EU Taxonomy and Sustainable Finance: Key Levers for Climate Change Mitigation

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Sustainable finance is mainstreaming. Sustainable finance refers to long-term investments in sustainable economic activities taking environmental, social and governance (ESG) considerations into account. Sustainable finance is a very timely and important issue for achieving the goals of the Paris Climate Agreement and sustainable development.

Current levels of investment are insufficient to support an environmentally and socially sustainable economic system. Financial markets cash flows are today too often contributing to environmental destruction, over-consumption and climate change, instead of sustainable technologies and businesses, that would result in sustainable long-term growth.

During the last years the European Union (EU) has taken a position as the world leader in promoting sustainable finance. In March 2018 European Commission published its extensive and ambitious Action Plan on Financing Sustainable Growth followed by various new sustainable finance regulations. The most important new sustainable finance regulation is the EU Taxonomy regulation.

The EU Taxonomy Regulation (EU 2020/852) aims to enable and increase sustainable investment. It is an EU-wide classification system that provides businesses and investors with a common definition on environmentally sustainable economic activities.

The objective of this research is to understand what is sustainable finance and the new EU Taxonomy Regulation. The main research question is: What is the EU Taxonomy and does it, as a classification system for sustainable finance, help in climate change mitigation. The used methodology is regulatory research, since this research focuses on examining a new regulation. The used method is traditional literature review. This research is based on European Commission material and publications, as well as extensive literature, from which research of Schoenmaker and Ehlers et al. can be pointed out as most important.

This research concludes that with EU Taxonomy investor preferences are expected to increasingly favour sustainable activities and allocate capital accordingly. EU Taxonomy is expected to help in climate change mitigation.

Key words: ESG, EU Action Plan, EU Taxonomy, responsible investment, sustainable finance.

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Kestävä rahoitus on valtavirtaistumassa. Kestävä rahoitus tarkoittaa pitkän aikavälin investointeja kestävään taloudelliseen toimintaan ottaen huomioon ympäristö- ja yhteiskuntavastuun sekä hyvän hallintotavan. Kestävä rahoitus on erittäin ajankohtainen ja tärkeä Pariisin ilmastosopimuksen ja kestävän kehityksen tavoitteiden saavuttamiseksi.

Nykyiset investointitasot eivät riitä tukemaan ympäristöllisesti ja sosiaalisesti kestävää talousjärjestelmää. Rahoitusmarkkinoiden kassavirrat edistävät nykyään liian usein ympäristön tuhoamista, ylikulutusta ja ilmastonmuutosta, kestävien pitkän aikavälin kasvua edistävien teknologioiden ja yritystoimien sijaan.

Euroopan Unioni (EU) on viime vuosina ottanut johtavan aseman maailmassa kestävän rahoituksen edistäjänä. Maaliskuussa 2018 Euroopan Komissio julkaisi laajan ja kunnianhimoisen toimintasuunnitelmansa kestävän kasvun rahoittamiseksi, jota seurasi useita uusia kestävän rahoituksen säädöksiä. Tärkein uusi kestävän rahoituksen säädös on EU:n taksonomia-asetus.

EU:n taksonomia-asetuksen (EU 2020/852) tavoitteena on mahdollistaa ja lisätä kestäviä investointeja. Se on EU:n laajuinen luokitusjärjestelmä, joka tarjoaa yrityksille ja sijoittajille yhteisen määritelmän ympäristön kannalta kestävästä taloudellisesta toiminnasta.

Tämän tutkimuksen tavoitteena on ymmärtää, mitä on kestävä rahoitus ja mikä on EU:n uusi taksonomia-asetus. Pääasiallinen tutkimuskysymys on: Mikä on EU:n taksonomia ja auttaako se kestävän rahoituksen luokitusjärjestelmänä ilmastonmuutoksen hillitsemisessä. Käytetty metodologia on sääntelytutkimus, koska tämä tutkimus keskittyy uuden EU-asetuksen tarkasteluun. Käytetty menetelmä on perinteinen kirjallisuuskatsaus. Tämä tutkimus perustuu Euroopan Komission aineistoon ja julkaisuihin sekä laajaan kirjallisuuteen, joista Schoenmaker ja Ehlers ym. teoksia voidaan pitää tärkeimpinä.

Tutkimuksen johtopäätös on, että on odotettavissa, että EU taksonomian johdosta sijoittajat suosivat yhä enemmän kestävää toimintaa ja allokoivat pääomaa sen mukaisesti. On odotettavissa, että EU taksonomia auttaa ilmastonmuutoksen hillitsemisessä.

Avainsanat: ESG, EU Taksonomia, kestävä rahoitus, vastuullinen investointi.

Table of contents

1. Introduction 10

1.1. Motivation 10

1.2. Research paper outline 12
1.2.1. Objective, topic and rationale 12
1.2.2. Problem and questions 12
1.2.3. Methodology, related and used literature and delimitations 12
1.2.4. Structure and outline 13

2. Sustainable development and corporate sustainability 15

2.1. Sustainable Development and Global Actions 15
2.1.1. Definition 15
2.1.2. International Cooperation on Sustainable Development 16
2.1.3. EU's Plan for a Sustainable Future and Green Transition 18

2.2. Corporate Sustainability and CSR Regulation 20
2.2.1. Definition 20
2.2.2. Legal obligation or voluntary chosen conduct 22
2.2.3. Sustainability Reporting 24

