would not be reasonable from the perspective of environmental protection since the net benefits of, for example, renewables would be overestimated. Hence, it could even be argued that not only effects on a federal, but also on a global, level should be taken into account.

The geographical scope of the benefits calculations under the Pike balancing test has been the subject of academic discussion. Some states give preference to in-state companies in awarding permits for building new transmission lines. In this context it has been argued that out-of-state benefits should be included in the Pike balancing test.[899] More generally, a state should according to Tribe not have the right to merely adopt a measure to protect its local environment by shifting some externalities of production to other states.[900] A narrow geographical scope of benefits and harms would encourage states to merely shift externalities out-of-state. It would thus also be questionable from the perspective of federal loyalty.

Cross-border harm of unsustainable PPMs usually increases with proximity to the source of the harm and states closer to the state with power plants running on coal would experience more local benefit from a ban on coal power. The inclusion of global and out-of-state benefits to the balancing prong of the Pike test gains further support from the observation that such approach would put on an equal footing states that neighbor polluting states and states that are further way.

The broad interpretation of the geographical scope of benefits under the Pike balancing test could draw some criticism as it creates incoherence with the test of local legitimate objective. A local legitimate objective must be served for a valid ground of justification to exist in the first place. Admittedly, including other than local benefits in the balancing phase would result in asymmetry. The inclusion of extraterritorial benefits in the balancing prong will also likely be criticized because of extraterritoriality. However, this might not be all too serious. Namely, any necessary limit to extraterritoriality would already be set through the test of confirming that there is a

[899] Alexandra B. Klass and Jim Rossi, 'Revitalizing Dormant Commerce Clause Review for Interstate Coordination' (2015) Minnesota Law Review 129.
[900] Laurence H. Tribe, *American Constitutional Law* (3rd ed., Foundation Press 1999) 1073-1074.

local legitimate objective (i.e. when testing for grounds of justification). The analysis would in other words starts with the identification of a local legitimate objective. This test provides a safeguard against measures with fully extraterritorial objectives. The balancing test should only become relevant once the measure has been determined to at least partly serve a legitimate local objective and would thus not have a too strong extraterritorial dimension. When Pike balancing is applied as a second step in the analysis, it is less problematic that extraterritorial benefits are considered alongside local benefits. All in all, there exist reasons for considering adjusting the Pike balancing test so that a measure is disproportionate if the burden is clearly excessive of federal or even global net benefits.

3.2.2.5. Balancing the Burden and the Benefits

The focus in the preceding subsections was separately on the burden on interstate trade and on the (environmental) benefits. The balancing exercise brings them together.

Under the Pike balancing test de facto discriminatory measures will be constitutional unless the burden on interstate trade is clearly excessive in comparison to the benefits of the measure. The balancing of the burden against the benefits forms the final step of the test. This task is daunting. Balancing is complicated when many values or interests point in different directions.[901] For example, biodiversity loss is difficult to compare with GHG emissions and it becomes even more difficult when the environmental benefits are to be compared with effects on free trade.[902] There are no guidelines with respect to the weights of different effects.[903] Moreover, there is no obvious common unit.[904] This problem is familiar from the previous discussion on proportionality sensu stricto and incommensurability.[905]

Stiles has argued that no price tag can be put on the ability of the Earth to absorb GHG's.[906] In principle, externalities could however be monetized. While the degree of discrimination is a non-monetary measure, the burden on interstate trade could still also be estimated in dollars. Despite this theoretical possibility to construct some form of

[901] Boris I. Bittker, *Bittker on the regulation of Interstate and Foreign Commerce* (Aspen 1999) 6-31.
[902] Timothy P. Duane and Kiran H. Griffith, 'Legal, Technical and Economic Challenges in Integrating Renewable Power Generation into the Electricity Grid' (2013) 4 San Diego J. Climate & Energy L. 1.
[903] John E. Nowak and Ronald D. Rotunda, *Principles of Constitutional Law* (4th ed., West 2010) 169.
[904] Laurence H. Tribe, *American Constitutional Law* (3rd ed., Foundation Press 1999) 1072.
[905] *See* section 3.1.6.2.
[906] Trevor D. Stiles, 'Renewable Resources and the Dormant Commerce Clause' (2009) 4 Environmental and Energy Law and Policy J. 34, 55.

common scale, it should be emphasized that the courts have never approached balancing in such a technical and mathematical fashion.

The Supreme Court has admitted that it may not be possible to derive any coherent conceptual approach from its case law that would incorporate all relevant factors.[907] The Pike balancing test is not firmly bound by principles, but constitutes an analysis that is adaptive to the facts of the case.[908] While such model grants the court power to balance all values and to consider the particularities of each case, it simultaneously weakens legal certainty. Without more precise rules and principles governing the balancing test states and private traders will face difficulties to predict what measures could be in compliance with the Constitution. Furthermore, some Supreme Court judges have regarded themselves unsuited for the task of balancing values and stated that it should instead be the duty of the democratically elected legislator.[909] At least on one occasion Justice Scalia, in his concurring opinion, refused to balance different values because he deemed it an exercise of comparing the incomparable.[910]

Despite criticism directed at the Pike balancing test, the Supreme Court has regularly applied it. Measures have been declared disproportional under conditions where the existence of any real benefit was questionable.[911] States have, however, tended to successfully defend their measures in the majority of cases in modern time.[912] It is hard to find examples of cases where a reasonably construed benefit would have been outweighed even by significant discriminatory effects. This would suggest that the assessment of the benefit might be more crucial than the assessment of the burden. Importantly, the practical application of the Pike balancing test appears in other words to render it fairly deferential.

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[907] *See* Raymond Motor Transportation, Inc. v. Rice, 434 U.S. 429, 441 (1978).
[908] Laurence H. Tribe, *American Constitutional Law* (3rd ed., Foundation Press 1999) 1102-1105.
[909] Daniel K. Lee and Timothy P. Duane, 'Putting the Dormant Commerce Clause Back to Sleep: Adapting the Doctrine to Support State Renewable Portfolio Standards' (2013) 43 Environmental Law 295, 310.
[910] Bendix Autolite Corp v. Midwesco Enterprises, 486 U.S. 888, 897 (1988).
[911] Southern Pacific Co. v. Arizona, 325 U.S. 761 (1945); Bibb v. Navajo Freight Lines, Inc., 359 U.S. 520 (1959). *Compare* with cases where the safety concerns have been deemed sufficient, such as South Carolina State Highway Department v. Barnwell Brothers, Inc., 303 U.S. 177 (1938); Locomotive Firemen v. Chicago Rock Island & Pacific Railroad Co., 393 U.S. 129 (1968). On transportation licensing *see* also California v. Thompson, 313 U.S. 109 (1941).
[912] Stephen M. Johnson, 'From Climate Change and Hurricanes to Ecological Nuisances: Common Law Remedies for Public Law Failures?' (2011) 27 Georgia State University L. Rev. 565, 572-573.

What explains the significant leeway given to states under Pike balancing? As discussed in the context of the suitability test, the Supreme Court has found that it is sufficient that the measure advances legitimate objective to some degree and that it may be justifiable to take action even under substantial uncertainty with respect to the consequences of inaction.[913] The threshold for establishing a benefit has not been very high.

Furthermore, the threshold of 'clearly excessive' would suggest that states have a right to restrict trade even in circumstances of quite high uncertainty. The high threshold of 'clearly excessive' in the Pike balancing test reflects the ideal of encouraging states to work as laboratories of democracy experimenting with new legislative solutions. In other words, high importance is given to state level experimentation.[914] This may be in part because at stake are often issues complicated by the multitude of values that all should be reconciled at the same time.

The Pike balancing test also includes the test of least restrictive measure as a factor that weighs in the balancing.[915] A measure would not survive the test in case there is a less trade restrictive alternative that is *equally effective*.[916] How intense would the review of state measures then be in the context of the dormant Commerce Clause? Would a labelling scheme that provides consumers information about the PPM be equally effective as mandatory schemes, such as a RPS?[917]

Although some customers may be willing to pay a premium, the labelling scheme would strictly speaking not guarantee the same level of protection because of free riding. Yet, as under EU law, there is the problem that if the alternative would be required to produce a perfectly identical outcome, the test would leave states with so much room for discretion that the test would lose most of its relevance in cases of de facto discrimination. There are thus those who have implied that the test should be more

[913] *See* section 3.2.2.1.
[914] This applies in particular with respect to environmental regulation. *See* Connecticut v. EPA, 696 F.2d 147, 151 (2d Cir. 1982); Union Electric Co. v. EPA, 427 U.S. 246 (1976); Train v. Natural Resources Defense Council, 421 U.S. 60 (1975); Robert V. Percival et al, *Environmental Regulation: Law, Science and Policy* (4th ed., Aspen 2003) 101.
[915] Pike v. Bruce Church, Inc., 397 U.S. 137, 142 (1970); Boris I. Bittker, *Bittker on the Regulation of Interstate and Foreign Commerce* (Aspen Law 1999) paras 6-45, 6-46.
[916] For such requirement *see* Northwest Central Pipeline v. Kansas Corporation Commission, 489 U.S. 493 (1989).
[917] Subsidies would not categorically offer any higher level of benefits than a RPS as the difference in level of benefits would depend on the size of the subsidy contra the quota. In addition, the RPS might promote the same objectives more efficiently because it allows for trade in the attributes.

intense. For example, Geradin has argued that for mandatory rules on PPMs there is often the alternative to promote green energy through labelling.[918] If the alternative measure is significantly less of a burden and guarantees practically almost the same level of protection, it could tip the balance and allow the court to conclude that the original measure is disproportional even if it would have created slightly higher benefits.

It is important to note that in contrast to EU free movement law, the availability of less discriminatory and equally effective measures is just a factor in Pike balancing. In other words, the least restrictive measure test applied in U.S. trade law is not on its own decisive.[919] It is not entirely clear how the least restrictive measure test should affect the balancing of burden and benefits. However, the Pike balancing test has in practice been deferential to such degree that the least restrictive measure component has not gained any significant weight.

All in all, the deferential nature of Pike balancing does in some respect bring it close to the test of 'inconsistency with international science' applicable in EU free movement law. States are granted much discretion under scientific uncertainty in both jurisdictions. The similarities identified here between the Pike balancing test and EU free movement law proportionality were, however, far from obvious since the core structure of Pike as a balancing test actually resembles the characteristics of a test of proportionality sensu stricto in the sense that both rely on holistic value balancing.[920] However, in contrast to proportionality sensu stricto the balancing in the Pike test gives significant deference to the state.[921] The Pike balancing test creates rather different dynamics than proportionality sensu stricto because it includes the threshold of 'clearly excessive'.

On a final note, the findings of close similarities, in terms of flexibility, between EU and U.S. proportionality does not support the more general observation of others, that

[918] Damien Geradin, *Trade and the Environment – A Comparative Study of EC and US Law* (CUP 1997) 50-52, 65-66.
[919] Steven Ferrey, 'Sustainable Energy, Environmental Policy, and States' Rights: Discerning the Energy Future Through the Eye of the Dormant Commerce Clause' (2004) 12 N.Y.U. Environmental L. J. 507, 580-581.
[920] Damien Geradin, *Trade and the Environment – A Comparative Study of EC and US Law* (CUP 1997) 62.
[921] John E. Nowak and Ronald D. Rotunda, *Principles of Constitutional Law* (4th ed., West 2010) 170-171.

under scientific uncertainty the EU tends to adopt a more precautionary approach, while the U.S. more boldly conducts a cost-benefit analysis.[922]

3.2.2.6. Quantification and Scaling

The courts have not been very technical in their comparison of burdens and benefits. The balancing has often been more of an overall assessment of fairly deferential character. Courts have showed deference by not striking down state measures on light grounds. In taking such approach courts should still be careful not to let any potential bias hidden in the dynamics of the test influence the outcome. With this in mind, an attempt is here made to identify how the technical details of the Pike balancing test could be construed.

Courts have never been all too specific on how the burden should be defined. The emphasis could in principle be on the trade restrictive effects in terms of trade volumes or costs. The burden on interstate commerce would in that case be greater when a ban is adopted by a state with large quantities of imports. These states would more often than not be those with large populations and significant market power. The purpose and structure of the dormant Commerce Clause doctrine, however, suggest that it is the level of discrimination and its effects on the conditions of competition that is balanced against overall environmental, social and other benefits. The level of discrimination can be expressed in terms of changes in market shares. The change in market share could be quantified in terms of absolute volumes of trade (i.e. in-state companies' sales increase), in terms of percentage on the relevant market globally (i.e. in-state companies' market share on global market increases) or in terms of percentage on the market of the importing state adopting the regulation (i.e. in-state companies' market share on in-state market increases). The choice is of importance because unlike the first two, the last alternative would appear to be unaffected by the quantities the regulating state imported before adopting the measure.[923]

The preferred alternative for quantification of the burden depends on how the benefit is quantified. A hypothesis has been developed in this study. More specifically, both the

[922] T. Sandra Fung, 'Negotiating Regulatory Coherence: The Costs and Consequences of Disparate Regulatory Principles in the Transatlantic Trade and Partnership Agreement Between the United States and the European Union' (2014) 47 Cornell International Law Journal 446, 471.

[923] A populous state is more likely to have larger volumes of imports. Consequently, its measure is also more likely to have a significant impact both in terms of volumes of trade and in terms of percentage change in global market shares.

burden and the benefit should be a function of market power or then neither should be. States with large domestic markets are more likely to have significant levels of import in absolute terms. When such states, often populous and perhaps also wealthy, adopt PPM-criteria on both domestic production and imports, the criteria will be more likely to have a significant impact on the demand of the product produced with unsustainable PPMs in other states as compared to when a small state adopts identical criteria. In other words, the benefit of the measure would tend to be higher when the measure is adopted by states with more market power. If the benefit is defined in these terms, then the burden should equally be defined so that it becomes higher when a measure is adopted by a state with much market power.

Bittker has pointed out that the Supreme Court has never clarified as to whether the benefit estimated under the Pike balancing test should be the total benefit or scaled to a benefit per capita.[924] The scaling of benefit in relation to population size would at least reduce the impact of the size of the state population on the level of benefits of the measure. With a model of estimating benefits per capita also the level of burden need to be quantified in a manner that is neutral to the population size and market power of the regulating state.

There may exist some weaknesses with scaling the benefits. In particular, if out-of-state (environmental or social) harm is included in the model, it would appear illogical to divide the total net benefit with the size of the in-state population. It must be emphasized that this problem would not arise if relevance is only given to local benefits as suggested by the wording of the Supreme Court when it laid out the Pike balancing test. It was, however, pointed out previously that such narrow definition of benefits when applying the balancing test has its own weaknesses.[925]

Finally, the option of scaling benefits to population size would not solve the problems of the exceptional cases where a measure does not have any effects when adopted by a small state but does have some effects when adopted by a large state.[926] While it would also not fully solve the dilemma, it is submitted that the preferable option may be that

[924] Boris I. Bittker, *Bittker on the Regulation of Interstate and Foreign Commerce* (Aspen Law 1999) para. 6-34.
[925] *See* section 3.2.2.4.
[926] *See* section 3.1.4.

of not scaling the benefit and instead focusing on quantifying the burden in a way that it becomes equally sensitive to market power and population size as the benefit.

3.2.2.7. Promoting Renewable Energy and the Pike Balancing Test

There has been some academic discussion on the application of the Pike balancing test to measures promoting renewables and in particular to Renewable Portfolio Standards (RPSs). A RPS may have a high or low burden on interstate commerce depending on its design. The benefits, in turn, would primarily relate to environmental protection.

In the energy sector much uncertainty surrounds the benefit of various PPM-criteria. It has been pointed out that the intermittency of many renewable sources will require some back-up power and that the need to continuously adjust fossil fuel use may even have detrimental environmental impacts.[927] These effects would need to be deducted from the benefit that promoting renewables with, for example, a RPS otherwise produces. Moreover, the mechanisms of a RPS have also been claimed ineffective.[928] Thus, the proportionality of a RPS could be put into question.

Despite some questioning the benefits of a RPS, most scholars have taken the position that the burden on interstate commerce would not be clearly excessive in comparison with the benefits, as long as the design is not de jure discriminatory.[929] It would appear that courts agree even with respect to a system with a delivery requirement.[930] A similarly favorable view would likely apply to other measures promoting sustainable energy. The conclusion could be reached by assigning a significant weight to the benefit of reduced GHG emissions under the Pike balancing test. The same conclusion could be arrived at by determining that there is uncertainty with respect to the magnitude of

[927] Patrick R. Jacobi, Note, 'Renewable Portfolio Standard Generator Applicability Requirements: How States Can Stop Worrying and Learn to Love the Dormant Commerce Clause' (2006) 30 Vermont L. Rev. 1079, 1084-1085.
[928] Robert J. Michaels, 'National Renewable Portfolio Standard: Smart Policy or Misguided Gesture?' (2008) 29 Energy L. J. 79, 81.
[929] *See* e.g. Patrick Zomer, Note, 'The Carbon Boarder War: Minnesota, North Dakota, and the Dormant Commerce Clause' (2010) 8 U. St. Thomas L. J. 60, 81-83; Anne Havemann, 'Surviving the Commerce Clause: How Maryland Can Square Its Renewable Energy Laws with the Federal Constitution' (2012) 71 Maryland L. Rev. 848, 879-880. For arguments in favor of the compliance of de facto discriminatory climate change measures with the Dormant Commerce Clause *see* also Richard B. Stewart, 'States and Cities as Actors in Global Climate Regulation: Unitary vs. Plural Architectures' (2008) 50 Arizona L. Rev. 681, 796; Daniel A. Farber, 'Climate Change, Federalism, and the Constitution' (2008) 50 Arizona L. Rev. 879, 881.
[930] Allco Finance v. Klee, case no. 16-2946 (2d Cir. 2017). *See* also Southern California Edison Co. and San Diego Gas & Electric Co., 70 FERC 61,215, 61,676 (1995).

the benefits and thus applying a deferential proportionality review of the state measure, based on the view that room must be left for substantial state discretion.

Furthermore, it has been argued that not only is promoting renewables in general justifiable, but also differentiating between different resources and consequently also different PPMs. More specifically, the argument is that a state could reject credits for some renewables and award multipliers to others.[931] Which renewables could then be treated less favorably than others? There is some consensus on the negative effects of large hydropower plants as compared to other renewables. Hence, a state could probably leave out large hydropower from the category of favored renewables even if it would strengthen the discriminatory effect.[932]

According to Engel a very significant de facto discriminatory effect might still not survive the Pike balancing test.[933] Such an effect might have already followed from renewable energy schemes adopted by some states, even if the measures have not been challenged. For example, New Jersey promotes off shore wind as it has great potential in that field and North Carolina promotes bioenergy from swine waste as its industries produce a lot of that type of biological resource.[934] These measures might reflect discriminatory intent and could potentially cross a line. Given that the benefits of these resources over other renewables are highly disputable and minor at the most, the burden might well be clearly excessive of the benefits.[935]

In this context it is in order to also consider measures promoting renewable energy in the transport sector. It may be recalled that in the U.S. federal biofuel sustainability criteria have been introduced with the Renewable Fuel Standard 2 (RFS2). However, California has under the federal Clean Air Act been granted the authority to apply instead its own biofuels sustainability criteria and other states may opt to copy the Californian model. These schemes are called Low Carbon Fuel Standards (LCFS). Under California's LCFS fuel producers can apply for individual carbon intensity values. In the calculations California takes into account various factors, including the

[931] Carolyn Elefant and Edward A. Holt, 'The Commerce Clause and Implications for State Renewable Portfolio Standard Programs' (2011) CleanEnergy States Alliance: State RPS Policy Report, at 11.
[932] *Id.*, at 15.
[933] Kirsten H. Engel, 'The Dormant Commerce Clause Threat to Market-Based Environmental Regulation: The Case of Electricity Deregulation' (1999) 26 Ecology L. Q. 243, 316.
[934] New Jersey Senate Bill 2036 (2010); North Carolina General Statute § 62-133.8 (2007).
[935] A similar conclusion seems plausible when a state is implementing restrictions on coal plants, but the exemptions are designed to save many in-state plants from the new restrictions.

feedstock and the chemical processing method used at the plant. In addition, the carbon intensity calculations estimate emissions from transport of the fuel as well as emissions from the electricity that has been generated in the region of the biofuel plant and is later utilized at the plant. Fuel plants that are without individual carbon intensity scores may rely on pre-calculated default values that are assigned on the basis of feedstock and production method used. Differences in transportation distances and the sustainability of local electricity generation were erased from the default value calculations in 2015. In other words, after amendments to California's LCFS default values have been the same for corn ethanol providers from both the Midwest and California.

In 2013 in *Rocky Mountain Farmers Union* the U.S. Court of Appeals for the Ninth Circuit found California's biofuel law to comply with several tests applicable under the dormant Commerce Clause.[936] The original LCFS was not facially discriminatory and it did not constitute prohibited extraterritorial regulation. The Court, however, remanded the case back to the district court for it to assess whether the LCFS discriminated in purpose or effect. The relevance of this assessment had to do with the fact that measures that have a discriminatory purpose are subject to strict scrutiny instead of Pike balancing and even measures that merely discriminate in effect without any discriminatory purpose may sometimes be subject to strict scrutiny. After the case had been remanded back to the district court, it ruled in 2017 that the LCFS did not discriminate in purpose, but that it 'plausibly' discriminated in effect even if the effects of the law were complex and there was insufficient data available.[937] Questions with respect to strict scrutiny will be tackled more in detail below.[938]

Although the district court in 2017 left open the possibility that strict scrutiny could apply in *Rocky Mountain Farmers Union,* it still went on to consider the burden and the benefits of the scheme under the Pike balancing test. The court noted that California had admitted that the LCFS alone could not solve the problem of climate change.[939]

[936] Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070 (9th Cir. 2013).
[937] Rocky Mountain Farmers Union v. Corey, Memorandum Decision and Order Re Defendants' Motion to Dismiss, Lead Case: 1:09-cv-2234-LJO-BAM (E.D. Cal. 2017).
[938] *See* section 3.2.3.
[939] Rocky Mountain Farmers Union v. Corey, Memorandum Decision and Order Re Defendants' Motion to Dismiss, Lead Case: 1:09-cv-2234-LJO-BAM (E.D. Cal. 2017). Similarly *see* Rocky Mountain Farmers Union v. Corey, No. 12-15131 (9th Cir. 2014) (Denial of hearing en banc; Dissent by Judge Smith).

Consequently, the court concluded that the benefits of the LCFS had to be small and that the burden is 'plausibly' clearly excessive of the benefits.[940]

Some of the statements by the district court appear difficult to reconcile with previous cases where the Pike balancing test has been applied. In particular, the fact that the LCFS will not solve the problem of climate change does not tell us much about the benefits of the measure. The LCFS could potentially significantly contribute to the reduction of carbon emissions, in absolute and/or relative terms, even if it alone cannot solve the problem of climate change.[941] It remains to be seen whether or not future court opinions will recognize this. Notably, the Ninth Circuit already in a case on Oregons Clean Fuel Program, which is very similar to the California's LCFS in its original form, found that the burden of the scheme was not clearly excessive of the benefits of reducing emissions through the sustainability criteria.[942] In turn, the application of Pike balancing in *Rocky Mountain Farmers Union* was not revisited by the Ninth Circuit in 2019 when it delivered its second ruling on the case as the plaintiffs had dismissed that claim.[943]

3.2.2.8. Deferential Balancing with Ambiguous Elements

In most cases of de facto discrimination U.S. courts will opt to apply the Pike balancing test. While it is a well-established test of balancing the burden on inter-state commerce against the environmental benefits of the measure, many technical details of the test remain unconfirmed. For example, there are questions surrounding the geographical scope of the relevant benefits and it is not evident to what extent genuine state population preferences should be taken into account when determining the weight of the benefits.

A measure is disproportional under the Pike balancing test only if the burden is clearly excessive of the benefits. The overall balancing has consequently formed into a fairly deferential test and the exact nature of the technical details may have limited practical relevance. While the Pike balancing test with its overall balancing approach may at a first look share the structure of a test of proportionality sensu stricto, the high threshold

[940] Rocky Mountain Farmers Union v. Corey, Memorandum Decision and Order Re Defendants' Motion to Dismiss, Lead Case: 1:09-cv-2234-LJO-BAM (E.D. Cal. 2017).
[941] Similarly *see* Rocky Mountain Farmers Union v. Corey, No. 12-15131 (9th Cir. 2014) (Denial of hearing en banc; Concurrence by Judge Gould).
[942] American Fuel & Petrochemical Manufacturers v. O'Keeffe, case no. 15-35834 (9th Cir. 2018).
[943] Rocky Mountain Farmers Union v. Corey, case no. 17-16881 (9th Cir. 2019).

of clearly excessive burden grants states a high degree of flexibility to determine their policies, especially under scientific uncertainty. The outcome is in other words not too different from what was found in the analysis of EU and WTO law.

Although the high threshold of clearly excessive may save most de facto discriminatory measures that include environmental PPM-criteria, the problems of the review should not be ignored. In particular, the lack of transparency as to how exactly different factors are weighed in creates legal uncertainty.

3.2.3. Strict Scrutiny

3.2.3.1. The General Application of the Test

The Pike balancing test is not the only proportionality review under the dormant Commerce Clause. Another review, strict scrutiny, applies as a rule to cases of de jure discrimination. Restrictions on exports are almost always de jure discriminatory and hence strict scrutiny applies.[944] The focus in this book, and consequently also in this subsection, is however on import restrictions.

In comparison to the deferential Pike balancing test generally applicable to cases of de facto discrimination, strict scrutiny is a much more intense review from the viewpoint of the state that adopted the measure. In other words, state measures will struggle to survive strict scrutiny. Under strict scrutiny it must be determined whether a measure is the least restrictive alternative to achieve an *adequate* level of protection.[945] A level of protection lower than that chosen by the state could in principle be adequate. The review is strict from the viewpoint of the state in the sense that it needs to accept an alternative less trade restrictive measure even if the level of protection is much lower as long as the level is still adequate from the viewpoint of the federal court.

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[944] New England Power Co. v. New Hampshire, 455 U.S. 331, 339 (1982); Hughes v. Oklahoma, 441 U.S. 322 (1979); Pennsylvania v. West Virginia, 263 U.S. 350 (1923); West v. Kansas Natural Gas Co., 221 U.S. 229 (1911). In a case on obligatory in-state waste processing the Supreme Court even stated that facial discrimination in the context of export could exist even when there may be no commercial interest for to import the good for business purposes out-of-state. *See* C&A Carbone, Inc. v. Town of Clarkstown, New York, 511 U.S. 383 (1994); Laurence H. Tribe, American Constitutional Law (3rd ed., Foundation Press 1999) 1062. For arguments for the application of Pike balancing to export restrictions *see* John E. Nowak and Ronald D. Rotunda, *Principles of Constitutional Law* (4th ed., West 2010) 192-193; Justice Rehnquist dissenting in Hughes v. Oklahoma, 441 U.S. 322 (1979).

[945] Dean Milk Co. v. City of Madison, Wisconsin, 340 U.S. 349, 354 (1951); Oregon Waste Systems, Inc. v. Department of Environmental Quality of Oregon, 511 U.S. 93, 101 (1994); Hughes v. Oklahoma, 441 U.S. 322, 336 (1979); Hunt v. Washington State Apple Advertising Commission, 432 U.S. 333, 353 (1977); Maine v. Taylor, 477 U.S. 131, 147 (1986).

Sctrict scrutiny does not fully correspond with the test of least restrictive measure applicable in EU free movement law. The benchmark chosen for desired level of protection is different. The EU test puts focus on whether the level of protection with any less trade restrictive alternative is (almost) the same as offered with the adopted measure. In contrast, U.S. strict scrutiny does not appear to compare the level of protection of the alternative with that offered by the adopted measure, but with a standard deemed adequate by the court. U.S. strict scrutiny indeed appears very strict. Worthy of note is that the U.S. Supreme Court still on some occasions has referred to a test on whether the alternative would achieve the legitimate objective 'as well'.[946] This test would be closer to the test applied by the ECJ.

The Court has stated that the de jure discriminatory elements of a measure would need to be justified by an element unrelated to protectionism.[947] De jure discriminatory measures will rarely survive strict scrutiny because simply eliminating the de jure discriminatory element would normally not endanger the desired level of protection of the legitimate objective. An exemption to this occurred in a case where restrictions on imports of baitfish was declared constitutional because there was no satisfactory method to inspect imported baitfish for parasites.[948]

3.2.3.2. Cases of De Facto Discrimination under Strict Scrutiny

The line between cases where strict scrutiny shall be applied and cases that fall under the more lenient Pike balancing test has been somewhat blurred according to the Supreme Court.[949] The Pike test may apply even if facts would suggest de jure discrimination.[950] And in reverse, strict scrutiny may apply even if the discrimination

[946] *See* Maine v. Taylor, 477 U.S. 131, 138 (1986).
[947] Wyoming v. Oklahoma, 502 U.S. 437, 454 (1992).
[948] Maine v. Taylor, 477 U.S. 131 (1986).
[949] Brown-Forman Distillers Corp. v. New York State Liquor Authority, 476 U.S. 573, 579 (1986); C&A Carbone, Inc. v. Town of Clarkstown, New York, 511 U.S. 383, 402 (1994); Wyoming v. Oklahoma, 502 U.S. 437, 455 (fn 12) (1992). *See* also Nathan E. Endrud, 'State Renewable Portfolio Standards: Their Continued Validity and Relevance in Light of the Dormant Commerce Clause, the Supremacy Clause, and Possible Federal Legislation' (2008) 45 Harvard Journal on Legislation 259, 266; Steven Ferrey, 'Renewable Orphans: Adopting Legal Renewable Standards at the State Level' (2006) 19 The Electricity Journal 52, 56-57; Daniel K. Lee and Timothy P. Duane, 'Putting the Dormant Commerce Clause Back to Sleep: Adapting the Doctrine to Support State Renewable Portfolio Standards' (2013) 43 Environmental Law 295, 303; Steven Ferrey, 'Sustainable Energy, Environmental Policy, and States' Rights: Discerning the Energy Future Through the Eye of the Dormant Commerce Clause' (2004) 12 N.Y.U. Environmental L. J. 507, 581.
[950] For example, a reciprocity requirement occurs when a state conditions imports on its right to export to the other state. Such scheme was at stake in Great Atlantic & Pacific Tea Co., Inc. v. Cottrell, 424 U.S. 366 (1976). Even if the reciprocity requirement explicitly restricted only out-of-state goods, the Supreme Court applied the Pike balancing test. A reciprocity requirement would also occur in case a

is not as explicit as in the case of facial discrimination or other direct reference to geographic origin.[951]

In cases of no facial discrimination but only undue burden on interstate commerce the Supreme Court will assess both purpose and effects of the measure. Indicators of discriminatory purpose will increase the probability of strict scrutiny,[952] but is no guarantee for strict scrutiny to apply,[953] nor is it any requirement for it to apply.[954] In *Rocky Mountain Farmers Union* courts have considered the application of strict scrutiny on the scheme of biofuels sustainability criteria. In examining California's LCFS the district court in 2017, after the case had been remanded back to it, found there to be no discriminatory purpose even if lawmakers had recognized that the scheme of biofuels sustainability criteria would beside environmental benefits also to some degree benefit the in-state industry.[955] This was later affirmed by the Ninth Circuit.[956] Equally, in reviewing similar biofuels sustainability criteria under the Oregon Clean Fuels Program the U.S. Court of Appeals for the Ninth Circuit decided not to put much weight on political statements by elected officials and concluded that the program had those environmental objectives stated in the legal text.[957] Mixed objectives may thus not equate to discriminatory purpose.

Strict scrutiny can in principle apply also in case the discriminatory effect is substantial.[958] It must be emphasized, however, that the Supreme Court has still rarely

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state conditions exports on its right to import from another state. In Sporhase v. Nebraska ex rel. Douglas, 458 U.S. 941 (1982) the court applied strict scrutiny to such scheme explicitly because of the reciprocity provision. Similarly, strict scrutiny was applied to Ohio's tax benefits awarded only to ethanol produced in those other states that granted Ohio ethanol similar tax benefits. The court found that the true purpose of the measure was not any legitimate objective like health protection, but rather to create in-state economic benefits. *See* New Energy Co. v. Limbach, 486 U.S. 269, 279 (1988).

[951] Daniel K. Lee and Timothy P. Duane, 'Putting the Dormant Commerce Clause Back to Sleep: Adapting the Doctrine to Support State Renewable Portfolio Standards' (2013) 43 Environmental Law 295, 303; Hunt v. Washington State Apple Advertising Commission, 432 U.S. 333 (1977).

[952] Laurence H. Tribe, *American Constitutional Law* (3rd ed., Foundation Press 1999) 1073 (fn 38); Dan T. Coenen, *Constitutional Law: The Commerce Clause* (Foundation Press 2004) 220-221; Michael E. Smith, 'State Discriminations Against Interstate Commerce' (1986) 74 California L. Rev. 1203, 1243-1250; Jennifer L. Larsen, 'Discrimination in the Dormant Commerce Clause' (2004) 49 South Dakota L. Rev. 844. *See* also Bacchus Imports, Ltd. v. Dias, 468 U.S. 263 (1984).

[953] *See* Kassel v. Consolidated Freightways Corp., 450 U.S. 662 (1981).

[954] Hunt v. Washington State Apple Advertising Commission, 432 U.S. 333, 352-353 (1977).

[955] Rocky Mountain Farmers Union v. Corey, Memorandum Decision and Order Re Defendants' Motion to Dismiss, Lead Case: 1:09-cv-2234-LJO-BAM (E.D. Cal. 2017). For similarly rejecting to give decisive relevance to the state governor's and some legilsators' statements on the benefits of the measure to the local economy *see* Village of Old Mill Creek v. Star, No. 17 CV 1163-1164 (N.D. Ill. 2017).

[956] Rocky Mountain Farmers Union v. Corey, case no. 17-16881 (9th Cir. 2019).

[957] American Fuel & Petrochemical Manufacturers v. O'Keeffe, case no. 15-35834 (9th Cir. 2018).

[958] Erwin Chemerinsky, Constitutional Law: Principles and Policies (3rd ed., Aspen 2006) 436; Dan T. Coenen, Constitutional Law: The Commerce Clause (Foundation Press 2004) 220-221.

opted for strict scrutiny in cases of de facto discrimination. The uncertainty and incoherence related to the question of whether strict scrutiny or Pike balancing should apply is thus limited to rare circumstances.

The U.S. Supreme Court has applied strict scrutiny to state laws that differentiate between products on the basis of transport distance.[959] Such criteria almost per definition create less favorable treatment of out-of-state goods. Worthy of note is that the disadvantage in these cases was inflicted upon traders when a maximum distance was exceeded. In other words, such criteria focus on distance alone and set a maximum threshold. This is in essence very close to applying a disadvantage directly on the basis of origin. In contrast, the proportionality review may be different if the disadvantage from long transportation is roughly proportional to the transport distance or to transport emissions.

Another case where the Supreme Court appeared to apply strict scrutiny despite the lack of facial discrimination concerned quality labelling of apple containers in North Carolina. The state only accepted the federal grading system and banned any state grades. The court concluded that this had a discriminatory effect on apples from Washington. Namely, those apples were marked with a local quality label that was highly recognized across the U.S. After this the court went on to state that it had to be examined whether there were any non-discriminatory measures that would adequately serve the local objective of reducing the risks of consumer confusion. In this context the court made reference to both *Pike v. Bruce Church* as well as case law on strict scrutiny. The standard of review referred to did, however, seem close to traditional strict scrutiny. In the subsequent analysis the court concluded that the ban was not justifiable because it did not reduce the risks of consumer protection. First, the ban applied to apple container labelling and thus affected wholesales and not retail. Secondly, to receive Washington grades the apples had to be of higher quality than under federal grades and the Washington grades therefore did not risk luring consumers to buy inferiror apples. Thirdly, under the North Carolina statute more consumer

[959] Dean Milk Co. v. City of Madison, Wisconsin, 340 U.S. 349 (1951); Brimmer v. Rebman, 138 U.S. 78 (1891). *See* however American Can Co. v. Oregon Liquor Control Commission, Or. App. 517 P.2d 691, 697 (1973). The state of Oregon had implemented a deposit-and-return system for bottles, which resulted in a requirement for out-of-state companies to return their bottles a greater distance from the area of purchase and use. The court did not apply strict scrutiny. For analysis of the case *see* Charles M. Moose, 'American Can: Judicial Response to Oregon's Nonreturnable Container Legislation' (1974) 4 Ecology L. Q. 145.

confusion could prevail as many apples would be ungraded. All in all, there were non-discriminatory alternative measures to achieve the goal.[960]

The possibility that courts would at least consider strict scrutiny also in other cases of de facto discrimination cannot be excluded. For example, the definition of renewable energy under a RPS might on some occasions have very significant discriminatory effects. This situation could in particular emerge when some specific form of renewable energy is awarded its own quota within the general RPS, called a carve-out. Under such circumstances there may potentially emerge arguments that strict scrutiny should apply. In turn, when adopting an origin neutral general RPS without preferences for specific resources of renewables, there should not be much objection against a decision to apply the Pike balancing test.[961]

Previously in this chapter[962] it was argued that in the application of the Pike balancing test the courts might not necessarily require concrete evidence from the justifying state that the state measure has had the intended effect. It is perhaps sufficient that the measure is logically capable of advancing a legitimate objective, such as environmental protection, or expected to have such effect with some probability. In contrast, in the application of strict scrutiny the court has been very firm on the point that the discriminatory measure can only be justifiable if there is evidence that it has had actual positive effects.[963] For de facto discriminatory PPM-criteria that target out-of-state production as well as the associated cross-border pollution the requirement of actual evidence of benefits may pose a significant hurdle to justifiability. This prong of strict scrutiny could mean that surviving strict scrutiny would also be exceptionally difficult in cases of de facto discrimination that would fall under the test.

The final sections of this chapter will address the consequences of the potential decision to apply strict scrutiny in some cases of de facto discrimination.

[960] Hunt v. Washington State Apple Advertising Commission, 432 U.S. 333, 348-354 (1977).
[961] Patrick Zomer, Note, 'The Carbon Boarder War: Minnesota, North Dakota, and the Dormant Commerce Clause' (2010) 8 U. St. Thomas L. J. 60, 83.
[962] *See* section 3.2.2.1.
[963] Associated Industries of Missouri v. Lohman, 511 U.S. 641, 654 (1994). *See* also Black Star Farms LLC v. Oliver, 600 F.3d 1225, 1232 (9th Cir. 2010); American Fuels and Petrochemicals Manufacturers Association, et al. v. Corey, 1:09-cv-2234-LJO-BAM (E.D. Cal. 2015) at 46.

3.2.3.3. Adequate Level of Protection and Proportionality Sensu Stricto

Perhaps the most serious argument against the application of strict scrutiny on cases of de facto discrimination would relate to the realization that the test applied in that context would have the characteristics of a test of proportionality sensu stricto. This is so because of the test sets focus on whether there is any less discriminatory alternative that guarantees an adequate level of protection. The test of adequate level would in particular when applied on cases of mere de facto discrimination, regardless of how substantial the effect is, invite courts to put into question the level of protection sought by the state.

In case a court would find that a measure that is de facto discriminatory cannot be justified because there is a less discriminatory alternative that ensures an adequate level of protection, the state would be forced to lower its level of protection. This would be controversial from an environmental perspective. It would be particularly controversial when there would be scientific uncertainty with respect to the seriousness of the environmental effects that the state had addressed with its measure. The state's view might have been backed by some scientific studies, but the court could give more weight to other studies. The difficulty to survive strict scrutiny could in this situation undermine environmental protection. Admittedly, these risks would perhaps to some degree be mitigated by the fact that in its application of strict scrutiny the Supreme Court does acknowledge that states should have the right to take action even when there is scientific uncertainty surrounding the risks.[964]

Moreover, applying strict scrutiny with a focus on whether there is any less discriminatory alternative that guarantees an adequate level of protection to cases of de facto discrimination would place a limit on the right of states to tackle the harm experienced in-state. The state's own view on the need to tackle the harm and its estimate of externalities would be substituted by that of the court. This would not only be an issue related to environmental protection, but also to sovereignty. Strict scrutiny applied to de facto discrimination would be difficult to reconcile with the idea that states

[964] Maine v. Taylor, 477 U.S. 131, 147-148 (1986).

should have enough flexibility to experiment with different solutions and serve as laboratories of democracy.[965]

Furthermore, with the possibility to apply strict scrutiny on de facto discrimination it may be unclear whether the Pike balancing test or strict scrutiny should apply in a concrete case. Fairly insignificant changes in the state scheme can result in sufficient changes in discriminatory effects, so that one test is applied instead of the other. There are good reasons why the Supreme Court has hardly ever extended the application of strict scrutiny to cases of de facto discrimination.

3.2.3.4. Litigation on California's Original LCFS

There has not been any major problem with the application of strict scrutiny to de jure discrimination and Pike balancing to de facto discrimination. It should also be emphasized that so far it has been relatively rare for strict scrutiny to apply in cases of only de facto discrimination. Yet, the courts appear in *Rocky Mountain Farmers Union* to seriously have considered the application of strict scrutiny to California's LCFS in its original form, which was difficult to categorize as either de jure discriminatory or de facto discriminatory.

Under California's LCFS are required to provide fuel with an average carbon intensity that does not exceed an annual limit. The LCFS allows biofuel producers to apply for certification of individual carbon intensity scores. The scores include transport emissions and emissions from electricity generation. The emissions from transport are estimated with reference to both transport distance and the expected weight of the freight. Taking into account emissions from the locally generated electricity that is later utilized in the biofuels plant results in some discriminatory effects. Interestingly, taking into account emissions from transport in turn is generally to the disadvantage of Californian producers because they often have to rely on out-of-state feedstock and the transportation of such heavy loads results in significant emissions.

Producers that do not wish to apply for an individual carbon intensity score for their plant may rely on a default value that is based on the average emissions of a particular production pathway. A pathway is defined with reference to, for example, the feedstock

[965] On the idea of states being laboratories of democracy *see* New State Ice Co. v. Liebmann, 285 U.S. 262, 311 (1932), Justice Brandeis dissenting; Gonzales v. Reich, 545 U.S. 1, 42-43 (2005) (Justice O'Connor dissenting, joined by Justice Rehnquist and Justice Thomas).

and the chemical method used as well as the type of biofuel produced. In the original version of the LCFS the default values for corn ethanol pathways were different for Californian and Midwest producers because of differences in emissions from transport and regional electricity generation. In other words, the original version included state specific default values.

The call for the application of strict scrutiny due to discriminatory effects has emerged in connection with claims that California's LCFS is incompatible with the dormant Commerce Clause. The original version of the LCFS illustrates the difficulty to draw a clear distinction between de jure and de facto discrimination.[966] In a classical case of de jure discrimination not only like or similar, but even identical, in-state and out-of-state products are treated differently with explicit reference to the origin. The LCFS might potentially be regarded de jure discriminatory because the default values for corn ethanol are different explicitly with reference to where the fuel is produced.

There are some arguments against declaring the LCFS facially discriminatory. It could be argued that the different treatment of in-state and out-of-state corn ethanol does not target identical products because the PPMs and associated emissions are different. In other words, the differentiation under the LCFS is not based on origin but on emissions from the PPMs. This argument is weakened by the fact that the Supreme Court has previously concluded that it is facially discriminatory to treat in-state and out-of-state baitfish differently when the baitfish is identical with the exception of the difference in the disease risks.[967] Products that are different only with respect to the PPMs could be regarded as identical on the basis of the fact that even differences in disease risks did not make two products non-identical.

In 2011 the district court in *Rocky Mountain Farmers Union* concluded that the original LCFS was facially discriminatory.[968] The district court emphasized the fact that the default values were different for similarly produced Californian and Midwest corn ethanol. In addition, the court pointed out that there were geography-based factors in the calculations of default and individual values.

[966] For more analysis of the case *see* sections 3.2.2.7, 3.2.3.4-3.2.3.5, 5.2., 6.1.5-6.1.6 and 6.2.2.3. *See* also sections 1.4.5.3 and 2.2.4.
[967] Maine v. Taylor, 477 U.S. 131 (1986).
[968] Rocky Mountain Farmers Union v. Goldstene, 843 F. Supp. 2d 1071 (E.D. Cal. 2011).

However, in 2013 the U.S. Court of Appeals for the Ninth Circuit rejected the district court's conclusion. First, it argued that the inclusion of geography-related factors in the calculation of emissions does in itself not result in facial discrimination. Secondly, in a part of the opinion more prone to criticism, the court put significant emphasis on the environmental objective behind the decision to have different default values for Californian and Midwest corn ethanol and argued that the scheme did not amount to facial discrimination. The Circuit Court thus left open the possibility that the Pike balancing test may apply instead of strict scrutiny.[969] This approach was echoed by judge Gould when concurring in a denial of rehearing en banc.[970]

In her dissent in *Rocky Mountain Farmers Union* judge Murguia in 2013 argued that the LCFS was facially discriminatory because the default values for otherwise identical bioethanol was different explicitly with reference to state origin. This view has also expressed in judge Smith's dissent to the denial of rehearing en banc[971] and has been shared by some scholars.[972] In turn, the majority in 2013 was of the opinion that the sustainability criteria did not discriminate on the basis of origin but on the basis of life-cycle emissions. The same argument was adopted by the Ninth Circuit when revieweing similar biofuels sustainability criteria adopted by Oregon.[973]

While carbon intensity values are calculated on the basis of life-cycle emissions, it is important to note that both the original LCFS and the Oregon Clean Fuels Program established state specific default values for different pathways on the basis of average emissions. It is submitted here that differentiating on the basis on state averages can generally be categorized as facially discriminatory. The majority in the Ninth Circuit appears to have thought differently. The approach adopted by the majority could perhaps be read to suggest that facial discrimination would be at hands only when the sole reason for differential treatment is state of origin.

In any event, in 2013 the Circuit Court in *Rocky Mountain Farmers Union* stated that even if it did not regard the LCFS to be facially discriminatory, the district court should

[969] Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070 (9th Cir. 2013).
[970] Rocky Mountain Farmers Union v. Corey, No. 12-15131 (9th Cir. 2014) (Denial of hearing en banc; Concurrence by Judge Gould).
[971] Rocky Mountain Farmers Union v. Corey, No. 12-15131 (9th Cir. 2014) (Denial of hearing en banc; Dissent by Judge Smith).
[972] See e.g. Hwi Harold Lee, 'Dormant Commerce Clause Review: Why the Ninth Circuit Decision in *Corey* Strayed from Precedent and What the Supreme Court Could Have Done About It' (2015) 42 Boston College Environmental Affairs Law Review 54.
[973] American Fuel & Petrochemical Manufacturers v. O'Keeffe, case no. 15-35834 (9th Cir. 2018).

examine whether the standard still was discriminatory in purpose or effect. Therefore, the case was in part remanded back to the disctrict court. As explained above, the position of the district court in 2017 appeared to be that there was no discriminatory purpose.[974] This was later affirmed by the Ninth Circuit.[975] It is worthy of note that the district court seemed open to the application of strict scrutiny when there is merely discriminatory effect. According to the district court it was plausible that California's original LCFS has caused such discriminatory effects.[976] However, the plaintiffs later decided to voluntarily dismiss the claim of discriminatory effects.

Oregon's Clean Fuel Program (OCFP) includes biofuels sustainability criteria that have been drafted on the basis of California's LCFS. Unlike the district court in 2017 in *Rocky Mountain Farmers Union*, the Ninth Circuit in the case on OCFP concluded that none of the discriminatory effect resulting from the program could justify the application of strict scrutiny. The majority on the court appeared to give significance to the fact that the default values for several out-of-state pathways were lower than the default values for other in-state pathways.[977] The majority might have intended to imply that there was insufficient evidence of any market shares being diverted to in-state biofuels. Judge Smith, dissenting, seems to have disputed this view, by arguing that the scheme had discriminatory effects due to all Oregon biofuel pathways being assigned default emission values below the average carbon intensity value that fuel providers had to comply with annually.[978]

Furthermore, even if no market share would have been shifted to in-state Oregon companies in the biofuels sector as a whole, it is difficult to believe that in-state biofuels from a specific pathway would not gain a benefit over out-of-state biofuels of the same pathway in case the default values are different. Normally in trade law, discrimination within a subcategory of the broader category of like products cannot be compensated by opposite effects with respect to other subcategories within the broader category of

[974] Rocky Mountain Farmers Union v. Corey, Memorandum Decision and Order Re Defendants' Motion to Dismiss, Lead Case: 1:09-cv-2234-LJO-BAM (E.D. Cal. 2017). *See* also American Fuels and Petrochemicals Manufacturers Association, et al. v. Corey, No. 1:09-cv-2234-LJO-BAM (E.D. Cal. 2015).
[975] Rocky Mountain Farmers Union v. Corey, case no. 17-16881 (9th Cir. 2019).
[976] Rocky Mountain Farmers Union v. Corey, Memorandum Decision and Order Re Defendants' Motion to Dismiss, Lead Case: 1:09-cv-2234-LJO-BAM (E.D. Cal. 2017).
[977] American Fuel & Petrochemical Manufacturers v. O'Keeffe, case no. 15-35834 (9th Cir. 2018).
[978] American Fuel & Petrochemical Manufacturers v. O'Keeffe, case no. 15-35834 (9th Cir. 2018), judge Smith dissenting.

like products.[979] The OCFP thus appears to be de facto discriminatory and the question is rather whether the discriminatory effects were of such a nature that it would be enough to trigger strict scrutiny. The threshold for applying strict scrutiny due to de facto discrimination did not become any clearer with the ruling. There is a need for clarification by the Supreme Court due to the ambiguity regarding the applicable standard of review in cases on PPM-criteria. For example, would strict scrutiny only apply in the extreme cases where all in-state products achieve a beneficial position in comparison with all like products?

The saga of *Rocky Mountain Farmers Union* took a new turn in 2019 when the Ninth Circuit, among other things, ruled that the claims against the original LCFS were moot because that version of the scheme had been repealed.[980] There is therefore no further clarity on whether strict scrutiny could apply to schemes such as the original version of the LCFS. It ought to be emphasized that in the end the standard of review might still not be decisive for the outcome. When applying strict scrutiny, the courts could conclude that changing the state specific default values to origin neutral default values would not ensure an adequate level of protection even if the individual values would continue to include geography-related components. Similarly, under the Pike balancing tests the burden on interstate trade that comes from implementing state specific instead of origin neutral default values should not be clearly excessive of the benefits of more exact emission estimates.

The alternative of abolishing the default values altogether should, however, also be considered regardless of which proportionality review applies. Under strict scrutiny it could be concluded that such alternative ensures an adequate level of protection. The proportionality of the original LCFS would consequently have been dependent on whether such alternative would be reasonably available or whether it is too costly. There have been diverging views on this.[981] Comparably, under the Pike balancing test the courts could find that the burden of state specific default values is clearly excessive

[979] *See* section 1.3.2.2.
[980] Rocky Mountain Farmers Union v. Corey, case no. 17-16881 (9th Cir. 2019).
[981] Compare judge Murguia dissenting in Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070 (9th Cir. 2013); with Hwi Harold Lee, 'Dormant Commerce Clause Review: Why the Ninth Circuit Decision in *Corey* Strayed from Precedent and What the Supreme Court Could Have Done About It' (2015) 42 Boston College Environmental Affairs Law Review 54, 65.

of the non-monetary benefits when the option of abolishing default values altogether would be available.

3.2.3.5. Amendments to California's LCFS in 2015

In 2015 California amended the LCFS. Under the new version the same default values are offered to all producers following a particular pathway regardless of geographical location. Although this new version of the LCFS may be de facto discriminatory, it is at least not de jure discriminatory. Still, the district court in 2017 found it plausible that even the amended 2015 LCFS had such discriminatory effects that strict scrutiny may apply.[982] It did not take any further decision on the issue as the plaintiffs decided voluntarily dismissed that claim.

There would exist four possible approaches to the call for the application of strict scrutiny to schemes like the new version of the LCFS in *Rocky Mountain Farmers Union*. Above it was argued that the application of strict scrutiny to de facto discrimination could essentially introduce a test with the characteristics of proportionality sensu stricto. Thus, the first approach would be to reject the application of strict scrutiny to schemes like the 2015 version of the LCFS in *Rocky Mountain Farmers Union*. This approach would be preferable because it would avoid the problems that arise with the application of strict scrutiny to de facto discrimination.

The second approach would be to apply a rare version of strict scrutiny to the case. The Supreme Court has occasionally not assessed whether there is a less trade restrictive alternative that would ensure adequate protection. Instead, it has assessed whether there is an alternative that ensures the legitimate objective 'as well'. This would bring the test close to the test of least restrictive measure applied under EU and WTO law. An intense review would be subject to similar criticism as the test of alternatives ensuring 'adequate' level of protection. However, the test could in principle be more deferential for cases of de facto discrimination. This would naturally raise questions as to how such a test of strict scrutiny should be applied in order for it to be more intense than the Pike balancing test. All in all, this approach seems unlikely.

As a third alternative, the court in *Rocky Mountain Farmers Union* could have opted to apply strict scrutiny to the old and the new version of the LCFS simply with the

[982] Rocky Mountain Farmers Union v. Corey, Memorandum Decision and Order Re Defendants' Motion to Dismiss, Lead Case: 1:09-cv-2234-LJO-BAM (E.D. Cal. 2017).

argument that the discriminatory effects are too significant. Substantial discriminatory effects may stem from the use of geography-based factors in the calculations of carbon intensity and also from the decision by California to set the yearly carbon-quota for fuel suppliers at the specific level it has been set. In applying strict scrutiny, a court could, for example, find that the LCFS would offer an adequate level of protection even with a lower yearly carbon intensity quota. In other words, even a lower quota might in the view of the court sufficiently reduce emissions from in-state PPMs and cross-border emissions from out-of-state production. This approach would give the application of strict scrutiny to cases of de facto discrimination a broad reach. As explained already above, the approach would have the characteristics of proportionality sensu stricto. With the application of this type of test the judgment of the regulating state on the need for environmental protection is substituted by the judgment of the court.

Moreover, the approach could lead to an undesirable series of events that may be illustrated by an example. To start with, if the court states that the discriminatory effects are so substantial that strict scrutiny applies, it might also conclude that the LCFS is disproportional. As an alternative that guarantees an adequate level of protection the state might be offered a model, with or without geography-related factors, that has lower yearly carbon intensity quotas. The adopted model would be declared unconstitutional and the state would be forced to amend its LCFS. However, instead of the alternative measure that by the court was deemed to guarantee an adequate level of protection, the state would undoubtedly be tempted to reduce the quota slightly from its original level, but not as far as suggested by the court when it applied strict scrutiny. With this manoeuver the state would hope the court to find that the discriminatory effect no longer is so substantial that it triggers strict scrutiny. Then the measure could survive Pike balancing even if the level of discrimination would be higher than it would be with the measure that the court found to guarantee an adequate level of protection under strict scrutiny.

The state might experiment with different quotas to find out through a series of legal cases the quota that would escape strict scrutiny and survive the Pike balancing test. I am not stating that a system of only one proportionality review would be immune to the risk of long series of disputes on the same scheme of sustainability criteria. In fact, the tuna-dolphin saga under WTO law is evidence of the contrary. Yet, a system with

two different proportionality reviews for de facto discrimination would appear particularly prone to prolonged litigation.

Under a fourth and final approach the court in *Rocky Mountain Farmers Union* could have found that substantial discriminatory effects as such is not sufficient to trigger strict scrutiny. Instead the court could have established that it is the inclusion of geography-based factors in the calculation of the carbon intensity for biofuels that results in the application of strict scrutiny. In other words, a court could state that strict scrutiny applies for the use of geography-dependent factors in calculating pathway-specific default values and perhaps even for the use of such factors in the calculations of individual plant-specific carbon intensity values. Geography-dependent factors would include emissions from transport of biomass and biofuel as well as emissions from the electricity fed into the local grid and used at the local fuel plant.

Strict scrutiny could apply specifically because of the use of geographic factors. The reference to the use of geography-dependent factors as a decisive element would clearly differentiate cases where strict scrutiny applies from cases where Pike balancing applies. The formalism could be criticized for its lack of link to economic theory and an efficiency rationale. At the same time, the formalism would at least avoid a couple of the problems that would follow from the application of strict scrutiny to a broader scope of cases where the de facto discriminatory effect is substantial.

In 2019 the Ninth Circuit did not rule on discriminatory effects and the applicability of strict scrutiny. It, however, emphasized that the argument that the scheme was facially discriminatory had weakened as the state specific default values had been abolished. The Court eventually rejected the dormant Commerce Clause challenge on the grounds that the scheme was not facially discriminatory and that there was no underlying discriminatory purpose.[983]

It is submitted that should the Supreme Court hear the case on the 2015 LCFS, it should not apply strict scrutiny. However, if the court still opts to apply strict scrutiny in the case, it should be explicit in stating that the reason is not substantial discriminatory effects as such, but those effects in combination with the fact that some elements of California's LCFS include geography-based factors.

[983] Rocky Mountain Farmers Union v. Corey, case no. 17-16881 (9th Cir. 2019).

Would it then make any decisive difference whether strict scrutiny or the Pike balancing test applies to the 2015 LCFS? The geography-based factors have undeniable added value in terms of environmental protection and the reduction of externalities. Thus, including the geography-related factors in the individual value calculations would likely survive even strict scrutiny because sustainability criteria that do not take into consideration emissions from those factors would not ensure adequate protection. The assessment of the origin neutral default values would be more dependent on the standard of review. The proportionality of the default values would only be questionable under the assumption that abolishing default values from the model forms a reasonably available alternative. Under such circumstances the LCFS would likely not survive strict scrutiny if the default values increase discriminatory effects. The conclusion would seem to be the same under the Pike balancing test. The primary benefits of the default values would relate to financial costs for the state and those do not form benefits of relevance under Pike. When the default values increase discriminatory effects, their burden on interstate commcerce would be clearly excessive of any legitimate benefits.

A more detailed analysis of the general trade law proportionality of default value solutions in biofuels sustainability schemes, including the LCFS, is provided in chapter 5. In that context no differentiation will be made with respect to the applicable standard of review given that the outcome for the case might still be identical.

3.2.4. Comparative Law and the Elimination of Externalities

The structure of the proportionality review under the U.S. dormant Commerce Clause is substantially different from EU free movement law and WTO law. The U.S. doctrine includes two proportionality tests. Pike balancing, the test commonly applied to de facto discrimination, is a holistic value balancing test. Strict scrutiny is in turn, as the name already suggests, a stricter review of state measures. It applies to cases of facial discrimination and exceptionally even to de facto discrimination. Although measures that fall under strict scrutiny are generally struck down as unconstitutional, the Supreme Court has still showed restraint when the state measure under scrutiny has been the least restrictive reasonably available alternative for achieving a legitimate environmental

objective.[984] The consequences of there existing two different proportionality reviews should therefore not be exaggerated.

While proportionality under the dormant Commerce Clause differs from the suitability and necessity tests applicable in EU and WTO law, two important commonalities between the U.S. model and the model of the two other jurisdictions were identified. First, the proportionality review under the dormant Commerce Clause has also been deferential under scientific uncertainty. All three jurisdictions allow for broad state discretion under scientific uncertainty. The proportionality review in practice allows states to give a lot of consideration to in-state preferences and estimates of externalities when designing measures for addressing externalities. This means that states have much freedom to structure their energy policy and PPM-criteria. Schemes promoting renewable energy that are merely de facto discriminatory would be expected to have good chances of surviving proportionality in all three jurisdictions if carefully designed.

Secondly, there are in all jurisdictions even fundamental elements of the tests that are unclear. For example, the lack of detailed reasoning has lead to incoherence in the EU as illustrated by the inconsistent application of the policy consistency test and the surprisingly strict scrutiny in *Danish Bottles*.[985] In the U.S. the consequence of the many open questions with respect to both the choice of proportionality test and the interpretation of the different elements in Pike balancing become evident in cases such as *Rocky Mountain Farmers Union*. The incoherence in the proportionality review is bound to lead to unexpected outcomes.

As was the case under EU free movement law and GATT, there is also under the dormant Commerce Clause no precedent on whether a state measure that goes beyond the elimination of externalities could survive any proportionality review. Under strict scrutiny, there would be room for the argument that a less ambitious environmental objective would be adequate. In turn, under the Pike balancing test it may or may not be concluded that the burden becomes clearly excessive of the benefits as a result of the additional burden stemming from extending the scope of the measure beyond the elimination of externalities. This type of dilemma has probably not arised frequently as states rarely adopt an overly environmentalist agenda. That being said, with the

[984] Maine v. Taylor, 477 U.S. 131 (1986).
[985] Case 302/86 *Commission v. Denmark* (Danish Bottles) [1988] ECR 4607.

increasingly imminent threats of climate change state policies could take new directions fast.

In general, the proportionality review carried out by courts would benefit from more transparency. For example, it should be specified whether suitability in EU and WTO law requires expected effect with some probability, or whether theoretically possible effect is sufficient. In addition, the intensity of the least restrictive measure test ought to be clarified. In turn, in the U.S. the predictability and coherence of the proportionality review is hampered by the fact that strict scrutiny might apply instead of Pike balancing in some cases of de facto discrimination. The incoherence in this respect is in part due to the occasional difficulties to determine whether there is either de jure or de facto discrimination. What is more, U.S. courts have regrettably been too unspecific as to how the test of least restrictive measure affects the balancing in the Pike test. In addition, under the Pike balancing test it is not evident how the courts define the burden and the benefits. An attempt in this part of the book to construct definitions pointed to incoherence. In conclusion, while the U.S. proportionality review has the potential of offering some relief to the problems identified with the suitability and least restrictive measure tests that have had a prominent role in EU and WTO law, many other questions and problems arise in the application of U.S. tests.

Conclusions on Proportionality and Tackling Externalities

Unlike the SCM Agreement, trade law includes grounds of justification. Tackling negative externalities can be justified with reference to environmental protection as a ground of justification, without any need for a narrow likeness test or market participation and creation exemptions. The test of proportionality that is to be applied in those cases confirms that efficiency is at the heart of trade law and other fields of economic law. A measure can only be proportional if there is no less restrictive alternative measure that would serve the same purpose. Measures that are inefficient because they include some unnecessary discriminatory element will not survive a proportionality review. The proportionality review often follows the same logic as an examination of whether a state measure and all its elements promote efficiency through reduction of (environmental) externalities.

With many questions relating to the specific elements of the proportionality tests unanswered, it is also difficult at this point to provide any definite view on the nature of the efficiency that the trade law regimes advance. It is somewhat surprising how little there is explicit reliance on economic theory in trade law, for example in comparison with competition law. A more economic approach in economic law across jurisdictions could, or even should, strengthen environmental arguments. An emphasis on the importance of limiting externalities for genuine efficiency would steer the focus from balancing trade and environment – a view that feeds the impression of conflicting values – toward ensuring that the costs of environmental harm are fully taken into account in trade law. For example, a deferential approach toward state measures in the application of tests of suitability and least restrictive measure would allow states to adopt PPM-criteria that are necessary, albeit perhaps not sufficient, to tackle environmental problems. What is more, amid harsh criticism toward free trade agreements like TTIP, the legitimacy of free trade may be improved among the general population if it becomes more explicit that the objective of the agreements is to advance a perception of efficiency that takes into account externalities.

What forms of proportionality review would be in line with the idea of allowing for tackling externalities effectively? A deferential approach toward state measures would allow states to take effective steps to tackle externalities as they have been estimated

by the state.[986] A more intense or strict review would not necessarily divert from the objective of efficiency, but would replace the state perspective with a union, federal or international perspective. As Shuibhne and Maci have noted, there is a tension between free trade and national autonomy present in trade law.[987] The question is thus perhaps not whether trade law furthers efficiency and the limitation of externalities. Instead, the question is about whose perspective on estimated externalities that should be given priority under trade law. This question is relevant when examining the competence division between states on the one hand and unions or international organizations on the other hand. There is some appeal in putting the emphasis on the state's evaluation of externalities instead of on the perspective of higher-level unions or organizations because a more local perspective would strengthen democratic legitimacy and reduce the risk that some local interests are fully ignored.

An efficiency perspective on trade law does not offer all the answers. Other values must also be considered. These do not necessarily contradict the efficiency ideal, but at the very least they should complement it, as will be illustrated in subsequent chapters of this book.

[986] Charles Poncelet, 'Free Movement of Goods and Environmental Protection in EU Law: A Troubled Relationship?' (2013) 15 International Community Law Review 171, 200.
[987] Niamh Nic Shuibhne and Marsela Maci, 'Proving Public Interest: The Growing Impact of Evidence in Free Movement Case Law' (2013) 50 Common Market Law Rev. 965, 969.

Chapter 4 – Value Reconciliation Tests in Law of Justification: Values Beyond Free Trade and Environmental Protection

Previous chapters of this book already provided reflections on the proportionality review of PPM-criteria in general. In contrast, the emphasis in this chapter will be more firmly on specific elements of PPM-legislation, or in other words the proportionality of the detailed design of PPM-criteria. With increasing efforts to advance the sustainability of PPMs and with new sustainability models being introduced, new dimensions of the proportionality review might gain more emphasis in the review.

It is recalled that both non-discrimination and environmental protection may be interpreted to reflect a common ideal of market efficiency. The premise is, however, that non-discrimination and environmental protection might not be the only values relevant in trade law cases on environmental protection measures.[988] Of interest is whether any additional values might influence the reconciliation of free trade and environmental protection. The objective of this chapter is thus to find out to what extent elements in the proportionality review might reflect values beyond the efficiency values linked to non-discrimination and the elimination of externalities.

Values or objectives beyond the elimination of externalities in cases on environmental protection should here not be understood as separate legitimate grounds of justification that are reconciled with free trade through traditional tests of proportionality. Instead, the values or objectives are interests that potentially affect the balance between free trade and environmental protection. They might be found outside the scope of traditional core proportionality tests, such as suitability and necessity, but still within the realm of the broadest dimensions of a proportionality review. Moreover, the values not related to the reduction of (environmental) externalities might advance societal efficiency, in the sense that the society as a whole could become more efficient. Alternatively, the values might – at least primarily – relate to other societal objectives than efficiency.

[988] The idea has previously been briefly touched upon in Andrew D. Mitchell and Caroline Henckels, 'Variations on a Theme: Comparing the Concept of "Necessity" in International Investment Law and WTO Law' (2013) 14 Chicago Journal of International Law 93, 101-102.

4.1. The Scope of Sustainability Criteria

4.1.1. Designing Environmental PPM-Criteria

In trade law a discriminatory measure may be justifiable if it is suitable and necessary for environmental protection. It was illustrated in the previous chapter of this book that some international scientific support must be presented for the objective of environmental protection to be legitimate. This requirement is not that strict. Hence, states have a broad discretion with respect to what environmental effects they tackle.

Defining the types of pollution and other environmental harm to be tackled with the sustainability criteria is only one step in the design process. The state must also decide what stages of the life-cycle will be covered. For example, would criteria on GHG emissions include only emissions from producing fuel in the production plant or would they also count for emissions arising from generating electricity to the plant and from transporting the fuel?

Furthermore, the state has to establish which products have to be sustainably produced. PPM-criteria could be limited to products produced in-state and products that are actually imported. Alternatively, the importing state could require that imported products only come from producers that produce all of their products in accordance with the PPM-criteria. It might even be that the state decides to require that producers only have sustainable business partners or do business in sustainable states. Some importing state might also consider requiring imports to come from states where all production is sustainable.

There are various models for designing and adopting PPM-criteria, as the above considerations already reveal. This raises questions with respect to the limits of the scope of sustainability criteria. For example, must the application of PPM-criteria be restrained to imported products or could they apply also to other products? Can PPM-criteria address even effects of which the producer has little control?

The purpose with the discussion on the limits of the scope of sustainability criteria in this first section of the chapter is to point out issues where there still prevails some uncertainty on the compatibility of criteria with the legal tests in economic law. This serves the more general objective of shedding some light on what values, other than non-discrimination and environmental protection, that may have to be reconciled when

evaluating the compatibility with economic law of criteria on the environmental sustainability of PPMs.

4.1.2. The Scope of Products Covered

4.1.2.1. Product Sustainability Versus Producer Sustainability

Sustainability criteria may target harmful physical properties of products. This type of criteria adopted by importing states will normally apply only to in-state production and imported products. Applying the criteria also for products that are never imported would not enhance public health or environmental protection in the importing state. However, the situation becomes different with PPM-criteria. PPM-criteria could target the company and its processes as a whole, covering the production of both goods that are intended for the market of the state adopting the criteria and goods sold elsewhere. Extending the application of PPM-criteria so that they target also products that are not imported could arguably increase the level of protection against the cross-border environmental harm of unsustainable PPMs.

It is not unimaginable that a state implements PPM-criteria for market access so that products only get market access if the full selection of the producer's different products comply with the PPM-criteria. A similar approach could apply also when compliance with the PPM-criteria is not necessary for market access but makes the producer eligible for some benefits. These criteria that apply to the production of all of the producer's products could be described as targeting general corporate practice and policy. The criteria address company (producer) sustainability, while criteria applying only to products introduced on the market of the regulating state address product sustainability.

Would it then be compatible with trade law for the importing state to require that the full selection of the producer's products is sustainable or should criteria that apply also to imports address only the effects associated with the individual products that are actually imported? This question has to date not received much attention in the discussion on the fate of PPM-criteria under trade law regimes.

Less favorable treatment of products on the grounds that the producer does not meet the PPM-criteria in all of its production could have discriminatory effects if in-state companies commonly comply with the criteria, but out-of-state companies do not. Would company (producer) sustainability criteria then advance a legitimate objective? There could in principle be significant cross-border environmental effects also from

out-of-state production of products that are not imported to the regulating state. Already this confirms that company (producer) sustainability criteria could serve a legitimate objective. In addition, such criteria could address moral concerns and out-of-state environmental harm. I shall return to the question of whether legitimate objectives under trade law include mitigation of cross-border environmental effects, out-of-state environmental effects and various moral objectives in chapter 6 of this book.[989]

After confirming that there is a legitimate objective behind the discriminatory company (producer) sustainability criteria, it has to be determined whether or not they are proportional. Product sustainability criteria could form a less discriminatory alternative to company (producer) sustainability criteria. However, product sustainability criteria might often not ensure the same level of protection as they address the sustainability of production of a narrower set of products. This would indicate that company (i.e. producer) sustainability criteria could survive the proportionality review.

Out-of-state companies might still put forward the argument that company (producer) sustainability criteria form arbitrary or unjustifiable discrimination. The situation with the implemented PPM-criteria might be such that the difference in treatment of products does not stem from any differences in the sustainability of the products or their PPMs, but from differences in compliance with the sustainability standard on a corporate level. For example, one type of sustainably produced products of an out-of-state company might face less favorable treatment on the market of the regulating state for the reason that the company produces another type of products with unsustainable methods. This could potentially be viewed as arbitrary or unjustifiable discrimination because a specific type of products produced by out-of-state companies receive less favorable treatment than some of the regulating states' own producer's similar products, even if the products of that specific type are equally sustainable.

There is no clear guidance on how the above arguments of arbitrary or unjustifiable discrimination would be perceived by panels and courts. It will be argued in the subsections below that particularly criteria on such aspects of sustainability that companies have no direct control over are vulnerable to claims of arbitrariness.[990] With respect to company (producer) sustainability criteria the companies have full control, as it would be fully up to the producers treated less favorably to change their business

[989] *See* sections 6.2-6.3.
[990] *See* sections 4.1.3.1 and 4.1.4.3.

and comply with the sustainability standard in all of their production. It is thus possible that the company (producer) criteria are justifiable since they both enable a higher level of protection than product sustainability criteria and address aspects within the control of the companies. Moreover, in the next section it will be illustrated how in EU public procurement law a separate test has been developed to render producer criteria illegal. The existence of such test supports the conclusion that producer criteria may be legal under EU free movement law, because were they not, no separate test would be needed under procurement law.

4.1.2.2. The Subject-Matter Test in Public Procurement Law

The analysis of the compliance of company (producer) sustainability criteria with trade law can be considered against the development in public procurement law. EU procurement directives require that criteria at different stages of the procurement process must be linked to the subject matter of the contract.[991] Criteria on the general corporate policy of the supplier are not linked to the subject matter of the specific contract that is awarded.[992] Thus, in public procurement the criteria can neither relate to the general management of the company nor to the general capacity or quality of company operations.

Requirements on recycling or energy efficiency in all premises and for all vehicles of the company would fall into the category of general policy. *Wienstrom* was a case where an Austrian public authority had required that the supplier would generate a certain share of all of its annual electricity output from renewable resources. The requirement thus covered more than merely the share of electricity delivered under the procured contract. Hence, the requirement was not linked to the subject matter of the contract.[993] Under EU procurement law criteria can be set for the sustainability of the

[991] Art. 42(1), 58, 67(2) and 70 as well as recitals 75 and 92, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65; Art. 60(1), 80(2) and 82(2), Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC, OJ L 94, 28.3.2014, 243; Art. 36(1), 38(1) and 41(2), Directive 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts, OJ L 94, 28.3.2014,1; Case C-513/99 *Concordia Bus Finland Oy Ab, formerly Stagecoach Finland Oy Ab v. Helsingin kaupunki and HKL-Bussiliikenne* [2002] ECR I-7213, paras 57-59; Case C-448/01 *EVN AG and Wienstrom GmbH v. Austria* [2003] ECR I-14527, para. 66.

[992] Recitals 97 and 104, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65.

[993] Case C-448/01 *EVN AG and Wienstrom GmbH v. Austria* [2003] ECR I-14527, paras 60-71.

purchased goods but should not extend to the sustainability of companies and their production as a whole.

The subject matter test applicable in EU public procurement law results in the rejection of criteria on other products than those that are purchased. Hence, the public authority cannot apply PPM-criteria on products that are produced out-of-state but are not purchased and imported by the authority. EU public procurement law would appear stricter than trade law on this account.

While the subject-matter test applies in the EU, there is more uncertainty as to whether the subject-matter test applies under the Government Procurement Agreement (GPA). McCrudden has argued that technical specifications should not cover general policy requirements and should be related to the subject matter.[994] There are fewer indications that award criteria would need to relate to the subject matter or to contract performance.[995] There have, moreover, been divergent opinions on the exclusion of bidders with reference to general policy criteria.[996]

The subject matter test is particular to the field of public procurement and does not apply generally under trade law. What is then the rationale of the subject-matter test in EU public procurement law? The European Commission has argued that general policy criteria would run the risk of transforming the procurement into illegal state aid if the criteria do not increase value for money.[997] In some respect the subject matter test would then ensure coherence between the fields of law. However, it submitted here that also general policy criteria can in fact increase value for money. Namely, such criteria may often reduce even more externalities and would thus create value for the general public that the authority serves. Therefore, general policy criteria should not automatically be viewed as problematic in the context of state aid legislation.

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[994] Christopher McCrudden, *Buying Social Justice: Equality, Government Procurement and Legal Change* (OUP 2007) 483.
[995] Sue Arrowsmith, *Government Procurement in the WTO* (Kluwer 2003) 344.
[996] *Compare* Sue Arrowsmith, 'The Revised Agreement on Government Procurement: Changes to the Procedural Rules and Other Transparency Provision', in Sue Arrowsmith and Robert D. Anderson (eds.), *The WTO Regime on Government Procurement: Challenge and Reform* (CUP 2011) 309-311; *with* Christopher McCrudden, 'International Economic Law and the Pursuit of Human Rights: A Framework for Discussion of the Legality of "Selective Purchasing" Laws under the WTO Government Procurement Agreement' (1999) Journal of International Economic Law' 3, 42; and Christopher McCrudden, *Buying Social Justice: Equality, Government Procurement and Legal Change* (OUP 2007) 479-489.
[997] Green Paper on the modernisation of EU public procurement policy – Towards a more efficient European Procurement Market COM (2011) 15 final, 39-40.

As discussed previously in this book,[998] the idea of differentiating between the state as market participant and market regulator has been developed under the U.S. dormant Commerce Clause. Public purchasing is generally market participation. The U.S. market participant test grants state market participants more freedom to act. In turn, the subject matter test in EU public procurement law could reflect the idea that market participants should not engage in market regulation.

Could the strict limits on public purchasing in the EU be linked to the idea that the legislative power lies with the legislature? An important element of democracy is the distribution of powers as outlined by Montesquieu.[999] In accordance with the doctrine nowadays referred to as the separation of powers the legislature should enact the laws, the executive should enforce the laws and the judiciary should interpret the laws when ruling on individual cases. The state legislates through legal acts adopted by a democratically elected institution. Reserving the legislative competence for one institution creates some pressure for limitations on the ability of other state or public authorities to adopt measures that aim to impose regulation comparable to legislation. In particular, a state or other public authority that buys or sells goods or services on the market does not have any legitimacy to regulate. Public authorities should also not take on the regulatory role of the legislative branch through policy-making that the state legislature is traditionally responsible for in its capacity as a market regulator. Separating between market regulation and participation is, however, difficult.

There is admittedly no clear distinction between when a public authority participates on the market and when it regulates the market. It could be argued that already adopting criteria to tackle externalities is a form of market regulation as private market participants would often not advance such objectives. Yet, criteria to tackle externalities are legal under public procurement law. The legal status of environmental and social criteria that go beyond the elimination of externalities is less clear. The regulatory element of such criteria could be viewed to be even stronger and their proportionality could be questioned.

How can we depict the regulatory elements of criteria on general corporate policy and criteria on other products than those that are purchased? It should be recalled that authorities with significant purchasing power can have a strong influence on the general

[998] *See* section 2.3.
[999] Charles de Secondant, Baron de Montesquieu, *De l'esprit des loix* (1748).

policy of companies. Criteria on general corporate policy and criteria on other products than those that are purchased could therefore gain elements of market regulation. The significant purchasing power of many public authorities would enable them to take up a role that resembles the market regulating role of the legislator if it were not for the subject matter test.[1000] This is not to suggest that clear cut lines can be drawn. For example, sustainability criteria that apply only to products and services under the procured contract, and thus comply with the subject matter test, might in practice also force changes in the company policy and operations as a whole.[1001]

There are some reasons to believe that the rationale of the subject matter test might lie somewhere else than in the idea that contracting authorities shall act as market participants and that such activities can be distinguished from market regulation. Namely, there is no general distinction between the state as a market regulator and as a participant in EU free movement law or under the GATT. In EU and international trade law measures attributable to the state may be prima facie prohibited and no stricter limitations apply for market participation and other non-legislative measures as compared to measures adopted in the form of legislation. Therefore, the fact that the subject matter test feeds into the idea of reserving regulatory powers with the legislature is perhaps more of an incidental outcome than the result of conscious policy-making.

As the distinction between state market regulation and participation is not crucial in WTO law and EU economic law in general, the rationale behind the subject matter test in procurement law might be more multifaceted. A rationale for the subject matter test could be found in the fact that, viewed from one perspective, the test serves the procurement law principle of equal treatment of all companies. Namely, companies of different sizes might all be capable of performing the procured contract but might have different abilities to fulfil some requirement unrelated to the procured contract. PPM-

[1000] Sue Arrowsmith, 'Application of the EC Treaty and Directives to Horizontal Policies: A Critical Review', in Sue Arrowsmith and Peter Kunzlik (eds.), *Social and Environmental Policies in EC Procurement Law – New Directives and New Directions* (CUP 2009) 212-213. *See* also Interpretative communication of the Commission on the Community law applicable to public procurement and the possibilities for integrating environmental considerations into public procurement, COM (2001) 274 final, 19. The Commission raised concerns that authorities would apply non-economic considerations in award criteria, i.e. use procurement for regulative purposes and not act as market participants.

[1001] Sue Arrowsmith, 'A Taxonomy of Horizontal Policies in Public Procurement', in Sue Arrowsmith and Peter Kunzlik (eds.), *Social and Environmental Policies in EC Procurement Law – New Directives and New Directions* (CUP 2009) 127; Sue Arrowsmith, 'Application of the EC Treaty and Directives to Horizontal Policies: A Critical Review', in Sue Arrowsmith and Peter Kunzlik (eds.), *Social and Environmental Policies in EC Procurement Law – New Directives and New Directions* (CUP 2009) 173-174.

criteria on the production of all products may be harder to fulfill for larger companies. In contrast, criteria on generating a certain quantity of electricity from renewables above the actual purchased quantities would in turn favor larger companies. Equal treatment by public authorities of all companies regardless of size is part of good governance.

There are some downsides to restricting the application of sustainability criteria that would cover corporate policy more in general. For example, the carbon emission profile of the company as a whole would seem more relevant from an environmental perspective than the emissions that can be linked to the production for fulfilling a single contract. Perhaps paradoxically, in public procurement a company that has a much better environmental performance generally in its operations can as a consequence of the application of sustainability criteria be treated less favorably than a company that merely has exceptionally good environmental performance when it comes to the environmental characteristics of the specific purchased good, the emissions in the production of only those purchased individual products, the emissions in the consumption of those products and the disposal of only those products. This illustrates that the test of a link to the subject matter may improve equal treatment from one perspective, but perhaps undermine it from another. For example, companies with equal carbon footprints may be treated differently with reference to the sustainability of the production of merely one product.

All in all, uniformity across economic law is not a value in itself. The approach to criteria on company (producer) sustainability may be stricter in public procurement law due to the particularities of public procurement as a field within international trade. The introduction of the subject matter test would best be regarded as an outcome of balancing various competing interests. While the test may partly restrict the potential to address externalities in some respect, it will advance equal treatment in the sense that the size of the company affects the chances of winning a bid to a lesser degree. This invites more intense competition on the market. In practice it will often be realized in terms of increased opportunities for small and midsized enterprises.

The balancing of the environmental and the economic interests does, however, not reflect the full picture. Namely, the test also furthers democratic interests by advancing good governance. In addition, the test, perhaps incidentally, ensures that state agencies

are not awarded too much regulatory power. In this context the democratic and the economic interests seem to be aligned and may outweigh the environmental interests.

4.1.3. The Scope of Companies Covered

4.1.3.1. State-of-Origin Legislation as a Proxy for Sustainability

Sustainable PPMs may be offered a beneficial status on the market. The state implementing sustainability criteria might decide to grant the benefits to individual products or producers that have been certified to comply with sustainability criteria. Unsustainable PPMs of products or producers could even be banned and denied market access altogether. In some sustainability schemes it might not be sufficient for the producer to comply with the sustainability criteria. Namely, the importing state that implements PPM-criteria might condition the benefits, or market access, upon the existence of similar PPM-criteria in the exporting state's legislation. In other words, a state that bans unsustainable PPMs might require that also exporting states have banned them in-state. Imports would only be allowed from states with a fully sustainable industry. This use of state-of-origin law and policy as a proxy for product or producer sustainability may be referred to as country certification or state certification.

The compatibility of country certification with GATT was at stake in *US – Shrimp*. The case concerned U.S. legislation restricting imports of shrimp that had been caught without the use of turtle exclusion devices. The objective of the law was to protect turtles. Imports were allowed from foreign countries that had been certified as sustainable. This certification was available provided that the country required fishing vessels in their waters to use turtle exclusion devices. In other words, the U.S. required exporting countries to apply laws on turtle protection similar of its own.

The U.S. Department of State had in 1996 published guidelines on the interpretation of the law. In accordance with those guidelines shrimps could be imported even from un-certified countries provided that the individual trawler had not used fishing methods harmful for turtles. However, the possibility of certification of individual batches of shrimp from un-certified countries was initially struck down by a U.S. court and became the issue of a long series of litigation. At the time of the decisions taken by the panel and the AB in *US – Shrimp*, individual certification was not granted in

practice.[1002] Hence, the law as applied did not accept certification of producers or their products and rendered certification of countries compulsory. The law declared a whole nation as unsustainable regardless of the actions of individual companies.

The implementation of the U.S. turtle protection legislation was very intrusive in the sense that it did not target PPMs of fishing vessels directly, but governmental policies. The measure was in some sense a case very close to de jure discrimination because individual trawlers were treated differently solely on the basis of country of origin and despite using identical sustainable PPMs. In its decision in *US – Shrimp* the AB classified the measure as unjustifiable discrimination.[1003] In its reasoning the AB seemed to expect on the one hand that the U.S. would accept PPMs that are equally effective as using the turtle exclusion devices that the U.S. required for vessels fishing in U.S. waters, and on the other hand a possibility for sustainability certification of individual shrimp trawlers.[1004]

Shrimp trawlers that followed sustainable methods were under the U.S. system punished for the content of their home state legislation, which was something outside their control. A consequence of the law and how it was implemented was that vessels from countries with no ban on the use of turtle exclusion devices could not gain access to the U.S. market, or at least not unless they caught shrimp in the waters of a certified country. Fishing in foreign waters would presumably have required new fishing permits and perhaps even re-registering the company and the vessel in a new state. The AB in the original proceedings did not give this possibility any thought.

After the decision delivered by the AB, the U.S. made some changes to the implementation of its national law. Among other things, the U.S. allowed countries to be certified as sustainable even if they did not have an identical turtle protection program as the U.S. as long as they had a program that was equally effective taking into account local conditions. For example, a state that requires the use of certain fishing devices in order to protect turtles should exempt from any such requirements vessels fishing in waters where no turtles live.

[1002] US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct. 1998, para. 5.
[1003] US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct. 1998, paras 161-165, 176.
[1004] *Ibid.*

Malaysia challenged the U.S. law and the revised implementation policy in compliance proceedings. The AB in *US – Shrimp (Art. 21.5)* concluded that the law was no longer unjustifiably or arbitrarily discriminatory since country certification took into account other equally effective methods than that preferred by the U.S.[1005] With respect to the option of importing sustainably caught shrimp from uncertified countries the AB in the compliance proceedings merely concluded that the U.S. law had not been changed to prohibit individual certification and an on-going litigation in the U.S. on the interpretation of the law did not warrant an analysis of a scenario in which individual certification would become unlawful.[1006]

There are a few important lessons that can be drawn from the various decisions in *US – Shrimp*. The cases confirm that country certification can be inconsistent with GATT unless the state takes into account two important aspects in the design. First, when country of origin law and policy is used as a proxy for the default level of sustainability, the importing state may not in its criteria require the use of a specific PPM without also accepting PPMs that serve the environmental objective with equal effectiveness. Secondly, given the statements by the original AB, the silence of the AB in the compliance proceedings should not be read as an invitation to states to leave out the possibility of sustainability certification of individual trawlers. In other words, for the importing state to be able to use a system of certifying imports as sustainable on the basis of country of origin law and policy, the importing state must likely also accept individual sustainability certification of imports. In other words, states must complement country certification with the option of individual sustainability certification for producers.[1007] The laws and policies of the exporting state where production has taken place shall not constitute an irreversible indication of unsustainability.

McCrudden argues that in a procurement law context the differentiation between country-based measures and other PPM-criteria is difficult to uphold because both can in practice be equally discriminatory.[1008] However, it is submitted here that country-

[1005] US – Import Prohibition of Certain Shrimp and Shrimp Products: Recourse to Article 21.5 of the DSU by Malaysia, DS58, AB Report, 22 Oct. 2001, para. 140-152.
[1006] US – Import Prohibition of Certain Shrimp and Shrimp Products: Recourse to Article 21.5 of the DSU by Malaysia, DS58, AB Report, 22 Oct. 2001, paras 93-96.
[1007] Similarly *see* Renata Benedini, 'Complying with the WTO Shrimp-Turtle Decision', in Edith Brown Weiss and John H. Jackson (eds.) *Reconciling Environment and Trade* (Transnational 2001) 433.
[1008] Christopher McCrudden, 'International Economic Law and the Pursuit of Human Rights: A Framework for Discussion of the Legality of "Selective Purchasing" Laws under the WTO Government

based PPM-criteria as a rule become less discriminatory when there is at least the option of certifying the sustainability of the methods of individual bidders. Therefore, in case the U.S. had implemented an in-state ban on unsustainable PPMs and in public procurement required that bidders come from states with a similar ban in their legislation, the conclusion under the Government Procurement Agreement would likely have been the same as in *US – Shrimp*.

The question of whether international trade law requires country certification to be complemented by individual product or producer sustainability certification has been the subject of much academic debate. Howse has argued that country certification is economically inefficient and prohibited under GATT at least when there is no possibility for certification of individual products.[1009] Gaines, in turn, has adopted a more lenient position on country certification. In his view the tests of unjustifiable and arbitrary discrimination should be more deferential and take into account that country certification may be the only path to ensure sufficient effectiveness of the PPM-criteria.[1010]

The claim that a model with only country certification and no individual certification would be more effective might relate to concerns about the reliability of certification. A country could be unconvinced that individual product or producer certification in some other country is reliable. It might consequently attempt to argue that country certification is necessary and justifiable because of the problems related to the credibility of certification and labelling of individual imported products. However, a mere suspicion that the foreign certification system is unreliable is not sufficient for less favorable treatment. Even with evidence of risks of inaccuracy in the certification process in some places the regulating state may not condition importation on the whole industry of the exporting state being sustainable. Risks of inaccuracy in the certification process of individual product or producer sustainability can instead be addressed by adjusting factors in the certification process itself, as will be explained more in detail

Procurement Agreement' (1999) Journal of International Economic Law 3, 42; Christopher McCrudden, *Buying Social Justice: Equality, Government Procurement and Legal Change* (OUP 2007) 479-489.

[1009] Robert Howse, *The WTO System: Law, Politics and Legitimacy* (Cameron May 2007) 104-105. *See* however also page 171 for a more positive view on country certification. *See* also Robert Howse and Donald Regan, 'The Product/Process Distinction – An Illusory Basis for Disciplining 'Unilateralism' in Trade Policy' (2000) 11 European J. International Law 249, 269-272.

[1010] Sanford E. Gaines, 'Process and Production Methods: How to Produce Sound Policy for Environmental PPM-Based Trade Measures?' (2002) 27 Columbia J. Environmental L. 383, 420-421 and 431-432.

further below.[1011] Importantly, problems with reliability in the certification process in some states is not a valid reason to ignore reliable certification in other states. Country certification without individual certification may be justifiable only in the exceptional case where reliable individual certification is so difficult that there are no economically and technically reasonable certification methods that reduce the risks of imported products entering the market with a false sustainability certification to a level comparable to that of in-state products being placed on the market with a false sustainability certification.[1012]

The effectiveness of PPM-criteria that allow for individual product or producer certification might be questioned with reference to the substantial effects country certification could have. To put it differently, country certification might be argued to ensure a higher level of protection against the harmful environmental effects as it would not only require out-of-state producers to change the PPMs for the products exported to the regulating state, but also pressure the state where production takes place to change its laws and transform the PPMs of its whole industry. Cross-border effects on biodiversity or cross-border pollution will decrease even more if the whole industry changes its PPMs. Yet, there are several reasons why country certification will still struggle to survive trade law scrutiny. As already described above, country certification could create arbitrary situations in the sense that individual sustainable producers are denied market access only on the basis of country of origin. In addition, the applicable home state legislation is outside the control of individual producers. Finally, country certification is specifically designed to put pressure on the sovereign legislator of another state. This is controversial in particular under WTO law as large developed states with a lot of market power might be better equipped to use the strategy successfully. In the value reconciliation process that is behind a decision on the legality of country certification the above three aspects are pinned against the interest in high-levels of environmental protection. While not unequivocal, *US – Shrimp* suggests that the concerns relating to country certification weigh more heavily here. As explained

[1011] *See* section 4.3.3.
[1012] Even if unsustainable PPMs are prohibited in-state, some unsustainable production might still occur due to errors or fraud. These risks are often mitigated, but not completely eliminated, through random checks and surveillance.

later, some parallels can be drawn with the interpretation of the extraterritoriality test in law of prohibition of the U.S. dormant Commerce Clause.[1013]

4.1.3.2. Business in Unsustainable States or with Unsustainable Business Partners

In accordance with the conclusions above, country certification would as a rule seem incompatible with trade law. States will in other words struggle to justify schemes that automatically and irreversibly render products from states lacking certain PPM-legislation unsustainable. This raises the question of whether the situation would be any different in case the individual company is not treated less favorably because of the policies of its home state, but instead because of the policies of the state in which it is doing business? This issue has not been litigated but at least one occasion it was a relevant aspect of a legal case.

A Massachusetts law introduced a fairly strict disadvantage to all bidders with activities in Burma (today known as Myanmar) because of human rights violations in the country.[1014] In essence, the law declared all companies present in Burma to have chosen an unsustainable path (with respect to human rights) regardless of their individual actions and potential non-involvement with human rights violators.

The Massachusetts procurement law provisions on Burma sparked much legal debate on its compatibility with U.S. and WTO law.[1015] Japan and the EU initiated consultations under the WTO regime.[1016] At another front the U.S. Supreme Court ruled that Massachusetts' Burma law was pre-empted by federal law and thus not in

[1013] *See* section 6.1.4.

[1014] An Act Regulating Contracts with Companies Doing Business with or in Burma (Myanmar), ch 130, 1996 Session Laws, Mass. Gen. Laws Abb., ch 7, 223 (West 1997).

[1015] *See* David Schmahmann and James Finch, 'The Unconstitutionality of State and Local Enactments in the United States Restricting Business Ties with Burma (Myanmar)' (1997) 30 Vanderbilt Journal of Transnational Law 2; Daniel M. Price and John P. Hannah, 'The Constitutionality of United States State and Local Sanctions' (1998) 39 Harvard International Law Journal 443; David R. Schmahmann, James Finch and Tia Chapman, 'Off the Precipice: Massachusetts Expands Its Foreign Policy Expedition from Burma to Indonesia' (1997) 30 Vanderbilt Journal of Transnational Law 1021; Christopher McCrudden, 'International Economic Law and the Pursuit of Human Rights: A Framework for Discussion of the Legality of "Selective Purchasing" Laws under the WTO Government Procurement Agreement' (1999) 2 Journal of International Economic Law 3, 25-26; Michael S. Lelyveld, 'Weld Letter a New Wrinkle in EU-Massachusetts Spat' (13 March 1997) Journal of Commerce 5A; Alejandra Carvajal, 'State and Local "Free Burma" Laws: The Case for Sub-national Trade Sanctions' (1998) 29 Law and Policy International Business 257, 265. *See* also Hans-Joachim Priess and Christian Pitschas, 'Secondary Criteria and their Compatibility with EC and WTO Procurement – The Case of the German Scientology Declaration' (2000) 9 Public Procurement Law Review 171, 188-189.

[1016] US – Measures Affecting Government Procurement, DS88, Request for Consultations by the European Communities, 20 June 1997; US – Measures Affecting Government Procurement, DS95, Request for Consultations by Japan, 18 July 1997.

compliance with the Supremacy Clause of the U.S. Constitution.[1017] As the challenge in U.S. courts was successful, Massachusetts changed its state law and the challenge under WTO law was dropped.

There are a number of legal questions relating to the Massachusetts' Burma case that cannot be discussed here in detail. For example, the law evidently addressed concerns of the immorality of actions out-of-state. Whether this type of extraterritorial concerns may form legitimate objectives in trade law is dealt with later in this book.[1018] Moreover, since the case concerned criteria in public procurement, there is the question of whether criteria that target human rights conditions in states where the bidding company has business activities constitute criteria that the GPA permits at one or several stages of the procurement process.[1019] That assessment falls outside the scope of this book. Similarly, it will here not be discussed whether a test on a link to the subject matter of the contract could apply under the GPA and be relevant for cases such as that on the Burma Law. Instead, the focus will be on the potential discrimination and proportionality of the type of criteria introduced with the Burma Law.

The principle of non-discrimination applies both under GATT and the GPA. The Burma Law would seem to have discriminated against states that were more active in Burma than the U.S. The U.S. would likely have relied on public morals as a ground of justification. Assuming the objective was legitimate, could the measure then have survived a proportionality review?

The shrimp-fishing law in its original form directly targeted the 'unsustainable' state by restricting the economic opportunities of companies of that state, whereas the Burma Law restricted the economic opportunities of companies doing business in the 'unsustainable' state. The Burma law appears to have captured not only companies registered in Burma or with production in Burma, but also companies entering into transactions with Burmese parties. However, unlike under the U.S. law challenged in *US – Shrimp*, under Massachusetts' Burma Law all in-state companies were not automatically 'sustainable'. Both U.S. and out-of-state companies had to be individually assessed with respect to their potential business involvement in Burma.

[1017] Crosby v. National Foreign Trade Council, 530 U.S. 363, 374 (2000); Christopher McCrudden, *Buying Social Justice: Equality, Government Procurement and Legal Change* (OUP 2007) 295-296.
[1018] See sections 6.2-6.3.
[1019] Generally on the use of PPM-criteria and other sustainability criteria in public procurement *see* section 6.3.2.

The discrimination was thus not of fully identical arbitrary nature as in *US – Shrimp*. Yet, the Burma Law was bound to lead to situations where an out-of-state company not involved in any human rights violations would be treated less favorably than an equally 'sustainable' in-state company. The reason for the different treatment would merely be based on the country where the companies conduct business. Could this render the measure arbitrary in the same way as it was argued that country certification in the U.S. law on shrimp-fishing was arbitrary?

From the perspective of human rights, Massachusetts likely strived to advance its objective more effectively by applying criteria that punished all companies doing business in Burma. It could be argued that denying market access for companies active in 'unsustainable' states is justifiable because it cuts some indirect financial contributions to the 'unsustainable' practices in states like Burma and consequently increases the level of protection. However, it is uncertain whether this would actually be the effect of the measure.[1020] Moreover, even if the measure would have some effect, it is not evident that it would be proportional and justifiable to treat companies less favorably on the grounds of such uncertain and indirect consequences. One possible approach would be to test whether international economic science gives some support to the argument that the measure increases the level of protection.

The less favorable treatment of companies doing business in Burma might increase the level of protection against human rights violation in Burma, as the Massachusetts' law intended. Similarly, the less favorable treatment of companies active in an environmentally unsustainable state could be beneficial for the protection against the harm of environmentally unsustainable PPMs. This forms the argument in favor of the proportionality of such measures. The remaining arguments against such measures can be summarized in three points.

First, even if the out-of-state companies would not in any way be involved in the human rights violations or in environmentally unsustainable PPMs, they would still be treated less favorably than some in-state companies. In fact, the out-of-state companies could be present in a state like Burma with the explicit objective to improve the human rights situation.

[1020] McCrudden has pointed out that it is unsure whether the provisions on Burma were capable of promoting any level of protection. *See* Christopher McCrudden, *Buying Social Justice: Equality, Government Procurement and Legal Change* (OUP 2007) 503-504.

Secondly, the policies in a state where the company conducts business is outside its immediate sphere of influence. Hence, it may appear arbitrary to penalize the company for the effects of that policy much like it would appear arbitrary to penalize it for the law and policy of its home state. Naturally, each company is free to avoid doing business in states like Burma, where the government at the time pushed for unsustainable or otherwise morally dubious policies. However, much like in the case of country certification that was litigated in *US – Shrimp*, the alternative of moving out of a state would for many companies, in particular those with factories in Burma, entail significant difficulties and costs.

Thirdly, much like the U.S. country certification model on sustainable shrimp-fishing, also Massachusetts' Burma Law constituted a trade measures that was designed with the intention to pressure not only businesses that do not follow a sustainable policy, but also to pressure another state to change its state policies.

There is hardly any guidance on how the dilemma presented in this subsection would be approached in trade law disputes. Thus, it cannot be excluded that restrictions on imports from companies conducting business in states with unsustainable policies would clash with some elements of the proportionality review. This of course would lead to the follow-up question of whether the importing state could instead restrict merely the importation of products from companies that themselves violate human rights, use unsustainable PPMs or that are directly doing business with those that violate human rights or use unsustainable PPMs? With no precedent on the matter only some general observations may be offered. Restricting the importation of companies that are sustainable but do business with unsustainable parties would raise similar issues as Massachusetts' Burma Law. One difference would be that the unsustainable practice the model would penalize the company for would be an unsustainable practice that the company at least more directly and to a somewhat higher degree contributes to. It would also be an unsustainable practice within the scope of what the company likely could have an influence on through its own conduct.

4.1.4. The Scope of the Life-Cycle Covered

4.1.4.1. Criteria on the Effects of Long-Distance Transport and Transmission

May states implement criteria with reference to transportation distance and how should such criteria be designed? The ECJ has a couple of decades ago gone so far as to suggest

that there was no proof of environmental harm from transport.[1021] This approach should be rejected. Emission and pollution from transportation can be significant. There is a legitimate objective behind tackling emissions from transportation. The question is rather how those criteria should be designed.

The long-distance transport of any good is bound to cause more pollution and have a more severe environmental effect than local trade. Although the environmental effects of transport cannot in most cases be denied, the national origin is still a bad proxy for the level of transport pollution.[1022] The distance for imports could in some cases be shorter than the distance for in-state transport. Hence, states can, for example, not justify beneficial treatment of local food merely on the grounds that transportation distances are shorter. De jure discrimination justified on transport distances would nullify the whole idea of an internal market.

An alternative to de jure discrimination would be restrictions with reference to the distance, instead of the state of origin. The distance would in other words serve as a proxy for pollution. The U.S. Supreme Court has examined a case where a municipality required that all milk sold in the municipality had been pasteurized within five miles of the city. The Court concluded that this discriminatory criterion breached the dormant Commerce Clause.[1023] The municipality could potentially had made the argument that such criterion decreased transport emissions and thus enhanced environmental protection. The outcome would still have been the same. Transport distance is one factor that affects the level of those emissions. However, on its own it is a problematic proxy for sustainability of transportation. Such criterion is bound to result in less favorable treatment of some out-of-state products even if the emissions from transport may have been lower than for some in-state products.

While using transport distance as a proxy for emissions would not be justifiable, the emissions from transport distance have detrimental effects and states should under EU and WTO law be justified in taking them into account. This conclusion should under the U.S. dormant Commerce Clause not be any different even if strict scrutiny would apply. Namely, there is a rational relationship between transport emissions and the

[1021] Case C-203/96 *Chemische Afvalstoffen Dusseldorp BV and Others v. Minister van Volkshuisvesting, Ruimtelijke Ordening en Milieubeheer* [1998] ECR I-4075, paras 46-47.
[1022] Eleanor Stein, 'Regional Initiatives to Reduce Greenhouse Gas Emissions', in Michael Gerrard and Jody Freeman (eds.) *Global Climate Change and US Law* (ABA 2014) 291.
[1023] Dean Milk Co. v. City of Madison, Wisconsin, 340 U.S. 349 (1951).

protection of the environment. A conclusion to the contrary would put the right of states to tackle externalities at risk.

There are, however, two crucial elements that the state likely has to incorporate in a model with criteria on transport emissions. First, criteria on one type of emissions should not merely focus on the emissions that arise from transportation. Similar emissions that arise at other stages of the life-cycle should also be included in the model. The model could otherwise raise suspicion of disguised restrictions on trade. Generally, in addressing some effects states should not limit the calculation of the effects to some narrow parts of the life-cycle in case a broader life-cycle analysis of the same effects would be less discriminatory. Secondly, it is crucial that each importer has the opportunity to certify an individual value for transport emissions and is not automatically burdened by the fact that emissions on average tend to be higher when the transport distance is long. Namely, some imports might be transported long distances with low emissions.

It may be recalled that California's Low-Carbon Fuel Standard lays out sustainability criteria for biofuels. Sustainability is in part defined in terms of life-cycle GHG emissions. Each biofuel plant may apply for an estimation of an individual carbon intensity value. Plants that have not applied for an individual value will be assigned a default value. The assigned default value depends, among other things, on the feedstock used in production, the chemical method and the type of biofuel that forms the end-product.[1024]

Distance and load weight are factors that affect the level of emissions from transportation. The calculations of individual plant specific carbon intensity take into account the transport distance and the estimated weight of long-distance deliveries of either feedstock or fuel. In other words, emissions from transportation are accounted for in life-cycle criteria for which compliance is assessed on an individual basis. A different question is whether transport emissions should be accounted for in the calculation of default values.

The original version of the LCFS assigned different default values for fuels produced in different states due to differences in estimated emissions from transportation.[1025] The

[1024] Rocky Mountain Farmers Union v. Goldstene, 843 F. Supp. 2d 1071, 1079-1087 (E.D. Cal. 2011).
[1025] *Ibid.*

estimate relied on both information on transport distances and the weight of the transport. Some fuels are produced out-of-state and transported in-state as fuels. Other fuels are produced in-state but from feedstock that has been imported. The emissions from the transportation of fuel and feedstock is different per distance covered. The estimated transport emissions were higher for in-state corn ethanol than for Midwest corn ethanol because in-state ethanol was produced from Midwest feedstock that was heavy to transport. Overall, with other regional factors taken into account, out-of-state corn ethanol was still assigned higher default values than in-state corn ethanol. In 2015, in the midst of litigation on the compatibility of the LCFS with the dormant Commerce Clause, California changed the model so that default values are identical regardless of fuel origin.[1026]

Unlike in the case of California's LCFS, including transport emissions in a default value would almost always be beneficial for in-state products. It would at the same time address a genuine environmental harm. While it may thus appear like transport emissions would form a valid reason for state specific default values, it is crucial to reflect on the total effects of the model with state specific default values alongside individual values contra alternative models. I will return later in this book to the question about whether it at all is justifiable to complement the calculation of individual emission values with default values.[1027] In that context it will also be analyzed whether transport emissions could be included in default values, essentially making the default values state specific.

The discussion on transportation normally centers around the transport of physical goods. Electricity is a special case as it is not transported with lorries, airplanes or ships that consume energy. Instead, electricity is loaded on transmission lines that run across state boarders. Long-distance transmissions can result in the loss of energy along the power lines. Alcorn's conclusion that states like California should be justified in taking into account energy loss of transmission in its cap and trade system would appear in line with this theory.[1028] The question of energy loss has been discussed also in the context of de jure discriminatory European schemes for promoting electricity generated

[1026] Rocky Mountain Farmers Union v. Corey, Memorandum Decision and Order Re Defendants' Motion to Dismiss, Lead Case: 1:09-cv-2234-LJO-BAM (E.D. Cal. 2017).
[1027] *See* section 5.2.3.
[1028] Thomas Alcorn, 'The Constitutionality of California's Cap-and-Trade Program and Recommendations for Design of Future State Programs' (2013) 3 Michigan J. Environmental & Administrative L. 87, 161-162.

with renewables. In his opinion in *PreussenElektra* Advocate General Jacobs stated that he would have left it to the national court to evaluate whether or not electricity was lost along the power lines to such an extent that the discriminatory effects of the renewable energy support scheme would be necessary and justified.[1029] In other words, Jacobs viewed it as justifiable to award beneficial treatment with reference to the environmental benefits of proximity. Interestingly, Advocate General Bot in turn did in his opinion in *Essent Belgium* appear to give no weight to the principle of proximity in a largely similar case on de jure discriminatory elements in a scheme promoting electricity from renewable sources.[1030] The ECJ upheld the schemes in both cases for reasons unrelated to potential energy loss in long distance transmissions. The discussion, however, further exemplifies how the effects of transport can become relevant in trade law analysis.

4.1.4.2. PPMs of Products used in the Production of the End Product

States have broad discretion in deciding what environmental effects they address through PPM-criteria. The life-cycle analysis of those effects can, however, not be designed so that production stages where the in-state industry does well are included whereas stages where the in-state industry performs poorly are excluded. This in turn raises the question of whether there are some limits to how extensive the life-cycle analysis may become.

The biofuels sustainability criteria in California's LCFS is an example of very far-reaching PPM-criteria. Namely, in the calculation of GHG emissions from biofuels the state has included estimations of emissions from generating the electricity that is used in the biofuels plant. How far back in the supply chain can the sustainability criteria reach?[1031] Can or should the criteria apply to the production of the different components or elements needed for the construction of the final good? Can or should they apply to the production methods applied in producing the tools that are later used to produce the final good? For example, could the authority require that production machines needed

[1029] Case C-379/98 *PreussenElektra AG v. Schhleswag AG* [2001] ECR I-2099, Opinion of AG Jacobs, paras 235-237.
[1030] Joined cases C-204/12 to C-208/12 *Essent Belgium NV v Vlaamse Reguleringsinstantie voor de Elektriciteits- en Gasmarkt*, Opinion of AG Bot, ECLI:EU:C:2013:294.
[1031] For discussion *see* Gareth Davies, ''Process and Production Method' – based Trade Restrictions in the EU', in Catherine Barnard (ed.) *Cambridge Yearbook of European Legal Studies 2007-2008* (Hart 2008) 81-83.

in the manufacture of the end product have been produced in factories that run on renewable energy?

Guidance to the analysis of trade law compatibility of this type of criteria can be found in public procurement law. Namely, the discussion on whether it could be required that the energy used in the production of the good has been generated with renewables is not new to procurement law.[1032] This is in essence a discussion on whether there in procurement of some end product can be included criteria on the PPMs of another good – such as a tool – that is needed for the production of the purchased end product. Equally, the question could arise whether PPM-criteria could apply to each nut and bolt that are used in compiling the end product.

Life-cycle criteria have received increased attention in the context of public procurement. In accordance with EU public procurement directives award criteria may relate to the delivery process or any other stage of the life-cycle, such as the process of production, provision or trading.[1033] For example, the pollution profile of fuels does not have to be limited to the environmental effects during consumption but can cover also the collection of raw material and the refinery process. The criteria may also relate to disposal and recycling.[1034] The EU directives even include specific provisions on the right of authorities to design criteria for life-cycle costing.[1035]

[1032] Peter Kunzlik, 'The Procurement of 'Green' Energy', in Sue Arrowsmith and Peter Kunzlik (eds.), *Social and Environmental Policies in EC Procurement Law* (CUP 2009) 402-406.

[1033] Art. 67, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65; Art. 82, Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC, OJ L 94, 28.3.2014, 243; Art. 41, Directive 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts, OJ L 94, 28.3.2014, 1.

[1034] European Commission, EU GPP Criteria for Transport (2012) 10-13; Marc Martens and Stanislas de Margerie, 'The Link to the Subject-Matter of the Contract in Green and Social Procurement' (2013) 8 European Procurement & Public Private Partnership Law Rev. 8, 14; Opinion of the Commission pursuant to Article 251 (2), third subparagraph, point (c) of the EC Treaty, on the European Parliament's amendments to the Council's common position regarding the proposal for a Directive of the European Parliament and of the Council coordinating the procedures for the award of public works contracts, public supply contracts and public service contracts, COM (2003) 503 final.

[1035] Art. 68 and recitals 95-97, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65; Art. 83 and recitals 100-102, Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC, OJ L 94, 28.3.2014, 243; Recital 64, Directive 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts, OJ L 94, 28.3.2014, 1. *See* also Buying Green! A Handbook on Green Public Procurement (2nd ed., European Commission 2011) 42-45. For an analysis of the provisions *see* Dacian Dragos and Bogdana Neamtu, 'Sustainable Public Procurement: Life-Cycle Costing in the New EU Directive Proposal' (2013) 8 European Procurement & Public Private Partnership Law Review 19.

In the seminal *Wienstrom* case the Austrian authority purchased electricity. The criteria for the award of the contract favoured companies generating electricity from renewable resources. However, no mechanism of verifying compliance with such criteria had been put in place by the authority. Consequently, the procurement process was in breach of the procurement law principles of equal treatment and transparency.[1036] Sustainability criteria at any stage of the procurement process must be such that compliance can be verified.[1037]

As the test of verifiability can be derived from core public procurement principles, it can be presumed that it would apply also under the GPA. In fact, even in accordance with trade law, as applied for example under GATT and the TFEU, sustainability criteria should be designed so that compliance can be verified. The application of criteria that do not allow for verification of compliance could result in unjustifiable discrimination. The claim that some in-state producer comply with the criteria and some out-of-state producer does not cannot be upheld without reliable verification.

Verification can be challenging due to the fact that the PPMs are often not reflected in the final characteristics of the product or service that is delivered. Similarly, it may be difficult to know from where the material utilized in the production of a good came from.[1038] Normally some form of label or certificate would need to be required as proof of compliance. For example, in *Wienstrom* the authority could perhaps have specified in the call for tenders that the chosen supplier of electricity would on an annual basis need to illustrate compliance with the renewable energy requirement by submitting Guarantees of Origin.[1039]

[1036] Case C-448/01 *EVN AG and Wienstrom GmbH v. Austria* [2003] ECR I-14527, paras. 44-52.
[1037] Interpretative communication of the Commission on the Community law applicable to public procurement and the possibilities for integrating environmental considerations into public procurement, COM (2001) 274 final, 20; Buying Green! A Handbook on Green Public Procurement (2nd ed., European Commission 2011) 25. *See* also Peter Kunzlik, 'From Suspect Practice to Market-Based Instrument: Policy Alignment and the Evolution of EU Law's Approach to "Green" Public Procurement' (2013) 22 Public Procurement Law Review 97, 112; Antti Palmujoki, Katriina Parikka-Alhola, and Ari Ekroos, 'Green Public Procurement: Analysis on the Use of Environmental Criteria in Contracts' (2010) 19 Review of European Community and International Environmental Law 250, 253; Luca Tosoni, 'The Impact of the Revised WTO Government Procurement Agreement on the EU Procurement Rules from a Sustainability Perspective' (2013) 8 European Procurement & Public Private Partnership Law Rev. 41, 45; Peter Kunzlik, 'International Procurement Regimes and the Scope for Inclusion of Environmental Factors in Public Procurement' (2004) OECD Journal on Budgeting 109.
[1038] Katriina Parikka-Alhola, 'Promoting Environmentally Sound Furniture by Green Public Procurement' (2008) 68 Ecological Economics 472, 481.
[1039] European Commission, EU GPP for Electricity (2012) 3-5; Peter Kunzlik, 'The Procurement of 'Green' Energy', in Sue Arrowsmith and Peter Kunzlik (eds.), *Social and Environmental Policies in EC Procurement Law* (CUP 2009) 379.

It is submitted that under trade law states may apply extensive life-cycle criteria provided that there exists some possibility to verify compliance. California included in the sustainability criteria for biofuels a certification process. Taking into account in the calculations of GHG emissions also the emissions emitted already at the stage of generating the electricity that is eventually used in the fuel plants was not problematic as the certification process ensured verifiability.[1040] The access to verification might naturally not be equal for producers in different states. The discriminatory effects that arise from verification difficulties out-of-state would still not restrain states from adopting extensive life-cycle criteria. Efforts by the state to facilitate verification should, however, not unduly favour in-state production.

The legality of extensive life-cycle criteria depends on the application of various legal tests. The test of verifiability may apply to sustainability criteria under both trade law and public procurement law. This test is important for the analysis of the legality of extensive life-cycle criteria that target the PPMs of products that are necessary in the later production of the end product. In EU and international public procurement law, however, additional requirements and tests apply.

Extensive life-cycle criteria target early stages of the production process. Such criteria will address the PPMs of the bidder and often also stages for which the suppliers of the bidder are responsible. Sometimes the subcontractors may be responsible for producing physical components of the final product that the contracting party delivers to the authority. In other circumstances the subcontractors only produce electricity or other products that are not physically part of the final product but are still inputs or tools necessary for making the end product.

In accordance with the principle of equal treatment each bidder must be treated equally in public procurement. When criteria on the PPMs of producers are introduced in a tender, the same criteria have to apply regardless of whether the bidder is the producer or whether it relies on production by subcontractors. In other words, sustainability criteria applied in a public tender cannot apply merely for stages performed by companies that submit the bids and offer to supply the public authority. The criteria

[1040] Assembly Bill 32, 2006 Leg. Regular Session (California 2006) (amended Nov. 2015); California, Governor's Executive Order S-01-07 (2007). *See* also section 5.2.

must apply also to subcontrators of the bidders. Not extending the criteria to subcontractors would constitute a breach of the equal treatment principle.

In *Max Havelaar* a Dutch authority had purchased coffee machines from a supplier that in turn had purchased ingredients such as milk, sugar and cocoa from farmers. The public authority included in the call criteria on social and environmental sustainability. In accordance with the criteria bidders received extra points if the ingredients complied with labels for fair trade and organic farming. The criteria on organic farming targeted the methods adopted by the farmers. The fair trade label in turn appears to have been awarded provided that the producers, i.e. the farmers in developing countries that supplied the bidder, received fair compensation for their products and work.[1041]

The criteria on organic farming concerned the production methods of the producers, whereas the fair trade criteria in part concerned the payments to the producers. Criteria that concern the payments from the main supplier to its subcontractors can be regarded as linked to the subject matter of the contract, although such interpretation has sparked some discussion.[1042] In any event, if introduced, both the eco-criteria and the fair trade criteria should apply equally regardless of whether the producers will be employees of the bidding company or employees of the subcontractors of that company.

As expected, the ECJ did in *Max Havelaar* not point to any problem with the fact that the criteria on organic farming concerned the methods of those supplying the bidder.[1043] Indeed, it should not make a difference whether the bidder has employed the producers of milk, sugar and cocoa or if the farmers are independent subcontractors that supply the bidder. Each business model should be treated equally under procurement principles.

The fact that many bidders rely on subcontracting complicate the process of verifying sustainability. Bidders are often able to provide the public authority with documentation and certification of its own production methods, working conditions of its employees and the end-of-life treatment of the products it produces or uses. However, a bidder that relies heavily on subcontractors might face a greater burden in providing verification with respect to these aspects because some crucial parts of the production process are

[1041] Case C-368/10 *Commission v. Netherlands* (*Max Havelaar*), ECLI:EU:C:2012:284, para. 37.
[1042] Marc Martens and Stanislas de Margerie, 'The Link to the Subject-Matter of the Contract in Green and Social Procurement' (2013) 8 European Procurement & Public Private Partnership Law Rev. 8, 15.
[1043] Case C-368/10 *Commission v. Netherlands* (*Max Havelaar*), ECLI:EU:C:2012:284, paras 29, 89-97.

governed by other legal entities. For example, a supplier of cars might purchase the tyres from another company. It might not have access to documentation of the working conditions at the tyre factory, the sources of the electricity used in that factory or the source of the materials in the tyres. The car supplier could of course, with the intention to later take part in a call for tenders, ask the tyre factory to provide documentation already when it places its orders for tyres. In practice, however, the order for tyres might have been placed long before the decision to submit a bid. Hence, there is little guarantee that the car supplier will have access to the information about the operations at the tyre factory and the sustainability of its activities.

It is evident that the verification of the sustainability of an extensive life-cycle will place a high burden on bidders that rely on many subcontractors. It might frequently be small companies that rely on subcontractors for most stages of the production. Be that as it may, criteria that extend to the early stages of the life-cycle should not breach the equal treatment principle. Each company can in principle decide to what degree it relies on subcontractors. With the increased reliance on sustainability criteria in public procurement, companies will know to include provisions in their contracts that allow them access to information and certification of different elements of sustainability at the production line of the subcontractor. All companies have this opportunity and thus no bidder could claim unequal treatment when the sustainability criteria also cover elements that in their production process would be dependent on the practices governed by subcontractors.

Life-cycle criteria that target the PPMs of electricity and other goods that are needed in the production of the final purchased product do not appear to stand in inherent conflict with the principle of equal treatment even if the burden might be heavier on economic operators that extensively rely on subcontractors. This leads us to the question of whether some limitations may stem from other tests applicable in procurement law.

In the literature, scholars have argued that it can be legal to introduce criteria on the PPMs for a product that is merely needed to produce the final product.[1044] These criteria are not directly linked to the subject matter, but probably still sufficiently linked. Thus,

[1044] Sue Arrowsmith, 'Application of the EC Treaty and Directives to Horizontal Policies: A Critical Review', in Sue Arrowsmith and Peter Kunzlik (eds.), *Social and Environmental Policies in EC Procurement Law* (CUP 2009) 219-220, 239; Peter Kunzlik, 'The Procurement of 'Green' Energy', in Sue Arrowsmith and Peter Kunzlik (eds.), *Social and Environmental Policies in EC Procurement Law* (CUP 2009) 402-406.

they would, according to Arrowsmith and Kunzlik, be justifiable provided that a process for verifying compliance with the criteria is established.[1045] Similarly, according to Alhola it would be compatible with the procurement directives to apply criteria that assert favourable treatment of products that have been produced with energy that was generated from renewable resources. Admittedly, it might often be difficult for companies to provide proof for the verification that the electricity used in the production of the good had been generated with renewables.[1046] Therefore, even if extensive life-cycle criteria may be legal, public authorities should be conscious about the fact that very strict and extensive criteria could significantly reduce the number of potential bidders and may thus be problematic from the perspective of market competition.

Could under EU procurement law criteria on, for example, the use of renewable electricity in the production plants then be implemented at any stage of procurement, including technical specifications and award criteria? And what legal relevance could be given to verification difficulties? The procurement directives are unfortunately far from clear with respect to these questions.

The minimum requirements for the purchased products are described in technical specifications. While these may under EU directives include criteria on the PPMs of the purchased works, supplies or services,[1047] it is not clear whether this extends even to the PPMs of electricity or other goods that are needed for making the ordered final works, supplies or services.

The bids submitted in a tender are compared in accordance with award criteria. The public authority shall choose the economically most advantageous tender.[1048] A lot of discretion has been left for the authority and it may adopt award criteria that define how the economically most advantageous tender is singled out. Life-cycle costing is in the EU public procurement directive described as a model for award criteria that public authorities may opt to apply. The method for assessing the costs for environmental externalities in life-cycle costing should be such that normally diligent economic

[1045] *Ibid.*
[1046] Katriina Alhola, *Environmental Criteria in Public Procurement – Focus on Tender Documents* (Edita 2012) 49-50.
[1047] Art. 42, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65.
[1048] Art. 67, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65.

operators in all countries party to the GPA can provide the data with a reasonable effort.[1049] This partly restricts the possibility to apply unusually extensive life-cycle criteria. It is not evident whether a normally diligent company in a GPA member such as Armenia would reasonably be able to provide data on whether the electricity that was used for producing its goods was generated from renewables.

At the moment sustainability criteria are implemented to a very limited extent and when they are applied, they often only link to the production of the final product that is procured. The internalization of externalities is thus often left incomplete. The lack of emphasis on the sustainability of PPMs also means that the market for independent sustainability certification remains underdeveloped. Consequently, many corporations in several sectors will not have access to independent certification of the PPMs in the early stages of the production process.

A separate problem is that the rarity of criteria on the early stages of the production process means that companies will often not have taken such aspects into account in dealing with their suppliers. In the current state of affairs companies might argue that even a normally diligent company would not require PPM-certification from its suppliers. However, with increased emphasis on sustainability, it is perhaps in the future not unreasonable to expect suppliers to have the readiness to present documentation on the production process of at least the most significant components of the product or service they provide. Naturally, this market development requires a lot of skills from the corporate lawyers drafting agreements with subcontractors. The right of the company to acquire verified information on sustainability from its suppliers must be fairly broad and general in order for it to cover as many as possible of the aspects that might later be included by a public authority in a call for tenders.

Public authorities should gradually be able to introduce more far-reaching PPM-criteria in the tenders as more independent certification schemes emerge on the market and the culture among bidding companies to include requirements of documentation of PPM-criteria in their contracts with suppliers grows. A shift in societal policy in the direction of more emphasis on sustainability could also come through legislation. For example,

[1049] Art. 68, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65. *See* also Dacian Dragos and Bogdana Neamtu, 'Sustainable Public Procurement: Life-Cycle Costing in the New EU Directive Proposal' (2013) 8 European Procurement & Public Private Partnership Law Review 19, 22.

in Sweden the law on biofuels sustainability criteria stipulates that in order to be eligible for certain tax benefits the company must ensure that it fulfils the criteria. The company must ensure this through agreements with suppliers and the taking of samples. Independent reviewers are then to verify that all obligations have been complied with.[1050]

The test of a normally diligent economic operator applies when the public authority applies life-cycle costing. It is less clear how the situation should be assessed where the authority does not adopt that method but still introduces criteria for the PPMs of goods that are used for producing the end product purchased by the authority. The definition of acceptable award criteria does at least as such not rule out the possibility to take into account the sustainability of the early stage PPMs. There must exist some method to get verification of compliance with the criteria, but it is in principle up to the bidders to ensure they have access to that method. Yet, it is not clear whether the ECJ would view it proportional to implement award criteria on such early stages of the PPMs for which most bidders would not have the relevant data. The argument for disproportionality may be strong in case the authority assigns significant weight to such criteria, but with modest and reasonable weight on such aspects the outcome is hard to predict. On the one hand, the article on life-cycle costing would imply that these criteria might be strictly scrutinized. On the other hand, there would be value in authorities having discretion to apply criteria of genuine value for environmental protection even if a significant number of economic operators do not have access to certification with reasonable efforts.

The ECJ in *Max Havelaar*[1051] gave no indication that it would have been unreasonable or disproportional for the authority to expect bidders to include in long-term contracts with farmers requirements that the farmers provide certification on organic farming. Without such certificates bidders were unable to illustrate compliance with the criteria in tenders. The case of course concerned the legality of criteria on organic farming and not criteria on the PPMs for electricity or tools used when building coffee machines or harvesting natural resources. That difference might, however, not necessarily be crucial

[1050] Lagen (2010:598) om hållbarhetskriterier för biodrivmedel och flytande biobränslen, chapter 3, para. 1a.
[1051] Case C-368/10 *Commission v. Netherlands* (*Max Havelaar*), ECLI:EU:C:2012:284.

in this context. It will hence likely be possible to adopt PPM-criteria that extende to the early stages of the production process.

4.1.4.3. Indirect Land Use Change Criteria

In designing sustainability criteria states might decide to take into account emissions or other effects that arise indirectly from the production. This can be illustrated by the example of biofuels production. The production of biofuels requires feedstock. Various biomass ranging from algae to animal waste can be used for this purpose. It is, however, common that the feedstock comes from agricultural crops grown on fields. An increase in biofuels would thus result in an increased use of land for agricultural purposes. This is referred to as land use change. Direct land use change (DLUC) occurs when biodiverse or other sensitive land is cultivated for growing biofuel feedstock. Indirect land use change (ILUC) in turn occurs when fields previously utilized for growing food crops is turned into plantations for growing biofuels feedstock and as a consequence of that change biodiverse land elsewhere is modified into land suitable for the cultivation of food crops. In this case biofuels would indirectly contribute to the loss of forests and biodiversity. Land use change is in other words one of the negative effects of biofuels.

Previously in this chapter it was hinted that criteria targeting the sustainability of other companies than the producer of the product could potentially be scrutinized more strictly under the proportionality review in part because the individual producers have limited influence over the sustainability of other companies in countries or states where they have been founded or where they do business.[1052] That theory outlined in this study has never been confirmed. However, in examining ILUC criteria applied for biofuels similar questions arise in my view with respect to the fairness of applying criteria on effects that the producer has limited influence over.

U.S. federal biofuels criteria have been drafted in the form of RFS2. The scheme includes an estimation of GHG emissions from indirect land use change as part of the sustainability criteria.[1053] The EU, in turn, has taken a more indirect approach. All Member States should achieve a share of 10 % of final energy consumption in the transport sector from renewables sector by 2020.[1054] However, the share of biofuels

[1052] *See* section 4.1.3.
[1053] 42 U.S.C. § 7545(o)(1)(H).
[1054] Articles 3(1) and 3(4), Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, OJ L 140, 5.6.2009, 16.

from feedstock associated with land use change, so called first generation biofuels, taken into account in reaching the overall target has been capped at 7 %.[1055] In order to reach the 10 % target Member States will thus likely need some biofuels that are produced with other feedstock than food and feed crops. These biofuels are known as advanced biofuels. Capping first generation biofuels encourages states to provide additional support to biofuels from feedstock associated with no land use change.

The EU has reacted to environmental criticism against its approach to ILUC. The new Renewable Energy Directive (RED 2) should enter into force in 2021. Under that directive the target for energy from renewables in the transport sector has been set at 14 % by 2030 for each Member States. The consumption of first generation biofuels from food and feed crops is only accounted for up until the national consumption level in 2020 plus an additional percentage point. The cap for first generation biofuels must, however, be within the range of 2-7 % of energy consumed in the road and rail transport sector. Furthermore, the RED 2 introduces a quota for advanced biofuels with low ILUC impacts. This quota will increase annually and reach 3,5 % by 2030. However, the directive authorizes double counting, which means that the actual share will likely be lower.[1056] Advanced biofuels has been defined in Annex IX as biofuels produced from curtained listed feedstock that are not food and feed crops.

The objective with the cap on first generation biofuels and the separate quota for advanced is to promote biofuels with lower ILUC effects.[1057] Member States will even be given a renewable energy target lower than 14 % for the transport sector in case the share of advanced biofuels exceeds the target. In order to achieve the renewable energy target in the transport sector Member States shall introduce quotas for fuel suppliers but they have much flexibility in how those quotas are implemented.

An additional measure to reduce ILUC has been included in the RED 2. Namely, when calculating contribution toward the overall 32 % renewable energy target for 2030 as

[1055] Directive 2015/1513 of the European Parliament and of the Council of 9 September 2015 amending Directive 98/70/EC relating to the quality of petrol and diesel fuels and amending Directive 2009/28/EC on the promotion of the use of energy from renewable sources, OJ L 239, 15.9.2015, 1. *See* in particular recital 7, annex II (adding a new annex IX) and Article 2(2) amending Article 3 of Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, OJ L 140, 5.6.2009, 16.
[1056] Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82, Art. 27(2).
[1057] *Id.* recitals 80, 85 and 91.

well as the 14 % target in the transport sector, a cap is set for biofuels and other bioenergy produced from high ILUC risk bioenergy. Biofuels with high ILUC risk are produced from food and feed crops for which production areas have been observed expanding significantly into land with high carbon stock. The level of contribution from biofuels with risks of high ILUC effects shall not be above national 2019 consumption levels and the limit will decrease to zero by the end of 2030. The Commission was tasked with determinining both high ILUC-risk feedstock and the certification process for low-risk biofuels in a delegated act.[1058]

In accordance with the delegated regulation, feedstock is categorized as having high ILUC-risk in case the average annual expansion of the global production area since 2008 exceeds 1 % and has affected more than 100.000 hectares. Additionally, more than 10 % of the expansion must have been at the expense of land with high-carbon stock. The data collected by the Commission indicates that in 2019 only palm oil is classified as high-risk. Some palm oil could still be certified as low-ILUC risk if produced with new methods that ensure increased productivity or if the feedstock has been cultivated on previously unused, abandoned or degraded land.[1059]

Erixon has criticized the decision not to include GHG emissions from indirect land use change directly in the calculations of GHG emissions under the original EU RED from 2009.[1060] It would appear that the calculations of GHG emissions will not change with the new RED 2. However, while there may be some room for environmental criticism, it must be kept separate from a trade law analysis. Elements can hardly be arbitrarily discriminatory if they do not increase the discriminatory effect of the scheme. While ILUC is a valid concern shared by many, not including its effects in sustainability criteria might not cause arbitrary discrimination against third country importers. Namely, the decision not to include emissions from ILUC can actually be expected to generally be to the disadvantage of EU producers. The objective of both limitations on the use of feedstock from sensitive land (i.e. land with high biodiversity value) and

[1058] *Id.* Article 26(2) and recital 81.
[1059] Commission Delegated Regulation (EU) 2019/807 of 13 March 2019 supplementing Directive (EU) 2018/2001 of the European Parliament and of the Council as regards the determination of high indirect land-use change-risk feedstock for which a significant expansion of the production area into land with high carbon stock is observed and the certification of low indirect land-use change-risk biofuels, bioliquids and biomass fuels (C/2019/2055) OJ L 133, 21.5.2019, 1.
[1060] Fredrik Erixon, 'Biofuels Reform in the European Union: Why New ILUC Rules Will Reinforce the WTO Inconsistency of EU Biofuels Policy' (2013) ECIPE Occasional Paper (issue 3) 14.

criteria on land use change is to protect vulnerable land with high carbon stock. This form of land can to a high degree be found outside the EU in developing countries.

Arguably some states could claim that the lack of ILUC emissions in the EU model causes discrimination in the sense that some foreign states may be expected to benefit over others. At a first glance, such an outcome may seem problematic in light of the most favored nation (MFN) principle under Article I GATT. However, trade law has never been confirmed to prohibit (arbitrary) discrimination that stems from a failure to tackle environmental problems.[1061] Furthermore, a broad interpretation of de facto discrimination under the MFN-principle would render almost any measure (or in this case inaction) prima facie prohibited. Finally, there is no international consensus on ILUC and how to estimate its magnitude. For all these reasons inaction on ILUC does not appear to breach GATT.

Turning Erixon's argument on its head, including ILUC emissions in the EU calculations could in fact increase the discriminatory effects of the life-cycle analysis for calculating GHG emissions and consequently the biofuels sustainability criteria as a whole. This is because land use change might be more severe in developing countries with rainforests. Some authors have already pointed out that DLUC criteria may have discriminatory effects[1062] and there is no reason to believe that the situation would be any different for ILUC criteria. There would, however, exist environmental justifications. Both DLUC and ILUC criteria would likely survive the traditional least restrictive measure test since they advance a higher level of protection.

There still exists concerns with respect to land use change criteria that could be examined from the perspective of the prohibition of arbitrary discrimination. ILUC criteria serve an environmental objective indirectly. A loss of biodiversity that is not directly linked to biofuels production might still indirectly be linked to the growth of the biofuels industry. However, one could ask whether it is fair – or reasonable – to penalize biofuels producers for ILUC effects that they do not have complete control

[1061] *See* sections 2.1.3-2.1.4.

[1062] S*ee* Andrew D. Mitchell and Christopher Tran, 'The Consistency of the EU Renewable Energy Directive with the WTO Agreements' (Oct. 2009) Georgetown Business, Economics & Regulatory Law Research Paper No. 1485549, para. 18; Haniff Ahamat and Nasarudin Rahman, 'Restricting Biofuels Imports in the Name of the Environment: How Does the Application of WTO Rules Affect Developing Countries?' (2014) 7 J. East Asia & International L. 51, 60-61.

over and that partly depend on the choices made in other sectors.[1063] Even without the option of penalizing biofuels producers that have an indirect responsibility for land use change, states could still always apply criteria on those directly responsible for the land use change.

The calculation of emissions from ILUC is not the only aspect of biofuels law that raises questions with respect to the fairness of penalizing those that only indirectly might contribute to an environmental problem. Namely, similar questions can be raised in connection with some elements of provisions that stipulate that feedstock grown on land of high biodiversity cannot be used for sustainable biofuels. For example, under Article 17 of the EU RED feedstock is classified as unsuitable biofuels if it comes from land that has lost its high biodiversity after January 2008.[1064] Under this provision it is irrelevant as to whether the biodiversity loss can be attributed to the biofuels industry or not. Mitchell and Tran argue that the directive should be amended so that biofuel would belong to the sustainable category provided that the loss of biodiversity was unrelated to biofuels production.[1065]

ILUC criteria and some other similar criteria could potentially be challenged from the perspective of fairness with respect to assigning companies responsibility for factors outside their immediate control. This value could become relevant in the value reconciliation carried out in law of justification. If given weight under trade law, the fairness of ILUC criteria would represent a value that would not fall under free trade (non-discrimination) or environmental protection. However, it should still be emphasized that previous cases in WTO law do not offer indications that elements of laws that target those only indirectly responsible for the environmental harm would be scrutinized this strictly.

Incorporating ILUC criteria would benefit companies that utilize other feedstock than food and feed crops. It is possible to identify these companies. In other words, a test that puts limitations on the use of ILUC criteria due to concerns related to fairness would thus burden and benefit companies that can be identified in advance. Later in

[1063] Fredrik Erixon, 'Biofuels Reform in the European Union: Why New ILUC Rules Will Reinforce the WTO Inconsistency of EU Biofuels Policy' (2013) ECIPE Occasional Paper (issue 3) 17-18.
[1064] The provision might prove to be more restrictive on developing countries that still have large forests with high biodiversity.
[1065] Andrew D. Mitchell and Christopher Tran, 'The Consistency of the EU Renewable Energy Directive with the WTO Agreements' (Oct. 2009) Georgetown Business, Economics & Regulatory Law Research Paper No. 1485549, para. 31.

this book it will be illustrated how other tests in trade law have been formed on the basis of values such as transparency, due process and regulatory certainty.[1066] These are different in the sense that it is not possible in advance to identify which companies that will benefit from such tests. Those values in general serve the interests of all biofuel companies in the long term.

4.1.5. Values Underlying the Limitations to State Discretion

Under trade law states have quite broad discretion to define what restrictions to adopt in order to tackle environmental harm and to promote what the state perceives as sustainable development. The broad discretion of states is further reflected in the right of states to adopt criteria for any stage of the product life-cycle as long as the targeted PPMs or effects are verifiable. For example, states may in sustainability criteria include calculations of emissions from transportation or emissions from generating the electricity that is used in the final phase of producing the end product.

Some limitations to the broad discretion states have in targeting externalities were still identified in this section of the book. First, criteria on emissions or other environmental effects cannot be tailored to apply for only one stage of the product life-cycle, such as transport, if that would result in discrimination and if the same type of emissions or environmental effects also arise from other stages of the product life-cycle. Secondly, at least in WTO law there has been indications that importing states cannot rely on the applicable PPM laws in the state-of-origin of the product as an irreversible proxy for sustainability of individual producers or products. In other words, country or state certification might not comply with trade law and states should therefore allow individual sustainable producers to illustrate compliance with PPM-criteria even if the home state of the producer has not implemented any laws on the PPMs in that field.

Country certification is problematic in part because it reflects an intention to put pressure on other states to change their laws. Wealthy large developed states with significant market power could benefit the most from such possibility. Exerting such pressure may prove controversial in particular in the context of WTO law. It is submitted that the equality between powerful and less powerful states is a value that is reconciled in the analysis of the proportionality of PPM-criteria.

[1066] On the relevance of these values *see* section 4.2.

Moreover, it is argued that country certification could be viewed to have consequences perceived as unfair since individual sustainable companies would be penalized for the laws and policies of their home state even if the companies have very limited influence over the content of such laws and policies. On the basis of the analysis of country certification and various other models of PPM-criteria it may be concluded that bearing responsibility of only things that one has control over and can affect represents a perception of fairness that also may need to be reconciled in the interpretation of proportionality in trade law. The weight assigned to this aspect could, for example, have a decisive impact on the legality of criteria on indirect land use change in biofuels sustainability schemes.

Furthermore, states might be successful in defending the trade law compatibility of import restrictions on products from producers that do not comply with sustainability criteria in all of their production activities even when the actual imported products have been sustainably produced. This has, however, not been confirmed in judicial decisions.

All in all, the discussion above revealed that the proportionality review of environmental criteria in trade law is not necessarily only about the efficiency of non-discrimination and of tackling externalities. Another field of economic law, public procurement law, introduces some stricter tests on PPM-criteria and other sustainability criteria as compared to trade law. These stricter tests may be viewed as the outcome of a more complex value reconciliation process. For example, one test in public procurement is set to establish whether the applied criteria have a link to the subject matter of the contract. This test may be seen to reflect the values of coherence with state aid law and the good governance principle of equal treatment in administrative law. In addition, the test seems to advance the principle of the legislator as the entity primarily responsible for regulating markets, although economic law more generally has not been shaped with this doctrine in mind.

4.2. Reconciling General Interests of Private Market Participants

4.2.1. Interests of All Companies

The proportionality review in trade law allows for the reconciliation of non-discrimination and the objective to tackling externalities in order to promote efficiency. In this equation the principle of non-discrimination protects the interests of out-of-state companies. Companies will, however, have interests that go beyond non-

discrimination. These interests are not held merely by out-of-state companies but by companies more in general. In this second section of chapter 4 the focus will be on the reconciliation of values that serve the interests of private market participants generally. A general interest is held is held by all private market participants and it is not possible to know in advance which companies will need to rely on rights linked to the interest in the future.

Disputed elements of sustainability criteria will reveal situations where the interaction between the legislator and private market participants may become part of considerations of what is arbitrary discrimination. The purpose of this section is thus to identify the interests and values that may potentially affect the reconciliation under the proportionality review of free trade on the one hand and the objective of limiting environmental externalities on the other hand. How are the potential interest and values held by companies related to efficiency?

The focus is largely on WTO law for the simple reasons that it is the legal context where PPM-cases, and thus also new value clashes, have so far emerged and, as the example of biofuels will illustrate, it may be the legal context where similar disputes will continue to arise. However, comparable developments in particular in EU law are presented where relevant, in order to illustrate that similar expansive perceptions of justice and proportionality have also emerged there.

4.2.2. The Transparency Principle

4.2.2.1. Economic Law, Transparency and Proportionality

Many state regulations, such as those on biofuels sustainability criteria, are very complex. Companies producing and exporting biofuels or feedstock necessary for production of the fuel need, however, transparency with respect to what the applicable criteria are and how they are applied in practice. Transparency will serve the interest of out-of-state companies in that it reduces the risks of disguised discrimination. In addition, transparency improves legal certainty, which is in the interest of companies more generally regardless of home state. Could transparency then be relevant for proportionality?

Transparency is one of the core principles of public procurement law. A public authority that intends to purchase must be transparent with respect to what it will buy, when it will buy and on what terms it will buy. In addition, transparency is required

with respect to the award criteria used for comparing bids. In sum, the criteria in a procurement process and the process itself should comply with requirements of transparency.

The principle of transparency could perhaps also be of value for the traditional trade law doctrine. The case will be made that the transparency principle has already to some extent been recognized in WTO, EU and U.S. under the proportionality review. Before presenting those arguments, it is, however, necessary to provide some more detail on the transparency principle in public procurement law.

4.2.2.2. Transparency under Public Procurement Law

Public authorities regularly purchase goods, services and construction works. The procurement by public authorities is regulated in public procurement law. While there are federal procurement norms applicable to federal agencies in the U.S.,[1067] there are no federal rules applicable to states and cities. Since U.S. federal regulation of state procurement is lacking, the discussion here on public procurement will focus on the EU and the WTO regimes.

In accordance with the preamble of the GPA and Article 18(1) of the EU Procurement Directive, transparency is a core principle in public procurement law. Unsurprisingly, transparency is referred to repeatedly also elsewhere throughout the GPA[1068] and the directive[1069]. Transparency is strengthened by the fact that in accordance with Article X(7) GPA, as well as articles in the EU public procurement directive,[1070] the technical specifications, award criteria and any contract performance clauses must be published

[1067] Federal Acquisition Regulations, 48 C.F.R. 31 (Contract Cost Principles and Procedures); Competition in Contracting Act, 41 U.S.C. 253 (Public Contracts, Competition Requirements). *See* also Kate M. Manuel, 'Competition in Federal Contracting: An Overview of the Legal Requirements' (2011) Congressional Research Service, R40516.

[1068] Articles IV(4), V(3), XVI and XVIII(1), Agreement on Government Procurement, 1869 U.N.T.S. 508 (Text available at 1915 U.N.T.S. 103), with Protocol Amending the Agreement on Government Procurement, Geneva 30.3.2012 (amendments entered into force 2014).

[1069] *See* e.g. recitals 1, 45, 58, 68, 80, 82, 90, 110, 114 and 126 as well as articles 40, 56(2) and 58(3) and the heading of section 2, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65

[1070] Art. 42(1) and 67(5), Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65; Case 31/87 *Gebroeders Beentjes BV v. Netherlands* [1988] ECR 4635, paras 31, 36; Case C-513/99 *Concordia Bus Finland Oy Ab, formerly Stagecoach Finland Oy Ab v. Helsingin kaupunki and HKL-Bussiliikenne* [2002] ECR I-7213, para. 62; Case C-225/98 *Commission v. France (Nord-Pas-de-Calais)* [2000] ECR I-7445, para. 51; Case C-448/01 *EVN AG and Wienstrom GmbH v. Austria* [2003] ECR I-14527, para. 34. Similarly required for the selection criteria as stipulated in Art. 58(5), Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC [2014] OJ L 94, 28.3.2014, 65.

in advance in the tender documents. In addition, authorities must also indicate the importance of each evaluation (i.e. award) criterion. EU directives even require that weights or at least a range of values are assigned, unless not possible for objective reasons.[1071]

A number of legal tests that give further meaning to the transparency principle have been developed. For example, criteria applied at any stage of the procurement process must also be precise in accordance with EU directives.[1072] The criteria are sufficiently precise in case all parties would interpret them similarly.[1073] Precise criteria published in advance serve the objective of transparency. Moreover, award criteria must be objectively quantifiable in order to guarantee transparency, clarity and precision.[1074]

It should be pointed out that even if the lack of precision reduces transparency, it allows public authorities to benefit more from professional judgment.[1075] In other words, a more lenient precision requirement leaves the public authority with a degree of flexibility. Flexibility can be beneficial when determining which bid offers most value for money. For example, some bids may offer innovative sustainability benefits that the authority did not realize to ask for in the call. Given the fact that precision has both pros and cons, the precision requirement might not necessarily be equally strict under the GPA as it has been in EU law. This interpretation is supported by the fact that efficient management of resources is an objective referred to in the preamble of the GPA. That objective could benefit from an approach that is sufficiently flexible.

[1071] Art. 67(5), Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65.

[1072] For reference to the requirement of precise technical specifications *see* Art. 42(3), Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65. *See* also Art. 26(4)(a)(iv), 29(1) and 31(1). With reference to precision of award criteria *see* Peter Kunzlik, 'Making the Market Work for the Environment - The Acceptance of (Some) Environmental Award Criteria in Public Procurement' (2003) 15 Journal of Environmental Law 175, 198.

[1073] Case C-19/00 *SIAC Construction Ltd v. County Council of the County of Mayo* [2001] ECR I-7725, para. 42; Case C-368/10 *Commission v. Netherlands* (*Max Havelaar*), ECLI:EU:C:2012:284, para. 88; Buying Green! A Handbook on Green Public Procurement (2nd ed., European Commission 2011) 38.

[1074] Case C-513/99 *Concordia Bus Finland Oy Ab, formerly Stagecoach Finland Oy Ab v. Helsingin kaupunki and HKL-Bussiliikenne* [2002] ECR I-7213, para. 66; Katriina Alhola, *Environmental Criteria in Public Procurement – Focus on Tender Documents* (Edita 2012) 23.

[1075] Simon J. Evenett, 'Is There a Case for New Multilateral Rules on Transparency in Government Procurement?', in Simon J. Evenett (ed.) *The Singapore Issues and the World Trading System: The Road to Cancun and Beyond* (Staatssekretariat für Wirtschaft 2003) 169; Sue Arrowsmith, 'Transparency in Government Procurement: The Objectives of Regulation and the Boundaries of the World Trade Organization' (2003) 37 Journal of World Trade 283; Sue Arrowsmith, 'Reviewing the GPA: The Role and Development of the Plurilateral Agreement After Doha' (2002) 5 Journal of International Economic Law 761.

The principle of transparency, along with the principles of equal treatment (impartiality) and non-discrimination, has been interpreted to require that criteria at any stage of the procurement process must be such that compliance can be verified.[1076] In the seminal *Wienstrom* case the Austrian authority purchased electricity. The criteria for the award of the contract favored companies generating the energy from renewable resources. However, no mechanism of verifying compliance with such criteria had been put in place by the authority. Consequently, the procurement process was in breach of the principles of equal treatment and transparency.[1077]

The ECJ has stated that sustainability criteria cannot be designed so as to leave the public authority with an unrestricted freedom of discretion.[1078] It is specified in the recital of the Public Procurement Directive that unrestricted freedom of discretion is to be avoided in order to ensure effective and fair competition.[1079] The principles of transparency and equal treatment shall guarantee that competition is effective and fair.[1080] The two principles are in other words mutually supportive.

During the negotiations resulting in the draft of the new GPA, countries had decided to focus on questions of transparency and not to deal with non-discrimination and market access. [1081] The decision was however questionable because of the strong links between the principles. The requirements of advance information, precision and verifiability will promote transparency and thus also improve equal treatment and reduce the risk of discrimination. Consequently, competition between market participants will be more

[1076] Luca Tosoni, 'The Impact of the Revised WTO Government Procurement Agreement on the EU Procurement Rules from a Sustainability Perspective' (2013) 8 European Procurement & Public Private Partnership Law Rev. 41, 45. *See* also Peter Kunzlik, 'International Procurement Regimes and the Scope for Inclusion of Environmental Factors in Public Procurement' (2004) OECD Journal on Budgeting 109.
[1077] Case C-448/01 *EVN AG and Wienstrom GmbH v. Austria* [2003] ECR I-14527, paras 44-52.
[1078] On award criteria *see* Art. 67(4), Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65. *See* also Case 31/87 *Gebroeders Beentjes BV v. Netherlands* [1988] ECR 4635, para. 26; Case C-513/99 *Concordia Bus Finland Oy Ab, formerly Stagecoach Finland Oy Ab v. Helsingin kaupunki and HKL-Bussiliikenne* [2002] ECR I-7213, para. 61; Case C-448/01 *EVN AG and Wienstrom GmbH v. Austria* [2003] ECR I-14527, para. 37; Case C-19/00 *SIAC Construction Ltd v. County Council of the County of Mayo* [2001] ECR I-7725, paras 36-37; Christopher Bovis, *EU Public Procurement Law* (2nd ed., Edward Elgar 2012) 414-415.
[1079] Recital 92, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65.
[1080] Recitals 90 and 92, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65.
[1081] Simon J. Evenett, 'Is There a Case for New Multilateral Rules on Transparency in Government Procurement?' in Simon J. Evenett (ed.) *The Singapore Issues and the World Trading System: The Road to Cancun and Beyond* (Staatssekretariat für Wirtschaft 2003) 169.

efficient. In other words, the tests of verifiability and precision would seem to be closely linked to free trade.

The verifiability and precision tests in procurement law ensure that the adopted criteria are clear and are applied transparently. Public procurement thus serves to illustrate that the transparency principle can be, and has already been, integrated into economic law. It has been applied to limit the risks of discriminatory design of for example PPM-criteria and other sustainability criteria. Could the transparency principle, and more specifically the requirements of precise and verifiable criteria, also apply in trade law?

4.2.2.3. The GATT – Unambigous Criteria with Transparent Application

GATT-jurisprudence would suggest that the principles of transparency and objectivity are viewed as general principles of international trade law. For example, in *EC – Conditions for granting Tariff Preferences to Developing Countries* the AB examined the decision by the EU to rely on the Enabling Clause in offering lower tariffs for some, but not all developing states. The conclusion was that despite the requirement under Article I GATT to award all states the same benefits awarded to any other state, the Enabling Clause still granted states the option to differentiate between developing states, provided that the criteria for receiving the preferential treatment were transparent and objective.[1082] The case appeared to establish a requirement of transparency in the application of criteria.

The application of the principles of transparency and objectivity in the decision in *EC – Conditions for granting Tariff Preferences to Developing Countries* resulted in a requirement that criteria included in laws differentiating between different developing countries are applied in a transparent and objective manner. There have been additional cases that have touched upon either the question of whether the criteria themselves are transparent and unambiguous or upon the question of whether the criteria are applied in a transparent way. As illustrated below, the principle would appear to be generally applicable under GATT and thus not merely a principle applied in connection to the Enabling Clause.

Article XI:1 GATT prohibits restrictions on imports and exports with the exception of duties, taxes and other charges. Recently in *Indonesia – Chicken* the panel, among other

[1082] EC – Conditions for granting Tariff Preferences to Developing Countries, DS246, AB Report, 7 April 2004, paras 162-163, 183.

things, assessed whether a requirement of "direct importation" was in breach of Article XI:1. The panel found that the Indonesian requirement should not be interpreted to mean that imports from Brazil to Indonesia could not transit through ports in third countries. It concluded that there was not uncertainty as to how the Indonesian law was applied. Therefore, the panel did not rule on the question as to whether murky language in importation criteria could create a breach of Article XI.[1083]

Earlier, in 2014, a panel had applied Article XI on an Argentinian system of sworn import declarations. Importers had to make a declaration and certain Argentinian authorities could enter observations that halted the importation process until further information was provided by the importer. The panel found that the declaration procedure applied by Argentina was in breach of Article XI GATT because there were no specific provisions or limitations to what information or documents the authorities could require. In the view of the panel this created too much uncertainty for importers.[1084] The case may be understood to indicate that GATT includes some expectation of transparency. Criteria for market access and trade states must be sufficiently precise and transparent.

The case law described above would suggest that the proportionality review includes a requirement that sustainability criteria introduced by states are transparent and sufficiently clear to enable objective application. In addition, the model of verifying compliance with the criteria must also be carried out in a transparent way and on the basis of predetermined objective criteria. The potential requirement for clarity of applicable criteria and transparency in their application is important.[1085] Namely, transparency makes it easier to identify any discrimination in the implementation and application of measures adopted with the objective of tackling externalities.

[1083] Indonesia – Measures Concerning the Importation of Chicken Meat and Chicken Products, DS484, Panel Report, 17 Oct. 2017, paras 7.601-611.
[1084] Argentina – Measures Affecting the Importation of Goods, DS438, DS444 and DS445, Panel Report, 22 Aug. 2014, paras 6.465-469, 6.474 and 6.479.
[1085] Brühwiler and Hauser argue that the criteria must be transparent and that informed consumers should be able to associate the distinction between sustainable and unsustainable PPMs with a particular product. They also argue that more extensive and complicated criteria could be more problematic from the perspective of GATT. *See* Claudia Franziska Brühwiler and Heinz Hauser, 'Biofuels and WTO Disciplines' (2008) 63 Aussenwirtschaft 7, 26-27. Yet, it is submitted here that credible science would support models with more factors.

4.2.2.4. Transparency as Part of EU Free Movement Law

There has been discussion in the context of EU law on whether the principle of transparency would apply even to EU public procurement that falls outside the scope of the procurement directives, despite the fact that this principle is traditionally a principle specific to procurement law. The debated question is in other words whether the transparency principle also can be derived from the TFEU. In case the principle could be derived from the Treaty, it would apply to public procurement outside the scope of the directives at least when there is a cross-border interest.

In a number of cases on the interpretation of free movement law in the context of public procurement decisions not falling under the directives, the ECJ has concluded that transparency as a principle can be dervied from the non-discrimination principle and that direct award of contracts without prior publication of a call for tenders would breach the transparency principle.[1086] The Commission has endorsed this approach.[1087]

The application of procurement principles to contracts not covered by the directives is fairly controversial,[1088] as it is not evident which Treaty provisions such interpretation would rely on. Some have argued that while the transparency principle might apply to some cases of procurement that fall outside the scope of the directives, it would not apply other cases, such as when the value of the contract is below the thresholds in the directives or when procurement is explicitly exempted from the application of the directives.[1089] Advocate General Sharpston has accepted the relevance of the

[1086] Case C-324/98 *Telaustria Verlags GmbH and Telefonadress GmbH v. Telekom Austria AG, joined party: Herold Business Data AG* [2000] ECR I-10745, paras 60-62. *See also* Case C-458/03 *Parking Brixen GmbH v. Gemeinde Brixen and Stadtwerke Brixen AG* [2005] ECR I-8585, paras 48-50; Case C-412/04 *Commission v. Italy* [2008] ECR I-619, para. 66; Case C-220/06 *Asociación Profesional de Empresas de Reparto y Manipulado de Correspondencia v. Administración General del Estado (Correos)* [2007] ECR I-12175, para. 76; C-260/04 *Commission v. Italy (Horse-race betting)* [2007] ECR I-7083, para. 25; Case C-324/07 *Coditel Brabant SA v. Commune d'Uccle and Région de Bruxelles-Capitale* [2008] ECR I-8457, para. 25. *See* also case C-250/07 *Commission v. Greece* [2009] ECR I-4369, Opinion of AG Poiares Maduro, para. 10.

[1087] Commission Interpretative Communication on the Community law applicable to contract awards not or not fully subject to the provisions of the Public Procurement Directives [2006] OJ C 179, 1.8.2006, 2.

[1088] Sue Arrowsmith and Peter Kunzlik, 'EC Regulation of Public Procurement', in Sue Arrowsmith and Peter Kunzlik (eds.), *Social and Environmental Policies in EC Procurement Law – New Directives and New Directions* (CUP 2009) 83-86.

[1089] Case C-525/03 *Commission v. Italy* [2005] ECR I-9405, Opinion of AG Jacobs, para. 47; Berend Jan Drijber and Hélène Stergiou, 'Public Procurement Law and Internal Market Law' (2009) 46 Common Market Law Rev. 805, 844.

transparency principle under free movement provisions but criticized the Commission for failing to explain how it is derived from free movement rules. [1090]

The principle of transparency might be a principle of not only trade and procurement law, but EU law in general. Some argue that good governance is part of the *acquis communautaire* despite a lack of any reference in the Treaties.[1091] The principle of good governance could be said to cover transparency[1092] in the work of public authorities.

In any case, it is undeniable that transparency occasionally has been recognized as a principle of EU free movement law due to its close relationship with the non-discrimination principle. Since all cases cited above concerned public procurement decisions, could the principle be referred to in the interpretation of free movement provisions also outside that specific context? Indeed, the ECJ has ruled that criteria for the reimbursement of cross-border health care must be objective, non-discriminatory and transparent.[1093] Similarly, when reviewing the proportionality of requirements of government approval for certain activities, the ECJ has stated that there must be a transparent procedure with precise criteria for receiving approval.[1094] As was the case under GATT, the transparency principle has in the case law occasionally been applied as creating a requirement of unambiguous criteria and transparent application of the criteria.

To sum up, no matter what criteria are adopted by a state, they should be clear, precise and compliance with the criteria should be verifiable. It is submitted that the tests, which are already very familiar to procurement law, have through the application of the transparency principle given additional force to the proportionality review in trade law.

[1090] Case C-195/04 *Commission v. Finland* [2007] ECR I-3351, Opinion of AG Sharpston, paras 52-56, 83-87. Sharpston also argues that the scope of the transparency and equal treatment principles is sometimes more limited than for cases where the directives apply. In other words, the requirement on publication of a low value contract would be less strict than for contract reaching the thresholds set in the directives.

[1091] Ian Manners, 'Normative Power Europe: A Contradiction in Terms?' (2002) 40 Journal of Common Market Studies 235, 242-243.

[1092] Friedl Weiss and Silke Steiner, 'Transparency as an Element of Good Governance in the Practice of the EU and the WTO: Overview and Comparison' (2006) 30 Fordham International Law Journal 1545.

[1093] Case C-385/99 *V.G. Müller-Fauré v. Onderlinge Waarborgmaatschappij OZ Zorgverzekeringen UA and E.E.M. van Riet v. Onderlinge Waarborgmaatschappij ZAO Zorgverzekeringen* [2003] ECR I-4509, para. 107; Case C-372/04 *The Queen, on the application of Yvonne Watts v. Bedford Primary Care Trust and Secretary of State for Health* [2006] ECR I-4325, para. 142.

[1094] Case C-483/99 *Commission v. France* [2002] ECR I-4781, para. 50; Case C-250/06 *United Pan-Europe Communications Belgium SA and Others v. Belgian State* [2007] ECR I-11135, para. 46. *See also* Berend Jan Drijber and Hélène Stergiou, 'Public Procurement Law and Internal Market Law' (2009) 46 Common Market Law Rev. 805, 817-821.

4.2.3. Due Process Requirements

During the legislative process biofuels sustainability criteria companies in the sector will have used their voice to influence the legislator. Drafting the PPM-criteria for the market is, however, merely an initial step. After the criteria have been drafted they need still to be applied or, in case they are criteria mandatory for market access, enforced. Economic operators will want to verify that the criteria are applied in an identical manner to them as to other operators. This is in part an interest furthered by government transparency, as discussed already above.

Fair and equal application and enforcement of the criteria is also advanced by the existence of due process rights. In other words, biofuels companies on the market will have an interest in participation in the process of evaluating compliance with the criteria. Could due process form an element of relevance in the proportionality review in trade law?

The proportionality review primarily ensures the justifiability of the design of adopted state measures. The test is often applied to strike a balance between on the one hand the objective of facilitating non-discriminatory trade and on the other hand environmental protection or some other non-trade objective. However, the test could also form expectations with regards to the procedural rights in the implementation and enforcement of the adopted PPM criteria.[1095] For example, it could be argued that schemes applicable under EU RED for certification of sustainable biofuels should award traders of biofuel sufficient procedural rights, in particular when the trader has been denied sustainability certificates.[1096] This type of due process requirements would not as such limit the possibility to use strict and far-reaching PPM-criteria.

The idea that measures may only be proportional if they contain some minimum procedural rights is not unfamiliar to the ECJ. Mandatory certification must be accompanied by fair procedural elements. This can be derived from *Dynamic Medien*, which concerned import of cartoons that had been labelled in the UK as suitable for

[1095] Christiane R. Conrad, *Process and Production Methods (PPMs) in WTO Law – Interfacing trade and social goals* (CUP 2011) 359-360.

[1096] The biofuels producer may seek certification of compliance with the EU sustainability criteria by providing independently audited data and evidence to the Member State in question or, more commonly, by participating in an often privately administered voluntary sustainability verification scheme that has been approved by the Commission. *See* Article 18, Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, OJ L 140, 5.6.2009, 16.

over 15-year olds. On moral grounds Germany implemented a requirement of national examination and re-certification of appropriate age limit. According to the ruling by the ECJ, the measure could be proportionate provided that certification was accessible for imports, could be assigned within reasonable time and could be appealed.[1097] These procedural requirements should equally apply for any criteria on PPM certification.

A similar pattern can be found in WTO jurisprudence. First, let us recall that the chapeau of Article XX GATT requires that no measures result in arbitrary or unjustifiable discrimination. Wiers has characterized this form of proportionality review as a reasonableness test.[1098] What is then arbitrary, unjustifiable or unreasonable? The AB has merely outlined that it must be evaluated in casu.[1099]

In *US – Shrimp* the AB found that the principle of proportionality is linked to such ideals as transparency, predictability and procedural fairness. The AB concluded that the test of arbitrary discrimination creates a requirement that producers with interest in sustainability certification should have the right to be heard, get a decision in writing and should have the option to appeal.[1100] It may be pointed out that that due process requirements apply also in public procurement law,[1101] which is another field of economic law. Procurement law includes, among other things, the right to get a decision in writing and the right to appeal.[1102]

These requirements applied in *US – Shrimp* under Article XX GATT also reflect similar ideals as Article X GATT.[1103] In that article it has been stipulated, among other things, that states shall administer laws and regulations in a uniform, impartial and reasonable manner. A right to a review in customs matters is also included in the article, equally reflecting the ideal of due process.

[1097] Case C-244/06 *Dynamic Medien Vertriebs GmbH v. Avides Media AG* [2008] ECR I-505, para. 50. *See* also Case C-344/90 *Commission v. France* [1992] ECR I-4719, para. 9; Case C-95/01 *Criminal Proceedings against John Greenham and Léonard Abel* [2004] ECR I-1333, para. 35.
[1098] Jochem Wiers, *Trade and Environment in the EC and the WTO – A Legal Analysis* (Europa Law 2003) 249.
[1099] US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12. Oct. 1998, para. 159.
[1100] *Id.* paras 177-183.
[1101] Geert van Calster, 'Green Procurement and the WTO – Shades of Grey' (2002) 11 Review of European, Comparative & International Environmental Law 298, 305. *See* also Sue Arrowsmith, *Government Procurement in the WTO* (Kluwer 2003) 348.
[1102] *See* e.g. Articles XVI and XVIII GPA.
[1103] US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12. Oct. 1998, paras 182-183.

It could be argued that Article X GATT and the values it reflects is not per se a sufficient ground for reading the principles of transparency and procedural fairness as part of the chapeau of Article XX. It could therefore perhaps be questioned whether there is a basis for these values to be factors in the review of measures such as PPM sustainability verification implemented at the border.[1104] Moreover, due process requirements may stem from the application of other fields of law. Therefore, it could be argued that there is no need to consider them in the value reconciliation of proportionality in trade law. However, case law referred to above support the conclusion that due process rights have made their way into the proportionality review in international trade law despite the fact that the legal basis for it is unclear. This development has taken place even if norms outside the scope of trade law might also provide guarantees for due process. Trade law simply reinforces the status of due process in law.

All in all, in law of justification non-discrimination and the ground of justification, such as environmental protection, are to be reconciled and they may both serve an efficiency objective. The values underlying non-discrimination and the ground of justification are, however, not the only values reconciled in law of justification. Values underlying due process rights, such as transparency, predictability and procedural fairness, may also have to be taken into account.

4.2.4. Transitional Provisions

Companies have interests and expectations toward the legislating state beyond due process rights. One such interest is regulatory certainty. Regulatory certainty is a narrower concept than legal certainty. Legal certainty relates to the expectation that the interpretation of the law does not change from case to case and is a core value as part of rule of law, which in turn is a fundamental element of modern democracies. Regulatory certainty, in turn, merely represents expectations that the content of written statutes, including any rules on sustainability criteria, do not change all too frequently and suddenly. In other words, the statutes should have a sufficient degree of stability.

Regulatory certainty is valuable for the protection of property. Sudden and major changes in the rules on PPMs could deprive investments of their value. Regulatory certainty ensures trust in the legislator and is important for companies making long-

[1104] Dale Arthur Oesterle, 'Just Say 'I Don't Know': A Recommendation for WTO Panels Dealing with Environmental Regulations' (2001) 3 Environmental L. Rev. 113, 127-128.

term investments. Hence, it is beneficial for the society as a whole. Regulatory certainty is advanced by inserting transitional provisions into new legislation. A transitional provision allows for a reasonable transition period between the date to of adopting new PPM-criteria and the date from which onwards the new criteria apply.

In *US – Shrimp* the AB emphasized that the phase-in period could at least not be different for various countries.[1105] The ECJ has gone even further when it found that without transitional provisions a law may be disproportional. For example, new strict requirements with reference to morals or environmental protection shall not be implemented without a sufficient transitional period for companies to be able to adapt.[1106] In other words, there must be sufficient time between adopting the new criteria and the date when the new criteria become applicable.

In conclusion, in trade law the reconciliation of the objectives of non-discrimination and the elimination of externalities includes also considerations of regulatory certainty. As with due process requirements, these considerations enhance societal efficiency beyond the elimination of the targeted externalities.

4.2.5. Grandfathering Provisions and Secondary Objectives

Transitional provisions might differentiate between old facilities and new facilities. The new criteria might apply immediately to new production facilities, whereas old facilities might be grandfathered. Could a very long, perhaps even indefinite, transitional period for some pre-existing facilities or operations be disproportional?

Erixon has highlighted a number of elements of the EU biofuels sustainability scheme that he claims may increase discriminatory effects, have barely any link to the environmental objective and could therefore form arbitrary discrimination.[1107] Grandfathering provisions, which exempt old facilities from new stricter GHG savings requirements, are among the examples mentioned by Erixon. However, in cases where some elements of the sustainability criteria cannot be defended purely on environmental

[1105] US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12. Oct. 1998, paras 173-174.
[1106] Case C-463/01 *Commission v. Germany* [2004] ECR I-11705, para. 79; Case C-320/03 *Commission v. Austria* [2005] ECR I-9871, para. 90. *See* also Ioannis Lianos, 'Shifting Narratives in the European Internal Market: Efficient Restrictions of Trade and the Nature of "Economic" Integration' (2010) 21 European Business L. Rev. 705, 748; Damian Chalmers, Gareth Davies and Giorgio Monti (eds.), *European Union Law – Text and Materials* (3rd ed., CUP 2014) 785.
[1107] Fredrik Erixon, 'Biofuels Reform in the European Union: Why New ILUC Rules Will Reinforce the WTO Inconsistency of EU Biofuels Policy' (2013) ECIPE Occasional Paper (issue 3) 20-22.

grounds, it could be that states offer other reasons for introducing them. The objective with grandfathering provisions is to protect the expectations and confidence of investors. Could it not be that such secondary objective would be sufficient to justify grandfathering and form a valid defense against claims of an arbitrarily designed sustainability scheme?

Legitimate secondary objectives were discussed in *EC – Seals*. While the primary objective was not environmental but moral protection, it still illustrates the key principles. *EC – Seals* concerned an EU ban on sales and imports of seal products. The EU accepted three exemptions to the ban. First, seals caught for marine resource management purposes could be imported. This exemption was unlikely to increase any discriminatory effects and was in any case related to a legitimate environmental objective. Secondly, there was hardly any discriminatory effect in allowing travelers to bring seal products with them as part of their personal goods. The third and final exemption, however, raised objections from Norway and Canada. Namely, seals caught by indigenous people were allowed on the market. In practice, the provision was applied to primarily to ensure market access for seals sold by Greenlandic Inuits.

The EU admitted that the rationale behind the exemption for seals caught by indigenous people was neither moral protection nor animal welfare. It, however, argued that the secondary objectives of protecting the indigenous culture and assisting the transition of the Inuit community economically to modern society justified the exemption. While the AB appeared to accept the idea that elements of a law could be justified on the basis of a rational connection to some secondary objectives, it concluded that the reasons in this specific case were too closely linked to economic and not to legitimate objectives. In the view of the AB it would be too difficult in the enforcement procedure to differentiate between seal trade that is part of a cultural tradition and seal trade that is commercial.[1108] Therefore, the measure did not comply with the GATT.

There is great merit in the recognition of multiple legitimate objectives. Laws are rarely designed with only one objective in mind. This is particularly evident in the field of energy. That being said, *EC – Seals* leaves questions unanswered. What is the scope of legitimate secondary objectives? There should be no difficulty to argue that the grounds

[1108] EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, AB Report, 22 May 2014, paras 5.320-327.

of justification listed in Article XX are all relevant. Yet, the AB did not seem to view it necessary to link the protection of indigenous cultures to any of those objectives.

As highlighted by Oesterle already long before the case of *EC – Seals*, it is far from apparent how one should tackle cases of mixed motives.[1109] At this point, with no real precedent, it is perhaps sufficient to note that the AB has proclaimed that the chapeau is guided by the principle of sustainable development.[1110] Thus, it could be argued that apart from the environmental dimension, also social and economic sustainability could be taken into account. Yet, the AB appeared to quite explicitly reject the economic dimension in *EC – Seals*.

Returning to the example of biofuels sustainability criteria, what secondary objectives could potentially be presented in defense of discriminatory elements? A common secondary objective in the field of energy has been security of supply. In fact, it would seem to form part of at least U.S. and Brazilian biofuels policy.[1111] While it may constitute a legitimate objective within the framework of GATT,[1112] its scope of application may be too limited to justify any elements of biofuels sustainability criteria. It is plausible that security of supply would justify discriminatory measures in the energy sector only in case the state without the application of the measure would not have enough energy to guarantee the basic functions of society.[1113] Schemes promoting biofuels through the application of sustainability criteria will likely not be necessary for ensuring that the state has access to in-state energy of a magnitude that covers the absolute minimum supply of energy necessary to ensure only the most basic functions of society. The U.S., the EU and Brazil likely have such minimum in-state access without any biofuels schemes, at least if the level is estimated to be perhaps around 15-

[1109] Dale Arthur Oesterle, 'Just Say 'I Don't Know': A Recommendation for WTO Panels Dealing with Environmental Regulations' (2001) 3 Environmental L. Rev. 113, 119-122.
[1110] US – Import Prohibition of Certain Shrimp and Shrimp Products: Recourse to Article 21.5 of the DSU by Malaysia, DS58, AB Report, 22 Oct. 2001, paras 153-155.
[1111] Doaa Abdel Motaal, 'The Biofuels Landscape: Is There a Role for the WTO?' (2008) 42 J. World Trade 61, 62-63.
[1112] *See* section 3.1.8.4.
[1113] In EU law security of supply has been regarded as a legitimate ground of justification only in the extremely rare case that without the trade restrictive measure the state would not have enough energy access to guarantee the basic functions of society. *See* Case 72/83 *Campus Oil limited and others v Minister for Industry and Energy and others* [1984] ECR 2727, paras 34, 47-49. *See* also Carlos Padros and Endrius E. Cocciolo, 'Security of Energy Supply: When Could National Policy Take Precedence Over European Law?' (2010) 31 Energy L. J., 31; Eugene D. Cross, Leigh Hancher and Piet J. Slot, 'EC Energy Law', in Martha Roggenkamp, Anita Rønne, Catherine Redgwell and Iñigo del Guayo (eds.), *Energy Law in Europe – National, EU and International Law and Institutions* (OUP 2001) 227.

20 % of normal consumption.[1114] The lack of access to imported biofuels may not be expected to contribute to any public health crisis. Thus, any objective of security of supply in justifying a biofuels policy with discriminatory effects, would risk crossing the line of prohibited protectionist intentions with no rational relation to legitimate objectives.

Regulatory certainty might in turn form a legitimate secondary objective. It protects legitimate expectations and investor confidence. Thus, it would likely be invoked when justifying grandfathering provisions. At a first glance, grandfathering provisions might appear to set limitations on the environmental objectives. However, without grandfathering provisions operators may in the long-term become more risk averse and not invest in new environmentally beneficial technology. In other words, with frequent changes in law there may be too much uncertainty for new environmentally beneficial projects to be launched. Despite their partially economic character, the secondary objectives of regulatory certainty and investor confidence appear legitimate because they may be linked to environmental protection. The fact that with grandfathering provisions the transitional period will be shorter for new facilities than for old facilities may in turn be justified with reference to the environmental benefits of applying the new stricter rules on new facilities sooner rather than later.

Regulatory certainty could form a legitimate secondary objective also in EU free movement law in particular as it will enhance the stability of the system. The ECJ has introduced the risk of seriously undermining the financial balance of the social security system as a legitimate objective for limits on the reimbursement of hospital care services purchased out-of-state.[1115] More recently, the idea of system stability as a

[1114] Article 8(4), Directive 96/92/EC of the European Parliament and of the Council of 19 September 1996, concerning common rules for the internal market in electricity, OJ L27, 13.1.1997, 20. *See* also Eugene D. Cross – Leigh Hancher – Piet J. Slot, EC Energy Law, in Martha Roggenkamp – Anita Rønne – Catherine Redgwell – Iñigo del Guayo (eds.), Energy Law in Europe – National, EU and International Law and Institutions (OUP, 2001) 227.