3. Sustainability in the financial market 27

3.1. What is Sustainable Finance? 27
3.1.1. Definition 27
3.1.2. From traditional to sustainable finance 28
3.1.3. Why - Reasons for sustainable finance 29
3.1.4. How - Sustainable investment strategies 31
3.1.5. Sustainable finance market globally 33
3.1.6. Regulatory situation 34
3.1.7. Global action to mainstream sustainable finance 36

3.2. Sustainable finance in Europe 42
3.2.1. Mainstreaming sustainability 42
3.2.2. High-level Expert Group on Sustainable Finance 44
3.2.3. EU Action Plan on Financing Sustainable Growth 45
3.2.4. EU Renewed Sustainable Finance Strategy 47

3.3. Main regulation on sustainable finance in EU 49
3.3.1. EU Sustainable Finance Regulatory (net)work 49
3.3.2. Sustainable Finance Taxonomy Regulation 51
3.3.3. Sustainable Finance Disclosure Regulation 52
3.3.4. Corporate Sustainability Reporting Directive 53
3.3.5. EU Climate Benchmarks 54
3.3.6. European Green Bond Standard 55
3.3.7. EU Ecolabel for Retail Financial Products 55
3.3.8. EU Sustainable Finance Regulatory Problems 56

4. Taxonomy for Sustainable Finance and EU taxonomy 60

4.1. What is sustainable finance taxonomy? 60
4.1.1. Definition 60
4.1.2. Main defining characteristics 61
4.1.3. Major sustainable finance taxonomies 62
4.1.4. Effective Taxonomy Design 65

4.2. EU Taxonomy 66
4.2.1. EU Taxonomy Regulation 2020/852/EU 66
4.2.2. Delegated Acts supplementing and amending 68
4.2.3. Objectives and conditions to be environmentally sustainable 70
4.2.4. Scope, target and output 72
4.2.5. EU Platform on Sustainable Finance 75
4.2.6. Brown Taxonomy and traffic light colour system 76

4.2.7. Social Taxonomy 77
4.3. EU Taxonomy criticism and future perspective 78
4.3.1. How legislative definition is better than existing market-led definitions? 78
4.3.2. Usability and high degree of complexity 79
4.3.3. Very low level of taxonomy alignment 80
4.3.4. Data problems and lack of data 81
4.3.5. Political battle: Science based or Greenwashing tool 83
4.3.6. Inaction is not an option 85
4.3.7. International Taxonomy Harmonisation 86
5. Sustainable finance and EU Taxonomy in Finland 89
5.1. Sustainable Finance in Finland 89
5.1.1. Sustainable policies and business thinking 89
5.1.2. Responsible investing 89
5.1.3. Finnish Sustainable Finance Roadmap 91
5.1.4. Sustainable Finance Regulation 92
5.2. EU Taxonomy in Finland 94
5.2.1. Impact in Finland 94
5.2.2. Private sectors reception 95
5.2.3. Public sector considerations 96
5.2.4. Forestry and nuclear power 96
6. Conclusions 99
6.1. Discussion and results 99
6.2. Limitations 101
6.3. Research evaluation 102
Bibliography 103

List of abbreviations

ASEAN	Association of Southeast Asian Nations
BEUC	European Consumer Organisation
BCG	Boston Consulting Group
CBI	Climate Bonds Initiative
CEO	Chief Executive Officer
CFI	Corporate Finance Institute
CFP	Corporate Financial Performance
CO2	Carbon dioxide
CSRD	Corporate Sustainability Reporting Directive
DNSH	Do No Significant Harm
EBF	European Banking Federation
ECB	European Central Bank
EEA	European Environment Agency
EEB	European Environmental Bureau
EIB	European Investment Bank
EK	Confederation of Finnish Industries
ESA	European Supervisory Authorities
ESG	Environmental, Social and Governance
ESMA	European Securities and Markets Authority
ETS	Emissions Trading System
EU	European Union
EU CTB	EU Climate Transition Benchmark
EU GBS	EU Green Bond Standard
EU HLEG	EU High-Level Expert Group
EU PAB	EU Paris-aligned Benchmark
EUR	Euro
FC4S	Network of Financial Centres for Sustainability
FIBS	Finnish Corporate Responsibility Network
FINSIF	Finland's Sustainable Investment Forum
FSB	Financial Stability Board
GFMA	Global Financial Markets Association
GISD	Global Investors for Sustainable Development
GSIA	Global Sustainable Investment Alliance
G20	Group of Twenty
G20 SFWG	G20 Sustainable Finance Working Group
ICMA	International Capital Market Association

IFC	International Financial Corporation
IFLR	International Financial Law Review
ILO	International Labour Organization
IMF	International Monetary Fund
IMP	Impact Management Project
IPCC	Intergovernmental Panel on Climate Change
IPSF	International Platform on Sustainable Finance
IOSCO	International Organization of Securities Commissions
ISO	International Organization for Standardization
MDB	Multilateral Development Bank
NACE	Statistical Classification of Economic Activities
NFRD	Non-Financial Reporting Directive
NGFS	Network for Greening the Financial System
OECD	Organisation for Economic Co-operation and Development
PAI	Principal Adverse Impact
PRB	Principles for Responsible Banking
PRI	Principles for Responsible Investment
PSI	Principles for Sustainable Insurance
RSFS	Renewed Sustainable Finance Strategy
RTS	Regulatory Technical Standards
SBNF	Sustainable Banking and Finance Network
SC	Substantial Contribution
SDI	Sustainable Development Investing
SDG	Sustainable Development Goals
SH	Significant Harm
SIF	Sustainable Insurance Forum
TCFD	Task Force on Climate-related Financial Disclosures
TEG	Technical Expert Group on Sustainable Finance
TNFD	Taskforce on Nature-related Financial Disclosures
UK	United Kingdom
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNDESA	United Nations Department of Economic and Social Affairs
UNEP	United Nations Environment Programme
UNEP-FI	United Nations Environment Programme Finance Initiative
UNFCCC	United Nations Framework Convention on Climate Change
UNPRI	Principles for Responsible Investment
US	United Stated
USD	United States Dollar

1. Introduction

1.1. Motivation

Climate change is the biggest threat modern humans ever faced.[1] In addition, climate action failure, extreme weather and biodiversity loss are the most severe risks on a global scale over the next 10 years concluded by the Global Risks Report 2022 of the World Economic Forum.[2] Climate change refers to the long-term unprecedented warming of climate, that is caused by human influence. Global warming is driven by emissions from human activities, such as fossil fuel burning, which increases heat-trapping greenhouse gas levels in the atmosphere. "*Climate change is already affecting every inhabited region across the globe, with human influence contributing to many observed changes in weather and climate extremes*." Every tonne of carbon dioxide (CO2) emissions builds up to global warming.[3]

There is a need for urgent climate action. The most important agreement to limit global warming is the Paris Agreement adopted in 2015 by 196 parties. The legally binding Paris Agreement has a goal to limit global warming to well below 2, preferably to 1,5 degrees Celsius compared to pre-industrial levels.[4] Actions to limit global warming, such as efforts to reduce the amount of emissions released into the atmosphere and the current concentration of CO2 by enhancing carbon sinks, are referred to as climate change mitigation.[5]

Private sectors participation is needed in climate change mitigation. Climate change, global warming and reduction of emissions, both the consequences of things that have been done, as well as, what needs to be done in the future, have clear and immediate implications for businesses. Climate change is the single most important challenge today also for businesses. 97% of organisations indicate that their companies have already been negatively impacted by climate change.[6]

The OECD estimates that, globally, EUR 6.35 trillion a year will be required to meet Paris Agreement goals by 2030.[7] This money needs to come from both public and private sources, particularly financial markets investments. Climate action will shift significantly the global investment needs, leading to lower demand for assets that increase

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[1] UN 23.2.2021

[2] World Economic Forum (2022)

[3] IPCC (2021)

[4] UNFCCC, The Paris Agreement

[5] UNFCCC, Introduction to Mitigation

[6] Deloitte, 2022 CxO Sustainability Report

[7] OECD (2017)

emissions and rising demand for assets that avoid or reduce them.[8] While financial markets have traditionally focused on maximised short-term profit for the shareholders, the mainstreaming of sustainability is also influencing financial markets sustainability. Sustainable finance can allocate investments into sustainable use.[9]

In the last years, the European Union (EU) has taken a position as the world leader in promoting sustainable finance. The European Commission defines sustainable finance as the "*process of taking environmental, social and governance (ESG) considerations into account when making investment decisions in the financial sector, leading to more long-term investments in sustainable economic activities and projects".*[10] The financial sector plays an important role in complimenting the public money by directing private investment into the transition to an environmentally and socially sustainable economic system.

While "*in 2016 the EU had no policy whatsoever about sustainable finance*", in recent years it has adopted an extensive and ambitious EU Action Plan for sustainable growth followed by various new sustainable finance regulations.[11] The EU has several actions for climate change mitigation and it has taken a leading role in transforming the financial sector from short-termism to long-termism with greater focus on material climate and ESG risks. In July 2021 the Commission adopted a Renewed European Sustainable Finance Strategy aligning financial industry with the Paris Agreement.[12]

An important part of the sustainable finance strategy is the EU Taxonomy for sustainable activities, which provides a tool for investors, issuers and other stakeholders by aiming to create a more harmonized classification system on what can be considered an environmentally sustainable economic activity. The Taxonomy classification system helps to identify activities that make substantial contributions to environmental objectives and help to finance the transition to a more sustainable economy. This is the first and essential enabling step in the overall effort to channel investments into sustainable activities.[13]

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[8] UNPRI (2021)

[9] Schoenmaker — Schramade (2019) p.19-28

[10] European Commission, Overview of sustainable finance

[11] Vander Stichele (2018)

[12] European Commission, Overview of sustainable finance

[13] TEG (2020)

1.2. Research paper outline

1.2.1. Objective, topic and rationale

The objective of this research is to understand what is sustainable finance and the new EU Taxonomy Regulation. Sustainable finance and the new EU regulation of sustainable finance, of which most important is the EU Taxonomy regulation, are the main topics discussed. Sustainable finance is a very timely and important issue for achieving the goals of the Paris Climate Agreement and sustainable development. The EU Taxonomy is a unique and very ambitious regulation worldwide. The Taxonomy Regulation establishes a classification system for environmentally sustainable investments. Taxonomy plays an important role in guiding private capital to support climate change mitigation and adaptation.

1.2.2. Problem and questions

The EU is committed to achieving climate neutrality by 2050. The need to take action to mitigate climate change has been high on the political agenda. Climate action is also creating significant changes in global investment needs. In order to mitigate climate change, private capital is needed to make investments in support of climate goals.

Research question: What is the EU Taxonomy and does it, as a classification system for sustainable finance, help in climate change mitigation?

This main research question is approached with the following more specific research questions:

- Reachers question 1: Why is sustainability so important and getting so much attention everywhere?
- Research question 2: What does sustainable finance mean?
- Research question 3: What is the new EU Taxonomy Regulation?
- Research question 4: Is the EU Taxonomy Regulation necessary and expedient?
- Research question 5: What is the state of sustainability and sustainable finance, as well as the reception of the EU Taxonomy regulation in Finland?