[1115] Case C-158/96 *Raymond Kohll v. Union des caisses de maladie* [1998] ECR I-1931, para. 41; Case C-368/98 *Abdon Vanbraekel and Others v. Alliance nationale des mutualités chrétiennes* (ANMC) [2001] ECR I-5363, para. 47; Case C-157/99 *B.S.M. Geraets-Smits v. Stichting Ziekenfonds VGZ and H.T.M. Peerbooms v. Stichting CZ Groep Zorgverzekeringen* [2001] ECR I-5473, paras. 72–81; Case C-385/99 *V.G. Müller-Fauré v. Onderlinge Waarborgmaatschappij OZ Zorgverzekeringen UA and E.E.M. van Riet v. Onderlinge Waarborgmaatschappij ZAO Zorgverzekeringen* [2003] ECR I-4509, paras. 77–82; Case C-56/01 *Patricia Inizan v. Caisse primaire d'assurance maladie des Hauts-de-Seine* [2003] E.C.R. I-12403, para. 56; Case C-372/04 *The Queen, on the application of Yvonne Watts v. Bedford Primary Care Trust and Secretary of State for Health* [2006] ECR I- 4325, paras. 112–113. *Compare* with case C-204/90 *Hanns-Martin Bachmann v. Belgium* [1992] ECR I-249, paras. 21–28. In this latter case, the need for cohesion of the tax system justified a restriction on the free movement of workers. *See*

ground of justification has in cases on electricity trade become an important ally to the objective of environmental protection.[1116] This idea can be transposed to the analysis of grandfathering clauses. Without grandfathering clauses, investors may become careful and the financial markets would become dysfunctional, resulting in less investments in sustainable solutions. Ideally grandfathering would still not be indefinite but would instead be phased out during a sufficient transitional period. It may also be noted that while grandfathering provisions in a particular case will favor old facilities over new facilities, from a long-term perspective the regulatory certainty advanced by grandfathering will constitute an interest of all operators.

4.2.6. Trade, Environment, Societal Efficiency and Values Beyond Efficiency

Transparency and due process rights improve the possibility to hold states accountable for disguised restrictions on trade and other illegal protectionism. Accountability, in turn, is a fundamental element of democracy. The fact that transparency and due process rights have become part of the proportionality review both under GATT and TFEU can be viewed as strengthening the democratic legitimacy of trade law. This concerns also WTO law, applicable to the relationship *between* nation states, even if there is no democracy *within* some of the nation states that are members.

States that introduce discriminatory criteria do not only need to show that the measure is necessary for a legitimate objective. The states must also design the criteria carefully so that they are clear and precise and apply the criteria in a transparent manner. In addition, states must ensure that the measure has been accompanied with certain procedural guarantees for private market participants. For example, in decisions on whether the products of importers comply with sustainability criteria they should have the right to be heard, get a decision in writing and have the option to appeal. These rights ensure an effective access to justice and allows private market participants to participate in decisions that affect them. The procedural guarantees also increase transparency, equal treatment and a sense of fair treatment, which at least in theory should reduce the risks of arbitrary decisions. Transparency and equal treatment are

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also Max S. Jansson, 'EU's kompetens i fråga om hälsovårdstjänster' (2011) 3-4 Nordisk Socialrättslig Tidskrift 95.

[1116] Case C-573/12 *Ålands Vindkraft AB v. Energimyndigheten*, ECLI:EU:C:2014:2037, paras 99, 103; Joined cases C-204/12 to 208/12 *Essent Belgium NV v. Vlaamse Reguleringsinstantie voor de Elektriciteits - en Gasmarkt*, ECLI:EU:C:2014:2192, paras 101-102, 109; *See* also Max S. Jansson, 'Free Movement of Electricity and the Revival of System Stability Justifications' (2017) 18 German Law Journal 595, 611-614.

already established principles in procurement law and their emergence in trade law would indicate some similarities across economic law.

Apart from transparency and due process rights it was also argued that regulatory certainty is a value that ought to be reconciled with the objectives of non-discrimination and the elimination of (environmental) externalities. The interest in regulatory certainty that biofuel companies possess is linked to their right to property.[1117] From a societal perspective the same interest is important for the reason that without some regulatory certainty investments will diminish and both market growth and stability may be endangered.

Furthermore, since insufficient protection of rights of private market participants could render state measures arbitrary, it appears logical that the objective to protect rights of that nature also forms a valid secondary objective that serves to justify elements of state laws that cannot be justified by the primary legitimate objective of the measure. For example, when new biofuels sustainability criteria are introduced states have decided to exempt old facilities. The objective of this so called grandfathering is to protect the expectations that market participants likely have had when they invested in production that complied with the sustainability criteria that were in force at the time of investment. Grandfathering should still not be indefinite.

Transparency, transition periods and due process rights all strengthen predictability, which in turn is valuable for a well-functioning and efficient society. Predictability and grandfathering both improve investor confidence. All this would suggest that the reconciliation of non-discrimination and grounds of justification under the proportionality review takes into account efficiency from a broad societal perspective. That being said, transparency, due process and regulatory certainty may also be perceived to represent other societal values than efficiency. These elements represent values of good governance, which in turn is linked to rule of law and a widely accepted view on fair and just treatment in administrative proceedings. Moreover, it was already noted above that transparency and due process could be linked to democratic ideals.

[1117] The status of the right to property as a fundamental right held by even legal persons is very much contested. However, Article 1 of the Protocol to the European Convention on Human Rights (Paris 20.3.1952) still sets out that legal persons shall not be deprived of their possessions unless there is a public interest.

Thus, efficiency from a broad societal perspective is closely intertwined with other core societal values.

4.3. Methods for Certification and Verification of Sustainability

4.3.1. Certification and Verification of Compliance with PPM-Criteria

In designing sustainability criteria states will define what is to be considered sustainable and what is to be considered unsustainable. The scope of the environmental effects and the phases of the life-cycle that are targeted with the sustainability criteria relate to the definition of products that are to be classified as sustainable. The relationship between trade law and different models for defining sustainability were discussed in the preceding sections of this chapter. However, sustainability criteria include not only elements that determine the scope of what is sustainable, but also who should comply with the criteria. Hence, some thoughts were offered on what groups of producers that could be required to comply with the sustainability criteria.

Yet, criteria on the sustainability of PPMs also require a model for the certification of the level of effects or the compliance with criteria on the characteristics of the PPMs. The certification of sustainability can be carried out by state officials. Some models, however, rely on certification by independent private companies. This leaves for the state only the task of surveillance and verification that certificates are authentic and have been produced correctly.

The focus of this third and final section of the chapter will be on different models for the certification and verification of sustainability. It will in particular be examined under what circumstances different methods of sustainability certification can be applied for products of different origin. The objective with the analysis is to identify the values underlying the principles on sustainability certification methods that have been developed from the application of trade law tests.

4.3.2. Irreversible Geographical Proxies for Level of Sustainability

4.3.2.1. Product Average Value for Imports

A state that develops criteria for the characteristics of the PPMs will likely certify or verify that individual in-state producers or products comply with the criteria. Similarly, with criteria on the level of environmental effects the state will certify or verify the exact level of effects attributed to individual in-state producers or products. In turn, due

to the administrative costs and difficulties of verifying the PPMs or the level of effects for imports, the state might decide to assign imports a benefit that corresponds with the benefits awarded to products with an average level of sustainability. This represents a form of average value model.

There have been significant variety among implemented average value models. California's regulation of the electricity sector represents one example of an average value model. Under California's model imported electricity may be confirmed to come from a specific source if certain stringent, perhaps even too stringent, conditions are met, whereas imports of unspecified source will be assigned an emissions value that is slightly below the average value.[1118] Another average value model in connection to the sustainability of PPMs was examined by the ECJ in *Outokumpu*. Finland had adopted different tax rates for electricity from renewable resources and non-renewables. In turn, an average tax rate was applied for electricity imported to Finland because of difficulties verifying the PPM. The system, however, treated exactly identically generated domestic and imported power differently. The ECJ stated that such system was in breach of EU free movement law at least when individual certification was categorically denied for imported power.[1119]

In the case of electricity, reliable individual certification may of course be difficult in practice. Still, models which build on presumptions linked to state origin need to be complemented by a possibility for individual sustainability certification. The ECJ in *Outokumpu* did not consider it impossible to verify the PPM of imported electricity. This is even more so now when Article 15 of the 2009 Renewable Energy Directive[1120] requires states to issue guarantees of origin for electricity from renewable energy resources and Article 19 of RED 2 will require GOs to be issued for not just electricity, but any energy from renewables[1121].

[1118] Thomas Alcorn, 'The Constitutionality of California's Cap-and-Trade Program and Recommendations for Design of Future State Programs' (2013) 3 Michigan J. Environmental & Administrative L. 87, 111-120 and 162-164. In the article Alcorn also discusses various methods to verify the source of the electricity that California has taken into account and others that it perhaps should have taken into account.
[1119] Case C-213/96 *Outokumpu Oy* [1998] ECR I-1777, paras 37-41.
[1120] Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, OJ L 140, 5.6.2009, 16.
[1121] Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82, Article 19(2).

A slightly different type of average value model was the subject of dispute in *US – Gasoline*. The U.S. had adopted a scheme to improve the quality (i.e. sustainability) of gasoline. The quality of both U.S. and imported gasoline was calculated on an individual basis for each refiner, blender and importer. However, instead of requiring that all gasoline meet the same standard of quality, the U.S. established a system where refiners, blenders and importers were assigned an individual sustainability benchmark. In other words, the definition of sustainable gasoline was different for each company. The quality of gasoline that each party offered on the U.S. market had to be better than what the same party had offered in 1990. In case data was not available, domestic refiners could rely on data from their blenders and if that data was also not available they could rely on an estimation made on the basis of newer data. In contrast, importers with no own 1990 data were assigned a value corresponding to the U.S. market average of 1990. Importers had to meet the U.S. average in respect of several elements. Only 3 per cent of domestic U.S. refiners actually met the average on each account. The system was thus clearly discriminatory.

The panel in *US – Gasoline* concluded that the measure did not pass the proportionality review as importers did not have an equal opportunity to rely on individual calculations instead of average values.[1122] The analysis of the AB differed to some extent. However, in the end the AB also found that it was in breach of the chapeau of Article XX GATT to deny importers calculations of individual benchmarks on the same conditions as was granted for other parties. The alternative of granting similar benchmarks for all was reasonably available because, despite some practical challenges, there are techniques to check, verify and assess data relating to imported goods.[1123]

Outokumpu and *US – Gasoline* highlight the need for the option of individual certification of the sustainability of the PPMs at least when such certification is offered to in-state products. Yet, the average benefits or emissions might still serve as a default value. This default value can be relied on by companies when the individual sustainability level of a product or producers cannot be verified. The state must

[1122] US – Standards for Reformulated and Conventional Gasoline, DS2, Panel Report, 29 January 1996, paras 6.25-29.
[1123] US – Standards for Reformulated and Conventional Gasoline, DS2, AB Report, 29 April 1996, p. 25-29.

naturally be careful in how it calculates the average.[1124] In other words, the average cannot be calculated so that only a few per cent actually meet the average, as was the case in *US – Gasoline*.

The problematic characteristics of average value models have also been discussed in the context of U.S. law.[1125] The same approach might well apply under the dormant Commerce Clause as under EU and WTO law, although it is difficult to find any case that would specifically confirm it. Alcorn has argued, in line with the EU and WTO approach, that there is as a rule at least no need to abolish individual values and apply the average value for all products merely because of the difficulty to certify the sustainability level of some imports.[1126] Alcorn has also put forward the argument that states may use average values for the emissions associated with imported electricity because it may be necessary due to the difficulty to verify individual emission values.[1127] When the average values are used as default values because verification of some imports is not possible, it may still be that the state has to accept individual value certification of imports when it is reliably presented.

While not in the context of sustainability criteria on PPMs, there have in the U.S. been litigation on the decision to award imports a value close to an average. In *Lohman*, the U.S. Supreme Court invalidated a measure that was drafted on the basis of an average calculation. The state taxed in-state production and applied a compensatory tax on imports at a rate of 1,5 %. The tax on in-state products varied within the state from locality to locality and 53 % of the localities had a lower tax than 1,5 %. However, 93 % of the domestic trade value paid a higher tax than 1,5 %. It is therefore likely that the mean tax burden on out-of-state products actually was below the mean burden on in-state products. The Court in *Lohman* still concluded that there was discrimination and that the model was incompatible with the dormant Commerce Clause.[1128] The lessons that can be taken from the case are admittedly limited since it did not concern average

[1124] Thomas Alcorn, 'The Constitutionality of California's Cap-and-Trade Program and Recommendations for Design of Future State Programs' (2013) 3 Michigan J. Environmental & Administrative L. 87, 153-159.
[1125] Kirsten H. Engel, 'The Dormant Commerce Clause Threat to Market-Based Environmental Regulation: The Case of Electricity Deregulation' (1999) 26 Ecology L.Q. 243, 309.
[1126] Thomas Alcorn, 'The Constitutionality of California's Cap-and-Trade Program and Recommendations for Design of Future State Programs' (2013) 3 Michigan J. Environmental & Administrative L. 87, 151-152.
[1127] *Id.* 141-142.
[1128] Associated Indus. of Missouri v. Lohman 511 U.S. 641 (1994).

sustainability. Yet, the case highlights how also the U.S. Supreme Court appears critical of regulatory measures that strive to place a burden on all out-of-state products that would correspond to the average burden on in-state products.

4.3.2.2. Certification on the Basis of State-of-Origin Laws

It may be recalled that *US – Shrimp*[1129] concerned a dispute over a U.S. law on the sustainability of catching shrimp. Importation was possible from states that had been certified to advance a sustainable shrimp-fishing policy. The U.S. granted foreign states the status as an origin of sustainable shrimp only in case the foreign state in its laws had introduced a requirement that fishing vessels use devices that ensure turtles are not harmed when harvesting the shrimp.

Determining sustainability on the basis of the laws applicable in the state-of-origin expands the scope of the sustainability criteria in the sense that it applies to all products produced in the exporting state. In other words, the criteria would not only target the imported products. Country certification was approached from this perspective in the first section of this chapter. It was argued that country certification would comply with trade law only in case it is complemented by a possibility of individual value certification.[1130]

Country certification is approached from an alternative perspective in this section. In country certification the country of origin law can serve as a proxy for the lack of unsustainable effects. It constitutes a model for defining sustainability. However, the model could be modified so that products from countries with certain laws are sustainable per default, while products from countries without the required legal provisions must rely on individual sustainability certification. In this alternative model country certification transfers into merely an element in the certification of sustainability.

Some parallels may be drawn between country certification and several of the average value models discussed above. The certification of individual sustainability of in-state products or producers while denying similar individual sustainability certification for imports would constitute different treatment on the basis of state-of-origin. In case

[1129] *See* US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct. 1998.
[1130] *See* section 4.1.3.1.

imports are always assumed to be of average sustainability, the level of sustainability will be directly determined by the state-of-origin. Comparably, also under country certification the actual sustainability level of individual products or producers is not given any relevance as the level of sustainability is determined on the basis of the laws of the state-of-origin.

Cases on average value models and on country certification both illustrate risks with certifying sustainability fully on the basis of geographical proxies. Moreover, the cases highlight the value of incorporating the right to certification of individual product or producer sustainability. Determining the level of sustainability of products with reference to the state-of-origin or the laws applicable in the state-of-origin is not compatible with trade law if there is no possibility for individual sustainability certification. In other words, the state-of-origin or the laws applicable in the state-of-origin may not serve as an irreversible proxy for unsustainability.

It is interesting to note that the EU appears to have acknowledged the problems of country certification in the design of new sustainability criteria for bioenergy. Namely, the new Renewable Energy Directive (RED 2) that is planned to enter into force in 2021 sets down criteria that feedstock from forest biomass must meet in order for the biofuel or other bioenergy to be considered sustainable. The bioenergy from forest biomass is deemed sustainable in case the country or region where the feedstock is harvested has in place certain legal provisions on forest management and complies with specific parts of the Paris Agreement and the United Nations Framework Convention on Climate Change. Importantly, however, forest biomass from countries that do not comply with all the criteria on a country-level may still be used for producing sustainable bioenergy as long as the feedstock has been harvested from forest sourcing areas where management systems are in place to ensure sustainability. The Commission will publish guidelines on what evidence is necessary for proving compliance on the forest sourcing area level.[1131] The option of certification on the forest sourcing area level is crucial for minimizing the risks of incompatibility with trade law.

It could be that a state instead of state laws and policies would use the natural conditions present in each country as a proxy for (the level of) sustainability. Such approach may

[1131] Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82, Article 29(6) and (7).

be somewhat less intrusive than the U.S. model of certifying on the basis of state laws that was struck down in *US – Shrimp*. It is still submitted that also certifying on the basis on natural conditions would need to be complemented by the possibility of individual certification of sustainability on product or producer level. Namely, without such possibility, a producer in the low-risk country that adopts the criteria could be treated more favorably than a producer that in reality is much more sustainable but happens to be situated in a high-risk country.

Relying fully on state-of-origin, state-of-origin natural conditions or state-of-origin laws as proxies for sustainability results in the state-of-origin forming a direct irreversible indication of the level of sustainability. Sustainability criteria might also include other geographical areas than countries or states as proxies. That should still not make the model defensible as the sole determining factor would still be directly related to the geographical origin.

4.3.3. Geographical Factors Determining the Method of Certifying Sustainability

4.3.3.1. Risk Calibration with Respect to Differences in Traditions or Natural Conditions

Given that the geographical origin should not fully and irreversible determine the level of sustainability, the question arises whether the geographical origin could still determine the method for certifying sustainability. In other words, while imported products cannot be outright denied the same individual sustainability certification offered for in-state products, could the certification method still be stricter for imports under some conditions? The area or state of origin and the conditions in the area or state would in such case not form a direct proxy for sustainability but instead work as a factor determining the process or method of certifying or verifying sustainability. The trade law compatibility of this was put to test in *US – Tuna (Mexico II)*. The case was a continuation of a saga that had begin with *US – Tuna (Mexico I)* and *US – Tuna (EC)*.

The case *US – Tuna (Mexico II)* concerned U.S. legislation on the requirements for using dolphin-safe labels for tuna products sold on the U.S. market. The law excluded setting on dolphins from tuna-safe (i.e. sustainable) fishing methods. In addition, the law introduced other conditions for using the dolphin-safe label and these conditions were stricter for tuna caught in the Eastern Tropical Pacific (ETP). Mexico challenged the U.S. law as discriminatory and claimed it breached both the GATT and the TBT

Agreement. Mexico was particularly affected by the U.S. law because many of its vessels used the technique of setting on dolphins and were also mainly active in the ETP. In the original proceedings the U.S. was found to have been in breach of its WTO obligations in 2012.[1132] Some amendments were made to the U.S. law before the law in its amended form was yet again challenged by Mexico in compliance proceedings.

Even after amendments the U.S. law still excluded setting on dolphins from the scope of fishing-methods that could be utilized in catching dolphin-safe tuna. In the compliance proceedings this exclusion was found to be justifiable by two separate panels, in 2015 and 2017 respectively, due to the observed injury and unobservable distress setting on the dolphins causes them.[1133] Here in this part of the study other elements of the law are of more interest.

The U.S. law established a process for certifying that the tuna had been caught in a dolphin-safe manner. It was in other words recognized that also other methods than setting on dolphins could seriously harm the dolphins. The captain on board the vessel had to certify that no nets had been intentionally set on dolphins and that no dolphins had been killed or seriously injured. This requirement applied both for fishing inside and outside the ETP tuna fishery. However, inside the ETP the certification by the captain had to be complemented by similar certification from an independent observer. In addition, the tracking and verification requirements were stricter for vessels within the ETP.

The reasons for the differences in the requirements with respect to the methods of certifying tuna caught inside and outside the ETP were twofold. First, inside the ETP tuna tend to swim close to dolphins more frequently than in other areas, and secondly, traditionally fishing-methods that harm dolphins have been frequently used in the ETP. All in all, the risks of tuna-fishing causing harm to dolphins were higher inside the ETP than in other areas.

[1132] US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products, DS381 (US – Tuna, Mexico II), AB Report, 16 May 2012.
[1133] US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products (US – Tuna, Mexico II): Recourse to Article 21.5 of the DSU by Mexico, DS381, Panel Report, 14 April 2015, paras 7.579 and 7.584; US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products (US – Tuna, Mexico II): Recourse to Article 21.5 of the DSU by the United States and second recourse to Article 21.5 of the DSU by Mexico, DS381, Panel Report, 26 Oct. 2017, paras 7.539-547.

In *US – Tuna (Mexico II)* it had to be determined whether the different requirements for ETP and non-ETP waters were justifiable and proportional. Both the GATT and Article 2.1 TBT Agreement were applied in the dispute. The proportionality review was quite similar under both agreements in this particular case.[1134] The focus is here put on the analysis under GATT.

In accordance with Article XX GATT arbitrary discrimination between countries where the 'same conditions' prevail is prohibited. Under Article XX GATT the test of same conditions concerns the similarity of circumstances in the state. The test thus differs from the test of likeness in law of prohibition, under which the comparison in turn relates to the similarity of the products and their competitive relationship.

Different treatment of products from different states or areas cannot constitute arbitrary or unjustifiable discrimination in case the same conditions do not prevail. In the first round of compliance proceedings in *US – Tuna (Mexico II)* the AB analyzed whether there was arbitrary and unjustifiable discrimination. The AB concluded that the same conditions prevailed inside and outside the ETP because some risk to dolphins existed in both areas even if the risk was not universally equal.[1135]

With the conclusion that the same conditions prevailed within and outside the ETP, the subsequent step was to determine whether the stricter conditions applied on the sustainability certification methods inside the ETP could constitute arbitrary discrimination. As an alternative measure the U.S. could have required the sustainability of all tuna sold on the U.S. market as dolphin-safe to have been certified by an independent observer regardless of whether the vessel caught tuna in the ETP or in other waters. The certification process would then essentially have been the same for in-state products and all imports. This would be a less discriminatory measure[1136] and it would guarantee the highest level of protection. An emphasis on the least discriminatory measure test would point to the conclusion that in-state production could

[1134] Although there are differences between Article 2.1 TBT and the chapeau of Article XX GATT, the proportionality review may still be almost identical in many cases. *See* in particular US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products (US – Tuna, Mexico II): Recourse to Article 21.5 of the DSU by the United States and second recourse to Article 21.5 of the DSU by Mexico, DS381, AB report, 14 Dec. 2018, para. 6.272.

[1135] US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products (US – Tuna, Mexico II): Recourse to Article 21.5 of the DSU by Mexico, DS381, AB Report, 20 Nov. 2015, paras 7.308 and 7.342.

[1136] A requirement of self-declaration from all in-state producers and all importers would equally ensure the lowest level of discrimination but it would ensure a much lower level of protection.

not be treated more favorably with respect to a more relaxed certification process, even if the environmental risks would be lower in-state.

The decisions in the compliance proceedings of *US – Tuna (Mexico II)* would seem to suggest that the analysis should be different. Namely, the difference in risks to dolphins inside and outside the ETP was given relevance in the application of the chapeau of Article XX GATT. In fact, the AB in the first round of compliance proceedings declared that failing to calibrate for the difference could amount to arbitrary or unjustifiable discrimination.[1137] In other words, stricter conditions may be included in the sustainability certification of products produced in geographical areas where the likelihood of harm to the objective is higher. However, the difference in strictness of the certification method must be proportional to the difference in the risk profiles of the geographical areas. In the case at hand the AB in the first round of compliance proceedings concluded that the requirement of an independent observer in vessels catching tuna in the ETP constituted arbitrary discrimination because even in cases where the risks to dolphins would be deemed comparable, no similar requirement applied outside the ETP.[1138]

As noted above, despite giving relevance to the differences in risk profiles, the AB in the first round of compliance proceedings in *US – Tuna (Mexico II)* concluded that the requirements for sustainability certification of tuna caught within the ETP were disproportionally strict in comparison with the requirements for tuna caught outside the ETP. Subsequently the U.S. amended its laws once again. This time independent observers were required also outside the ETP if the risks were similar to those in the ETP. In addition, captains that wanted to fish outside the ETP had to attend a course in order to improve their ability to identify situations where dolphins had been harmed. In the second round of compliance proceedings the panel found that the requirements for fishing inside and outside the ETP had now been calibrated to the risks involved. It was not arbitrary to exempt most fishing activities outside the ETP from the requirement of

[1137] US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products (US – Tuna, Mexico II): Recourse to Article 21.5 of the DSU by Mexico, DS381, AB Report, 20 Nov. 2015, paras 7.330-332 and 7.344.
[1138] *Id*., paras 7.355 and 7.359.

an independent observer because the resulting higher degree of inaccuracy in the dolphin-safe labelling was acceptable given the lower risks outside the ETP.[1139]

The risk calibration test applied in *US – Tuna (Mexico II)* for the assessment of differences in requirements on the sustainability certification methods relied on a comparison of the risk profiles of catching tuna in different geographical areas. The decision by the panel in the second round of compliance proceedings built on the analysis already carried out in the first round of compliance proceedings. The panel in the first round of compliance proceedings had indicated that two rather different factors could be given weight in determining whether stricter requirements may apply for the ETP. First, the risks in the ETP were considered higher because of natural conditions as tuna in the ETP more frequently swim together with dolphins. This was fairly uncontroversial because in waters with a lot of dolphins swimming close to tuna the expected harm of an inaccurate sustainability label would be higher. Secondly, the risks were higher due to human behavior, as harmful fishing techniques involving chasing and encircling dolphins were traditionally common in the ETP.[1140] In other words, stricter certification requirements were justifiable for products from areas where out-of-state producers traditionally had used unsustainable PPMs. Giving relevance to local traditions was somewhat controversial since sustainable fishers were penalized for the actions of other fishers in the same region in the past. It is submitted here that difference in treatment on the basis of local traditions should not be justifiable for more than a transition period. After such period the difference between the requirements on certification would need to be reconsidered as the use of unsustainable methods would potentially decline.

The lesson from the compliance proceedings in the latest episode of the dispute between the U.S. and Mexico on tuna fishing ought to be that under WTO law the conditions and related risks in a geographical area can justify stricter requirements in the process of verifying or certifying the sustainability of the PPMs. The AB in the second

[1139] US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products (US – Tuna, Mexico II): Recourse to Article 21.5 of the DSU by the United States and second recourse to Article 21.5 of the DSU by Mexico, DS381, Panel Report, 26 Oct. 2017, paras 7.123-126 and 7.736-740.
[1140] US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products (US – Tuna, Mexico II): Recourse to Article 21.5 of the DSU by Mexico, DS381, Panel Report, 14 April 2015, paras 7.582 and 7.592.

compliance proceedings of *US – Tuna (Mexico II)* confirmed this interpretation of GATT.[1141]

The risk calibration test is relevant also for biofuels sustainability criteria. The geographical origin of the feedstock or the fuel cannot serve as a direct proxy for (un)sustainability without the availability of individual certification. However, states may be justified in applying somewhat stricter certification or verification requirements for areas where the risks of unsustainability are higher. For example, the risks of biodiversity loss are different in exporting states where the biomass used as feedstock to a significant degree can be found in sensitive forests, such as rainforests. The risks may be higher in areas with a lot of rainforests and biodiverse land since the effects of land-use change in those areas would be more severe.

The risk calibration test ensures that states can require strict sustainability certification methods where that is needed for the desired level of protection, all while requiring less rigorous methods for products from areas where the risks are lower. Even when requiring less rigorous and less costly methods for certifying PPMs in low risk areas, the state can still ensure that the environmental harm of using unsustainable PPMs will be at the same level as in high risk areas. It would be economically unreasonable to require identical methods of certification for production in areas where the risks are much lower. Administrative costs will be saved as the requirements for certification do not need to be raised to an unnecessarily high level in low risks areas. All in all, the approach seems to enhance efficiency.

4.3.3.2. A Proportional Difference in the Certification Methods

The decisions in the compliance proceedings in *US – Tuna (Mexico II)* suggest that the certification and verification of sustainability in-state can be more lenient than for imports provided that the in-state risks are lower. However, the difference in certification methods must be proportional. It was implied in the decisions in the compliance proceedings in *US – Tuna (Mexico II)* that the severity of the restriction or requirement has to be proportional to the difference in risk profiles. How should the difference in risk profiles then be estimated and how significant can the difference be without becoming disproportional? Given a certain difference in risks with PPMs in-

[1141] US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products (US – Tuna, Mexico II): Recourse to Article 21.5 of the DSU by the United States and second recourse to Article 21.5 of the DSU by Mexico, DS381, AB report, 14 Dec. 2018.

state and out-of-state two, how should states calibrate the difference in inaccuracy of, for example, sustainability labelling?

It is my understanding that the AB in the first compliance proceedings used expected harm to dolphins as a common measurable indicator when weighing the options. In low-risk areas requirements for sustainability certification may be less strict and accuracy may be lower since it would result in a level of harm to dolphins that is comparable to the level of harm in high-risk areas where stricter conditions in the certification methods ensure higher level of accuracy. The risks would likely be calibrated to proportional levels when the expected environmental harm per producer output would be equal for in-state and out-of-state fishing or production. Yet, it must be emphasized that there was no sign of any mathematical exercise in the decisions.

What is more, there was no further calibration. The risks to dolphins in terms of expected dolphin mortality and injury appear in *US – Tuna (Mexico II)* to have been balanced against neither the costs of accuracy (in dollars) nor the costs of reduced free trade. In other words, in the compliance proceedings in *US – Tuna (Mexico II)* there was no indication that the panels or the AB adhered to any value balancing tests.

In *US – Tuna (Mexico II)* some insight was provided to the assessment of proportionality in practice. In the second round of compliance proceedings the panel concluded that the difference in risks in different waters justified the U.S. approach under which vessels harvesting shrimp in the ETP and areas with a similar risk profile had to provide a certification from an independent observer, whereas vessels harvesting outside the ETP where the risks were lower merely had to submit a declaration by the captain. The requirement that the captain of the vessel certified the sustainability of the catch was essentially a form of self-declaration. This was sufficient for most U.S. vessels since they, unlike Mexican vessels, were generally active outside the ETP.

The self-declaration requirement was combined with elements facilitating enforcement. Dolphin-safe catches and other catches had to be separated on-board and the captain had to fill out forms to enable tracking. Authorities could make inspections on-board U.S. vessels, although admittedly not on vessels operating under the flag of other countries outside U.S. waters. There were also fines for false labelling.[1142] The panel

[1142] US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products (US – Tuna, Mexico II): Recourse to Article 21.5 of the DSU by the United States and second recourse to Article 21.5 of the DSU by Mexico, DS381, Panel Report, 26 Oct. 2017, paras 7.64-7.66.

in the second compliance proceedings found that these verification and enforcement measures were sufficient to ensure that the differences in certification for tuna from the ETP and outside the ETP were proportional.[1143]

The panel should have elaborated on how it assessed the effectiveness of enforcement. Inside the ETP enforcement was likely effective as a result of the requirement of independent observers. It is submitted here that the level of effectiveness of enforcement outside the ETP in turn was questionable. The U.S. did not completely ban unsustainable tuna fishing methods.[1144] Hence, for the surveillance to be effective the surveillance authorities approaching a fishing vessel would not only need to observe that during the fishing trip a certain amount of tuna was caught with methods that harmed dolphins, but also later see from documentation that too small amounts of tuna had been recorded as unsustainably caught. However, the fishing vessel would during that trip likely have noticed the surveillance vessel. Hence, during that particular trip, the captain would likely not have committed labelling fraud. Similar risks do not exist inside the ETP where independent observers are always present on-board the fishing vessel. For these reasons it seems reasonable to presume that the risks of inaccuracies in sustainability labelling were much more substantial for tuna caught by vessels without independent observers. Subsequently, the risks of inaccuracy would likely be higher for in-state tuna.

In accordance with the decisions in the compliance proceedings in *US – Tuna (Mexico II)* more inaccuracy of PPM-certification can be justifiable for products from areas where the likelihood and severity of the environmental harm is lower. If the natural conditions with respect to the risks in the states are very different, the required methods for PPM-certification could be very different. The decision by the panel in the second compliance proceedings can be read to suggest that in the case of tuna fishing inside and outside the ETP the differences in risks to dolphins were quite substantial due to the differences in natural conditions (i.e. the frequency of dolphins and tuna swimming close together). This significant difference in risks stemming from differences in natural conditions allowed the U.S. to apply certification methods that were very different in their effectiveness to prevent inaccuracies and fraud. In sum, it was proportional to

[1143] *Id*., paras 7.675-7.676.
[1144] US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products (US – Tuna, Mexico II): Recourse to Article 21.5 of the DSU by Mexico, DS381, Panel Report, 14 April 2015, para. 3.2.

require a strict measure (independent observer certification) in the high-risk area and only self-declaration (captain certification) with weak enforcement mechanisms in the low-risk areas.

The conditions will often be different from those in *US – Tuna (Mexico II)*. For example, the relevant natural conditions might be identical in all states. The difference in the risk profiles of in-state products and imports might solely relate to the differences in what PPMs are traditionally used in the region. When the natural conditions are equal in two different geographical areas where production takes place, the environmental harm of inaccuracy in the labelling will also be equal for production in the two areas. The state should in those circumstances calibrate the methods of PPM-certification with the objective to make the risk of inaccuracy in PPM-labelling of imports equal to the risk of inaccuracy (including fraud) in labelling in-state products.

What type of regulations may then be expected from a state when the natural conditions are equal in-state and out-of-state but there is a difference between states with respect to the traditional PPMs relied on? As in *US – Tuna (Mexico II)*, the state might decide not to require independent observers for in-state products because it views it too costly to require certification that each in-state product has been produced sustainably. The sustainability of in-state products would instead be subject to a requirement of self-declaration, random checks and penalties for fraud. The level of inaccuracy in the sustainability labelling of in-state products would likely still be noteworthy because supervision and verification of compliance is difficult with respect to the methods used by fishing vessels. What follows from this is that imports could not be subject to strict requirements. Requiring certification by independent observers on most out-of-state vessels and practically never on in-state vessels would lead to more inaccurate labels for in-state products and the scheme would be disproportional when the natural conditions would be equal. Instead, what the importing state at least could require, is that the importer gives a declaration that the vessel has followed sustainable PPMs and that the vessel is subject to surveillance and random checks conducted out-of-state by either the local out-of-state authorities or by private independent certifiers. The emergence of a private certification industry may often be crucial as out-of-state authorities may be hesitant to cooperate in implementing the schemes of other states. As out-of-state public certification will be rare, fishing vessels would likely have to rely on private independent certifiers that through contractual agreements would have the

right to carry out random checks on vessels in order to issue certification. The frequency of the random checks can likely be required to be slightly higher out-of-state when factors such as the traditional PPMs used in the region or the lack of penalties for non-compliance make the risks of unsustainability and fraud higher out-of-state.

The level of sustainability of the PPMs in fishing vessels can be adjusted easily whenever an inspector shows up to perform independent certification. In contrast, an electricity producer that relies on coal power cannot suddenly change to wind power when it is time for certification. More generally, the risk of inaccurate labelling is a significantly more prevalent problem with respect to sustainable fishing as compared to production that requires major investments in property and often takes place in large factories. The risk of inaccuracy in labelling the PPMs at an energy plant or a factory would be relatively low even with only requirements of self-declaration coupled with occasional random checks. A state would likely have to accept imports certified as sustainable under an out-of-state scheme as long as the out-of-state plants have been subject to random checks of approximately similar frequency. It would be disproportional to require that there are permanently independent observers inspecting the production process out-of-state.

All in all, when the natural conditions are different in-state and out-of-state the difference in the certification method can be quite significant. In turn, when the natural conditions are similar the sustainability certification methods should be largely identical. Naturally, the certification for in-state products and imports may be conducted by different certifiers for reasons of territorial competence.

4.3.3.3. State Laws as a Risk Factor

States adopting PPM-criteria may apply different requirements on the methods of sustainability certification for products of different origin if there are differences in risks in the areas where production takes place. The difference in risks can stem from differences in natural conditions or in traditional local PPMs. With more sensitive natural conditions each false labelling will pose a more severe risk for the environment. In turn, when it is traditionally common to rely on unsustainable PPMs, the risk of false labelling occurring will be greater. Could there then be other factors than natural conditions and traditional methods that affect the local environmental risks?

Some importing states might implement laws that provide incentives for sustainable PPMs. Laws creating such incentives could potentially lead to unsustainable PPMs becoming less common in the state. It was implied in the compliance proceedings of *US – Tuna (Mexico II)* that the sustainability certification can be slightly less rigorous in areas where the PPMs have generally been observed to be more sustainable.

It can be noted that *US – Tuna (Mexico II)* concerned differences in risks in the ETP and outside the ETP. The differential treatment was thus not explicitly linked to country-of-origin. In contrast, when the sustainability laws of two states are different, the difference in risks will be directly related to the country-of-origin. While there will be more apparent discriminatory effects when calibrating for risks that stem from the applicable sustainability laws in the state where production takes place, there should nonetheless be the possibility to justify differential treatment because of the difference in risks.

States sometimes in their legislation ban unsustainable PPMs altogether. The question of whether sustainability laws in the state where production takes place may affect the chosen methods of sustainability certification has not been analyzed in WTO proceedings. It may be recalled that the decision by the AB in *US – Shrimp* implied that states may not use the laws in force in other countries as a direct and irreversible proxy for the sustainability of products imported from respective country.[1145] Such conclusion does, however, not exclude the possibility that the laws in force in the countries where production takes place could be of relevance for determining what process to rely on when certifying or verifying sustainability. Unlike in *US – Shrimp,* the question is here whether a state that has banned products produced with unsustainable PPMs could apply stricter methods for certifying or verifying sustainability of imports from states that have not implemented a similar ban.

The system under which the sustainability of the product is determined directly and irreversibly by the law in force in the country-of-origin was referred to as country certification. The decisions in *US – Shrimp* seemed to imply that it must be complemented by the possibility to apply for individual sustainability certification for imports. A combination of country certification and the option of individual certification for imports from states that have not banned the unsustainable PPMs is in

[1145] *See* sections 4.1.3.1. and 4.3.2.2.

essence one way to implement different requirements on the methods of sustainability certification for states with different sustainability laws. The method of sustainability certification would be chosen on the basis of whether the products that enter the market have been produced in a state where unsustainable PPMs through legislation have been banned or not.

In what respect would the risks be different in a state that has banned unsustainable PPMs as compared to states where no such ban has been introduced? The risks of harm to the environment can be reduced significantly in the state of production with laws banning the unsustainable PPMs. In-state products would be presumed to comply with those laws. Compliance with the laws would of course have to be effectively enforced. The risks are different with respect to the sustainability of the PPMs in states without a ban on unsustainable PPMs because no comparable legal regime and enforcement of sustainable PPMs would be in place and there would thus be no reason to establish a presumption of compliance with the sustainability criteria. The risks of non-compliance with the sustainability criteria would in other words be higher in states without a ban. Hence, the state can require that imports from states where the unsustainable PPMs have not been banned are subject to a system of sustainability certification as well as the verification of the reliability of the certification.

All in all, the risks in a country that has not banned unsustainable PPMs can be said to be different than in those countries that have adopted such ban. If the risk calibration test is upheld, it would invite the argument that local laws in the country of production forms a factor that can be given relevance when the importing state implements methods for certifying and verifying that products have complied with PPM-criteria.

How might a state then in practice design the sustainability certification requirements for states with and without bans on unsustainable PPMs? A state that has banned unsustainable PPMs is unlikely to require separate certification of the sustainability of products produced in-state. In order to save some costs, the importing state could make random unexpected inspections at in-state production facilities. Compliance with the law could further be enhanced by introducing a fine for breaches of the in-state PPM-criteria. What method could the state then apply to verify compliance with the PPM-standard when it comes to imports?

When it comes to imports from states that have adopted a similar ban on unsustainable PPMs the importing state would have to grant the same presumption of sustainability that it grants to in-state products. The importing state would of course be dependent on the competent authorities in the exporting state making inspections within its jurisdiction to enforce the ban. In case the exporting state would not enforce it equally effectively, the importing state would, under the most favored nation principle stemming from Article I GATT, be obliged to revoke the sustainability status of that country and subsequently apply to imports of that country the method of certifying sustainability and verifying the sustainability certification that it applies to countries that have not banned the unsustainable PPMs.

What method of certification of sustainability could then be applied to imports from states that have not adopted any ban? Let us first consider the option that the importing state requires imports from such states to be accompanied with a declaration by the producer and importer that the products have been produced in accordance with the PPM-criteria. In this context it may be recalled that *US – Shrimp* concerned U.S. legislation that banned shrimp-fishing methods that posed a threat to turtles. Importation of shrimp required that the country where the shrimp had been harvested had adopted similar PPM-criteria in its laws. In accordance with U.S. guidelines from 1996 as well as later guidelines from 1999 imports of shrimp should also have been allowed from uncertified countries when the individual batches of shrimp were accompanied by a declaration by the importer or the exporter that the shrimp had been harvested with turtle-safe methods.[1146] There were on-going domestic litigation in the U.S. on whether the U.S. government's guidelines were in accordance with the actual U.S. legislation on the point of allowing imports from states that had not banned fishing shrimp with methods unsafe for turtles. The AB in the compliance proceedings did not make any judgment on the hypothetical scenario where the guidelines would become null and void.[1147] Hence, the AB should be understood to have taken its decision on the assumption that the guidelines would be upheld. In the end, it found the U.S. law and its implementation to comply with GATT. It is submitted here that the AB in other

[1146] US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, Panel Report, 15 May 1998, para. 2.11; US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12. Oct. 1998, para. 5; US – Import Prohibition of Certain Shrimp and Shrimp Products: Recourse to Article 21.5 of the DSU by Malaysia, DS58, Panel Report, 15 June 2001, paras. 2.15, 2.26.
[1147] US – Import Prohibition of Certain Shrimp and Shrimp Products: Recourse to Article 21.5 of the DSU by Malaysia, DS58, AB Report, 22 Oct. 2001, paras 93-96.

words found it justifiable to require importer or exporter declarations from imports originating in states without a ban while not requiring such declarations to accompany in-state products or products imported from states with similar bans on unsustainable PPMs. This appears reasonable because such requirement was perhaps not even discriminatory. Namely, the requirement of an importer or exporter declaration could be even less of a burden on the commercial operations than the enforcement measures that were in place for U.S. products in the form of surveillance of fishing practices.

The state might seek higher levels of protection than what would be offered by a system granting market access on the basis of merely self-declarations on the utilized PPMs. Imports from states that have not adopted a ban could at the border be required to be accompanied by documentation that prove the sustainability of the PPMs of the imports. Since the authorities of the exporting state are unlikely to be issuing such documentation (i.e. certification or labels) it would in most cases need to have been issued by an independent private certifier. The checks at the border of the existence of PPM-documentation (labels) may be routine or random. Either way the importer would always need to accompany the imports with documentation. A more crucial factor for the burden on imported products would be the frequency of checks at the production facilities. The importing state could potentially require that those checks are somewhat more frequent than the checks the state itself conducts on in-state production. The reason for this is that the risk of false labelling in-between checks would likely be slightly higher in states where there is no ban on unsustainable PPMs because in those states no fine would be imposed when the checks result in a finding that the PPMs have not fulfilled the PPM-criteria.

In sum, state laws may serve as a factor in the risk calibration test in the particular scenario where the importing state has banned unsustainable PPMs in its laws. Some conclusions may be offered here on the methods of PPM-certification that states can apply to in-state and imported products under circumstances where the in-state and out-of-state natural conditions are similar. The importing state might decide to implement surveillance, occasional random checks and hefty fines for in-state products. The importing state could in order to ensure equal levels of accuracy require imports from states with no ban and no fines to be accompanied by certification that the products have been sustainably produced. This could include a requirement that the checks of the out of state production facilities are somewhat more frequent than in-state. In

addition, requirements on the private independent certifiers could be implemented in order to ensure that the certificates are credible.

4.3.4. Justifiable Discrimination in Methods of PPM-Certification

The introduction of PPM-criteria will be coupled with a process of certifying or verifying the sustainability of the PPMs. There are numerous different models that may be applied for the certification and verification process. Only a few models have so far been the subject of WTO litigation. However, from those cases some key principles have already emerged, as illustrated above.

States cannot decide to certify the individual sustainability of PPMs of in-state products while at the same time assign imports the average sustainability value for the relevant product type. Also, importing states may not judge the sustainability of the PPMs of products from any given exporting state solely on the basis of the laws applicable in that exporting state. These two models for certification of the sustainability of PPMs are prohibited under trade law in part because they result in the geographical origin of the product becoming an irreversible indicator of the level of sustainability. The sustainability certification of individual products should be offered as an option.

The geographical origin of the product cannot irreversibly determine the sustainability of the PPMs, but it can affect the method of certifying or verifying the sustainability of the PPMs. The certification method may be different for products from different states or different areas when the environmental risks arising from inaccurate labelling differ due to differences in the local nature. For example, the risks resulting from false labelling would be lower in states where there is less ecological sensitivity and it would be acceptable to allow for more inaccuracy in the labelling of products from such areas. Moreover, the certification method can be different when differences in local laws or traditional PPMs cause differences in the risks of certification inaccuracies. It would be acceptable to conduct less frequent verification of the correctness of the certification in areas where unsustainable PPMs are uncommon due to laws or traditions.

The differences in the certification model must be proportional to the difference in the risks. It was submitted that the certification model should be designed so that the expected environmental harm per product introduced on the market is equal for products from all areas. For example, when there due to different local natural conditions is a significant difference in the environmental risks of PPMs in-state and

out-of-state, the importing state could decide that in-state products are only subject to a requirement of self-declarations of compliance with the PPM-criteria and some occasional random checks, whereas imported products could be required to have been certified as sustainably produced by a certifier that conducts frequent checks of the production process of the out-of-state producer.

All in all, the risk calibration test introduced in WTO proceedings allows for different sustainability certification methods of products from different areas. If the harm of inaccurate sustainability labelling or the risk of inaccurate labelling is lower in-state, the sustainability certification or verification requirements may be less strict for the in-state products than for imports. This approach was not self-evident. The proportionality review and more specifically the least restrictive measure test could have been interpreted to require that states apply the same strict certification method for all products as it would ensure the highest level of protection against environmental risks and would appear less discriminatory in the sense that there would be no difference in treatment linked to geographical origin. The risk calibration test opted for in WTO proceedings however allows states to apply a less burdensome certification method when the risks are lower. The possibility to apply a less burdensome certification method for some products gives room for more efficient use of state resources. Thus, in the interpretation of GATT the costs of certification have at least implicitly been given some weight.

Conclusions on Reconciling Values Beyond Free Trade and Environmental Protection

In this chapter of the book it was found that the values of transparency, regulatory certainty and due process have been factors in the value reconciliation under the proportionality review at least in EU economic law and WTO law. The transparency principle ensures that laws are clear and their application is predictable. Regulatory certainty, in turn, introduces a requirement of transitional periods for new sustainability criteria and might even allow for grandfathering of old facilities. Finally, the requirement to implement due process rights means that private market participants that seek sustainability certification, shall have the right to a decision in writing without delay, shall have access to an appeal process and must be heard in the process

While several values have been reconciled in the EU and the WTO, similar observations were not made with respect to the U.S. The reason for this might be that the method of overall value reconciliation in the U.S. due to its holistic nature makes it more difficult to identify the different values or elements that are given weight in court.

What is then the relationship between the values that were identified as relevant for the proportionality review and efficiency? Many of the measures discussed in this book promote renewable energy or introduce PPM-criteria. The primary legitimate objective of the measures is related to addressing the problem of environmental externalities. Transparency, due process rights and regulatory certainty reflect values beyond the primary objective of tackling the environmental externalities, even if they might be linked to also that objective. These values can be argued to advance societal efficiency.

The objective of societal efficiency has shaped the proportionality review in trade law to include requirements on how states design their trade restrictive measures. Namely, transparency, due process rights and regulatory certainty all strengthen the trust in the government. This trust improves the capability of companies to plan their business operations and take calculated risks. The perspective on efficiency is here rather different than when it comes to non-discrimination and the objective of reducing environmental externalities.

It was also argued that besides transparency, due process rights and regulatory certainty also some understanding of fairness could weigh in as a factor in the reconciliation of values in law of justification. For example, it could at least in some circumstances potentially be regarded as unfair, and thus also disproportional, in case sustainability

criteria that companies should comply with include elements that the companies have practically no influence over. There is little guidance with respect to this question and it was left to future research to consider it more in depth.

Finally, administrative costs were identified to have been given weight under the proportionality review. Namely, in implementing the cerification and verification of the sustainability of PPMs states may decide to apply a different process for in-state goods and imports in case there are differences in the risks associated with products of different origin. The state may develop a costly and complex certification and verification process for products that originate from high-risk areas. In these circumstances the verification and certification process for low-risk in-state products does not need to be identical but can also not be disproportionately different. The idea is that the state does not have to waste resources on the certification and verification of low-risk products. It is worthy of note, that taking into account administrative costs will thus increase the room of maneuver for the regulating state. This is in contrast to transparency, due process rights and regulatory certainty, which all place requirements on the regulating state.

Chapter 5 – Thresholds and Proxies: A Case Study on Biofuels Sustainability Criteria

A central theme of this book is the reconciliation of free trade and environmental protection in trade law. Free trade and environmental protection may both be linked to an efficiency rationale. That being said, it was illustrated in the previous chapter that the reconciliation of free trade and environmental protection may be affected by values stemming from other ideals, such as transparency, due process and regulatory certainty. In this fifth chapter the aim is to further explore the ways in which the objective to keep administrative costs under control may affect the reconciliation of free trade and environmental protection and consequently the design of PPM-criteria.

Promoting the sustainability of PPMs can be a complex task. There will often exist several aspects that ideally should be addressed. States have, however, adopted simplified models in order to save administrative costs. For example, most schemes to promote sustainable biofuels do not require producers to certify the GHG emissions of their own plant. Instead, the producer may certify merely a few characteristics of the plant, such as the feedstock used and the chemical production method. In other words, the GHG emissions for fuel from the plant is determined on the basis on a few proxies. Some biofuel schemes simply further, by implementing a threshold value for GHG emissions savings. Under such scheme biofuels are either sustainable or unsustainable depending on whether they have been produced with emissions below or above the threshold. These simplifications facilitate the certification and verification process of sustainable biofuels.

The design of PPM-criteria will often include several elements that together make up a scheme supporting sustainable solutions. The focus in this chapter will be on threshold values that define sustainability as well as proxies for environmental effects. Both a design relying on criteria on the characteristics of the PPMs as a proxy for environmental performance and a design with sustainability thresholds have the potential to convert the complex reality of sustainability verification into a simplified model. Reducing administrative costs may improve efficiency. The simplifications may, however, lead to trade conflicts. Therefore, it will in this chapter be examined under what conditions it may be justifiable to rely on sustainability thresholds or use criteria on the characteristics of the PPMs instead of criteria on the environmental effects.

The first section of this chapter will serve as an introduction to the application of sustainability thresholds and proxies for environmental effects in various forms. It will also be discussed how these types of measures have generally been approached in economic law. Thereafter, in the subsequent sections, the biofuels sustainability criteria applicable in the EU and the U.S. will be relied on as a case study for reviewing the problems that states in practice may face when designing PPM-criteria with sustainability thresholds and proxies. In particular, it will be examined how the different biofuels sustainability schemes differ, whether EU or U.S. schemes might have discriminatory effects and whether they still could be justifiable under trade law. The chapter will through such an analysis offer insights into the reconciliation of the burden of administrative costs with other values in trade law.

The case study on EU and U.S. biofuels sustainability criteria will be carried out from the perspective of WTO law and the U.S. dormant Commerce Clause. The emphasis will be slightly more on WTO law in all three sections of this chapter because the judicial reasoning relating to the relevance of the burden of administrative costs in the proportionality review has been more detailed in WTO proceedings. EU free movement law will be given the least attention because the high-level of harmonization of the criteria in the EU leaves limited room for national sustainability criteria.

This chapter differs from other parts of the book in that it includes less of detailed analysis of past cases. Instead, it to a large extent builds on the analysis already presented in previous chapters of the book. This allows for more free consideration on how concrete cases may be resolved if they would end up before a panel or court. Moreover, the analysis will shed some light on the practical implications of the trade law principles and tests for sustainability criteria introduced in biofuels sustainability schemes.

5.1. Sustainability Thresholds and Proxies under Economic Law

5.1.1. Simplifications to Sustainability Criteria

The process of designing sustainability criteria consists of several steps. As part of designing sustainability criteria states take decisions on what type of effects they want to address, what stages of the life-cycle that should be sustainable, which products should be sustainably produced, and which companies should comply with the criteria. It was already examined in chapter 4 how broad the scope of the sustainability criteria could be.

PPMs may cause a variety of environmental effects and the state could decide to adopt criteria on one or several of these effects. After having determined what scope the sustainability criteria should have, the state would decide how to define the level of sustainability. For example, the level of sustainability could be defined in terms of an environmental effect, such as GHG emissions. That type of criteria on emissions would focus on the outcome of the production process. In essence, they would constitute criteria on environmental performance. When opting for this approach the state could either grant benefits in exact proportion to the environmental performance or establish a threshold for the GHG emissions and award the benefits to all production that meets the threshold. In other words, after having determined the scope of the criteria that should be applied, the subsequent step for the state will often be to establish a threshold for sustainability.

The alternative to defining sustainability in terms of environmental effects would be to define it in terms of the characteristics of the PPMs. In other words, instead of estimating the magnitude of some effects, such as the level of GHG emissions, the criteria would instead simply require that PPMs with specific characteristics are adopted. Requirements that electricity is generated from renewable resources or that turtle exclusion devices are used when fishing shrimp form examples of this type of model. The PPM serves as a proxy for sustainability and the exact effects or emissions during production or during the whole life-cycle would not be calculated for each and every producer. In other models the characteristics of the PPMs do not serve as a direct proxy for sustainability, but instead serve as a proxy for environmental effects that are then relevant for determining the level of sustainability. Proxies for both effects and for sustainability represent simplifications to the sustainability models as it would be easier

to verify the characteristics of the PPM than to calculate the environmental effects for each case separately.

Relying on thresholds, proxies and other simplifications to sustainability model may or may not form efficient solutions. Importantly, economic law does not force states to opt for efficient measures. However, it should be acknowledged that there is a risk that states use administrative simplification as an excuse for discriminatory objectives. Under trade law any discriminatory measures will need to be justifiable. The review of justifiability is at least implicitly receptive of efficiency considerations.

5.1.2. Thresholds for Market Access and for Awarding Benefits

In the design of many sustainability criteria the state will implement a threshold for sustainable effects. Products that have been produced with emissions or other effects above the threshold will be deemed unsustainable. Unsustainably produced products that do not meet the threshold for emissions or other effects will be denied the benefits awarded to sustainable products. Sometimes unsustainable products are even denied market access altogether.[1148] The claim might sometimes arise that the choice of threshold has discriminatory effects and is not compatible with trade law. The proportionality, and hence the compatibility with trade law, of a threshold that causes discriminatory effects would often depend on whether there is any less trade restrictive alternative sustainability threshold that ensures the same level of protection.

The concept of 'less trade restrictive' must be defined before analyzing the existence of any alternative less trade restrictive measure. There are at least three different ways the concept could be understood. It could refer to measures that are less discriminatory, measures that allow for greater volumes of trade of regulated products of any origin or measures that allow for greater volumes of trade in out-of-state products. It should be recalled that the principle of non-discrimination lies at the core of trade law regimes. Hence, it is submitted here that even if an alternative measure would reduce barriers to trade in the sense that trade volumes would increase, it should not be considered 'less trade restrictive' if it would simultaneously increase discriminatory effects. The hypothesis in this study is therefore that an alternative measure may only be less trade restrictive if it is less discriminatory. A different question is whether the test of 'less

[1148] This was the case with for example the U.S. law that denied market access for shrimp that had not been caught with fishing methods that were safe for turtles. *See* US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, Panel Report, 15 May 1998.

trade restrictive' measure would additionally introduce a requirement under which the proposed alternative may not be more trade restrictive with respect to trade volumes. The answer to that question is here left open, as it will rarely be actualized.

A lower, more easily reachable, sustainability threshold could be viewed as a less trade restrictive measure in terms of barriers to trade volumes. However, such lower more easily reachable threshold for sustainability (e.g. lower requirement of emission savings) would likely not ensure the same level of protection. In contrast, the alternative of a higher threshold (i.e. a requirement of higher emission savings) could ensure a higher level of protection. Could a higher threshold that is more difficult to reach then serve as an alternative measure to the adopted measure? The higher threshold could potentially be regarded to form a less trade restrictive alternative in case it would be less discriminatory than the adopted threshold. The proportionality of the chosen threshold would then come down to whether it would have less discriminatory effects than the alternative higher threshold. Disputes on the compatibility with trade law of adopted sustainability thresholds do not appear to arise frequently. It is perhaps unusual that when the threshold opted for by the state has discriminatory effects, an alternative higher (i.e. stricter) sustainability threshold requiring emissions (or other harmful effects) to be even lower would have less discriminatory effects. What is more, presenting sufficient evidence may often be challenging.

In a proportionality review of discriminatory sustainability thresholds, it ought also to be considered whether there exists some alternative measure that would not involve the adoption of any threshold at all. Whether such alternative exists depends on the specific circumstances. For example, introducing a sustainability threshold is unavoidable when the state intends to deny market access for products produced with unsustainably high negative effects. The threshold for targeted effects such as GHG emissions, harm to endangered animals or loss of biodiversity could of course be set at zero. In other words, when the negative effects that the state targets are very serious or difficult to quantify the sustainability criteria could be designed in the form of a requirement that production has taken place without any of the effects that are determined to be harmful.

States can decide not to ban market access of products that do not meet the threshold value. Instead, some beneficial treatment may be awarded to the products that meet the threshold. In the case of awarding benefits for sustainably produced products the state may have the option of not adopting any sustainability threshold. The alternative to a

sustainability threshold would be to award benefits in proportion to the estimated environmental effects of the PPMs. PPMs would not be divided into sustainable and unsustainable. Instead, in a model without a sustainability threshold sustainability would be viewed as a continuum that can be expressed on a scale.

The implementation of a model in which benefits are awarded in proportion to the level of sustainability requires, first of all, that the targeted effects are quantifiable. The quantification of some effects, such as loss of biodiversity, will often be unreasonably difficult. In comparison, GHG emissions are more easily quantifiable. Moreover, the model of awarding benefits in proportion to performance also requires that the awarded benefits are quantifiable. For example, sustainable products may be granted subsidies. Similarly, it is possible to establish a quota for GHG emissions attributed to the products that are sold on the market. Like subsidies, also the degree to which a quota is filled up can be quantified.

In turn, quantification of the awarded benefit is rarely relied on when introducing criteria for the use sustainability labels. The right to market products with the use of a sustainability label is instead simply restricted to producers that in their production have relied on sustainable PPMs with sufficiently low negative effects.[1149] However, in principle quantification could be integrated into sustainability labels by requiring that claims of sustainability marked on products are accompanied with information on the exact level of the effects. For example, instead of implementing a threshold for GHG emissions for the use of a sustainability label the state could require that sustainability labels expressly indicate the level of GHG emissions attributed to the production of the product.

5.1.3. Criteria on the Characteristics of the PPMs

5.1.3.1. The Appropriateness Test and the Test of Equal Effectiveness

Determining the level of sustainability of products can be a complicated task for several reasons. Environmental effects take place during the whole life-cycle. Different raw materials may be extracted, processed and utilized in putting together the final product. Thereafter the product will be consumed and finally some end-of-life treatment may be necessary. The estimation of life-cycle effects is further complicated by the fact that

[1149] This was the case with U.S. legislation on the use of dolphin-safe labelling of tuna products. *See* US – Restrictions on Imports of Tuna, DS21, Panel Report, 3 Sept. 1991 (US – Tuna, Mexico I) (unadopted); US – Restrictions on Imports of Tuna, DS29, Panel Report, 16 June 1994 (US – Tuna, EC) (unadopted).

there may be many companies that have been involved in some stage of the lengthy life-cycle. Moreover, the environmental effects arising during the life-cycle will be of various forms.

The estimation and verification of the environmental effects of various PPMs can be technically burdensome. The complexity of the task will give rise to high costs that will either be borne by the state or the producer. For these reasons states often consider adopting simplified models with some form of proxies for sustainability. Simplifications to the methods of determining the level of sustainability will lower administrative costs. For example, the characteristics of the PPMs might be adopted as a proxy for environmental effects of a sustainable level.

Simplifications and the use of proxies may under certain circumstances increase discriminatory effect without improving environmental protection. Cost reduction would not form a valid ground of justification for any discriminatory effects.[1150] The potential grounds for justifying criteria on the characteristics of PPMs must therefore be found elsewhere.

The TBT Agreement furthers the objectives of GATT by setting out rules on the adoption of technical regulations. Article 2.8 TBT merely requires the use of performance criteria instead of criteria in terms of design or descriptive characteristics "wherever appropriate". This reflects a strong preference for performance criteria. Under the TBT Agreement criteria on the specific characteristics of PPM could be applied when performance criteria would not be appropriate. There is, however, very little guidance on when this would be the case.

Unlike the TBT Agreement, the GATT does not include a similarly explicit reference to the conditions on when performance criteria should be relied on. Still, models relying on criteria on specific characteristics of the PPMs as an alternative to performance criteria must survive the proportionality review. The decision in *US – Shrimp* forms a good starting point for the analysis. It may be recalled that the dispute concerned a U.S.

[1150] *See* e.g. Case 7/61 *Commission v. Italy* (special edition) ECR 317, 329; Case 95/81 *Commission v. Italy* [1982] ECR 2187, para. 27; Case 216/84 *Commission v. France* [1988] ECR 793, para. 12; Case C-398/98 *Commission v. Greece* [2001] ECR I-7915, para. 30; EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, AB Report, 22 May 2014, paras 5.320-327. *See* however United Haulers Association Inc v. Oneida-Herkimer Solid Waste Management Authority, 550 U.S. 330, 346 (2007). The U.S. Supreme Court found that while in-state economic interest could not justify discrimination, revenue generation was still a benefit that had to be taken into account under the Pike balancing test.

law that required turtle exclusion devices to be used when catching shrimp in U.S. waters and also restricted imports of shrimp from states that had not in their legislation required shrimp trawlers to use turtle exclusion devices. The law on sustainable shrimp-fishing restricted imports with reference to the laws in force in the state-of-origin. As discussed already previously,[1151] the difficulties exporters of sustainably caught shrimp from states without such laws faced to get their shrimp on the U.S. market made the proportionality of the law questionable. This was, however, not the only controversial element of the law. Namely, the AB struck down the law as incompatible with GATT in part because it did not grant the presumption of state-wide sustainability to states that had turtle protection programs that were equally effective but technically different from the program on turtle exclusion devices relied on in the U.S.[1152] The U.S. should only have required that exporting states had adopted laws on shrimp-fishing methods that ensured a similarly low level of turtle mortality as in the U.S.[1153]

In *US – Shrimp (Art. 21.5)* the AB upheld an amended law that required trawlers fishing for shrimp to use U.S. model turtle-excluding devices or devices equal in effectiveness.[1154] The amended law still technically aimed at the input – i.e. the use of certain devices. However, the law also allowed for equally effective PPMs. In other words, the U.S. accepted turtle-excluding methods that were not identical in characteristics, but still comparable in effect (performance) to those used by U.S. vessels.[1155]

The original AB and the AB in the compliance proceedings confirmed that the U.S. could not deny sustainability certification of countries that could ensure equal turtle protection even without implementing a requirement to use certain devices. Although the case concerned a requirement to implement criteria on specific characteristics of the PPMs in the legislation of other states, the line of argumentation would perhaps not have been any different if the U.S. had required imports to come from out-of-state

[1151] *See* section 4.1.3.1.
[1152] US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct. 1998, para 165.
[1153] Robert Howse and Donald Regan, 'The Product/Process Distinction – An Illusory Basis for Disciplining 'Unilateralism' in Trade Policy' (2000) 11 European J. International Law 249, 284.
[1154] US – Import Prohibition of Certain Shrimp and Shrimp Products: Recourse to Article 21.5 of the DSU by Malaysia, DS58, AB Report, 22 Oct. 2001, paras 115-134.
[1155] US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct. 1998, paras 162-163; US – Import Prohibition of Certain Shrimp and Shrimp Products: Recourse to Article 21.5 of the DSU by Malaysia, DS58, AB Report, 22 Oct. 2001, paras 135-152.

trawlers that use the same specific PPM (i.e. fishing with turtle exclusion devices) that in-state trawlers were required to use. Adopting criteria on the specific characteristics of the PPMs instead of performance criteria would also appear arbitrary under such circumstances.[1156] A requirement on the use of certain specific PPMs could create circumstances where out-of-state producers employing other PPMs will not receive similar treatment even when they achieve the same or even better environmental performance. There would in such a case not exist any rational relationship between the design of the measure and its environmental objective. What is more, accepting importation of shrimp caught with methods equally effective as the use of the American devices would form a less discriminatory alternative that ensures the same level of turtle protection.

In sum, in their decisions on the dispute concerning U.S. sustainability criteria for shrimp-fishing the ABs condemned criteria on the specific characteristics of PPMs and established that states should instead apply criteria that define sustainability in terms of effects. PPM-criteria may still refer to some characteristics as an example of a sustainable solution, but no equally effective alternative PPM should be rejected.

5.1.3.2. Public Procurement Law and Requirements of Energy from Renewables

Criteria on environmental performance can be burdensome to implement as identifying and estimating all environmental effects during the production process is often complicated. While not environmentally optimal, there is the option to limit costs by relying on the characteristics of the PPM as a proxy for sustainability. This strategy has been relied on also in public procurement.

In accordance with Article X(2) GPA public authorities shall, where appropriate, set out technical specifications in terms of performance and functional requirements rather than design or descriptive characteristics. The nature of the test of appropriateness has not been determined.[1157] Importantly, however, Article X(3) GPA specifies that even with descriptive criteria the authority should accept equivalent solutions.

[1156] Even if performance criteria may also be discriminatory, they would appear less arbitrary. *See* also Andrew Mitchell and Tania Voon, 'Regulating Tobacco Flavors: Implications of WTO Law' (2011) 29 Boston University International Law J. 383, 419.

[1157] Bernard Hoekman and Petros C. Mavroidis, 'The World Trade Organization's Agreement on Government Procurement: Expanding Disciplines, Declining Membership?' (1995) Policy Research Working Paper Series 1429, The World Bank, 7.

The EU public procurement directive equally grants authorities the possibility to implement technical specifications with reference to the specific process or method of production.[1158] It would appear that alternative solutions with equal performance must always be accepted although the directive is somewhat ambiguous on this point. Moreover, the criteria should be proportionate and generally not refer to a PPM that characterizes the products of a specific company.

Bids in a public tender are compared in accordance with award criteria. The EU Commission has published models for green criteria suitable for the procurement of transport services. These model criteria would seem to encourage the adoption of systems of scoring bids that award points in proportion to improved performance.[1159] Under such approach one unit of less pollution would improve the score for the bid with one unit. This would seem fair from an environmental and an economic point of view as bidders are rewarded exactly in proportion to their performance. It should still be acknowledged that in exceptional circumstances benefits in terms of reduced externalities will not accrue linearly with improved performance in terms of reduced emissions or other environmental harm. In such circumstances benefits should in theory be awarded in proportion to the benefits and not in proportion to performance in terms of emissions or other harm. Yet, that may be complicated in practice.

The model of awarding points in exact proportion to the benefits would lead to the true cost of externalities being reflected in the criteria as exactly as possible. The approach would be in line with the principles of proportionality and precision, which both have been confirmed as relevant in EU procurement law. That being said, the model criteria drafted by the Commission are still merely recommendations for implementing proportional scales on performance in award criteria.

The authority could decide to award the bidder extra points if it adopts a specific environmentally friendly PPM. A public authority in Austria did just this when it in procurement of electricity awarded extra points if the electricity was generated from renewables. Whether this was in compliance with EU law was put to test in *Wienstrom*. In its decision the ECJ confirmed that a public authority may under the procurement

[1158] Art. 42, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65.
[1159] European Commission, EU GPP Criteria for Transport (2012) 12.

directives give preference to electricity from renewable energy.[1160] In other words, award criteria that include criteria on the specific characteristics of the PPMs instead of focusing on the effects in terms of emissions can be fully in accordance with EU public procurement law.

The decision in *Wienstrom* that the award criteria on specific characteristics of the PPMs complied with EU public procurement law should not be read to grant public authorities an unconditional right to implement such criteria. As noted already above, it was decided in *US – Shrimp* that GATT requires the description of specific characteristics of a PPM to only serve as a benchmark and that equally effective alternatives must be accepted. The same principle should therefore apply under EU free movement law since free movement law in turn should not breach the provisions and principles of GATT. Public procurement in the EU is governed by both the public procurement directives and by EU free movement law. Thus, the principle would seem relevant for public procurement in the EU even if the GATT is not directly applicable.

All in all, criteria on the specific PPMs can be integrated into the award criteria as long as also solutions with equal environmental performance are awarded the same points. The next subsection will strive to provide an explanation to why in *Wienstrom* no particular emphasis was put on the need to accept equally effective alternative PPMs and what lessons that provides for designing both legislative measures and procurement.

5.1.3.3. Addressing Multiple Effects with Criteria on the Characteristics of PPMs

In *US – Shrimp* it was confirmed that criteria on specific characteristics of the PPMs may be compatible with trade law despite discriminatory effects provided that the same treatment is awarded to other PPMs that are equally effective. What can be derived from this is that states can define sustainability in terms of the characteristics of the PPMs but need to accept solutions that would be equally effective in terms of reducing the negative effects.

The U.S. criteria on sustainable shrimp fishing only targeted one effect, namely the death of turtles. In many other circumstances PPM-criteria are set to target a wide range of environmental – and perhaps even some social – effects. They are thus quite different from the PPM-criteria in *US – Shrimp*. PPM-criteria with discriminatory effects may

[1160] Case C-448/01 *EVN AG and Wienstrom GmbH v. Austria* [2003] ECR I-14527.

be justified with reference to the protection against numerous environmental effects at once. A state adopting PPM-criteria in the energy sector might advance the argument that the positive effects of the promoted PPMs are so multifaceted that there are no other PPMs that are equally effective. For example, promoting energy from renewables could be argued to reduce GHG emissions. However, nuclear fission could potentially be equally effective in reducing GHG emissions. Hence, in justifying the preference for electricity from renewable resources the state could instead rely on the argument that such methods are the most effective to reduce GHG emissions *and* nuclear waste.

With criteria on the specific characteristics of the PPMs the state might strive to reduce several harmful environmental and social effects. Each of the effects that the state claims to address with the criteria on PPM characteristics must be backed up by some support from credible international science. The more there are of these effects that the state with reference to international science can argue that the PPM-criteria address, the more difficult and burdensome it will be for producers to prove that their methods are equally effective as the PPM that the state legislation has adopted as a benchmark. Alternative methods for generating electricity will unlikely be regarded as equally effective as reliance on renewables given the variety of scientifically recognized environmental effects that the state may aim to address with criteria on the PPMs in the electricity sector and the flexibility awarded to states in designing measures under scientific uncertainty.

All in all, criteria on specific characteristics of the PPMs that cause discriminatory effects will likely be incompatible with trade law when there are other PPMs that are equally effective with respect to the targeted effects. The test of equal effectiveness will primarily have bite when the objective of the measure is to address one single harm, as in *US – Shrimp*. If the PPM-criteria target only one effect, it will be more likely that there exist equally effective alternatives, as compared to when the state adopts PPM-criteria in order to address multiple effects. Consequently, under trade law states will often face difficulties in justifying criteria on the use of specific PPMs when those criteria target only one effect. However, it is not unusual that states aim to target multiple effects. In particular in these cases the complexity of verifying the level of the various emissions and effects in the life-cycle of products entering the market will often lead to the state adopting criteria on the specific characteristics of the PPMs instead of adopting criteria on the actual environmental effects. In other words, states adopt a

simplified model for determining which methods are sustainable. The simplified model might survive the proportionality review as there might not exist any PPMs that are equally effective with respect to all environmental and social objectives.

5.1.4. The Design of Biofuels Sustainability Criteria

It was argued in the previous sections that sustainability thresholds have rarely been challenged and that relying on proxies for environmental effects may be justifiable in some circumstances. Both these two elements have been implemented as part of PPM-criteria applied in the biofuel sector.

The sustainability of PPMs has been given a lot of attention in the energy sector because of the significant detrimental effects reliance on traditional fossil fuels will have on the climate. In the transport sector states have gradually been starting to shape their policies with the objective to encourage a move away from the use of traditional fossil fuels. Biofuels and other forms of bioenergy form alternatives to fossil fuels. For example, in the transportation sector bioethanol and biodiesel have been regarded as valid alternatives to gasoline. There is, however, a lot of uncertainty as to whether biofuels form a sustainable option or not. Hence, schemes have been adopted for promoting sustainable PPMs. Sustainability criteria for biofuels and other bioenergy have been designed in order to ensure that the promoted forms of energy areactually sustainable.

The EU, in its Renewable Energy Directive,[1161] and the U.S., in its scheme called the Renewable Fuel Standard 2,[1162] have developed sustainability criteria for biofuels. Preferential treatment is granted only to fuel that meet the sustainability criteria. Unsustainable fuels are put at disadvantage but are as a rule not denied market access altogether.

The sustainability of biofuels depends in part on the estimated life-cycle GHG emissions. Thus, biofuels sustainability criteria in both the EU Renewable Energy Directive and the U.S. Renewable Fuel Standard 2 include sustainability thresholds for

[1161] Articles 17-19, Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, OJ L 140, 5.6.2009, 16. Similar criteria can be found in the Fuel Quality Directive. *See* Directive 2009/30/EC of the European Parliament and of the Council of 23 April 2009 amending Directive 98/70/EC as regards the specification of petrol, diesel and gas-oil and introducing a mechanism to monitor and reduce greenhouse gas emissions and amending Council Directive 1999/32/EC as regards the specification of fuel used by inland waterway vessels and repealing Directive 93/12/EEC, OJ L 140, 5.6.2009, 88.

[1162] 40 C.F.R. § 80.1405 (2015).

GHG emissions. In other words, biofuels produced with life-cycle GHG emissions below a threshold are considered sustainable. The threshold is expressed in terms of GHG emission savings with reference to a benchmark calculated on the basis of emissions that normally are estimated to be caused by gasoline.

The GHG emission savings threshold constitutes a model that targets performance, or effects in other words, but that does not award benefits in proportion to the level of performance. Under the EU RED and the U.S. RFS2 what matters is whether or not the emissions savings level meets the GHG emission savings threshold that is set to separate sustainable from unsustainable biofuels. Beyond that no relevance is given to differences in levels of GHG emissions, with some minor exceptions.

In the U.S. the State of California does not apply the criteria in the federal Renewable Fuel Standard 2 but has developed its own Low Carbon Fuel Standard (LCFS).[1163] Oregon[1164] has replicated the Californian model and at least Washington[1165] has had similar plans. Unlike under the RFS2, under California's LCFS biofuels are assigned a carbon intensity score. The carbon intensity of the fuels of providers may on average during each calendar year not exceed a limit confirmed in advance by the state. This means that the lower the carbon intensity score, the more sustainable the fuel and the more valuable will the fuel be for fuel providers. Fuel providers with high averages may purchase credits from those with low averages.

There are also similarities between the different biofuel sustainability schemes. In all three schemes GHG emissions values have been pre-calculated for various production pathways. The pathway is defined with reference to certain characteristics of the PPM, such as the (biomass) feedstock and the (chemical) production technique utilized. Each pathway is assigned a GHG emission value on the basis of estimated averages for that pathway. Producers, refiners, importers, retailers and other parties that may need to comply with the sustainability criteria can rely on the pathway value that has been calculated for the fuel that they own.

Under the EU RED and California's LCFS producers may instead of the pathway value also choose the costlier option of certifying an individual GHG emissions value. The

[1163] Assembly Bill 32, 2006 Leg. Regular Session (California 2006) (amended Nov. 2015); California, Governor's Executive Order S-01-07 (2007).
[1164] Oregon Administrative Rules Chapter 340 Division 253 (2017) (Oregon Clean Fuels Program); 2009 Oregon Legislature HB 2186; 2015 Oregon Legislature SB 324.
[1165] 2018 Washington Legislature HB 2338.

individual value is calculated on the basis of the circumstances at the production plant in question. In these schemes, the pathway value only functions as a default value available for producers without individual certification. In contrast, the U.S. RFS2 does not offer the possibility for producers to certify their individual emissions value and all companies must accept pathway values.

Pathway values form an inherent part of current biofuels sustainability schemes. They serve as either the only available proxy for sustainability with respect to GHG emissions or serve as a default value for GHG emissions that is complemented by the option of certifying an individual producer-specific value for GHG emissions. Either way, the pathway values form sustainability indicators that rely on calculations of averages.

Both thresholds and the pathway values might lower administrative costs of the sustainability schemes. However, the schemes for promoting sustainable biofuels are still prone to trade law challenges. The introduction of biofuels sustainability criteria will favor some fuels over other fuels. The criteria could consequently also have discriminatory effects. In fact, there have been concerns that the design of currently applied schemes with thresholds, and in particular the choice of certain thresholds, might even have been driven by a protectionist agenda.[1166] The interests of free trade and environmental protection may in other words clash and may subsequently need to be reconciled.

The argument may arise that a less trade restrictive alternative design for the biofuels sustainability criteria should have been preferred despite it being technically complex or economically burdensome. This raises the question of whether such an alternative may be considered in the proportionality review. Hence, biofuels legislation forms a good case study for examining the relevance of administrative costs for the proportionality review. In the remaining sections of this chapter it will analyzed whether the EU, U.S. and Californian models might have discriminatory effects and whether they despite such potential effects may survive the tests applicable in trade law.

[1166] Claudia Franziska Brühwiler and Heinz Hauser, 'Biofuels and WTO Disciplines' (2008) 63 Aussenwirtschaft 7, 17; Max S. Jansson and Harri Kalimo, 'On a Common Road Towards Sustainable Biofuels? EU and U.S. Approaches to Regulating Biofuels' (2014) 8 Pittsburgh Journal of Environmental and Public Health Law 104, 119-120, 157.

5.2. California's Low Carbon Fuel Standard

5.2.1. The Design of the Scheme

Under California's Low Carbon Fuel Standard (LCFS) fuel providers are required to provide fuel with carbon intensity that should on average annually not exceed the limit set for each year. Unlike the federal RFS2 and the EU RED, the LCFS does not establish any GHG threshold for biofuels to be considered sustainable. Instead, the sustainability of the fuel can be expressed on a sliding scale of carbon intensity. Each small difference in emissions levels is of relevance. The lower the carbon intensity of the batch of fuel, the greater the premium fuel providers will be prepared to pay for it. The model awards benefits in proportion to performance.

Biofuel producers receive credits corresponding to produced fuel volumes and the carbon intensity of that fuel. When receiving credits, producers can either ask for certification of an individual carbon score or rely on a default value. In other words, the carbon intensity of a fuel may be calculated in one of two ways. The first option for the producer is to apply for individual GHG emissions values. In-state and out-of-state fuel must have equal opportunity to the available individual sustainability certification.[1167] The other option available to producers is to use the default value that has been assigned for the production pathway that the producer relies on. Various pathways defined in terms of feedstock and chemical methods for production have been assigned default values for GHG emissions. These values have been calculated on the basis of average emissions for respective pathway.

The compatibility of California's Low Carbon Fuel Standard with the dormant Commerce Clause has been challenged in court.[1168] It has been argued that the scheme is discriminatory and burdens out-of-state commerce. Below it will be analyzed whether there may exist any less trade restrictive alternative model that California may adopt and that could render the implemented versions of LCFS disproportional.

[1167] US – Standards for Reformulated and Conventional Gasoline, DS2, Panel Report, 29 Jan. 1996, para. 6.28. *See* also section 4.3.2.1.

[1168] Rocky Mountain Farmers Union v. Goldstene, 843 F. Supp. 2d 1071 (E.D. Cal. 2011); Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070 (9th Cir. 2013); American Fuels and Petrochemicals Manufacturers Association, et al. v. Corey, No. 1:09-cv-2234-LJO-BAM (E.D. Cal. 2015); Rocky Mountain Farmers Union v. Corey, Memorandum Decision and Order Re Defendants' Motion to Dismiss, Lead Case: 1:09-cv-2234-LJO-BAM (E.D. Cal. 2017).

5.2.2. Origin Neutral Versus Geography-Related Default Values

The life-cycle analysis (LCA) adopted under California's LCFS for determining the default and individual values includes factors related to feedstock and chemical production methods. The calculations of individual values also take into account emissions from transport distance and the estimated GHG emissions attributable to the electricity from the local grid. These factors relate to geographical origin.

The implementation of the LCFS in California started in 2011. The original default value calculations took into account for the same geography-related factors as the calculations for the individual values. This resulted in, for example, a higher default value for Midwest corn ethanol than for the same product from California's own plants. The geographically-related factors were in 2015 deleted from factors taken into account in the calculation of default values. For the purposes of default values transport emissions and emissions from generating the power used in biofuel plants are now estimated to an equal level for all production. In other words, default values are no longer state specific. The calculations of individual emission values still continue to acknowledge differences in emissions on the basis of both transportation distance and the PPMs used to generate the electricity relied on in the biofuels plant. Transport distances and local conditions thus continue to affect individual values.

How might the 2015 version of the LCFS then be scrutinized under trade law? It is plausible that the Californian industry under the current amended model still gains an advantage over out-of-state biofuel in part as a result of the factors relating to geographical origin in the individual value calculation model.[1169] In the calculation of individual values producers have the possibility to illustrate that they, for example, use electricity in their plants that has been generated with low emissions (e.g. electricity from renewables) and that emissions in the transport of the feedstock and the fuel has been low. These types of geographically related elements in the calculations do, however, not appear problematic when part of individual values. While adding geographically related elements to individual values will in many cases increase the discriminatory effects, they will at the same time ensure a higher level of protection. It is therefore submitted here that the fact that the scheme allows for geographically

[1169] *See* Rocky Mountain Farmers Union v. Corey, Memorandum Decision and Order Re Defendants' Motion to Dismiss, Lead Case: 1:09-cv-2234-LJO-BAM (E.D. Cal. 2017).

related factors to be given weight in the calculations of individual values should not as such render it disproportional.

Would California's original LCFS from 2011 then be more vulnerable under a proportionality review? More specifically, would the alternative of origin neutral default values render a model with state specific default values disproportionate?

Under the original Californian LCFS, before the amendments introduced in 2015, different default values were awarded to biofuels of the same pathway depending on what state it had been produced in. Midwest corn ethanol was assigned a worse default value than in-state corn ethanol. This was the result of including emissions from local generation of electricity in the model. Normally, calculating emissions from transportation would also burden the out-of-state industry more. Peculiarly, however, Californian corn ethanol was disadvantaged by the inclusion of emissions from transport. This was because emissions from transporting the feedstock long distances to Californian fuel plants were estimated as higher than the emissions from transporting to California finished fuel produced out-of-state.

The justifiability of California's original model of individual values complemented by state specific default values can be assessed under GATT. Biofuels sustainability criteria with state specific or otherwise geography-related default values will often create a more significant discriminatory effect than a model with origin neutral values because importers will on average be penalized more. However, even if origin neutral values are often less discriminatory, the state specific or otherwise geography-related values incorporate more exact data on the environmental effects of the biofuel and therefore serve the objective of environmental protection to a higher degree. For example, emissions from transportation could be significant and it would distort the environmental purpose if they could not form part of the calculated values. Moreover, the fact that the models of state specific or otherwise geography-related default values include also the option of individual values means that they are not similarly arbitrarily discriminatory as they might be without individual value certification. Each sustainable producer can get sustainability certification regardless of how unsustainable the pathway is on average.

The proportionality of a model with state specific or otherwise geography-related default values complemented with individual values cannot under GATT be questioned

with reference to the alternative of origin neutral default values complemented with individual values. Might there exist some other alternative measure to the original Californian model with state specific default values? A model with default values that are categorized with reference to transportation distance instead of state origin is an alternative that deserves to be analyzed. This approach has already in part been adopted by the EU in its new Renewable Energy Directive (RED 2) that will enter into force in 2021. RED 2 will introduce sustainability criteria for solid biomass fuel used for heating, cooling and electricity. While the default values for biofuels remain origin neutral, the default values for biomass fuels (solid biomass) will be different depending on transportation distances. For most pathways relying on agricultural and wood biomass there are three or four different default values. The longer the distance the higher the default value.[1170] While these will not be state specific default values, they will still be geography-related.

Determining the transport distance may be slightly more complex as compared to determining the state of origin. The fact that different default values for different transport distances will be adopted under the RED for biomass fuels would indicate that such models might not be unreasonably costly. Moreover, at least in some circumstances a model with default values tied to transport distance could have less discriminatory effects than state specific default values. However, assigning default values on the basis of transport distance might not necessarily guarantee the same level of protection against emissions as assigning default values on the basis of state origin. State specific default values will admittedly be less exact in terms of capturing the relevance of transport distance for emission levels. Despite that fact, the state specific values could potentially ensure a higher level of protection because they can incorporate also other state specific factors, such as the emissions from generating the local power used for fuel production at the energy plants.

What follows from the above is that not only the fate of origin neutral default values under GATT, but also the fate of state specific or otherwise geography-related default values would depend on whether a model with only individual values could be regarded as a reasonable less discriminatory alternative. This question is addressed in the next subsection.

[1170] Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82, Annex VI.

California's LCFS must be compatible with both GATT and the U.S. Constitution. The general approach to the trade law compatibility a model of individual values complemented by state specific default values will likely be no different under the U.S. dormant Commerce Clause than under GATT despite the differences in the structure of the proportionality reviews. The reasoning leading to this conclusion may be laid out with reference to the developments that have already taken place in *Rocky Mountain Farmers Union*, a dormant Commerce Clause challenge to California's LCFS.