1.2.3. Methodology, related and used literature and delimitations

The sustainability of financial sector and sustainable finance has been studied increasingly in the past years, but the new EU legislation brings new dimensions to the research. Due to the novelty of EU Taxonomy there is almost no previous research about it. Since the first parts of the EU Taxonomy regulation have been applicable only from the January 2022, there can be expected first result earliest by the end of the 2022.

The materials published by the European Commission and its Technical Expert Group on Sustainable Finance, set up in 2018, are important for conducting this research. This research is based on the Commission publications, as well as international literature, articles, website material and sources of law, with the objective to deepen the debate and gather and analyze information on the subject. This research focuses mainly on European Union and Finland. Global policy context is taken into account but is not the focus of the study.

The method used in this qualitative research is traditional literature review.[14] This is a regulatory research focusing on the new EU Taxonomy Regulation (EU 2020/852). Regulatory research methodology is multidisciplinary research of means and evaluation of chosen regulation. Regulatory research studies where does the regulation come from and what are the underlying systems. It creates coherence between the stated objectives of the law and the means of building up the legal norms it contains. The regulatory research approach assesses the implementation of regulation by analysing the objectives and effects of the regulation.[15]

1.2.4. Structure and outline

This research consists of three parts: introduction, literature review and conclusions. The introduction motivates the research and lists its objectives and structure. The literature review in Chapters 2-5 analyses the selected literature and deepens the discussion. The conclusions seek to answer the research questions and present the conclusions drawn from the results of the study.

- Chapter 2 focuses on laying the foundations for the current global state of sustainable development, and in particular the EU Sustainable Development Action Plan. After determining the state of overall sustainability, the research deepens more closely into the analysis of sustainable business. The goals of sustainable development cannot be achieved without the involvement of private business.
- Chapter 3 focuses on defining sustainable finance and examining its regulation. Sustainable finance is also being explored from a global perspective, but the focus is on the EU and the EU's sustainable finance policies and regulations.
- Chapter 4 focuses on the analysis of EU Taxonomy. First, the taxonomy of sustainable finance is defined and other existing taxonomies of sustainable finance are examined, followed by an analysis of the EU taxonomy legislation and its delegated regulations. The research examines the purpose, delimitations, target and future prospects of EU

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[14] Snyder, H. (2019)

[15] Kokko, K. T. (2017)

Taxonomy. EU Taxonomy problems are discussed in detail and possible solutions considered.

• Chapter 5 focuses on the analysis of EU Taxonomy from Finland's perspective. First, is analysed the situation of sustainable finance in Finland in general, and then EU Taxonomy in particular, from the viewpoint of both the private and public sectors. The EU Taxonomy has provoked discussions very widely in Finland and has aroused a great deal of political interest.

2. Sustainable development and corporate sustainability

2.1. Sustainable Development and Global Actions

2.1.1. Definition

Cambridge Dictionary defines that when something is *sustainable* it is able to continue over a period of time. *Development,* on the other hand, refers to the process in which someone or something grows or changes and becomes more advanced.[16] Defining what is development or what is sustainable is not simple or unambiguous, and the same goes with sustainable development. Sustainable development doesn't have a clear and globally established meaning. The most well-known definition for *sustainable development* is from *Our Common Future* also known as the *Brundtland Report* published in the 1987. According to Our Common Future sustainable development can be defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. This definition paved the way for an idea that development can be achieved in environmentally sustainable forms.[17]

Sustainable development can be thought through three pillars:

1. The environment
2. The society
3. The economy.

These three pillars should be in equal harmony in order to achieve sustainability. We should care for our people, planet and resources (profits) in order to live in a sustainable manner. These three interrelated dimensions of people, planet and profits form also a so called triple bottom line (3Ps) that is used as an accounting framework to measure sustainability.[18] In the core of the sustainable development is an ambition to balance different, and frequently competing, needs against perception of the environmental, social and economic limitations we encounter as a society. Too many times this balance doesn't take place and development is driven by only one of the needs. Sustainable development and unsustainable situations are in the news every day as we cope globally climate change, conflicts, biodiversity loss and resource scarcity.[19]

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[16] Cambridge Dictionary, Sustainable; Cambridge Dictionary, Development

[17] WCED (1987)

[18] Slaper, T. F. — Hall, T. J. (2011)

[19] Sustainable Development Commission

2.1.2. International Cooperation on Sustainable Development

Sustainability is the foundation for today's leading global framework for international cooperation. The most important global action is the 2030 Agenda for Sustainable Development and its Sustainable Development Goals (SDGs). *The 2030 Agenda for Sustainable Development* is a broad intergovernmental agreement about the principles and actions on universal goals for sustainable development to achieve the future we want. *The Sustainable Development Goals* are in total 17 aspirational global goals framed by the United Nations and its 193 member states, as well as the global civil society in 2015. The SDGs contain 17 goals with 169 targets covering a broad range of sustainable development issues. The most important goal of the 2020 Agenda and the SDGs is to end poverty and hunger, and to achieve sustainable development in its three dimensions through promoting inclusive economic growth, protecting the environment and promoting social inclusion.[20]

One of the most important features of the SDGs is the big emphasis on the success of the implementation and concretization of the Goals by focusing on the mobilization of financial resources.[21] *The Addis Ababa Action Agenda* (AAAA) of the Third International Conference on Financing for Development, held in 2015, provides concrete policies and actions to support the implementation of the 2030 Agenda. It provides a new global framework for financing sustainable development aligning all financing flows and policies with economic, social and environmental priorities.[22] The AAAA calls for "*global partnership for sustainable development, led by governments*" and "*mobilization of financial resources as well as capacity-building and the transfer of environmentally sound technologies to developing countries*".[23]

In 2015 was also adopted *The Paris Agreement*, a legally binding international treaty on climate change that was adopted by 196 parties. The goal of the agreement is to limit global warming to well below 2, preferably to 1.5 degrees Celsius, compared to pre-industrial levels. The Paris Climate Accord is a landmark in the multilateral climate change process because, for the first time, a legally binding agreement brings all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects.[24]

The Paris Agreement covers *climate change mitigation, adaptation, and finance*. Mitigation means actions to limit global warming, such as efforts to reduce the amount

[20] UN, Sustainable Development Agenda

[21] Ibid.