Although the criteria in the default values of the original LCFS explicitly referred to geographical origin, the U.S. Court of Appeals for the Ninth Circuit has refused to declare the scheme facially (i.e. de jure) discriminatory.[1171] The first time, in 2013, the Ninth Circuit however remanded the case back to the district court for it to consider whether the scheme reflected a discriminatory purpose or was discriminatory in effect in a way that would justify the application of strict scrutiny in the case. In a memorandum decision and an order on the motion to dismiss the district court in 2017 concluded that there was no discriminatory purpose behind the LCFS.[1172] It, however, added that discriminatory effects were plausible, and that strict scrutiny could potentially come to apply.[1173] It can thus not be excluded that strict scrutiny could come to apply to systems with default values when different states are assigned different values.[1174] Neither the district court nor the Ninth Circuit took up the question of discriminatory effects after 2017 as the plaintiffs themselves opted to dismiss that claim What is more, the Ninth Circuit found that any challenge against the original LCFS was moot by its repeal.[1175]

Even in the event that courts in the future would decide to apply strict scrutiny to schemes similar to that of California's original LCFS, they might still conclude that changing to a model with origin neutral default values would not form an alternative to achieve an adequate level of protection. Origin neutral values capture the environmental

[1171] Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070 (9th Cir. 2013); Rocky Mountain Farmers Union v. Corey, case no. 17-16881 (9th Cir. 2019). Similarly on Oregon's sustainability criteria *see* American Fuel & Petrochemical Manufacturers v. O'Keeffe, case no. 15-35834 (9th Cir. 2018).
[1172] Rocky Mountain Farmers Union v. Corey, Memorandum Decision and Order Re Defendants' Motion to Dismiss, Lead Case: 1:09-cv-2234-LJO-BAM (E.D. Cal. 2017). This was affirmed in Rocky Mountain Farmers Union v. Corey, case no. 17-16881 (9th Cir. 2019). Similarly on Oregon's sustainability criteria *see* American Fuel & Petrochemical Manufacturers v. O'Keeffe, case no. 15-35834 (9th Cir. 2018).
[1173] Rocky Mountain Farmers Union v. Corey, Memorandum Decision and Order Re Defendants' Motion to Dismiss, Lead Case: 1:09-cv-2234-LJO-BAM (E.D. Cal. 2017).
[1174] *See* section 3.2.3.5.
[1175] Rocky Mountain Farmers Union v. Corey, case no. 17-16881 (9th Cir. 2019).

effects with less precision, which means that the system could excessively promote unsustainable biofuels and insufficiently promote sustainable biofuels. This is a problem of over and under inclusion. Given that under schemes like the LCFS sustainable producers can apply for individual values, the problem of under inclusion would be mitigated. Yet, the problem of over inclusion would remain. Hence, the origin neutral model would advance a lower level of protection. A similar conclusion could in principle come to apply for the alternative model with default values tied to transport distance.

If strict scrutiny would not apply, then the Pike balancing test would instead apply to cases on the types of schemes that the LCFS represents. After *Rocky Mountain Farmers Union* had been remanded back to the district court by the Courts of Appeals, the district court also addressed this issue in 2017 in its memorandum decision and an order on the motion to dismiss. The district court found that it at least was plausible that neither the old nor the amended version of the LCFS would survive the Pike balancing test.[1176] The statements by the court accepting the plaintiffs argument that benefits of the LCFS could plausibly be marginal merely because it cannot solve climate change alone are difficult to reconcile with settled case law on Pike balancing.[1177]

The issue was not subject to the appeal decided on by the Ninth Circuit in 2019 as the plaintiffs dismissed their claims related to Pike balancing and the original LCFS had already been amended. Hence, U.S. courts will have to clarify their position in future rulings. Indeed, in a case on Oregon's Clean Fuel Program, which is very similar to California's original LCFS, the Ninth Circuit in 2018 already found the biofuels sustainability scheme to survive the Pike balancing test.[1178]

California and Oregon should under the Pike balancing test only have to make the case that the burden of the system as a whole, including the state specific values, is not clearly excessive of the benefit.[1179] The state specific default values as well as geographically related indicators in the individual value calculations will likely have more significant discriminatory effects than any origin neutral model. There is some room to argue the opposite, but that would require a quite unorthodox approach. This

[1176] Rocky Mountain Farmers Union v. Corey, Memorandum Decision and Order Re Defendants' Motion to Dismiss, Lead Case: 1:09-cv-2234-LJO-BAM (E.D. Cal. 2017).
[1177] For a view on the application of Pike balancing in the case *see* sections 3.2.3.4-3.2.3.5.
[1178] American Fuel & Petrochemical Manufacturers v. O'Keeffe, case no. 15-35834 (9th Cir. 2018).
[1179] Pike v. Bruce Church, Inc., 397 U.S. 137, 142 (1970).

approach would be based on the view that, first, it is discriminatory to treat different cases similarly and, secondly, differences in emissions from transportation and from generating the electricity relied on in fuel plants would make the cases of, on the one hand, Midwest and, on the other hand, California or Oregon biofuel production so different that they should not be treated similarly. Treating them similarly would subsequently be regarded as discriminatory and creating a high burden on inter-state commerce. If such a position would be adopted, the case could be made that the origin neutral model, under which the relevance of transport distances for emission levels are not taken account of, actually has a higher burden on inter-state commerce. A parallel can here be drawn to the discussion on the decision by states not to take action against polluting activities.[1180] Admittedly, there are hardly any indications that the burden under the Pike balancing test would be applied in this manner.

Even if the state specific default values and the geographically related individual values likely would be concluded to create a higher burden on interstate trade, the more specific criteria make the model more exact than models with either origin neutral default values or default values tied to transport distance. Hence, the state specific default values increase environmental benefits. Importantly, the Pike balancing test has been very deferential by allowing measures that ensure a genuine benefit to be upheld.[1181] State specific default values could therefore well survive the Pike balancing test. That being said, the outcome of the weighing may be affected by the potential alternative model of only having individual value certification and no default values.

Despite the fact that arguments exist in favor of state specific default values, California opted in 2015 to change the default values to origin neutral. The origin sensitive elements were still left in the calculations of individual values. The main objection against state specific default values, or default values at all for that matter, might be based on the option of eliminating default values altogether. This alternative will be discussed in the next subsection.

5.2.3. The Option of Abolishing Default Values Altogether

Biofuels sustainability criteria applicable under the LCFS include the calculation of GHG emission savings values for different pathways on the basis of the average

[1180] *See* section 2.1.3.
[1181] *See* section 3.2.2.

performance of respective pathway. The model offers producers the option between these pathway default values and individually calculated values. Could then a model completely without default values form a reasonably available less trade restrictive alternative that would ensures an equal level of protection? In other words, could such alternative measure render the LCFS, which includes both individual and default values, incompatible with trade law?

As part of the proportionality review the Californian LCFS should be compared with alternative measures in order to determine whether there exists some less trade restrictive measure that ensures the same level of protection. The alternative measures considered must, however, be technically and economically reasonably available. In other words, biofuels sustainability scheme with only individual certification can render schemes with default values disproportional only if a model without default values forms a reasonably available option for the state.

In *EC – Seals* the panel, and later the AB, had to consider whether certifying and labelling seal products as humanely killed would have offered an alternative to the general import ban on all seal products. The import ban adopted by the EU allowed for only limited exceptions unrelated to the 'sustainability' of the hunting method. In principle, it could have been argued that an import ban on merely seal products that were not certified would have served the European objectives of protecting public morals equally well. However, the almost complete ban on seal products was much easier to implement than a certification scheme for sustainable seal products.

For an alternative not to be reasonably available there must be substantial technical difficulties or the costs must be significant.[1182] Some additional administrative costs would not render the alternative unreasonable.[1183] In the view of the AB in *EC – Seals* the certification was not reasonably available from an economic and technical perspective due to the difficulty and the high costs of enforcing a reliable labelling

[1182] EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, AB Report, 22 May 2014, paras 5.270-279. In the context of GATS *see* US – Measures Affecting the Cross-Border Supply of Gambling and Betting Services, DS285, AB Report, 7 April 2005, para. 304. In the context of Art. 2.2 TBT Agreement *see* US – Certain Country of Origin Labelling (COOL) Requirements: Recourse to Article 21.5 of the DSU by Canada and Mexico, DS384, AB Report, 18 May 2015, para. 5.330.
[1183] Korea – Measures Affecting Imports of Fresh, Chilled and Frozen Beef, DS161, AB Report, 11 Dec. 2000, para. 181; China – Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products, DS363, AB Report, 21 Dec 2009, paras 327-328.

scheme for each individual product.[1184] Thus, the EU could in principle have been justified in banning all products as 'immoral' or 'unsustainable' by default. However, due to the design of the measure with some exemptions to the ban on seal products, the measure was in the end found to have breached the chapeau of Article XX GATT.[1185]

EC – Seals could arguably offer some arguments in favor of the conclusion that a system with individual verification of the sustainability of each biofuels producer would not be a reasonable alternative for California when designing sustainability schemes. The cases of biofuels sustainability schemes are still in many respects different from *EC – Seals*. For example, a major challenge in certifying seal products is the fact that hunters do not have full control of whether the kill will be humane or not. With the same methods of hunting, some kills will proceed more humanely than others. Thus, each hunt would require an observer, and even then, hunters would be encouraged to hunt excessively because after unsustainable kills they would have incentives to make a new effort to get a sustainable kill. In contrast, biofuels production is a fairly consistent process where the producer has more control over different sustainability variables. Individual certification is consequently much more reliable. The argument that models with only individual values are not reasonably available in the biofuels sector can therefore not be confirmed on the basis of *EC – Seals*. The proportionality of biofuels sustainability schemes with default values need to be scrutinized more in detail.

At least for the EU and California introducing individual values to complement default values has not created a too heavy administrative burden. The existence of individual value certification as a complement to default values under California's LCFS and under EU RED would suggest that even a model with only individual values could potentially also be reasonably available. Admittedly, the costs would increase if the option of default values would be eliminated altogether. However, the state would not have to bare all costs itself as the scheme could rely on private certifiers. It still appears unavoidable that some costs would be incurred as the state would need to have some system for the surveillance of certification practices and for verifying that presented certificates are genuine.

[1184] EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, AB Report, 22 May 2014, paras 5.270-279.
[1185] *See* section 4.2.5.

Models may be technically and economically reasonable even if they have not yet been implemented anywhere. The case law offers little guidance as to when the technical and economic burden becomes too high. The question on the reasonable availability of the model is thus put aside for now. Instead, the focus turns to whether a model without default values could ensure the same level of protection as the Californian model that includes both individual values and default values.

California's LCFS includes default values for several pathways. Considering that individual values generally better reflect true sustainability, eliminating the default values from the model would not seem to threaten the level of environmental protection sought for. However, a model with only individual values would not ensure the same level of protection in case many sustainable producers do not have access to individual value certification due to legal, technical or economic obstacles. In other words, the current model relying on individual values complemented by default values could be disproportional if individual value certification would be affordable for more or less all producers.

The test of reasonable availability leads to the conclusion that the costs cannot be too high for the state or union adopting the measure. In turn, the test of equal level of protection leads to the conclusion that the costs cannot become too high for the producers. Hence, schemes with default values could be deemed disproportional only when it would be reasonable to expect states to have the technical and economic capacity to structure an alternative model with only individual value certification and that model would ensure access to individual value certification for more or less all producers. The success of the argument that California's sustainability model is disproportional because leaving out default values would be a reasonably available alternative would in other words depend on how expensive individual value certification would be for respective party when costs have been divided in an optimal way between on the one hand the producer and on the other hand the state or union adopting the model. The question of costs is complex and would require a careful in-depth economic analysis of the market for sustainability certification.

The above analysis of the test on reasonable availability was anchored in principles developed in WTO law. Similar questions of reasonably available alternative measures could equally well arise in the application of proportionality tests under the U.S. dormant Commerce Clause. In fact, in her dissenting opinion for the Ninth Circuit in

Rocky Mountain Farmers Union in 2013 judge Murguia already argued that the original LCFS was unconstitutional because abolishing the default values would in her opinion have been an available option.[1186] As the above discussion revealed, that position is highly contentious. For example, Lee has later concluded that abolishing default values altogether would be too costly.[1187]

It is unclear whether or not a model with only individual value certification could be implemented in a way that ensures the same level of environmental protection as the LCFS, while at the same time does not render it economically unreasonable. Models with a combination of both individual and default values can be disproportional due to the alternative of implementing a model built on only individual value certification only if the costs of individual certification would be fairly modest. Additional conditions must, however, also be fulfilled for it to be incompatible with trade law to adopt default values. Importantly, the alternative model of abolishing the default values altogether could render the LCFS disproportional only if it is less trade restrictive.

It has been argued in this chapter that the test on trade restrictiveness should always include an assessment of whether the proposed alternative measure would be less discriminatory. In the review of a model with no default values any comparison of discriminatory effects between the measure and alternatives would naturally be redundant in case the proportionality review would, first of all, include a test on trade restrictiveness in terms of trade volumes and, secondly, the model without default values would be deemed to be more trade restrictive in that respect.

A model without default values would be more, not less, trade restrictive in the sense that it would be more difficult for biofuels to gain sustainability certification and thus also more difficult to get access to the benefits of sustainability status. The consequence would likely be that trade in biofuels would decrease. It should, however, be acknowledged that while abolishing default values might have a hampering effect on trade in biofuels, such effects would largely stem from a corresponding increase in the market share of fossil fuels. Hence, it would appear far from evident that a model without default values would be considered more trade restrictive under the

[1186] Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070 (9th Cir. 2013), judge Murguia dissenting.
[1187] Hwi Harold Lee, 'Dormant Commerce Clause Review: Why the Ninth Circuit Decision in *Corey* Strayed from Precedent and What the Supreme Court Could Have Done About It' (2015) 42 Boston College Environmental Affairs Law Review 54, 65.

proportionality review, even if the review would include some form of test on trade restrictiveness in terms of trade volumes. Be that as it may, a further analysis on whether a model without default values would constitute a less discriminatory alternative measure is still called for.

The original LCFS had state specific default values. State specific default values, even in combination with individual values, will often have discriminatory effects as in-state producers receive better default values. While this would suggest that states should be cautious in opting for models with state specific default values as complements to individual values, it is not necessarily always the case that a model with only individual values forms a less discriminatory alternative. Namely, the existence of default values also benefits those with poor access to individual value certification. The lack of access may be due to financial issues or due to the lack of a local market for sustainability certification. It has been suspected that individual certification could prove to be very expensive and difficult to access especially for producers in developing countries.[1188] If this problem is serious enough, state specific default values in developed country sustainability schemes may actually reduce the discriminatory effect of the scheme.

In the analysis of whether the model with only individual value certification is reasonably available for states and whether it ensures the same level of protection as the implemented versions of the LCFS, it was concluded that so may be the case only when the costs of a system with individual value certification is sufficiently low for both the state and producers. When that would be the case, it seems plausible that producers from different states would all have good access to individual value certification and that the model with only individual values would be less discriminatory than the model with state specific default values. This is further indication that the analysis of the proportionality of the original LCFS would require detailed data on the costs of biofuels sustainability certification.

After amendments in 2015 the default values in California's LCFS have been origin neutral. With this current LCFS, in which individual values are complemented with

[1188] Robert Ackrill and Adrian Kay, 'EU Biofuels Sustainability Standards and Certification Systems – How to Seek WTO-Compatibility' (2011) 62 J. Agricultural Economics 551, 560; Sanford E. Gaines, 'Process and Production Methods: How to Produce Sound Policy for Environmental PPM-Based Trade Measures?' (2002) 27 Columbia J. Environmental L. 383, 407. *Cf.* similar issues in the context of the Montreal Protocol on Substances that Deplete the Ozone Layer (UNEP 1987) 1522 U.N.T.S. 3. The protocol contains provisions on restriction on the use of ozone depleting substances in the PPMs.

origin neutral default values, California could attempt to rely on the same defense as laid out above for schemes with state specific default values in combination with individual value certification. The potential lack of means for producers in less developed countries to access individual certification could form a reason why eliminating default values as complements would not necessarily decrease discrimination. Let us, however, assume that costs of individual certification would be low and that there would be no significant differences in the accessibility of individual certification in different states. A model with geography-related individual values and origin neutral default values could still be argued to have discriminatory effects as illustrated by *Rocky Mountain Farmers Union*.[1189] Could eliminating origin-neutral default values from California's LCFS and subsequently relying on only individual value certification decrease any such discriminatory effect?

A biofuels sustainability scheme might have been implemented by a developed state or country, in which the biofuels plants with respect to a pathway specific comparison perform better than state, union or global averages that may have been used for the calculations of the default values. Eliminating origin neutral default values as a complement to individual value certification might in that case not decrease the discriminatory effects of the scheme. This is because the introduction of origin neutral default values as complements to a model with individual value certification would be beneficial for states that pollute more when producing biofuels with the same feedstock and chemical production method. Less developed countries or states will likely often use older technologies when producing fuel with the same feedstock and chemical methods. Hence, their production will result in more pollution. This in turn means that the less developed states or countries would benefit from default values that rely on union or global averages or averages of states with better performance.

The above observations would suggest that California's current LCFS with origin neutral default values might not become less discriminatory if the origin neutral default values were to be abolished. Similarly, developed countries could likely use origin neutral default values as complements to individual value certification because such models normally have beneficial consequences for less developed states. Origin neutral

[1189] Rocky Mountain Farmers Union v. Corey, Memorandum Decision and Order Re Defendants' Motion to Dismiss, Lead Case: 1:09-cv-2234-LJO-BAM (E.D. Cal. 2017).

default values would in other words as a rule appear justifiable even if individual value certification would already be, or in the future become, inexpensive.

In conclusion, as for the situation today, it is doubtful as to whether a model without default values could be both reasonably available and ensure an equal level of protection at the same time due to the costs of the process of individual certification. Hence, it is plausible that complementing individual values even with state specific default values, such as California's original model, would survive the proportionality review. However, it could at least in the future, with the development of more cost-efficient technical solutions, become economically feasible for the state to implement a model with only individual values without the costs for access to individual values for out-of-state producers becoming very high, even if this would not be determined to be the case today. Models with only individual values would be sufficiently inexpensive when a system with only individual certification is both reasonable for the state to implement and economically an alternative for enough sustainable producers so that the level of environmental protection does not drop. Modest costs for producers to certify individual values would mean that more or less all out-of-state producers, even those from less developed countries, would have access to individual value certification.

When a model of only individual value certification that ensures the same level of protection as current models is reasonably available, it would still have to be determined whether it would be less discriminatory than current models. It is submitted that a model introduced by a state with highly developed sustainable technology should have good chances of surviving the proportionality review when the default values are origin neutral and the model does not include sustainability thresholds but instead follows the sliding scale model of California's LCFS. The likely justifiability of origin neutral default values even when sustainability certification becomes inexpensive is good news for the new 2015 version of California's LCFS. At the same time, it should be pointed out that models with state specific default values may face difficulties in surviving the proportionality review if the costs of implementing a model with only individual values become modest.

5.3. Biofuels Sustainability Criteria in EU RED

5.3.1. The Design of the Scheme and Alleged Discriminatory Effects

Biofuels sustainability criteria have been established by the EU in the Renewable Energy Directive (RED). The EU RED stipulates that only biofuels that are sustainable may be promoted through financial support or quotas. There is, however, no annual quota for sustainable biofuels. It is up to each Member States whether it implements any quota and how it decides to promote sustainable biofuels. The new Renewable Energy Directive (RED 2) will specify that Member States must introduce obligations for suppliers of transport fuel but leaves it to each state to design the details.[1190]

The sustainability criteria define which biofuels are to be considered sustainable. Fuels are automatically deemed unsustainable if produced from feedstock that comes from certain types vulnerable land or land with high biodiversity. These vulnerable lands include peatland, biodiverse land and lands protected for their high carbon stock.

The criteria that render unsustainable biofuels from feedstock grown on certain vulnerable lands are not shaped with reference to the final effect.[1191] Sustainability is not determined in terms of biodiversity loss, but in terms of the land on which the feedstock is grown, which serves as a proxy for, for example, biodiversity loss and loss of land with high carbon stock. The reason for this solution is likely that the loss of biodiversity linked to the production of fuel at some specific plant would be difficult to quantify and verify.

Requirements that feedstock has been grown on some specific lands or has not been grown on sensitive land could have discriminatory effects. The requirements may be easier to justify when producers collecting also some biomass from sensitive lands have the right to illustrate that doing so has had no effect on the biodiversity interest that is being protected. For example, the sustainability criteria in the EU RED include the possibility for producers to provide evidence that collecting feedstock from the vulnerable land has not interfered with the nature protection purposes.[1192] Obviously,

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[1190] Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82, Art. 25(1).

[1191] Max S. Jansson and Harri Kalimo, 'On a Common Road Towards Sustainable Biofuels? EU and U.S. Approaches to Regulating Biofuels' (2014) 8 Pittsburgh Journal of Environmental and Public Health Law 104, 114-118.

[1192] *See* Article 17, Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, OJ L 140, 5.6.2009, 16. For similar provisions in the

providing evidence of no detrimental effects on biodiversity will in many cases be almost an impossible task. The exemption is still important since collecting some feedstock might even improve protection if it helps to prevent wildfires.

Apart from criteria with respect to where the feedstock is cultivated, the sustainability criteria also require that the GHG emissions are sufficiently low. This is an example of a criterion on quantifiable effects. However, unlike under California's LCFS, sustainability is under EU RED not regarded as a sliding scale. GHG emissions are estimated in order to categorize the fuel either as sustainable or unsustainable. There is no difference if the GHG emission savings are, for example, 70 % or 90 % as long as they pass the applicable sustainability threshold.

Originally Article 17 of the 2009 EU RED had established that for biofuels to be sustainable the life-cycle GHG emissions savings should be 35 per cent compared to the benchmark of emissions from gasoline. The claim has been made that the scheme was purposefully designed to serve the union's agricultural policy.[1193] Regardless of intent, the threshold for emission savings might have had discriminatory effects. Hence, several scholars have discussed the risk that the original choice of a 35 per cent threshold in the EU might constitute arbitrary discrimination.[1194]

Argentina's challenge against the RED echoes the claim of discriminatory design.[1195] Soybean biodiesel exported by Argentina to the EU is offered a default value of 31 per cent emissions savings, just barely missing the original threshold. In turn rapeseed, which is a common feedstock in intra-EU production, was under the 2009 version of the directive estimated to reduce emissions sufficiently in order to be labelled sustainable.

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new directive *see* Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82, Article 29(3)-(5).

[1193] Fredrik Erixon, 'Biofuels Reform in the European Union: Why New ILUC Rules Will Reinforce the WTO Inconsistency of EU Biofuels Policy' (2013) ECIPE Occasional Paper (issue 3) 10-11.

[1194] Stephanie Switzer and Joseph A. McMahon, 'EU Biofuels Policy – Raising the Question of WTO Compatibility' (2011) 60 International & Comparative Law Quarterly 713, 729-734; Alan Swinbank, 'EU Policies on Bioenergy and their Potential Clash with the WTO' (2009) 60 J. Agricultural Economics 485, 499; Fredrik Erixon, 'Biofuels Reform in the European Union: Why New ILUC Rules Will Reinforce the WTO Inconsistency of EU Biofuels Policy' (2013) ECIPE Occasional Paper (issue 3) 15-16.

[1195] European Union and Certain Member States — Certain Measures on the Importation and Marketing of Biodiesel and Measures Supporting the Biodiesel Industry, DS459, Request for consultations by Argentina, 15 May 2013.

In late 2015 the GHG emission savings threshold under the RED was raised to 60 per cent. However, older facilities already in operation at that time may still rely on a lower threshold.[1196] That lower threshold for old facilities went up from 35 to 50 per cent in 2018. Rapeseed biodiesel is consequently now unsustainable when default values are applied. The risks of discriminatory effects would in other words appeared to have at least declined somewhat in recent years.

The new RED 2 will enter into force in 2021. Under the renewed directive the GHG emission savings thresholds for biofuels made in old facilities will remain at the 50-60 % level. However, the threshold for new biofuel plants entering into operation after 2020 will be 65 %. The threshold for biomass fuel relied on for heating and cooling or for generating electricity will in turn be 70 % in 2021 and 80 % for plants starting to operate in 2026 or later.[1197]

There are several different methods to estimate whether or not fuel from a plant complies with the GHG emission savings threshold. The EU model, similarly to California's LCFS, offers GHG emission savings values for different pathways on the basis of the average performance of respective pathway. However, in estimating default values the EU has generally avoided components that are linked to geographic origin.[1198]

Producers have under EU sustainability criteria the option between pathway default values and individually calculated values. Those likely to decide to apply for individual certification are producers that believe they are more effective than the average producer with a similar pathway. Those producers can get a value lower than the applicable default value. The incentives to apply for an individual value depend on the

[1196] Directive 2015/1513 of the European Parliament and of the Council of 9 September 2015 amending Directive 98/70/EC relating to the quality of petrol and diesel fuels and amending Directive 2009/28/EC on the promotion of the use of energy from renewable sources, OJ L 239, 15.9.2015, 1. *See* Article 1.3(a) amending Article 7b(2) of Directive 98/70/EC (the Fuel Quality Directive) and Article 2.5(a) amending Article 17(2) of the RED. For older provisions *see* Article 17(2), Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, OJ L 140, 5.6.2009, 16.

[1197] Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82, Art. 29(10).

[1198] A notable exception is the fact that a default value is available only for corn ethanol produced in the EU. *See* Annex V, Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, OJ L 140, 5.6.2009, 16.

costs of the process and whether a lower GHG emission value is necessary for receiving the desired benefits.

Producers may rely on individual value certification for some stages of the life-cycle analysis, while relying on default values for other stages.[1199] On the one hand, such approach allows for environmentally unjustifiable "cherry picking" and could therefore lower the level of environmental protection.[1200] On the other hand, it allows producers that do not have the capacity to certify emissions from all elements of the production phase to still gain an advantage for having some highly sustainable elements in their process, which in turn would improve the level of sustainability advanced by the model. At the outset it would seem plausible that the risks of allowing cherry picking are greater than the environmental benefits, but it would require more detailed research of the market.

5.3.2. The Approach to ILUC

The EU has in recent years recognized the need to create incentives to increase the market share of the more advanced and less controversial biofuels. Consequently, already in 2015 the EU RED was amended so that that conventional first generation biofuels from agricultural crops may take up no more than seven percentage points of the ten percent renewables target set for the transport sector to be reached in 2020.[1201]

With the new RED 2, the 2030 target for renewable energy consumption in the transport sector will be raised to 14 % and the national cap for first generation biofuels in fulfilling the overall transport sector target will be between 2 and 7 percent for each Member State depending on the share of such fuels in 2020.[1202] Moreover, the RED 2 will take an additional step in the direction of the U.S. approach by introducing a target quota for advanced biofuels. Although the gradually increasing target will reach 3,5 %

[1199] Article 19(1), Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, OJ L 140, 5.6.2009, 16.
[1200] Max S. Jansson and Harri Kalimo, 'On a Common Road Towards Sustainable Biofuels? EU and U.S. Approaches on Regulating Biofuels' (2014) 8 Pittsburgh Journal of Environmental and Public Health Law 106, 127.
[1201] Directive 2015/1513 of the European Parliament and of the Council of 9 September 2015 amending Directive 98/70/EC relating to the quality of petrol and diesel fuels and amending Directive 2009/28/EC on the promotion of the use of energy from renewable sources, OJ L 239, 15.9.2015, 1.
[1202] Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82, Art. 25(1) and 26(1).

by 2030,[1203] the share will in reality be lower as the directive authorizes double-counting.[1204]

Furthermore, the contribution from high ILUC risk food and feed crop-based bioenergy to the EU renewable energy targets may in the future not rise above 2019 levels. Bioenergy is considered under the directive to constitute a high risk with respect to ILUC in case it has been produced from a food and feed crop feedstock for which significant expansion of the production area into land with high carbon stock has already been observed. The Commission has the task to determine the criteria for high-risk feedstock in a delegated act.[1205]

High-risk ILUC was defined in a delegated act in 2019.[1206] The global annual average expansion area for maize and soybean were estimated as several times higher than for palm oil. However, the percentage of the expansion taking place into land with high carbon stock has been estimated by the Commission to be 68 % for palm oil and only eight percent for soybean and four percent for maize. For sugar cane, in turn, five percent of the expansion takes place at the expense of wetlands, continuously forested areas and other land with high carbon stock. The threshold for high ILUC-risk has been set at ten percent, which means that only palm oil is a high-risk feedstock. Bioenergy from a prima facie high-risk feedstock can under the delegated act still be certified as low ILUC-risk fuel in case it can be verified that the feedstock has been grown with methods of increased productivity or has been cultivated on abandoned, severly degraded or for the last five years unused land. In addition, feedstock delivered by small farmers, can be categorized sustainable under the delegated act. This exception may benefit even some bioenergy from palm oil.

As discussed earlier, criteria on the sustainability of PPMs should as a rule be expressed in the form of requirements on an effect. However, characteristics of the PPMs (e.g. a pathway) may serve as a proxy for either sustainability or for some level of an effect provided that alternative PPMs that cause the same level of effects are granted the same

[1203] *Id*., Art. 25(1).
[1204] *Id*., Art. 27(2).
[1205] *Id*., Article 26(2).
[1206] Commission Delegated Regulation (EU) 2019/807 of 13 March 2019 supplementing Directive (EU) 2018/2001 of the European Parliament and of the Council as regards the determination of high indirect land-use change-risk feedstock for which a significant expansion of the production area into land with high carbon stock is observed and the certification of low indirect land-use change-risk biofuels, bioliquids and biomass fuels (C/2019/2055) OJ L 133, 21.5.2019, 1.

benefits. It will likely often be the case that no alternative equally effective PPM exists when the objective of the criteria is to address multiple effects. States have to accept equally effective alternative methods, but by declaring multiple objectives for criteria on the characteristics of the PPMs the state makes it much easier to conclude that the presented alternative PPM cannot be accepted as equally effective.

Palm oil is generally in the EU regarded as a high ILUC risk feedstock.[1207] This view now appears to become confirmed through the adoption of the delegated act on high ILUC-risk feedstock. It would be advisable to justify the inclusion of palm oil on a list of high ILUC risk feedstock with reference not merely to a high estimation of GHG emissions from cultivation expansion into land with high carbon stock, but instead to multiple negative effects of palm oil as a feedstock.

5.3.3. GHG Emissions Savings Thresholds and the Least Restrictive Measure Test

5.3.3.1. Alternative Higher and Lower Thresholds

EU biofuels sustainability criteria are more favorable for rapeseed biodiesel, which is commonly produced in the EU, than for biodiesel made out of palm oil, which is a feedstock grown largely in Malaysia and Indonesia. This will likely be viewed as causing discriminatory effect. What is more, the GHG emission thresholds could potentially cause discriminatory effects also in other respects. However, the criteria advance a legitimate environmental objective. The familiar test of least trade restrictive measure may therefore be pivotal for the analysis of whether biofuels sustainability criteria are proportional and compatible with GATT. The threshold for GHG emissions will be proportional in case there is no less trade restrictive model that ensures an equal level of protection. Hence, it is necessary to consider potential alternatives to the thresholds adopted in the EU RED.

Lowering the GHG savings threshold would facilitate access to the benefits awarded to sustainable biofuels. Yet, that is not sufficient for the measure to be less trade restrictive. Whether lowering the GHG emissions savings threshold would be a less trade restrictive alternative in the sense that it would decrease the discriminatory effects depends on the specifics of the case as well as how much lower the threshold would be. It would seem plausible that a significantly lower threshold for GHG emission savings,

[1207] *See* Dave Keating, 'Palm Oil to be Phased Out in EU by 2030' (14 June 2018) <https://www.euractiv.com/section/future-of-mobility/news/palm-oil-to-be-phased-out-in-eu-by-2030/> accessed 15 Sept. 2018.

a threshold that would almost be zero, would not have any discriminatory effects. However, it would be difficult to establish that a lower GHG emission savings threshold would ensure the same level of protection as less sustainable biofuels would start to receive the same benefits.

Another alternative measure would be to raise the GHG emission savings threshold. While the higher threshold would be more restrictive on trade in biofuels, it could potentially be considered a valid alternative measure when less discriminatory. Even after a potential finding that a higher threshold would be less discriminatory, it would have to be examined whether the threshold ensures at least an equal level of protection. In the case of denying market access of all products (fuels) that do not meet the threshold it could be argued that a higher GHG emissions savings threshold raises the level of protection. However, the situation is much more complex when the market access of unsustainable products has not been banned and the sustainability threshold is instead used to determine which products receive benefits.

In the case of implementing schemes to promote biofuels that meet a GHG emission savings threshold it is uncertain whether raising the threshold would improve the level of environmental protection. On the one hand, raising the threshold would ensure that biofuels receiving a beneficial status are more sustainable. On the other hand, when there is no ban on fuels with high emissions, the act of raising the GHG emissions savings threshold for beneficial treatment would result in less biofuels receiving benefits, which in turn could result in the least sustainable fuels gaining market share. In other words, there is the risk that with a higher emissions savings threshold dirty gasoline, that otherwise would have been replaced by some biofuels, now due to a stricter sustainability threshold will not be replaced by biofuels, even if the biofuels would have much lower GHG emissions than gasoline.

In sum, it would be difficult to prove that a higher GHG emissions savings threshold would ensure an equal level of protection. There is therefore in this context no need to consider whether a higher threshold could actually be considered a less trade restrictive measure. Biofuels sustainability models will in any event likely not be deemed disproportional with reference to the alternative of increasing the GHG emissions savings threshold.

5.3.3.2. The Sliding Scale Model as an Alternative Measure

A challenge against the EU RED could rely on the argument that instead of a GHG emission savings threshold there is the alternative of implementing a sliding scale with benefits awarded in proportion to the level of emissions. This alternative model has already been adopted by California in its LCFS. The fuel that fuel providers deliver must on average, during any given year, not exceed a pre-determined level of carbon intensity. There is no threshold for sustainability in the LCFS. Instead sustainability is defined on a sliding scale of carbon intensity. In other words, the carbon intensity of the fuel reflects the level of sustainability on a continuum. Each small difference in carbon intensity will consequently be of relevance.

The LCFS may be more desirable than the thresholds model of the EU RED for several reasons, ranging from environmental[1208] to legal coherence.[1209] In this book it will, however, only be examined whether the EU model with thresholds could be more vulnerable to a challenge under GATT.

The chapeau of Article XX GATT prohibits arbitrary discrimination. The test has been described as having the nature of a cost-benefit test.[1210] It includes an assessment of whether there would exist some alternative measure that would be less discriminatory and would still enable the state to achieve a similar level of protection of the legitimate objective. The alternative offered must be reasonably available and such that the state could reasonably be expected to employ it.[1211] Both economic and technical constraints should be acknowledged.[1212]

[1208] Max S. Jansson and Harri Kalimo, 'On a Common Road Towards Sustainable Biofuels? EU and U.S. Approaches to Regulating Biofuels' (2014) 8 Pittsburgh Journal of Environmental and Public Health Law 104, 120-121. In the article it is recognized that many non-GHG related environmental effects equally relevant as GHG emissions are difficult to incorporate into such a scale.

[1209] Max S. Jansson, 'Public Procurement and Biofuels Sustainability Criteria – Is There a Link?' (2016) 6 Climate Law 296.

[1210] Andrew D. Mitchell and Caroline Henckels, 'Variations on a Theme: Comparing the Concept of "Necessity" in International Investment Law and WTO Law' (2013) 14 Chicago Journal of International Law 93, 134.

[1211] US – Section 337 of the Tariff Act of 1930, Panel Report, L/6439, 16 Jan. 1989 (adopted), para. 5.26; Thailand – Restrictions on Importation of and Internal Taxes on Cigarettes, DS10, Panel Report, 15 Oct. 1990, para. 74; Korea – Measures Affecting Imports of Fresh, Chilled and Frozen Beef, DS161, AB Report, 11 Dec. 2000, para. 166.

[1212] Brazil – Measures Affecting Imports of Retreaded Tyres, DS332, AB Report, 3 Dec. 2007, paras 156, 171; EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, AB Report, 22 May 2014, para. 5.277; EC – Measures Affecting Asbestos and Products Containing Asbestos, DS135, Panel Report, 18 Sept 2000, paras 8.207-211.

The existence of California's LCFS would speak in favor of the conclusion that a sliding scale model could reasonably be adopted in the EU. The additional burden on the state from introducing a sliding scale may not be unreasonable. Under a threshold model without any sliding scale the costs of sustainability certification may be very low in cases where the GHG emissions are so minimal that it is obvious that the fuel complies with the threshold. In turn, introducing a sliding scale could increase the costs of certifiers as emissions would in every case of individual value certification have to be estimated with high precision. However, these costs would not burden the state government when the task of certification is fully left to private markets. Admittedly, some increase in costs for the state adopting the scheme may still result from the increased risks of fraud when importance is given to even small differences in GHG emissions. Namely, the state adopting the scheme might incur some additional costs in the process of verifying that producers and certifiers do not engage in fraudulent acts.

If the sliding scale model is reasonably available, would it then be less trade restrictive than the EU RED? A sliding scale model could be implemented in combination with a minimum GHG emission savings threshold. In other words, the current threshold might be kept and biofuels with too high levels of GHG emissions would not be offered any benefits. The difference with the EU RED would be that instead of offering all biofuels reaching the required savings threshold equal levels of benefits, the benefits would instead be relative to the GHG emission savings. Whether or not this model would be less trade restrictive than current models is difficult to assess in abstract and would depend highly on the specifics of the case.

Yet another alternative to the current EU model would be to either lower or raise current thresholds and at the same time introduce a sliding scale for GHG emission savings exceeding the threshold. Whether this solution would decrease or even remove potential discriminatory effects would again require a careful analysis of the market. There are indications that the original thresholds may have been tailored to benefit the in-state biofuel industries. The fact that the threshold was raised may thus already have decreased or even eliminated any potential discriminatory effects. That being said, if current thresholds are found to have discriminatory effects, it would seem probable that the discriminatory effects would decrease at least if the GHG emissions savings thresholds would be lowered considerably, perhaps even close to zero per cent.

It is difficult to estimate whether the sliding scale model would decrease trade restrictiveness also in the sense that barriers to trade volumes would diminish. Any such evidence might, however, not be necessary for it to be considered a valid alternative measure under the proportionality review. As the alternative of the sliding scale model does not form a measure that would clearly restrict trade volumes to a greater extent, it would likely be regarded as less trade restrictive without much controversy already if it could be determined that it is a less discriminatory measure.

On the basis of the above observations, there could potentially exist less discriminatory alternatives to the current EU model. Of particular interest is the alternative of significantly lowering the GHG emissions savings thresholds and simultaneously introducing a system of awarding benefits to biofuels that reach the GHG emission savings threshold in proportion to the GHG emissions attributed to the biofuel batch. Yet, while a model with a sliding scale could be less discriminatory than the current EU model, it would also under the proportionality review have to be analyzed whether the alternative model would offer at least the same level of protection as the EU RED with respect to a justifiable objective. The subsequent analysis will thus explore whether a sliding scale model combined with some GHG emission savings threshold could ensure a level of environmental protection equal to that of currently applicable EU model.

What justifiable objectives could the EU refer to in an attempt to defend its model against a trade law challenge? The EU could put forward at least three different objectives in its efforts to make the case for the proportionality of a model without a sliding scale. The first objective would simply be to reduce GHG emissions as much as possible. The second objective would be to avoid climate change disaster and irreversible environmental harm. This objective could be expressed as minimizing the probability that global temperatures increase by more than two degrees Celcius from current levels. Finally, the third objective could be to reduce social problems and environmental issues unrelated to GHG emissions. Below the proportionality of threshold models without any sliding scale will be assessed against the backdrop of each of those three objectives.

The proportionality review could begin with the observation that a sliding scale model would advance sustainable biofuels in proportion to their GHG emission savings and the most sustainable alternatives would gain significantly more benefits than fuels that

only barely exceed any current GHG emission savings threshold. This could be expected to increase the market share of biofuels that can be produced with exceptionally low levels of GHG emissions and the consequence of that would be a decrease in GHG emissions. In other words, the alternative model would seem to have environmental benefits in terms of GHG emission reduction in this respect.

Admittedly, if the threshold for GHG emission savings is lowered, the proposed alternative sliding scale model would offer some benefits even to biofuels with very low GHG emissions savings. The GHG emissions of those fuels would still have been estimated to be lower than for the gasoline alternative. Thus, the alternative model would appear to not add any benefits to biofuels performing worse than gasoline, while at the same time increasing incentives for biofuels that perform exceptionally well. The expected level of GHG emissions in the transport fuel sector might therefore be lower with the alternative model than with current models. If true, then the proportionality of the EU RED and subsequently their compatibility with GATT could be questioned.

The EU would attempt to point to factors that indicate that the alternative model of a sliding scale with lower or no thresholds would despite of the above not actually ensure an equal level of protection. Something else than the reduction of GHG emissions could be put forward as a justification for the models with GHG emissions savings thresholds. The EU could present the argument that biofuels with GHG emission savings below current thresholds is less sustainable than gasoline due to other environmental effects than GHG emissions, or even due to social effects. In other words, the state might argue that its current threshold is justifiable because it serves as a proxy for social effects and for other environmental effects than GHG emissions.

It is indeed true that biofuels, no matter how high or low their GHG emission savings, will have other environmentally and socially detrimental effects. However, that does not justify the implementation of some specific threshold for GHG emissions savings. There does not exist any rational relationship between the environmental or social objective and the use of some thresholds for GHG emission savings. The use of a GHG emission savings threshold would be an arbitrary and unjustifiable proxy for other environmental or social effects.[1213]

[1213] Another example of the use of unjustifiable proxies would be when transport distances are used as proxies for transport emissions without considering the type of transport truck used, the number of stops and the weight of the cargo.

The EU biofuels sustainability criteria include criteria that address other effects of biofuels than the GHG emissions. For example, under the scheme biofuels processed from feedstock that has been collected on biodiverse or other sensitive land will not be considered sustainable. Criteria could be developed also for other negative effects linked to biofuels instead of applying the GHG threshold as a proxy for those effects.

Below it is assumed that the reduction of the levels of life-cycle GHG emissions from transport fuel forms the ultimate objective of the adopted models. When declaring that as the objective, the EU could present a few arguments for adopting its thresholds. The first argument may be that under the alternative sliding scale model GHG emissions in the transport fuel sector could increase under certain conditions. Current models with no sliding scale have been designed to increase the share of any sustainable biofuel at the expense of gasoline. Establishing a quota for sustainable biofuel or awarding sustainable biofuel financial incentives is expected to lead to sustainable biofuel, including barely sustainable biofuel, cutting market share from gasoline. The consequences of the proposed alternative model may be difficult to predict. If financial incentives would be awarded in proportion to GHG emission savings and we assume that the overall government spending on biofuel sustainability would not be increased from current levels, then the benefits to barely sustainable biofuels would be reduced. Consequently, gasoline could in principle take back market share from the barely sustainable biofuels. At the same time, the production of exceptionally sustainable biofuels might be very expensive. Hence, their market share might not increase significantly. The overall result of the proposed alternative model could therefore potentially be an increase in GHG emissions. Facing uncertainties surrounding the market effects, the EU might argue that the precautionary principle supports the model it has opted for. Whether or not the proposed alternative would ensure an equal level of protection would under the above approach would require a careful analysis of market conditions and the likelihood of different outcomes. That analysis may, however, not be necessary. Instead of awarding financial support for sustainable biofuels EU Member States would have the option of replicating the Californian LCFS and establish a quota for GHG emissions. The level of protection against GHG emissions would be the same or better under this alternative model if fuel suppliers would be required to comply with an average carbon intensity value (i.e. GHG emission quota) that as a starting point is the same or lower than current emission levels. For these reasons it

would appear that the level of environmental protection in terms of mitigating GHG emissions could be the same or higher with an alternative model.

A second argument could be put forward by the EU in defense against the alternative of a model with a low threshold and a sliding scale. Due to inaccuracy in estimations of GHG emissions from biofuels a lower GHG emission savings threshold could be claimed to result in the risk being higher that some benefits also go to biofuels that cause higher emissions than gasoline. The EU might feel tempted to argue that precaution is needed against such risk and that current thresholds serve that purpose. It is submitted, however, that a broader perspective would have to be adopted in the application of the precautionary principle. It would not be genuine precaution to minimize the risk of awarding small benefits to some biofuels with slightly higher emissions than gasoline when as a consequence a lot of biofuels that are more sustainable than gasoline would be left without any benefits. Although the alternative model would mean that biofuels with low GHG emissions savings are awarded a somewhat more beneficial status than gasoline and that there is a heightened risk that some small benefits even go to biofuels with higher emissions than gasoline, these negative aspects should likely in normal market conditions be considered outweighed by the increased incentives to produce biofuels with very low GHG emissions.

A third argument for lowering thresholds significantly while also introducing a sliding scale could equally rely on the observation that there are uncertainties with respect to the estimations of life-cycle GHG emissions for biofuels. Life-cycle GHG emissions of fuels are expressed as an average (i.e. mean or median) of various estimations. However, there is a higher uncertainty with respect to the estimation of GHG emissions for biofuels than for gasoline. In particular, it is difficult to estimate direct and indirect land-use change.[1214] The greater uncertainty with respect to correct values for biofuels would mean that there is a higher likelihood for biofuels to in reality be much less sustainable in terms of GHG emissions than the estimated average would suggest. In other words, the standard deviation for emissions in the production of biofuels may be higher than for gasoline and the risk profile for biofuels may thus be worse. Yet, it is not clear whether the level of protection against GHG emissions could be said to be the

[1214] The reliance on the argument developed here as a defense of EU RED and U.S. RFS becomes significantly weaker in case criteria on ILUC are in themselves not compliant with the proportionality principle. For a discussion on that *see* section 4.1.4.3.

same with the alternative model of lower thresholds and a sliding scale even if the expected level of emissions in terms of an arithmetic average would be the same in case the risk of extreme outcomes would at the same time be higher. Perhaps the level of protection could be said to be lower with the alternative measure only through the claim that the environmental protection objective is something else than the simple reduction of GHG emissions? This issue is explored more in detail below.

It would appear possible that the alternative of a significantly lower, i.e. almost zero, GHG emission savings threshold combined with a sliding scale could ensure at least the same level of protection against GHG emissions as the current EU RED. However, the EU could argue that the objective with the scheme is not the reduction of GHG emissions in itself. Instead, the legitimate objective would be framed in terms of avoiding temperature increases above a certain limit and securing livable conditions on the planet. In other words, the ultimate environmental objective of the biofuels sustainability scheme could be the mitigation of climate change and keeping temperature increases at some specific level so that they do not exceed a critical limit that would lead to unprecedented and irreversible environmental harm. For example, if an increase of two degrees Celcius is regarded as a critical limit, then the objective with a biofuels scheme could be to minimize the likelihood that said limit is exceeded.

The alternative model with a significantly lower GHG emission savings threshold together with a sliding scale model (in the form of a requirement on producers that their average GHG emissions do not exceed a strict limit) could be expected to increase the share of biofuels on the transport fuel market, including the share of low GHG emissions savings biofuels. Hence, GHG emissions might under the alternative model be expected to be lower. However, due to the uncertainties with respect to the calculations of emissions attributable to the life-cycle of biofuels, the risk that GHG emissions unexpectedly increase significantly from current levels could be higher with the proposed alternative model. In other words, although GHG emissions on average might be lower under the alternative model, the likelihood of extreme outcomes could still be higher. The higher standard deviation of the estimated GHG emissions for certain biofuels could in principle translate into the biofuels posing a greater environmental threat than gasoline even when the GHG emission average (i.e. mean or median) for the biofuel at hand is identical or even better than the average for gasoline.

The above argument can be illustrated with a fully fictive example. Let us say global temperatures are expected to increase by 2,5 degrees under the current EU biofuels scheme. A version of the proposed alternative model might be expected to reduce GHG emissions, which would result in only an increase of 2,1 degrees. Under both models the likelihood will be fairly high that the critical limit of 2 degrees will be exceeded. However, the likelihood might be somewhat higher under the alternative model even if the estimated average is lower. This is because of greater uncertainties in the estimations of GHG emissions under the alternative model, which would be expected to increase the total amount of different biofuels on the market. Thus, even if the likelihood might be much higher that the GHG emissions decrease significantly with the adoption of the alternative model, the argument could be made that the alternative model would not be equally effective in terms of the environmental protection goal of avoiding temperature increases exceeding a critical limit.

How would the theoretical argument that was presented above fare in reality? In the proportionality review it would be examined whether there is sufficient support from international science for the claim that the level of protection against the risk of environmental disaster would be equal or higher with the alternative model. As a preliminary step it would have to be determined whether the risk of temperature increase above a critical limit would be higher with a lower GHG emissions savings threshold. It may be a difficult case to make given that already currently temperatures are expected to increase to unsustainable levels. With serious effects of GHG emissions and climate change becoming more and more imminent, continuing with the quite significant reliance on gasoline could form a greater environmental threat than taking some risks with biofuels for which the actual magnitude of GHG emissions is highly uncertain but still estimated to be, for example, around 20 per cent lower than the emissions from gasoline. This framing of the problem highlights the importance of the input from environmental sciences in trade law analysis.

Let us assume, perhaps controversially in light of the above, that it would be concluded that the risks of environmental disaster would increase with the lower GHG emissions savings threshold of the alternative model. In the proportionality review it would then have to be determined whether the risks of climate change posed by the alternative model in its entirety would be lower than with current models. Current models ensure some level of protection against the serious risks of rising global temperatures. One

element of the alternative model, lowering the thresholds that is, could increase the risks. The disaster risk may in turn decrease to some extent as a consequence of the sliding scale creating incentives to develop and commercialize biofuels with very high GHG emissions savings. In other words, there would be elements in the alternative model pointing in opposite directions. The alternative model could be found to improve the protection against climate change disaster in some respect but to increase risks in other respects. It is obviously very difficult to determine how much temperatures would increase with the implementation of different models of biofuels sustainability criteria. Given the scientific uncertainty, the state having adopted the scheme would likely be given the benefit of the doubt.

On the basis of the above, a challenge against the current EU biofuel sustainability threshold model as such could hinge upon providing evidence that the risks of irreversible environmental disaster would not increase with the adoption of a lower GHG emissions savings threshold combined with a sliding scale. A pivotal point in the analysis would be the determination of whether the risk of irreversible environmental harm from rising temperatures and climate change would become more likely with the proposed alternative lower threshold. The challenge would build on evidence that the estimates of GHG emissions from biofuels are fairly accurate and that shifts from gasoline to sustainable biofuels with current are so modest that temperature increases are expected to soon become dangerously high without bold new policies. It is not possible to here predict the chances of success of a challenge. While the argument that the risk profile of GHG emissions from biofuels and gasoline could be defined in terms of standard deviation alongside averages would be controversial, it may be the best argument available for defending the reliance on thresholds in case the scheme has discriminatory effects.

Biofuels with estimated average emissions that are substantially lower than gasoline would appear more sustainable than gasoline despite the uncertainties in the evaluation models for biofuels GHG emissions. In other words, GHG emissions savings thresholds of 35, 50 or 60 per cent when not accounting for ILUC could potentially exceed what is necessary for a buffer for estimation errors. It would, however, be for climate science to determine whether adopting much lower thresholds in alternative less discriminatory models, and subsequently reducing the buffer, would be problematic with respect to the

risks of severe climate change from increased temperatures and irreversible environmental harm.

5.3.4. Future EU Strategies with Respect to Thresholds

The EU Renewable Energy Directive may well have discriminatory effects. In particular, discriminatory effects might stem from the adopted GHG emissions savings thresholds. Thus, the GATT compatibility of a model with sustainability thresholds and no sliding scale, like the one adopted by the EU, requires careful analysis. Such analysis will need input from economic, environmental and perhaps even mathematical sciences. Although not analyzed in detail here, it should also be noted that further legal obstacles could arise from the TBT Agreement.

No definite answer to the question of whether the threshold model with no sliding scale would survive a proportionality review applicable under GATT can be provided in this book. Yet, the elaborate discussion in this chapter on the topic revealed that the EU will at least not easily defend the choice of thresholds against the potentially less discriminatory alternative of combining substantially lower thresholds with a sliding scale.

It may be that the objective of GHG emissions savings thresholds has been to reduce the level of expected GHG emissions and that the level of protection of various models should therefore be compared with reference to the average estimate of GHG emissions under alternative models. It was, however, submitted that the EU could improve the chances of successfully fending off a challenge under GATT by claiming that the ultimate objective is not to minimize the expected level of GHG emissions in terms of an arithmetic average, but instead to minimize the risk that global temperatures rise above some critical limit, such as 2 degrees Celcius. A comparison of arithmetic averages of estimated GHG emissions would be insufficient for the comparison of the effectiveness of models to achieve the objective of global temperatures remaining within critical limits. Namely, the standard deviation of GHG emissions would also be of relevance for such risks. This complicates the analysis of whether an alternative model with a low threshold in combination with a sliding scale would be equally effective. The alternative model could increase the share of biofuels on the market and lower the arithmetic average of estimated emissions from fuels on the market, while simultaneously elevating the standard deviation of estimated emissions. The scientific

uncertainty with respect to which model should be considered more effective to address the environmental harm would likely play in the favor of the EU defending its current model.

Although a potential defense for adopting thresholds has been identified, there are still amendments to the sustainability criteria that the EU could adopt to further improve the chances of compatibility with GATT. One option would be to design the sustainability criteria so that all biofuels that meet a relatively low threshold gain benefits in proportion to the life-cycle GHG emissions. Another option would be for the EU to calibrate the thresholds so that there would no longer be any discriminatory effects. Indeed, it should be noted that the EU has been raising its threshold in recent years. On the one hand, the risk that the scheme will be found to have discriminatory effects could be lower with a higher threshold. On the other hand, if the model with a high threshold and without a sliding scale is found to still cause discrimination, it may be more difficult to justify than a model with a lower threshold.[1215]

5.3.5. Future EU Strategies with Respect to Default Values

The alternative of abolishing the GHG emission savings thresholds might not form a measure that renders EU biofuels sustainability criteria disproportional. How about then the alternative of abolishing the default values? It should be pointed out that states will likely hesitate to bring forward the argument that default values as complements to individual values would not be compatible with trade law. Many developing countries may realize that even if default values might work against them in relation to competing biofuels producers in Europe and the U.S., the access to default values may still be important for the producers, especially as potential high costs of individual value certification could hurt them in competition with fossil fuels

[1215] When the threshold is higher, there will be more lower thresholds available that could be less discriminatory and some of the less discriminatory thresholds could, when combined with a sliding scale, potentially ensure an equal level of protection. If the GHG emissions savings threshold of the less discriminatory alternative model proposed by the plaintiff would still be quite high, it would be difficult to argue that the risk of disastrous irreversible environmental effects would be higher with that alternative model. It would be unlikely that the errors in estimations of life-cycle GHG emissions from biofuels would be so significant that the lower, but still relatively high, threshold of the alternative model would form an insufficient buffer. The probability would be very low that the promoted biofuels would cause much higher GHG emissions than gasoline. Thus, the probability would also be very low that climate change would accelerate, and that the risk of irreversible environmental disaster would increase in comparison with the original adopted model.

Schemes without default values were analyzed already previously in this chapter as alternatives to California's LCFS. It was argued that abolishing the origin neutral default values of the current scheme would likely not constitute a less trade restrictive alternative that would ensure an equal level of environmental protection. However, the biofuels sustainability criteria in the EU RED differ from California's LCFS in that they establish a sustainability threshold for GHG emissions savings. How might that affect the analysis? Could the option of abolishing all default values form a less trade restrictive alternative that ensures an equal level of protection when the adopted model is based on a combination of thresholds and origin neutral default values?

Much of the discussion on California's LCFS is relevant also for the analysis of the EU RED. The alternative of abolishing default values could be both reasonably available and ensure an equal level of environmental protection only under circumstances where the costs of individual value certification would be modest. Assuming such state of affairs would be achieved, the next step of the proportionality review would be to assess whether abolishing the default values could be considered less trade restrictive.

The feedstock and pathways utilized in different states vary greatly. Future challenges directed at the idea of having default values are likely to come from countries with large biofuel production from palm oil. The GHG emissions estimated for biofuels from palm oil have generally been high and above GHG emissions thresholds. Countries with substantial exports of palm oil or biofuels from palm oil will rarely benefit from the default values as their main pathway will be unsustainable by default. These countries may question a scheme under which they must always apply for individual certification, whereas biofuels from other states produced through other pathways may benefit from good default values even if the actual real emissions have been very high. Including default values, either origin neutral or state specific, in a model with thresholds might thus increase discriminatory effects under the assumption that fuels from the different pathways are like products.

What follows from the above, is that the EU might struggle to uphold a model with both thresholds and default values if the costs of individual certification were to become sufficiently low. This may be viewed as an additional reason to review the decision to apply a model with thresholds.

5.4. The U.S. Federal Renewable Fuel Standard 2

5.4.1. The Design and the Discriminatory Effects

The U.S. has adopted sustainability criteria for biofurls in what is called the Renewable Fuel Standard 2 (RFS2). The federal RFS2 is applicable in all states that have not opted for the Low Carbon Fuel Standard as designed by California. Under the RFS2 refiners and importers of gasoline and diesel fuel need to comply with a quota for sustainable biofuels. There is an annual gallon quota for sustainable biofuels and in order to fulfill it the obligated parties can either blend sustainable biofuel or purchase credits from those with a surplus of sustainable biofuels.[1216]

The benefit sustainable biofuels enjoy is that only such fuels may be counted toward the annual gallon quota. As in the case of the EU RED, biofuels made out of feedstock cultivated on certain vulnerable lands cannot classify as sustainable. In addition, the GHG emission savings need to meet the applicable threshold value.

The main threshold for sustainable biofuels in the U.S. RFS2 is 20 per cent GHG emissions savings. The reason that the U.S. threshold is lower than the one applied under EU RED is at least in part that U.S. calculations of biofuels life-cycle GHG emissions have even included emissions from ILUC. Hence, there is no need to similarly raise the GHG emission savings threshold just in order to create a buffer for ILUC estimation errors.

A separate threshold and quota has been adopted for the most sustainable biofuels, referred to as advanced biofuels. These are categories of biofuel that have been produced with specific methods and that meet a higher GHG emissions savings threshold.

The RFS2 differs from the EU RED and California's LCFS in that there is no option for producers to get certification of an individual GHG emission savings value. Instead, the scheme only offers pathway values. Pathways are defined with reference to the characteristics of the PPMs, such as the feedstock, the chemical processing technique as well as by the type of biofuel that is produced; the two most common being biodiesel

[1216] For more on the different models *see* Max S. Jansson and Harri Kalimo, 'On a Common Road Towards Sustainable Biofuels? EU and U.S. Approaches to Regulating Biofuels' (2014) 8 Pittsburgh Journal of Environmental and Public Health Law 104.

and bioethanol. Sustainability of the biofuel is directly and irreversibly determined on the basis of the applicable pathway value.

Companies may submit a petition for a new pathway to be assessed. The pathway value will, however, not have taken into account all the factors that affect the actual GHG emissions from production in various individual plants. Yet, producers do not have the option to certify that their individual PPM, despite relying on a pathway that in terms of GHG emission savings on average has been deemed unsustainable, is equally sustainable as pathways that have already been declared sustainable under the RFS2.

The RFS2 might have discriminatory effect as a consequence of the choice of threshold value for GHG emission savings. The discriminatory effect of the RFS2 is escalated by the calculation methods of the pathway values. In the original calculations made in the preparatory stages of designing the RFS2, corn ethanol, the fuel that has ensured U.S. dominance in the global biofuels sector, was found not to reach the 20 per cent threshold that was to apply under the RFS2. In the end after some recalibration and – one dare say – manipulating the mathematical model for calculating the GHG savings value, it was, however, concluded that corn ethanol exceeded the required GHG emissions savings with a minimal margin.[1217] By choosing a 20 per cent threshold and with some dubious mathematical modelling the U.S. ensured beneficial treatment of its domestic production. A large share of U.S. biofuels will receive beneficial treatment while the imports from some countries, like Indonesia and Malaysia where oil palms are grown, will rarely enjoy the beneficial status of sustainable biofuels.

The pathways constitute proxies for the level of GHG emissions and thus also for sustainability. Below it will be explored whether these criteria on the characteristics of the PPMs may be justifiable under the principles of trade law.

5.4.2. The Absence of Individual Value Certification

The U.S. RFS2 assigns GHG emission savings for predetermined pathways. As explained above, unlike the EU and the Californian biofuels sustainability schemes, the federal U.S. RFS2 does not include any possibility for individual producers to get an individual assessment of their sustainability in the form of GHG emission value

[1217] Daniel A. Farber, 'Indirect Land Use Change, Uncertainty, and Biofuels Policy' (2011) University of Illinois L. Rev. 381. On the calculation of GHG savings of U.S. corn ethanol *see* also Melissa Powers, 'King Corn: Will the Renewable Fuel Standard Eventually End Corn Ethanol's Reign?' (2011) 11 Vermont J. Environmental L. 667, 706.

certification. Whether or not the biofuel reaches the applicable emissions savings threshold, and thus is sustainable and is granted preferential status, depends on the pathway and not on local or individual circumstances.

Is the RFS2 in compliance with WTO law? At the outset, it may be noted that a model, such as the RFS2, which assigns origin neutral pathway values for biofuels produced anywhere in the world but does not allow for individual value certification will exert some extraterritorial pressure. Producers in the exporting country utilizing biofuels pathways determined unsustainable on average will face difficulties to find buyers for those biofuels in the U.S. as there is no access to individual sustainability values due to that option not being legally recognized under the scheme. There are strong incentives for the producers to switch to pathways that have been declared sustainable on average. The extraterritorial pressure could be more limited if there was an option of individual value certification. How much lower would in part depend on how economically and technically burdensome it would be for producers to attain individual values.

Under the U.S. RFS2 out-of-state producers can serve their in-state markets with biofuels produced in accordance with a pathway that has been categorized as unsustainable and still get full benefits for exports to the U.S. of biofuels from a sustainable pathway. Similarly, out-of-state producers that only rely on a sustainable pathway will get full benefits. The extraterritorial pressure against producers in the RFS2 is thus arguably less serious than the extraterritorial pressure in cases where country of origin is used as a proxy for the sustainability of all PPMs that can be relied on to make a particular product (e.g. shrimp or biofuel). In this so called country certification model the pressure is not directed merely at producers but also against the states.

GATT compatibility must still be examined from the perspective of the non-discrimination principle, the grounds of justification and the proportionality review. The RFS2 may serve a justifiable environmental objective. Would the original-neutral RFS2 with its GHG savings thresholds then survive the proportionality review? It may be recalled that under Article XX GATT prima facie prohibited measures will not be justifiable in case they are arbitrarily discriminatory. As part of this proportionality test it is examined whether there is any reasonably available less trade restrictive alternative measure that ensures the same level of protection. The EU RED and the LCFS illustrate that it is, at least for developed countries, not technically unreasonable to employ

individual sustainability certification as a complement to average values, such as pathway values.

Introducing individual value certification would also clearly not endanger the level of protection. It is submitted that the introduction of an option to apply for individual sustainability values would in fact likely even improve environmental protection. Although it would not hinder the use of pathway values by producers who would on a closer look be revealed to produce unsustainable biofuel, the individual values would grant the benefits of sustainable biofuel to producers who in reality are sustainable even if they apply a pathway that more in general (i.e. on average nationally or globally) has been estimated as unsustainable.

Turning the pathway values into default values by introducing individual values as a complement would improve the access to favorable treatment for biofuels producers. In this sense it would form a less trade restrictive measure. Yet, it is submitted here that under the proportionality review the adoption of a model with individual value certification could not constitute a less trade restrictive measure in case it would simultaneously also increase the discriminatory effects of the scheme.

With GHG emission thresholds in the model there are circumstances where the introduction of individual values would reduce discrimination. Since most U.S. producers will not need individual values to reach the threshold, foreign producers are the ones with most to gain from a possibility to get individual sustainability assessment. Namely, a situation where the introduction of individual values in a developed country sustainability scheme would reduce discrimination occurs when developing countries have a large share in production pathways that for genuine environmental reasons have been classified as unsustainable. This is perhaps the case with biofuels, as for example Indonesia and Malaysia rely on palm oil. Palm oil is a controversial feedstock in part because of oil palm plantations diminishing areas of rainforests. Currently, palm oil fuels are unsustainable per default but if individual values would be calculated some might gain sustainability status. Allowing for individual values could increase competition from some unusually sustainable developing country palm oil producers.

The introduction of individual values would have potential to reduce discriminatory effect without lowering the level of protection achieved. Declining the possibility of

individual sustainability certification would therefore appear unjustifiable. This would suggest that the U.S. would face difficulties to justify the RFS2 if challenged.

The pathway values under the RFS2 are not state specific. In other words, the calculations have not included any geography-related elements that would have resulted in different pathway values for similar biofuels of different origin. The U.S. federal government could in principle decide to change that. The chances of GATT compatibility would, however, not improve if state specific elements, such as emissions from transportation, were incorporated into the calculation of the pathway values. Namely, with state specific factors in the pathways the U.S. would likely enjoy better pathway values than similar out-of-state biofuels, in particular due to shorter transport distances. This would in turn mean that U.S. biofuels would be in a better position to comply with the GHG emissions savings thresholds. In other words, when state specific pathway values would apply out-of-state producers would likely benefit more from the possibility of individual value certification. Complementing the model with individual value certification would also in those circumstances be a less discriminatory alternative that would guarantee the same or even a higher level of protection.

Furthermore, in a model with only state specific pathway values and no individual value certification the situation is bound to arise where some out-of-state producer receives a worse carbon score than its in-state competitor even if it in reality is more sustainable than the in-state plant. There is the risk of some in-state biofuels being granted the status of sustainable fuel, whereas more sustainable imports might be declared unsustainable. The situation where biofuels from some particular pathway would always be unsustainable if imported from some states but would always be sustainable when produced in-state, despite being produced in accordance with the same pathway, would to some degree resemble the case where country of origin is used as a proxy for sustainability. The difference would be that while country of origin certification, such as that examined in *US – Shrimp*,[1218] restricts *all imports* in a product category from the unsustainable country regardless of the PPMs used for the individual imported product, the pathway value model would restrict only imports of *some pathways* within a broad product category. However, the difference might still not be decisive since identical sustainability would in both cases be treated differently because of country of

[1218] US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct. 1998.

origin. State specific pathway values without individual value certification would likely be declared arbitrary discriminatory.

5.4.3. The Way Forward for the RFS2

The RFS2 would likely be found to have discriminatory effects. There is in other words some tension with trade law. Under the U.S. RFS2 sustainability is conditioned upon two factors. First, the RFS2 classifies only certain land areas as suitable for the collection of feedstock for sustainable biofuels. Secondly, the estimated GHG emissions savings of the pathway must exceed the applicable threshold. The pathway forms a proxy for only one effect, i.e. the level of GHG emissions. In determining which pathways are unsustainable, the U.S. could have relied also on other factors. Mitigating GHG emissions would then not have been the only reason why some pathways were declared sustainable and others were not. For example, when the U.S. declared biofuel from palm oil ineligible for benefits,[1219] it could have referred to also other negative effects of palm oil. By doing so the U.S. would have improved its defense against any future challenge under WTO law.

The obvious solution for improving the chances of GATT compatibility of the RFS2 would be to introduce individual value certification as a complement to the pathway values. Yet, the question may be raised as to whether complementing pathway values with individual value certification would be the only way for the U.S. government to reduce the risk of incompatibility with GATT?

Instead of introducing individual value certification the U.S. could in principle abolish the thresholds for GHG emission savings that determine whether a fuel is sustainable or unsustainable. GATT compatibility might not require the elimination of the thresholds, as was illustrated with respect to the discussion on the use of thresholds under EU RED. That being said, could abolishing the threshold resolve the problems of GATT compatibility of the RFS2, which does not allow for individual value certification? A model without the sustainability thresholds could be designed so that fuel providers would need to sell fuel that on average do not exceed a pre-determined emissions limit. The level of GHG emissions for batches of biofuel could in principle continue to be determined by pathway values with no access to individual certification.

[1219] Notice of data availability Concerning Renewable Fuels Produced from Palm Oil Under the RFS2 Program, 77, Fed. Reg. 18, 4300–18 (proposed Jan. 27, 2012).

While it is possible that changing or even abolishing the threshold could eliminate the discriminatory effects of a biofuels sustainability scheme, it is also possible that discriminatory effects would remain. Thus, it may still be necessary to conduct a proportionality review if the U.S. decided to implement a scheme with pathway values but no individual value certification and no GHG emissions savings threshold. What alternative measures may then be considered under the proportionality review? The option of a model with individual value certification would be a reasonably available alternative and would improve the level of environmental protection. The test of whether the alternative of introducing individual value certification would be a less discriminatory solution would hence appear pivotal.

It is recalled that each pathway value has been established by estimating the average emissions that result from the utilization of the pathway. Three groups that could benefit from individual values are the producers that can easily afford access to individual values, producers with short transport distances and producers with local conditions and technology that allow them to be efficient and perform better than the average producers. Developing country producers would likely not belong to these groups. All things considered, if no sustainability threshold would apply, the U.S. biofuel industry would likely be disadvantaged by the absence of individual values in the RFS2. The alternative of introducing individual values would not be less discriminatory.

The application of the test of least restrictive measure would appear to point to the conclusion that abolishing the sustainability thresholds may form an alternative path to achieve GATT compatibility. Under a model with no thresholds and only pathway values there would also not appear to exist a risk that an identical situation is treated less favorably merely on the basis of country of origin.[1220] However, it may be recalled that criteria on the characteristics of the PPM with discriminatory effects as a rule should allow for equally effective alternative PPMs.[1221] A pathway value model without the option of individual certification may raise objections due to the fact that biofuel production that falls under one unsustainable pathway will be treated less favorably than biofuels that fall under a sustainable pathway even in circumstances

[1220] Cf. US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct. 1998. *See* section 4.1.3.1. and 4.3.2.2.
[1221] US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct. 1998, paras 162-165; US – Import Prohibition of Certain Shrimp and Shrimp Products: Recourse to Article 21.5 of the DSU by Malaysia, DS58, AB Report, 22 Oct. 2001, paras 115-152. *See* section 5.1.3.1.

where the individual GHG emissions of the individual producers may be equal. There does for these reasons exist serious uncertainty as to whether simply abolishing the thresholds would be sufficient to ensure GATT compatibility of the RFS2. The example illustrates a tension between the test of least restrictive measure and the principle of treating PPMs with equal effects equally.

Regardless of how the U.S. federal government would solve the problems of trade law compatibility that can be linked to the absence of individual value certification in the RFS2, some adjustments to the calculation of the pathway values may also be called for in order to secure compatibility with GATT. Namely, it should be noted that in the calculation of GHG savings the U.S. federal law relies on data from U.S. production for many biofuels. As an exception to this, the U.S. used data from Brazilian production for sugar cane ethanol. In principle, one could imagine a country with better averages than the U.S. for some biofuel category for which U.S. data was used. The fact that the RFS2 mainly relies on U.S. data could increase discrimination and would appear arbitrary.

In case foreign data regarding a pathway value applicable to that foreign country's producers at large can be calculated, there would appear no legitimate reason to ignore it. The options would be to estimate the better emission averages for biofuels in that country (i.e. state specific default values) or to establish pathway values for all fuel regardless of origin on the basis of global averages (i.e. origin neutral default values). The former option may be more desirable from an environmental perspective, but the latter could potentially be viewed as a less controversial option from the perspective of international trade.

Conclusions on Biofuels Sustainability Criteria and Administrative Costs

Under WTO law states may not adopt measures with discriminatory effects in case there is a reasonably available less trade restrictive alternative that ensures the same level of protection. Thus, for a measure to be proportional it must be the least trade restrictive reasonably available measure to reach a legitimate objective. Administrative costs matter as states cannot be expected to adopt alternatives that are economically or technically unreasonably burdensome even if they would be less trade restrictive.

In case the administrative costs of the proposed alternative are too high, the original state measure would be upheld. The reason for this test on the reasonable availability of the measure under GATT is to ensure that states are not required to adopt measures with unreasonably high administrative costs or technical difficulties. An economically or technically unreasonable alternative model for sustainability criteria would not render the adopted measure disproportional even if the alternative would be superior with respect to non-discrimination and environmental protection.

A similar approach to administrative costs could – and perhaps should – be applied both under the dormant Commerce Clause under EU free movement law.[1222] Admittedly, the ECJ has proclaimed that practical difficulties in implementing a non-discriminatory alternative would not justify discriminatory measures.[1223] These cases have, however, related to de jure discrimination and the court does not seem to expect the states to go to unreasonable lengths in eliminating also potential de facto discriminatory effects.

It is difficult to find any guidance as to what benchmarks should be used to assess reasonable availability. Solutions successfully adopted and implemented by other states should at least be taken into account. It is important to note that the same economical and technical capability should probably not be expected from developing as from developed countries.[1224]

[1222] *See* Charles Poncelet, 'Free Movement of Goods and Environmental Protection in EU Law: A Troubled Relationship?' (2013) 15 International Community Law Review 171, 196-197.

[1223] Case C-213/96 *Outokumpu Oy* [1998] ECR I-1777, para. 38; Case C-375/95 *Commission v. Greece* [1997] ECR I-5981, paras 46-47; Case C-345/93 *Fazenda Pública and Ministério Público v. Américo João Nunes Tadeu* [1995] ECR I-479, para. 19; Case C-327/90 *Commission v. Greece* [1992] ECR I-3033, para. 24. All cases concerned the Treaty provision on non-discriminatory taxation.

[1224] This view can derive some support from the commitment of developed countries to spur progress in developing states as reflected in the preamble of the Marrakesh Agreement establishing the WTO (1994), part IV of GATT and Article 12.3 of the TBT Agreement, as well as in other international agreements such as the United Nations Framework Convention on Climate Change (1992) 1771 U.N.T.S. 107. *See*

Proxies and simplifications to models of determining sustainability of products reduce administrative costs but can increase discriminatory effects of the scheme. The reduction of administrative costs is in itself, however, not a valid defense for discrimination. Moreover, there will in many cases exist a reasonably available less discriminatory alternative sustainability model that ensures the same level of environmental protection. For example, there are normally reasonably available less discriminatory alternatives to country certification for achieving a justifiable environmental objective.

Various simplifications have been introduced to biofuels sustainability criteria in order to facilitate the application of the criteria and to reduce the related administrative costs. The proportionality of these sustainability schemes was examined closely in this chapter. It was noted that the EU RED as well as the U.S. RFS2 have established GHG emission savings thresholds. Biofuels that do not meet the threshold will be considered unsustainable. Opting for a model without sustainability thresholds could sometimes form a reasonably available less discriminatory alternative. Under an alternative model benefits would be granted in proportion to biofuels life-cycle GHG emissions (carbon intensity). The fact that this form of model, in which sustainability is viewed as a continuum, has already been implemented in California indicates that it is reasonably available. Yet, the argument could potentially be made that such an alternative would not necessarily ensure an equal level of protection against the risk of climate change of catastrophic magnitudes.

Pathway values forms another common element of biofuels sustainability criteria. The sustainability of fuel will under the U.S. RFS2 always be determined with reference to those values. It was argued that the U.S. RFS2 would likely not be considered proportional under GATT because it does not allow producers the option to apply for individual value certification. That alternative is reasonably available as illustrated by the fact that companies have the option to apply for the certification of individual emissions values under California's LCFS and the biofuels sustainability criteria in the EU RED. The pathway GHG emission values only serve as default values in those

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also Andrew Mitchell and Tania Voon, 'Regulating Tobacco Flavors: Implications of WTO Law' (2011) 29 Boston University International Law J. 383, 421; Andrew D. Mitchell and Caroline Henckels, 'Variations on a Theme: Comparing the Concept of "Necessity" in International Investment Law and WTO Law' (2013) 14 Chicago Journal of International Law 93, 134; Maureen Irish, 'Renewable Energy and Trade: Interpreting Against Fragmentation' (2013) The Canadian Yearbook of International Law 217, 239-246.

models. This approach will generally be easier to justify under trade law in case some discriminatory effects are detected.

Furthermore, in order to improve the chances that its biofuels sustainability criteria are compatible with GATT, the federal U.S. government should modify the calculation of the pathway values. The calculations of pathway average emissions should not be based on pure in-state data.

Changes to make the RFS2 resemble more the European and Californian models would not guarantee trade law compatibility. The EU and Californian models with individual value certification and default values for pathways would equally have to be examined in the light of a proportionality review in case they are found to cause discriminatory effects. It is very difficult to determine whether a model in which all biofuel producers should apply for individual certification of their GHG emissions is an economically realistic alternative to a model in which the individual value certification is complemented by default values for production pathways. The costs for both the government and private companies in implementing the certification and verification of individual GHG emissions values may or may not be unreasonably high.

It was illustrated how the proportionality of the schemes may depend on the costs of individual value certification due to the application of the test of reasonable availability and the test of whether the alternative measure ensures the same level of protection as the adopted measure. This further highlighted how administrative costs play a part in the proportionality review. It is difficult to offer any exact guidelines on the proportionality of the European and Californian sustainability schemes. The proportionality of some models with default values could in the future with developments in the market for individual sustainability certification become more uncertain even if such models would be found to comply with the review today. The uncertainty of GATT compatibility would, first of all, concern models that combine default values with threshold values. This puts in particular the EU in a tough spot. On the one hand, there may currently be valid reasons for both emissions thresholds and default values. On the other hand, with a risk of that changing, there is some pressure to abandon the threshold values.

A model like the one originally adopted by California, which included state-specific default values, may also become increasingly suspect in light of trade law provisions

when costs for individual certification decreases. Therefore, states that fear the risks of GATT proceedings may be advised to design any default values that rely on a few proxies, such as utilized feedstock, chemical production techniques and the chemical composition of the end-product as origin neutral. Hence, while it might not have been necessary for California to make the default values origin neutral, it was still from the perspective of international trade law strategically likely a good decision. From an environmental perspective things may of course look different. Whatever the decision, individual value certification may still continue to include geographically sensitive factors such as the impact of transport distance on emissions.

All in all, it has in this book been argued value reconciliation in trade law can be carried out by interpreting both free trade and environmental protection as serving an efficiency ideal. It has also been explained how the interests of non-discriminatory trade and environmental protection may be reconciled through the proportionality review.[1225] The analysis of the proportionality review in this chapter further highlighted how administrative costs form a factor in value reconciliation at least under WTO law. In other words, administrative costs affect the reconciliation of free trade (non-discrimination) and the environmental objective of reducing externalities.

The reconciled administrative costs are not directly related to either free trade or the elimination of environmental externalities. Yet, the need to factor in administrative costs does not reflect any completely new third value. Namely, taking administrative costs into account is in-line with the objective of cost-efficiency. This further underlines the strong link between trade law, proportionality and efficiency.

Ensuring administrative costs remain at reasonable levels will, similarly to values such as transparency, due process and regulatory certainty, advance societal efficiency in a broad sense. There are, however, some differences between administrative costs and the other values when it comes to their relevance for trade law test. Taking into account the fact that some solutions to, for example, environmental problems might be technically and economically very burdensome strengthens the position of the state defending its measure. In contrast, the other values all add additional requirements on the design of the state measures under the proportionality review.

[1225] *See* chapter 3.

Chapter 6 – Extraterritoriality

Environmental criteria introduced by states may target environmental effects in different stages of the life-cycle. Some criteria aim to ensure that emissions and other environmental effects during the consumption phase are not too severe. For goods consumed in-state the harmful effects during the consumption phase would take place on the in-state market of the regulating state regardless of where the product was produced. Thus, criteria on effects of consumption can affect in-state and imported products in a comparable manner.

The physical characteristics of the product will often determine whether or not it will have detrimental environmental effects during consumption. In fact, the physical characteristics may even indicate whether or not the product could be environmentally hazardous during processing before consumption as well as after consumption during end-of-life treatment. Those concerns arise regardless of where the product has been produced. The regulating state could address the harm linked to the physical characteristics of the products by adopting environmental criteria. The criteria could apply comparably to both in-state and imported products.

Criteria on PPMs raise new dilemmas. At the outset, it should be pointed out that a PPM may or may not affect the physical characteristics of the end product. For example, biofuels may be produced from various resources with more or less sustainable methods. The difference in the process method may to some extent be reflected in the physical properties of the fuel. Electricity, in turn, is always an identical end product regardless of whether it was produced from fossil fuels through a process of high pollution or if it was produced from renewable resources.

There are significant differences between criteria on PPMs and other environmental criteria. Criteria on PPMs are not adopted to address the effects and physical characteristics of the end product. Instead, the criteria relate to concerns with respect to the effects of the production and processing stage. Even when the PPM might impact the characteristics of the end product, as for example in the case of biofuels, the PPM-criteria will usually primarily, and in any case at least in part, target effects during the production and processing stage.

In some circumctances states apply PPM-criteria only for in-state production. This will be fairly uncontroversial from the perspective of importers. However, with heightened

awareness of climate change and the value of life-cycle thinking it has become increasingly common to extend PPM-criteria also to imports. As explained above, state regulations that set sustainability criteria for the PPMs target the sustainability of the production phase. This phase takes place out-of-state with respect to imports. Adopting criteria that target a phase taking place out-of-state has raised questions as to what extent state regulation may aim to address or have effects on extraterritorial activities. The question is in particular relevant in cases where a state applies PPM-criteria on both in-state and out-of-state production, although it could also arise in a few scenarios where the PPM-criteria apply only to out-of-state production.[1226]

The reason for extending the application of PPM-criteria also to imports may lie in the cross-border effects that the choice of PPMs will have. Environmental effects and externalities are usually not constrained by state borders. For example, pollution from a factory in one state may significantly burden the environment and the people in the immediate vicinity but may often also with time have consequences for neighbouring states and eventually even the global environment. Naturally, the cross-border effects can be either immediate or accumulate only in the longer term. Climate change caused by an increase in carbon emissions have fairly immediate direct cross-border relevance. Similarly, the cross-border effects of pollution in a dam can occur fairly rapidly. There are, however, many circumstances where the cross-border externalities of a hydropower plant to the distant state that adopts the PPM-regulations are less significant and only accumulate in the longer term.

As explained, the structure of trade law is such that states have agreed to allow imports on non-discriminatory terms and any exemption to this must rely on a ground of justification. Extraterritoriality considerations may emerge in either law of prohibition or law of justification. Law of prohibition covers the rules and tests that determine whether a measure is discriminatory, or prima facie prohibited for some other reason.

[1226] First, in jurisdictions where even non-discriminatory measures may be prima facie prohibited the extraterritoriality question could arise in cases where there is no in-state production of the relevant product and the PPM-criteria therefore are applied only to out-of-state production. Secondly, where there is out-of-state production and in-state production of similar products, the application of PPM-criteria only on imports would often be found outright unjustifiable and there would not even be any need to consider the question of extraterritoriality. An exemption to this might be cases where there is some justifiable reason for applying stricter PPM-criteria on out-of-state production. It is unclear what such reason could be, whether differences in environmental risks in the states could constitute such a reason and if, for example, the fact that in-state producers have voluntarily stopped using the PPM that the state prohibits for out-of-state producers would justify the application of different PPM-criteria.

Law of justification covers grounds that may justify the prima facie prohibited measure as well as the proportionality review. The first section of this chapter will provide an analysis of the extraterritoriality principle in law of prohibition, whereas the second section offers and analysis of law of justification.[1227] The third and final section will address extraterritoriality in public procurement law.

In law of prohibition the question would be phrased as to whether PPM-criteria regulate activity outside the territory of the regulating state in a manner that makes it prima facie prohibited. Some parallels exist with extraterritoriality under international law more generally.[1228] Under international law, states may rely on a broad range of tests in order to establish a link between the state and what is regulated.[1229] For example, in criminal law states may declare jurisdiction over actions on their territory but exceptionally also over some actions of their citizens in foreign territories. In other words, the link between the regulating state and the crime is generally accepted when the crime takes place in-state, but it may be sufficient also merely on the ground of the nationality of the perpetrator. In trade law the question is whether the importation of the good constitutes a sufficient link to the territory of the importing state for it to be entitled to adopt criteria also covering the production process outside its territory. Extraterritoriality in this context generally refers to regulation of production or other activities that take place outside the territory of the regulating state, all while there is at most a weak link between the regulating state and the regulated out-of-state activity.

In law of justification the perspective on extraterritoriality is rather different. Environmental protection is among valid grounds of justification. The question is then whether the state adopting the PPM-criteria may aim to protect merely its local environment or to what extent it could even tackle environmental effects outside its territory. Extraterritoriality in this context refers to regaultions adopted with the aim of addressing effects outside the territory of the regulating state. It is in other words about extraterritorial intent. The consequence of an extraterritorial objective is that regulation

[1227] This chapter is partly based on Max S. Jansson, 'Extraterritoriality, Externalities and Cross-Border Trade: Some Lessons From the United States, the European Union and the World Trade Organization' (2016) 33 Pace Environmental Law Review 437.
[1228] For an analysis of the extraterritoriality principle under customary international law *see* Robert L. Muse, 'A Public International Law Critique of the Extraterritorial Jurisdiction of the Helms-Burton Act (Cuban Liberty and Democratic Solidarity (Libertad) Act of 1996)' (1997) 31 George Washington Journal of International Law and Economics 207.
[1229] S.S. Lotus (France v. Turkey), 1927 Permanent Court of International Justice (series A) No. 10, at 18–20 (Sept. 7, 1927).

is extended to extraterritorial production even when the link to any in-state interest or benefit is weak.

One of the theoretical premises of this book was that both free trade and environmental protection might advance a common objective of efficiency. The reconciliation of non-discrimination and the reduction of externalities is assumed to follow an efficiency rationale. That being said, it was already argued in the previous chapters of the book that efficiency is in many ways ambiguous and, importantly, might not be the only relevant value in trade law.[1230] The sections in this chapter will explore extraterritoriality tests, whether they reflect other values than efficiency and how those values could, or even should, be taken into account when reconciling the objectives of free trade and the elimination of environmental externalities.

[1230] Similarly *see* Harri Kalimo, *E-Cycling – Linking Trade and Environmental Law in the EC and the U.S.* (Transnational Publishers 2006) 51.

6.1. Extraterritoriality in Law of Prohibition

6.1.1. Extraterritoriality under the U.S. Dormant Commerce Clause

In international law and EU law the prohibition of extraterritorial regulation stems from general principles outside the scope of trade law. In the U.S. the extraterritoriality test has become an integral part of the dormant Commerce Clause doctrine, even if it could equally well be viewed as a separate general principle of federalism.[1231] In any case, also the jurisdiction of U.S. states is limited to their territory and states should not regulate in the jurisdiction of other states.[1232]

It may be recalled that one of the objectives of the dormant Commerce Clause is to guarantee that those without political representation are not burdened.[1233] Regulation out-of-state would burden non-voters. Thus, while the dormant Commerce Clause targets protectionism in the form of discrimination, it also prohibits extraterritorial measures. A finding of extraterritoriality is often fatal for the state measure because it may result in the measure either being declared outright unconstitutional,[1234] or becoming subject to strict scrutiny.[1235] Even courts have recognized the incoherence with respect to the proportionality review that follows after finding a measure extraterritorial.[1236]

6.1.2. Price Affirmation Laws, Extraterritoriality and Discrimination

The extraterritoriality test has mostly been applied in connection with price affirmation laws.[1237] Two typical examples of these type of laws may be provided. First, some

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[1231] Donald H. Regan, 'Siamese Essays: (I) CTS Corp. v. Dynamics Corp. of America and Dormant Commerce Clause Doctrine; (II) Extraterritorial State Legislation' (1987) 85 Michigan L. Rev. 1865, 1873.

[1232] Patrick Zomer, Note, 'The Carbon Border War: Minnesota, North Dakota, and the Dormant Commerce Clause' (2010) 8 U. St. Thomas L. J. 60, 80.