[22] UN, Financing for development

[23] UN (2015)

[24] UNFCCC, The Paris Agreement

of emissions released into the atmosphere and the current concentration of carbon CO2 by enhancing carbon sinks.[25] Adaptation refers to the process of adjusting to actual or expected climate change effects or impacts. Adaptation actions can range from building flood defences and switching to drought-resistant crops, to redesigning business operations and government policies.[26] Climate finance is local, national or transnational financing, that is drawn from public, private and alternative sources of financing, and that seeks to support mitigation and adaptation actions addressing climate change.[27]

The Paris Agreement reaffirms that developed countries should take the lead in providing financial assistance to more vulnerable and poorer countries. Climate finance is needed for mitigation and large-scale investments are required to significantly reduce emissions. Significant financial resources are also needed in order to adapt to the adverse effects and reduce the impacts of a changing climate.[28]

Since *the United States* (US) and China are together responsible for almost half of the worlds carbon emissions, the US President Barack Obama's support and his cooperation with China were seen as major factors leading to the Paris Agreement's early success. When the former US President Donald Trump announced on 2017 the US withdrawal from the agreement, the spotlight on global climate regime passed to China and EU. The current US President Joe Biden rejoined the agreement on 2021. However, China and EU acted accordingly and started to take actions after the US withdrawal.[29]

China is the world's biggest source of CO2 and responsible for around 27 % of global emissions. China emits more greenhouse gas (GHG) than the entire developed world combined. It is also the biggest energy financier, world biggest market and has the largest population, making Chinas's decisions paramount in shaping how the rest of the world advance with the transition to reduce GHG emissions. While the US was following a route of climate change refusal led by Donald Trump, the President of China Xi Jinping made a surprising and celebrated declaration that China aims to have CO2 emissions peak before 2030 and achieve carbon neutrality by 2060, when speaking to the UN General Assembly in September 2020. Even though it is still little unclear what President Xi Jinping meant exactly by carbon neutrality and what actions China will take to get there, this is a much needed impulse for global climate politics.[30]

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[25] UNFCCC, Introduction to Mitigation

[26] UNFCCC, What do adaptation to climate change and climate resilience mean?

[27] UNFCCC, Introduction to Climate Finance

[28] UNFCCC, The Paris Agreement

[29] BBC 3.9.2016; BBC 4.11.2020

[30] BBC 22.9.2020; BBC 7.5.2021

President Xi Jinping repeated his pledge from 2020 at a Leaders' Summit on Climate organised by US President Joe Biden on April 2021. Also in the UN Climate Change Conference (COP26) in Glasgow the US and China reinforced cooperation and issued a joint announcement to slow climate change in the 2020s. Since most of the climate agreements and announcements have a time limit for actions by 2030, 2050 or 2060 the biggest novelty of this *US-China joint Glasgow declaration on enhancing climate action in the 2020s* is the promised short term schedule for actions already in this decade.[31]

Besides this joint declaration of the US and China, the COP26 resulted in finally finishing the Paris agreement guidelines for Article 6 after 6 years of negotiations. With the Article 6 *rulebook* of the Paris Agreement, is finally established a robust framework for countries to exchange carbon credits through the United Nations Framework Convention on Climate Change (UNFCCC). The Glasgow meeting also resulted in agreement on increased financial support through the Adaptation Fund as developed countries were urged to double their support to developing countries by 2025. The biggest breakthrough of the meeting would have been an explicit acknowledgment that nations must phase out coal burning faster and stop subsidizing fossil fuels. However, under the pressure of China and India, the word *phase down* was added instead of *phase out* in the agreement on coal use. Nonetheless, 190 countries and organizations have pledged to stop using coal, and many countries and organizations have announced to stop financing the coal sector.[32]

2.1.3. EU's Plan for a Sustainable Future and Green Transition

The European Union has long pursued a leading role in policies to tackle climate change. It established its first climate change strategy as early as 1992 and promoted the goal of limiting global warming to 2 degrees Celsius above pre-industrial levels already in 1996. The EU has set out the *environmental integration principle* in Article 11 of the Treaty on the functioning of the European Union. The environmental integration principle obliges EU institutions, and indirectly the EU Member States, to integrate environmental protection requirements in all their policies and activities with the aim of promoting sustainable development. This obligation is not followed routinely despite its legal nature.[33]

When in 2016 the world saw the rise to power of leaders that were hostile to climate actions in several major emitting countries, such as Donald Trump in the US and Jair Bolsonaro in Brazil, the EU and global climate action were challenged. Confronted

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[31] US Department of State 10.11.2021

[32] Washington Post 10.11.2021

[33] Sjåfjell, B. — Richardson, B. (2015)

with the global political situation and growing evidence of the climate crises the EU has continued to consider climate policy and tackling of global warming its priority.[34] The EU is in the forefront of coordinating international efforts towards climate neutrality and plans to "*use its influence, expertise and financial resources to mobilise its neighbours and partners to join it on a sustainable path*."[35] It considers that it has a leading role in the global fight against climate change and has committed to its role with an objective to make Europe the first climate-neutral continent.