[1233] Goldberg v. Sweet, 488 U.S. 252, 266 (1989) (laying out the Complete Auto test), *abrogated by* Comptroller of Treasury of Maryland v. Wynne, 136 S. Ct. 1787 (2015); South Carolina State Highway Department v. Barnwell Brothers Inc., 303 U.S. 177, 185-186 (1938) (laying out the political representation test). On the application of the test when reviewing subsidies *see* West Lynn Creamery, Inc. v. Healy, 512 U.S. 186, 199-200 (1994). *See also* Patricia Weisselberg, Comment, 'Shaping the Energy Future in the American West: Can California Curb Greenhouse Gas Emissions from Out-of-State, Coal-Fired Power Plants Without Violating the Dormant Commerce Clause?' (2007) 42 University of San Francisco L. Rev. 185, 207–208.

[1234] National Solid Wastes Management Association v. Meyer, 63 F.3d 652, 658 (7th Cir. 1995). *See* also National Solid Wastes Management Association v. Meyer, 165 F.3d 1151 (7th Cir. 1999) (per curiam).

[1235] North Dakota v. Heydinger, 15 F. Supp. 3d 891, 910 (D. Minn. 2014).

[1236] *See* e.g. North Dakota v. Heydinger, cases no. 14-2156 and 14-2251 (8th Cir. 2016).

[1237] Healy v. Beer Institute, 491 U.S. 324, 332, 336-337 (1989); Brown-Forman Distillers Corp. v. New York State Liquor Authority, 476 U.S. 573, 580 (1986); Baldwin v. G.A.F. Seelig, Inc., 294 U.S. 511, 522 (1935). *See* also Energy and Environment Legal Institute et al v. Joshua Epel, 793 F.3d 1169, 1171-1174 (10th Cir. 2015).

states have tried to influence the prices in its market by regulating that products cannot have been purchased below a certain minimum price before handed over for importation into the market of the state adopting the price affirmation law. Secondly, other states have regulated that imports are only permitted from companies that commit not to sell to any other states for a lower price.

The price affirmation laws often have discriminatory effects because they deprive the competitive advantage of out-of-state industries and tend to reduce imports.[1238] The extraterritoriality test in price affirmation cases could thus probably have been applied with reference to competitive advantages and protectionist behavior.[1239] This is in fact what the ECJ appeared to do in the 70's when presented with cases on both maximum and minimum prices.[1240] A similar approach has also been adopted under the GATT.[1241]

In applying the extraterritoriality test the U.S. Supreme Court has, despite the potential discriminatory effects of price affirmation laws, opted to emphasize the need for economic unity and formulated the extraterritoriality test to capture cases where states have directly regulated out-of-state commerce, regulated conduct wholly outside the state, or practically controlled commerce wholly out-of-state.[1242] Finally, the Supreme Court could also invalidate a measure when it creates norm conflicts or could create such conflicts if many states adopt similar measures.[1243]

[1238] Thomas Alcorn, 'The Constitutionality of California's Cap-and-Trade Program and Recommendations for Design of Future State Programs' (2013) 3 Michigan J. Environmental & Administrative L. 87, 132-133.

[1239] At least on one occasion the Supreme Court appears to have realized the underlying protectionism. *See* Baldwin v. G.A.F. Seelig, Inc., 294 U.S. 511, 527 (1935). For discussion *see* Kirsten H. Engel, 'The Dormant Commerce Clause Threat to Market-Based Environmental Regulation: The Case of Electricity Deregulation' (1999) 26 Ecology L. Q. 243, 293-294. *See* also Energy and Environment Legal Institute et al v. Joshua Epel, 793 F.3d 1169, 1171-1174 (10th Cir. 2015). The court upheld Colorado's renewable energy mandate finding it neither a price control statute nor discriminatory to out-of-state consumers or producers; *cert. denied*, 136 S. Ct. 595 (2015).

[1240] Case 65/75 *Riccardo Tasca* [1976] ECR 291, para. 13; Joined cases 88/75 to 90/75 *Societa SADAM and others v. Comitato Interministeriale de Prezzi and others* [1976] ECR 323, para. 15; Case 82/77 *Openbaare Ministerie of the Kingdom of the Netherlands v. Jacobus Philippus van Tiggele* [1978] ECR 25, para. 18.

[1241] Canada – Import, Distribution and Sale of Certain Alcoholic Drinks by Provincial Marketing Agencies, DS17, Panel Report 16 Oct. 1991 (adopted), para. 5.31. The panel found discrimination in the case of a minimum price law.

[1242] *See* Healy v. Beer Institute, 491 U.S. 324, 332, 336-337 (1989); Brown-Forman Distillers Corp. v. New York State Liquor Authority, 476 U.S. 573, 579 (1986); Edgar v. MITE Corp., 457 U.S. 624, 641 (1982).

[1243] Healy v. Beer Institute, 491 U.S. 324, 336-337 (1989); Edgar v. MITE Corp., 457 U.S. 624, 642 (1982).

Drawing the line between when a state is impermissibly regulating out-of-state conduct and when it is not, is no easy task. Some relevance might be given to where the primary transaction takes place. Hence, if the primary transaction is wholly out-of-state, the risk of finding the act unconstitutional is greater than if the primary transaction is an interstate transaction.[1244] PPM-criteria generally target in-state production and sales as well as imports that have been produced out-of-state. In all those cases the products subject to the transaction end up in-state. Therefore, PPM-criteria would as a rule not fall within the scope of illegal extraterritoriality.

6.1.3. Beyond Price Affirmation: Discriminatory and Non-Discriminatory Criteria

It has been argued that the extraterritoriality test has applied only to price control schemes.[1245] As the U.S. Court of Appeals for the Eight Circuit has noted, this is incorrect.[1246]

First, in *Southern Pacific Co. v. Arizona* the Supreme Court analyzed a state law that limited the maximum length of trains. In its decision the Court noted the importance of national uniformity with respect to standards in the transport sector and that it is not feasible for train companies to operate with different train lengths across state lines. Hence, in examining the Arizona law the Court concluded that the 'practical effect of such regulation is to control train operations beyond the boundaries of the state'.[1247] While the Court appeared to refer to extraterritoriality, it should be noted that the law at hand put a significant burden on interstate transportation and consequently seriously disadvantaged imports. In other words, the law had discriminatory effect.

Secondly, the test was applied by the Supreme Court in *Edgar v. MITE Corp*. The case concerned an Illinois decision to restrict the acquisition of shares in a target company for the purpose of takeover by a non-Illinois company from non-Illinois shareholders.[1248] The restrictions applied to companies if Illinois shareholders owned 10 % of the shares or if two out of three of the following criteria were met: the company had its principal office in Illinois, it was organized under Illinois law or 10 % of its

[1244] Daniel K. Lee and Timothy P. Duane, 'Putting the Dormant Commerce Clause Back to Sleep: Adapting the Doctrine to Support State Renewable Portfolio Standards' (2013) 43 Environmental Law 295, 344–345.
[1245] Pharmaceutical Research & Manufacturers of America v. Walsh, 538 U.S. 644, 669 (2013); Energy and Environment Legal Institute et al v. Joshua Epel, 793 F.3d 1169, 1173-1174 (10th Cir. 2015).
[1246] North Dakota v. Heydinger, cases no. 14-2156 and 14-2251 (8th Cir. 2016).
[1247] Southern Pacific Co. v. Arizona, 325 U.S. 761, 775 (1945).
[1248] Edgar v. MITE Corp., 457 U.S. 624, 642 (1982).

stated capital and paid-in surplus was represented in Illinois. It is difficult to identify any discriminatory effect in the Illinois law. Yet, it was found to breach the prohibition of extraterritorial regulation. The ruling can be understood to mean that 10 % in-state shareholders is not a sufficient nexus for asserting jurisdiction over trade in shares when neither of the parties in the regulated transaction are from in-state. In turn, restrictions on transaction where at least one party is from in-state might not form extraterritorial regulation.[1249]

What follows from the above is that the extraterritoriality test may be applied independently of any finding on discriminatory effect.[1250] It may be recalled that under the U.S. dormant Commerce Clause the scope of prima facie prohibited measures has not extended as broadly as under EU free movement law, which captures even non-discriminatory market access hinders.[1251] With the extraterritoriality test the U.S. dormant Commerce Clause still appears to advance free trade to some degree beyond mere non-discrimination.

6.1.4. Criteria on State Law and Policy

6.1.4.1. End-of-Life Treatment Laws in Oklahoma and Michigan

Some cases on extraterritoriality never reached the Supreme Court. A few cases of particular interest have related to waste disposal and recycling. For example, in *Hardage v. Atkins* the Court of Appeals for the Tenth Circuit examined Oklahoma's ban on the import of hazardous waste, which applied unless the exporting state had put in place for the disposal of hazardous waste standards substantially similar to those in force in Oklahoma. The court found that the law violated the dormant Commerce Clause because Oklahoma sought to force its own standards on other states.[1252]

A fairly similar case emerged in Michigan. Wayne County barred the import of waste from regions that either had not enacted a beverage container deposit law or that did not have a return rate for bottles comparable to that in Michigan. A district court

[1249] *See* Gravquick A/S v. Trimble Navigation International Ltd., 323 F.3d 1219, 1224 (9th Cir. 2003). The court stated that prohibited extraterritorial regulation would not occur if at least one party of a regulated contract would be located in-state.
[1250] *See* also American Beverage Association v. Snyder, 735 F.3d 362, 377-379 (6th Cir. 2013) (Justice Sutton concurring). Sutton noted that non-discriminatory state laws may still violate the extraterritoriality doctrine.
[1251] *See* section 1.3.3.2.
[1252] Hardage v. Atkins 619 F.2d 871 (10th Cir. 1980). *See* also Hardage v. Atkins, 582 F.2d 1264 (10th Cir. 1978).

concluded that the law was unconstitutional because it had extraterritorial effects. The court also stated that the law treated out-of-state waste less favorably as in-state waste was not burdened by comparable restrictions.[1253] In discussing potential justifications of the measure the court stated that strict scrutiny had to be applied. Preserving landfills and promoting recycling were accepted as valid grounds of justification. The court did not discuss the question of whether or not the requirement of bottle collection out-of-state would advance environmental protection all the way in Wayne County, and whether it is a requirement under the dormant Commerce Clause that the measure has such cross-border environmental benefits.[1254] Instead, the court simply concluded that there was insufficient evidence that Wayne County could not have achieved its objectives with less trade restrictive measures.

The waste disposal laws in Oklahoma and Wayne County shared many characteristics. It would appear that neither waste disposal law required other states to adopt an exact copy of their waste disposal programs. Instead, adopting an equally effective program might have been sufficient for gaining access to their markets. Admittedly, in *Hardage v. Atkins* the court did not give much attention to this question, as the law was unconstitutional due to some of its other characteristics. In the *Wayne County* case the issue of equal effectiveness was somewhat complicated by the fact that while the county seemed to accept waste from regions with equally effective bottle collection laws, policies and practices, the county still rejected imports of waste from regions with equally or more effective waste recycling. The outcome of the case did, however, not appear to rely only on that observation.

The reason that the waste disposal laws were regarded as unconstitutional extraterritorial regulation related to the discriminatory effects and the extraterritorial pressure. It is smy interpretaion that these effects stemmed from the fact that the requirements applied to imports did not address the safety and sustainability of the imported waste of the individual waste hauler and how the waste it shipped had been processed. Instead the requirements addressed the law and policy of the exporting state. In other words, Oklahoma's and Wayne County's regulations did not allow for waste generators or haulers exporting waste to Oklahoma and Wayne Country, respectively,

[1253] National Solid Wastes Management Association v. Charter County of Wayne, 303 F. Supp 2d 835 (E.D. Mich. 2004).
[1254] For more on this question *see* sections 6.2-6.3.

to illustrate that their waste and waste management procedures were sustainable. The sustainability of the imported waste or the processing by the waste haulers was not the focus of the regulations. This was problematic. In-state waste had access to the market per default, whereas waste haulers or generators delivering out-of-state waste could be rejected market access even if they were equally or even more sustainable with respect to their processes and their waste. This created a pressure on other states to change their laws that was problematic from the perspective of the extraterritoriality doctrine.

6.1.4.2. End-of-Life Treatment Laws in Wisconsin

Another set of cases on recycling emerged with respect to regulation in Wisconsin. The disputes related to a state regulation that first and foremost eleven different recyclable materials had to be recovered from waste before the waste was disposed in landfills in Wisconsin. Waste that was unprocessed and mixed in the sense that it still included some of the eleven materials could not be dumped in Wisconsin's landfills.

The Wisconsin law, however, included an exemption. Namely, in-state and out-of-state waste generators could deliver waste containing the prohibited recyclable materials provided that the waste had been generated in a region that had adopted a recycling program with a number of specific elements. For example, the local recycling program had to include public education about recycling, a prohibition of dumping the eleven recyclable materials also within the region, a requirement that residences and facilities recycle, access to recycling containers for occupants of various categories of buildings and collection of recycled waste. Some relief from these requirements was granted in case the waste was treated at a materials recovery facility. Naturally, the community also had to ensure effective enforcement of all relevant requirements.

Importation of unprocessed mixed waste to Wisconsin was possible only if the out-of-state recycling program covered also operators in the waste sector that did not export to Wisconsin.[1255] The U.S. Court of Appeals for the Seventh Circuit found in the first *Meyer* case that such element clearly made the law extraterritorial in its nature. The courts noted that the law came to control conduct wholly outside Wisconsin as it targeted even recycling of waste that was never going to be the subject of transaction to Wisconsin. Hence, the court ruled against the measure, concluding that such end-of-

[1255] *See* National Solid Wastes Management Association v. Meyer, 63 F.3d 652, 656 (7th Cir. 1995). The Court of Appeals discussed the district court's finding that the statute's notable local benefits outweighed its small impact on interstate commerce.

life treatment rule targeting the policy of other states was extraterritorial and unconstitutional.[1256]

The Wisconsin recycling law was yet a measure that could be categorized as a regulation on end-of-life treatment that did not target the PPMs of individual companies but instead a state-wide policy. Under the Wisconsin recycling law sustainability, and consequently market access, of waste was linked to law and policy in the exporting state and not to the sustainability of the waste that was actually traded across borders. Rules on production methods and end-of-life treatment are similar in the sense that both may address aspects of sustainability that often leave no trace in the physical characteristics of the good.[1257] Hence, the principle developed in *Meyer* on measures targeting the sustainability of state-wide policy could probably be extended to apply also for PPM-criteria that target state policies.

After the first *Meyer* case Wisconsin amended its law. Under the amended law only the waste bound for Wisconsin had to be covered by the recycling program. The criteria on recycling were no longer to apply for waste that was designated not to be shipped to Wisconsin. In other words, Wisconsin opened up for the rather theoretical possibility that out-of-state regions or communities would differentiate between waste exported to Wisconsin and other waste. To some extent the amendment mitigated the extraterritorial nature of the law in that the recycling requirement did no longer explicitly, as a matter of law, extend to waste not intended for Wisconsin landfills. Yet, in the second *Meyer* case the U.S. Court of Appeals for the Seventh Circuit again found the law to be both discriminatory and of unjustified extraterritorial scope.[1258] The fact that Wisconsin's original law had applied even to waste not intended for export to Wisconsin was clearly not the only factor that made the program extraterritorial and unconstitutional. Hence, there is reason to consider the other arguments made by the courts in the two *Meyer* cases.

In the second case the court argued that the measure constituted prohibited extraterritorial for three reasons. One reasons was that there was a risk of balkanization in the U.S. if many states adopt different rules about recycling. A second reason was

[1256] National Solid Wastes Management Association v. Meyer, 63 F.3d 652, 658, 661, 663 (7th Cir. 1995).
[1257] Life Cycle Initiative, Towards a Life Cycle Sustainability Assessment (United Nations Environment Programme 2011) at 11.
[1258] National Solid Wastes Management Association v. Meyer, 165 F.3d 1151 (7th Cir. 1999).

that the law made interstate commerce more costly than intrastate commerce. Unfortunately, the court did not provide much detail with respect to these arguments. States have different standards in many areas of commerce. That fact may cause some balkanization and make interstate commerce costlier. Yet, those factors alone will often not make the standards unconstitutional extraterritorial regulation. Hence, it is submitted that a third reason might have been crucial. Namely, the court also highlighted that the law even in its amended form required communities outside Wisconsin to adopt the Wisconsin standards.[1259]

Regulation that targets the law and policy of another state appears to be captured by the extraterritoriality test if importers are not awarded the option of illustrating that their products and PPMs are sustainable. Indeed, already in the first *Meyer* case the court had stated that unprocessed mixed waste from a state without recycling programs was no more noxious than similar waste from an in-state region with a recycling program. Apart from its remarks on extraterritoriality, the court in the first *Meyer* case seemed to reason that this constituted unjustifiable discrimination. The courts in both *Meyer* cases stressed that Wisconsin could instead have adopted a law that required all wastes to be processed for the removal of recyclable materials before shipping it to Wisconsin landfills.[1260]

Requirements of sustainable PPMs for domestic and imported electricity or fuel often directly tackle the sustainability of the individual products and do not address any broader general state or community policy. With the tests applied in the *Meyer* cases in mind, there is still a risk that common schemes could be caught by the extraterritoriality test.

6.1.4.3. A Comparison with GATT

In the American end-of-life treatment cases part of the problem lay in the fact that in-state products had access to the market per default due to the laws in place, whereas out-of-state producers and products could not get market access regardless of their individual level of sustainability. None of the end-of-life treatment laws discussed above appeared to have allowed imports of waste from waste generators or haulers that could have illustrated that their waste and waste management processes were

[1259] *Ibid.*
[1260] National Solid Wastes Management Association v. Meyer, 63 F.3d 652 (7th Cir. 1995); National Solid Wastes Management Association v. Meyer, 165 F.3d 1151 (7th Cir. 1999).

sustainable even if the laws of their home state or the community where the waste was generated did not meet the required standards.[1261]

The U.S. cases on end-of-life treatment laws resemble the WTO case *US – Shrimp* discussed previously.[1262] It may be recalled that *US – Shrimp* concerned a U.S. law that allowed imports of shrimp only from states that had been certified as sustainable. This certification was available when the state had adopted requirements similar to those in the U.S. on the use of turtle exclusion devices in shrimp-fishing. After the decision by the AB in the original proceedings the U.S. amended its policies to allow also imports from states that had adopted laws on shrimp-fishing methods that were still equally effective even if they did not include a requirement on the use of the same devices as in the U.S. A peculiar element of the U.S. regime was the fact that there were on-going federal U.S. legal proceedings on whether or not the U.S. law could be interpreted to allow for imports of shrimp from trawlers that themselves used sustainable fishing-methods but were governed by the law of states that had not banned unsustainable methods. The AB in the original proceedings had, however, already hinted that GATT would require individual certification.[1263]

US – Shrimp and the U.S. waste disposal cases all appear to reject regulations that do not allow imports of individual sustainable products or producers and instead condition the imports on the adoption of similar sustainability laws in the exporting state. The way these cases were approached still differed to some extent. In the dormant Commerce Clause proceedings there was more emphasis on the extraterritorial scope of the regulations as the courts applied an extraterritoriality test, whereas under GATT the AB seemed to apply the test of unjustifiable discrimination. This is not to suggest that the AB ignored extraterritoriality. The law on shrimp-fishing was in part controversial because it put pressure on other states to change their laws and policies to become sustainable states in general, and not only with respect to those products exported to the U.S. Country certification without the option of sustainability

[1261] There is some ambiguity in this respect in *Meyer*. The court stated that the law in itself prohibited unprocessed mixed waste unless there was a local recycling program in place where the waste had been generated. This would suggest that any company with processed waste could have shipped it to Wisconsin. However, in its reasoning the court still stated that the waste could not be exported to Wisconsin if no recycling law had been adopted in the region where the waste had been generated. *See* National Solid Wastes Management Association v. Meyer, 63 F.3d 652 (7th Cir. 1995).
[1262] *See* sections 4.1.3.1. and 4.3.2.2.
[1263] US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct. 1998, para. 165.

certification for shrimp from individual trawlers was not as much about environmental protection, as about exerting pressure on other states.[1264] The problem was that states wishing to export sustainable products would also need to serve their in-state market exclusively with what the U.S. considered as sustainable products. The view on sustainable PPMs that the exporting states would need to implement across their whole industry would be that advocated for by the U.S.

6.1.4.4. State-Wide Policy and the Method of Sustainability Certification

End-of-life-treatment laws in importing states that conditioned imports of waste on the adoption of waste disposal or recycling laws in the exporting state were rejected by U.S. courts as extraterritorial regulation. In *Meyer* the court even explicitly stated that instead of such form of sustainability certification of states, Wisconsin should direct its criteria on the sustainability of individual waste generators that delivered waste to Wisconsin landfills.

The courts in the end-of-life treatment cases did not have to consider the situation in which a state implements a combination of sustainability certification of states and the possibility for imports to seek individual sustainability certification. On the one hand such measure would include the type of state certification that was above concluded to be problematic when implemented on its own. The state certification would consist of a ban on certain unsustainable PPMs in-state and a procedure to grant imports a sustainability status per default when they originate from states that have adopted a similar ban or at least equally effective measures against the harm of unsustainable PPMs. On the other hand, the problematic state certification would this time be complemented by a procedure for imports from uncertified states to get individual sustainability certification.

The combined measure could take various forms. In practice it would normally still likely mean that in-state products and imports from other countries enforcing a similar ban on the unsustainable PPMs would benefit from the presumption of compliance with the PPM-criteria and compliance would be monitored through occasional inspections. In contrast, imports from states that have not implemented a similar ban would need to present documentation of reliable certification at the time of importation.

[1264] *Ibid.*

It was previously in this book argued that in case of differences in the levels of environmental risks between states some combined measures that merely differentiate with respect to the sustainability certification procedure can, survive the proportionality review under GATT if carefully calibrated to the differences in risks in respective states.[1265] The question may arise, whether the combination of state and individual certification could also comply with the U.S. dormant Commerce Clause? How would such measure be examined under the applicable extraterritoriality test?

With PPM criteria extraterritorial pressure would exist on out-of-state *producers* to change to more sustainable PPMs. Of greater significance in this context is, however, the pressure on *states* to change their laws. The model of a combination of state sustainability certification with the option of individual certification would exert less extraterritorial pressure as compared to models of end-of-life treatment regulation that only allowed imports from regions that required sustainable methods and thus in essence had banned unsustainable methods completely. Some pressure on states would still remain. The states would have an incentive to change their laws because it would give their industry a less burdensome process for the certification of sustainability when products are exported to the state that has adopted the PPM-criteria.

It is not clear if the extraterritorial pressure from differences in the certification process for products from certified and uncertified states would be sufficient to trigger extraterritoriality under the dormant Commerce Clause. It should be noted that measures with a combination of state certification and individual certification could be viewed not to regulate or control any commerce wholly outside the regulating state. This would rely on the observation that under the combined measure out-of-state products intended for the market of the regulating state could thanks to the option of individual certification have access to that market without it being necessary to also make changes to the PPMs or the trade in out-of-state products that are not intended for the market of the regulating state.

The extraterritorial pressure on the exporting state to ban the PPMs will be heightened under the exceptional circumstance where the PPM cannot be reliably verified after the product has been exported but could be verified in-state at the source of production. This form of circumstances could potentially arise in the electricity sector. The

[1265] *See* section 4.3.3.

implications of the peculiarities of the electricity sector on the application of the extraterritoriality test under the Commerce Clause will be revisited toward the end of this first section of chapter 6.

6.1.5. California's LCFS, Creating Incentives Out-of-State and Market Access

PPM-criteria would not appear to fall neatly into the category of what has by the Supreme Court been viewed as prima facie prohibited extraterritorial regulation. The relationship between PPM-criteria and the extraterritoriality test has already been explored in some cases that have not (yet) reached the Supreme Court.

The problem with PPM-criteria is illustrated well by the case of *Rocky Mountain Farmers Union*, in which the courts referred to the extraterritoriality doctrine.[1266] The case concerned the California Low-Carbon Fuel Standard (LCFS). The LCFS includes sustainability criteria for biofuels and is designed to favour various forms of biofuels that are produced without emitting high levels of GHG's.[1267] Fuels with high emission values are not barred from entering the Californian market, but, since the fuels supplied by retailers on average must not exceed certain levels of carbon intensity, fuels with high life-cycle carbon intensity are given lower priority on the market.[1268]

California had calculated default carbon intensity values for several pathways on the basis of emission averages. A pathway is defined with reference to the feedstock used, the chemical method of production and the type of biofuel (e.g. biodiesel or bioethanol) produced. Before amendments in 2015 production in different states were assigned different default values because the state averages differed. Hence, the original version of the LCFS, before the amendments of 2015, awarded in-state bioethanol a lower default emissions value than for Midwest bioethanol.[1269] As an alternative to reliance on default values, producers may opt to certify the emissions levels of their individual production process.[1270] Certification of individual carbon intensity is naturally attractive only for producers that perform better than the average of the pathway they follow.

[1266] Rocky Mountain Farmers Union v. Goldstene, 843 F. Supp. 2d 1071, 1090 (E.D. Cal. 2011), *revised in part*, Rocky Mountain Farmers Union v. Corey 730 F.3d 1070 (9th Cir. 2013). The Court of Appeals found that LCFS regulations were neither facially discriminatory nor extraterritorial.
[1267] Rocky Mountain Farmers Union v. Goldstene, 843 F. Supp. 2d 1071, 1079-1080 (E.D. Cal. 2011).
[1268] *Id.* at 1082, 1086–1087.
[1269] *Id.* at 1087.
[1270] *Id.* at 1082.

In order to estimate the emissions of different fuel pathways California has applied a life-cycle analysis (LCA). The LCA incorporates emissions in particular from growing the feedstock, transportation and the refinery process. Emissions in the refinery process depend on the chemical methods, production plant efficiency and the source of the electricity used in operating the plant.[1271]

Both the district court and the U.S. Court of Appeal for the Ninth Circuit addressed the question of discrimination and discussed the doctrine of extraterritoriality. The district court in 2011 reached the conclusion that the LCFS was unconstitutional.[1272] Regulating the emissions of bioethanol used in California targets the production of bioethanol out-of-state. Hence, according to the court, the rule controlled extraterritorial conduct.[1273] The reasoning of the district court would, for example, invite the conclusion that measures incentivizing the reduction of GHGs out-of-state are illegal extraterritorial regulation.[1274]

Furthermore, in 2011 the district court pointed out that if more states adopted similar types of rules, producers would face conflicting norms.[1275] This is true in the sense that producers utilizing certain feedstock and production technology might be excluded from benefits in one market, but not another. In order to gain access to benefits in all states, a producer would need to comply with the state with the strictest regulation. Under the broad interpretation of illegal extraterritorial effect advocated for by the district court, any PPM-criteria would likely be prohibited. All PPM-criteria do at least indirectly affect out-of-state conduct, and so do in fact rules that do not even concern PPMs.[1276]

Several scholars have criticized the application of the extraterritoriality test by the District Court for the Eastern District of California.[1277] Only measures having a direct

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[1271] *Id.* at 1081.
[1272] *Id.* at 1094.
[1273] *Id.* at 1105.
[1274] *Cf.* Thomas Alcorn, 'The Constitutionality of California's Cap-and-Trade Program and Recommendations for Design of Future State Programs' (2013) 3 Michigan J. Environmental & Administrative L. 87, 171-172. Alcorn disagrees with the reasoning of the court.
[1275] Rocky Mountain Farmers Union v. Goldstene, 843 F. Supp. 2d 1071, 1092-1093 (E.D. Cal. 2011).
[1276] Thomas Alcorn, 'The Constitutionality of California's Cap-and-Trade Program and Recommendations for Design of Future State Programs' (2013) 3 Michigan J. Environmental & Administrative L. 87, 170; Kirsten H. Engel, 'The Dormant Commerce Clause Threat to Market-Based Environmental Regulation: The Case of Electricity Deregulation' (1999) 26 Ecology L. Q. 243, 342.
[1277] *See* e.g. Thomas Alcorn, 'The Constitutionality of California's Cap-and-Trade Program and Recommendations for Design of Future State Programs' (2013) 3 Michigan J. Environmental & Administrative L. 87, 172; Daniel K. Lee and Timothy P. Duane, 'Putting the Dormant Commerce Clause

extraterritorial effect should be prohibited.[1278] The traditional test of extraterritoriality has been whether or not the measure can be described as controlling of out-of-state conduct. A restrictive approach to the scope of extraterritorial effect would mean that control of conduct occurs when the state is dictating the commercial conduct in another state, but not when it is using its own regulations to influence out-of-state commerce by creating incentives.[1279] The difference between controlling and creating incentives is obviously a fine line.

Farber has argued that the almost per se invalidity of measures caught by the extraterritoriality test forms a reason for a narrow test.[1280] He argues that the *Pike* balancing test, where costs and benefits of the measure are compared, is generally a more suitable proportionality test for PPM-criteria.[1281] This is in line with the observation that PPM-criteria normally only create incentives for individual producers. However, they can become too extensive when they make importation conditioned on state policy, as in the *Meyer* cases.[1282]

The U.S. Court of Appeals for the Ninth Circuit reversed in 2013 the district court's ruling on extraterritoriality in *Rocky Mountain Farmers Union*.[1283] It stated that California had an interest in out-of-state carbon emissions due to its global effects.[1284] Therefore, California had the right to try to influence out-of-state conduct through its regulation of contracts in California.[1285] This may be read as a reference to the principle confirmed in *Edgar v. MITE* that a regulation is extraterritorial in case it regulates

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Back to Sleep: Adapting the Doctrine to Support State Renewable Portfolio Standards' (2013) 43 Environmental Law 295.

[1278] Shaffer v. Heitner, 433 U.S. 186, 197 (1977).

[1279] Robert L. Molinelli, 'Renewable Energy Development: Surviving the Dormant Commerce Clause' (2012) Renewable, Alternative, & Distributed Energy Resources Committee Newsletter, American Bar Association, Section of Environment, Energy & Resources, 5–6. *See* however Margaret Tortorella, Note, 'Will the Commerce Clause "Pull the Plug" on Minnesota's Quantification of Environmental Externalities of Electricity Production?' (1995) 79 Minnesota L. Rev. 1547, 1574-1575.

[1280] Daniel A. Farber, 'Climate Policy and the United States System of Divided Powers: Dealing with Carbon Leakage and Regulatory Linkage' (2014) 3 Transnational Environmental Law 31, 43.

[1281] *Id. See* also Edgar v. MITE Corp., 457 U.S. 624, 643 (1982). The court left the impression that Pike balancing could apply even with findings of extraterritoriality, especially if it cannot be linked to any discriminatory effects.

[1282] *See* National Solid Wastes Management Association v. Meyer, 165 F.3d 1151, 1151 (7th Cir. 1999); National Solid Wastes Management Association v. Meyer, 63 F.3d 652, 652 (7th Cir. 1995).

[1283] Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070, 1107 (9th Cir. 2013).

[1284] *See id.* at 1098–1100.

[1285] *Id.* at 1098–1101. *See* also Pacific Merchant Shipping Association v. Goldstene, 639 F.3d 1154, 1181-1182 (9th Cir. 2011). The court found that a state regulation requiring ocean vessels sailing outside the shore of the state not to exceed a threshold for sulfur emissions, although putting a restraint on vessels from other states entering the waters of the state with imports was not deemed to be regulation controlling out-of-state conduct.

contracts between two out-of-state parties. In any event, the Court of Appeals in *Rocky Mountain Farmers Union* in 2013 was of the opinion that California could adopt measures even if those measures created incentives for businesses out-of-state to change their PPMs.[1286] Some judges on the court still contested the distinction between "providing incentives" and "establishing mandates".[1287]

In confirming that the LCFS did not constitute prohibited extraterritorial legislation the Court of Appeals in *Rocky Mountain Farmers Union* in 2013 also examined the measure from a variety of additional perspectives. For example, the court emphasized that no state had to change its law in order for its industry to get market access in California.[1288] The case on California's LCFS was in this respect different from the *Meyer* cases.

The relevance and manner of application of other tests referred to by the court is more ambiguous. For example, the Court of Appeals in *Rocky Mountain Farmers Union* highlighted that there was no evidence of conflicting legal regimes.[1289] The court also stated that the measure did not target production, trade, or use of ethanol in any other state.[1290] What it meant by not targeting production in any other state is rather unclear.

Finally, the Court of Appeals emphasized that the PPM-criteria did not ban imports or establish any thresholds.[1291] Hence, it would seem that the court left open the possibility that PPM-criteria for market access may still breach the extraterritoriality principle. The case was in part remanded back to the district court, but not with respect to the question of extraterritoriality. The plaintiffs have still continued to assert that the LCFS constitutes an impermissible extraterritorial regulation, but the district court has in 2017 granted defendant's motion to dismiss that claim[1292] and that decision was affirmed in 2019.[1293]

[1286] Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070 (9th Cir. 2013). *See* also Rocky Mountain Farmers Union v. Corey, No. 12-15131 (9th Cir. 2014) (Denial of hearing en banc; Concurrence by Judge Gould).
[1287] Rocky Mountain Farmers Union v. Corey, No. 12-15131 (9th Cir. 2014),(Denial of hearing en banc; Dissent by Judge Smith).
[1288] Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070, 1102-1103 (9th Cir. 2013).
[1289] *Id.* at 1105.
[1290] *Id.* at 1102.
[1291] *See id.* at 1102-1103.
[1292] *See* Rocky Mountain Farmers Union v. Corey, Memorandum Decision and Order Re Defendants' Motion to Dismiss, Lead Case: 1:09-cv-2234-LJO-BAM (E.D. Cal. 2017).
[1293] Rocky Mountain Farmers Union v. Corey, case no. 17-16881 (9th Cir. 2019).

The Oregon Clean Fuels Program (OCFP) includes a biofuels sustainability scheme that with respect to core elements is identical to California's LCFS. Plaintiffs in *American Fuel & Petrochemical Manufacturers. v. O'Keeffe* have also presented the claim that the OCFP forms unconstitutional extraterritorial regulation. Both the district court and the U.S. Court of Appeals for the Ninth Circuit referred to the reasoning of the latter in *Rocky Mountain Farmers Union* and rejected the claim of extraterritoriality.[1294]

The potential market access string of the extraterritoriality test would as a concept resemble the market access test applicable in EU free movement law, which is applied to determine whether a measure creates a prima facie prohibited market access hinder in intra-community trade.[1295] The EU test covers cases of certain significant hindrances to market access even if there would be no discriminatory effects.[1296] There has not been signs that the scope of prima facie prohibited measures would be equally broad in the U.S.[1297] What the ruling on California's LCFS might suggest is a more limited application of a market access test. Namely, unlike in the EU, the potential market access test in the U.S. would apply only in connection with findings of extraterritoriality. Yet, there would be potential for the U.S. to learn from the experiences in the EU with respect to the application of the market access test.

A word of caution is still in order. There is a lot of uncertainty with respect to the application of a market access test in connection with findings of extraterritoriality, in particular as the Supreme Court has not yet adopted any position. The fact that the Supreme Court has so far not relied on it suggests that it would at least not be a test that always comes into play under the test of extraterritoriality. If applicable, the market access prong would therefore not limit but expand the scope of prohibited extraterritoriality. Extending the scope of prima facie prohibited measures beyond the

[1294] American Fuel & Petrochemical Manufacturers v. O'Keeffe, No. 3:15-cv-00467-AA, 2015 WL 5665232, at 19 (D. Or., Sept. 23, 2015); American Fuel & Petrochemical Manufacturers v. O'Keeffe, case no. 15-35834 (9th Cir. 2018).
[1295] *See* section 1.3.3.2. *See* also Max S. Jansson and Harri Kalimo, 'De Minimis Meets "Market Access": Transformations in the Substance – and the Syntax – of EU Free Movement Law?' (2014) 51 Common Market Law Rev. 523, 524–526.
[1296] *Ibid.*
[1297] *See* however CTS Corp. v. Dynamics Corp. of Am., 481 U.S. 69, 93–94 (1987). In that case the court examined restrictions on buying control shares of in-state companies. The court stated that the act could not offend the Commerce Clause because it "does not prohibit any resident or nonresident from offering to purchase, or from purchasing, shares in Indiana corporations, or from attempting thereby to gain control." Thus, the court seemed to hint that a full purchase ban could have hindered market access and might have been an excessive burden on interstate trade.

prohibition of discrimination to certain cases of market access hinders may not be received well in the United States, bearing in mind the view held by some Supreme Court Justices that the dormant Commerce Clause Doctrine already as currently interpreted is too broad.[1298] One should also note that defining the boundaries of the market access test in the EU has proved to be problematic.[1299]

6.1.6. Colorado and Minnesota Schemes to Promote Renewable Energy

The question of extraterritoriality has been addressed in at least two further recent cases in the field of energy. Colorado's Renewable Portfolio Standard (RPS) was at stake in *Energy & Environmental Legal Institute v. Epel*.[1300] Among other things, the claimants challenged the constitutionality of promoting renewables through a RPS with tradable renewable energy credits (RECs). The district court ruled that such system regulates the PPM of out-of-state electricity only when the electricity is imported to Colorado.[1301] Moreover, in applying to such inter-state trade, the system only created incentives for using certain PPMs and did not set any standard for market access.[1302] Therefore, the RPS was not prohibited extraterritorial regulation. The approach in other words resembled that of the Court of Appeals in *Rocky Mountain Farmers Union*.

The U.S. Court of Appeals for the Tenth Circuit affirmed the decision by the district court in *E&E Legal*.[1303] The court linked the extraterritoriality test to cases of price control regulation and such regulation essentially amounts to discrimination. It justified the stricter approach to price regulation with references to competition law, where naked price-fixing is ruled per se anti-competitive.

The U.S. District Court for the District of Minnesota appeared to apply a somewhat broader interpretation of extraterritoriality in *North Dakota v. Heydinger*.[1304] Minnesota had adopted a coal moratorium by deciding not to grant permits to any new coal plants in-state. In addition, Minnesota prohibited imports from out-of-state new

[1298] *See* Comptroller of Treasury v. Wynne, 153 S. Ct. 1787, 1811-1812 (2015) (5–4 decision) (Justice Thomas dissenting).
[1299] *See* Max S. Jansson and Harri Kalimo, 'De Minimis Meets "Market Access": Transformations in the Substance – and the Syntax – of EU Free Movement Law?' (2014) 51 Common Market Law Rev. 523.
[1300] Energy and Environment Legal Institute et al v. Joshua Epel, 43 F. Supp. 3d 1171 (D. Colo. 2014).
[1301] *Id*. 1179.
[1302] *Id.* 1179-1180.
[1303] Energy and Environment Legal Institute et al v. Joshua Epel, 793 F.3d 1169, 1177 (10th Cir. 2015), *cert. denied*, 136 S. Ct. 595 (2015).
[1304] *See generally* North Dakota v. Heydinger, 15 F. Supp. 3d 891 (D. Minn. 2014).

coal plants as well as such long-term agreements with energy plants if the agreement could increase state power sector carbon emissions attributable to the electricity market in Minnesota.[1305] North Dakota and its coal companies challenged the law.[1306] The court observed that some electricity cooperatives out-of-state have members in Minnesota.[1307] In accordance with the law, these residents of Minnesota could not be customers of electricity from coal power plants. However, electricity is generated to a multi-state grid. Thus, as a practical matter, operators that wanted to continue to sell power from coal plants to customers outside Minnesota, and that were connected to the grid that also covered Minnesota, were forced to end all business in Minnesota. Reversely, operators that wanted to keep their business in Minnesota had to end their reliance on coal power also in relation to distribution outside Minnesota. In sum, the Minnesota law directly affected transactions with no parties from Minnesota.[1308] The court concluded that the law had extraterritorial reach.[1309] The U.S. Court of Appeals for the Eighth Circuit affirmed.[1310]

The ruling in *North Dakota v. Heydinger* does not necessarily conflict with the case of *Rocky Mountain Farmers Union*. In *North Dakota v. Heydinger* the case was such that Minnesota targeted the trade in electricity directly, which, unlike biofuels and RECs, cannot be physically segregated once it has entered inter-state grids. Hence, the Minnesota law would have forced any party interested to do business in Minnesota to change their whole company policy. In contrast, the California's LCFS applies only to individual batches imported to California and out-of-state producers can serve the markets of other states with less sustainable products.[1311]

Some scholars have equally identified the difference between the cases of California and Minnesota, but still concluded that the special nature of electricity should not have justified a different outcome in the Minnesota case.[1312] Such view would gain some support from the decision in the Colorado case, which was also on electricity trade.

[1305] *Id.* 897.
[1306] *Id.* 908.
[1307] *Id.* 916.
[1308] *Id.* 907.
[1309] *Id.* 916-917.
[1310] North Dakota v. Heydinger, cases no. 14-2156 and 14-2251 (8th Cir. 2016). Justice Murphy, concurring, did not find the law to have prohibited extraterritorial effects on the basis of the observation that electrons in the transmission grids do not physically flow across state-borders.
[1311] Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070, 1085 (9th Cir. 2013).
[1312] Alexandra B. Klass and Elizabeth Henley, 'Energy Policy, Extraterritoriality, and the Dormant Commerce Clause' (2014) 5 San Diego J. Climate & Energy L. 127, 181–182.

However, the Minnesota case differed from the Colorado case on one, perhaps critical, account. Namely, Minnesota created (absolute) conditions for market access, whereas Colorado (much like California's LCFS) only created market incentives in the form of support schemes.

Coleman has argued that the Ninth Circuit's reversal in *Rocky Mountain Farmers Union* in 2013 was flawed and that measures to promote renewables would need an exemption granted by Congress.[1313] However, looking at recent cases, the arguments for a contrary position appear strong. The extraterritoriality test in the law of prohibition should only exceptionally capture state regulation on the sustainability of PPMs. This conclusion is of crucial importance from the perspective of tackling externalities. A stricter extraterritoriality test would severely restrict a state's ability to take measures aimed at reducing externalities burdening its residents related to climate change or air pollution originating in other states.

6.1.7. The Different Rationales of the WTO, EU and U.S. Regimes

Law of prohibition may expand beyond the principle of non-discrimination. The development has taken very different paths in the WTO, the EU and the U.S. In chapter 1 of this book it was explained how WTO law in general and GATT in particular quite firmly is restricted to the elimination of discrimination.[1314] As an international regime, the WTO lacks any established legislator and therefore neoliberal pressure for deregulation could have very unpredictable consequences. EU free movement law, in turn, has moved beyond the principle of non-discrimination. By proclaiming prima facie prohibited also non-discriminatory measures that hinder market access the EU has at least incidentally flirted with neoliberal thinking. More significant, however, is the consequence that competence has been shifted from the national level to the EU. In other words, the market access test for non-discriminatory measures promotes unionism.

The EU market access test has expanded the scope of potentially prima facie prohibited measures beyond merely discriminatory measures. The ECJ has consequently had the opportunity to review the justifiability of a broader scope of cases. Furthermore, a finding by the ECJ that some forms of national measures breach the TFEU cannot be

[1313] Coleman is also in support of granting said exemption. *See* James W. Coleman, 'Importing Energy, Exporting Regulation' (2014) 83 Fordham L. Rev. 1357, 1384 (n.167), 1388–1395.
[1314] *See* section 1.3.3.

reversed by the EU legislator without changing the Treaty. Hence, when the ECJ finds that some forms of national measures are incompatible with free movement law, EU Member States might opt not to push for amendments to the Treaty, but instead enhance their efforts to find harmonized solutions on EU level within the limits of the Treaty.

The expansion of law of prohibition in the U.S. regime has gone down a different road. The concept of extraterritoriality has been introduced by the Supreme Court in order to affirm that the competence of each state is limited contra other states. It was illustrated above that the test would capture price affirmation laws because of discriminatory effects. The importing state has been argued to also cross a boundary by "controlling out-of-state commerce" when it pressures other states into more sustainable production. The case was made that the extraterritoriality test still does not capture all PPM-criteria.

It would capture primarily situations where a state, instead of regulating the sustainability of individual imported products, has decided to condition importation on the exporting state having adopted PPM-criteria in its legislation that are similar to those adopted in the regulating state. This is an aspect that under GATT has been tackled through the test of arbitrary discrimination.

It was pointed out that the extraterritoriality test in law of prohibition of the dormant Commerce Clause exceptionally captures some non-discriminatory cases. In particular, it applies to restrictions placed on contracts with only out-of-state parties. Consequently, states may need to put extra care into the design of measures in a sector where trade takes place through interconnected systems, such as transmission networks, because such regulation can easily affect contracts between out-of-state parties. Furthermore, although highly uncertain, the extraterritoriality test could potentially come to apply to non-discriminatory PPM-criteria that bar market access completely. Courts have, however, been ambiguous on this point. This invites future research on lessons that could be drawn from the market access test in EU free movement law.

The extraterritoriality test in the U.S. primarily reflects neither neoliberalism, nor market-oriented unionism, in the sense that power would shift to the federal government. Extraterritoriality in law of prohibition is a principle of sovereignty; and thus, political representation. It may be recalled that one of the objectives of the dormant Commerce Clause is to guarantee that those without political representation

are not burdened.[1315] The test of political representativeness has been linked to the ideal of political unity and to free trade as a fundamental right in a union of solidarity.[1316] Unity and solidarity could of course also be values that would justify the EU path of shifting more power to the union level.

As a side note, under the discrimination rationale, which is dominant in U.S. trade law, political representativeness refers to out-of-state representation. In contrast, under a broader test for prima facie prohibited measures a political representativeness test could create expectations of representation from a multitude of groups, including NGOs. This path would bring trade law closer to principles of good governance and the ideal of societal dialogue; both arguably part of modern transparent democracy. Yet, no trade law regime has so far pushed in that direction.

The fact that the extraterritoriality test has in the U.S. been intertwined with trade law is important. It illustrates that the legal regime has identified the problems of economically powerful states asserting dominance over other states, which is one of the key elements in classic trade law criticism.[1317] This form of dominance arises when the economically stronger states are able to couple their regulation with their economic power in order to change law and policy in other states.

Regardless their differences, the tests that render non-discriminatory measures prima facie prohibited under all three jurisdictions further confirm that trade law is not merely about reconciling the efficiency objectives underlying non-discrimination and the elimination of externalities. Trade law is also about division of power, linking it firmly to the core of constitutionalism. Legal tests in trade law will influence the position of a state both contra other individual states of that union or community as well as in relation to the union or community of states as a collective.

[1315] Goldberg v. Sweet, 488 U.S. 252, 266 (1989); South Carolina State Highway Department v. Barnwell Brothers Inc., 303 U.S. 177, 185 (1938). *See* also Patricia Weisselberg, Comment, 'Shaping the Energy Future in the American West: Can California Curb Greenhouse Gas Emissions from Out-of-State, Coal-Fired Power Plants Without Violating the Dormant Commerce Clause?', (2007) 42 University of San Francisco L. Rev. 185, 207-208.

[1316] Harri Kalimo, *E-Cycling – Linking Trade and Environmental Law in the EC and the U.S.* (Transnational Publishers 2006) 78-86.

[1317] *See* Friedrich List, *Das Nationale System der politischen Ökonomie* (4th ed., Verlag von Gustav Fisher 1922); Henry Clay, *Life and Speeches of Henry Clay, Volume II* (Greeley & M'Elrath 1843) 23-24; John Toye and Richard Toye, 'The Origins and Interpretation of the Prebisch-Singer Thesis' (2003) 35 History of Political Economy 437, 448.

6.2. Extraterritoriality in Law of Justification

6.2.1. PPM-Criteria and the Geographical Scope of Legitimate Objectives

Promoting renewable energy, introducing life-cycle analysis to legislative acts and applying PPM-criteria more generally may be justified with reference to environmental protection under all three trade regimes. This has either been linked to public health or been regarded as an important independent value.[1318] More controversial is the question of the territorial scope of the environment for which states take measures to protect. A state may strive to protect is own environment, but could it also aim at tackling effects in neighboring states and international spaces. Would that fall foul of a potential extraterritoriality principle?

The question of the geographical scope of the grounds of justification is particularly relevant for rules and restrictions on PPMs since they target the sustainability of the production phase, which, with respect to imports, takes place out-of-state. The adoption of PPM-criteria has sparked a debate whether states may justify de jure and de facto discriminatory trade restrictions with reference to the protection of global health and global environmental concerns. The argument could even be made that states have a right to defend prima facie prohibited measures with reference to the protection of public health and the environment in other states. These are questions of whether or not grounds of justification should have extraterritorial reach.

In the SPS Agreement it has been clearly defined that it is only the protection of life and health in the importing state that may justify measures.[1319] In contrast, other trade provisions are much more ambiguous on this point. The developments in trade law on tests of extraterritoriality are in this second main section of chapter 6 framed against the idea that the reconciliation of values in trade law integrates the economic theory on externalities and promotes some form of efficiency. Yet, as this section will illustrate, the question of whose externalities and which externalities are given relevance may need to be determined with reference to values that extend beyond the elimination of externalities, and even beyond efficiency.

[1318] *See* section 1.3.3.3.

[1319] *See* definitions in Annex A of the WTO Agreement on the Application of Sanitary and Phytosanitary Measures, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, 1867 U.N.T.S. 493. *See* also Joanne Scott, 'On Kith and Kine (and Crustaceans): Trade and Environment in the EU and WTO', in Joseph Weiler (ed.), *The EU, the WTO, and the NAFTA: Towards a Common Law of International Trade?* (OUP 2000) 147.

6.2.2. Local and Global Objectives

6.2.2.1. Early Developments in WTO Law

Treaties like the TFEU, the GATT, and the TBT Agreement include the protection of public health as a ground of justification without any explicit limitations to the geographical scope of that objective.[1320] In light of the purpose of those trade law regimes, though, some limitations may exist. Namely, with the establishment of a free trade area, states have given up on some of their sovereign right to decide on what goods to allow for import. The grounds of justification in treaties can be understood as a safeguard against, for example, environmental threats. Their purpose is not to offer states a tool to use trade policy to pressure other states to commit to policy changes, in, for example, the environmental field or human rights protection.

The application of environmental PPM-criteria to imports will often generate environmental benefits primarily out-of-state. In some early decisions, panels appeared skeptical toward the compatibility of PPM-criteria with GATT. For example, *US – Tuna (Mexico I)* concerned U.S. laws on criteria for tuna marketed as dolphin-safe in the U.S. In order to be labelled dolphin-safe the tuna had to be caught in a sustainable manner without unnecessarily killing or harming dolphins in the process. In its controversial decision, the panel condemned unilateral measures on PPMs on the ground that they would endanger the multilateral trade system.[1321]

In *US – Tuna (Mexico I)*, the Europeans together with several other states argued against unilateral PPMs with extraterritorial environmental objectives.[1322] The EU has, however, more recently as a union developed criteria for sustainable PPMs that apply globally to, for example, biofuels. The devil is probably in the detail and the position of the EU with respect to PPM-criteria likely relates to how the criteria have been designed and implemented.

[1320] This is in contrast to the SPS Agreement under which only protection of national resources can justify exemptions to the main free trade principles. The SPS agreement is, however, to some degree of a different nature than the GATT or the TBT Agreement. For arguments of coherence with the SPS Agreement through a narrower interpretation of GATT and the TBT Agreement *see* Kyle Bagwell and Robert W. Staiger, *The Economics of the World Trade System* (MIT Press 2002).

[1321] US – Restrictions on Imports of Tuna, DS21, Panel Report, 3 Sept. 1991 (US – Tuna, Mexico I) (unadopted), para. 5.25-27. *See also* US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, Panel Report, 15 May 1998, paras 7.40–61.

[1322] *See* United States – Restrictions on Imports of Tuna, DS21, Panel Report, 3 Sept. 1991 (US – Tuna, Mexico I) (unadopted), para 4.11. The panel noted the EU's disproval of the United States' unilateral PPM-criteria under the Marine Mammal Protection Act.

Later, in *US – Tuna (EC)*, an amended version of the same law was scrutinized. This time the panel was more favourable towards extraterritorial environmental objectives. The panel concluded that protecting dolphins beyond U.S. borders was a legitimate objective,[1323] even if in the end the panel found that the U.S. law due to its design did not pass the proportionality review and was thus incompatible with GATT.[1324]

The panel in *US – Tuna (EC)* arrived at the conclusion that the protection of dolphins outside U.S. territory in principle may form a legitimate objective in part by examining Article XX GATT as a whole.[1325] Article XX GATT includes grounds of justification such as the protection of public health and the conservation of natural resources. The panel noted that in accordance with Article XX(e) states can also justify restrictions on trade in products of prison labour.[1326] Such restrictions would be adopted for moral reasons and would relate to the protection prisoners in foreign states. Hence, the panel reasoned that extraterritorial protection objectives could at least not categorically be prohibited.[1327] An alternative reading of XX(e) would have been plausible. One could understand the permitted objective of protecting foreign prisoners to form *lex specialis* in relation to public morals, which is referred to as a ground of justification in Article XX(a). Consequently, XX(a) and other paragraphs under Article XX may not necessarily have the same geographical scope as Article XX(e).

A note by the secretariat after *US – Tuna (EC)* stated that the protection of resources *within the nation* constitutes a valid ground of justification.[1328] In 1996 the EU challenged an American boycott on Cuban goods due to the extraterritorial effects of the sanctions.[1329] This time EU got its demands met in a settlement.[1330]

[1323] *See* US – Restrictions on Imports of Tuna, DS29, Panel Report, 16 June 1994 (US – Tuna, EC) (unadopted) paras 5.13–20. *See* also Canada – Measures Affecting the Exports of Unprocessed Herring and Salmon, L/6268, Panel Report, 20 Nov. 1987 (adopted), paras 4.2–4.7; US – Prohibition of Imports of Tuna and Tuna Products from Canada, L/5198, Panel Report, 22. Dec. 1981 (adopted), paras 4.4–4.15.

[1324] US – Restrictions on Imports of Tuna, DS29, Panel Report, 16 June 1994 (US – Tuna, EC) (unadopted) paras 5.27 and 5.39.

[1325] *Id.* paras 5.13–20.

[1326] *Id.* paras 5.16-17.

[1327] *See id.* paras 5.16–5.17, 5.20. The U.S. also argued Article XX(c) illustrated the same point. Under that paragraph, states may implement restrictions on the import and export of gold and silver. *See* US – Restrictions on Imports of Tuna, DS29, Panel Report, 16 June 1994 (US – Tuna, EC) (unadopted), para. 3.16.

[1328] Note by the Secretariat, GATT/WTO Dispute Settlement Practice Relating to Article XX Paragraphs (b), (d) and (g) of GATT, WTO Doc. WT/CTE/W/53 (July 30, 1997), at 27–30.

[1329] US – Cuban Liberty and Solidarity Act, Request for Consultations, DS38, Request for Consultations, 3 May 1996.

[1330] EU-US Summit London, 18 May 1998, Transatlantic Partnership on Political Cooperation.

The dispute settlement bodies had to return to the issue in *US – Shrimp*.[1331] The case concerned a U.S. law that required shrimp marketed in the U.S. to have been caught with the use of turtle exclusion devices. The requirement applied to shrimp regardless of whether it had been caught by a U.S. or foreign vessel and regardless of whether the shrimp had been caught in U.S. waters or elsewhere. The Appellate Body discussed the objective of protecting turtles outside of U.S. waters by placing requirements on the devices used while fishing for shrimp.[1332] It pointed out that the species of turtles in question are endangered and that they migrate.[1333] The migration of turtles may be a crucial point. Since turtles migrate, it was no longer possible to separate domestically protected turtles from turtles in foreign territory. In other words, the environmental protection objective of the United States concerned a global resource. Although the Appellate Body finally concluded that specific elements of the design of the U.S. law rendered it arbitrary, it still accepted that measures, in principle, could be justified with reference to the protection of migratory species.[1334]

The United States later abolished the arbitrarily discriminatory elements of the law on the use of turtle exclusion devices in shrimp fishing. The law was still challenged by Malaysia. The Appellate Body in *United States – Shrimp (Article 21.5)* noted that, in accordance with the Rio Declaration of 1992, states should, as far as possible, aim to address global environmental challenges through international consensus.[1335] The Appellate Body recognized that although the declaration sets a preference for international action, it is non-binding and does not exclude the possibility of unilateral measures.[1336] The AB in these compliance proceedings concluded that the amended measure complied with GATT.

In conclusion, WTO law does at least not categorically prohibit unilateral decisions to adopt regulation with the objective of addressing environmental effects that are global and cross-border in nature. Many questions about extraterritoriality still remain.

[1331] US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct. 1998, paras 132–133.
[1332] *Id.* paras 115–134.
[1333] *Id.* paras 132–133.
[1334] *Id.* paras 133, 177–186.
[1335] US – Import Prohibition of Certain Shrimp and Shrimp Products: Recourse to Article 21.5 of the DSU by Malaysia, DS58, AB Report, 22 Oct. 2001, para. 124.
[1336] *Ibid.*

6.2.2.2. State of Affairs in the EU

The EU Commission has generally been very sceptic of unilateral PPM-criteria adopted by EU Member States. The disapproval of Dutch labels on sustainable forestry illustrates this.[1337] However, recently some EU Member States have developed sustainability criteria for solid biomass that relies on a life-cycle assessment[1338] already before EU-level criteria were agreed to enter into force in 2021.[1339] The Commission appears to have encouraged such development without any notable concerns for the functioning of the internal market.[1340] The Commission's approach to extraterritoriality may appear inconsistent.[1341] However, it is plausible that the different views of the Commission in the cases on PPM-criteria has been linked to differences in the details of each specific measure at hand. What is more, national schemes to promote electricity, heating or cooling from sustainable solid biomass may have been left untouched by the EU in part because the ECJ has ruled that Member States have under EU free movement law a lot of flexibility when it comes to the design of measures to promote renewables in the electricity sector.[1342]

In principle, the United States and the EU could advocate for a different interpretation in WTO law than either applies in its own trade regime. Namely, within their own systems, the United States and the EU try to foster coherence and mutual trust, which

[1337] *See* Jochem Wiers, *Trade and Environment in the EC and the WTO – A Legal Analysis* (European Law 2003) 360-361. Compare with the Commission's long-standing view that environmental and social PPMs unrelated to the characteristics of the end product may not be applied by Member State public authorities as, e.g., award criteria in public procurement. This position held by the Commission was overruled by the ECJ. *See* Case C-448/01 *EVN AG & Wienstrom GmbH v. Austria* [2003] ECR I-14527.
[1338] *See* e.g. Erin Voegele, 'UK Sets Sustainability Standards for Solid Biomass, Biogas' (Aug. 22, 2013) < http://biomassmagazine.com/articles/9363/uk-sets-sustainability-standards-for-solid-biomass-biogas> accessed 23 Nov. 2017. *See generally* U.K. Department of Energy & Climate Change, IA No: DECC0134, Impact Assessment: Proposals to Enhance the Sustainability Criteria for the Use of Solid and Gaseous Biomass Feedstocks Under the Renewables Obligation (RO) (2013) at 7-8 <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/415168/RO_Biomass_Sustainability_Govt_Response_Impact_Assessment.pdf> accessed 23 Nov. 2017 (revealing that the UK preparatory works contained some discussion on the relation to EU free movement law); Ministry of Economic Affairs, NL Agency, Handbook on Sustainability Certification of Solid Biomass For Energy Production (2013) <http://english.rvo.nl/sites/default/files/2013/12/Module_200.pdf> accessed 23 Nov. 2017 (discussing similar criteria developed in Belgium and the Netherlands).
[1339] Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82, Article 29 as well as recitals 94 and 101.
[1340] Commission Staff Working Document: State of Play on the Sustainability of Solid and Gaseous Biomass Used for Electricity, Heating and Cooling in the EU, SWD (2014) 259 final (July 28, 2014), at 9-11.
[1341] Similarly *see* Jochem Wiers, *Trade and Environment in the EC and the WTO – A Legal Analysis* (Europa Law 2003) 363-365.
[1342] *See* section 1.4.3.2.

may provide stronger arguments against extraterritoriality than would be the case in the more heterogenic WTO community.[1343] Thus, a reason for the Commission's occasional disapproval of Member States' unilateral national PPM-criteria might be the fact that the Commission has the task of protecting union interests and guards the principle of loyalty between Member States as reflected in Article 4(3) in the Treaty on European Union.[1344] In principle PPM-criteria could at times be regarded to extend too far into activities on territories of other Member States.

In contrast, in the context of WTO law the EU could argue for a right to adopt unilateral PPM-criteria because the degree of integration and loyalty is significantly lower than within their respective unions.[1345] Interestingly, Davies has turned this argument on its head. He views the higher degree of integration and expectations of loyalty within the EU as a reason to assign Member States the right, and perhaps even duty, to establish PPM-criteria with extraterritorial scope.[1346] The argument could rely on the observation that PPM-criteria of one or several EU Member States often serve an objective that is at least generally accepted in the union. That is, however, a case sensitive matter related to facts, and would not justify conclusion on the matter of law and principle.

In line with the theory that stronger loyalty and integration creates stronger rejection of extraterritoriality, some scholars and Advocate Generals have in the context of EU free movement law argued that Member States can only justify measures with reference to the protection of health and environment within its national borders.[1347] The rulings by the ECJ have been ambiguous on this point. For example, the ECJ has struck down

[1343] Joanne Scott, 'On Kith and Kine (and Crustaceans): Trade and Environment in the EU and WTO', in J. H. H. Weiler (ed.), *The EU, the WTO, and the NAFTA: Towards a Common Law of International Trade?* (OUP 2000) 138.
[1344] Consolidated version of the Treaty on European Union, OJ C 202, 7.6.2016, 13. On the relationship between mutual trust and extraterritoriality *see* Joanne Scott, 'On Kith and Kine (and Crustaceans): Trade and Environment in the EU and WTO', in J. H. H. Weiler (ed.), *The EU, the WTO, and the NAFTA: Towards a Common Law of International Trade?* (OUP 2000) 138.
[1345] Joanne Scott, 'On Kith and Kine (and Crustaceans): Trade and Environment in the EU and WTO', in J. H. H. Weiler (ed.), *The EU, The WTO and the NAFTA – Towards a Common Law of International Trade* (OUP 2000) 125, 138.
[1346] Gareth Davies, ''Process and Production Method' – based Trade Restrictions in the EU', in Catherine Barnard (ed.) *Cambridge Yearbook of European Legal Studies 2007-2008* (Hart 2008) 77.
[1347] Andreas R. Ziegler, *Trade and Environmental Law in the European Community* (Clarendon Press 1996) 84-90; Case 8/74 *Procureur du Roi v. Gustave Dassonville* [1974] ECR 837, Opinion of AG Trabucchi, para. 5; Case C-1/96 *The Queen v. Minister of Agriculture, Fisheries and Food, ex parte Compassion in World Farming Ltd.* [1998] ECR I-1251, Opinion of AG Léger, paras 87, 113-120; Case C-5/94 *The Queen v. Ministry of Agriculture, Fisheries and Food, ex parte: Hedley Lomas (Ireland) Ltd.* [1996] ECR I-2553, Opinion of AG Léger, paras 38-40. *See* also Case C-5/94 *The Queen v. Ministry of Agriculture, Fisheries & Food ex parte Hedley Lomas (Ireland) Ltd.*, [1996] ECR I-2553, para. 20.

Member State decisions to restrict the export of waste.[1348] In principle, the objective of these measures may have been to protect the out-of-state environment. However, in its ruling the court did not address this aspect. It should also be pointed out that the facts of the cases were quite different than in cases on PPM-criteria applicable for imports and analyzed in this book. The export restrictions were to their nature de jure discriminatory and there was no reason to expect that the environmental hazard of the waste was greater abroad than at home.

Advocate-General van Gerven once took the view that when trans-frontier environmental effects occur, a Member State should be justified in trying to reduce them even if the source of the effects is located outside its jurisdiction.[1349] The case van Gerven analyzed, referred to as *Van den Burg*, related to a Dutch ban on the import of red grouse, a bird not found in the Netherlands.[1350] A directive on bird conservation authorized Member States to adopt stricter national protection measures. Yet, the ECJ found that the directive fully harmonized the objectives of such stricter national rules on bird conservation and that the rights of Member States to rely on grounds on justification in this context had thus been exhausted.[1351] In summing up its answer to the question submitted by the national court, the ECJ still went on to state that its findings were based on an interpretation of Article 36 TFEU read in conjunction with the directive,[1352] which resulted in some confusion as regards to the applied provisions and principles.

The ECJ in *Van den Burg* found that the purpose of the directive only authorized stricter measures relating to domestically occurring birds, endangered birds and migratory birds.[1353] The conclusion that the protection of migratory birds was justifiable appears well reasoned, since such birds could also enter the territory of the state that adopts the measure. Yet, as noted above, it was left somewhat unclear as to whether this

[1348] Case C-172/82 *Syndicat national des fabricants raffineurs d'huile de graissage and others v. Groupement d'intérêt économique "Inter-Huiles" and others* [1983] ECR 555, para. 14; Case C-203/96 *Chemische Afvalstoffen Dusseldorp BV and Others v. Minister van Volkshuisvesting, Ruimtelijke Ordening en Milieubeheer* [1998] ECR I-4075, paras 48-50. *See* also Jochem Wiers, *Trade and Environment in the EC and the WTO – A Legal Analysis* (Europa Law 2003) 358-365.
[1349] Case C-169/89 *Criminal Proceedings Against Gourmetterie Van den Burg* [1990] ECR I-2151, Opinion of AG van Gerven, para. 7. *See* also Ludwig Krämer, 'Environmental Protection and Article 30 EEC Treaty' (1993) 30 Common Market Law Review 111, 136.
[1350] *See* Case C-169/89 *Criminal Proceedings Against Gourmetterie Van den Burg* [1990] ECR I-2160, para. 2.
[1351] *Id.* paras 8-12.
[1352] *See id.* para. 16.
[1353] *Id*., paras 11-14.

conclusion stemmed from the application of the Treaty or the directive. The case, however, gives some reason to believe that the ECJ is sympathetic to the objective of protecting at least global harms. The approach may thus in this respect be similar to that adopted under GATT.

The legitimacy of adopting measures to protect against cross-border and global environmental effects is further supported by ECJ's reasoning in a case on the application of the EU Emissions Trading System (ETS) on the airline industry. More specifically, at stake in the case was whether it would be compatible with international customary law to apply the ETS on airlines either arriving from third countries and landing within the EU or leaving the EU with a destination in a third country.[1354] Under the original ETS flights had to compensate even for emissions that occur during its path outside EU airspace. Although the case did not relate to free movement law, it is worthy of note that in order to support its argument that the EU had an interest to regulate flight emissions outside its airspace, and that the extraterritorial reach of the ETS was justifiable in light of international law, the court made reference to the global impacts of pollution emitted outside EU airspace.[1355] Despite the ruling, the EU decided after some international pressure to reduce the extraterritorial reach of the scheme by changing the scope of application of the ETS so that emissions outside EU airspace are not covered at least for the next few years.[1356]

Another case of interest with respect to the extraterritoriality principle concerned the decision by UK to deny the export of live sheep to Spain. The UK suspected that many slaughter-houses in Spain did not comply with an EU directive on the treatment of animals. At hand was thus a measure that tackled the PPMs applicable in another Member State. The UK attempted to justify the export restriction with reference to animal health protection. The court never came to address the question of extraterritoriality, however. Instead it simply noted that animal protection and the

[1354] Case C-366/10 *Air Transport Association of America & Others v. Secretary of State for Energy & Climate Change* [2011] ECR I-13833, paras 108, 125, 128.
[1355] Case C-366/10 *Air Transport Association of America & Others v. Secretary of State for Energy & Climate Change* [2011] ECR I-13833, para. 129.
[1356] *See* Regulation (EU) No 421/2014 of the European Parliament and of the Council of 16 April 2014 amending Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community, in view of the implementation by 2020 of an international agreement applying a single global market-based measure to international aviation emissions OJ L 129, 30.4.2014, 1. *See* also Proposal for a Regulation of the European Parliament and of the Council amending Directive 2003/87/EC to continue current limitations of scope for aviation activities and to prepare to implement a global market-based measure from 2021, COM (2017) 54.

slaughter process had been harmonized in the EU directive and that in accordance with established case law full harmonization means that the right to refer to the ground of justification had been exhausted.[1357]

In sum, the question of whether a state may adopt measures to tackle global environmental harm has not been explicitly resolved by the ECJ. While certain hesitation has been expressed by some,[1358] other scholars still accept that global environmental harm is a legitimate ground of justification.[1359] It is submitted here that there are good reasons for accepting the protection against global (i.e. cross-border) environmental effects as legitimate objectives. States tackling those effects are essentially addressing effects that have an impact on their territory.

6.2.2.3. State of Affairs in the U.S.

It may be recalled that the United States has on multiple occasions been forced to defend federal PPM-criteria in the WTO.[1360] The federal government has thus held the view that under GATT at least the protection of global environmental effects forms a valid ground of justification. At the same time there has been skepticism in many U.S. states toward PPM-criteria adopted by other U.S. states. This skepticism has been expressed in the form of legal challenges on the compatibility of the criteria with the dormant Commerce Clause. Would the legitimate objective under the dormant Commerce Clause also include the protection against global environmental effects, such as GHG emissions causing climate change?

The issue of extraterritoriality in law of justification has been discussed in connection to the dormant Commerce Clause by some scholars.[1361] Importantly, the U.S. Supreme Court has ruled that prima facie prohibited measures may be justified in case of a legitimate *local* goal.[1362] This could be read to imply that states may introduce

[1357] Case C-5/94 *The Queen v. Ministry of Agriculture, Fisheries and Food, ex parte: Hedley Lomas (Ireland) Ltd.* [1996] I-2553, para. 19.
[1358] Andreas R. Ziegler, *Trade and Environmental Law in the European Community* (Clarendon Press 1996) 86-88.
[1359] Ludwig Krämer, *E.C. Treaty and Environmental Law* (Sweet & Maxwell 1998) 111-114; Gareth Davies, ''Process and Production Method' – based Trade Restrictions in the EU', in Catherine Barnard (ed.) *Cambridge Yearbook of European Legal Studies 2007-2008* (Hart 2008) 75; Damien Geradin, *Trade and Environment – A Comparative Study of EC and US Law* (CUP 1997) 66.
[1360] *See* section 6.2.2.1.
[1361] Damien Geradin, *Trade and Environment – A Comparative Study of EC and US Law* (CUP 1997) 66. *See* also Patrick Zomer, Note, 'The Carbon Border War: Minnesota, North Dakota, and the Dormant Commerce Clause' (2010) 8 U. St. Thomas L. J. 60, 86-87 and 90.
[1362] Pike v. Bruce Church, Inc., 397 U.S. 137, 142 (1970).

measures to protect their own local environment, but not to protect the environment of other states. The Court has also highlighted that states have no legitimate interest in protecting non-residents.[1363]

Lower courts have ruled that the protection of out-of-state wildlife is a legitimate objective.[1364] Protecting wildlife would in part also protect the fauna of the state implementing the measure at least when the animals are migratory. What is more, at least on one occasion, a lower court has concluded that protecting out-of-state health was a legitimate objective when adopted in conjunction with the objective of protecting in-state reputation.[1365] This would suggest that the protection of out-of-state interests might be thought of as acceptable at least when the measure in part also advances some in-state objective. U.S. Court of Appeals for the Ninth Circuit appeared in *Rocky Mountain Farmers Union* in 2013 to endorse this view when, in its analysis of the compatibility with the dormant Commerce Clause of the sustainability requirements on biofuels in California's LCFS, it concluded that GHGs emitted as a result of PPMs in any state would hurt California to a similar extent.[1366] It must be emphasized that the opinions by district courts and courts of appeals do not form precedents. They however illustrate the difficulty of defining the concept of "local."

In sum, it would appear that so far neither the U.S. nor the EU regime contradict the WTO law praxis to include global effects, although, admittedly, undisputable precedent is lacking.[1367] It would seem difficult to argue that a state should not have the right to adopt trade restricting measures that may protect global environmental resources, such as clean air, because even if the behaviour that is targeted takes place abroad, the environmental effects of the measure will at least to some degree indirectly and over time occur also within the territory of the state adopting the measure and each state should have the right to protect against harm inflicted on its territory.[1368] To put it

[1363] Edgar v. MITE Corp., 457 U.S. 624, 644 (1982).
[1364] Cresenzi Bird Importers Inc. v. New York, 658 F. Supp. 1441, 1448 (S.D.N.Y.1987), *affirmed*, 831 F.2d 410 (2d Cir. 1987); Palladio Inc. v. Diamond, 321 F. Supp. 630, 635 (S.D.N.Y. 1970), *affirmed*, 440 F.2d 1319 (2d Cir. 1971); A. E. Nettleton Co. v. Diamond, 264 N.E.2d 118, 122–123 (N.Y. 1970).
[1365] Government Suppliers Consolidating Services, Inc. v. Bayh, 975 F.2d 1267, 1279–1280 (7th Cir. 1992). The case concerned a ban on export of food in a truck that had been used to import garbage.
[1366] Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070, 1080–1081 (9th Cir. 2013).
[1367] *See* Damien Geradin, *Trade and Environment – A Comparative Study of EC and US Law* (CUP 1997) 32 (n.104).
[1368] Robert Howse, *The WTO System: Law, Politics and Legitimacy* (Cameron May 2007) 112-113.

differently, not accepting any global harm as a ground for justification would significantly restrict the right of states to tackle externalities.

6.2.2.4. Global Environmental Protection, the Energy Sector and De Minimis

Clean air and climate change concerns are global interests much like migratory turtles. GHGs have a global reach and their emission in any country or state will harm all states.[1369] Thus, reducing carbon dioxide in any part of the world will create global environmental benefits and therefore also local benefits for the state adopting the measure.[1370] PPM-criteria that also apply to imported energy would reduce pollution abroad, which in turn should improve the air both in the state where the goods are produced and in the importing state adopting the criteria. As explained in the previous subsection, this was the approach adopted by the Court of Appeals in *Rocky Mountain Farmers Union*. PPM-criteria that tackle GHGs should also under EU and WTO law be found to serve a legitimate objective,[1371] even if some authors have expressed reservations in this regard.[1372]

A concern that states with vast market power would gain extensive influence over environmental policy worldwide forms the primary argument against a broad geographical scope for legitimate objectives.[1373] When big trading powers such as the United States, China, or the EU implement PPM-criteria that also apply to imports, the exporting industry of smaller nations will experience economic (and political) pressure to change their production and processing methods. On some markets compliance with those PPM-criteria might even be the only option for companies that wish to compete globally, and perhaps even survive. The same concerns apply of course also to some extent to environmental and health regulations that target product characteristics

[1369] Thomas R. Karl and Kevin E. Trenberth, 'Modern Global Climate Change' (2003) 302 Science 1719, 1719-1720; Joseph Allan MacDougald, 'Why Climate Law Must Be Federal: The Clash Between Commerce Clause Jurisprudence and State Greenhouse Gas Trading Systems' (2008) 40 Connecticut L. Rev. 1431, 1435; Rachel Feinberg Harrison, Comment, 'Carbon Allowances: A New Way of Seeing an Invisible Asset' (2009) 62 Southern Methodist University L. Rev. 1915, 1917.

[1370] *See* Patrick Zomer, Note, 'The Carbon Border War: Minnesota, North Dakota, and the Dormant Commerce Clause' (2010) 8 U. St. Thomas L. J. 60, 65 and 96. Zomer discusses GHG emission mitigation as a global/federal public good from the perspective of non-discrimination.

[1371] For discussion on WTO law and the energy sector *see* Christina Voigt, *Sustainable Development as a Principle of International Law Resolving Conflicts Between Climate Measures and WTO Law* (Brill 2009) 226-227.

[1372] Peter Van den Bossche and Werner Zdouc, *The Law and Policy of the World Trade Organization* (CUP 2013) 619; Petros Mavroidis, T*he General Agreement on Tariffs and Trade: A Commentary* (OUP 2005) 209-213.

[1373] Petros Mavroidis, T*he General Agreement on Tariffs and Trade: A Commentary* (OUP 2005) 212; Robert Howse, *The WTO System: Law, Politics and Legitimacy* (Cameron May 2007) 111.

instead of the PPMs. However, criteria for sustainable PPMs could be regarded as an even more aggressive form of social or environmental imperialism practiced by those states that throughout history have gained their economic advantages over the developing world in part due to lax past environmental regulation.

Farber has argued that a balance should be struck between localism and globalism.[1374] A model of localism, where states can only justify the protection of their own environment, would seem insufficient, as it would turn a blind eye to the need of protecting against the cross-border effects of global environmental harm, whereas a model of globalism, where even the out-of-state share of environmental effects form part of the legitimate objective, may shift too much power to nations with economic power.[1375] A model in which the legitimate objective covers local effects and global effects that reach the state adopting the restriction, would form a compromise between the two extremes. Yet, such test will be difficult to apply consistently in practice. For example, would a restriction with the objective of protecting endangered species in foreign countries serve global biodiversity to such an extent that it would have environmental value also for the state adopting the restriction?[1376]

With respect to GHG emissions from production in other states it would be quite evident that the cross-border effect can be significant. It would thus not appear controversial to claim that importing states have a legitimate interest in reducing those emissions. With other emissions the situation may be more complex. It has been argued that other pollutants emitted in processing resources to generate energy only have a local reach.[1377] For example, wind and hydropower stations mainly interfere with the local ecology, even if some GHGs are emitted.[1378] Yet, soil or water pollution as well as biodiversity effects are not necessarily any less severe than emissions and pollution in the air. Moreover, even if effects are mainly local, they will in the long term become global. Various forms of air and water pollution cause environmental harm that will

[1374] Daniel A. Farber, 'Stretching the Margins: The Geographical Nexus in Environmental Law' (1996) 48 Stanford L. Rev. 1247, 1273.
[1375] *Id.* at 1270-1273.
[1376] Laura Nielsen, *The WTO, Animals and PPMs* (Brill 2007) 306.
[1377] Patrick Zomer, Note, 'The Carbon Border War: Minnesota, North Dakota, and the Dormant Commerce Clause' (2010) 8 U. St. Thomas L. J. 60, 65 and 72.
[1378] Joseph V. Spadaro, 'Greenhouse Gas Emissions of Electricity Generating Chains: Assessing the Difference' (2010) 42 International Atomic Energy Agency Bulletin 19, 20.

travel from one end of the United States, the EU, or even the world, to the other end.[1379] As almost all environmental effects, sooner or later, will have a global impact and consequently will also reach the state adopting the restrictive measure, more or less all measures promoting environmental protection can be claimed to benefit also the local environment. Hence, Engel has argued that states do have a legitimate interest in mitigating all environmental harm that emerges out-of-state.[1380]

Almost all environmental effects are global in the sense that they will eventually to some, albeit often minimal, degree impact the state that adopts the restriction on PPMs. The introduction of a de minimis rule would mean that some measures with primarily out-of-state consequences would be categorized as having a too insignificant environmental impact for the state adopting the measure. In other words, environmental effects that reach the regulating state to a level that is too low would fall outside the scope of legitimate objectives. It should be highlighted that such tests would, to a small degree, bar states from tackling externalities.

Indeed, the difficulties associated with the distinction of global environmental effects from purely local effects in out-of-state territories have sparked proposals of some form of de minimis rule.[1381] Wiers suggests that the environmental objective should be accepted only if the threat would have a direct, substantial and foreseeable effect on the domestic environment.[1382] In order for the de minimis test to have force, whether a measure creates effects above the threshold would need to be determined from an international or union perspective.[1383]

In the energy sector, GHG emissions belong to those environmental concerns that are clearly not purely foreign and would not be affected by a de minimis threshold. The de

[1379] Anne Havemann, 'Surviving the Commerce Clause: How Maryland Can Square Its Renewable Energy Laws with the Federal Constitution' (2012) 71 Maryland L. Rev. 848, 873.
[1380] Kirsten H. Engel, 'The Dormant Commerce Clause Threat to Market-Based Environmental Regulation: The Case of Electricity Deregulation' (1999) 26 Ecology L. Q. 243, 342–348.
[1381] *See* e.g. Max S. Jansson, 'Extraterritoriality, Externalities and Cross-Border Trade: Some Lessons From the United States, the European Union and the World Trade Organization' (2016) 33 Pace Environmental Law Review 437.
[1382] Jochem Wiers, *Trade and Environment in the EC and the WTO – A Legal Analysis* (Europa Law 2003) 274. *See* also Sanford E. Gaines, 'Process and Production Methods: How to Produce Sound Policy for Environmental PPM-Based Trade Measures?' (2002) 27 Columbia J. Environmental L. 383, 429-431.
[1383] The relationship between extraterritoriality and international support has equally been emphasized in Barbara Cooreman, *Global Environmental Protection through Trade – A Systematic Approach to Extraterritoriality* (Edward Elgar 2017).

minimis test would give green light to the objective of fighting global climate change. The test might, however, have implications for measures addressing other forms of pollution and environmental risks. These include noise (from wind turbines), soil contamination, biodiversity loss (from biofuels feedstock plantation), waste (in the form of solar panels) or interference with waterways (from hydropower).

Even without a de minimis test, there is a definite possibility that when the cross-border environmental benefit is very minimal, the PPM-criteria implemented by the state might not survive some proportionality tests, such as Pike balancing or moderately intense versions of the suitability test and the least restrictive measure test.[1384] Some caution is still called for with the application of tests in this sensitive context. Any de minimis or proportionality test would need to be applied so that it would not create a bias against slowly accumulating severe effects, nor against rare but severe incidents, such as nuclear accidents.[1385] Applicable tests could take into account both the magnitude and the probability of cross-border harm but would need to be applied with a long-term perspective on the effects.

6.2.3. Pure Out-of-State Effects and Environmental Protection

Under a de minimis rule a state could justify a measure only if it would have positive in-state environmental effects above some given threshold. However, the de minimis rule is only a theory that has not been confirmed by courts. Potentially even protective measures against purely out-of-state effects could be justifiable and the theory of a de minimis rule would consequently be discarded.

The possibility to justify measures with reference to the protection of purely foreign interests has been analyzed in EU, U.S. and WTO law. While some have argued that the interest protected cannot be purely foreign;[1386] with respect to each of the three jurisdictions there have still been others who have not excluded the possibility that

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[1384] Damien Geradin, *Trade and Environment – A Comparative Study of EC and US Law* (CUP 1997) 66.

[1385] *See* section 3.1.4.2.

[1386] Andreas R. Ziegler, *Trade and Environmental Law in the European Community* (Clarendon 1996) 84-90; Joanne Scott, 'On Kith and Kine (and Crustaceans): Trade and Environment in the EU and WTO', in J. H. H. Weiler (ed.), *The EU, the WTO, and the NAFTA: Towards a Common Law of International Trade?* (OUP 2000) 132; Sanford E. Gaines, 'Process and Production Methods: How to Produce Sound Policy for Environmental PPM-Based Trade Measures?' (2002) 27 Columbia J. Environmental L. 383, 400-402. *See* also Case C-5/94 *The Queen v. Ministry of Agriculture, Fisheries & Food ex parte Hedley Lomas (Ireland) Ltd.* [1996] ECR I-2553, para. 20; Case 8/74 *Procureur du Roi v. Gustave Dassonville* [1974] ECR 837, Opinion of AG Trabucchi, para. 5.

states could have extraterritorial legitimate interests.[1387] The issue is relevant not only in establishing whether, in the first instance, there are any legitimate objectives but also in the analysis of whether the environmental benefit is proportional in light of the restriction on trade.

The theory on the exclusion of purely foreign effects from the scope of legitimate grounds of justification, relating to for example public health and environmental protection, has never really been put to test in WTO law, since appellate bodies have always, due to the facts of the case, been able to avoid addressing the question.[1388]

There has similarly not yet been any strong view adopted by the ECJ on the protection against purely out-of-state effects. As explained above, in *Van den Burg* the Court relied heavily on the interpretation of a directive in its analysis of free movement law. Although the directive might have decisively steered the reasoning of the Court even with respect to extraterritoriality, it is still worthy of note that it ruled that states could justify stricter national rules on bird conservation only if the birds occurred domestically, where migratory or had been listed as endangered.[1389] The ECJ thus rejected the protection of most birds that occur out-of-state. The court may have intended to indicate that the provision in the bird conservation directive awarding Member States some flexibility to adopt stricter national rules on bird conservation did not allow states to give their measure an extraterritorial dimension. Alternatively, the ECJ could be understood to have implied that Article 36 TFEU should cover domestic interests and global interest related to for example migratory species.[1390] Adding the interest of protecting endangered species to the list of justifiable objectives could either be seen as a validation of purely out-of-state objectives or could be explained by the fact that a serious threat of extinction of some species is related to global biodiversity

[1387] Ludwig Krämer, *E.C. Treaty and Environmental Law* (2nd ed., Sweet & Maxwell 1995) 111-114; Howard F. Chang, 'Toward a Greener GATT: Environmental Trade Measures and the Shrimp-Turtle Case' (2000) 74 Southern California L. Rev. 31, 32; Kirsten H. Engel, 'The Dormant Commerce Clause Threat to Market-Based Environmental Regulation: The Case of Electricity Deregulation' (1999) 26 Ecology L. Q. 243, 342-48; Robert Howse and Donald Regan, 'The Product/Process Distinction: An Illusory Basis for Disciplining 'Unilateralism' in Trade Policy' (2000) 11 European Journal of International Law 249, 278-279; Laurens Ankersmit*, Green Trade and Fair Trade in and with the EU: Process-Based Measures within the EU Legal Order* (CUP 2017) 127-161.

[1388] EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, AB Report, 22 May 2014, para. 5.173; US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct. 1998, para. 133.

[1389] Case C-169/89 *Criminal Proceedings Against Gourmetterie Van den Burg* [1990] ECR I-2160, paras 11–12.

[1390] *Id.* para. 16.

and thus also a sufficient concern for states where the species do not occur. Unfortunately, however, the ruling by the ECJ did not explicitly lay out its reasoning with respect to these aspects. In line with previous research,[1391] it can be concluded that the territorial scope of the grounds of justification in EU free movement law remains an unsettled issue.

It may be recalled that the extraterritoriality doctrine applicable in law of prohibition under the U.S. dormant Commerce Clause condemns measures that represent the exercise of control over out-of-state conduct.[1392] This already reflects skepticism against the objective of states to affect activities in other territories. Extraterritoriality has received less attention in law of justification of the dormant Commerce Clause. The geographical scope of legitimate objectives is referred to in the Pike balancing test. According to the test states the objective must be local.[1393] Thus, in the United States, it has also been argued that mitigating purely out-of-state environmental harm does not form a legitimate objective.[1394] It may in this context be noted that in *Rocky Mountain Farmers Union* the Ninth Circuit in 2019 appeared to emphasize that it had identified in-state (local) environmental effects.[1395]

The Supreme Court has appeared to reject the protection of out-of-state harm as a legitimate objective in at least two types of cases. First, the Court has determined that states have no legitimate interest in protecting non-resident shareholders from hostile takeovers.[1396] Secondly, the Court has established that restrictions on exports of waste cannot be justified with reference to the protection of the out-of-state environment.[1397] While the Court appeared quite firm in its position also in the latter case, it is worthy to recall that an identical outcome in similar cases in the EU can be explained by the fact that restrictions on waste exports in fact do not advance environmental protection because the harm of waste is per default identical in-state and out-of-state. Regardless

[1391] Laurens Ankersmit, *Green Trade and Fair Trade in and with the EU: Process-Based Measures within the EU Legal Order* (CUP 2017) 127-161.
[1392] *See* section 6.1.
[1393] *See* Pike v. Bruce Church, Inc., 397 U.S. 137, 142 (1970).
[1394] Damien Geradin, *Trade and Environment – A Comparative Study of EC and US Law* (CUP 1997) 66. Geradin also draws the same conclusion with regards to EU law.
[1395] Rocky Mountain Farmers Union v. Corey, case no. 17-16881 (9th Cir. 2019).
[1396] Edgar v. MITE Corp., 457 U.S. 624, 644 (1982).
[1397] C&A Carbone, Inc. v. Town of Clarkstown, New York, 511 U.S. 383, 393 (1994).

of that, it would appear that the U.S. doctrine is even more hostile toward globalism than EU free movement law,[1398] not to mention WTO law.

Curiously, the debate on the protection of extraterritorial effects mirrors the discussion in legal theory as to whether the goal of maximization of utility or welfare should also include the positions of out-of-state individuals.[1399] To the extent environmental effects do not affect the territory of a state in any sense, states would have limited interests in environmental protection. A state could in principle argue that it aims to eliminate the externalities that burdens some out-of-state minority that has been unsuccessful to push for their interests in the legislative process in their own state. There are, however, problems with that approach. Such minority would normally have a voice and representation in the legislative process of their own state and interference by another state would at least on the global arena appear imperialistic.

The part of the population that holds a minority view on the level of environmental protection to be adopted in the state where the production takes place would have a voice. The same is obviously not true for future generations. However, it would be difficult to justify why an importing state knows the preference of future generations in an exporting state better than that state itself. In theory, the importing state adopting the PPM-criteria could try and argue that on the basis of scientific evidence the polluting state is endangering its future existence and that it therefore is evident that it is harming the utility and/or welfare of its future generations.[1400]

There are several pros and cons to the inclusion of purely extraterritorial interests in the scope of legitimate grounds of justification.[1401] It is submitted here that there still exist fairly strong theoretical arguments for rejecting purely extraterritorial interests at least as an *environmental* ground of justification in all three jurisdictions.

[1398] Similarly *see* Harri Kalimo, *E-Cycling – Linking Trade and Environmental Law in the EC and the U.S.* (Transnational Publishers 2006) 98.
[1399] Richard A. Posner, *The Economics of Justice* (Harvard University Press 1981) 53-54.
[1400] The so-called Brundtland report emphasized that economic development should compromise neither present nor future generations. *See* World Commission on Environment and Development, Our Common Future (1987) 43. Under trade law, externalities may be tackled, but, with a lack of representation, the interests of future generations may often be neglected.
[1401] Laurens Ankersmit*, Green Trade and Fair Trade in and with the EU: Process-Based Measures within the EU Legal Order* (CUP 2017) 127-161.

6.2.4. Unsustainability as a Moral Concern

6.2.4.1. Public Morals and the Protection of Vulnerable Persons Under EU Law

Out-of-state environmental harm was approached from a purely environmental perspective in the section above. The interest of any state to mitigate out-of-state environmental effects could alternatively be regarded as a moral concern.[1402] The theory on moral concerns would rely on the idea that even if the environmental (or social) harm takes place abroad, the citizens of the importing state still experience a loss of utility when they know that their imports contribute to something that they view as a harm in a territory far away and therefore disapprove.

The grounds of justification listed in Article 36 of the TFEU include public morality and policy. The concepts of public policy and morality are fairly abstract and vague. This would at least leave the door open for the argument that out-of-state environmental effects may fall within the scope of public policy or morals as legitimate objectives.

Some ECJ case law offers a picture of what are considered moral concerns. The ECJ has accepted that limitations on the import of pornographic materials are justifiable on moral grounds, and that Member States have a wide discretion in defining their moral policy.[1403] In *Omega Spielhallen*, the ECJ in turn stated that games simulating acts of homicide could be banned on moral grounds and referred to general principles of EU law stemming from internationally recognized human rights.[1404] Internationally recognized principles were also referred to in *Dynamic Medien*, where the Court found that the protection of young children may justify limitations on the distribution of videos and images.[1405] In contrast, the protection against the harmful effects of gambling are more difficult to link directly to any international treaty or principle. Yet, the ECJ has in several cases confirmed that limitations on gambling may also be

[1402] Joanne Scott, 'On Kith and Kine (and Crustaceans): Trade and Environment in the EU and WTO', in J. H. H. Weiler (ed.), *The EU, the WTO, and the NAFTA: Towards a Common Law of International Trade?* (OUP 2000) 144; Christiane R. Conrad, *Process and Production Methods (PPMs) in WTO Law – Interfacing trade and social goals* (CUP 2011) 316-344.
[1403] Case 34/79 *Regina v. Maurice Donald Henn and John Frederick Ernest Darby* [1979] ECR 3797, paras 15–16. *See* also J. H. H. Weiler, 'Epilogue: Towards a Common Law of International Trade', in J. H. H. Weiler (ed.), *The EU, the WTO and the NAFTA: Towards a Common Law of International Trade* (2000) 164.
[1404] Case C-36/02 *Omega Spielhallen- und Automatenaufstellungs-GmbH v. Oberbürgermeisterin der Bundesstadt Bonn* [2004] ECR I-9641, paras 34–35.
[1405] Case C-244/06 *Dynamic Medien Vertriebs GmbH v. Avides Media AG* [2008] ECR I-533, paras 39–44.

implemented on public policy and moral grounds.[1406] I shall return to the question of the relevance of principles and views in the international community below in the discussion on WTO law.

Some have argued that the moral concerns of people in the states adopting PPM-criteria could form a valid ground of justification.[1407] The environmental harm may take place fully out-of-state but the interest of the people in the state adopting the measure would relate to their desire not to contribute to what they consider immoral PPMs. By keeping a clean conscience, they would avoid the associated utility loss.

Even if public morality and policy as grounds of justification would cover concerns related to environmental harm out-of-state, the measures still need to be proportional. One could argue that the purpose of a restriction taken by a government on moral grounds is, at least in part, to protect the moral consciousness of its people. From such perspective most measures would easily be deemed suitable and necessary for said purpose. Yet, such approach has never been adopted in the application of public morals as a ground of justification in EU free movement law. Instead, the proportionality of the measure has been tested in relation to more concrete objectives such as, for example, child protection.[1408] In other cases the ECJ has opted not to discuss alternative measures in any detail.[1409] On the whole, the case law still invites the conclusion that the protection of morality as a ground of justification gains force from some underlying more concrete concern.

Cases in EU law where public morality and policy have been applied have mainly related to the protection of the psyche of vulnerable people, like for example children and addicts. Some goods and services are considered immoral because of how they may harm the user at the stage of consumption. The prohibition of the morally corruptive

[1406] Case C-65/05 *Commission v. Greece* [2006] ECR I-10344, paras 31–38; Case C-243/01 *Criminal Proceedings Against Piergiorgio Gambelli & Others* [2003] ECR I-13076, para. 63; Case C-275/92 *Her Majesty's Customs & Excise v. Gerhart Schindler & Jörg Schindler* [1994] ECR I-1078, paras 60–61.
[1407] Case C-1/96 *The Queen v. Minister of Agriculture, Fisheries and Food, ex parte Compassion in World Farming Ltd.* [1998] ECR I-1251, Opinion of AG Léger, paras 90-91; Gareth Davies, ''Process and Production Method' – based Trade Restrictions in the EU', in Catherine Barnard (ed.) *Cambridge Yearbook of European Legal Studies 2007-2008* (Hart 2008) 75. It should be noted that the *World Farming* case concerned a restriction on exports because of moral concerns in the exporting state. Sustainability criteria on energy would constitute restrictions on imports because of moral concerns in the importing state. This difference should probably not be decisive in this context.
[1408] Case C-244/06 *Dynamic Medien Vertriebs GmbH v. Avides Media AG* [2008] ECR I-533, para. 46.
[1409] Case C-36/02 *Omega Spielhallen- und Automatenaufstellungs-GmbH v. Oberbürgermeisterin der Bundesstadt Bonn* [2004] ECR I-9641, para. 39.

goods and services may potentially have related to the effect they would have on vulnerable individuals in the long-term. The measures could be understood to have addressed the societal burden of addiction and mental health problems or how immoral actions might affect societal stability. In other words, the state might adopt restrictions on the goods or services in order to limit the social costs that would otherwise arise from the treatment of people whose psyche would be affected when they would use such goods and services themselves. The availability of the public morals exemption could in this context be regarded to protect the utility of the people in the state adopting the measure, or alternatively the total welfare[1410] of the state adopting the measure.

Transposing the public morality exemption to the context of environmental effects and externalities out-of-state gives a different picture. The measure does not address the situation of any vulnerable in-state people. Instead, utility loss may occur, for example, from knowledge that personal consumption contributes to out-of-state pollution and results in a higher total pollution. In other words, there may be a feeling that contributing to pollution is morally wrong due to its potential severe effects.

Tackling the out-of-state effects of out-of-state PPMs with PPM-criteria would not serve in-state welfare as there would be no cross-border environmental effect. The PPM-criteria may still increase local utility in the regulating state. Could that be sufficient? A parallel may here be drawn to a decision to promote local products, which tackle utility loss that people with strong nationalist views would be burdened by as a consequence of trade with out-of-state actors. Trade law does not welcome these measures that merely strive to promote local production even if nationalists may prefer local products and the measure thus might increase utility. Approving any other purely emotional dimensions could consequently be regarded as incoherent.

A broad reading of public morals may shake the foundations of free trade. First, it would open the possibility to put restrictions on almost any out-of-state PPMs that are different from those applied at home. Secondly, it may be practically difficult to separate nationalist emotions, which do not constitute the foundation of any valid ground of justification, from other emotions that could in turn create a valid moral ground of justification. All in all, while the legal text of the TFEU does not set out any specific

[1410] This should not be regarded as a prohibited economic objective. Increasing welfare through the reduction of social costs is advances efficiency and, unlike for example promoting the creation of local jobs, does not have any discriminatory element and does not shift resources from out-of-state to in-state.

limits on public morals as a ground of justification, there are still serious doubts as to whether such defence could be applicable to the protection of environmental effects out-of-state.

6.2.4.2. WTO Law, International Recognition and *EC – Seals*

Public morality exists as a ground of justification also in WTO Agreements. It is explicitly mentioned in Article XX(a) of the GATT. Although there is no explicit reference to morals in the TBT Agreement, the panel in *EC – Seals* stated that the open list in Article 2.2 TBT invites parties to rely on public morals as a justification ground.[1411]

Public morals have been defined as "standards of right and wrong conduct maintained by or on behalf of a community or nation."[1412] What would appear uncontroversial is that a prima facie prohibited measure may only be justified if it tackles a concern that in the state adopting the measure is genuinely regarded as an issue of moral nature.[1413] Yet, the question has been left open as to whose perspective should be adopted in deciding what may constitute public morals.[1414] Do the grounds of justification cover only issues that are internationally regarded as moral questions? The ambiguity with respect to the scope of moral grounds of justification is in this respect similar in WTO and EU law.

The question has been raised as to whether some degree of international consensus would need to exist for a policy to be considered founded on public morals. Similarly to what was the case under EU law, at least limitations on gambling can in principle be justified with reference to public morals under GATT according to the AB in *US - Gambling*.[1415] Although there are no international treaties on the risks of gambling, the panel in that case made reference to the fact that also other countries than the U.S. had

[1411] EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, Panel Report, 25 Nov. 2013, para. 7.418.
[1412] US – Measures Affecting the Cross-Border Supply of Gambling and Betting Services, DS285, Panel Report, 10 Nov. 2004, para. 6.465.
[1413] EC - Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, Panel Report, 25 Nov. 2013, paras 7.383 and 7.392-411. *See* also EC - Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, AB Report, 22 May 2014, paras 5.177-179.
[1414] Miguel A. Gonzalez, 'Trade and Morality: Preserving "Public Morals" without Sacrificing the Global Economy' (2006) 39 Vanderbilt J. Transnational Law 939, 945; Steve Charnovitz, 'The Moral Exception in Trade Policy' (1998) 38 Virginia J. International Law 689, 704; Laura Nielsen, *The WTO, Animals and PPMs* (Brill 2007) 315.
[1415] US – Measures Affecting the Cross-Border Supply of Gambling and Betting Services, DS285, AB Report, 7 April 2005, paras 296–299. The case concerned the application of the GATS.

adopted restrictions on gambling with reference to morals and discussions on similar restrictions had been held among governments on the international stage.[1416] Similarly in *EC – Seals* the panel found that also states not part of the EU have implemented restrictions on seal products on moral grounds and that international recommendations supported the type of policy choice made by the EU. Thus, the panel concluded that animal welfare is linked to ethical considerations for "human beings in general".[1417]

Alongside references to international debate and policies of other countries, panels have simultaneously emphasized that states may to some degree define and apply the scope of public morals in accordance with their values.[1418] In a detailed study on the matter Du concluded that in *US – Gambling* and *EC – Seals* the state evoking the public moral exception had in fact been granted quite a lot of freedom in defining the concept of public morals. Granting states with a broad discretion to define moral objectives as a defence puts the free trade system at risk of abuse. Du offers as a solution that more emphasis is given to international perceptions of public morals.[1419] Yet, it is submitted here that it is equally important to ensure that the requirements for applying Article XX(a) GATT are not set at a level that would in practice deprive the article of its relevance.

In the analysis of the relevance of international consensus with respect to public morals it is critical to distinguish between two related but different issues. Namely, the fact that something is internationally recognized as a moral question does not necessarily mean that it is internationally regarded as immoral. The text of Article XX(a) GATT is the result of international negotiations. Thus, the concept of public morals ought to refer to what is internationally regarded as moral questions, irrespective of whether it is a majority or a (small) minority of states that actually find the targeted product or process to be immoral. The objective itself does not need to correspond with any broad international consensus on immorality.

[1416] US – Measures Affecting the Cross-Border Supply of Gambling and Betting Services, DS285, Panel Report, 10 Nov. 2004, paras 6.471-474.
[1417] EC - Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, Panel Report, 25 Nov. 2013, paras 7.408-409 and fn 674.
[1418] US – Measures Affecting the Cross-Border Supply of Gambling and Betting Services, DS285, Panel Report, 10 Nov. 2004, para. 6.461; EC - Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, Panel Report, 25 Nov. 2013, paras 7.380-383.
[1419] Ming Du, 'Permitting Moral Imperialism? The Public Morals Exception to Free Trade at the Bar of the World Trade Organization' (2016) 50 J. World Trade 675.

Nielsen has argued that the morality of at least some PPMs could fall within the scope of public morals under GATT.[1420] Could measures targeting environmentally unsustainable PPMs then be justified on moral grounds? The AB in *US – Shrimp* made references to other international agreements in interpreting GATT,[1421] even if this is somewhat controversial.[1422] Examining agreements in the field of international environmental law, it is noted that both the Stockholm Declaration of 1972 and the Rio Declaration of 1992 include a commitment by the signatories not to cause environmental damage abroad.[1423] In case a state imports products that have been produced in a manner that is harmful to the environment, the importing state contributes to the environmental damage by increasing the demand of the product. Hence, the commitment made by states in the declarations could even be read to indicate that there actually is not only a right to take restrictive actions on PPMs abroad but also an international moral duty.[1424] Admittedly, however, the declarations are not legally binding.

The boundaries of public morals as a ground for justification have been extended the furthest in WTO law through a recent decision in *EC – Seals* case. The case concerned an EU ban on the sale and import of seal products due to evidence that many are killed in an inhumane manner.[1425] Only limited exceptions covering, for example, seal products sold by Greenlandic Inuits, were granted.[1426] The panel seemed to acknowledge the links between health, environment and morals as it concluded that animal welfare could in principle be protected on moral grounds. The panel decision could be read to imply that the legitimate ground of protection was seal welfare and the

[1420] Laura Nielsen, *The WTO, Animals and PPMs* (Brill 2007) 316.
[1421] US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct. 1998, paras 130-132.
[1422] Peter Van den Bossche and Werner Zdouc, *The Law and Policy of the World Trade Organization* (CUP 2013) 57-58.
[1423] Principle 2, U.N. Conference on Environment and Development, Rio Declaration on Environment and Development, U.N. Doc. A/CONF.151/26 (Vol.1) (Aug. 12, 1992); Principle 21, U.N. Conference on the Human Environment, Declaration of the U.N. Conference on Human Environment, U.N. Doc. A/CONF.48/14/Rev.1, at 5 (1972).
[1424] Jochem Wiers, *Trade and Environment in the EC and the WTO – A Legal Analysis* (Europa Law 2003) 296 (n.247); Robert Howse, *The WTO System: Law, Politics and Legitimacy* (Cameron May 2007) 107 (n.39).
[1425] EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, Panel Report, 25 Nov. 2013, paras 7.1, 7.4.
[1426] *E.g.*, *id.* The exemptions complicate the analysis of whether the law actually represented a PPM rule since the ban was in part linked to the identity of the hunter and the type of the hunt. *See* EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, AB Report, 22 May 2014, para. 5.67. This aspect is, however, not crucial for the analysis here.

moral implications (i.e. utility loss) thereof for EU citizens.[1427] The Appellate Body appeared to approve this interpretation, but added that it had no intention to rule on the territorial scope of the grounds of justification.[1428] Hence, the legitimate objective cannot be interpreted to have been the protection of animal health out-of-state.

By linking animal welfare to morality, the panel and the Appellate Body established a broad interpretation of public morals that extended the ground of justification beyond the protection of vulnerable people and the negative effects they may inflict on themselves through the consumption of goods or services that are considered morally questionable. The unwillingness to rule on the territorial scope of the grounds of justification and the subsequent proportionality analysis also reveal a broadening of the public morals exception in another dimension. To begin with, seals were not deemed migratory nor did the AB refer to any benefits for global biodiversity resulting from seal protection. The focus was instead on the moral feelings of EU citizens. With a ban on seal imports, the utility of EU citizens was presumed to increase because they would no longer participate through consumption in the inhumane killing of seals and the total number of inhumanely killed seals would globally drop.[1429] Much analysis was devoted to verifying that the number of seals killed inhumanely could be presumed to fall as a result of the ban.[1430]

By extending the interpretation of public morals the panel and the Appellate Body invited states to tackle also loss of utility among its population that would otherwise result from the state's contribution to the immoral PPMs. The protection of public morals and the protection of the animal's health, and thus the environment, out-of-state become so intertwined in *EC – Seals* that morals as a ground of justification in practice extends to the protection of purely extraterritorial health and environment, which was portrayed as partly problematic previously in this chapter. In any case, the most significant steps toward accepting moral concerns as the ground for regulating extraterritorial effects seemed to have been taken in WTO law.

[1427] EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, Panel Report, 25 Nov. 2013, paras 7.409-410, 7.637-638.
[1428] EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, AB Report, 22 May 2014, para. 5.173.
[1429] *Id.* paras 5.198, 5.222–226.
[1430] *Id.* paras 5.234–254.

On a further note relating to *EC - Seals*, even if public morals were legitimate and applicable grounds of justification, the Appellate Body in the end concluded that the ban was in breach of the GATT due to the arbitrary discriminatory nature of the design of the law, in particular when taking into account the exemptions that had been awarded to, for example, Inuit communities.[1431] This highlights the importance of the details of any state measure in ensuring compatibility with trade law.

To what extent could the reasoning in *EC – Seals* then be transposed to cases on PPM-criteria in the energy sector? In principle, a state could argue that by tackling the unsustainability of out-of-state PPMs it protects the moral feelings of its citizens. A ban or restriction on immoral PPMs would still need to survive the proportionality review.

In its proportionality review, the Appellate Body in *EC – Seals* considered sustainability certification for humane hunts as a potential alternative to the ban but concluded that certification in this particular case could not achieve the same objective.[1432] Certification for humane seals hunts was deemed difficult to enforce and could result in more hunts, more kills and more inhumane kills. The reason for this can essentially be understood to relate to the view that no hunting method guarantees humane kills of the seals.[1433] In trying to get kills certified as humane the hunters would need to hunt and kill more.

Energy is different from seal hunts in that the sustainability of the PPM is easier to control. Admittedly, PPM-labelling with respect to electricity presents its own challenges as power fed into the grid and transmitted through transmission lines cannot be segregated and individually labelled. Instead, the labelling system would need to be linked to supply contracts, which gives rise to its own technical complexities.[1434] As a practical matter, electricity trade between WTO parties is still quite limited and cases on cross-border electricity trade are unlikely to become common any time soon.

In contrast to electricity, fuel could be labelled with respect to the sustainability of the PPM without too much difficulty with respect to verification. The case of fuel would also be decisively different from seal hunts with respect to producer control over

[1431] *Id.* paras 5.338–339.
[1432] *Id.* paras 5.270–279.
[1433] *Id.* para. 5.278.
[1434] This is why it has become more common to issue tradable RECs to plants generating electricity with sustainable PPMs and establish a quota that must be fulfilled with either sustainably generated power or RECs.

sustainability. Would labelling then guarantee an equal level of protection as for example a ban on the unsustainable PPMs? As discussed previously in this book,[1435] whether or not labelling guarantees an equal level of protection in terms of *environmental protection* depends on the intensity of the necessity (least restrictive measure) test. Under a deferential review a level of deference would be maintained with respect to the state measures under scrutiny and the measures would thus often be upheld. Under this approach it could be concluded that with the implementation of merely a labelling scheme there would still be some unsustainably produced products on the market. The labelling scheme would consequently not constitute an alternative that guarantees an equal level of protection. Under an intense review of the adopted ban it could in turn be concluded that the alternative measure in the form of a labelling scheme practically guarantees an equal level of protection. A full ban would therefore be disproportional.

It has been submitted in this book that the intense review could be problematic.[1436] It should in the context of regulation on environmental protection be noted that relying on a labelling scheme allows for some free riding. The state may have as its objective to address externalities to a greater extent than the population is voluntarily prepared to do. These aspects would generally justify the state's decision to adopt measures that are firmer than labelling schemes. Might the situation be different when the legitimate objective is the protection of *public morals* and the concern would not be related to environmental externalities from free-riding?

The arguments against an intense review in the context of labelling alternatives are perhaps less forceful when the applicable ground of justification relates to moral consciousness and loss of utility due to the immoral behavior of others. Consumers in the importing state can already with the help of labelling distance themselves from contributing to what they perceive as immoral. For example, even if moral concerns may arise with respect to fuels from polluting PPMs, states could instead of introducing import restrictions allow individual consumers to rely on labelling information and make the decision to buy or not to buy certain forms of fuels on the basis of their individual moral beliefs. This would allow consumers to terminate their personal contribution to what they feel to be immoral and to some degree cause a reduction in

[1435] *See* sections 3.1.3 and 3.1.5.
[1436] *Ibid.*

the morally questionable activity worldwide. The role of the state would be narrowed down to ensuring that the information on the PPMs of imports is provided on the market.

In sum, the proportionality review of state measures adopted with a moral purpose might be strict and intense when the proposed alternative measure is labelling because labelling could often deal with many of the moral concerns equally well.

The difficulties to establish a reliable certification scheme for sustainable seal hunting would mean that consumers would not be able to distinguish between sustainable and unsustainable products and make informed decisions. The state would possess a stronger argument for banning all products under such circumstances than with respect to markets where certification is available. On markets where labelling is possible a full ban could be argued to constitute a form of moral policing of in-state buyers and moral imperialism toward other states.

The above discussion on labelling schemes as an equally effective alternative to protect public morals relied on the presumption that the objective would be to eliminate the loss of utility of a consumer that would arise from the knowledge that he himself or she herself might unwillingly through purchases contribute to unsustainable and immoral PPMs. However, if this is what in *EC – Seals* was regarded as the moral objective, the AB could have stated that the moral choice can be left to the consumers regardless of whether labelling is available. Namely, seal products are not basic necessities and a product is a seal product is generally easily detectable. Consumers could thus keep a clean consciousness and avoid loss of utility simply by refraining from buying any seal products. This would without further analysis have led to the conclusion that a full ban would have been disproportional. The fact that the AB did not go down this path suggests that the protection of public morals and utility was viewed differently by the AB.

PPM-regulations adopted on moral grounds could have broader objectives than eliminating the loss of utility in cases where consumers unknowingly and unwillingly contribute to the unsustainable and immoral PPMs. The objective might be to stop the loss of utility that would otherwise arise among some of its citizens from the knowledge that immorally produced goods are imported to and consumed in their territory. The AB in *EC – Seals* might have reasoned along those lines. This would mean that the

importing state can adopt PPM-criteria to address utility loss of some of its citizens even when the measure undoubtedly reduces the utility of other citizens. The utility of those in favor of the ban would increase, while it would decrease among those that would want to buy the products for the reason that they do not view them unsustainable or immoral.

Comparably, in more traditional cases on the application of public morals as a ground of justification states have justified restrictions on the behavior of all consumers in order to protect the physical health of the population generally. Yet, such cases can be linked to the protection against negative social externalities that burden all citizens indirectly. It is perhaps more controversial for the state to justify restrictions on the behavior of all consumers with the objective to deal with the feelings and utility of only some of its citizens.

In sum, *EC – Seals* would give reason to believe that public morals could be relied on as a ground of justification in adopting at least some environmental PPM-criteria. Namely, the case would invite the controversial argument that the protection of feelings and the loss of utility forms a legitimate objective under Article XX GATT. The consequences of this are partly restricted by the proportionality review. While it was concluded in *EC – Seals* that the alternative of adopting a certification and labelling scheme was not available, it likely had to do with the particularities of seal hunts.

In cases on PPM-criteria other than seal hunts, sustainability labelling will likely often be a reasonably available alternative. The intensity of the proportionality review, in particular with respect to the alternative of relying on consumer labelling to address moral concerns, is difficult to predict. An intense or strict test could significantly restrict the possibility to tackle purely out-of-state environmental effects with other PPM-regulations than consumer information labelling schemes. It was noted, however, that public morals as a ground of justification might well refer to the protection of not individual morality, but state defined morality. Even available and effective labelling might thus often not form an alternative measure that would render a ban disproportional. In other words, the proportionality review might be no more intense than otherwise, even when the justification relies on moral arguments. It is submitted that while this may in light of legal texts and case law form a well reasoned legal argument, it is still receptible of criticism, as it would allow states broad discretion at

the expense of both free trade and those of its own residents who disagree with the state moral policy.

6.2.4.3. Public Morals as a Rare Argument in Dormant Commerce Clause Cases

Under the dormant Commerce Clause, public morality has rarely been discussed as a legitimate objective. For example, in 2014 a case was filed relating to the constitutionality of a California regulation[1437] that prohibited selling eggs from hens that were kept in cages below a minimum size. The minimum size for cages in California was larger than the federal standard.[1438] Among other things, the complaint argued that the law breached the dormant Commerce Clause.[1439]

The emphasis in the arguments defending California's regulation was mostly on the potential reduction of salmonella risks stemming from the well-being of the hens and the contribution that would have for local public health in California.[1440] However, some NGOs claimed in their amici curiae that protection against animal cruelty is a valid local objective as it links to both health and morality.[1441] This argument could gain support from the view that the U.S. Constitution is regarded as leaving questions of morality largely to the states.[1442] However, the case seems to have hit a dead end due to the lack of standing of the plaintiffs.[1443] Hence, there is still much uncertainty around the question of whether morality would be accepted as a ground of justification as there are no strong precedents on pure moral concerns as legitimate local objectives under the dormant Commerce Clause.

6.2.5. Global Fairness and the Relevance of Regional Integration

The grounds of justification in trade law leave a sphere of sovereignty for regulating states to tackle, among other things, environmental harm despite potential discriminatory effects of the measure. States may rely on grounds of justification to defend new strict environmental criteria. It should, however, be acknowledged that developed countries have gained an edge on the global market by emitting GHGs,

[1437] California Code of Regulations, title 3, § 1350 (2013).
[1438] Missouri v. Harris, 58 F. Supp. 3d 1059, 1062 (E.D. Cal. 2014).
[1439] Complaint 8, Missouri v. Harris, 58 F. Supp. 3d 1059 (No. 2:14-cv-00341-KJM-KJN).
[1440] Missouri v. Harris, 58 F. Supp. 3d 1059, 1065 (E.D. Cal. 2014).
[1441] *See* e.g. Brief for Animal Legal Defense, Fund, Compassion Over Killing, Inc. & Farm Sanctuary, Inc., as Amici Curiae Supporting Respondents, Missouri v. Harris, 58 F. Supp. 3d 1059 (No. 2:14-cv-00341-KJM-KJN).
[1442] Robert J. Pushaw Jr., 'The Medical Marijuana Case: A Commerce Clause Counter-Revolution?' (2005) 9 Lewis & Clark L. Rev. 879, 886–887.
[1443] Missouri v. Harris, case no. 14-17111 (9th Cir. 2017).

depleting their forests, polluting nature and reducing biodiversity for decades. Developed countries might further cement their position by incorporating PPM-criteria that they apply also to imports. Companies in developing countries will face economic pressure to comply with the criteria. This brings to the fore questions of global fairness or social justice.

In developing states, there is in the name of global fairness an interest among both businesses and the government to push against the economic dominance of developed states that have gained an advantage by utilizing unsustainable PPMs in the past. The need for protecting global fairness is not as obvious within the EU and the U.S. as in the context of WTO law. In other words, global fairness would need to be reconciled primarily in the application of WTO law.

The vulnerable status of developing countries is recognized in the WTO agreements through, for example, exemptions for developing countries.[1444] In the WTO developed countries are also under the preamble of the Marrakesh Agreement expected to take positive efforts to ensure that developing countries get a share in the growth in international trade.[1445] This is in order to ensure a fair balance of rights. The WTO in other words would appear to recognize global fairness as a value.

The broad interpretation of public morals in *EC – Seals* invites states to adopt PPM-criteria that target out-of-state harm to animals. The same might apply to the protection against harm on out-of-state humans and the out-of-state environment more broadly. On the one hand, the broad interpretation of public morals under GATT could be explained by the fact that the WTO is such a large heterogeneous community of states that flexibility with regards to moral conceptions must be maintained. On the other hand, the possibility to justify prima facie prohibited measures with reference to moral concerns relating to the environmental effects of PPMs out-of-state invites some eco-imperialism that may be particularly harmful on the global arena due to the whole history of imperialism as practiced by current western developed states, together with the fact that their environmentally harmful actions throughout history has laid the foundations for the global economic divide.

[1444] *See* e.g. GATT part IV and Article 12.3 of the TBT Agreement.
[1445] Preamble of the Marrakesh Agreement establishing the WTO (1994).

There is a tension between the respect of heterogeneous morals in a large international organization and the risks of eco-imperialism. Consequently, the values will have to be reconciled. These values may be relevant in cases on environmental PPM-criteria even if they do not fall under the objectives of non-discrimination (free trade) and the elimination of environmental externalities.

The reasoning in *EC – Seals* is striking from the perspective of global fairness. It would appear that even in WTO law there is not significant emphasis on global fairness. The value would still reinforce the argument that the proportionality review of state measures should be intense when labelling constitutes a realistic option for tackling moral concerns. If so, state measures would often be struck down when the labelling alternative is available. One should also keep in mind the political reality and the fact that an interpretation of the WTO agreements too open to eco-imperialism may estrange developing countries from the organization.

Concerns related to global fairness should not be significant in more homogenous unions such as the EU and the U.S. Therefore, in the context of EU and U.S. law it would appear less controversial to conclude that no extraterritoriality test in law of justification should apply and that states thus may target out-of-state effects with PPM-criteria. The consequences of regional integration in the EU and the U.S. for extraterritoriality is, however, not straight-forward.

The United States and the EU have created not only a free trade regime but also an area of free movement of persons. Citizens of each state may move easily in the common territory of the union. The emergence of a close union or even federal state could create a heightened interest for the people of one state in the (environmental) policies of other states within the union. Yet, they lack political representation in other states. Representation through union or federal institutions may only partially compensate. These observations on the functions of unions and federal states could provide at least some argument for why globalism – defined by Farber as the acceptance of pure foreign out-of-state environmental protection as a legitimate objective[1446] – could get an even stronger foothold in trade law of closer unions like the EU and the United States.

[1446] Daniel A. Farber, 'Stretching the Margins: The Geographical Nexus in Environmental Law' (1996) 48 Stanford L. Rev. 1247, 1272.

In a close union with free movement of persons, the interest of citizens and residents of one state in the environmentally detrimental policies of other states will be heightened. At the same time, it should be noted that it is far from obvious that PPM-criteria with an extraterritorial dimension should be easier to justify in a closer free trade union. Namely, in a close union the expectations of loyalty and mutual trust will be higher. An argument for the rejection of extraterritorial protection objectives as valid grounds of justifications would be that in a close union states should show respect toward the sovereign decisions of other states within the union. In other words, dealing with out-of-state environmental and social problems should be left to out-of-state legislation. In sum, examining how close of a union the free trade area does not provide one-directional arguments for how to approach extraterritoriality.

The position on extraterritoriality in law of justification may be read as strengthening either mutual trust and loyalty between the states or the idea of a common union territory. It must be emphasized that there is still much uncertainty with respect to which path the EU and the U.S. will take. Some initial observations and thoughts may still be offered here.

The language used by U.S. courts in the application of the Pike balancing test would suggest that it is only local in-state environmental benefits that may constitute a legitimate objective in law of justification. Furthermore, the extraterritoriality test in law of prohibition reflects scepticism directed against extraterritorial measures in the U.S. This approach by the Supreme Court makes it likely that it would apply an extraterritoriality test also in law of justification. In other words, states will struggle to justify discriminatory measures that merely target environmental effects out-of-state.

If an extraterritoriality test applies also in law of justification, it would suggest that the U.S. system puts significant emphasis on loyalty and mutual trust between states. This union value of loyalty would weigh more heavily than the union value that stems from the interest residents moving freely across state borders have in the environment of other states. Indeed, in outlining the reasons for the prohibition of extraterritorial regulation under law of prohibition, courts have referred to national solidarity and structural federalism.[1447]

[1447] Baldwin v. G.A.F. Seelig, Inc., 294 U.S. 511, 523 (1935); American Fuel & Petrochemical Manufacturers v. O'Keeffe, No. 3:15-cv-00467-AA, 2015 WL 5665232, at *9 (D. Or., Sept. 23, 2015).

Moreover, it may be recalled that the protection of public morals has rarely been discussed as a legitimate objective in the context the dormant Commerce Clause. An explanation could be that the federal system of the United States creates a union that, at least in theory, should rely on common fundamental values. There may exist a presumption that federal or union legislation will not allow immoral activities. As a consequence, states would have no independent morals to protect. Strong forms of unionism, like U.S. federalism, might thus weaken morality arguments and also that way strengthen the arguments for an extraterritoriality test in law of justifications.

Are there then similar reasons to believe that also in the EU, a close union, an extraterritoriality test might be applied in law of justification? The ECJ has not adopted any final position. However, it shall be illustrated below, in a section on extraterritoriality and public procurement, that EU law might be going down a different path.[1448] If that indeed is the case, it would imply that EU free movement law advances the idea of a common territory where EU citizens more freely and less emphasis is given to loyalty, even if that principle is referred to in Article 4(3) of the Treaty on European Union (TEU).

6.2.6. State Interests and the Reconciliation of Values

When a state adopts environmental regulation with discriminatory effects two interests will collide. On one side there is the interest of the regulating state to protect the environment and on the other side there is the interest of the other state in a free market without discrimination. This latter interest is also an interest of the free trade area as a whole. These same interests are relevant also for cases on PPM-criteria.

The interest of the regulating state can also be depicted as a sovereign right to protect against, for example, the importation of products harmful to public health or the environment. When the state adopts PPM-criteria, this takes a slightly different form as the sovereign importing state now protects against effects that are not part of the physical products that the exporting state is offering. Simultaneously, the exporting state where production takes place might oppose the PPM-criteria with reference to its sovereign right regulate production within its territory. However, PPM-regulation of

[1448] *See* section 6.3.

the importing state generally does not hinder the right of the exporting state to regulate production. As Howse and Regan have pointed out, there is no sovereignty conflict.[1449]

The discussion on the interests involved in shaping the geographical scope of grounds of justification should distinguish between different theories. It should be emphasized that the reconciliation of values discussed here is not about proportionality, but simply about defining the geographical scope of grounds of justification.

According to one theory, states could justify discriminatory measures with reference to the protection of purely out-of-state environment. It was pointed out that the underlying interest would not directly be held by the state adopting the PPM-criteria. Instead, the measure would protect the interest of future generations and people in the state of production who have not been successful in getting their views on PPM-criteria made into law. These interests might not be strong enough to out-weigh the interest of the state of production in non-discriminatory trade. In the context of WTO law, the interest of the state of production is further strengthened by the value of global fairness. Furthermore, the principle of representation would support the argument that the effects and externalities targeted should be those experienced on in-state territory. Environmental effects and externalities experienced purely by out-of-state individuals would be for them to tackle through the in-state legislative process.

Another theory on the scope of legitimate objectives put an emphasis on the utility loss linked to a feeling of immorality experienced in the importing state adopting the PPM-criteria. The interest held in the importing state could be the protection of the utility of its in-state consumers, which do not want to contribute the unsustainable and immoral PPMs. In this case it could be difficult to justify any more restrictive measure than a consumer information labelling scheme. However, the regulating state might have an interest to advance a broader state-wide moral policy. It might strive to protect its population against the feelings of disgust that arises from the knowledge that immorally produced goods are imported to and consumed in their territory even if that would mean that the utility of the citizens that are not PPM-sensitive would be reduce due to the lack of access to the products. While many would likely discard the highly controversial

[1449] Robert Howse and Donald Regan, 'The Product/Process Distinction: An Illusory Basis for Disciplining 'Unilateralism' in Trade Policy' (2000) 11 European Journal of International Law 249, 274-275.

theory on the protection against utility loss, it has gained some ground in the application of GATT and might trump non-discrimination and global fairness.

A third theory would invite states to adopt PPM-criteria that address only cross-border and global environmental effects. The interest of the state adopting the measure would be the protection of environmental effects. In other words, the interest would be the reduction of in-state environmental externalities. Under one application of this theory cross-border environmental harm could be targeted no matter how minimal it is. It is not clear whether this interest would be sufficient to override the non-discrimination and potential global fairness interests of the state of production. In contrast, when the cross-border environmental effects exceed some (yet undefined) de minimis threshold, the interests of the regulating state might be more likely to out-weigh the non-discrimination and potential global fairness interest of the state of production. It must be emphasized that this would only mean that there is a legitimate ground of justification in the case. Whether or not the measure would be justifiable would still depend on the reconciliation values, including the discriminatory effects, under the proportionality review.

A de minimis rule in WTO law would place restraints on what could otherwise be perceived as eco-imperialism. At the same time, such test would also to some, albeit arguably small, degree limit the potential to address externalities through sovereign interests of the importing state. It would represent a compromise. Yet, in case the PPM-criteria are designed in some way not only to pressure the out-of-state industry to change to sustainable PPMs, but also to pressure other governments to adopt stricter PPM-criteria in its laws, the measure would likely be more difficult to justify.[1450] While the measure does not entrench on sovereignty, the objective challenges the idea of sovereignty. Striving to get other states to adopt similar criteria, even if only with the intent of furthering the interests of its own population, perhaps along the interests of a group of PPM-sensitive out-of-state individuals, the state adopting the PPM-criteria to both in-state production and imports might tilt the outcome of the out-of-state legislative process, which may otherwise have resulted in the optimal level of externalities for maximizing utility in that state.

[1450] On the difficulty to justify one type of such criteria *see* section 4.1.3.1 and 4.3.2.2.

What would the significance of a de minimis test be for the energy transition? States should, under all three jurisdictions, have a right to defend limitations extending also to the PPMs of imported energy at least when there are significant cross-border environmental effects. This would apply certainly for GHG emissions and in some cases also other air pollution. Measures to promote renewable energy at the expense of fossil fuels would in other words further a legitimate objective. Thus, while extraterritoriality tests could potentially set limits on state competence to impose PPM-criteria in some sectors, it would still not appear to seriously restrict measures intended for promoting renewables. However, arguing for the justifiability of restrictions on activities that would primarily affect biodiversity or local soil and water pollution would be tougher. Equally, restrictions on imports of energy from nuclear fission would also face more hurdles. There is the possibility that the risk of accidents is so low that it would fall below the de minimis threshold despite the severity of an accident. In that case such measures would be dependent on the strength and relevance of the moral argument in trade law.

Importantly, the discussion on extraterritoriality has revealed that the balancing exercise in trade law can no longer be painted as two-dimensional, with only free trade pitted against the environment. To phrase if it differently, value reconciliation in the application of trade law on environmental regulation is not merely about efficiency through non-discrimination and the elimination of environmental externalities.

6.2.7. Multilateralism, Negotiations and Proportionality

There has existed much reluctance to accept PPM-criteria as compliant with trade law.[1451] The most in-depth jurisprudential analysis of the status of PPM-criteria has taken place within the framework of WTO law. In its first cases on PPM-criteria that were also applied to imports, the panels almost outright rejected the arguments of justification. For example, we may recall *US – Tuna (Mexico I)*, which concerned U.S. measures to restrict the sales of tuna with dolphin-safe labels, unless the tuna had been caught with certain methods determined to be dolphin-safe by the U.S. in its regulations. The panel rejected the U.S. PPM-criteria adopted unilaterally by the U.S. with the argument that accepting them would pose a threat to GATT as a multilateral

[1451] Report of Ambassador Ukawa, Chairman of the Group on Environmental Measures and International Trade, 49th Session of the Contracting Parties, GATT (2 Feb. 1994) at 19, 25, 53, 55, and 72-74; Report of the Committee on Trade and Environment, WTO, WT/CTE/1 (12 Nov. 1996) 171, 185.

framework for trade.[1452] Later in *US – Tuna (EC)* the panel noted that GATT recognizes the objectives of sustainable development and environmental protection.[1453] However, it argued that the unilateral and extraterritorial nature of the PPM-criteria, when designed to force other states to change their in-state policies, still undermined the multilateralism that the GATT represented and would therefore not be justifiable.[1454] There is in other words a difference between PPM-criteria that target out-of-state producers and those that target out-of-state laws, regulations and policy.

In the 90's the U.S. had adopted restrictions on market access and sale of shrimp not caught with the use of turtle exclusion devices. Thus, a few years after *US – Tuna (EC)* discussed above, an AB would examine the U.S. requirements on the use of devices that protect turtles when catching shrimp. The AB in *US – Shrimp* recognized the existence of international agreements on sustainability[1455] and rejected any categorical prohibition of PPM-criteria on imports by concluding that states should try to avoid unilateral PPM-criteria.[1456] They are in other words not prohibited per se.[1457] The AB still noted that their unilateral and extraterritorial nature created tensions with the multilateral trade framework.[1458]

It is today clear that state measures to promote sustainable PPMs may be justifiable despite containing discriminatory elements. Yet, even in cases where a valid ground of justification is determined to exist, the adoption of PPM-criteria that apply both for in-state production and imports will still create some economic pressure on out-of-state producers to comply with the criteria. PPM-criteria that apply also to imports might

[1452] US – Restrictions on Imports of Tuna, DS21, Panel Report, 3 Sept. 1991 (US – Tuna, Mexico I) (unadopted), para. 5.25-27. In its interpretation of Article XX GATT the panel also relies on the history of negotiating the agreement.
[1453] US – Restrictions on Imports of Tuna, DS29, Panel Report, 16 June 1994 (US – Tuna, EC) (unadopted), para. 5.42.
[1454] *Id.* para. 5.26.
[1455] *See* e.g. Art 39.3(d), UN Sustainable Development, UN Conference on Environment and Development, Rio de Janeiro (1992), Agenda 21; Principle 12, U.N. Conference on Environment and Development, Rio Declaration on Environment and Development, U.N. Doc. A/CONF.151/26 (Vol.1) (Aug. 12, 1992).
[1456] US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct. 1998, paras 133, 165-172.
[1457] Paul O'Brien, 'Unilateral Environmental Measures After WTO Appellate Body's Shrimp-Turtle Decision', in Edith Brown Weiss and John H. Jackson, *Reconciling Environment and Trade* (Transnational 2001) 468-469; US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, Panel Report, 15 May 1998, para. 7.61.
[1458] US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct. 1998, paras 161-175. *See* also US – Import Prohibition of Certain Shrimp and Shrimp Products: Recourse to Article 21.5 of the DSU by Malaysia, DS58, AB Report, 22 Oct. 2001, paras 115-134.

even create strong incentives for exporters to change their behavior. The criteria could reinforce the market power of large and wealthy states.[1459] Through the implementation of PPM-criteria developed states may in practice dictate the policy in exporting developing states. In a worst case scenario, the PPM-criteria of developed states would even push developing states to over-exploit other PPMs.[1460] To some extent the concerns relating to the reliance on market power to influence global policy are of course true for any standards, not just PPM-criteria. However, PPM-criteria have often been viewed as more controversial since a state targets the out-of-state process and not the characteristics of the good that the state will consider for importation.

The state adopting PPM-criteria will likely face criticism based on the fact that the measure has extraterritorial scope and shifts power to countries with stricter criteria; often those countries that became industrialized earlier and therefore reaped the benefits of the lax regulations of that time. Any potential de minimis test for the definition of legitimate objectives would only in part address those concerns. Therefore, it is here examined whether the proportionality review might include tests that further reconcile the interests of the exporting and importing the state, including the environmental interests.

The principle of proportionality has taken different forms in EU free movement law, WTO law and under the U.S. dormant Commerce Clause. However, tests such as rational relationship, suitability, least restrictive measure, consistency with international science as well as the balancing of burden and benefits under the Pike test have things in common. First, they are suitable for reconciling the objective of non-discrimination with the objective of reducing externalities. Secondly, each test functions as a tool to assess the substantive elements of state measures. The assessment of the substantive elements primarily focuses on the discriminatory effects of the measures and the level of protection that the measures offer for the environment or some other legitimate objective.

As the discussion in this book has revealed, measures that include PPM-criteria can survive proportionality tests that focus on the substantive elements of the measure, such as the suitability test, the test of least restrictive measure, the test of consistency with

[1459] Unilateral Trade Measures by States – Communication from India, WT/GC/W/123 (1998).
[1460] Processes and Production Methods (PPMs): Conceptual Framework and Considerations on use of PPM- based Trade Measures' (OCDE/GD(97)137, 1997) 32.

international science and the Pike balancing test. For example, measures designed to promote renewable energy or certain forms of sustainable biofuels could very well survive the different tests part of the proportionality review in respective jurisdiction when they do not include de jure discriminatory elements.

The question then arises whether there might exist some further tests under the proportionality review? In this context it can be noted that while the preamble of the Marrakesh Agreement requires positive efforts to ensure developing countries and the least developed countries get a share in the growth of international trade,[1461] no panel or AB has so far gone as far as to require that strict PPM-criteria or other environmental criteria should be accompanied with technology transfer[1462] to less developed countries in order to facilitate the process in those countries to build a sustainable industry that could compete under the new conditions of the international market.

An attempt has been made to incorporate mitigation of extraterritoriality into proportionality in WTO law. In particular, *US – Shrimp*, which concerned U.S. legislation on the use of turtle exclusion devices when catching shrimp, sparked debate on whether a state, before adopting a measure, would need to carry out some form of negotiation process with other states. In other words, could a procedural dimension be read into the proportionality review? The process of negotations could potentially ease the tension between states eager to adopt PPM-criteria and the states where the production takes place.

Before enacting its law on sustainable methods for catching shrimp, the U.S. had negotiated with some countries on how they should modify their policies in order to maintain access to the U.S. market. These negotiations included deals on phase-in periods and technology transfer. The fact that similar negotiations were not initiated for all exporting states was clearly contrary to the rationale of GATT Article I, which requires that states do not award more favorable treatment to any state as compared to any other state. The AB in *US – Shrimp* concluded that not having engaged in negotiations with some states constituted unjustifiable discrimination under Article XX

[1461] Preamble of the Marrakesh Agreement establishing the WTO (1994).
[1462] With respect to the U.S. law on the use of turtle exclusion devices technology transfer was offered to some state. The AB, however, stated that it formed arbitrary discrimination to only offer the technology transfer to some states. *See* US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12. Oct. 1998, para. 175.

GATT.[1463] The U.S. had an obligation to negotiate equally with all states since it was a reasonable alternative that would have eliminated the de jure discriminatory elements of the legislative process. The AB thus interpreted the proportionality tests under Article XX GATT to include both substantive and procedural requirements.[1464] Here it must be emphasized that the obligation to negotiate equally with each state should not be interpreted too strictly. Namely, the fear of breaching such requirement could discourage states from entering into negotiations with any states to begin with.

The obligation to negotiate equally is obviously quite a different thing than an obligation to negotiate with anyone in the first place. The AB in *US – Shrimp* did not explicitly state that the proportionality review would reach so far as to require negotiations when the state would prefer to not to initiate them with any state. Instead, it pointed out that the chapeau of Article XX GATT required an overall assessment and that the difference in negotiation engagement formed one element of unjustifiable discrimination.[1465] Later in the compliance proceedings of the same case, when the U.S. had eliminated other arbitrary and unjustifiable elements of the law, the AB added that states are not required to conclude agreements with all parties but must negotiate in good faith.[1466] Yet, no clarification was made with regards to the distinction between the case of unequal negotiation in *US – Shrimp* and the hypothetical case where neither bilateral nor multilateral negotiations have taken place with any states.[1467]

There was some ambiguity after *US – Shrimp* as to whether there existed only an obligation to negotiate equally with all states when negotiations are initiated or if there was a stricter obligation to always negotiate before adopting PPM-criteria.[1468] Negotiation and cooperation could potentially develop into principles of proportionality under the chapeau of Article XX GATT. For example, in the literature it has been

[1463] US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct. 1998, paras 166-172; US – Import Prohibition of Certain Shrimp and Shrimp Products: Recourse to Article 21.5 of the DSU by Malaysia, DS58, AB Report, 22 Oct. 2001, paras 122-130.
[1464] US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct. 1998, para. 160. *See* also EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, AB Report, 22 May 2014, para. 5.304.
[1465] US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct. 1998, paras 172, 176.
[1466] US – Import Prohibition of Certain Shrimp and Shrimp Products: Recourse to Article 21.5 of the DSU by Malaysia, DS58, AB Report, 22 Oct. 2001, paras 122-123, 131-132.
[1467] Robert Howse, *The WTO System: Law, Politics and Legitimacy* (Cameron May 2007) 172-173; US – Import Prohibition of Certain Shrimp and Shrimp Products: Recourse to Article 21.5 of the DSU by Malaysia, DS58, AB Report, 22 Oct. 2001, para. 122.
[1468] *See* Christiane R. Conrad, *Process and Production Methods (PPMs) in WTO Law – Interfacing trade and social goals* (CUP 2011) 362-363.

suggested that the legislative process for drafting EU sustainability criteria for biofuels did not sufficiently allow for input from exporting non-EU states and may therefore not be aligned with the principles of WTO law.[1469] This position would imply that a strict obligation to negotiate should be applied. An argument could be made for such approach also under EU free movement law. A strict negotiation obligation could perhaps be derived from the principle of loyalty as expressed in Article 4(3) TEU.[1470] Member States would under such view have an obligation to at least make an effort to agree on PPM-criteria on EU level.[1471] For example, with respect to nuclear safety EU Member States have already agreed on some necessary measures.[1472]

The argument that there should exist a strict negotiation obligation under GATT might have gained support from *US – Gasoline*. It was an earlier case that concerned a U.S. law on fuel quality. Different parties, such as refiners and importers, had to provide fuel of quality that did not fall short of their assigned benchmark. For domestic parties this benchmark was linked to their individual historical quality if data was available. The AB condemned the U.S. for not granting importers the same variety of options of using historical individual data for determining the benchmark that applied to them. While the law was arbitrarily discriminatory because of that de jure discriminatory element, it is worthy of note that the AB also pointed out that the U.S. should have tried to secure access to historical data not only from foreign refiners but also through cooperation with foreign governments.[1473] This reflected an expectation of cooperation.

A far-reaching interpretation of the negotiation obligation might create more problems than it would solve.[1474] It is difficult to determine when a state has genuinely negotiated or negotiated to a sufficient degree. Even with a legal obligation to negotiate states could claim they made an effort but failed to reach any common ground. When states

[1469] Fredrik Erixon, 'Biofuels Reform in the European Union: Why New ILUC Rules Will Reinforce the WTO Inconsistency of EU Biofuels Policy' (2013) ECIPE Occasional Paper (issue 3) 14-15.
[1470] Jochem Wiers, *Trade and Environment in the EC and the WTO – A Legal Analysis* (Europa Law 2003) 358-359.
[1471] Harmonization of PPM-criteria would solve much of the problem. *See* Harri Kalimo, *E-Cycling – Linking Trade and Environmental Law in the EC and the U.S.* (Transnational 2006) 276.
[1472] Council Directive 2009/71/Euratom of 25 June 2009 establishing a Community framework for the nuclear safety of nuclear installations, OJ L 172, 2.7.2009, 18. The directive was amended by Council Directive 2014/87/Euratom of 8 July 2014 amending Directive 2009/71/Euratom establishing a Community framework for the nuclear safety of nuclear installations, OJ L 219, 25.7.2014, 42.
[1473] US – Standards for Reformulated and Conventional Gasoline, DS2, AB Report, 29 April 1996, p. 27-28.
[1474] *See* Laurens Ankersmit, *Green Trade and Fair Trade in and with the EU: Process-Based Measures within the EU Legal Order* (CUP 2017) 162-193.

explore the option to reach agreement on stricter PPM-criteria there will be a significant risk that neighboring states oppose. The effectiveness of a strict negotiation obligation is thus questionable. This is even more so in situations where a state originally has neglected it and only initiates them after a legal dispute.[1475]

The dispute on requirements for dolphin-safe labelling in the U.S. with respect to the methods of fishing tuna got a further sequel in *US – Tuna (Mexico II)* after the U.S. once again had made some amendments to its laws. In compliance proceedings the AB in 2015 did not make any reference to an obligation to negotiate when it considered the proportionality of the amended measure.[1476] In fact, in further compliance proceedings in the same case a panel analyzing the application of Article 2.1 TBT to the case even stated in 2017 that there is no separate or distinct obligation related to the process of adopting a measure, although the adoption process might give indications of whether the measure is even-handed.[1477] This appears to support the view that no strict negotiation obligation shall apply in WTO law.

The scope of measures that can have an influence on PPMs utilized in other states is still somewhat limited. Aside from combined restrictions on in-state production and imports of unsustainably produced products, states could bilaterally or multilaterally negotiate PPM-criteria. Negotiations offer other states a voice in matters that also directly concern them and can help to prevent deep conflicts. Naturally, negotiating would not as such provide the same level of protection against environmental harm and the state would be free to adopt its own criteria even if negotiations fail. However, an effort to negotiate could help to reconcile views and on a political level mitigate the negative effects of extraterritoriality. For example, negotiations could lead to deals on strict PPM-criteria and technological transfer offered to less developed states. Such solutions would serve both the interests of reducing externalities and global fairness.

[1475] For some critical remarks *see* also Paul O'Brien, 'Unilateral Environmental Measures After WTO Appellate Body's Shrimp-Turtle Decision', in Edith Brown Weiss and John H. Jackson, *Reconciling Environment and Trade* (Transnational 2001) 465-466.
[1476] US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products (US – Tuna, Mexico II): Recourse to Article 21.5 of the DSU by Mexico, DS381, AB Report, 20 Nov. 2015.
[1477] US – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products (US – Tuna, Mexico II): Recourse to Article 21.5 of the DSU by the United States and second recourse to Article 21.5 of the DSU by Mexico, DS381, Panel Report, 26 Oct. 2017, para. 7.105.

Negotiations provide a form of political benefit.[1478] While a strict negotiation obligation should not be read into the proportionality principle, the recognition of the value of negotiation is still of value. The emphasis put on negotiation in panel and AB decisions underlines the political expectations and even puts some pressure on states to discuss and make a genuine effort to reach mutually beneficial solutions. Of course, an environmental threat might be immediate, whereas negotiations may take time.[1479] It has therefore been suggested that the level and intensity of negotiations should be proportional to the trade effects.[1480] It is submitted here that the level and intensity of the negotiations should be proportional to the environmental harm.

6.2.8. Renegotiating Trade Law Provisions?

Trade law regimes offer tests to reconcile free trade or non-discrimination on the one hand and legitimate objectives such as environmental protection on the other hand. This value reconciliation may be seen as following an efficiency rationale. In this second section of the chapter it was illustrated how determining the geographical scope of grounds of justification necessitates the reconciliation of also values that are not directly linked to non-discrimination or the elimination of externalities of the regulating states. In particular, it was highlighted how a broad geographical scope may create risks of eco-imperialism and that limitations on the scope promotes the value of global fairness.

The interest of one state to tackle the environmental or even moral harm experienced by its population will clash on a fundamental level with the interest of other states to reap the benefits of free trade, catch up in development contra more developed states and to develop through its national legislative procedures its own policies on sustainable production methods free from out-of-state economic pressure and in line with the environmental preferences its own population. It is difficult to find legal tests that would reconcile these interests of sovereign states and would deal with extraterritoriality objections in a fully satisfactory manner.

[1478] Rafael Leal-Arcas and Andrew Filis, 'Legal Aspects of the Promotion of Renewable Energy within the EU and in Relation to the EU's Obligation in the WTO' (2014) 5 Renewable Energy Law and Policy Rev. 3, 24-25.

[1479] Hannah Gillelan, 'Considering the Biology of Sea Turtles in the WTO Dispute Settlement Process', in Edith Brown Weiss and John H. Jackson, *Reconciling Environment and Trade* (Transnational 2001) 491-492.

[1480] Lewis Briggs, 'Conserving "Exhaustible Natural Resources": The Role of Precedent in the GATT Article XX(g)', in Edith Brown Weiss and John H. Jackson, *Reconciling Environment and Trade* (Transnational 2001) 290.

Taking all relevant values into acocunt, it was in this section submitted that current trade law provisions could potentially be interpreted to invite states to justify measures that target environmental effects above some de minimis threshold. Unfortunately, there would exist much uncertainty as to how high that threshold ought to be. Establishing such threshold would be a task more suitable for state representatives during negotiations than for courts. What is more, the potential of such de minimis test will be put into question in the third and final section of this chapter.

Due to the difficulties of deriving proper tests on extraterritoriality from current law, it would seem important that this aspect would be included in future negotiations on free trade provisions, be that under the WTO, in union or federal primary law, or in bilateral free trade agreements.[1481] Admittedly, such negotiations will not be politically easy.

6.3. Extraterritoriality and Public Procurement

6.3.1. The Objectives of Public Procurement Law

In previous sections of this chapter it was portrayed how the tests of extraterritoriality may affect the reconciliation of trade and environment in trade law. It was concluded that measures tackling global environmental effects and other effects that have a more than minimal cross-border impact can be justifiable. In contrast, measures aimed at purely out-of-state environmental effects can likely not be justifiable on environmental grounds. Instead, such measures could potentially rely on the protection of public morals as a ground of justification. However, even if the moral argument would be accepted for PPM-criteria, measures may struggle to survive the proportionality review. In this third section the observations on the geographical scope of legitimate objectives will be re-examined in the context of public procurement decisions.

Public procurement law defines the rules on purchases of public authorities. The GATT does not apply to procurement. Instead, the EU, the U.S. and a number of other states have entered into a plurilateral international agreement called the Government Procurement Agreement (GPA).[1482] Up until today decisions on the GPA by panels or appellate bodies have been very scarce in general, not to mention disputes on PPM-

[1481] Similarly *see* Sanford E Gaines, 'Process and Production Methods: How to Produce Sound Policy for Environmental PPM-Based Trade Measures?' (2002) 27 Columbia J. Environmental L. 383, 408-409.
[1482] *See* section 4.2.2.2.

criteria. [1483] The lack of cases could be interpreted to indicate that current regimes of sustainable public procurement generally comply with the agreement.[1484] That is, however, not necessarily true. The WTO litigation system is expensive and the process normally takes several years. This has discouraged countries to initiate proceeding generally in international trade law. In the context of public procurement, the problem might be even more severe than in trade law. Namely, the public procurement process often constitutes a single isolated measure. An international dispute resulting in a decision that the procurement design infringed the GPA often leaves the winning party with no effective remedy as the contract has already been fulfilled. Therefore, an interest to initiate proceedings will mainly exist when some country or some authority has implemented a consistent practice that breaches the GPA.

Furthermore, the EU has developed its own procurement law under the realms of the GPA. Public procurement in the EU is governed by procurement directives but also by the free movement law provisions of the TFEU.[1485] In turn, the U.S. has no federal procurement laws applicable to state-level procurement.[1486] Moreover, it is unclear to what extent the dormant Commerce Clause is applicable to public procurement state laws and decisions.[1487] The focus of this section is thus on public procurement under the GPA and under EU procurement directives.

The objective of public procurement rules on a national level has been to minimize the risk of corruption and to ensure that authorities adhere to the principle of best value for money. The purpose is in other words to guard the interests of taxpayers who both finance and benefit from public purchases. This aim should not be neglected in the development of procurement regimes on an international level.[1488] That being said, a

[1483] For disputes relating to the GPA *see* US – Procurement of a Sonar Mapping System, GPR, DS1, Panel Report, 23 April 1992 (unadopted); Japan – Procurement of a Navigation Satellite, DS73, Request for Consultations 26 March 1997 (mutually agreed solution 3 March 1998); Korea – Measures Affecting Government Procurement, DS163, Panel Report, 1 May 2000.
[1484] Harro van Asselt, Nicolien van der Grijp and Fran Oosterhuis, 'Greener Public Purchasing: Opportunities for Climate-Friendly Government Procurement under WTO and EU Rules' (2006) 6 Climate Policy 217, 226-227; Thomas L. Brewer, 'The WTO and the Kyoto Protocol: Interaction Issues' (2004) 4 Climate Policy 3.
[1485] On potential exemptions to the application of free movement law in this context *see* section 2.3.4.
[1486] *See* section 4.2.2.2.
[1487] *See* section 2.3.2.4.
[1488] *See* recitals of Agreement on Government Procurement, 1869 U.N.T.S. 508 (Text available at 1915 U.N.T.S. 103), with Protocol Amending the Agreement on Government Procurement, Geneva 30.3.2012 (amendments entered into force 2014). The recitals refer to both anti-corruption and efficient management of resources.

key objective of international procurement law is still market liberalization.[1489] In this respect it resembles trade law.

Trade law and public procurement law are both fields of law that govern measures adopted by the public sector that affect cross-border trade. As in the case of trade law, both the GPA and EU procurement directives prohibit discrimination. Through non-discrimination the public sector may improve efficiency through better competition. More international competition can in turn result in better value for money. The objectives are thus linked.

6.3.2. Sustainable Procurement

6.3.2.1. Defining What to Buy and Technical Specifications

Public authorities will begin the design of procurement with the decision on what to purchase. The goods, services or works needed can be described in the form of technical specifications. Environmental PPM-criteria may be adopted as technical specifications under Article X GPA. Technical specifications may cover also PPMs.[1490] This includes even criteria that do not affect the physical properties of the supply goods.[1491]

With respect to the interpretation of the scope of technical specifications under the EU directives there is some relevant case law. An authority of a Dutch province planned to purchase automatic coffee machines in 2008. In its procurement process the authority implemented, among other things, technical specifications for coffee and tea. Those two products had to carry the EKO-label, which was a guarantee of organic farming, and the Max Havelaar label, which was a fair trade label. The European Commission took the Netherlands to court. As a matter of principle the ECJ confirmed in *Max Havelaar* that technical specifications can relate to PPMs with environmental significance, such as organic farming.[1492] The ECJ did not appear to condemn the fact

[1489] Luca Tosoni, 'The Impact of the Revised WTO Government Procurement Agreement on the EU Procurement Rules from a Sustainability Perspective' (2013) 8 European Procurement & Public Private Partnership Law Rev. 41, 42.
[1490] Article I(u) GPA.
[1491] Steven Bernstein and Erin Hannah, 'Non-State Global Standard Setting and the WTO: Legitimacy and the Need for Regulatory Space' (2008) 11 Journal of International Economic Law 575, 592. *See* also Harro van Asselt, Nicolien van der Grijp and Frans Oosterhuis, 'Greener Public Purchasing: Opportunities for Climate-Friendly Government Procurement under WTO and EU Rules' (2006) 6 Climate Policy 217, 223. The authors of the latter article are more careful to draw this conclusion.
[1492] Case C-368/10 *Commission v. Netherlands* (*Max Havelaar*), ECLI:EU:C:2012:284, para. 61. *See* also Opinion of the Commission pursuant to Article 251 (2), third subparagraph, point (c) of the EC Treaty, on the European Parliament's amendments to the Council's common position regarding the proposal for a Directive of the European Parliament and of the Council coordinating the procedures for

that the required fair trade label was awarded only to democratically governed small farmer organizations. However, as pointed out by Martens, it is from an equal treatment perspective controversial to adopt criteria on the size of the farms and on their governance structure.[1493]

It has now also been confirmed in the new procurement directives that considerations of sustainability may be included in the technical specification.[1494] They may cover the PPMs or any other stage of the life-cycle even if those phases would not affect the material substance. The PPM-criteria should also be complied with when production takes place out-of-state.

Some scholars have argued that social criteria could also form technical specifications, whereas others have regarded the question unsettled.[1495] The provisions in the GPA[1496] and the EU directives refer to environmental but not to social criteria. Moreover, only criteria that either lay down the characteristics of goods or services, or the PPMs for the production of goods or the provision of services, can be implemented as technical specifications. Therefore, at least criteria on wider social implications of price changes on energy or food as well as many other social criteria that do not relate to the characteristics or the PPMs of the products or the services are likely not legal as technical specifications.

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the award of public works contracts, public supply contracts and public service contracts, COM (2003) 503 final; Peter Kunzlik, 'The Procurement of 'Green' Energy', in Sue Arrowsmith and Peter Kunzlik (eds.), *Social and Environmental Policies in EC Procurement Law – New Directives and New Directions* (CUP 2009) 391-399.

[1493] Marc Martens and Stanislas de Margerie, 'The Link to the Subject-Matter of the Contract in Green and Social Procurement' (2013) 8 European Procurement & Public Private Partnership Law Rev. 8, 15-16.

[1494] Art. 42 and recital 74, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65; Art. 60 and recitals 83-85, Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC, OJ L 94, 28.3.2014, 243; Art. 36(1), Directive 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts, OJ L 94, 28.3.2014, 1. *See* also Sue Arrowsmith and Peter Kunzlik (eds.), *Social and Environmental Policies in EC Procurement Law – New Directives and New Directions* (CUP 2009); Roberto Caranta and Martin Trybus (eds.), *The Law of Green and Social Procurement in Europe* (Djøf 2010).

[1495] *Compare* Christopher McCrudden, 'International Economic Law and the Pursuit of Human Rights: A Framework for Discussion of the Legality of "Selective Purchasing" Laws under the WTO Government Procurement Agreement' (1999) 2 Journal of International Economic Law 3, 36-37, *with* Luca Tosoni, 'The Impact of the Revised WTO Government Procurement Agreement on the EU Procurement Rules from a Sustainability Perspective' (2013) 8 European Procurement & Public Private Partnership Law Rev. 41, 47; and Sue Arrowsmith, *Government Procurement in the WTO* (Kluwer 2003) 314.

[1496] Article X.6 GPA.

The Max Havelaar fair trade label referred to above was only granted under the condition that the importer had concluded long-term contracts with organisations of small-scale developing country producers and that the producers were paid a fair price. When the decision by a Dutch authority to require the Max Havelaar label was challenged, the ECJ concluded that the fair trade label established terms of purchase for the bidder and that these were not technical specifications because they did not relate to manufacture or any other relevant phase.[1497]

Building on the decision in *Max Havelaar*, would working conditions of the producer then have a sufficient link to the manufacture? Could they be categorized as part of the PPMs of a stage in the life-cycle? The Commission has taken the view that in contrast to criteria on environmental PPMs, social conditions for workers may not be categorized as technical specifications under the directives.[1498] This position has generally been accepted in the academic literature, but there has simultaneously also been some discussion on whether not the provisions should be more open to social criteria.[1499]

6.3.2.2. Conditions for Participation and Exclusion Criteria

After having defined what it intends to purchase, the public authority may add participation criteria. These criteria limit who can place bids. Under Article VIII GPA conditions for participation must be essential to ensure the legal and financial capacity or the commercial and technical ability of the bidder to undertake the procurement. Similarly, under EU directives the conditions for participation (referred to as selection criteria in the directives) may relate to the technical and professional ability to carry out

[1497] Case C-368/10 *Commission v. Netherlands (Max Havelaar)*, ECLI:EU:C:2012:284, para. 74.

[1498] Buying Social – A Guide to Taking Account of Social Considerations in Public Procurement (European Commission 2010) 29-32. *See* also Interpretative Communication of the Commission on the Community law applicable to public procurement and the possibilities for integrating social considerations into public procurement COM (2001) 566 final, 8 (fn 26); Green Paper on the modernisation of EU public procurement policy – Towards a more efficient European Procurement Market, COM (2011) 15 final, 38.

[1499] Marc Martens and Stanislas de Margerie, 'The Link to the Subject-Matter of the Contract in Green and Social Procurement' (2013) 8 European Procurement & Public Private Partnership Law Rev. 8, 12; N. François, 'La place des considerations d'ordre non strictement économique dans l'attribution des marches publics – Essai sur la prise en compte de considerations d'ordre environnemental, social, éthique et de genre dans les critères de selection et d'attribution des marches publics' (2009) Chroniques de Droit Public 652; Peter Kunzlik, 'From Suspect Practice to Market-Based Instrument: Policy Alignment and the Evolution of EU Law's Approach to "Green" Public Procurement' (2013) 22 Public Procurement Law Rev. 97, 102; Christopher McCrudden, *Buying Social Justice: Equality, Government Procurement and Legal Change* (OUP 2007) 538-543.

the duties under the public contract.[1500] Tosoni has argued that sustainability criteria do not relate to the limited scopes of the concepts 'ability' and 'capacity'.[1501] In contrast, the European Commission has stated that technical and professional ability could relate to environmental aspects under EU law and does not appear to exclude that these could even include PPM-criteria.[1502]

A contracting authority may exclude bidders on grounds mentioned in Article VIII.4 GPA. The list of exclusion criteria includes factors such as significant or persistent deficiency in the performance under prior contracts, professional misconduct, acts or omissions that affects the commercial integrity as well as a final judgment on a serious offense or crime. These may relate to the environmental effects of PPMs or labour conditions.[1503] Comparably, the EU directives include the right to exclude on the basis of, for example, violations of social or environmental laws, significant and persistent deficiencies in prior public contracts or grave professional misconduct.[1504] These discretionary grounds could relate to past compliance with environmental or social norms,[1505] even with respect to PPMs or working conditions. The EU directive also includes some compulsory exclusion grounds. For example, a bidder convicted of using child labor must be excluded.[1506]

6.3.2.3. Evaluation Criteria and Contract Performance Clauses

Bids that are not excluded on any ground and comply with technical specifications and conditions for participation shall be compared on the basis of evaluation criteria, also

[1500] Art. 58-62, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65; Art. 80, Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC, OJ L 94, 28.3.2014, 243; Art. 38, Directive 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts, OJ L 94, 28.3.2014, 1.

[1501] Luca Tosoni, 'The Impact of the Revised WTO Government Procurement Agreement on the EU Procurement Rules from a Sustainability Perspective' (2013) 8 European Procurement & Public Private Partnership Law Rev. 41, 47-48.

[1502] Interpretative communication of the Commission on the Community law applicable to public procurement and the possibilities for integrating environmental considerations into public procurement, COM (2001) 274 final; Buying Green! A Handbook on Green Public Procurement (2nd ed., European Commission 2011) 34.

[1503] Sue Arrowsmith, *Government Procurement in the WTO* (Kluwer 2003) 339-341.

[1504] Art. 57(4), Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65.

[1505] Buying Green! A Handbook on Green Public Procurement (2nd ed., European Commission 2011) 33. *See* also Joel Arnould, 'Secondary Policies in Public Procurement: The Innovations of the New Directives' (2004) 13 Public Procurement Law Review 187, 193-195.

[1506] Art. 57(1), Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65.

frequently referred to as award criteria in an EU law context. The contracting authority shall rely on these criteria in order to define which bid is most advantageous and then calculate the winning bid on the basis of the criteria. The authorities may apply price as the only criterion and choose the cheapest bid. Alternatively, the evaluation criteria can be more nuanced and include factors such as quality and sustainability.

Under Article X.9 GPA at least price, other cost factors, quality, technical merit, environmental characteristics and terms of delivery are all valid evaluation criteria. Sustainability criteria relating to the PPM would at least to the extent they reflect externalities be covered by the concept of 'other cost factors'. Hence, environmental PPM-criteria could as a rule be incorporated into the evaluation of bids.

Environmental PPM-criteria under EU directives were dealt with in *Wienstrom*. The case concerned an Austrian authority that had purchased electricity. The award criteria were designed to favour the delivery of electricity generated from renewable resources. The ECJ saw no reason why such criteria could not in principle be legal as long as they were linked to the subject-matter of the contract, did not confer an unrestricted freedom of choice on the authority, are expressly mentioned in the contract and the tender notice, and comply with the fundamental principles of EU law, including non-discrimination.[1507]

The legality of PPM-criteria has now been confirmed in the EU directives. The award criteria may relate to the delivery process or any other stage of the life-cycle, such as the process of production, provision or trading.[1508] The criteria may even relate to disposal and recycling.[1509] In order to promote the use of life-cycle costing (LCC) as a model for designing award criteria, articles on this solution have been included in the

[1507] Case C-448/01 *EVN AG and Wienstrom GmbH v. Austria* [2003] ECR I-14527, paras 30-34.
[1508] Art. 67, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65; Art. 82, Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC, OJ L 94, 28.3.2014, 243; Art. 41, Directive 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts, OJ L 94, 28.3.2014, 1.
[1509] European Commission, EU GPP Criteria for Transport (2012) 10-13; Marc Martens and Stanislas de Margerie, 'The Link to the Subject-Matter of the Contract in Green and Social Procurement' (2013) 8 European Procurement & Public Private Partnership Law Rev. 8, 14. *See* also Opinion of the Commission pursuant to Article 251 (2), third subparagraph, point (c) of the EC Treaty, on the European Parliament's amendments to the Council's common position regarding the proposal for a Directive of the European Parliament and of the Council coordinating the procedures for the award of public works contracts, public supply contracts and public service contracts, COM (2003) 503 final.

directives.[1510] The article on LCC refers to costs of GHG emissions, other pollution and climate change mitigation. The EU has recognized that public procurement may be an important tool to encourage sustainable development and tackle climate change.[1511]

The articles on award criteria do not refer to social externalities even if such a reference was proposed during the negotiations.[1512] However, the recitals of the procurement directive confirm that social criteria can be applied even if their value may be difficult to quantify.[1513] The ECJ has also ruled that social criteria can be in compliance with the directive.[1514]

At the end of the procurement process a contract is signed with the winning bidder. In the contract the public authority may in accordance with Article X.7 GPA and equally under EU directives[1515] insert other conditions than the technical specifications

[1510] Art. 68 and recitals 95-97, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65; Art. 83 and recitals 100-102, Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC, OJ L 94, 28.3.2014, 243; Recital 64, Directive 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts, OJ L 94, 28.3.2014, 1. *See* also Buying Green! A Handbook on Green Public Procurement (2nd ed., European Commission 2011) 42-45. For an analysis of the provisions *see* Dacian Dragos and Bogdana Neamtu, 'Sustainable Public Procurement: Life-Cycle Costing in the New EU Directive Proposal' (2013) 8 European Procurement & Public Private Partnership Law Review 19.

[1511] Commission Communication, Europe 2020 – A strategy for smart, sustainable and inclusive growth, COM (2010) 2020 final, 15-16. *See* also Jörgen Hettne, 'Sustainable Public Procurement and the Single Market – Is There a Conflict of Interest?' (2013) 8 European Procurement & Public Private Partnership Law Review 31, 34.

[1512] Marta Franch and Mireia Grau, 'Contract Award Criteria', in Roberto Caranta, Gunilla Edelstam and Martin Trybus (eds.), *EU Public Contract Law – Public Procurement and Beyond* (Bruylant 2014) 152.

[1513] Recitals 96-99, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65. *See* also Sue Arrowsmith, 'Application of the EC Treaty and Directives to Horizontal Policies: A Critical Review', in Sue Arrowsmith and Peter Kunzlik (ed.), *Social and Environmental Policies in EC Procurement Law – New Directives and New Directions* (CUP 2009) 240-242; Dacian Dragos and Bogdana Neamtu, 'Sustainable Public Procurement: Life-Cycle Costing in the New EU Directive Proposal' (2013) 8 European Procurement & Public Private Partnership Law Rev. 19, 24-30; Thomas Swarr, 'Societal Life Cycle Assessment – Could You Repeat the Question?' (2009) 14 International Journal of Life Cycle Assessment 285.

[1514] Case C-368/10 *Commission v. Netherlands (Max Havelaar),* ECLI:EU:C:2012:284, para. 85; Case C-225/98 *Commission v. France (Nord-Pas-de-Calais)* [2000] ECR I-7445, paras 50-52. *See* also Marc Martens and Stanislas de Margerie, 'The Link to the Subject-Matter of the Contract in Green and Social Procurement' (2013) 8 European Procurement & Public Private Partnership Law Rev. 8, 9. In *Nord-Pas-de-Calais* the ECJ stated that the principle was already established in Case 31/87 *Gebroeders Beentjes BV v. Netherlands* [1988] ECR 4635, since those criteria concerned the award of contract. However, the Court fails to recognize that criteria on the award of contract in the form implemented in *Beentjes* represented a broader category (criteria for the award of contract) that covers stages related to conditions of participation and technical specifications. It is thus not the same as award criteria.

[1515] Art. 70, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65; Art. 87, Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by

provided that thee contract conditions have been mentioned in the tender documentation. The type of criteria suitable in contracts do not appear to be limited in any respect. Hence, social, environmental and any other sustainability criteria could be included as contract performance clauses.[1516] The sustainability criteria could even take the form of PPM-criteria under both the GPA[1517] and the EU directives.[1518] Thus, the position under EU directives has been that environmental criteria implemented as contract conditions could include for example requirements on environmental and energy efficiency, delivering methods and transport emissions, recycling and more generally control of emission levels and staff training.[1519] In turn, social criteria in contract performance clauses could include requirements on employing disabled or long-term unemployed.[1520] Moreover, contract clauses could include criteria on labour rights and conditions (e.g. on health and safety), pay for workers and fair trade (e.g. pay for farmers).[1521]

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entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC, OJ L 94, 28.3.2014, 243.

[1516] Luca Tosoni, 'The Impact of the Revised WTO Government Procurement Agreement on the EU Procurement Rules from a Sustainability Perspective' (2013) 8 European Procurement & Public Private Partnership Law Rev. 41, 47; Christopher McCrudden, 'International Economic Law and the Pursuit of Human Rights: A Framework for Discussion of the Legality of "Selective Purchasing" Laws under the WTO Government Procurement Agreement' (1999) 2 Journal of International Economic Law 3, 30-31.

[1517] Sue Arrowsmith, *Government Procurement in the WTO* (Kluwer 2003) 339.

[1518] Art. 70 as well as recitals 97 and 104, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65; Art. 87, Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC, OJ L 94, 28.3.2014, 243. *See* also Buying Social – A Guide to Taking Account of Social Considerations in Public Procurement (European Commission 2010) 32; Buying Green! A Handbook on Green Public Procurement (2nd ed., European Commission 2011) 52; Marc Martens and Stanislas de Margerie, 'The Link to the Subject-Matter of the Contract in Green and Social Procurement' (2013) 8 European Procurement & Public Private Partnership L. Rev. 8, 15; Marta Franch and Mireia Grau, 'Contract Award Criteria', in Roberto Caranta, Gunilla Edelstam and Martin Trybus (eds.), *EU Public Contract Law – Public Procurement and Beyond* (Bruylant 2014) 153; Robert Caranta, 'General Report', in Ulla Neergaard, Catherine Jacqueson and Grith Skovgaard Ølykke (eds.), *Public Procurement Law: Limitations, Opportunities and Paradoxes*, The XXVI FIDE Congress in Copenhagen, 2014 Congress Publications Vol. 3, 156; Joel Arnould, 'Secondary Policies in Public Procurement: The Innovations of the New Directives' (2004) 13 Public Procurement Law Rev. 187, 192.

[1519] Recital 97, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65; Buying Green! A Handbook on Green Public Procurement (2nd ed., European Commission 2011) 46-48. *See* also generally Marta Franch and Mireia Grau, 'Contract Award Criteria', in Roberto Caranta, Gunilla Edelstam and Martin Trybus (eds.), *EU Public Contract Law – Public Procurement and Beyond* (Bruylant 2014) 153.

[1520] Buying Social – A Guide to Taking Account of Social Considerations in Public Procurement (European Commission 2010) 32, 44-45.

[1521] Recital 97, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65; Case C-368/10 *Commission v. Netherlands (Max Havelaar),* ECLI:EU:C:2012:284, paras 75-76; Buying Social – A Guide to Taking Account of Social Considerations in Public Procurement (European Commission 2010)

6.3.2.4. Limits to the Use of Sustainability Criteria

As discussed above, at each stage of the procurement process the public authority may include at least some sustainability criteria, which may even relate to PPMs. There are of course important limitations to the design of those criteria. Detailed tests that put limits to the use of sustainability criteria have been developed by the ECJ. There is more uncertainty with respect to applicable tests under the GPA.

Under EU directives criteria implemented at most stages of the procurement process must be related to the subject matter of the contract.[1522] Criteria on the general corporate policy of the supplier are not linked to the subject matter of a specific contract.[1523] In *Wienstrom* the Austrian public authority had through award criteria granted extra points if the supplier generated a share of all of its annual electricity output from renewable resources. The requirement thus covered more than merely the share of electricity delivered under the procured contract. Hence, the requirement was not linked to the subject matter of the contract.[1524]

The ECJ has also stated that sustainability criteria cannot be designed so as to leave the public authority with an unrestricted freedom of discretion.[1525] The requirement has

32, 44-45; Buying Green! A Handbook on Green Public Procurement (2nd ed., European Commission 2011) 52; Marc Martens and Stanislas de Margerie, 'The Link to the Subject-Matter of the Contract in Green and Social Procurement' (2013) 8 European Procurement & Public Private Partnership Law Rev. 8, 15-16.

[1522] Art. 42(1) (technical specifications), Art. 58 (selection criteria or conditions of participation), Art. 67(2) (award criteria) and Art. 70 (contract performance clauses), as well as recitals 75 and 92, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65; Art. 60(1), 80(2) and 82(2), Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC, OJ L 94, 28.3.2014, 243; Art. 36(1), 38(1) and 41(2), Directive 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts, OJ L 94, 28.3.2014,1. *See* also Case C-513/99 *Concordia Bus Finland Oy Ab, formerly Stagecoach Finland Oy Ab v. Helsingin kaupunki and HKL-Bussiliikenne* [2002] ECR I-7213, paras 57-59; Case C-448/01 *EVN AG and Wienstrom GmbH v. Austria* [2003] ECR I-14527, para. 66.

[1523] Recitals 97 and 104, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65. *See* also Buying Social – A Guide to Taking Account of Social Considerations in Public Procurement (European Commission 2010) 29; Buying Green! A Handbook on Green Public Procurement (2nd ed., European Commission 2011) 25, 31; European Commission, EU GPP Criteria for Electricity (2012) at 5; European Commission, EU GPP Criteria for Transport (2012) at 13; Abby Semple, 'A Link to the Subject-Matter: A Glass Ceiling for Sustainable Public Contracts?', in Beate Sjåfell and Anja Wiesbrock, *Sustainable Public Procurement under EU Law – New Perspectives on the State as Stakeholder* (CUP 2015).

[1524] Case C-448/01 *EVN AG and Wienstrom GmbH v. Austria* [2003] ECR I-14527, paras 60-71.

[1525] Case 31/87 *Gebroeders Beentjes BV v. Netherlands* [1988] ECR 4635, para. 26; Case C-513/99 *Concordia Bus Finland Oy Ab, formerly Stagecoach Finland Oy Ab v. Helsingin kaupunki and HKL-Bussiliikenne* [2002] ECR I-7213, para. 61; Case C-448/01 *EVN AG and Wienstrom GmbH v. Austria* [2003] ECR I-14527, para. 37; Case C-19/00 *SIAC Construction Ltd v. County Council of the County of*

now been explicitly included in the directives.[1526] It means, among other things, that environmental and other criteria must be objectively quantifiable.[1527]

Furthermore, the criteria must be sufficiently precise.[1528] Precision means that all bidders should be able to interpret the criteria in the same way.[1529] In *Max Havelaar* the Dutch authority had included criteria to ensure that the supplier of coffee machines complied with a policy of sustainable purchases and conducted socially responsible business. The ECJ rejected such criteria as they might not even be linked to the subject matter. What is more, the criteria would not comply with the requirements of clarity and precision and would not be unequivocal.[1530] The conclusion would have been the same under the GPA, even if the test of precision is not necessarily equally strict.

Under both the GPA[1531] and EU directives[1532] criteria must be such that compliance with them can be verified. The test of verifiability is especially relevant for criteria on process and production methods. Verification can be challenging due to the fact that the PPMs are sometimes not reflected in the final characteristics of the product or service that is delivered. Similar challenges exist regarding criteria on end-of-life treatment. In the seminal *Wienstrom* case the Austrian authority purchasing electricity

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Mayo [2001] ECR I-7725, paras 36-37. *See* also Christopher Bovis, *EU Public Procurement Law* (2nd ed., Edward Elgar 2012) 414-415.

[1526] *See* Art. 67(4), Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65.

[1527] C-513/99 *Concordia Bus Finland Oy Ab, formerly Stagecoach Finland Oy Ab v. Helsingin kaupunki and HKL-Bussiliikenne* [2002] ECR I-7213, para. 66. *See* also Katriina Alhola, *Environmental Criteria in Public Procurement – Focus on Tender Documents* (Edita 2012) 23; Interpretative communication of the Commission on the Community law applicable to public procurement and the possibilities for integrating environmental considerations into public procurement, COM (2001) 274 final, section 3.1.

[1528] On explicit reference to the requirement of precision of technical specifications *see* Art. 42(3), Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65. *See* also Art. 26(4)(a)(iv), 29(1) and 31(1). With reference to precision of award criteria *see* Peter Kunzlik, 'Making the Market Work for the Environment - The Acceptance of (Some) Environmental Award Criteria in Public Procurement' (2003) 15 Journal of Environmental Law 175, 198.

[1529] Case C-19/00 *SIAC Construction Ltd v. County Council of the County of Mayo* [2001] ECR I-7725, para. 42; Case C-368/10 *Commission v. Netherlands (Max Havelaar)*, ECLI:EU:C:2012:284, para. 88; Buying Green! A Handbook on Green Public Procurement (2nd ed., European Commission 2011) 38.

[1530] Case C-368/10 *Commission v. Netherlands (Max Havelaar)*, ECLI:EU:C:2012:284, paras 109-110.