On 11 December 2019, European Commission presented the European Green Deal, its new growth strategy and a roadmap of key policies for the EU's climate agenda. The Green Deal works as a base on which the Commission continues to develop legislative proposals and strategies from 2020 onwards. It is a coordinated set of policies and legislation designed to lower the EU's global warming emissions to zero over the next 30 years. A key component of the Green Deal is the proposed Climate Law including a legal commitment for the EU to achieve climate neutrality by 2050. The ambition is to have a future where economic growth is dissociated from resource use.[36]

In order to realise this ambitious plan, the Green Deal will require massive public investment and increased efforts to direct private capital. The Commission estimated that in order to achieve the current 2030 climate and energy targets there is a need for EUR 260 billion in additional annual investment. Over the next decade the Commission aims to mobilise at least EUR 1 trillion of sustainable investments. The Green Deal investment plan aims to create an enabling framework that facilitates and stimulates the public and private investments that are needed for the transition to a green and sustainable economy.[37]

The EU has also decided to create a more than EUR 800 billion temporary recovery instrument NextGenerationEU, to support Europe's recovery from the economic and social damage caused by the Coronavirus disease (COVID-19) pandemic. The objective of the NextGenerationEU is to help build greener, more digital and more resilient future for Europe. To finance NextGenerationEU, the Commission will raise from the capital markets around EUR 800 billion between 2020 and 2026. From the fund 30 % is raised through issuance of green bonds, and it intends to use the proceeds to finance green investments and reforms. The Commission wants to reinforce with this decision its commitment to sustainability.[38]

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[34] Siddi (2020)

[35] Commission Communication (EU) COM/2019/640

[36] Commission Communication (EU) COM/2019/640; European Commission, Overview of sustainable finance

[37] Siddi (2020)

[38] European Commission, Recovery plan for Europe; European Commission 7.9.2021

The European Climate Law writes into law the goal set out in the European Green Deal for Europe to become the first climate-neutral continent by 2050. The law also sets an intermediate target of reducing net GHG emission by at least 55 % by 2030, when compared to 1990 levels. The ambitious EU 2030 target will set Europe on a responsible path to becoming climate-neutral by 2050. In order to achieve the goals of the Climate Law, the EU proposed a set of policy proposals, the “Fit for 55” package, in July 2021. Fit for 55 refers to the EU’s target of reducing GHG emissions by at least 55% by 2030 . The proposed package aims to bring EU legislation in line with the 2030 goal, by revising and updating EU legislation particularly related to climate, energy and transportation. The Fit for 55 includes legislative proposals and policy initiatives, such as to strengthen the emissions reduction targets for each Member State as well as the EU's emissions trading scheme (ETS). It also aims to increase energy efficiency to 36-39 % and renewable energy sources in the overall energy mix to at least 40 % by 2030, as well as end completely the sale of combustion engine cars by 2030.[39]

2.2. Corporate Sustainability and CSR Regulation

2.2.1. Definition

Only with public efforts achieving sustainability goals and work towards climate change mitigation is not sufficient. To achieve SDGs and Paris Agreement private sectors participation is needed. Fortunately, to an increasing extent businesses have come to embrace sustainability. Over the past few decades many companies have started to reduce their negative impacts and improve their responsibility. However, while companies are increasingly engaged in sustainability, yet environment continues to rapidly decline. This paradox is partly caused by a narrow understanding of the meaning of corporate sustainability.[40]

There are several definitions to describe corporate sustainability. Schwartz and Carroll observe that all of these definitions share three core concepts of *value, balance, and accountability*. Sustainable corporation generates value for the company and society. It has a balance of financial and non-financial interests. In addition, it has accountability for activities of the corporation. These concepts can be used to to bring clarity in understanding what different definitions of corporate sustainability mean.[41]

Corporate Social Responsibility (CSR) is one of the first definitions created to describe corporate sustainability efforts. The general concept of CSR refers to a voluntary

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[39] European Commission, European Climate Law; European Council, Fit for 55

[40] Tulder, R. (2018); Landrum, N. E. (2018)

[41] Schwartz M. S. — Carroll A. B. (2008)

commitment by corporations to address some social issues within its operations. Many users have started to abbreviate CSR also in the form of corporate responsibility (CR). CR can be defined as compliance with national laws and responsible business operations beyond the requirements of law for the benefit of society and the protection of the environment and people. These sustainability concepts are diverse and ever-changing. There is no single, widely accepted definition of CSR. Further, there is disagreement about the role of the business in society, in particular, what is the responsibility of corporations. While corporate responsibility refers to *responsibility*, its indefinite, what is the scope of corporate responsibilities and what responsibility entails.[42]

The most narrow scope of corporate responsibility is the generation of financial returns for investors. According to Friedman doctrine of shareholder value maximization, business should never have any other responsibilities, then the profit motive to its shareholders. However, this can not be the extent of CSR alone, when considered broader society and corporation as one of the social elements of it. When a corporation operates maximising financial returns for shareholders, the profit it creates has external cost, such as pollution. Corporation's responsibility can be extended to these externalised third-party effects. "*In the language of economics, this can be referred to as a duty to internalise the corporation's externalities."*[43]

The wider scope for corporate responsibility takes into consideration a broader group of stakeholders, such as customers, employees, local communities and other affected groups of people. It considers stakeholders as its beneficiaries and produces shared value incorporating social and environmental externalities that are linked to company's operations. This wide corporate sustainability refers to a "*set of systematically interconnected and interdependent economic, environmental and social concerns at different levels that firms are expected to address simultaneously"*. In practise, the economic dimension is many times unfortunately prioritised over the two other dimensions[44]