[1531] Luca Tosoni, 'The Impact of the Revised WTO Government Procurement Agreement on the EU Procurement Rules from a Sustainability Perspective' (2013) 8 European Procurement & Public Private Partnership Law Rev. 41, 45. *See* also Peter Kunzlik, 'International Procurement Regimes and the Scope for Inclusion of Environmental Factors in Public Procurement' (2004) OECD Journal on Budgeting 109.

[1532] Buying Green! A Handbook on Green Public Procurement (2nd ed., European Commission 2011) 25, 32; Peter Kunzlik, 'From Suspect Practice to Market-Based Instrument: Policy Alignment and the Evolution of EU Law's Approach to "Green" Public Procurement' (2013) Public Procurement Law Review 97, 112; Antti Palmujoki, Katriina Parikka-Alhola, and Ari Ekroos, 'Green Public Procurement: Analysis on the Use of Environmental Criteria in Contracts' (2010) 19 Review of European Community and International Environmental Law 250, 253.

set criteria for the award of the contract favouring companies using renewable resources. However, no mechanism of verifying compliance with such criteria had been put in place by the authority. Consequently, the procurement process breached the principles of equal treatment and transparency.[1533] In order to comply with the verifiability test the authority could perhaps have specified in the call for tenders that the chosen supplier of electricity would on an annual basis need to illustrate compliance with the renewable energy requirement by submitting Guarantees of Origin.[1534] Under the Renewable Energy Directive[1535] each Member State must have in place a system of GOs. The certificates would verify that the generated electricity comes from renewable resources.

The principle of proportionality also governs procurement law. Under Article 18(1) of the EU procurement directive economic operators must be treated in a proportionate manner.[1536] Moreover, conditions for participation (selection criteria) shall be proportionate to the subject matter.[1537] In turn, PPM-criteria in technical specifications must be proportionate to their value and objectives.[1538] Finally, the weight on for example environmental aspects in award criteria must be such that the economically most advantageous bid can be identified.[1539] It is not fully evident how the principle of proportionality should be interpreted in this context. One could potentially argue that contracting authorities would not be justified in pushing criteria that go beyond the

[1533] Case C-448/01 *EVN AG and Wienstrom GmbH v. Austria* [2003] ECR I-14527, paras 44-52.
[1534] *See* European Commission, EU GPP for Electricity (2012) at 3-5; Peter Kunzlik, 'The Procurement of 'Green' Energy', in Sue Arrowsmith and Peter Kunzlik (eds.), *Social and Environmental Policies in EC Procurement Law – New Directives and New Directions* (CUP 2009) 379.
[1535] Article 15, Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, OJ L 140, 5.6.2009, 16; Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, 82, Article 19(2).
[1536] Art. 18(1) Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65.
[1537] Art. 58, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65; Art. 80(2), Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC, OJ L 94, 28.3.2014, 243; Art. 38(1), Directive 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts, OJ L 94, 28.3.2014, 1.
[1538] Art. 42(1) Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65.
[1539] *See* e.g. Art. 67, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65.

internalization of externalities.[1540] Yet, it must at the same time be acknowledged that sometimes criteria that go beyond current externalities may be necessary in order to spur new innovative solutions that improve the rate of reducing externalities in the future.

All in all, like in trade law, also under public procurement law PPM-criteria are not categorically prohibited. On the contrary, they are in fact encouraged. That being said, the design of such criteria is subject to a number of legal tests.

6.3.2.5. Implications of Extraterritoriality for Sustainable Procurement

Both public procurement decisions and other forms of state measures, which fall under trade law, may target environmental effects. As is the case with PPM-criteria under trade law, the opportunity to include in tenders social and environmental criteria that address externalities will raise the question of how those externalities are evaluated by the public authorities. This covers also the question of the geographical scope of the effects addressed by the criteria.

The geographical scope of the effects addressed by PPM-criteria in public procurement may become relevant in various ways. For example, could a public authority in technical specifications cap emissions also for out-of-state production or require a certain PPM also out-of-state even when out-of-state unsustainable PPMs will have minimal or no cross-border effects? May emission level criteria included in the evaluation criteria take into account out-of-state emissions to the same extent as in-state emissions even if the emissions have no, or at least less, effect on the in-state environment? Could a public authority integrate criteria on PPMs or emission levels in evaluation criteria, reduce points for unsustainable PPMs in proportion to estimated externalities and in the estimation of those externalities also calculate for externalities out-of-state? Could the public authority in its evaluation criteria take into account that even to the extent PPMs out-of-state, unlike PPMs in-state, might not have the same effects on its in-state environment, unsustainable PPMs out-of-state may still have effects on the utility of the people in the state of the procuring entity?

[1540] *See* Case C-448/01 *EVN AG and Wienstrom GmbH v. Austria* [2003] ECR I-14527, para. 42. *See however* Sue Arrowsmith, 'Application of the EC Treaty and Directives to Horizontal Policies: A Critical Review', in Sue Arrowsmith and Peter Kunzlik (eds.), *Social and Environmental Policies in EC Procurement Law – New Directives and New Directions* (CUP 2009) 243.

Against the background of sustainable public procurement provided above, the remaining sections of this chapter are set to determine whether extraterritoriality is approached differently or perhaps should be approached differently in public procurement law than in trade law.

6.3.3. Costs of the Authority, the Public Sector or the Society?

Trade law applies to measures that can be contributed to the state or in other words the public sector.[1541] A measure can be contributed to the state regardless of which authority adopted it. Discriminatory state measures may be justified at least with reference to the objective of tackling in-state environmental harm. The harm might either burden the public sector, for example in terms of public health care costs caused by pollution, or the population and society more broadly through externalities. In trade law the perspective is that of the state adopting the measure, or its people. The difference between these two perspectives has not been given relevance in trade law.

In comparison, public procurement law covers only procurement decisions adopted by contracting authorities. Contracting authorities include state authorities and other public authorities. The focus of the legislation is thus on the actions contributed to one authority instead of on actions contributed to the state as a whole. From whose perspective ought then the environmental or social effects be evaluated when the contracting authority adopts PPM-criteria or some other criteria? There has been debate in public procurement law on whether environmental effects should be approached from the perspective of the public authority, the state (public sector as a whole) or the people (the society as a whole). May the contracting authority tackle its own costs or the societal costs more broadly? This issue must be clarified before addressing the question of the territorial scope of the environmental or social effects.

The GPA and the EU procurement directives do not specify whether the externalities that may be addressed would be limited to the costs that burden the authority or whether the society as a whole can be taken into account. However, in the EU provisions on award criteria an indirect reference to this issue can be found. In accordance with the directives the economically most advantageous offer from the point of view of the contracting authority should be chosen.[1542] This could be understood to indicate that

[1541] *See* section 2.1.
[1542] Art. 67, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65; Art. 82(2), Directive

the authority can only apply social and environmental criteria with the intention of addressing externalities that it would otherwise experience itself. In fact, the Commission for a time seemed to argue along these lines. It held the view that the benefit created through the application of any sustainability criteria should only be accounted for to the extent that it serves the authority directly.[1543] This would lead to, for example, the conclusion that the award criteria cannot be designed to tackle externalities that burden the society more in general.[1544]

The ECJ appears to have rejected the position originally adopted by the Commission. *Concordia* concerned a tender by the city of Helsinki to purchase a bus service that caused limited pollution and noise when using the buses. The ECJ ruled that the added value of the criteria did not need to be of a purely economic nature and that also environmental criteria could increase the economic value from the point of view of the contracting authority.[1545] Thus, tackling externalities was surely acceptable. It is noteworthy that the measure reduced both costs for the state in the form of lower public health costs and lower health costs with respect to the part that citizens would bear themselves. A reduction in the health costs in other words benefitted the city directly but was by no means restricted to costs borne by the city.

The ruling in *Wienstrom* followed a similar logic. In that case the award criteria that gave preference for electricity coming from renewable resources was not regarded to

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2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC, OJ L 94, 28.3.2014, 243. A different wording can be found in Art. 41(1), Directive 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts, OJ L 94, 28.3.2014, 1. Under that provision the award criteria must be designed to identify the "overall economic advantage for the contracting authority or the contracting entity." A literal interpretation of this phrase would suggest that the benefit that the criteria ensure must go specifically to the authority and not the society in general.

[1543] Interpretative communication of the Commission on the Community law applicable to public procurement and the possibilities for integrating environmental considerations into public procurement, COM (2001) 274 final, section 3; Case C-513/99 *Concordia Bus Finland Oy Ab, formerly Stagecoach Finland Oy Ab v. Helsingin kaupunki and HKL-Bussiliikenne* [2002] ECR I-7213, Opinion of AG Mischo, para. 29. *See* also Christopher McCrudden, *Buying Social Justice: Equality, Government Procurement and Legal Change* (OUP 2007) 551; Christopher H. Bovis, *EU Public Procurement Law* (2nd ed., Edward Elgar 2012) 414-415.

[1544] Interpretative communication of the Commission on the Community law applicable to public procurement and the possibilities for integrating environmental considerations into public procurement, COM (2001) 274 final, section 3. *See* also Sue Arrowsmith, 'Application of the EC Treaty and Directives to Horizontal Policies: A Critical Review', in Sue Arrowsmith and Peter Kunzlik (eds.), *Social and Environmental Policies in EC Procurement Law – New Directives and New Directions* (CUP 2009) 236.

[1545] Case C-513/99 *Concordia Bus Finland Oy Ab, formerly Stagecoach Finland Oy Ab v. Helsingin kaupunki and HKL-Bussiliikenne* [2002] ECR I-7213, paras 55-57.

be categorically unlawful.[1546] The costs in the form of externalities from electricity generated from fossil fuels would have clearly burdened the society as a whole as well as the public sector as a whole. The ECJ did not consider whether the externalities would have also burdened the purchasing authority. Hence, many scholars have concluded that the authority does at least not have to gain any immediate benefit.[1547] Even a contracting authority that has no obligation in health care should have the right to adopt environmental criteria.

Some uncertainties as regards the scope of costs that can be addressed with sustainability criteria remain. In particular, it is not clear whether the focus should be on the burden of the public sector as a whole or the burden on the society as a whole. In many cases it will not make a difference since there will be a burden on both. In *Wienstrom* the measure likely benefitted the state population (the society as a whole) as well as the public sector generally. Similarly, in *Concordia* the city of Helsinki and the Finnish government made a dual argument. First, they emphasized that sustainability criteria would be in the interest of the residents. Secondly, they pointed out that the externalities of pollution would in the end to a high degree be borne by the city in the form of public health care spending.[1548]

The difference between targeting total societal costs or merely public sector costs might make a difference when the contracting authority adopts evaluation criteria with points awarded according to performance. In calibrating a proportional weight for the criteria, the contracting authority will need to make a decision on whether it considers the effects from the perspective of the public sector or the society more broadly. Unfortunately, no clear answer has been provided by the case law as to which costs may be included in award criteria calculations. Some scholars have argued that the costs that arise due to

[1546] Case C-448/01 *EVN AG and Wienstrom GmbH v. Austria* [2003] ECR I-14527, paras 30-34.
[1547] Sue Arrowsmith, 'Application of the EC Treaty and Directives to Horizontal Policies: A Critical Review', in Sue Arrowsmith and Peter Kunzlik (eds.), *Social and Environmental Policies in EC Procurement Law – New Directives and New Directions* (CUP 2009) 236; Antti Palmujoki, Katriina Parikka-Alhola, and Ari Ekroos, 'Green Public Procurement: Analysis on the Use of Environmental Criteria in Contracts' (2010) 19 Review of European Community and International Environmental Law 250, 252; Dacian Dragos and Bogdana Neamtu, 'Sustainable Public Procurement: Life-Cycle Costing in the New EU Directive Proposal' (2013) 8 European Procurement & Public Private Partnership L. Rev. 19, 27; Christopher McCrudden, *Buying Social Justice: Equality, Government Procurement and Legal Change* (OUP 2007) 549.
[1548] Case C-513/99 *Concordia Bus Finland Oy Ab, formerly Stagecoach Finland Oy Ab v. Helsingin kaupunki and HKL-Bussiliikenne* [2002] ECR I-7213, para. 46.

externalities on the society as a whole can be taken into account.[1549] This would seem justifiable for two reasons. First, public authorities represent the people and should therefore be able to account for full costs for the population. The point of view of the public authority may for this reason include the full costs of the population. Secondly, it would be in line with the structure of current public procurement law to include all societal costs. Namely, technical specifications could not separate costs on the public sector from costs on the society as a whole. For example, an absolute requirement that energy comes from renewables will address externalities that burden the society even to the extent that the public sector as such might not be burdened by the costs. It would perhaps be incoherent if the externalities born by private citizens in the society could be addressed through such criteria but could never be given weight when bids are evaluated on the basis of costs, including externalities.

6.3.4. Cross-Border Effects

The conclusion that sustainability criteria applied in public procurement may target externalities from the perspective of the whole society heightens the importance of determining the geographical scope of the effects that may be tackled under public procurement law. As was the case in trade law,[1550] also in public procurement law there are no clear-cut answers to how extraterritoriality should be approached.

As was explained already above, the case law of the ECJ has confirmed that sustainability criteria may be introduced to target PPMs. The criteria can be adopted in public procurement for example as part of technical specifications or award criteria. Could PPM-criteria adopted by a public authority then apply also to production outside the territory of the state of the contracting authority? The argumemt might be presented that that the procurement law principle of equal treatment even requires that PPM-criteria, when adopted, must apply also to out-of-state production.

Sustainability criteria in the form of requirements of some specific PPMs or criteria on emission levels in the production phase could capture both cross-border environmental effects that burden the society where the purchasing authority is located and costs that would otherwise fall upon foreign societies. For example, when purchasing electricity,

[1549] Marc Martens and Stanislas de Margerie, 'The Link to the Subject-Matter of the Contract in Green and Social Procurement' (2013) 8 European Procurement & Public Private Partnership Law Rev. 8, 13; Marc Martens, 'Milieuoverwegingen in Overheidsopdrachten' (2004) 13 Tijdschrift voor Milieurecht 301, 311-313.
[1550] *See* section 6.2.

the requirement that the energy is generated from renewable resources would reduce carbon emissions on a global scale. This approach was, as a matter of principle, deemed to comply with the directive in *Wienstrom*.[1551] It is not legally problematic that some costs of climate change would also be reduced outside the territory of the home state of the contracting authority. The conclusion can be made that it is in accordance with public procurement law to at least adopt criteria that target cross-border effects even when the criteria in part also unavoidably address out-of-state effects.

6.3.5. The Pure Out-of-State Share of Environmental Effects

6.3.5.1. Framing the Problem of Extraterritorial Criteria

It is legal to adopt criteria that address some cross-border effects. The conclusion that public authorities may tackle cross-border environmental effects raises the question of whether it would actually be a condition for PPM-criteria to comply with procurement law that the criteria address effects that reach the territory of the purchasing public authority when production takes place out-of-state. Alternatively, could public authorities under procurement law even be justified in tackling the out-of-state share of cross-border effects and purely out-of-state effects?

Criteria on the use of a specific PPM could reduce cross-border effects. The primary objective may often be to tackle the externalities of the pollution that reaches the domestic territory of the public authority. Yet, the criteria will also incidentally reduce harmful effects that burden the society out-of-state. Targeting PPMs out-of-state that do not have any cross-border effects or including out-of-state effects explicitly in the award criteria calculations may on its face seem more intrusive as compared to when the extraterritorial effect is more incidental or an unavoidable side-effect.

The status of purely out-of-state effects under the GPA and the EU procurement directives is relevant for some environmental PPM-criteria. For example, in case the authority applies evaluation criteria that include emission levels or externality costs (including e.g. health costs), it is of interest whether or not pollution or costs abroad could be taken into account. In other words, could the emissions or costs be estimated to their full global value or only to the extent they would burden the society of the state of the contracting authority?

[1551] Case C-448/01 *EVN AG and Wienstrom GmbH v. Austria* [2003] ECR I-14527.

As a preliminary point, contracting authorities will often be part of the state or local government. Although their interest can at times diverge from the interest of the state and local government, the contracting authority would still normally not have any broader economic concerns on the health of people, the climate and the ecosystem than the whole state and local government to which the authority belongs. The state and local governments in turn derive their legitimacy from the will of the people, who contribute to procurement through taxation. A public authority thus has the competence to tackle harm that affects the taxpayers it has been created to serve. When it comes to pollution that arise abroad, public authorities would be concerned when there are cross-border effects on the people they represent in-state. The interest in out-of-state effects would be based on moral grounds or an interest to tackle externalities that are purely foreign. It could be argued that neither moral policy nor purely extraterritorial objectives should be adopted by contracting authorities since the authorities may be categorized as market participants. In accordance with this view moral and extraterritorial policy would in order to be democratically justifiable at least need to go through the ordinary legislative procedure of the state win which the criteria tackling pure out-of-state effects are planned to be adopted for public procurement. Consequently, such criteria would need to be backed by state law. Regardless of whether or not this approach is accepted, it would not provide any answer on the question of whether such criteria could comply with the GPA or EU directives.

The value of value global fairness could affect the interpretation of international procurement law. With the option of implementing very ambitious sustainability criteria that cover even out-of-state emissions, effects or externalities, the public authorities in one state would have the tools to exert stronger pressure on producers in other states to adhere with the sustainability perception held in the home state of the contracting authority. The situation becomes particularly problematic when the pressure comes from authorities of developed countries with a modern sustainability agenda but with a bad historical track record. Although not directly regulating sustainability criteria, Article V GPA still acknowledges the imbalance of power between developed and developing states as it generally offers the possibility to favor developing countries. The article thus confirms global fairness as one of the values of the agreement.

The texts on technical specifications in the GPA and the EU directives do not reveal any limit with respect to the geographical scope of effects or externalities that may be covered. The legal texts on evaluation criteria in the GPA is equally ambiguous on this point. Under Article XV.5 GPA the contracting authority shall award the contract to the most advantageous tender, or the lowest price if price is the sole criterion. The concept 'most advantageous' does not give much guidance as to whether the reduction of environmental harm out-of-state may be taken into account; either for environmental, social or moral reasons.

Under EU directives, in turn, the contracting authority shall choose the economically most advantageous tender from the point of view of the contracting authority.[1552] This could be read to indicate that the criteria must at least indirectly add economic value from an in-state point of view. As previously explained, the economic advantage is interpreted quite broadly, as it captures also environmental externalities. However, it would require an even broader reading of the legal text to accept reduction of out-of-state environmentally harmful effects or externalities as adding economic value to the society of the home state of the contracting authority. The added value from the perspective of the home state of the authority would relate to a moral objective and could be expressed in terms of utility. There would arguably be no contribution to economic welfare of that state. In other words, it is highly disputable as to whether tackling out-of-state effects or externalities would actually increase the economic value of a bid from the point of view of a public authority. It is interesting to note that it is the wording of the EU directives that express most doubt with respect to tackling extraterritorial effects, given that the global fairness argument should be stronger under the GPA.

Could the approach to extraterritoriality then be different for technical specifications and for award criteria? If extraterritorial criteria cannot be adopted as award criteria, it would seem illogical to accept them as technical specifications. Reversely, if extraterritorial criteria may be adopted as technical specifications, they should likely

[1552] Art. 67, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65; Art. 82(2), Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC, OJ L 94, 28.3.2014, 243. A different wording can be found in Art. 41(1), Directive 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts, OJ L 94, 28.3.2014, 1. Under that provision the award criteria must be designed to identify the "overall economic advantage for the contracting authority or the contracting entity."

also be legal as award criteria. There is an argument in favor of internal procurement law coherence. Namely, technical specifications are more absolute requirements than award criteria and it would be illogical if pushing for extraterritoriality would only be possible with more absolute requirements.

6.3.5.2. The Arguments for Extraterritorial Procurement Criteria

As is evident from the above discussion, there exist some doubts as to whether public authorities may target even extraterritorial effects. However, McCrudden appears to argue that a state could justify its measures with the protection of life and health of humans, animals and plants on foreign territory.[1553] It may be that the GPA does not prohibit measures with an extraterritorial scope as long as the criteria are related to the contract.[1554] This would extend legitimate objectives of the criteria beyond the cross-border effects on environment and health.

There are strong arguments as to why an authority may target pure out-of-state effects and value the externalities at their value for the global community. Take the example of a contracting authority that under evaluation criteria awards points directly in proportion to either emission levels or externality costs. The authority has decided to take into account the environmental effects of PPMs in evaluation criteria. However, if it restricts the evaluation to effects that reach its local territory, it would create more favorable bidding conditions for bidders with production far away in other countries. Out-of-state producers would be rewarded as they could often be assigned zero or at least low emissions or externality costs from production. A similar dilemma would emerge when the contracting authority decides to require as a technical specification that a certain PPM is used, but the effects of less sustainable PPMs used out-of-state have no or only minimal cross-border environmental effects. A de minimis test would bar the authority from applying the PPM-criteria to out-of-state production. These forms of reverse discrimination could be problematic in light of the strict equal treatment principle in procurement law.

A complete rejection of the possibility to take into account out-of-state effects would create tensions with the principle of equal treatment due to the reverse discrimination

[1553] Christopher McCrudden, *Buying Social Justice: Equality, Government Procurement and Legal Change* (OUP 2007) 493.
[1554] *See* Sue Arrowsmith, 'Application of the EC Treaty and Directives to Horizontal Policies: A Critical Review', in Sue Arrowsmith and Peter Kunzlik (eds.), *Social and Environmental Policies in EC Procurement Law– New Directives and New Directions* (CUP 2009) 175-182.

that would arise when bids are scored on the basis of the level of emissions or externality costs. In case a public authority cannot, and hence does not, take into account the global effects, it would mean that out-of-state companies with poor environmental performance would be awarded a competitive advantage. Such an outcome could be argued to contradict fair competition on the global market. Hence, authorities might very well have the right to implement criteria that target also pure out-of-state effects. The principle of equal treatment does not apply under trade law and the status of reverse discrimination is contested.[1555] Therefore, it would in principle be possible to argue for a more permissive approach to extraterritoriality under procurement law.

Yet another example can be offered. The contracting authority might award points to bidders that use a specific PPM. In some circumstances the use of that sustainable PPM out-of-state instead of less sustainable PPMs could have significant environmental benefits in the state of production but only minimal benefits for the home state of the contracting authority. Not awarding bidders with out-of-state sustainable production any points for the use of the preferred PPM would clearly be discriminatory and illegal. This would further support the argument that out-of-state environmental effects may be considered in the design of PPM-criteria.

Furthermore, there may also exist a practical reason for allowing contracting authorities to tackle out-of-state effects. Namely, a narrow approach to the geographical scope of included externalities will face difficulties of practical implementation in evaluation criteria. The value of externalities is subjective, and it may therefore be hard to determine whether an authority has exceeded its competence in this respect. For example, the contracting authority might award points for the adopted PPM or related emission levels and give this element a significant weight. The intention of the contracting authority might well be to not only enhance the internalization of the environmental externalities of cross-border pollution, but also to indirectly address out-of-state environmental effects for either moral reasons or extraterritorial environmental reasons. The contracting authority might still claim that the criteria are designed to address only in-state externalities and it will often be difficult to prove the contrary. It

[1555] Elisa Ambrosini, 'Reverse Discrimination in EU Law: An Internal Market Perspective', in Lucia Serena Rossi and Federico Casolari (eds.), *The Principle of Equality in EU Law* (Springer 2017) 255; Dominik Hanf, ''Reverse Discrimination' in EU Law: Constitutional Aberration, Constitutional Necessity, or Judicial Choice?' (2011) 18 Maastricht J. European and Comparative L. 29.

would arguably be more transparent if the contracting authority could openly show how it has taken into account out-of-state effects in its design of PPM-criteria.

There are good reasons to believe that authorities may extend PPM-criteria also to out-of-state production so that they address out-of-state effects with no environmental or social cross-border impact. At the same time, it should be recalled that whereas the legal texts of technical specification and the GPA text on evaluation criteria are silent on the issue, the text on evaluation criteria in EU directives would not appear favorable to criteria targeting out-of-state effects. Would there exist some room for the interpretation that the text of the EU directives on award criteria allows for the inclusion of the purely out-of-state share of the effects in the evaluation?

In accordance with EU directives the economically most advantageous bid from the point of view of the public authority should be chosen. It could be argued that the wording of the EU directives should be given a broad meaning. That is in fact what has already happened. Namely, a narrow reading of economic advantage from the perspective of the contracting authority would lead to the conclusion that authorities could, for example, not award points for the taste of food. Taste is a subjective experience that increases utility but that does not have economic value in the strict sense. Clearly such a narrow reading has not been intended by the legislator and taste criteria for food have regularly been applied. Instead, 'economic advantage' should likely be understood as anything that consumers find value in, including factors that increase utility but not economic welfare in a strict sense. This also gains support from *Max Havelaar*,[1556] where the ECJ did not seem to pay attention to the fact that the fair trade label that the contracting authority referred to in its tender included criteria on out-of-state governance structures and compensation received by farmers out-of-state. Such factors might add utility but not economic value in the strict sense for the contracting authority. In future cases the ECJ will hopefully confirm the broad interpretation of 'economic advantage' more explicitly.

All in all, when legal texts are ambiguous, key principles, such as equal treatment, might guide the interpretation. Reading EU directives in light of this principle leads to the conclusion that public authorities shall apply the same technical specifications on out-of-state producers even when there are no cross-border effects. Equally, authorities

[1556] Case C-368/10 *Commission v Netherlands (Max Havelaar)*, ECLI:EU:C:2012:284.

may in award criteria take into account the full out-of-state effects and are not restrained to calculate only cross-border effects. There are no strong reasons to believe that the GPA could not be interpreted similarly. The provisions of the international procurement agreement are silent on the question of extraterritoriality. Hence, opposing interests, values and principles have to be reconciled. In WTO law the value of global fairness would support the rejection of criteria that tackle pure out-of-state effects either on environmental or moral grounds. However, the value of global fairness must be reconciled with sustainability interests such as environmental protection, the internal coherence of public procurement law, as well as equal treatment and fair competition.

6.3.6. Lessons from the Case of Social Sustainability Criteria

6.3.6.1. Working Conditions and EU Public Procurement Law

The legal status of certain social sustainability criteria in general and criteria on terms and conditions of doing work in particular, may shed additional light on the strength of the competing arguments in relation to extraterritoriality and the geographical scope of effects that may be addressed with PPM-criteria. In order to avoid confusion, it should at the outset be emphasized that the test of extraterritoriality may be relevant in a variety of legal contexts relating to criteria on working conditions. For example, the EU directive on posted workers[1557] has been adopted to address cases where a foreign bidder intends to send its workers to the Member State of the public authority to carry out work or provide the service. The directive specifies what provisions on working terms and conditions may be applied under such circumstances. These types of cases have been interpreted by the ECJ in the context of public procurement.[1558] The situation is, however, different when the social criteria apply to work that is carried out by the workers of the foreign bidder on foreign territory. The principles applicable to this situation must in turn be found in WTO Agreements, the EU procurement directives and the TFEU.

[1557] Directive 96/71/EC of the European Parliament and of the Council of 16 December 1996 concerning the posting of workers in the framework of the provision of services, OJ L18, 21.1.1994, 1.

[1558] For interpretation of the directive *see* Case C-341/05 *Laval un Partneri Ltd v. Svenska Byggnadsarbetareförbundet and Others* [2007] ECR I-11767; Case C-346/06 *Dirk Rüffert, in his capacity as liquidator of the assets of Objekt und Bauregie GmbH & Co. KG v. Land Niedersachsen* [2008] ECR I-1989. On the scope of application of national labor legislation on temporary foreign workers *see* also Case C-113/89 *Rush Portuguesa Ld v. Office national d'immigration* [1990] ECR I-1417, para. 18.

The EU Commission has argued that compliance with ILO provisions would be suitable as contract performance conditions.[1559] It has also emphasized that these criteria could be applied even for subcontractors.[1560] Despite these statements on working conditions criteria, the Commission does not explicitly take any stance on whether the public authority could apply criteria on working conditions that go beyond the obligations that are already applicable under the law applied in the state of production (manufacture). It, however, does note, that criteria on working conditions in supply contracts (i.e. procurement of goods) may be more problematic than in service or works contracts because the criteria in supply contracts would normally affect activities within the territory of another state and could in the view of the Commission be regarded as discriminatory or unjustifiable restrictions on trade.[1561] This would suggest that the Commission is rather hesitant to accept working conditions criteria with extraterritorial scope. However, in the same document the Commission also states that criteria on wages and labor conditions as well as child labor restrictions would be particularly relevant in trade with countries outside the EU.[1562] This in turn would suggest that criteria may target pure out-of-state social effects.

The EU public procurement directive requires that bidders that utilize child labor are excluded from the competition.[1563] This provision would apply to any foreign bidder regardless of whether the use of child labor would take place in the country of the authority, another Member State or any non-EU country. This confirms that some criteria on working conditions abroad may be justifiable. However, it does not provide any definite answer to the question of extraterritoriality, as the provision could in principle have been included as a case where that type of condition may exceptionally be applied.[1564]

[1559] Buying Social – A Guide to Taking Account of Social Considerations in Public Procurement (European Commission 2010) 44-45. *See* also recital 98, Art. 18(2) and Annex X, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65.
[1560] Buying Social – A Guide to Taking Account of Social Considerations in Public Procurement (European Commission 2010) 47-48.
[1561] *Id.* 45.
[1562] *Id.* 47.
[1563] *See* Art. 57, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65.
[1564] Cf. interpretation of the relationship between the different grounds of justification in Article XX GATT. *See* section 6.2.2.1.

6.3.6.2. The Objectives of Criteria on Working Terms and Conditions

Howse and Regan argue that most labor provisions are redistributive and unlike environmental PPM-criteria do not tackle externalities.[1565] This argument seems controversial as such because labor conditions could mitigate social harm and problems in the state where the work takes place. But would it have any relevance for externalities in the regulating state?

A public authority might decide to require that also work conducted out-of-state must comply with the labor laws in force in the home state of the purchasing authority. What effects would such procurement provisions address? In comparison to environmental effects and externalities, social effects and externalities often have less of a cross-border character. For example, human rights violations or poor working conditions in one state may cause social problems within that state. These in-state social problems, however, will often not have any effects on other states. By extending the application of criteria on working conditions to work conducted out-of-state, the public authority will likely not create any additional benefit for the social conditions in its home state. The application of the criteria on working conditions out-of-state will likely only have out-of-state effects in terms of improved social conditions. The question on whether targeting pure out-of-state effects is compatible with procurement law or not will thus arise with respect to social criteria.

Admittedly, bad social conditions in one state may trigger migration. There are, however, other laws that restrict migration. Moreover, there is even uncertainty as to whether the effect of legal migration would be positive or negative on other states. Thus, negative social effects and externalities may be regarded as primarily local and negative cross-border effects of out-of-state working conditions would likely be minimal.

In case it is legal for authorities to include social criteria on working conditions in other states, then it would suggest that criteria can be implemented to address very minimal cross-border effects and probably even purely out-of-state effects. There would be no obligation to assess only the costs that would be borne by the in-state society as externalities could in that case be estimated to their full global value.

[1565] Robert Howse and Donald Regan, 'The Product/Process Distinction – An Illusory Basis for Disciplining 'Unilateralism' in Trade Policy' (2000) 11 European J. International L. 249, 283-284.

Adopting criteria on working conditions that apply also to work conducted out-of-state could potentially rely on an objective to address either in-state moral concerns or purely out-of-state social externalities. Hence, in case criteria on out-of-state working conditions are compatible with procurement law, it would likely mean that it is either justifiable to address out-of-state social externalities or to target out-of-state social effects because such measure contributes to in-state utility. An authority that applies criteria on environmental or labor standards may argue that while such standards protect public health and certain moral values on foreign territory where work would be carried out, those same standards also guarantee that the authority does not import goods that have been produced with methods that the domestic population consider immoral and that results in utility loss. Domestic taxpayers have an interest not to contribute to such immoral activities and even if the criteria have extraterritorial effects it could be argued that there is also a domestic interest protected.

It was previously argued that the theory of protecting against out-of-state effects for reasons relating to out-of-state environmental or social externalities might be difficult to square with the wording on award criteria in EU directives. The theory on morals and utility could from this perspective have more force. There would, however, exist a significant limitation to the application of the moral justification theory. Namely, it might well be that the international community does not view the question of, for example, minimum wages as a moral question. Other labor questions, such as a ban on child labor and forced labor would in turn clearly be moral questions.

6.3.6.3. ECJ Case Law on Monetary Compensation for Work Abroad

ECJ case law confirms that criteria on the level of pay, compensation for work as well as other working conditions could be applied as award criteria. These cases provide further insight into the geographical scope of legal criteria.

In *Max Havelaar* the Dutch authority had introduced the requirement of a fair trade label for ingredients in coffee machines, such as milk, sugar and cocoa. The label was granted if the importer had long-term contracts with small developing country farmer organizations with a democratic governance structure provided that the farmers received an adequate level of compensation for the products, or in other words for the fruits of their labor. Many ingredients had to be imported as they are not grown in the Netherlands. The criteria on fair trade and a certain level of compensation for farmers

were consequently relevant for the levels of pay to farmers in other countries than the Netherlands. Yet, the ECJ did not seem to discuss or condemn this element of extraterritoriality at any point in the judgment.[1566] The use of the labels in the award criteria in that case was prohibited primarily because of other reasons, such as the fact that the public authority had not in the call published the requirements included in the labels.[1567] On the one hand, the ruling in *Max Havelaar* could be read to support to the view that criteria targeting purely out-of-state effects may as a matter of principle be justifiable. On the other hand, it may well be that the ECJ never saw a reason to reflect on extraterritoriality because the criteria did not comply with procurement law for other reasons.

Parallels can be drawn with *Bundesdruckerei*, which was a case that concerned the decision by German authorities to require that bidders committed to pay workers in Poland a level of pay that corresponded with German minimum wage legislation. The wage requirement was a minimum requirement applicable to bids and thus not an award criterion. The ECJ applied free movement law to the case and stated that a requirement on minimum wages could in principle advance the legitimate objective of protecting against social dumping.[1568] In the end it, however, struck down the requirement because the required level of pay did not relate to the costs of living out-of-state and was therefore disproportionally high.[1569] Of interest here is again that the Court opted in its analysis not to explicitly refer to the extraterritorial nature of the requirement. Although the proportionality review introduced a limit to the application of extraterritorial criteria in the case, the ECJ did not outright and categorically reject the implementation of criteria that address extraterritorial externalities or in-state utility loss stemming from moral views.

There are many questions surrounding *Max Havelaar* and *Bundesdruckerei*. In principle, the ECJ might not have applied an extraterritoriality test because it found the criteria illegal for other reasons. Yet, it should be recalled that there would be valid reasons for rejecting the extraterritoriality test in EU public procurement law. The fact that the ECJ in both cases did not apply any extraterritoriality test could be read to suggest that no such test applies. It should be emphasized that as the ECJ applied free

[1566] Case C-368/10 *Commission v Netherlands (Max Havelaar)*, ECLI:EU:C:2012:284, paras 80-97.
[1567] *Id*., paras 93-97.
[1568] Case C-549/13 *Bundesdruckerei GmbH v. Stadt Dortmund*, ECLI:EU:C:2014:2235, para. 31.
[1569] *Id*., paras 31-36.

movement law in *Bundesdruckerei*, the lack of extraterritoriality test might even extend to free movement law, contrary to what was suggested in section 6.2. Alternatively, since the case concerned public procurement, it could be that public procurement enjoys an exemption under free movement law with respect to the application of an extraterritoriality test. The issue of coherence between procurement law and trade law will be examined more in detail below.

All in all, although the ECJ has not explicitly addressed the issue, the case law on working conditions criteria in public procurement would appear to at least support the idea of PPM-criteria with a far-reaching extraterritorial dimension. Curiously, the decisions by the ECJ not to apply any extraterritoriality test or de minimis threshold in *Max Havelaar* and *Bundesdruckerei* can perhaps not be explained simply with reference to the requirement of equal treatment. For example, *Bundesdruckerei* concerned the act of extending national minimum wage laws to out-of-state production. There may not exist any strong equal treatment argument for such criteria because the minimum wage applicable to in-state production stemmed from national law and was thus not for in-state producers a criterion developed by the contracting authority. Moreover, low labor costs are a legitimate competitive advantage.

There are other reasons why the ECJ rulings appear to reflect the view that contracting authorities can address pure out-of-state social effects. First, if reconciling equal treatment with other values results in the rejection of a de minimis test in some public procurement cases, that rejection of extraterritoriality tests is in the name of coherence merely extended to all public procurement cases. Secondly, it may be that other values, such as pragmatism, strengthen the argument for a rejection of a de minimis test in the context of procurement cases.

6.3.6.4. Out-of-State Externalities Versus Utility Loss from Moral Concerns

It is unclear whether the justifiability of the extraterritorial dimension of measures in public procurement should rely on moral aspects or on social (and in other cases environmental) externalities purely out-of-state. It may be recalled that the EU directives require that award criteria add value from the perspective of the contracting authority. It would seem difficult to square with the text of the directives the argument that contracting authorities have the right to tackle out-of-state externalities for social or environmental reasons since it would likely not add any such value from the

perspective of the contracting authority. Instead, the added value could be the increased utility in the home state of the contracting authority. This way the theory on moral objectives as legitimate grounds for tackling out-of-state environmental effects could be reconciled with the legal text. In other words, like WTO law in *EC – Seals*, also EU law might find itself advancing the theory on morality and utility.

In *Max Havelaar* the ECJ found that requirements of fair trade could in principle be incorporated in award criteria. Fair trade might be viewed as a moral question. Hence, the case for the compatibility with EU law of fair trade criteria could in *Max Havelaar* have relied on the theory on morality and utility. This line of reasoning would allow for the approach in *Max Havelaar* to be reconciled with the wording of the directive on award criteria. Furthermore, the approach giving relevance to moral concerns would award the public authority a high degree of freedom. It is difficult to show that utility loss from out-of-state immoral activities has been disproportionally weighted and therefore, if the approach is adopted, public authorities could in practice award moral concerns a fairly high weight. A more crucial limitation to this approach would however be that the moral concerns referred to would need to be internationally recognized genuine moral concerns.

Bundesdruckerei concerned criteria on minimum wages. In other ords, it was a case on working conditions and the objective of avoiding social dumping. The Court could in principle have stated that there was no genuine risk of social dumping that would have socially harmful consequences burdening the German moral beliefs and reducing their utility. It, however, did at least not explicitly link social dumping to the protection of public morals. The level of wages might not necessarily be a moral question. The fact that the Court went on to consider the proportionality of the criteria could imply that it viewed social dumping as a justifiable objective on the basis of the theory of tackling out-of-state social externalities.

The criteria in *Bundesdruckerei* were implemented as technical specifications and not as award criteria. Hence, the permissibility of the criteria was not directly constrained by the wording of the article on award criteria. That being said, it would appear problematic for the internal coherence of EU public procurement law if absolute requirements in the form of technical specification could be justified with reference to purely out-of-state social or environmental externalities, but similar criteria could not be implemented as award criteria. Consequently, there would be room for the argument

that the possibility to incorporate extraterritorial criteria either as technical specifications or award criteria should rely on the same theory or theories. On the one hand, given the text of the EU directive on award criteria, reliance on the theory on morality and utility benefits in the state of the purchasing authority would appear more natural. On the other hand, public authorities addressing in-state externalities should extend the criteria to production out-of-state when necessary to ensure equal treatment even if the criteria would be unrelated to moral concerns. It would be important for the Court to clarify its position on this point.

Even if no extraterritoriality test would apply, the criteria still need to survive the proportionality review. As explained above, in *Bundesdruckerei* the ECJ examined the trade law proportionality of a requirement that also those employees of the winning bidder who do not work in the state of the contracting authority are paid at least a salary corresponding to the minimum wage in the home state of the contracting authority. The ECJ stated that a requirement on minimum wages could in principle advance the legitimate objective of protecting against social dumping.[1570] The requirement of payment of German minimum wages in Poland was disproportionate because the costs of living are lower in Poland.[1571] While the conclusion as such is reasonable, it still remains unclear how exactly the Court arrived at it. The Court perhaps viewed tackling pure out-of-state externalities in Poland as a valid objective without any need to consider the effects on German in-state utility. The Court's reasoning could then be understood to mean that although social dumping as a phenomenon may cause externalities in Poland, the minimum wage requirement went beyond what was necessary for tackling any potential externalities in Poland stemming from low wages.

The decision in *Bundesdruckerei* does not necessarily mean that all social sustainability criteria that address out-of-state social effects would be problematic. Admittedly, in *Max Havelaar* the ECJ also found that reference to a fair trade label in the award criteria was not in accordance with the EU procurement directive applicable at that time.[1572] Yet, the ECJ did not exclude the possibility that it could had found the fair trade criteria proportional had the Dutch authority only specified in the call the individual criteria that had to be fulfilled. Hence, while criteria on minimum wages out-of-state will face

[1570] Case C-549/13 *Bundesdruckerei GmbH v. Stadt Dortmund*, ECLI:EU:C:2014:2235, para. 31.
[1571] *Id.* para. 34.
[1572] *See* Case C-368/10 *Commission v. Netherlands* (*Max Havelaar*), ECLI:EU:C:2012:284.

difficulties under the proportionality review, it may well be that more generally social and environmental PPM-criteria applicable to both in-state and out-of-state production could survive the proportionality review.

All in all, there are good arguments for accepting PPM-criteria in public procurement that address pure out-of-state effects. Whether this relies on a theory of moral concerns and utility protection or on the recognition of a right to address extraterritorial social or environmental effects for social and environmental reasons is to some extent a theoretical discussion. Under either approach PPM-criteria would need to be integrated through verifiable and objectively quantifiable criteria, such as criteria on emission levels.

6.3.7. Coherence within Economic Law?

6.3.7.1. The Prospects of Incoherence

There are strong links between trade law and procurement law. Diverging approaches in the two fields of law would risk creating tensions, as states would have incentives to use public procurement to exert extraterritorial objectives that would not be possible through other governmental programs or measures. There is in other words some value in coherence between procurement law and trade law. This creates expectations that extraterritoriality would be approached in a similar fashion in both fields of law.

It may be recalled that under trade law global environmental effects that have at least more than minimal cross-border implications have generally been regarded as valid grounds of justification. In contrast, purely foreign environmental effects and moral concerns can raise harsher objections. It is plausible that under trade law PPM-criteria may only be justifiable if they address a cross-border effect that exceeds a de minimis threshold.[1573] This formed a hypothesis for trade law that here is tested against a broader analysis of economic law.

The values to be reconciled are to a great extent identical in trade law and procurement law and a de minimis threshold would offer a compromise also in procurement law. However, there may exist reasons to accept measures with far-reaching extraterritorial effects in public procurement law. Namely, in procurement law it is crucial to factor in also at least the principle of impartial and equal treatment of tenders. This principle has

[1573] *See* section 6.2.

been more explicitly referred to in procurement law than global fairness. Hence, it will likely be given more weight. What follows is that the argument for a de minimis threshold will be weaker in procurement law. In public procurement law it is likely possible to justify an approach where utility loss from moral concerns, cross-border effects under a de minimis threshold and perhaps even pure out-of-state effects could be targeted.

The consequences of potential divergent approaches to extraterritoriality in trade law and procurement law will be examined in the subsequent subsections.

6.3.7.2. Extraterritoriality in the GATT and the GPA

The fact that the GATT and the GPA do not have overlapping scope offers significant room for diverging approaches. Thus, even if a de minimis threshold would apply under the GATT, rejecting a de minimis threshold under the GPA would not stand in direct conflict with the GATT. There is still some value in a uniform approach to extraterritoriality under the GATT and the GPA. That value might simply be outweighed by other considerations. It may be reasonable to treat trade law and public procurement law as separate cases under WTO law given that the values that are to be reconciled are not fully identical. Therefore, a de minimis threshold can apply under the GATT even if it would perhaps not apply under the GPA.

One path to coherence would be for the de minimis test to be rejected both in procurement law and in trade law. The idea of a de minimis threshold under the GATT has never been confirmed. It is possible that under both the GPA and the GATT measures addressing minimal or even non-existent cross-border environmental effects could be justifiable.

It may be recalled that the decision in *EC – Seals* on the interpretation of the GATT the AB seemed to invite the reference to moral arguments in defense of PPM-criteria.[1574] This implied a possibility to rely on public morals as a ground of justification when adopting criteria that target purely out-of-state environmental effects. In other words, PPM-criteria might be justifiable when they protect against the loss of utility that would result from knowing that immoral PPMs may have been used in the production of the goods out-of-state. Under the logic of *EC – Seals* PPM-criteria would likely not face any significant restrictions on addressing purely out-of-state environmental effects. The

[1574] *See* section 6.2.4.2.

moral argument could be applied also under the GPA. McCrudden has even argued that public authorities would have an obligation to require from bidders that human rights are respected also in countries of manufacture.[1575]

There has been one case that related to morals and the GPA. In 1997 the EU together with Japan decided to challenge Massachusetts' Burma Law, which in practice hindered companies doing business in Burma from receiving a public contract.[1576] The law laid out that bids from such companies would be successful only if they were significantly more advantageous. The law was challenged by the EU despite opposition from both the European Parliament[1577] and EU trade unions.[1578] The Burma Law targeted human rights conditions far away from Massachusetts. It is difficult to identify any social externalities of the Massachusetts society that would be reduced. The law appears to have been adopted on moral grounds. Massachusetts in other words seemed to have thought it justifiable either to tackle purely foreign social effects or at least to tackle out-of-state activity due to the loss of in-state utility. Unfortunately, no decision on the compatibility of the law with the GPA was ever issued as the law was repealed after a finding that it did not comply with the U.S. Constitution.[1579]

Was the challenge by the EU then a sign that it found it incompatible with the GPA to adopt criteria with a moral objective? Not necessarily. The concerns of the EU in the case of the Burma Law might have related more to the specific design of the law. For example, it is submitted here that it may have been problematic that the law penalized all companies present in Burma regardless of whether they were in any way, directly or indirectly, involved in human rights abuses.

There are currently no cases on the relevance of the moral argument in the context of PPM-criteria under the GPA. It would seem likely that it would as far as possible be approached in a similar way as under the GATT. It may be recalled that it was previously in the context of trade law argued that the moral argument as a defense for

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[1575] Christopher McCrudden, *Buying Social Justice: Equality, Government Procurement and Legal Change* (OUP 2007) 90-91.
[1576] US – Measures Affecting Government Procurement, DS88, Request for Consultations by the European Communities, 20 June 1997. *See* also US – Measures Affecting Government Procurement, DS95, Request for Consultations by Japan, 18 July 1997.
[1577] Minutes of Proceedings of the Sitting of 12 June 1997, OJ C/200, 30 June 1997, 174-175.
[1578] 'EU Accused of Condoning "Pariah" Burma with WTO Action', L'Agence France-Presse (21 September 1998).
[1579] Crosby v. National Foreign Trade Council, 530 U.S. 363, 374 (2000); Christopher McCrudden, *Buying Social Justice: Equality, Government Procurement and Legal Change* (OUP 2007) 295-296.

PPM-criteria will survive the proportionality review only if labelling does not form a reasonable alternative that ensures the same level of protection.[1580] In the context of public procurement, sustainability criteria with extraterritorial effects would represent the only alternative to reflect consumer (moral) preferences. In contrast, in trade among private parties the moral choice related to the out-of-state environmental harm could potentially be left with the individual consumer on the market. Instead of prohibitive legislation it could perhaps be sufficient to require clear labelling, although *EC – Seals* was not clear on whether or not such a view should be adopted. Be that as it may, the difference between public procurement and other public measures could justify a state of affairs in which the public authority in practice can go a bit further with extraterritorial criteria in procurement decisions than the regulator perhaps may under trade law.

6.3.7.3. Exemptions to EU Free Movement Law?

In ECJ case law on social sustainability criteria in public procurement the court has not forcefully condemned extraterritoriality. This appears highly favorable for ambitions to tackle out-of-state effects. The complex value reconciliation that takes place under public procurement law appears to have led to the rejection of extraterritoriality tests under EU procurement law.

In the EU all public procurement laws and decisions fall under the scope of EU free movement law. This means that public procurement law may only allow for extraterritoriality to the degree that it is accepted under EU free movement law. A more favorable approach to extraterritorial criteria in the procurement context could survive free movement law only if a specific exemption would be introduced under free movement law. There are thus two potential explanations to why it is possible that no extraterritoriality test applies to procurement decisions in the EU. One possibility is that an exemption applies under free movement law for public procurement and the other possibility is that under EU free movement law no de minimis test or other extraterritoriality test applies.

Introducing exemptions to EU free movement law is bound to be controversial. Hence, the rejection of extraterritoriality in procurement law will create pressure to adopt a more favorable view on measures that tackle purely out-of-state effects also under EU

[1580] *See* section 6.2.4.2.

free movement law. Indeed, there is much uncertainty with respect to extraterritoriality under EU free movement law. Like in the case of GATT, the theory on a de minmis test in EU free movement law has never been confirmed. It is plausible that no extraterritoriality tests would apply in EU economic law generally and that coherence between trade and procurement law prevails. Rejecting de minimis tests in EU law would of course become problematic in case GATT would be interpreted to include a de minimis test, since it would result in a situation where a trade restriction is prohibited under GATT, at the same time as it would have been interpreted as a legal trade restriction between EU Member States under EU law. Hence, even from the perspective of EU law it would be important for clarification on WTO law.

Although the application of a de minimis threshold in EU free movement law is uncertain, it was still argued previously in this book that it would represent a good compromise after reconciling all relevant values in EU free movement law.[1581] At the same time, adding equal treatment to the equation would support the conclusion that no de minimis threshold or extraterritoriality test would apply in a public procurement context. Tackling pure out-of-state effects may be justifiable with reference to the protection of moral values and related utility or perhaps even with reference to the protection of out-of-state social and environmental externalities. A divergence in approach to extraterritoriality for cases on public procurement would necessitate an exemption from EU free movement law. Hence, an exemption for the extraterritoriality test might potentially apply to public procurement under EU free movement law.

Exemptions for public procurement cases under EU free movement law could be limited to the extraterritoriality test. However, it should be recalled that several scholars have argued for a more general exemption under EU free movement law for public procurement decisions on 'what to buy'. Criteria on PPMs could potentially fall under the scope of 'excluded buying decisions'. It was, however, submitted earlier in this book that the idea of such general exemption should be viewed with caution.[1582] And even if there would exist a general exemption for decisions by procuring authorities on 'what to buy' because the authorities act as market participant, it should still on its own not to lead to the conclusion that extraterritorial criteria are legal. Namely, it can be

[1581] *See* sections 6.2.2.4. and 6.2.6.
[1582] *See* section 2.3.4.

argued that extraterritorial criteria have a strong regulatory element.[1583] Contracting authorities that adopt criteria with a strong extraterritorial element act more like a market regulator than as a purchaser comparable to private market participants. Extraterritorial criteria do not serve the purpose of adding economic value sensu stricto for the authority. Instead, they establish requirements that are more of a value choice reflecting a moral view. The element of value choice could be regarded to increase the regulatory, as oppose to the market participant, nature of adopting the criteria. The argument could be made that public authorities need to abstain from regulatory activities since they do not possess the same strong democratic legitimacy as the legislature. What follows from all of the above, is that any potential exemption for public procurement from a potentially applicable extraterritoriality test under free movement law could not simply rely on the idea of procuring authorities as market participants that have freedom to decide what to buy but would instead need to form a separate exemption that relies on independent principles and theory.

6.3.8. Negotiations and Public Procurement Criteria

In *US – Shrimp* the Appellate Body indicated that unjustifiable discrimination under Article XX GATT may occur when PPM-criteria have been designed without negotiations with other states.[1584] It was in the discussion on trade law argued that it was not fully evident whether the AB viewed only the fact that the U.S. had not negotiated equally with all states as constituting unjustifiable discrimination, or if the AB expected that states always negotiate with other states before adopting PPM-criteria.[1585] It was submitted that even if there should be no obligation to always negotiate before adopting PPM-criteria, such negotiations would still have political value.[1586] Considering that it was illustrated in this chapter that public procurement cases may invite measures with an extraterritorial dimension, it should be examined

[1583] This view appears to have been adopted in the U.S. Under dormant Commerce Clause market participants are exempted from the non-discrimination principle. Procuring agencies have been regarded as market participants, as opposed to market regulators. *See* sections 2.3.2.4. and 2.3.4. The status as non-regulators does generally provide agencies with more discretion. Courts have ruled that the prohibition of extraterritorial measures overrides the market participant exemption. *See* e.g. Air Transport Association of America v. City of San Francisco, 992 F. Supp. 1149 (N.D. Cal. 1998). Hence neither procurement laws nor purchasing decisions shall breach it. Extraterritorial criteria are in other words in some sense likened with regulation.
[1584] US – Import Prohibition of Certain Shrimp and Shrimp Products, DS58, AB Report, 12 Oct., 1998, paras 166-172.
[1585] *See* section 6.2.7.
[1586] *Ibid.*

what role negotiations could have in the context of designing PPM-criteria for procurement.

In public procurement, any decision of involving stakeholders must be carefully designed. According to Article X.5 GPA a contracting authority shall not seek advice for technical specifications in a specific procurement from persons with a commercial interest in the procurement if doing so would preclude competition. Yet Article III GPA allows for exemptions to Article X GPA on grounds of protection of for example public morals and public health. The GPA does not fully preclude the possibility of nconsultation even with respect to the design of specific tenders. Hence, it has been possible to allow for market consultations under EU directives.[1587] The public authority may conduct market research and can even invite potential bidders to comment draft criteria.[1588] This invitation should, however, likely be published in order to offer all potential bidders an equal opportunity. In any case, the public authority cannot freely negotiate with some of the potential bidders on what PPM-criteria a specific call should include.

In-depth stakeholder involvement in the form of negotiations on PPM-criteria in public procurement would need to relate to what type of criteria authorities should apply in procurement in general. For example, in-state and out-of-state stakeholders may be invited by the (national or local) government to discuss what PPM-criteria should be encouraged in (national or local) procurement strategies or even in procurement legislation. In sum, there is in this respect no major difference between trade law and procurement law. The pressure for inviting out-of-state stakeholders to negotiations on PPM-criteria is directed at the phase when laws and policies are prepared also when the criteria do not relate to public procurement.

[1587] Art. 40 and 41, Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, 65.
[1588] Kirsi-Maria Halonen and Johanna Sammalmaa, 'Hankintayksikön ja potentiaalisten tarjoajien välinen vuoropuhelu julkista hankintaa valmisteltaessa' (2017) 98 Defensor Legis 34.

Conclusions on Extraterritoriality

The reconciliation of free trade on the one hand and environmental protection through reducing externalities on the other hand can be made against an efficiency rationale. In previous chapters of this book it was already illustrated how the reconciliation of free trade and the elimination of externalities through environmental protection may be affected by other values. This sixth chapter built on those observations by identifying values related to extraterritoriality that may be of relevance for the value reconciliation process. Moreover, the discussion on extraterritoriality also contributed to the discussion on the nature of the efficiency theory underlying trade law.

As a starting point, it was noted that states may require that their own industry complies with strict rules on sustainable process and production methods. For example, generating energy from fossil fuels can be limited and renewables can be encouraged. The focus in this book has been on the fact that this system can be expanded to concern also imports. Consequently, the state aims to affect how the products are produced in other states. Whether the product has been produced sustainably or not may not be visible in the end product. With PPM-criteria the importing state thus adopts a measure that does not aim to protect its in-state environment from products that are environmentally hazardous when consumed. Instead, the objective is to lower pollution at home as well as abroad, depending on where production takes place.

A challenge against criteria that also tackle unsustainable production abroad may be framed as a conflict between the importing state's interest in environmental protection, on the one hand, and the exporting state's interest in free trade, on the other hand. The interest in environmental protection could either relate to the reduction of externalities or to morality and utility maximization. Several values have to be taken into consideration when reconciling the opposing interests. For example, in the EU and the U.S. the exporting state might refer to mutual trust and loyalty, whereas the importing state might refer to the interests of all residents of the union in the whole common territory. In turn, in WTO law there could in principle be more emphasis on the exporting state's interest in global fairness. Economic law in all three jurisdictions has struggled to solve the equation.

The reason for adopting PPM-criteria with an extraterritorial reach may relate to concerns that the pollution in the producing state will sooner or later also affect the environment in the importing state. Balancing all different interests and values requires

a compromise. Hence, it could for example be argued that PPM-criteria should only be justifiable in case the cross-border effect exceeds a de minimis threshold. Although that theory has gained scholarly support, it was shown in this chapter that such a limitation on valid grounds of justification may be difficult to uphold. This applies to both the GATT, where the interpretation of morality as a ground of justification in *EC – Seals* has put the relevance of any geographical limitation into question, and to EU law, where there is pressure for coherence between trade law and public procurement law. Importantly, the legal text in the TFEU and the GATT do not set out any limit on the geographical scope of the grounds of justification.

Apart from environmental protection, also moral concerns may be behind the introduction of PPM-criteria. In other words, the state adopting the PPM-criteria, and more specifically its people, may wish to eliminate the economic contribution of their own consumption to unsustainable producers. The WTO regime has been open toward the moral argument in the context of PPM-criteria. As a matter of principle, recognizing the relevance of a moral argument in defence of environmental PPM-criteria is of course of significance as it may suggest that global fairness has not been given much weight even in WTO law. However, it was submitted that environmental PPM-criteria with a moral objective could perhaps struggle to survive the proportionality review due to the option of labelling.

An analysis of public procurement decisions and public procurement law revealed that even in EU law there has in recent years been a tendency to at the very least ignore the controversial topic of extraterritoriality. In other words, also EU law appears not to establish strict limitations on measures that address purely out-of-state social or environmental effects.

What can then be said about the nature of efficiency promoted under economic law? A cohesive efficiency theory could be structured if states would be deemed to only have the right to adopt criteria addressing cross-border out-of-state environmental and social effects. Those criteria would reduce in-state externalities and efficiency could be expressed in terms of welfare. Yet, the results of this study indicate that criteria may tackle pure out-of-state social and environmental effects at least in some cirucmstances. This casted doubt on the prevelance of any cohesive and holistic efficiency theory that would cut across economic law.

The moral defence of PPM-criteria with an extraterritorial dimension has emerged in *EC – Seals*. Moreover, the defence could explain some parts of the ruling in *Max Havelaar*. However, the moral defence is problematic for a cohesive theory on efficiency under economic law. The protection of public morals may strive to increase utility. Maximizing utility is, however, clearly not the rationale that trade law is built on since even discrimination might increase utility. Utility in the context of morality could potentially form an exemption to a general theory on welfare in economic law. This exemption would, however, seem insufficient for public procurement law, where the principle of equal treatment would necessitate that criteria can address also out-of-state effects unrelated to morality.

An alternative theory for extending the geographical scope of valid sustainability objectives is available. States could have the right to address even purely out-of-state environmental and social effects because of a right to tackle those effects simply for environmental and social reasons. Without reverting back to the idea of protecting utility, it could perhaps be argued that the PPM-criteria would address externalities experienced by out-of-state people and in particular out-of-state future generations. This approach would be within the realm of welfare efficiency. However, two important points should be made. First, even under this alternative theory the justifiability of criteria on the flavor of food in public procurement still illustrates how aspects of utility cannot be escaped completely in economic law. Secondly, questions of democratic legitimacy will arise because the theory would mean that grounds of justification would expand from the protection of in-state externalities to out-of-state externalities. The importing state would essentially make the claim that it has the ability and right to correct what it regards as insufficient protection of out-of-state people and future generations. Democratic legitimacy consequently forms a value that has to be reconciled.

This sixth chapter of the book also made some contributions to comparative economic law. Legal tests on extraterritoriality in law of justification may exist in any of the three jurisdictions. There has, however, under the U.S. dormant Commerce Clause, been fairly limited debate so far. The wording of the test developed through case law would suggest that purely out-of-state effects cannot form a ground of justification. The strictest approach to extraterritoriality could be thus found in the U.S. This conclusion is not surprising in light of the fact that in the application of the dormant Commerce

Clause an extraterritoriality test has been introduced in law of prohibition. What follows from that test is that even non-discriminatory measures can be in conflict with the constitution in case they are deemed extraterritorial. It was submitted that adopting PPM-criteria to create incentives on out-of-state businesses does not as such constitute prohibited extraterritorial regulation. However, a case law analysis lead to the conclusion that laws conditioning importation on the adoption of similar laws on PPM-criteria also in the exporting state would likely be illegal. Moreover, criteria that in essence regulate also contracts between two parties that are fully out-of-state would be prohibited extraterritorial regulation because the measure would have been adopted without out-of-state representation. In other words, the U.S. appears to have integrated democratic legitimacy as a value in trade law.

Chapter 7 – Conclusions

In this book some observations were presented on the dynamics of legal tests in trade law and related branches of economic law. The objective was to provide answers to two main questions. The first question concerned the structure and design of value reconciliation tests in trade law and the potential challenges that arise in the application of the tests when examining state sustainability criteria and in particular PPM-criteria. The second question in turn related to the values that are reconciled in the process of designing and applying the different tests. The focus was in particular on whether the tests follow some form of efficiency rationale and what other values than efficiency may be given weight under the applicable value reconciliation tests.

The study explored the main research questions in the context of EU, U.S. and WTO law. Hence, the study did not only provide insight into legal tests and reconciled values, but also lay out the foundations for mutual learning. Furthermore, the analysis of value reconciliation tests in cases on PPM-criteria offered thoughts on the compatibility of such criteria with the different trade law regimes.

This final chapter of the book offers conclusions with respect to the research questions set forth in the introductory chapter of the book. With this objective in mind the various observations made in the previous chapters will be summarized in five separate sections. Each section represents a different perspective on the results of the research. As the perspectives are closely intertwined, there will inevitably be some overlap between the points made in the different sections.

7.1. Trade Law and Efficiency Theories

7.1.1. Efficiency as an Underlying Value in Law of Prohibition

Efficiency is a core value in economic law reflected in the free trade principle of non-discrimination. Discrimination and nationalism may in some cases increase utility but would on the whole decrease welfare of states. Thus, the efficiency promoted through the non-discrimination principle is that of welfare and not utility.

The scope of prima facie prohibited restrictions on trade has been shaped through the legal tests of law of prohibition. The scope might to some extent, in particular in EU free movement law, go beyond non-discrimination. The non-discrimination principle still forms the core of law of prohibition. In order to establish whether or not there is discrimination it is necessary to define like products. Discrimination occurs when like in-state and out-of-state products are treated unlike to the disadvantage of the latter. While there has been some ambiguity with respect to how the test of like products is applied in each of the three jurisdictions, the focus tends to be on whether the products are substitutes and in competition. This approach to likeness means that there is no room for discrimination through an artificial division of markets. A broad understanding of likeness ensures efficiency.

The broad interpretation of the scope of prima facie prohibited discriminatory measures also concerns other tests than the test of likeness. For example, measures that may be prima facie prohibited include not only laws and administrative praxis but also state recommendations. It was argued that even non-discriminatory labelling schemes set up by states could be prima facie prohibited if they enable in-state consumers to engage in discriminatory behavior. Although labels increase market information and thus in principle advance efficiency, they might still endanger the efficiency of free trade if they are utilized for protectionist purposes. For this reason, it is better to scrutinize such labels under law of justification. Labelling schemes for the marking of PPMs will still survive the proportionality review if properly designed.

Further, with respect to the scope of prima facie prohibited measures, it should be noted that a state decision not to act may have similar discriminatory effects as a decision to adopt a measure. EU free movement law has been applied to a failure by a state to act in a couple of cases. Yet, it is not clear how the applicability of trade law on state inaction would be approached more generally under the different jurisdictions. For

example, would the decision by a state not to restrict its industry from relying on high-pollution PPMs constitute a state measure that may be scrutinized under trade law? In case the concept of measures is interpreted not to cover inaction generally, states will be able to continue to favor their high-pollution industries by taking a passive approach to environmental protection and climate change. If law of prohibition does not capture state inaction, there will be the risk that trade law regimes cement some degree of bias against, for example, environmental protection. Leaving such inaction outside the scope of trade law would mean that trade law reinforces an idea of free trade and open competition, and not an idea of an efficient markets without externalities. In other words, the decision on whether or not to include inaction under the scope of law of prohibition has implications for what type of efficiency doctrine trade law advances. If state inaction would fall under scrutiny in trade law, and it is submitted it should, the consequence could be that a state is found to not have complied with trade law when there is overwhelming scientific evidence to support the need for action and the decision not to act works to the benefit of the in-state industry.

Finally, trade law covers only state measures and as a rule not private party action. The exclusion of private party action from the scope of trade law does reflect certain values relating to the freedom of the private sector to choose its contracting parties. Feedback will be provided by markets to private actors for their business decisions. Importantly, the rules of competition law will guard efficiency with respect to measures by private parties. Different fields of economic law complement each other.

7.1.2. Diversions from the Efficiency Rationale in Law of Prohibition

There are some exemptions to the prohibition of discriminatory state measures under the U.S. dormanr Commerce Clause. Two exemptions are particularly significant. First, states may as a rule adopt discriminatory subsidies. Secondly, states may discriminate when they act as market participants. These represent sidesteps from the traditional efficiency rationale of law of prohibition.

The exemptions give states more power to adopt measures at the expense of the free trade regime. In principle states may rely on the exemptions for the purposes of environmental protection. However, as a rule even de jure discriminatory state measures will be justifiable when the exemptions apply. Implementing de jure discrimination would benefit sustainable in-state solutions when out-of-state solutions

could achieve better environmental protection at a lower cost. The exemptions may in other words be detrimental to efficient environmental protection.

A state acts as a market participant when it does not regulate the market but engages in transactions on the market. The Supreme Court has occasionally in its application of the exemptions emphasized that the discriminatory measure taken by the state entity participating on the market addressed a market failure. It is not clear whether the market participant exemption can be evoked only if the measure addresses a market failure. There would be a stronger economic rationale behind an exemption when it is linked to the existence of market failures. At the same time, an exemption for cases of market failures would blur the line between law of prohibition and law of justification. Introducing a test on market failure to the market participant exemption would mean that values similar to those that form grounds of justification would be taken into account already in law of prohibition. Importantly, even a test on market failure would not change the fact that the market participant exemption, much like the subsidy exemption, invites states to adopt measures of de jure discriminatory when the same objective could be reached without the de jure discriminatory elements. A market failure prong to the market participant exemption would not align the exemption with an efficiency rationale.

The application of a market participant exemption has sparked some discussion on whether also state measures that create markets should be exempted from the dormant Commerce Clause. A market creation test could be of relevance for emissions trading systems (ETS) and renewable portfolio standards (RPS). Emission trading systems typically set out a quota for pollution and producers who pollute more than their share have to buy credits from those who pollute less. In turn, a renewable portfolio standard creates a quota for renewable energy and credits are awarded for generating such renewable energy that is perceived as sustainable. Retailers who sell renewable energy in excess of the quota can also sell credits to those retail companies who would otherwise not comply with their quota for renewables.

In some sense the state that introduces an ETS or a RPS creates a credit market through which it aims to create a market for more sustainably produced products. To date the U.S. Supreme Court has not had the opportunity to adopt a position on the applicability of a market creation exemption. From the perspective of efficiency, it would suffer from many of the same flaws as the market participant exemption. Courts should offer a more

detailed account of the underlying reasons when they deviate from an economic ratio in economic law. Clarifications on the reasons behind the market participation exemptions would make it possible to better assess the value of applying a market creation exemption.

Interestingly, a market creation exemption has been introduced under the WTO Agreement on Subsidies and Countervailing Measures. The situation under that agreement is, however, not fully comparable to the dormant Commerce Clause. The SCM Agreement does regrettably not include any grounds of justification. The decision to introduce a market creation exemption ensures that states are not deprived of the right to adopt subsidies that tackle externalities. At the same time a market creation exemption would of course open the door for some inefficient de jure discrimination. However, no fully satisfactory solution exists due to the design of the SCM Agreement. Seriously restricting the possibility of subsidies for renewable energy would arguably not have been any better from the perspective of efficiency.

Diversions from the efficiency rationale could also be creeping into EU free movement law. Many scholars have argued that decisions on what to buy by procuring authorities should be exempted from free movement law. As a rule, EU free movement law applies only to general and consistent administrative practice. However, in the context of public procurement it has been extended to apply also to individual tenders. Thus, the proposed exemption migh be less problematic if it applies exclusively when public authorities make decisions on single tenders. The exemption becomes more controversial if it applies even to national procurement laws or general and consistent procurement practices defining what to buy. Laws and practices might occasionally have been designed with the intent of favoring in-state products or bidders. For example, the decision might be taken in a state to direct that public authorities should buy certain products that are commonly available among in-state companies, all while products that on the market are perceived as good substitutes would not be accepted by the public authorities. Similarly, a public authority could itself decide on such a general policy if it is given the freedom to determine what to buy. Allowing states and public authorities to re-define the relevant market and what is to be considered like products would undermine the principle of non-discrimination and would create tension with the objectives of free trade and efficiency.

Exemptions to the non-discrimination principle result in diversions from the efficiency rationale. There would arguably also be a diversion from the efficiency rationale if some non-trade values would be given significance independent of the test of substitutability and competition in the application of the test on the likeness of products.

In all cases discussed above the diversion from the efficiency rationale was the result of the application of the non-discrimination principle being *narrowed down*. There have, at least in EU and U.S. trade law, been tests applied to *expand* the scope of law of justification beyond the non-discrimination principle. The prohibition of some non-discriminatory market access hinders in the EU does not stand in conflict with an efficiency rationale as states may still rely on grounds of justifications in order to address local externalities. In contrast, the expansion of law of prohibition beyond the non-discrimination principle might have created some tension with the efficiency rationale in the U.S. Under the extraterritoriality test of the dormant Commerce Clause states may not regulate conduct wholly outside their territory. The electricity sector is a peculiar market since the product – electricity – is delivered through a transmission grid. The introduction of a state ban on some PPMs in the electricity sector could potentially be seen as a measure that regulates wholly out-of-state conduct because the access of electricity generating companies to the regulating state's market would in practice, due to the inter-state grid, be conditioned on the companies also not selling electricity generated with the controversial PPM in-state. In other words, under the ban power plants that deliver electricity onto the local grid and intend to export some power to the regulating state would need to comply with the PPM-criteria for all their production. There would not exist any possibility to sell less sustainably generated electricity to customers in states that have not adopted the PPM-criteria as electricity sold to different states cannot be separated. Thus, the ban on unsustainable PPMs would control conduct wholly outside the regulating state in the sense that it would affect trade in electricity between parties that are located outside the regulating state. Due to the strict scrutiny that applies under the dormant Commerce Clause to findings of extraterritoriality, there would likely not be much room for justification even with reference to the protection against externalities. This could be seen as a conflict between the U.S. extraterritoriality test and the efficiency rationale.

7.1.3. Efficiency and Law of Justification

Under law of justification a state may put forward the case that the discriminatory measure is necessary for a legitimate objective. For example, the state may argue that the measure is necessary for the protection of public health or the environment. Pursuing the non-trade objectives that have been accepted as valid grounds of justification in trade law can as a rule reduce negative externalities. The grounds of justification can under such conditions be reconciled with an efficiency ideal.

States may adopt measures to protect the in-state environment. Whether states have the right to adopt discriminatory measures with the objective of tackling externalities experienced out-of-state is less clear. The protection against cross-border environmental effects will in any event form a valid ground of justification. There has, however, been some discussion as to whether the cross-border effects would have to exceed a de minimis threshold. Such threshold could weaken the rights of states to address in-state externalities and would be at odds with advancing efficiency.

A discriminatory state measure that advances a legitimate objective, perhaps linked to a reduction of externalities, must also be proportional to its objective. Even if the applicable proportionality test will vary between the different jurisdictions, proportionality has still generally meant that there should as a bare minimum exist no less discriminatory measure that would guarantee at least the same level of protection. Measures that are more discriminatory than necessary for the objective would be inefficient.

The reconciliation of non-discrimination and grounds of justification under the proportionality review takes into account efficiency from a broad societal perspective. For example, when states adopt a discriminatory measure, there might in principle exist some less discriminatory alternative that would ensure the same level of protection but would be unreasonably expensive or technically difficult. If the less discriminatory measure that could guarantee at least the same level of protection is unreasonable from an economic or technical perspective, the measure adopted by the state will stand. The proportionality review is not blind to administrative costs and burden. Taking into account the risk of unreasonable administrative costs ensures that states do not end up in a situation where they would be forced to settle for a less efficient alternative. There is in other words an element of cost-efficiency in the proportionality review.

The test on whether an alternative less discriminatory measure for tackling, for example, environmental problems might be technically and economically very burdensome works to the benefit of the state trying to defend its measure. In addition, the test serves societal efficiency in a broad sense. Interestingly, the objective of societal efficiency has also shaped the proportionality review in trade law to include requirements on how states design their trade restrictive measures. For example, when adopting new environmental criteria states should make the criteria clear and precise. Moreover, new criteria should be applied only after a reasonable transition period. Furthermore, companies that have been found not to comply with the criteria should be given a decision in writing, have the right to appeal and be granted due process. Transparency, transition periods and due process rights improve predictability for all companies and therefore contribute to societal efficiency.

7.1.4. Whose Estimate on Externalities?

States often adopt measures for tackling negative externalities that in their view otherwise would arise. Although such measures may have discriminatory effects, the state might have estimated that the externalities reduced with the measure carry more weight than the downsides of the measure. It may be that the state therefore views the measure suitable and necessary for a legitimate objective. However, the proportionality review sets out limits to the right of states to adopt discriminatory measures that it perceives and estimates as beneficial.

States will not be able to defend measures that can hardly find any support in international science. In turn, when there is scientific uncertainty, with respect to for example an environmental threat, states can rely on its evaluation of externalities and have more freedom to adopt measures they view necessary. It can be argued that limiting the scope of grounds of justifications to those at least supported by some international science does not restrain the right of states to tackle externalities. When there is no scientific support of, for example, environmental harm, there is no externality to tackle. In other words, the state has adopted a measure without rational grounds. The driving force may potentially have been irrational fear or hidden protectionist intent. While adopting measures to address irrational fear might increase utility, it would not increase welfare.

The requirement of some support from international – or in the case of the dormant Commerce Clause perhaps federal – science is a key element in the proportionality review as it gives it some force. The proportionality review is otherwise normally quite deferential for measures that are de facto but not de jure discriminatory. Courts rarely deny states the right to adopt de facto discriminatory measures if the measure at least to some degree advances a legitimate objective more than any alternative measure.

However, a scenario where the proportionality review may be unusually intense is when the state has adopted a ban or some other very restrictive measure while there would have existed the option of implementing a consumer information labelling scheme. Information on the market increases through the labelling of products. Labelling will thus improve efficiency. However, it should be noted that if states under trade law must label some harmful products instead of banning them, they would be unable to hinder free-riders who decide to purchase the products anyway. Labelling does not necessarily reduce genuine externalities to the extent the states are striving for. It would hence be controversial to apply an intense review even in cases where labelling schemes form an alternative.

Trade law generally allows states to tackle all negative externalities that they themselves genuinely have determined to occur. Cases where courts have appeared to limit this right have been rare and controversial. It is only exceptionally that a state objective backed by some credible – albeit perhaps disputed – international science has been rejected by courts through the application of an intense necessity review or tests with the characteristics of proportionality sensu stricto. The application of these types of tests essentially mean that the state's estimate of how much the measure would reduce the level of externalities is reassessed by the courts. The courts can through the application of these tests conclude that the measure does not advance the objective of reducing externalities despite some international evidence to the contrary. In other words, the state estimate would be replaced by a union, a federal or an international estimate. Similarly, the courts could conclude that the value of the reduction of externalities in the view of the court does not exceed the costs that stems from the effects the measure has on free trade.

It was submitted that even if an intense or strict proportionality review could be applied sometimes in special circumstances, there may even in that case exist reasons to find measures proportional when there, first of all, is some international support for the

conclusion that the measure reduces externalities and, secondly, the measure has been designed in accordance with a transparent process of identifying the genuine environmental preferences of the in-state population. The transparency of the process would enable the state to provide evidence that it has assessed that the measure reduces externalities and maximizing utility without giving way to protectionist ambitions.

On a final note, under the U.S. dormant Commerce Clause de jure discriminatory measures and exceptionally also some de facto discriminatory measures fall under the so called strict scrutiny test. Although it is not fully clear whether or not the test should be understood to have the characteristics of a test of proportionality sensu stricto, it is widely accepted that the test could enable a very strict or intense review when applied in cases of de facto discrimination. There is in particular a risk for strict scrutiny to apply to de facto discrimination when the criteria implemented by the state includes some geography-related component. For example, California's Low Carbon Fuel Standard risked being subject to strict scrutiny because the calculations of the carbon intensity of biofuels took into account transport emissions and emissions from generating the local electricity. Yet, despite its link to geographic origin, transport emissions have real implications for the environment and therefore should not be scrutinized too strictly. Equally, emissions that come from generating the electricity, which is later used in the biofuels plant, have environmental effects that states may address in order to eliminate externalities.

The increasing societal emphasis on sustainable PPMs can be expected to lead to states more frequently adopting criteria on transport emissions and other emissions closely related to geographical factors. These criteria will often work to the disadvantage of imports. Yet, they are highly important for reducing externalities and for efficiency. Thus, they ought to be justifiable even if they will weaken the objectives of trade law and fragment markets. That being said, schemes to tackle emissions that in part depend on geographical factors must still be designed with care. For example, the average emissions associated with transport or electricity on the local grid can be used as a default value when calculating the sustainability of the fuel produced at a biofuel plant, but each retailer or producer should be given the right to submit documentation proving that its fuel is actually more sustainable as a consequence of the biofuel plant running on electricity from renewables, the transport distances for the feedstock and fuel being short or the means of transport being more sustainable.

7.1.5. The Relationship Between Trade Law and Utility

The non-discrimination principle in trade law is not of such nature that it would maximize utility. Namely, protectionist measures are prohibited even if they would increase utility. The non-discrimination principle instead promotes efficiency in terms of welfare. In turn, the existence of grounds of justification can be understood to ensure that discriminatory measures comply with trade law when they are necessary for tackling externalities and thus advance welfare. The fact that public morals have been included as a valid ground of justification does not necessarily stand in conflict with this interpretation of trade law. Measures adopted to protect public morals will in many cases reduce social costs and thus also externalities.

The idea of viewing trade law in light of a theory on welfare maximization could be challenged. The grounds of justification could in principle be given value that is independent of any elimination of externalities. For example, the protection of the environment is essential for the fulfillment of the fundamental right to life. Moreover, measures for the protection of public morals might be regarded as legitimate irrespective of the effects on externalities. The value of the protection of morals could potentially lie in the increase of utility. There is to date a lot of uncertainty surrounding the approach to this theory in the different trade law regimes analyzed in this book.

The application of public morality as a ground of justification under Article XX GATT in *EC – Seals*[1589] could be interpreted to have advanced the idea that the protection of public morals covers even the protection against loss of utility. This would suggest that trade law is not purely about welfare maximization. If trade law endorses the protection against utility loss in some cases but condemns nationalistic and protectionist motives, it would advance both welfare and utility, although neither to a full degree. Welfare maximization could be the rule over which utility maximization prevails when the objective pursued by the state goes to the core of what is perceived as wrong or right by the population of the state. Under an alternative interpretation, the rule would be utility mazimization to which the non-discrimination principle forms an exemption more for reasons of political unity than for reasons of welfare maximization. This latter perception does, however, not fit well with the nature of the WTO, but could better suit

[1589] EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, AB Report, 22 May 2014.

closer unions. Either way there would not seem to exist any coherent efficiency theory underlying trade law.

In public procurement award criteria are designed for selecting the economically most advantageous bid. However, points may be awarded, for example, for the taste of food. This could imply that the objective to maximize utility instead of welfare has been accepted in the context of public procurement decisions at least to some extent. Public procurement falls under the scope of free movement law in the EU. Consequently, the idea of utility maximization creeps into free movement law perhaps a bit unexpectedly. Public authorities can still not discriminate on the basis of nationality or treat companies unequally even if that would be the desire of the people.

Finally, even if utility would be given weight in trade law, advancing it might not necessarily justify full bans. A state might not have a similar freedom to address concerns related to utility as it has to address externalities. Utility is personal for each individual. For tackling the loss of utility consumer information labelling is sufficient for cleaning the consciousness of those whose consciousness has been burdened by the consumption of the unsustainably produced goods. Naturally, people may also experience loss of utility when they see other people purchasing unsustainable goods. Other in-state consumers would in turn experience a loss of utility in case of a ban. It is conceivable that states seeking to justify their PPM-schemes with reference to the protection public morals could have a right to maximize the utility of a majority of its citizens. Labelling schemes that enable individual consumers to distance themselves from products they regard as having been produced with immoral (unsustainable) PPMs could then be insufficient from the perspective of the state and taking more dractic measure could be regarded as proportional. It would be very difficult to show that a ban would not guarantee a higher level of protection in terms of utility than a labelling scheme.

In order to avoid misconception, it should be pointed out that a ban on moral grounds can in many circumstances reduce in-state externalities. The ban would in these cases not rest on a theory of maximizing utility.

7.2. The Reconciled Values

7.2.1. Sovereignty, Unionism and Political Unity

When entering into a trade union or an international free trade agreement the states agree to give up some competence on regulating trade. The states may not discriminate unless it is necessary to achieve the targeted level of protection with respect to a legitimate objective. The non-discrimination principle at the core of law of prohibiton represents an important community interest. It is not merely about economic efficiency, but also about strengthening the economic ties between the states, interdependence and political unity.

Expanding the scope of prima facie prohibited measures also advances unionism. In particular, under EU free movement law non-discriminatory measures may be prima facie prohibited in case they create a market access hinder. While it is not entirely clear what should be understood as a prima facie prohibited non-discriminatory market access hinder, it has been submitted that it would include measures that restrict trade in some product or service to a high degree, such as for example a full ban. With a broader scope of measures running the risk of not complying with EU free movement law, it may be expected that more issues are left to be legislated on a union level. The prohibition of both discrimination and market access obstacles reflect values of unionism that are reconciled with the values reflected in the grounds of justification together with the sovereignty of the regulating state.

Under the U.S. dormant Commerce Clause non-discriminatory measures are covered when they regulate or control either conduct or commerce wholly outside the regulating state. The regulating state's competence to protect values reflected in the grounds of justification are pitted against the interests of the state in which the conduct or commercial transaction takes place. The test does not reflect unionism in the same way as the market access test under EU law. The fact that strict scrutiny applies to findings of extraterritorial regulation suggests that sovereignty of the state where the conduct takes place is valued highly.

The scope of prima facie prohibited measures under EU free movement law, the U.S. dormant Commerce Clause and WTO law does not narrow the competence of states too drastically. The regulating state has a sovereign interest to protect its territory with respect to values reflected in the grounds of justification. There are several grounds of

justifications that support the adoption of PPM-criteria and, importantly, the proportionality review has in cases of de facto discrimination generally been quite deferential. While there in the U.S. is on-going litigation on the applicability of strict scrutiny on a case of de facto discrimination,[1590] such approach is exceptional. The same applies to the application of tests with the characteristics of proportionality sensu stricto in the EU or the WTO.

7.2.2. Efficiency, Externalities and Good Governance

The dynamics and principles of trade law can generally, although not perfectly, be aligned with theories on efficiency. However, the proportionality review is not merely about reconciling non-discrimination with the interests underlying the relevant ground of justification. For example, for discriminatory PPM-criteria to survive the review they will likely need to incorporate due process rights. Companies that seek certification of compliance with the criteria should be given a decision in writing, have the right to appeal and the right to be heard.

Regulatory certainty is another interest of private market participants that may need to be respected when designing measures that will have discriminatory effects. Regulatory certainty is strengthened by allowing for a reasonable transition period between the date of adopting new PPM-criteria and the date from which onwards the new criteria apply. This will give old producers enough time to adjust. Transition periods protect prior investments and ensure that investor confidence in the state is not hampered. It should, however, be noted that there are risks with long transition periods that only apply to production plants that were in operation before the new criteria were adopted. For example, a state might decide to apply the new criteria on new facilities and grandfather old facilities. A very long grandfathering period would endanger the environmental objective of the measure. Furthermore, such an approach becomes a trade law problem when grandfathering has discriminatory effect. A careful balance must be struck between regulatory certainty, free trade and environmental protection.

Taking into account administrative costs as well as the values of due process and regulatory certainty promote efficiency from a broad societal perspective. These values introduce requirements that do not limit the right of the state to adopt measures to tackle externalities. Giving weight to administrative costs in fact increases flexibility for the

[1590] *See* Rocky Mountain Farmers Union v. Corey, case no. 17-16881 (9th Cir. 2019).

state, whereas regulatory certainty and due process shape the requirements of how a measure is designed without restricting the underlying level of protection that the state seeks to achieve. Yet, putting emphasis on due process rights and regulatory certainty might not be all about efficiency. Due process and regulatory certainty build up fair and just treatment in administrative proceedings. Moreover, they are often perceived as necessary parts of good governance. Efficiency from a broad societal perspective and other core societal values are closely intertwined.

Distinguishing efficiency values and other values is equally complex in procurement law. In public procurement non-discrimination is required, but it is insufficient. Public authorities are obliged to treat all companies equally on an individual basis and regardless of home state or origin. The principles of equal treatment and non-discrimination ensure efficiency in public procurement law through both competition and predictability. At the same time, equal treatment from state authorities may be about more than efficiency. Keeping in mind that the state is tasked with serving all members of society, the principle perhaps equally reflects a more fundamental idea of fairness.

7.2.3. Transparency

Transparency is a value that in various ways has been given relevance in trade law. It is particularly important that criteria applicable to imports are clear and precise and that they are applied in a consistent manner. In trade law these requirements of transparency have gradually through case law become part of the proportionality review. In turn, in public procurement law the transparency principle has been explicitly referred to in the legal texts. It is evident that transparency and non-discrimination complement each other well. The requirement that criteria are precise and verifiable decreases the risks of disguised discrimination.

Like with the requirements of due process and regulatory certainty, the requirement of transparency does not limit the discretion of the state on what criteria it may introduce. Instead, the requirement of transparency creates expectations on how the criteria are communicated through legislative and administrative acts.

While transparency with respect to the applicable criteria is likely required under the proportionality review, there would normally exist no requirement for states to be transparent with respect to the reasons for adopting certain criteria or for designing

them in a certain way. Transparency with respect to the reasons underlying some PPM-criteria would still mitigate suspicions that the measure is disguised protectionism and not a genuine effort to address externalities. It was submitted that a state that is transparent about how it in the process of designing PPM-criteria determined the environmental preferences of its people or estimated effects and externalities would likely be in a better position to defend such criteria even when they form an internationally unusual model and have substantial discriminatory effects.

Like due process rights and regulatory certainty, also transparency generally advances efficiency from a broad societal perspective. Moreover, also transparency is at least in part about other objectives than efficiency, including good governance. Constitutional legitimacy may be strengthened through transparency, fully separate from any economic rationale.[1591]

All in all, due process, regulatory certainty and transparency were identified as three ideals that may affect the reconciliation of free trade (non-discrimination) and environmental protection. Admittedly, so far there are only fragmented indications of these values being reconciled, and most of these elements were only identified in limited contexts, but they are there nevertheless. The reconciliation of these ideals and values in trade law will be particularly important in the wake of increasing efforts to establish PPM-criteria.