The corporate underperformance regarding sustainability can be described with term business-as-usual or with more exact term sustainability-as-usual. This means a slow and voluntary adaptation of sustainability in business, while committing to changes they feel comfortable making. This is not necessarily the same as what science shows is needed to slow down climate change or what international guidelines, such as the UN Guidelines, recommend for a just society.[45] Because of sustainability, the value created by corporation needs to go beyond business-as-usual. This can be either motivated by

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[42] Millon, D. (2015)

[43] Ibid.; Friedman (1970); Shareholder is a person that owns shares (of stock) in a company. Stakeholder is any individual, group or party (such as employee, customer, society or government), that has an interest in a company and can either affect or be affected by the business.

[44] Hahn et al. (2015)

[45] Godelnik, R. (2021)

external pressure or internal motivation and opportunities, whereas the biggest obstacle for this is the corporate growth-dependancy decoupling from resource use.[46]

2.2.2. Legal obligation or voluntary chosen conduct

Corporate sustainability can be seen as a legal obligation. Some assume that compliance with national laws amounts to socially responsible behaviour. However, in areas where the law and regulations are inadequate to address a particular social element, such as the need for environmental sustainability, this notion of corporate sustainability offers little value to society. Business needs to do more than simply comply with legal requirements to make a truly positive impact on the environment. Going beyond legal compliance, society has shared assumptions and values that constitute perception of right and wrong. As Millon attest: "*These 'social norms' can be powerful enough to motivate behaviour just as much as law does*".[47]

On the other hand, voluntary chosen conduct of corporate sustainability receives critics and legitimate doubts about the value it creates. Some claim voluntary sustainability initiatives as ways to proactively reduce the threat of legal obligations and future regulation. Others point out CSR as merely public relations exercise, deflecting of consumers and NGOs pressure and greenwashing. Corporate practice of making false or misleading claims about the environmental benefits of business can be defined as greenwashing. Characteristic for greenwashing is also sophisticated marketing of deflecting sustainability arguments in order to cover a questionable environmental information. Millon recognises in his research that although "*greenwashing does occur and provides little social value, it is also important to see that corporations have the capacity to do much more than that*".[48]

Ideal would be to have company law and legal obligation imposing requirements that support sustainability. Current company law widely allows for environmentally irresponsible practises. Sjåfjell and Richardson write that: "*the main company law barrier to sustainable companies, the shareholder primacy norm, has been allowed to flourish because the law has not specified what the societal purpose of companies is, thus leaving a vacuum that has been filled with this social norm.*" The shareholder primacy drive, with the privileging of short-term returns to shareholders, could be rectified with company law explicitly stating the societal purpose of companies or what the interests of the company are. This is supported with the growing societal awareness that companies have harmful impact on important public goods, such as the global climate. In addition, is needed a regulatory reform to include a duty on salient corporate decision mak-

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[46] Landrum, N. E. (2018); Bouma, J. J., — Teun W. (2018)

[47] Millon, D. (2015)

[48] Ibid.; CFI, Greenwashing

ers to manage their business for the long term, and thus incorporate the core temporal dimension of sustainability.[49]

Sjåfjell and Richardson point out that the reopening of the debate on the purpose and responsibility of the company and a new questioning of conventional knowledge give hope for better times ahead. Sjåfjell and Richardson give a suggestion for improvement within the current legal regime, to apply a proper enforcement, which is often inadequate. Enforcement deficit is most eminent in environmental law violations, and often moderately implemented environmental reporting requirements, in the business law context. Despite the decision of the jurisdiction, either to continue with the current regime counting its limitations, or favour a new legal infrastructure for business, its important to ensure that law enforcement mechanisms are in place and properly deployed.[50]

Besides national laws, there exists a wide range of standards made in intergovernmental organisations that form the key international framework for CSR. These so called soft-law instruments include the OECD Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights, as well as the UN Global Compact, that consists of 10 principles concerning human rights, labour, environment and anti-corruption, among others.[51]

In addition to the legal and institutional challenges of companies, there are wider structural barriers in a market economy, such as the increased environmental cost from companies exposed to competitive market pressures, that need to be taken into account. Current market system that pressures to externalise environmental harm, can be also tackled with economic policy instruments, which can improve the sustainability performance of business, such as the carbon emissions trading schemes and carbon taxes. These instruments have not been as effective as possible, because corporate lobbyists have managed to dilute targets through concessions and loopholes. Corporations also use the so called *grandfather clause* to get an exemption to continue with old regulation, *tax holidays* to temporarily reduce or eliminate taxes, as well as low-quality offsetting compensatory payments to continue unsustainable practises.[52] Fortunately there has been also positive progress in the area of carbon emission trading such as the result of COP26 finally finishing the Article 6 rulebook of the Paris Agreement on carbon credit

[49] Sjåfjell, B. — Richardson, B. (2015)

[50] Ibid.

[51] Ibid.