On a final note, it has been argued that through transparency the legislator may sometimes even uphold legitimacy of sidesteps from an efficiency rationale.[1592] This idea can be identified in the way in which transparency has been given weight in U.S. law. The dormant Commerce Clause has been interpreted to incorporate an exemption for discriminatory subsidies. A reason for this could be that granting a discriminatory subsidy is viewed as more transparent than implementing more complex trade restrictive norms. The reasoning appears to be that transparency with respect to how funds are directed by the state allows voters to identify how the subsidy policies affect the economy and can then decide through the act of voting in subsequent elections whther or not the state had acted in their best interest. There are at least two problems

[1591] Stefan Voigt, 'A Constitution Like Any Other? Comparing the European Constitution with Nation State Constitutions', in Thomas Eger and Hans-Bernd Schäfer (eds.), *Research Handbook on the Economics of European Union Law* (Edward Elgar 2012) 15.
[1592] *See* Louis Kaplow and Steven Shavell, *Fairness Versus Welfare* (Harvard University Press 2002) 471.

with this. First, despite subsidies perhaps being transparent, it will still be difficult for voters to identify cause and effect. Secondly, the burden of the discriminatory subsidies on out-of-state economies would seem to be ignored. The subsidy exemption invites states to circumvent the non-discrimination principle and allows them even to implement de jure discriminatory measures. Nonetheless, this goes to illustrate how much weight transparency as a value might carry in trade law.

7.2.4. Constitutionalization

The need to consider non-efficiency values described above feeds into the theory of constitutionalization of union as well as international economic law. Previous academic work on constitutionalization can be divided into two separate schools of thought. I refer to these two schools of thoughts as 'pillars'. The two pillars are not necessarily mutually supportive or linked in any significant way.

The first pillar relates to the primacy of constitutional law and the institutional design, whereas the second relates to reasonableness and fairness.[1593] More specifically, the second pillar relates to the fact that the constitution limits the powers of the state and guarantees rights to individuals both in the form of basic fundamental rights and procedural rights, such as standing in the court.[1594] The second pillar thus rests on fundamental social and societal values and on the rights of the individual. The conclusions of this the book are linked to this second pillar of constitutionalization.

Ehlermann has proclaimed that the EU has established a free market-oriented constitution.[1595] However, in previous research Spaventa has observed that EU economic law does not represent an economic constitution, but a constitution that protects also citizen rights and is thus a constitution with both economic and non-economic character.[1596] Parallells can be drawn with the argument by Maduro that the tendency of the market integration logics to infiltrate into all areas of law in the EU has

[1593] Deborah Z. Cass, 'The 'Constitutionalization' of International Trade Law: Judicial Norm Generation as the Engine of Constitutional Development in International Trade' (2001) 12 European J. International Law 39, 71; Giorgio Bongiovanni, Giovanni Sartor and Chiara Valentini (eds.), *Reasonableness and Law* (Springer 2009) (preface).
[1594] Niamh Nic Shuibhne, *The Coherence of EU Free Movement Law: Constitutional Responsibility and the Court of Justice* (OUP 2013) 12 ff; Ernst-Ulrich Petersmann, *The GATT/WTO Dispute Settlement System* (Brill 1997); Julio Baquero Cruz, *Between Competition and Free Movement – The Economic Constitutional Law of the European Community* (Hart 2002) 2-8.
[1595] Claus-Dieter Ehlermann, 'The Contribution of EC Competition Policy to the Single Market' (1992) 29 Common Market L. Rev. 257, 273.
[1596] Eleanor Spaventa, 'From Gebhard to Carpenter: Towards a (Non-)Economic European Constitution' (2004) 41 Common Market L. Rev. 743.

necessitated the strengthening of individual rights in order to preserve legitimacy.[1597] Furthermore, it is even possible that EU free movement law gives consideration to behavioral theories.[1598]

Building on the idea of strengthening rights beyond the scope of free trade and the grounds of justification, this work illustrated how due process, regulatory certainty and transparency have already in some hard cases been recognized in trade law. On the one hand, incorporating these rights into trade law strengthen in particular the position of private corporations, and not natural persons, against the state. On the other hand, in particular due process rights and regulatory certainty can be viewed as fundamental for the entrepreneur. Constitutionalized economic law in the EU – and in the U.S. and under the WTO also for that matter – could gradually develop a free market *constitution*, instead of a *free market* constitution.

Finally, it is not uncommon that constitutions rely on legal principles and tests to balance opposing interests instead of hard cut rules. The constitutional character of trade law discussed in this book is not only linked to the primacy of the law supported by institutions, or to the substance in the form of substantive and procedural rights, but also a technique evolving around principles.[1599] The free trade and non-trade dimensions of trade law and procurement law are in part established in the form of principles and tests. For example, the proportionality principle, in the form of a legal test, provides a structured effort to reconcile competing values.

7.2.5. Democratic Values

7.2.5.1. Proximity to Power and Accountability

Rodrik has claimed that there is a tension between the economically justifiable market integration and elements of political democracy.[1600] Under free trade regimes some

[1597] Miguel Poiares Maduro, *We, the Court – The European Court of Justice & the European Economic Constitution* (Hart 1998) 2.
[1598] Max S. Jansson and Harri Kalimo, 'De Minimis Meets "Market Access": Transformations in the Substance – and the Syntax – of EU Free Movement Law?' (2014) 51 Common Market Law Rev. 523, 552-554.
[1599] Deborah Z. Cass, 'The 'Constitutionalization' of International Trade Law: Judicial Norm Generation as the Engine of Constitutional Development in International Trade' (2001) 12 European J. International Law 39, 51.
[1600] Dani Rodrik, *The Globalization Paradox: Democracy and the Future of the World Economy* (W.W. Norton 2011).

state and local decisions are scrutinized on a union, federal or international level. In other words, some decision-making is indeed moved further away from the people.

It is important to keep in mind that states still retain the right to adopt decisions that may favor the in-state population as long as the measure serves a legitimate objective and is proportional in relation to that objective. The deferential approach to de facto discrimination gives states freedom to experiment in their approaches to tackle externalities. In the context of the U.S. dormant Commerce Clause this may be linked to the idea that states function as laboratories of democracy.[1601]

Furthermore, even with some potential tensions between free trade and democratic ideals, democratic values may still complement the economic rationale in trade law. For example, previous research has pointed out that the central pillar of European economic law, free movement, is a fundamental freedom guaranteeing open markets.[1602] It is, however, not a pure economic right, but a political right built on European democratic values.[1603]

As described above, weight has at least in WTO law and EU free movement law been given to due process rights. These rights ensure effective access to justice. Moreover, transparency has been given some weight in trade law. Both transparency and due process rights strengthen accountability, which is a key component of democracy. In sum, some democratic theory can be identified in trade law. It is no doubt interesting that these values can be identified even in WTO law, where democratic ideals are bound to be more contentious.

7.2.5.2. Political Representation and Discrimination

Democratic theory may form a method of interpretation in U.S. law.[1604] Political representation is one democratic principle. This principle invites the argument that no measures should be adopted burdening those without representation.

[1601] Anthony L. Moffa and Stephanie L. Safdi, 'Freedom From the Costs of Trade: A Principled Argument Against Dormant Commerce Clause Scrutiny of Goods Movement Policies' (2014) 21 N.Y.U. Environmental Law J. 344, 398.
[1602] Ernst-Joachim Mestmäcker, 'On the Legitimacy of European Law' (1994) 58 Rabels Zeitschrift für ausländisches und internationales Privatrecht 631.
[1603] Miguel Poiares Maduro, *We, the Court – The European Court of Justice & the European Economic Constitution* (Hart 1998) 168.
[1604] Mark Tushnet, 'The Possibilities of Comparative Constitutional Law' (1999) 108 The Yale Law Journal 1225, 1236-1237.

It is prima facie prohibited under the dormant Commerce Clause to adopt measures that control conduct wholly outside the state. In other words, measures that affect contracts with only out-of-state parties form prima facie prohibited extraterritorial measures that are subject to strict scrutiny. Extraterritorial measures are strictly scrutinized because they intervene in contracts between parties belonging to out-of-state groups that have no representation and voice in the legislative process of the state adopting the measure. In *North Dakota v. Heydinger*[1605] the Eight Circuit adopted the view that a ban on electricity from coal was prohibited extraterritorial regulation. It is worthy of note that while in the case of a ban on electricity from coal power the out-of-state interests were indirectly represented by in-state proponents of coal power, the measure was still declared unconstitutional.

The problem with a test on political representation in law of prohibition would be that it would not set any clear limits on discrimination. Unsurprisingly, the test has received harsh criticism and has in practice so far rarely been applied.[1606] However, the prohibition of discrimination could in principle be linked to insufficient representation. Discriminatory measures may burden both the discriminated out-of-state industries and the in-state consumers that have to pay more for the products due to protectionism. In cases of discrimination the burdened out-of-state interest is in some respect indirectly represented in the political process. Partial and indirect representation is normally insufficient and discrimininatory measures will be prima facie prohibited.

It should be recalled that the Supreme Court has carved out exemptions to the dormant Commerce Clause. For example, states may grant discriminatory subsidies. The idea is that the state representatives will be accountable for inefficient subsidy policy. This would in turn imply that the idea of in-state indirect political representation of out-of-state interests has been given some weight by the Court. All in all, framing the dormant Commerce Clause in terms of a theory on political representation does not appear to form a coherent whole.

[1605] North Dakota v. Heydinger, Cases no. 14-2156 and 14-2251 (8th Cir. 2016).
[1606] Robert Verchick, 'The Commerce Clause, Environmental Justice, and the Interstate Garbage Wars' (1997) 70 Southern California L. Rev. 1239, 1250-1266; Anthony L. Moffa and Stephanie L. Safdi, 'Freedom From the Costs of Trade: A Principled Argument Against Dormant Commerce Clause Scrutiny of Goods Movement Policies' (2014) 21 N.Y.U. Environmental Law Journal 344, 378.

7.2.5.3. Environmental Harm, Representation and Participation

Emphasis on political representation could be of relevance for the geographical scope of valid grounds of justification regardless of whether or not theories on political representation shape the scope of law of prohibition. A state that adopts measures in order to address pure out-of-state externalities will tackle externalities that do not have relevance for the health and environment of those that the state represents. Putting an emphasis on representation would mean that there would have to exist some cross-border effects or that there is a legitimate moral concern with respect to pure out-of-state effects. Hence, legitimate objectives might not include the elimination of pure out-of-state environmental effects for environmental reasons. This approach has, however, not been confirmed in any trade law regime and it remains to be seen how much emphasis will be put on representation in this context.

Representation may also be given relevance in the application of the proportionality review. States may facilitate the reconciliation of free trade and environmental protection by ensuring representation of a broad range of interests. Indeed, some discussion has emerged on the value of representation of stakeholders during the process of adopting PPM-criteria. In particular, states could participate in the discussion on affairs in other states.[1607] An unjust decision could be one where interests without representation have been affected. Scott provides as an example the neglect of foreign interests in state decisions to implement rules on PPMs.[1608]

In order to understand why representation and participation have become of particular interest in the context of PPM-criteria a few preliminary observations are necessary. First, any form of environmental criteria with discriminatory effect adopted by a state could burden out-of-state economic interests and serve in-state environmental interests. PPM-criteria are no different in this respect. Indeed, there are valid arguments for approaching PPM-criteria similarly as any other criteria that restrict trade. However, the fact that PPM-criteria restrict trade in products for reasons unrelated to the physical properties of the products have made the criteria particularly controversial. The reasons that the state has for adopting the restrictions are not found in the physical properties

[1607] Miguel Poiares Maduro, *We, the Court – The European Court of Justice & the European Economic Constitution* (Hart 1998) 168.
[1608] Joanne Scott, 'On Kith and Kane (and Crustaceans): Trade and Environment in the EU and WTO', in J. H. H. Weiler (ed.), *The EU, the WTO and the NAFTA: Towards a Common Law of International Trade* (2000) 167.

of the goods that enter its territory. There is no environmental threat coming from the international transaction of goods. Instead, the objective with the restrictions may be to reduce pollution or other effects that stem from the PPMs because the effects may cross borders. Alternatively, the restrictions may be grounded in the moral condemnation of the out-of-state PPMs. Is the extraterritorial dimension of PPM-criteria stronger in comparison with other criteria? The answer is far from obvious, but it could perhaps be argued that PPM-criteria go deeper into the core of the business model of the out-of-state producers. PPM-criteria are not only about what is produced but also about how it is produced. Another reason might be that in comparison with restrictions on the physical properties of products for environmental reasons, environmental PPM-criteria address environmental interests that are typically more indirect and less significant in the short-term.

There would not appear to exist any absolute requirement to allow out-of-state representation and participation in the design of PPM-criteria. Yet, in WTO law emphasis has been put on the value of such out-of-state participation. The expectation of negotiations with other states before adopting PPM-criteria could be viewed as a political representation test of soft law nature; or in other words a strong political encouragement. States adopting PPM-criteria will increase the legitimacy of the measure in case they involve other states in the process of designing those criteria for imports.

The recognition of the value of participation in trade law can be linked to the ideas of discursive justice and democracy by Habermas. According to Habermas political and moral legitimacy arises from a reasonable discursive process.[1609] Communication and participation are part of good governance and a fundamental element of what is often understood as democracy.[1610] Justice and democracy can be linked to a system that

[1609] Jürgen Habermas, *Between Fact and Norms* (MIT Press 1996) (translation by William Rehg) 110, 304.

[1610] Jean-Philippe Platteau, 'Behind the Market Stage Where Real Societies Exist', Part I: The Role of Public and Private Order Institutions' (1994) 30 Journal of Development Studies 533; Jean-Philippe Platteau, 'Behind the Market Stage Where Real Societies Exist, Part II: The Role of Moral Norms' (1994) 30 J. Development Studies 753; Joyeeta Gupta and Nadia Sanchez, 'Global Green Governance: Embedding the Green Economy in a Global Green and Equitable Rule of Law Polity' (2012) Review of European, Comparative & International Environmental Law 12 19; Robert Howse, 'Adjudicative Legitimacy and Treaty Interpretation in International Trade Law', in J. H. H. Weiler (ed.), *The EU, the WTO and the NAFTA: Towards a Common Law of International Trade* (2000) 42.

establishes equality of opportunity.[1611] Participation rights may serve equality by giving actors voice. Alexy has added that public discourse will provide the weights on different economic, social and environmental interests in order to achieve a reasonable balance.[1612] Participation as a societal value forms part of a reasonableness ideal that counter balances rational science,[1613] including efficiency.

Admittedly, theories on representation and discursive justice have generally been developed for democracy within states. How well do such theories then fit the relationship between states? The interests of participation are held by states and not groups of individuals within a state. The interest of the state within a community of states still bears some resemblance with the interests of people within a nation state. The community of states that makes up the WTO operates under rules of international law that can be compared with democratic principles on decision-making even if some WTO member states are not democracies. For example, the practices of a majority of states may amount to customary law even if all states do not follow the practice.[1614] Moreover, under the doctrine of Westphalian sovereignty, each state is equal no matter size and power. Sovereign states that become parties to the WTO have equal rights and voice within the international community and are expected to respect decisions that are delivered through dispute settlement. Rubini has even declared that WTO law is not merely founded on a contract but has become a community.[1615] This implies that there is some expectation of loyalty and co-operation.

7.2.6. Global Fairness

The regulating state might adopt PPM-criteria on both in-state productions and on imports. The question will arise whether those criteria may be justifiable in case out-of-state PPMs have minimal or no cross-border effects on the regulating state. The

[1611] Klaus Mathis, *Efficiency Instead of Justice* (Springer 2009) (translation by Deborah Shannon) 183-203.
[1612] Robert Alexy, 'The Reasonableness of Law', in Giorgio Bongiovanni, Giovanni Sartor and Chiara Valentini (eds.), *Reasonableness and Law* (Springer 2009) 11.
[1613] Joanne Scott, 'On Kith and Kane (and Crustaceans): Trade and Environment in the EU and WTO', in J. H. H. Weiler (ed.), *The EU, the WTO and the NAFTA: Towards a Common Law of International Trade* (2000) 148-158.
[1614] Stephen Hall, 'Researching International Law', in Mike McConville and Wing Hong Chui (eds.), *Research Methods of Law* (Edinburgh University 2007) 188-193; North Sea Continental Shelf, Germany v. Denmark and Germany v. The Netherlands [1969] ICJ Reports 3, para. 74; Permanent International Court of Justice, Advisory Committee of Jurists, Procès-verbaux of the Proceedings of the Committee (1920) 335.
[1615] Luca Rubini, 'Ain't Wasting Time No More: Subsidies for Renewable Energy, the SCM Agreement, Policy Space, and Law Reform' (2012) 15 J. International Economic Law 525, 574.

sovereign interests of the regulating state, including the interest in protecting the environment, are pitted against the general community interest in non-discrimination. This is no different from trade law cases on criteria unrelated to PPMs. However, when the environmental effects addressed through the implementation of the PPM-criteria burden the regulating state minimally or not even at all, some exporting states may present the argument that apart from the community value of non-discrimination also aspects of global fairness speak against the measure. Strict PPM-criteria that target out-of-state production and out-of-state environmental effects are problematic from the perspective of global fairness in particular when adopted by developed states that have throughout history gained an advantage on the common market by relying on unsustainable PPMs but have now developed more sustainable PPMs themselves. The strict criteria will restrict imports from less developed states that have historically not caused the same level of environmental harm by using unsustainable PPMs but could now catch up economically through international trade had developed states not decided to introduce the PPM-criteria.

Global fairness is a value closely linked to advancing social justice and restricting eco-imperialism. Global fairness should likely not be a prominent value in the EU and U.S. where the differences in level of development between states is relatively modest. In contrast, the argument for an extraterritoriality test would be stronger in the context of WTO law. Yet, in WTO law the recognition of the protection of public morals as a valid ground of justification in cases on PPM-criteria for imports might result in the justifiability of PPM-criteria with pure out-of-state environmental effects. This could in turn mean that the value of global fairness would remain rather weak even under WTO law.

Yet, the WTO cannot ignore global fairness and social justice. Reccognizing those values and taking note of the discussion on extraterritoriality and on the geographical scope of grounds of justification is crucial for the credibility of the system and for ensuring continued commitment by states to the system of international trade. This is all the more important in current times of tensions in the fields of international relations and threats of trade war between major powers. While global fairness might not have decisive impact on what is legal today, it certainly carries some political weight. States planning to adopt PPM-criteria may recognize the pressure to enter into dialogue with other states and be more open toward technology transfer. In addition, the discussion

on global fairness may spur talks in the WTO on how to better incorporate it into the legal rules on international trade.

7.2.7. Coherence

Coherence is a complex concept that has been linked to mutual supportiveness, cohesion and completeness. Coherence at least entails that the law should follow some inner logic. Contradictions within a legal system would be irrational.[1616] In other words, consistency and a lack of contradictions advance coherence. These values are important for legal certainty and arguably the legitimacy of the legal system.[1617] It must at the same time be acknowledged that there will always exist tensions and some incoherence.

The reliance on coherence as a rule of interpretation of norms usually suggests that the value has been given significant weight.[1618] Yet, regardless of whether courts rely on it as a rule of interpretation, coherence might still form a core value. Does coherence then form a value that is given some weight in trade law? Might the objective of coherence have affected the structure of trade law, the applicable tests and subsequently also the reconciliation of free trade and environmental protection?

A system that allows actors to rely on a legal rule in order to circumvent other rules is incoherent.[1619] Similarly, incoherence occurs when some rules prohibit an act, but the prohibition can be circumvented so that the same end result is achieved simply by reconstructing the originally planned act into a different form. Under the U.S. dormant Commerce Clause some incoherence has emerged with the introduction of subsidy and market participant exemptions. Namely, as a consequence of those exemptions it would appear that some discriminatory measures are constitutional when other measures are unconstitutional even if they from an economic perspective are essentially identical and

[1616] Stefano Bertea, 'Looking For Coherence Within the European Community' (2005) 11 European Law Journal 154, 156-159 and 170. *See* also Robert Cooter and Thomas Ulen, *Law and Economics* (1988) 11; Andrea Morrone, 'Constitutional Adjudication and the Principle of Reasonableness' in Giorgio Bongiovanni, Giovanni Sartor and Chiara Valentini (eds.), *Reasonableness and Law* (Springer 2009) 222-224.
[1617] Sean Coyle, *From Positivism to Idealism* (Ashgate 2007) 125; Hans Kelsen, *The Pure Theory of Law* (translated by Max Knight from *Reine, Rechtslehre*, 2nd ed. 1960) (University of California Press, 1970); Kaarlo Tuori, *Critical Legal Positivism* (Ashgate 2002) 276; Neil McCormick, 'Ethical Positivism and the Practical Force of Rules', in Tom D. Campbell and Jeffrey Goldsworthy (eds.), *Judicial Power, Democracy and Legal Positivism* (Ashgate 2000) 52-55.
[1618] Stefano Bertea, 'Looking For Coherence Within the European Community' (2005) 11 European Law Journal 154, 166.
[1619] *Id.* 162.

lead to the same outcome. The exemptions are irrational from an economic perspective and may therefore be argued to create incoherence.

Apart from the subsidy and market participant exemptions applicable under the U.S. dormant Commerce Clause, there would not appear to exist significant incoherence in trade law. Under EU free movement law discriminatory measures are prima facie prohibited regardless of whether they take the form of a law, an administrative practice or a recommendation. With respect to administrative practice there is, however, some incoherence as individual public procurement decisions, unlike other nonrecurring measures, have been scrutinized under free movement law.

Could there exist coherence even across fields of economic law? It has been argued that trade and competition law in the EU form a coherent whole.[1620] This book also offered a few observations on coherence between fields of economic law. Coherence in this context could be understood as mutual supportiveness. First, in the U.S. the market participant exemption might create incoherence within trade law, but at the same time advance the idea of competition on equal terms for both private and public market participants. Secondly, a requirement of coherence between public procurement law and legislation on subsidies lends support to the principle in public procurement law that criteria shall not be established for things that fall outside of the subject matter of the procured contract. Thirdly, the interpretation of the geographical scope of the environmental and social effects that a state may address with criteria it implements could be different under trade law and public procurement law due to the different nature of the two fields of economic law. Yet, in particular in EU law where the two fields are closely intertwined with overlapping scope, the apparent broad interpretation of the geographical scope under procurement law might influence the interpretation under trade law. The close links between the two fields of economic law could on this issue lead to convergence, coherence and uniformity. All in all, there are signs of coherence between fields of economic law and it may sometimes even be stronger than coherence within a single field of economic law.

There is certainly room for more research on coherence across fields of economic law. It was concluded in this book that the reconciliation of trade and environment has already been influenced by a number of other values. It may be explored in future

[1620] Laurence Gormley, *Prohibiting Restrictions on Trade Within the EEC* (North-Holland 1985) 233.

research whether several of the values reconciled under trade law could be relevant in competition law, investment law, intellectual property law, procurement law and legislation on subsidies. Transparency is at least a value that is given even greater weight in procurement law than in trade law.

Another aspect on coherence across fields of economic law relates to the application of similar legal tests. It was, for example, noted that the test of market creation might be applied both in U.S. trade law and in WTO law on subsidies. Previous research has analysed other tests. For example, the necessity test exists in both trade and investment law. That fact invites mutual learning between the different fields of economic law.[1621] Moreover, tests related to the definition of like products and the relevant market are applied in competition law and legislation on subsidies.[1622] This type of test also applied under trade law. While a closer comparison was not carried out in this book, the tests on likeness and relevant markets in the different fields of economic law would appear to have quite different characteristics. More in-depth analysis of the comparability of the legal tests is left for future research.

7.3. Aspects of Comparative Law

7.3.1. Similarities in Value Reconciliation Across Trade Law of Three Jurisdictions

There are many similarities between WTO law and trade law in the EU and the U.S. Importantly, the fundamental structure of trade law is the same across jurisdictions. The tests applicable under trade law may be divided into two phases. In the first phase, referred to as law of prohibition, it is determined whether or not the measure under scrutiny is prima facie prohibited. In all three jurisdictions the non-discrimination principle forms the core of law of prohibition. In turn, in the second phase it is examined whether or not a measure that is prima facie prohibited may be justifiable. This can be referred to as law of justification and entails an analysis of whether the discriminatory measure serves a legitimate objective and is proportional in relation to that objective.

The structure of trade law with law of prohibition and law of justification is beneficial for the clarity within trade law and for transparency in value reconciliation. Law of

[1621] Andrew D. Mitchell and Caroline Henckels, 'Variations of a Theme: Comparing the Concept of "Necessity" in International Investment Law and WTO Law' (2013) 14 Chicago Journal of International Law 93, 93-94.
[1622] Harri Kalimo, Filip Sedefov and Max S. Jansson, 'Market Definition as Value Reconciliation: The Case of Renewable Energy Promotion Under the WTO Agreement on Subsidies and Countervailing Measures' (2017) 17 International Environmental Agreements: Politics Law and Economics 427.

prohibition defines the scope of measures which prima facie form a threat to free trade. The forming of the tests for law of prohibition by both those drafting the provisions of trade law and the courts interpreting the texts unavoidably entails some reconciliation of values. Yet, the in casu reconciliation of values is primarily carried out in law of justification. The line between law of prohibition and law of justification risks being blurred when non-trade values that form valid grounds of justification affect the identification of prima facie prohibited discriminatory measures in law of prohibition. There is little point in reconciling the same values twice. That being said, in each of the three jurisdictions such tendencies have on rare occasions occurred in the context of difficult cases on environmental protection.

Trade and non-trade values are reconciled in trade law through a number of legal tests. It is in particular the different tests within the proportionality review that become pivotal in the reconciliation of, on the one hand, free trade and non-discrimination and, on the other hand, values underlying the grounds of justification, such as public health, environmental protection and moral values. The legal tests that are part of the proportionality review have been designed to reconcile free trade and non-trade values in accordance with a clear logic. While the proportionality review is shaped differently under EU free movement law, the U.S. dormant Commerce Clause and the GATT, they all still as a rule either explicitly or implicitly revolve around the idea that a state should choose the least discriminatory reasonably available measure that enables the state to achieve its environmental, or other legitimate, objective. It is rare that a case will be decided contrary to this idea of a value reconciliation methodology. This holds even for U.S. and WTO law, where the language will at times suggest a more holistic approach to value balancing. The core of value reconciliation is in other words similar across the jurisdictions.

In each of the three jurisdictions the proportionality review has usually not evolved into a test of proportionality sensu stricto. However, there have been isolated instances in all three jurisdictions where the judiciary has struck down measures as disproportionate despite there being room for the argument that the adopted measure strictly speaking was the least discriminatory option for achieving the targeted high level of protection. Unfortunately, the nature of any such stricter proportionality tests and the conditions under which they apply have been too ambiguous for a meaningful comparison.

Despite fundamental similarities, trade law in each of the three jurisdictions still have their own particular characteristics. A number of legal tests have only been applied as part of the proportionality review in one or two of the jurisdictions. Some of those tests would likely be endorsed in all jurisdictions should the need arise, while other tests reflect the peculiarities of the jurisdiction. A comparative analysis revealed which tests could be common for trade law across jurisdictions. In addition, the analysis of differences provided some insight into how the objective of free trade is perceived in each jurisdiction. Such insight may be important for understanding potential for future developments in trade law.

7.3.2. Lessons from Value Reconciliation in WTO Law

There has up until today only been a few cases related to PPM-criteria litigated under GATT. One reasons might be that states refrain from initiating proceedings in the WTO because disputes tend to get lengthy and expensive. Cases on PPM-criteria may still become more common in the future as the sustainability of PPMs has received increased attention in recent years among consumers and governments. To illustrate the point, after the EU adopted biofuels sustainability criteria the compatibility of those criteria with WTO law has been put into question.

Discriminatory measures, including PPM-criteria, are prima facie prohibited under GATT. Different treatment of like products resulting in less favorable market conditions for the industry of another state would constitute discrimination. In a way, the likeness test determines the relevant market. Admittedly, markets are complex and the analysis of relevant market is often challenging. Likeness is in WTO law assessed with reference to physical similarities of the products, tariff classifications, end use as well as consumer tastes and habits. These factors generally function as supporting indicators of substitutability and competition. The ECJ and the U.S. Supreme have not relied on these types of factors and have in comparison to WTO panels and appellate bodies been very minimalistic in their assessment of likeness. It is submitted that also the ECJ and U.S. courts could shed some light on how they assess likeness by introducing a similar detailed evaluation of different factors to the one that has already been applied in WTO law. The analysis could be further developed in order to establish how much substitutability is required for likeness.

Courts should also be aware of the risks of considering similarity in light of multiple factors. The language in some decisions under GATT could be read to suggest that values related to public health protection would have been reconciled already in the definition of like products. In other words, the line between law of prohibition as the phase of identifying a threat to free trade, and law of justification as a phase of reconciling the values of free trade with non-trade values, has been somewhat blurred. Generally, however, the functions of law of prohibition and law of justification have still been kept apart. That is critical as the assessment of different factors in the likeness test should not go beyond what is necessary for determining substitutability and competition between products. Giving relevance to similarities or differences that do not affect substitutability would, for example, make it possible to conclude that two products are unlike due to differences in PPMs despite the products being substitutes on the relevant market. The consequence of such narrow concept of likeness would be that less favorable treatment of out-of-state substitutes could be declared to be compatible with trade law even when the measure due to its design would be far from proportional.

Measures that are discriminatory due to differential treatment of like products may be justifiable with reference to grounds of justification. For example, prima facie prohibited discriminatory criteria for sustainable PPMs can be justified in case they advance the protection of the environment or public health. It is not clear as to whether PPM-criteria could be applied to imports with the objective to address environmental and other effects that occur fully outside the geographical territory of the state adopting the criteria. The extraterritorial dimension of PPM-criteria is particularly controversial on the global arena. Developed states that have for decades achieved economic growth through unsustainable PPMs may implement restrictions in order to cement their dominance in a global economy.

Some unsustainable PPMs can be viewed as immoral. WTO law has been receptive of the argument that the application of PPM-criteria to both in-state production and imports is necessary for the protection of public morals. Hence, environmental PPM-criteria might be justifiable even if they do not have any in-state environmental benefits to human or animal health. The broad interpretation of public morals could perhaps be explained by the respect of heterogeneous moral views across the WTO community. Yet, due to the uncertainty of the applicable approach in the other jurisdictions, it would

be too early to claim that there is some divergence between the jurisdictions. In fact, there are reasons to believe that PPM-criteria may be applied for tackling out-of-state environmental effects under EU free movement law at the very least in the context of public procurement. The approach to extraterritoriality might be similar under EU and WTO law, albeit from different reasons.

The application of the proportionality review under GATT often includes solutions that can be expected to be embraced also in the application of EU and U.S. law. For example, the review under GATT regularly includes a test on whether there is available a technically and economically reasonable less discriminatory measure that would achieve the same objective. The adopted measure would as a rule be declared disproportional in case such an alternative measure exists.

Furthermore, EU and U.S. law could follow the same approach as GATT when it comes to measures with multiple objectives. Under the proportionality review the adopted measure as a whole should be necessary for achieving a legitimate objective. In other words, measures are disproportional if they include elements that increase discrimination and do not advance the legitimate objective. In order to achieve the legitimate objective of environmental protection states might have adopted complex regulation constiting of many elements. The measures may include elements that advance also other objectives than environmental protection, such as regulatory certainty. It has under WTO law been confirmed that all elements of the measure do not need to advance the same legitimate objective. States may rely on secondary objectives to justify elements of their measures that would not enhance the primary objective.

What about instances where states adopt trade restrictions for environmental reasons in some sectors but do not apply similar restrictions in other sectors? This would constitute policy inconsistency. The WTO has quite firmly rejected any requirement of policy consistency. This approach could easily be aligned with the idea developed in the U.S. that states are laboratories of democracy that should have the flexibility to experiment with different solutions. There has also been no clear indication of the application of a policy consistency test under EU free movement law. It should, however, be noted that the test has not been rejected as firmly as under GATT.

All in all, non-discrimination lies at the core of GATT, but at the same time much flexibility is granted to states for adopting measures to protect the environment. Legal tests that have been developed under WTO law rarely reflect some unique characteristic of the system and could often be transposed to EU and U.S. trade law.

7.3.3. A Comparison with EU Law

The parallel analysis of legal tests revealed far-reaching similarities between EU and WTO law. This is true, first of all, in public procurement law. The GPA contains many of the same tests as the EU procurement directives, although rich EU case law has provided more detailed tests. The interpretation of the GPA and the future development of the agreement could no doubt in part build on the experiences of EU procurement law in the application of, for example, the verifiability test and at least to some extent the subject-matter test.

Equally, strong similarities were identified in trade law. The core dynamics of the proportionality review under GATT and EU free movement law are the same. This is hardly surprising since EU law needs to be in compliance with WTO law. Hence, for example, EU law should not develop so that it would allow for PPM-criteria prohibited under WTO law.[1623] Naturally, EU law could be stricter and not allow for the same defense of PPM-criteria as WTO law.

The fact that the EU is a closer more homogeneous free trade area has undoubtedly contributed to EU free movement law having some characteristics that differentiate it from WTO law. Unionism has been advanced by the ECJ when expanding the scope of prima facie prohibited measures even to some non-discriminatory measures that hinder market access. That being said, the energy union of the EU is still a work in progress. This is evident from the fact that states may adopt even de jure discriminatory support schemes in the electricity sector. This, in turn, deters challenges on more complicated issues of de facto discrimination. The PPM-regulation in the energy sector is treated as a highly national issue. While the EU strives for a high degree of integration, and while that is generally reflected in the market access test in law of prohibition, integration in the electricity sector has not yet come very far.

[1623] Gareth Davies, ‘‘Process and Production Method’ – based Trade Restrictions in the EU’, in Catherine Barnard (ed.) *Cambridge Yearbook of European Legal Studies 2007-2008* (Hart 2008) 93-96.

The legal tests under law of prohibition shape the scope of prima facie prohibited state measures. Despite the occasional application of a market access test, the non-discrimination principle still forms the core of law of prohibition in EU free movement law, much like it forms the core in WTO law. In both EU and WTO law the non-discrimination principle applies broadly to state measures. In EU law the principle extends even to some cases where the discriminatory effects stem from state inaction or recommendations. In cases of state inaction or recommendations the discriminatory effects are in part also attributable to private party action. The application of EU free movement law in this type of circumstances places a strong responsibility on Member States for the actions of their citizens or residents. In addition, the fact that the failure of states to intervene in private party measures can constitute a breach of EU law reflects the principle of loyalty between Member States and an expectation that EU citizens have an obligation to refrain from disloyal behavior.

Both EU and WTO law cover measures by private parties to some extent. In the EU the application of the non-discrimination principle to private parties with significant regulatory powers complements EU competition law. Under WTO law the application of trade law to such powerful regulating private parties might in turn compensate for the fact that there are no international competition law treaties. There are still differences with respect to the parties that need to comply with the non-discrimination principle. In particular, EU free movement law would appear to capture measures by private parties to a greater extent than WTO law. With respect to free movement of workers and persons, the stricter review of discrimination by private parties can be linked to the weight given to union citizenship. In general, however, the similarities of the structure of the EU and WTO tests would facilitate the transposal of tests on the type of measures covered from one regime to the other.

There has been some academic discussion on potential exemptions to the general application of non-discrimination tests. Some schlars have proposed that the right of EU public purchasing authorities to define what to buy should not be subject to free movement law. This is a controversial proposal. Awarding authorities flexibility in defining what to buy would undermine the efficiency objective of the non-discrimination principle. The approach would also need to be compatible with WTO law. Public procurement does not fall under GATT but is instead governed by the GPA. While non-discrimination is also a principle of the GPA, the argument might be that

when the public authority defines what to buy it also defines the relevant market. Hence, regardless of what path is chosen with respect to decisions on what to buy, there would not automatically emerge any divergence between EU and WTO law. Yet, granting authorities the power to define relevant markets in procurement law would represent a significant deviation from the interpretation of likeness and relevant market under GATT.

The similarities and the potential for mutual learning extend to law of justification and the proportionality review. Under both EU and WTO law reconciling the efficiency objectives of non-discrimination and the elimination of externalities will be affected by other values. For example, discriminatory measures that serve a legitimate objective should be designed so that the criteria are transparent, their applicaton is transparent and due process rights are guaranteed. In addition, under the proportionality test in EU free movement law it is also examined whether the state adopting the discriminatory measure has ensured sufficient regulatory certainty. A similar approach would seem reasonable also under WTO law.

In law of justification there is ambiguity with respect to extraterritoriality under all three jurisdictions. No explicit position has been taken on whether states may justify discriminatory measures with out-of-state social or environmental objectives. The geographical scope of legitimate objectives relates to such values as sovereignty, global fairness and loyalty. The need for protecting global fairness is less acute in the EU than in the WTO, where the differences in development between states is more significant. Therefore, in an EU law context it would be even less controversial to conclude that no extraterritoriality test in law of justification should apply and that states thus may target out-of-state effects with PPM-criteria. Indeed, recent cases on public procurement hint that an extraterritorial objective might be permissible under EU free movement law. It is still uncertain to what extent the approbatory approach to criteria that target out-of-state effects would apply more generally in EU free movement law outside the context of cases on public procurement.

The potential validity under EU law of the objective to tackle extraterritorial environmental effects could be linked to the fact that the EU is a close union with free movement of persons. Citizens and residents of each Member State could be seen as having an interest in environmental protection across the union. This would be yet another illustration of the relationship between free movement of persons and free

movement of goods. However, there also exist arguments for why PPM-criteria with an extraterritorial dimension should be more difficult to justify in a closer free trade union. In a close union states are expected to be loyal, show mutual trust and respect the sovereign decisions of other states within the union. In conclusion, examining how close of a union the free trade area does not provide clear arguments for how to approach extraterritoriality.

In sum, many aspects of EU free movement law and WTO law are difficult to compare because there are aspects of applicable tests that are rarely addressed as those aspects may not be crucial for the cases at hand. The nature of PPM-criteria might force clarifications on some details of the applicable tests. At this point in time it is merely possible to conclude that the features of the tests under EU and WTO law are surpringsly similar.

There are some differences in nuances between tests in EU and WTO law, but those might not necessarily affect the outcomes. WTO law is characterized by the heterogeneity of the international community. It would on a general level appear that free movement of goods in the EU, in turn, is influenced by its close ties to free movement of people and EU citizenship. The influence may stem from both the rights and the obligations that come with such citizenship. Furthermore, the broad scope of EU free movement law, extending to for example public procurement, together with an abundance of secondary legislation creates more aspects to consider when striving to ensure coherence.

7.3.4. Peculiarities of the U.S. Dormant Commerce Clause

In the U.S. several cases have already emerged on the compatibility with the dormant Commerce Clause of PPM-criteria adopted to promote renewable energy. For example, there are cases on state-level biofuels sustainability criteria that can be compared to Argentina's challenge against EU biofuels sustainability criteria under WTO law. Similar cases have not been initiated in the EU due to the high degree of harmonization of union legislation on biofuels sustainability, leaving almost no room for national sustainability criteria.

There have, in addition, been litigation in the U.S. cases on schemes implemented in the electricity sector. The number of disputes on PPM-criteria in the electricity sector has been significantly higher in the U.S. than in the EU. Frequent U.S. litigation may

in part be a consequence of well-connected interstate power grids. Good interconnections enable interstate trade and conflicts on state regulation of those markets become more likely. Furthermore, the fact that disputes arise more frequently could also indicate that the fossil fuel industry is powerful and there is less societal consensus on the need for a transition toward renewables. It could also be argued that the U.S. harbors a culture where litigation is viewed as less drastic and more quotidian, partly nurtured by the fact that there in common law countries is more of an in casu evaluation and less of a tradition to develop general rules. Importantly, unlike in EU free movement law, under the dormant Commerce Clause de jure discriminatory schemes promoting electricity from renewables have so far not been declared justifiable. As de jure discriminatory schemes might be unconstitutional, so might also de facto discriminatory schemes.

The legal tests under the dormant Commerce Clause are in many aspects similar to those applicable in WTO law and EU free movement law. Still, the dormant Commerce Clause includes some unique structures. The exemptions to the non-discrimination principle forms the most significant difference. It is as a rule not prima facie prohibited under the dormant Commerce Clause for states to discriminate in favor of their own public entities or to adopt discriminatory subsidies. What is more, when doing business on the market and acting as a market participant the state is also free to discriminate on the basis state origin. The market participant doctrine has even sparked debates on whether the category of exemptions even could entail a market creation exemption.

Law of prohibition under the dormant Commerce Clause normally serves to define the scope of measures that form a threat to interstate commerce. When acting as market participants or when granting subsidies states are not bound by the non-discrimination principle and may even adopt de jure discriminatory measures. Yet, discrimiminatory regulation with identical economic effects may be incompatible with the dormant Commerce Clause. It is thus difficult to identify any economically coherent theory underlying the dormant Commerce Clause. The U.S. system is less aligned with the efficiency rationale than the other two jurisdictions. A reason for the lack of coherent theory may be a consequence of the fact that the dormant Commerce Clause has largely been formed through case law.

The market participant and market creation tests might not be unique to the dormant Commerce Clause. In particular, a market creation exemption has been applied in the

context of the SCM Agreement. What is more, a market participant exemption, although perhaps slighltly less profound in comparision to the one under U.S. law, has in the literature been argued to apply for public procurement decisions within the scope of EU free movement law. Thus, despite differences between trade law regimes, similar trends still evolve within economic law across the jurisdictions. In other words, similar value reconciliation tests have emerged in various areas of economic law, and there is potential for mutual learning.

The introduction of the exemptions to the non-discrimination principle by the U.S. Supreme Court suggests that the objective of efficiency through non-discrimination is outweighed by other values. The idea behind allowing states to grant even de jure discriminatory subsidies is that subsidies are transparent enough for in-state voters to become informed out them and vote out of office the legislators that implement an inefficient subsidy policy. In turn, the market participant exemption enables states to compete with private companies on equal terms. This reflects a positive view of the state as an entity doing business on the market and stands in stark contrast to the rationale of regulation on competitive neutrality.

The exemptions to the dormant Commerce Clause mean that sovereignty of states to drive in-state policy as market participants trumps the values underlying non-discrimination. The market integration in the U.S. would thus not seem to reach the same level as in the EU. That being said, it interesting to note that under the dormant Commerce Clause, unlike under EU free movement law, de jure discriminatory Renewable Portfolio Standards will likely be declared disproportional. Hence, while general market integration might go further in the EU, the level of integration in the electricity sector is higher in the U.S.

Differences between the tests applicable in the U.S. and under the two other jurisdictions can also be found in law of justification. Most notably, the U.S. courts have developed two proportionality reviews that neither fully corresponds with the tests applicable in EU and WTO law. The Pike balancing test, more commonly applied to cases of de facto discrimination than strict scrutiny, is a test of holistic balancing. In contrast, the EU and the WTO proportionality tests put more emphasis on identifying the least restrictive measure for achieving a given level of protection. Differences in the structure of proportionality tests might contribute to the difficulty in reaching consensus on how to construct new value reconciliation mechanisms in new multilateral and

bilateral agreements, such as the Transatlantic Trade and Investment Partnerhsip (TTIP). This is why it is important to paint a comprehensive picture of differences between the regimes.

Moreover, I have in previous research on de jure discriminatory provisions in schemes to promote renewable resources in the electricity sector pointed out how proportionality in the EU could benefit from U.S. experiences and ideas.[1624] Differences in the proportionality review does in other words not hinder mutual learning. The different jurisdictions are presented with similar challenges in the application of the proportionality review despite the differences in the structure of the reviews. For example, each jurisdiction will have to be careful not to shape the review so that the legality of measures could depend on the size and market power of the state.

It was concluded that the proportionality reviews in EU and WTO law reconcile transparency, due process rights and regulatory certainty. Discriminatory measures that serve a legitimate objective must be designed in line with those three values. Similar requirements on regulating states were not be identified in the application of the dormant Commerce Clause. Future research will have to show whether all of those objectives are taken into account more implicitly also under the U.S. dormant Commerce Clause. One of the three values, transparency, has already been given weight, but in completely different manner. Namely, as mentioned above, instead of establishing expectations on the design of discriminatory measures, transparency has in the U.S. formed an argument for exempting discriminatory measures, more specifically discriminatory subsidies, from the scope of prima facie prohibited measures.

Finally, the approach to extraterritoriality has been somewhat different under the U.S. dormant Commerce Clause as compared to the other two jurisdictions. Measures that control conduct wholly outside the regulating state are prima facie prohibited. In many cases where the test has been applied the court could equally well have ruled that the measure constituted a burden on interstate commerce due to de facto discriminatory effects. In turn, non-discriminatory measures captured by the extraterritoriality test in

[1624] Max S. Jansson, 'Free Movement of Electricity and the Revival of System Stability Justifications' (2017) 18 German Law Journal 595.

U.S. law of prohibition could under EU and international law be found to breach general legal principles on the territorial scope of jurisdiction.

The extraterritoriality test applied in law of prohibition of the dormant Commerce Clause might in exceptional cases lead to outcomes that would have been different than under EU and international law. In particular, in the U.S. it would appear that states do not have the right to adopt a ban on a chosen set of PPMs in the electricity sector due to interconnected grids and the 'network' nature of the market. Could PPM-criteria be extraterritorial also in other circumstances? The scope of the extraterritoriality test in law of prohibition is uncertain. In particular, it is not clear whether non-discriminatory PPM-criteria could be declared to constitute prohibited extraterritorial regulation when they hinder market access. U.S. courts have in the recent application of the extraterritoriality test in law of prohibition made reference to the concept of market access but have not clarified the meaning or the relevance of this concept.

A market access test has already been applied in EU free movement law. The prohibition of market access hinders in the EU has expanded the scope of law of prohibition beyond the prohibition of discrimination. Under the U.S. dormant Commerce Clause any potential market access test would apply only in the context of the extraterritoriality test and would therefore not expand the scope of non-discriminatory prima facie prohibited measures to the same extent as it has in the EU. Despite such difference, the difficulties in the application of a coherent and consistent market access test under EU law could still form valuable lessons for U.S. courts when assessing whether to develop such a test in the application of the dormant Commerce Clause.

Regardless of specific scope, the extraterritoriality test in law of prohibition illustrates how extraterritorial measures are viewed with scepticism in the U.S. It is hence highly plausible that the protection of out-of-state environmental interests does not form a legitimate ground of justification. Indeed, unlike under EU and WTO law, the language used by U.S. courts would suggest that it is only local (i.e. in-state) environmental benefits that may constitute a legitimate objective in law of justification.

In the context of EU and WTO law some arguments were presented in favour of allowing measures to target pure out-of-state effects. Under U.S. law those arguments may not have similar force. First, under WTO law PPM-criteria that tackle out-of-state

environmental effects can potentially be justified with reference to the protection of public morals. In the U.S. the perception of morals is more homogenous and state morals have not been recognized as a ground of justification to a similar extent. Secondly, in EU law there are arguments for a firm link between the interpretation of the geographical scope of legitimate objectives in trade law and procurement law. In other words, the pressure for coherence with public procurememt law may result in extraterritorial objectives forming a valid ground of justification in free movement law. In the U.S. there is no federal law on state-level procurement.

Procurement might be exempted from the dormant Commerce Clause under the market participant doctrine. The lack of federal rules on the design of state procurement together with the application of the market participant exemption would allow for states to adopt discriminatory PPM-criteria through public procurement in order to address out-of-state environmental effects. Hence, there will inevitably also be some pressure to legitimize extraterritorial objectives under the U.S. dormant Commerce Clause. Yet, it might still not be sufficient for broadening the geographical scope of legitimate grounds of justification.

The potential rejection of measures with only extraterritorial objectives could likely not be explained by concerns that developed states would otherwise gain an unfair advantage. Instead, the rejection could perhaps be explained by the view that states should trust the ability of other states to protect their environment. This perception of loyalty and mutual trust between U.S. states might outweigh other values of a close union, such as the interest states may have in protecting the environment in all states of the union as their residents have the right to move freely across state borders.

In conclusion, some tests are applied under the U.S. dormant Commerce Clause that represent an approach fundamentally different from that adopted under EU and WTO law. Interestingly, the peculiarities of U.S. law do not appear to take the development in any particular direction. For example, while the market participant exemption awards the state adopting the measure more flexibility, the disapproval of extraterritorial regulation in turn restricts the room for maneuver of states adopting measures.

7.4. Legal PPM-Criteria

7.4.1. PPM-Criteria and Trade Law

The primary focus in this book was on legal tests for value reconciliation. The compatibility of PPM-criteria with trade law is assessed through the application of such tests. The tests focus on whether the criteria constitute a state measure, whether the measure could be exempted from the scope of trade law, whether the measure is discriminatory, whether there is a valid ground of justification and whether the measure is proportional to its objective. Since the study on legal tests was conducted in the context of PPM-criteria adopted by states, some conclusions on the compatibility of such measures with trade law may be offered.

Social sustainability criteria, in for example the biofuels sector, could comply with WTO law.[1625] Yet, for example in the biofuels sector the EU has not been active in adopting such criteria.[1626] This study did, however, not explore social sustainability criteria in much detail. The focus has instead been on environmental PPM-criteria and reference to cases on social criteria were only made when it provided insight into the interpretation of environmental criteria.

Environmental PPM-criteria have in this book been studied generally. However, criteria in the energy sector have been given particular attention. More specifically, it was examined to what extent criteria on the sustainability of PPMs could be implemented for fuels and electricity. The outcome of many trade law cases concerning the energy sector would be fairly similar across jurisdictions. Trade law is of course not the only field of law that governs PPM-criteria in the energy sector. Some models of PPM-criteria in the energy sector are prohibited under other legal norms.

The conclusions on PPM-criteria are divided into three parts. The first part will give an overview of de jure and de facto discriminatory PPM-criteria applied specifically in the energy sector. The objective is to differentiate between criteria that would not be legal

[1625] *See* Steve Charnovitz, Jane Earley and Robert Howse, 'An examination of social standards in biofuels sustainability criteria', IPC Discussion Paper (2008).
[1626] For discussion *see* Emily Barrett Lydgate, 'Biofuels, Sustainability, and Trade-Related Regulatory Chill' (2012) 15 J. International Economic L. 157, 160 and 163-164; Alan Swinbank, 'EU Support for Biofuels and Bioenergy, Environmental Sustainability Criteria, and Trade Policy', ICTSD Programme on Agricultural Trade and Sustainable Development, (2009) Issue Paper No. 17 (Geneva: International Centre for Trade and Sustainable Development); Alan Swinbank and Carsten Daugbjerg, 'Improving EU Biofuels Policy? Greenhouse Gas Emissions, Policy Efficiency and WTO Compatibility' (2013) 47 J. World Trade 813, 817-818.

under any circumstances, criteria that would be legal under essentially all circumstances and criteria that could be legal depending on the more specific design. In the second part conclusions will be presented on the effects that can be addressed with PPM-criteria. Finally, the last part will summarize the requirements that follow from the proportionality review with respect to the more detailed design of PPM-criteria.

7.4.2. Criteria in the Energy Sector

7.4.2.1. De Jure Discriminatory Criteria

There is normally no reason to treat products differently on the basis of origin. De jure discrimination is therefore rarely justifiable in any of the three jurisdictions. For example, de jure discriminatory criteria on energy plant equipment or services would not be compatible with trade law. Likewise, treating imported fuel differently from in-state fuel or imported electricity differently from imported electricity directly on the basis of state of origin would as a rule not be justifiable.

The analysis of justifiability of de jure discrimination is complex when it comes to support schemes for electricity generated with sustainable PPMs. The ECJ has concluded that under EU free movement law feed-in-tariffs and renewable portfolio standards (RPS) with de jure discriminatory elements can be justifiable in the electricity sector. This unusual situation where de jure discrimination has been justifiable can perhaps be explained by the risk that a fully non-discriminatory scheme would endanger the system stability of the support schemes.[1627] For example, the market of a state with a RPS could be flooded with renewable energy credits if they would have to be granted to all plants without any limitation on the geographical scope of the origin of the power. Namely, in other states where no similar quotas have been introduced plants would have strong incetives to apply for credits in states that award credits. The influx of credits would mean the quotas would be fulfilled easily and there would be no pressure for an increase in renewable energy. That would endanger the objective with the RPS.

Interestingly, so far litigation and jurisprudence on the application of the U.S. dormant Commerce Clause on schemes to promote renewables would seem to suggest that a de jure discriminatory RPS for the electricity sector would be unconstitutional. Courts might not – and at least should not – develop a market creation exemption to allow such

[1627] Max S. Jansson, 'Free Movement of Electricity and the Revival of System Stability Justifications' (2017) 18 German Law Journal 595.

schemes to escape strict scrutiny. Comparably, the implementation of a de jure discriminatory RPS for the fuel sector would likely be found to be incompatible with trade law. With respect to the fuel sector an oversupply of RECs could be avoided, and the stability of the scheme could be ensured, already by restricting access to credits to fuel that actually enter the market of the state that grants the credits. With respect to the electricity sector the dormant Commerce Clause may, however, leave room for states to introduce some limitations to the geographical scope of plants granted access to credits under their RPS. It is submitted that states in the U.S. could likely implement their RPS so that renewable energy credits are awarded only to electricity on the condition that the plant is connected to the same regional grid as the state granting credits. It may even be justifiable to require that the electricity is delivered to or consumed in the state that grants the credits.

It is unclear why requirements of interconnection, delivery or consumption have not been considered by the ECJ as alternative measures when assessing the proportionality of de jure discriminatory schemes that award credits only to in-state plants in order to promote electricity from renewable resources. It is submitted that the Court should in future cases consider these solutions more carefully, and whether they would be sufficient for ensuring system stability.

7.4.2.2. De Facto Discrimination in the Electricity Sector

Cross-border trade in electricity remains fairly limited globally. Hence, disputes on the de facto discriminatory effects of PPM-criteria in the electricity sector are unlikely to emerge under WTO law. There is some cross-border trade between EU Member States. Similarly, there is trade between states in the U.S as interconnections have been built. There are, however, factors that significantly reduce the risks of litigation on PPM-criteria with the de facto discriminatory effects.

U.S. federal law largely prohibits state-level feed-in-tariffs. Disputes that have already emerged under the dormant Commerce Clause have therefore concerned only Renewable Portfolio Standards and full bans on certain unsustainable PPMs. In turn, in the EU even de jure discriminatory FIT-schemes and RPSs have been declared compatible with EU free movement law, as explained above. The fact that de jure discriminatory schemes are currently regarded as justifiable means that a challenge against any de facto discriminatory effects of such schemes would likely also not be

successful. That being said, in the EU cases could still emerge on more radical trade restrictive measures, such as a complete ban on some PPMs.

Under the extraterritoriality test in law of prohibition of the dormant Commerce Clause measures that wholly control out-of-state commerce are prima facie prohibited. PPM-criteria applicable for imported products would create incentives for out-of-state producers to comply with the criteria in their out-of-state production. The extraterritoriality test should, however, not engulf measures that merely create incentives for out-of-state actors. The extraterritoriality test, which is unique to the U.S., could still render the implementation of full bans on some PPMs in the electricity sector illegal. As a consequence, states would be well-advice to continue to implement RPSs instead of fully banning electricity generated with some specific PPM. The scheme may of course be drafted so that the quotas and credits are not just for renewables, but for all low-GHG PPMs, including both renewables and nuclear fission.

The analysis of the compatibility with the dormant Commerce Clause of a RPS would follow a traditional path with assessment of discrimination and justification. The same approach applies to the analysis of the compatibility with EU free movement law of bans on some PPMs. In case the scheme is not de jure discriminatory, the analysis would turn to the question of whether the scheme is de facto discriminatory. Discrimination can occur only in case products treated differently are like. It was submitted that differences in PPMs do not as such make products unlike. This will hold until people become so sensitive to the sustainability of the PPMs, or the full life-cycle, that they do not regard products with poor environmental life-cycle performance as substitutes to products with a less heavy environmental footprint. Apart from the attitudes of consumers, also technical development might gradually affect future substitutability.

The finding that electricity generated with different PPMs currently constitute like products leads to the conclusion that different treatment on the basis of different PPMs could, depending on market shares, result in discrimination. In case of discriminatory effects, the measure would need to serve a justifiable objective. Under EU free movement law the objective cannot be inconsistent with international science. States could with reference to the precautionary principle likely justify restrictions on most PPMs due to the fact that there with respect to the sustainability of different PPMs in the electricity sector exist significant scientific uncertainty. A comparably broad

discretion is left to states under the Pike balancing test applied under the dormant Commerce Clause. The flexibility under scientific certainty would suggest that both a de facto discriminatory RPS by a U.S. state and a de facto discriminatory ban on some PPM for generating eletricity in a EU Member State could be legal if designed with care.

There are some measures with respect to PPM-criteria that would not be proportional. For example, it would likely not be justifiable to treat electricity from some renewables *less* favorably than electricity from fossil fuels because it would contradict with international science. Under Pike balancing this would translate into a finding that the burden on interstate commerce is clearly excessive of the benefits. It is still worthy of note that as different energy resources, such as coal, natural gas and biomass, are probably not considered like products, there could exist a possibility for states to favor an energy resource over another. Trade restrictions or taxation applied directly on the resource instead of on the generated power could lead to electricity from unsustainable PPMs receiving benefits in contradiction with international scientific consensus. This study did, however, not examine the issue in more depth.

The idea of a ban on electricity from nuclear fission forms a peculiar and difficult case for the proportionality review under EU free movement law. The EU Commission signaled its opposition toward full bans of products using unsustainable PPMs in the electricity sector when Austria designed its anti-nuclear regulations. A ban on power from nuclear fission might not have any expected effect and the measure could therefore struggle to survive the EU tests of suitability and necessity. It is still submitted that a ban would perhaps be suitable and necessary for advancing a legitimate objective. A ban could be suitable and necessary for an environmental objective even if it would not in itself yet be sufficient to create any effect. Another difficult question is whether or not international science would provide some support for a decision to ban power from nuclear fission while not restricting coal power to any significant extent. Many questions thus remain open with respect to the legality of a ban on power from nuclear fission under EU free movement law.

In conclusion, most schemes that to date have been implemented or planned with respect to PPMs in the electricity sector could comply with trade law if carefully designed. In the U.S. it is mostly full bans on some PPMs that could be unconstitutional regardless of design. In contrast, in the EU even some contemplated bans on PPMs

seem possible. There is, however, much uncertainty with respect to the approach to bans on power from nuclear fission.

7.4.2.3. De Facto Discrimination in the Fuel Sector

States might treat fuels differently for example on the basis of PPMs or life-cycle emissions. Determining the compatibility of such measures with trade law will require an analysis of like products. Fuels that may be used interchangeably in the same engines would most likely be considered like products as long as consumers largely continue to view the fuels as substitutes regardless of differences in how sustainable the fuels are.

Various ratios of biodiesel and petrodiesel can be used in diesel-engines. In turn, various ratios of gasoline and bioethanol can be used in flex-fuel engines. However, many engines run optimally with some specific ratio of the mix between bio-based fuel and petroleum-based fuel because the properties of the fuels differ slightly. Moreover, some engines still run only on specific ratios, which means that there is no substitutability at the stage when the driver fills up the fuel tank. That fact does not eliminate all competition between the two types of fuel and the degree of substitutability might well be high enough for petroleum-based and bio-based fuels to be like products. The fact that diesel engines are less sensitive with respect to the ratio of biofuel in the mix would indicate that the probability of likeness between biodiesel and petrodiesel is somewhat higher than for bioethanol and gasoline.

Different treatment of two fuels that are like products could amount to discrimination. In the case of discriminatory effects there has to be some scientific support for the different treatment. There certainly is support for treating many biofuels more favorably than fossil fuels. Scientific uncertainty with respect to some controversial first generation biofuels means that states would have much discretion in deciding whether to treat them more or less favorably than fossil fuels.

Trade disputes in the fuel sector will likely center around the treatment of various biofuels contra other biofuels from different feedstock. The EU Renewable Energy Directive prohibits states from developing additional national biofuels sustainability criteria. In other words, the sustainability criteria for biofuels have been fully harmonized in the directive. As national criteria would already breach the directive, disputes on the compatibility of national criteria with free movement law should rarely arise. The situation is somewhat comparable in the U.S. as federal sustainability criteria

have been adopted in the RFS2. However, states have the right to opt out of the federal model and instead implement a scheme based on California's LCFS. The compatibility of these schemes with the dormant Commerce Clause has already been challenged.[1628] What is more, all EU and U.S. biofuels sustainability criteria must also comply with WTO law.

What biofuels could be considered like products? Biodiesel fuels from various feedstock should be considered like products. Namely, most biodiesel can be used in the same engines regardless of what feedstock has been used. Similarly, all bioethanol products are like products even if produced from different feedstock. Unequal treament of different biofuels on the basis of life-cycle emission should still be justifiable provided that the scheme is carefully designed.

Could even bioethanol and biodiesel be like products? On the one hand diesel fuels and on the other hand gasoline and ethanol fuels cannot be used in the same engines. The level of competition is lower between fuels that cannot be used to run the same engines. However, some competition still exists between diesel and other fuels. On the retail market for cars both consumers and transportation companies pick between vehicles with various engines. The fuel that go into the engine will likely affect the decision to some degree. Similarly, in the process of designing vehicle models, car manufacturers make decisions on the type of engine that will be used in the model and this decision will be affected in part by the fuel that is used in the engine. For these reasons fuel producers have incentives to lobby consumers and producers to favor the type of engines that run on their fuel. Whether the degree of substitutability between different vehicles and engines is sufficient for the fuels to be like under trade law must be evaluated on a case-by-case basis. There are many factors that impact the purchasing decision when comparing vehicles and the type of fuel engine is perhaps not of sufficient importance to lead to sufficient substitutability between diesel and ethanol.

On a side note, cars with fuel engines face increasing competition from electric cars. Even intense competition on that market will likely not lead to electricity and fuels being like products. Namely, electricity is to a great extent used for many purposes for which fuels are not suitable.

[1628] *See* Rocky Mountain Farmers Union v. Corey, case no. 17-16881 (9th Cir. 2019); American Fuel & Petrochemical Manufacturers v. O'Keeffe, case no. 15-35834 (9th Cir. 2018).

All in all, differential treatment of some biodiesel contra some other biodiesel or some bioethanol contra another bioethanol forms the cases most susceptive of a trade law challenge. The differentiation is commonly implemented in biofuels sustainability criteria with reference to the protection of biodiversity and the reduction of GHG emissions. The sustainability criteria can be supported by scientific evidence and their benefits for environmental protection can be so significant that they should outweigh the burden on free trade if carefully designed. In other words, the criteria may well be compatible with trade law. What effects the criteria may address and how they ought to be designed is elaborated in subsequent sections.

7.4.3. The Effects Addressed with PPM-Criteria

7.4.3.1. Type of Effects

Davies has argued that PPM-criteria in the context of taxation may comply with EU law.[1629] This study, in turn, illustrated how PPM-criteria more generally can comply with trade law across three jurisdictions provided that they are carefully designed. How should the criteria then be designed? Some conclusions and recommendations can be offered with respect to the effects that may be addressed with the PPM-criteria.

In designing of PPM-criteria states need to consider the effects that are targeted. It has been emphasized that PPM-criteria should not be implemented in contradiction with international science. It is less clear whether it would be justifiable to adopt PPM-criteria that take into account effects that are outside the scope of what the producer can influence. For example, a biofuels producer has no control over indirect land-use change. Therefore, it is uncertain whether it would be proportional to include such an element in biofuels sustainability criteria that have discriminatory effects.

Sustainability criteria commonly make reference to the transportation part of the life-cycle. For example, the effects of differences in transport distance have been included in California's biofuels sustainability criteria.[1630] Could such an approach be justified? A couple of decades ago the ECJ went so far as to suggest that there was no proof of

[1629] Gareth Davies, ''Process and Production Method' – based Trade Restrictions in the EU', in Catherine Barnard (ed.) *Cambridge Yearbook of European Legal Studies 2007-2008* (Hart 2008) 69. *See* also case 140/79 *Chemial Farmaceutici SpA v. DAF SpA* [1981] ECR 1, para. 14.
[1630] *See* Rocky Mountain Farmers Union v. Corey, Memorandum Decision and Order Re Defendants' Motion to Dismiss, Lead Case: 1:09-cv-2234-LJO-BAM (E.D. Cal. 2017).

environmental harm from transport.[1631] However, the emissions from transport distance are part of the equation of life-cycle impact and states should be justified in taking the estimated emissions into account. Under the dormant Commerce Clause the potential application of strict scrutiny to criteria that include an estimate of emissions from transportation could in principle make it more difficult to uphold the criteria. Yet, it is submitted that it would not be sound legal policy to restrict the right of states to tackle the genuine environmental harm that transport emission causes.

Transport distance could not be relied on as an alone direct proxy for emissions. States may, however, include emissions from factors sensitive to geographic location, such as transportation, into their life-cycle models. Local production will with respect to transport emissions often get an advantage over imports. The relevance of that advantage will perhaps not too often become decisive as transport emissions commonly make up just a small part of lice-cycle emissions. Yet, the advantage is undeniable. An increase in the use of life-cycle criteria with a component for transportation emissions has the potential of disrupting and restructuring international trade as we know it today. In other words, implementing PPM-criteria and life-cycle models has the potential of decreasing international trade.

A question that to date has not received much attention in trade law is whether sustainability criteria that apply to both in-state production and to imports may, with respect to imports, address only the effects associated with the products actually imported or whether the importing state could require that all products produced by the out-of-state producer for all markets around the world are sustainable. In other words, could the importing state apply criteria on general corporate policy and require that the producer's only produce sustainable products? Extending criteria on the properties of products also to the producer's products that are not imported would often not address any public health interest of the importing state. However, the situation is different with PPM-criteria. Namely, addressing general corporate policy could arguably increase the level of protection against the cross-border environmental harm of unsustainable PPMs. Under EU public procurement law criteria addressing general corporate policy are prohibited because they do not relate to the subject matter of the contract. It might,

[1631] Case C-203/96 *Chemische Afvalstoffen Dusseldorp BV and Others v. Minister van Volkshuisvesting, Ruimtelijke Ordening en Milieubeheer* [1998] ECR I-4075, paras 46-47.

however, be that EU procurement law in this respect is more restrictive than trade law. A more detailed analysis of this question was left to future research.

7.4.3.2. The Geographical Scope

In their design of PPM-criteria, states may certainly tackle global environmental effects as well as effects that reach their territory to an extent that exceeds some de minimis threshold. The legality of criteria addressing minimal cross-border effects and pure foreign environmental effects on either environmental or moral grounds is less clear.

In public procurement all companies must be treated equally. The pollution of an in-state plant should be assessed in the same way as pollution of an out-of-state plant. Therefore, tackling out-of-state effects should in principle be legal in public procurement. However, even if no extraterritoriality test would apply, the criteria must still survive the proportionality review of trade law. For example, in *Bundesdruckerei* the ECJ concluded that the requirement of payment of German minimum wages also for work done in Poland (i.e. out-of-state) was disproportionate because the costs of living are lower in Poland.[1632] In turn, in *Max Havelaar* the ECJ ruled that the reliance by the public authority on a fair trade label in the award criteria had not been done in the manner set out by the directive.[1633] There was hence no need for the court to examine whether the fair trade criteria, which evidently extended to trade out-of-state, were in accordance with the principle of proportionality applicable in public procurement law. Similarly, the court did in its judgement not have to adopt any position on the relationship between the fair trade criteria and free movement law. It is thus still possible that while criteria adopted in public procurement on minimum wages out-of-state will often likely face difficulties under the proportionality review, other social and environmental PPM-criteria on out-of-state effects could, when adopted in public procurement, potentially survive the proportionality review.

The review of criteria that tackle minimal cross-border effects or pure foreign environmental effects is more complex under trade law outside the context of public procurement. It is in each of the three jurisdictions unclear whether an extraterritoriality test should apply in law of justification.

[1632] Case C-549/13 *Bundesdruckerei GmbH v. Stadt Dortmund*, ECLI:EU:C:2014:2235, para. 34.
[1633] *See* Case C-368/10 *Commission v. Netherlands* (*Max Havelaar*), ECLI:EU:C:2012:284.

In the application of GATT in *EC – Seals* there were indications that PPM-criteria on animal welfare could be justifiable with reference to in-state morals.[1634] As is evident from the reasoning in the decisions on the case, even a ban on unsustainably produced products could in principle survive the proportionality review of GATT when its is unreasonable difficult to implement an effective labelling scheme. Hence, the proportionality review does not form a categorical obstacle for PPM-criteria that tackle activities with very limited, or even no, cross-border effects related to animal or human health. Normally, however, the alternative of a labelling scheme for the sustainability of PPMs can be implemented without unreasonable burden.

States relying on moral grounds of justification may struggle to justify PPM-criteria that are not implemented as labelling schemes because sustainability labels would allow each consumer with strict moral views to receive the necessary product information in order to avoid contribution to the immoral PPMs. Hence, even without an extraterritoriality test, the proportionality test could be argued to limit the use of PPM-criteria tackling out-of-state effects to labelling schemes. Labelling schemes are therefore strongly recommended. It is still in principle possible that a full ban on unsustainable PPMs would be legal. Namely, the utility of citizens condemning unsustainable PPMs can decrease even if the imported unsustainably produced products are consumed by other citizens and the state might consequently argue that the maximization of utility requires a ban. Whether such argument would be successful remains to be seen.

It is not fully clear what limits the proportionality review sets on extending PPM-criteria to imports when doing so will address minimal, or even no, environmental effects in the regulating state. Under the approach relating to the protection of public morals it would appear that labelling schemes could in principle be justifiable in WTO law, but it is not clear whether more restrictive measures could be proportional under circumstances where labelling forms a realistic alternative. In any event, the moral approach has in practice put pressure for a broad geographical scope for environmental protection under GATT.

It is unclear whether environmental PPM-criteria may be justifiable at all with reference to the protection of public morals under EU free movement law, and in particular under

[1634] EC – Measures Prohibiting the Importation and Marketing of Seal Products, DS400-401, AB Report, 22 May 2014.

U.S. law. Be that as it may, the regulating states can decide to rely on environmental protection instead of the protection of public morals as a ground of justification. The need to rely on a ground of justification may emerge when some criteria that apply to in-state production are introduced also for imported products and that results in discriminatory effects. Extending the scope of application of some criteria to imported products might address out-of-state environmental effects and have minimal to no effects for the in-state environment of the state adopting the measure due to the limited cross-border flow of the pollution or some other harmful effect. There is uncertainty as to whether the protection of pure out-of-state environmental interests would form a legitimate objective.

A requirement that the cross-border effect the state strives to address with its measure would have an impact on the in-state environment to a degree that exceeds a de minimis threshold would form a good compromise between different interests. However, coherence with public procurement law – in particularly in the EU – constitutes a strong argument for rejecting the extraterritoriality test and for granting states the right to adopt PPM-criteria also for imports even when the effects of out-of-state PPMs do not reach the territory of the regulating state. Thus, it is conceivable that under EU law carefully designed PPM-criteria applicable to both in-state production and imports, even if implemented in some more trade restrictive form than labelling schemes that merely provide consumers information about PPMs, could survive the proportionality review even when out-of-state production has little to no negative implications for the environment of the state adopting the measure. In turn, under the U.S. dormant Commerce Clause there seems to be less room for measures that only strive to address extraterritorial environmental harm.

In conclusion, many aspects of the justifiability of PPM-criteria that tackle minimal cross-border effects or pure out-of-state effects remain unsettled. There are, however, strategies for states designing PPM-criteria to mitigate the risk that other states suspect discriminatory intent. It is recommended that when states decide to implement PPM-criteria also to imported products, they strive to minimize the concerns related to such an approach. States could take out-of-state interests better into account by first of all providing a forum for foreign parties with an interest in the matter to give input before the PPM-criteria are adopted. Secondly, in particular developed states adopting PPM-

criteria for imports should consider compensating developing countries through technology transfer.

7.4.4. Designing PPM-Criteria

7.4.4.1. Elements to be Included in PPM-Criteria

States do not only need to reflect over what effects they may address with PPM-criteria. It is also necessary to consider how the criteria are drafted and how schemes with PPM-criteria are designed. For example, compliance with the PPM-criteria need to be verifiable. Moreover, the criteria should be clear and precise. This applies both to the drafted legal statutes as well as the administrative practice of applying the criteria. Furthermore, parties that apply for certification of compliance with PPM-criteria but get their request rejected should be given a decision in writing, should have access to an appeal process and should be heard.

When implementing new criteria states should allow for a sufficient transition period between the date when the law is approved and enter into force and the date from which the new criteria apply. It is submitted that states could even allow for a longer transition period for old facilities with so called grandfathering clauses. The transition period for old facilities to prepare for new stricter requirements may not be unreasonably long.

Transparency with respect to the content of applicable criteria, regulatory certainty through transition periods as well as the guarantee of due process rights may be necessary for proportionality. In turn, it is not clear how situations where sustainability criteria and PPM-criteria in one sector deviate substantially and more than temporarily from criteria applied in another sector should be approached under trade law. States are still strongly encouraged to only temporarily apply substantially different approaches in different sectors. Equally, states are encouraged to be transparent with respect to how they calculate externalities and on what grounds they design their sustainability criteria. These steps should help to eliminate concerns of arbitrary or unjustifiable discrimination.

7.4.4.2. Threshold Values

States often adopt threshold values for harmful effects such as GHG emissions in their legislation. Products that exceed the emissions threshold value might be denied market access by the state. The choice of threshold could in some circumstances have discriminatory effects. Would the measure then survive the proportionality review? A

lower threshold for the maximum level of emissions would ensure a higher level of protection. Could such a lower threshold also form a less discriminatory alternative? When the originally adopted threshold has discriminatory effects, it will be rare that requiring producers to emit even less emissions has less discriminatory effects. This example on emission thresholds illustrates the likely reason why there has not been any abundance of cases on the trade law compatibility of market access thresholds.

The case of banning products that exceed the maximum threshold values for emissions resembles the case of awarding beneficial treatment to products that are within the limits of the threshold. For example, biofuels with life-cycle GHG emissions below a threshold value – i.e. an emission savings percentage above a threshold value – are promoted under the U.S. RFS2 and EU sustainability criteria. It has been argued that the choice of GHG savings thresholds in the U.S. and the EU has had discriminatory effects. With respect to these sustainability schemes it could perhaps be illustrated that stricter thresholds – i.e. requirement of lower emissions and thus higher emission savings – would be less discriminatory. However, unlike in the case of banning all products that do not meet the threshold, it is in the case of promoting those that meet the threshold uncertain whether making the threshold stricter by requiring higher GHG emissions savings would improve the level of environmental protection. Without a ban on products with high emissions the decision to make the condition for beneficial treatment stricter could result in the least sustainable fuels gaining market share as compared to the situation under current schemes.

A model, such as California's LCFS, in which sustainability is not defined through thresholds, but as a sliding scale, would form an alternative to GHG emission thresholds. Under the LCFS biofuels are considered to have a level of sustainability corresponding to the level of estimated GHG emissions. There is no threshold for sustainability in the LCFS but a low threshold could be integrated in a model of that type. It was argued that the existence of the sliding scale alternative would not necessarily render a discriminatory GHG emission model with thresholds separating sustainable from unsustainable incompatible with trade law. The reason for that would be that a sliding scale model could increase biofuels and the higher degree of uncertainty with respect to the emissions calculations for biofuels could increase the probability that a critical level of emissions is surpassed. Be that as it may, the sliding scale model is attractive because it would enable states to award the most sustainable

alternatives more benefits. The sliding scale could be coupled with a fairly modest minimum threshold in order to protect against the risk that incorrect estimations of emissions associated with biofuels lead to the development of biofuels that later prove to be less sustainable than fossil fuels.

7.4.4.3. The Method of Certification and Verification of Compliance

The certification of compliance with PPM-criteria is an important element of the design of the scheme. There are countless different models. States could decide to assess the sustainability of in-state products or producers on an individual basis. In such case imports cannot be automatically assigned a sustainability value on the basis of the average sustainability of similar products but should also be given the opportunity to illustrate individual level of sustainability. Under another model the state implementing PPM-criteria would ban unsustainable PPMs and treat imported products as sustainable when they come from states that have implemented a similar ban. Again, states would have to allow importers the opportunity to illustrate individual sustainability and compliance with PPM-criteria regardless of the laws applied in the state of origin. Furthermore, it is submitted that unfavorable natural conditions or traditions of unsustainable PPMs in the state-of-origin should not render all products from that state unsustainable. Individual imports from any state should be allowed the opportunity of individual certification of the level of sustainability or the compatibility with PPM-criteria.

The requirement that individual certification must be available does not mean that each and every individual imported product would have to be certified. A full ban on unsustainable PPMs could be adopted in-state. Some risk of occasional in-state non-compliance with the PPM-criteria would still exist. The requirements on certification of imports should not be disproportionally high in comparison to the treatment of in-state production. It would often likely be disproportional to require evidence that every individual imported product has been sustainably produced. Instead, it would seem sufficient to require that imports come from facilities, such as plants or factories, or from events, such as fishing or hunting trips, that can be certified as having complied with the PPM-criteria.

Models of individual sustainability certification were in this book discussed with reference to the examples of sustainability schemes developed in the biofuels sector.

The sustainability schemes applicable in the EU and the U.S. have introduced pathway values. These pathway values are average GHG emissions estimated for a pathway that is defined with reference to, for example, the feedstock, the chemical production method and the type of fuel that forms the end product. The authorities only require verification of a few factors in order to determine the applicable pathway value and consequently also whether the biofuel is sustainable. The adoption of pathway values simplifies the verification of compliance with the PPM-criteria. There are, however, risks with proxies for unsustainable environmental effects. The trade law compatibility of models with pathway values must be assessed on a case-by-case basis. Some general recommendations may still be put forward.

The U.S. RFS2 relies only pathway values and there is no possibility to apply for certification of individual values for production at a specific plant. Biofuel is assigned the same pathway value regardless of geographical location. There is still some risk of incompatibility with trade law. The pathway values for biofuel from palm oil do not meet the GHG emission savings threshold. Without any process for individual value certification palm oil biofuels will categorically be unsustainable. This is to the disadvantage of Indonesia and Malaysia, where palm oil is common. When the U.S. and others adopt pathway values, even if origin neutral, it would be advisable to also allow for individual value certification.

California's LCFS originally awarded different pathway values to pathways that were otherwise similar but differed with respect to a couple of factors linked to the geographical origin of the feedstock and the location of the biofuel plant. More specifically, the difference in transport emissions and emissions from local electricity generation were given relevance in the calculations of life-cycle emissions. Under the LCFS the pathway values function as default values and producers may certify individual GHG emission values. The possibility to apply for individual value certification is a crucial complement to the pathway values.

The analysis of the federal and the Californian schemes underlined the importance of individual value certification. The emergence of biofuels sustainability criteria has raised also new questions on how the process of certifying the sustainability of PPMs may be designed. In particular, could circumstances be such that pathway values are no longer justifiable? The idea was put forward that states could already consider models without pathway values. Relying only on individual values could in some

circumstances reduce discrimination and increase the level of protection against GHG emissions. It was, however, submitted that the economic costs for the state implementing the model and for the producers applying for certification may be so high in a model without pathway values that it currently would not form a reasonably available alternative that under the proportionality review would force states to give up on pathway values. The costs for individual value certification could of course decrease in the future. Were that to happen, both the EU model of combining pathway values with thresholds and the original Californian model with state specific pathway values would become more difficult to uphold. In light of potential long-term developments, states could already consider models like the current Californian LCFS that relies on origin neutral default values. Such a model could be implemented with a low GHG threshold and the sliding scale could be applied above the threshold. The benefits would be awarded in proportion to GHG emissions.

In sum, many types of sustainability schemes should be designed so that individual certification of compliance is possible. For example, it is recommended that states complement pathway values with the possibility to apply for the certification of individual GHG emission values. Factors sensitive of geographic location, such as emissions from transportation, can arguably be included both in the calculations of individual values and pathway values. There is, notably, still on-going litigation in the U.S. on whether such factors are justifiable components of pathway values. Perhaps equally contentious is the position, adopted in this book, that pathway values for any given feedstock should not be calculated on the basis of merely in-state data.

Finally, while it is often problematic to establish either environmental effects or the level of sustainability on the basis of proxies, geographical factors may still form proxies that determine the applicable method of sustainability certification. In particular, while natural conditions cannot function as an irreversible indicator of the sustainability of the PPMs, they can indicate that the risk of unsustainability is greater. Hence, the importing state may require that the sustainability certification process is more rigorous for imports from areas where the PPMs are generally unsustainable due to natural conditions. The same applies for difference in risk due to traditional production methods and perhaps even differences in risks that stem from differences in local laws. The difference in the certification process must still be proportional to the level of risk. For example, more favorable in-state natural conditions would rarely

justify automatic sustainability certification of all in-state products, if at the same time imports would be subject to a burdensome certification process.

7.5. Value Reconciliation Tests

7.5.1. Future Research on Applicable Tests

The analysis of value reconciliation tests in trade law identified several uncertainties with respect to the application of those tests. Uncertainties remain in part because questions regarding some details of the tests have not been relevant for cases that so far have been litigated. There have also been times when details with respect to the application of several tests could have been of relevance for the case at hand but the superficial reasoning in the decision has left uncertainty as to the decisive factors in the tests. Finally, it has not been uncommon that tests have been applied inconsistently over time.

Future jurisprudence and research will have to bring clarification on, among other things, a number of issues brought to the fore in this study.

The Scope of Prima Facie Prohibited Measures

- What is a non-discriminatory market access hinder prima facie prohibited under EU free movement law? Does WTO law also prohibit such measures?
- What non-discriminatory measures are prohibited under the extraterritoriality test of the dormant Commerce Clause? Could it cover bans on PPMs outside the electricity sector? Could it cover less trade restrictive measures than complete bans?
- Does trade law in all three jurisdictions cover state decisions of inaction if inaction has discriminatory effects?
- What rationale does the market participant exemption under the dormant Commerce Clause follow?
- To what extent does the market participation exemption cover public procurement decisions and regulation?
- Does the dormant Commerce Clause include an exemption for market creation? What is the scope of the exemption?
- Does EU free movement law include an exemption for public procurement decisions on what to buy? Does such an exemption apply even for a state policy or consistent practice on what to buy?

Tests on the Identification of Discrimination

- How high should the degree of substitutability or competition be for two products to be like? How is substitutability estimated? Is high substitutability between cars that run on diesel and cars that run on a mix of gasoline and bioethanol sufficient to make the different fuels like?
- How is discrimination assessed in a complex case such as the following: A broad category of like products consists of three or more subcategories that are different with respect to PPMs or some other properties. In-state products are overrepresented in some subcategories and underrepresented in other categories.
- What are the limits of the most favored nation principle under Article I GATT given that any state measure will have effects that favor the industry of some state over the industry in another state?

Grounds of Justification and Extraterritoriality

- What is the geographical scope of legitimate objectives? Does the same approach apply under trade law and procurement law?
- Can environmental PPM-criteria be justified on the grounds of public morals?

Proportionality

- How inconsistent can a state be in its application of environmental criteria across different sectors?
- How much support from international science is required for proportionality?
- Can a measure be suitable for a legitimate objective only if it can be expected to have the desired effect or is it sufficient that it logically advances the objective but for expected effect is dependent on behavioral changes in other states?
- How intense is the necessity test under EU free movement law, the necessity test under Article XX GATT and the necessity test under the chapeau of Article XX GATT? How close in the offered level of protection must the less trade restrictive alternative come in order to be virtually equal in effect and thus render the measure disproportional?
- Is the intensity of the necessity test higher when labelling is an option? Would the high intensity with labelling options apply in particular when the grounds of

justification is the protection of public morals or would the high intensity apply generally for labelling options?

- Under what circumstances does proportionality sensu stricto apply under WTO and EU law? Is there a meaningful difference between such a test and a high intensity necessity test?
- How is trade restrictiveness assessed in the test of least trade restrictive measure? Is it in terms of trade volumes or in terms of discrimination? Is the burden on interstate commerce under the Pike balancing test assessed in a similar way? Are measures considered less trade restrictive under the proportionality review in case they are less discriminatory but more restrictive in terms of trade volumes?
- Under Pike balancing, what is the relationship between value balancing and the test of least restrictive measure?
- How is the benefit calculated under Pike balancing? Is it a measure of net benefit? Should the benefit be estimated per capita?
- When does strict scrutiny instead of the Pike balancing test apply to cases of de facto discrimination?
- Is a measure unconstitutional under strict scrutiny already when there is no other less trade restrictive measure that adequately serves the desired objective or is the measure only disproportional when the alternative measures do not ensure that the objective is served as well?

7.5.2. Dealing with Legal Uncertainty in an Everchanging World

This study offered some insights into the functionality of legal tests in economic law. The tests are normally shaped by courts through jurisprudence on a case-by-case basis. In developing tests courts often rely on rules in written statues as well as legal principles. Trade law is no longer a new field of law and fundamental tests can therefore be expected to already have gained quite well-defined contours. The expectation of maturity does, however, not fully correspond with reality. Several tests have regularly been applied without precise definition of the core elements of the test.

Tests that evolve out of the application of rules and principles against a specific set of facts in the cases at hand are often not designed with a holistic and coherent idea in mind. Tests might function as mere tools for judges to facilitate their tasks of broad and

holistic balancing. Courts might not even have an interest in limiting their own discretion by developing more exact tests. Partly vague tests with undefined components allow the courts to conduct a holistic case-sensitive evaluation also in future cases. Yet, this does not come cheap. First, there will exist more legal uncertainty. Secondly, the risk of incoherent and even contradictory case law grows. The alternative would be to view tests as rules shaped by judges for logical *value reconciliation*. Tests of this nature would be more rigid in that a certain input would automatically deliver a specific outcome and there would be little to no room for case specific *value balancing*.

In a rapidly changing world courts are presented with cases where the sets of facts are new. Hence, the tests still today evolve through court interpretation. Stronger interaction between legislators, courts and academia is of importance for correcting and avoiding structural flaws. Courts could devote more attention to detail and precision in the design and formulation of tests. More precision in the definition of the concepts that are part of the legal tests would not mean that courts could not introduce new tests and concepts. New problems may raise a need for problem-solving and new tests for value reconciliation.

This study took as a starting point the increased emphasis on the sustainability of process and production methods. One of the main research questions concerned the values reconciled in trade law cases on PPM-criteria through the application of legal tests. It was concluded that apart from efficiency, also other values have been reconciled. The other main research question related to the challenges that the implementation of PPM-criteria creates for the application of trade law test and the potential solutions to those challenges. It was argued that courts should generally resist the temptation of creating new exemptions to trade law. Moreover, it was illustrated that while traditional trade law tests will also work in dealing with PPM-criteria, many details of their application will require clarification. Finally, less frequently applied tests, such as the test on whether inaction constitutes a state measure and the test on whether the measure includes sufficient due process rights, may be given a more prominent status in the era of sustainable PPMs.

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