[52] Ibid.

exchange, as well as new honest advocates on carbon overcompensation, such as the Finnish NGO Compensate.[53]

Changes supporting sustainability are happening, but too slowly. Thankfully s*ome* companies have started to take action without legal requirements. These voluntary efforts reduce greenhouse gas emissions, pollution and waste to mention few. Companies have developed products, such as hybrid cars, that make it possible for consumers to reduce their environmental strain. Companies can also communicate their commitment to CSR by adopting a *code of conduct*, that is a document summarising the key business principles of company operations. A code of conduct can be developed on environmental and human rights matters, such as Responsible Care governing chemical industry or Code of Ethics including human rights conduct. Companies can do a lot of good with these kinds of meaningful voluntary practices, although many things covered under CSR are not significant, effective or even positive. Millon sees that even the best version of CSR is not sufficient solution alone to the sustainability challenge.[54]

2.2.3. Sustainability Reporting

Sustainability reporting is probably the clearest evidence of the corporate sustainability trend. The 2020 KPMG Survey of Sustainability Reporting found that almost all (96%) of the largest 250 companies in the world (the G250) report on their rate of sustainability. Whereas almost 30 years ago in 1993 only 12 % of companies published sustainability reports. Today 80 % of companies, and over 90 % of the largest companies in the world, report on their sustainability performance. Sustainability reporting continues worldwide growth and also Europe have seen a steep increase. This trend is due to to the implementation of the (EU 2014/95) Non-Financial Reporting Directive (NFRD) that has entered into force in the EU Member States. All publicly listed companies and financial institutions exceeding 500 employees are required to report certain non-financial information. Furthermore, other regulatory initiatives under development, such as the EU Taxonomy, are also creating huge momentum for sustainability and sustainability reporting. For example in Finland 84 of the top 100 Finnish companies report sustainability information as part of their annual disclosures, while in 2017, only 54 did so. In 2020 overall rate of sustainability reporting was in Finland 90 %, compared to the US 98 % and Sweden 98 %.[55]

However, the rise in sustainability reporting has not accompanied by actual improvement in major environmental and social issues. Sustainability reporting, in line with the CSR in general, has become more about risk management and used as a corpo-

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[53] Compensate 15.11.2021

[54] Millon, D. (2015)

[55] KPMG (2020)

rate marketing tool, contrary to expectations of incorporating sustainable development into company values and operations.[56]

A major problem in sustainability reporting is the lack of common basis and a systematic approach to the preparation. This has caused a current situation, where sustainability reports can not efficiently be compared over time or among companies. Mähönen describes that "*reporting is often motivated by 'cherry picking': companies' tendency to project a positive image of their sustainability efforts*". Erkki Liikanen from International Financial Reporting Standards Foundation said that: "*Notwithstanding differences in scope and motivation, most stakeholders share a common message: there is an urgent need to improve the consistency and comparability in sustainability reporting*". Liikanen considers that creating comparable and consistent standards would be a solution. However, standardizations, such as the Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB) framework and International Organization of Standardization (ISO) standard 26000 are in use, with poor results.[57]

Besides standardisation of sustainability reporting, it needs to be subject to external assurance. The KPMG describes that: "*Independent third-party assurance of sustainability information has now become standard practice for large and mid-cap companies worldwide*". However, Mähönen considers this only as superficial *consistency check* and calls for sustainability reporting to be subject to equivalent requirements to those that apply to financial statements. Non-financial reports, including sustainability reports, remain easily redundant and with limited assurance. Sustainability reporting should be on the same level with financial reporting. This can be achieved with improving sustainability accounting basis, and accounting system that accumulates information systematically for sustainability reporting.[58]

Overall, in order to improve sustainability reporting, new regulatory solutions are required. Most of the countries have primary legislation with provisions relating to corporate reporting. These provisions can be either in commercial codes, company law or accounting legislation. For example, Finland has its CSR reporting obligations in its accounting legislation in Accounting Act (1376/2016). The legislation is based on an EU's NFRD directive (EU 2014/95). It is applicable to large entities and obligates the companies to report on their policies concerning the environment, their employees, social issues, human rights as well as tackling corruption and bribery.[59]

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[56] Mähönen, J. T. (2020)

[57] Mähönen, J. T. (2020); UNCTAD, Sustainability reporting central to achieving global goals post pandemic

[58] Mähönen, J. T. (2020); KPMG (2020)

[59] Villiers, C. — Mähönen, J. (2015); Laki kirjanpitolain muuttamisesta (1376/2016); Ministry of Economic Affairs and Employment, CSR

New national level regulations in Europe would be based on changes in EU law, that is in a path forward to encourage sustainability in reporting, assurance and governance.[60] The EU has adopted a proposal to update the current NFRD for a Corporate Sustainability Reporting Directive (CSRD) that would bring sustainability reporting on the same level with current financial reporting. With the new CSRD, that is expected to come into effect during the 2022, sustainability reporting would become mandatory, standardised and subject to external assurance. This proposal will be studied in more detail in Chapter 3.3.4 on Corporate Sustainability Reporting Directive.[61]

[60] Mähönen, J. T. (2020)

[61] European Commission 21.4.2021c

3. Sustainability in the financial market

3.1. What is Sustainable Finance?

3.1.1. Definition

Sustainable finance (SF) can be defined as long-term investments in sustainable economic activities and projects taking environmental, social and governance (ESG) considerations into account.[62] Sustainable Finance looks at how finance (investing and lending) interacts with economic, social and environmental issues. As the main task of the financial system is to allocate funding to its most productive use, finance can play a leading role in allocating investment to sustainable corporates and projects, and so help accelerating sustainable development. [63]

The European Sustainable Investment Forum (Eurosif) defines that sustainable and responsible investment (SRI) is a "*long-term oriented investment approach which integrates ESG factors in the research, analysis and selection process of securities within an investment portfolio"*. SRI incorporates the ESG factors through fundamental analysis and evaluation in order to better capture long-term returns for investors, as well as benefit society by influencing companies behaviour.[64] The abbreviation SRI can be used also to refer to socially responsible investing (SRI) or social investment, which refers to an investment that is considered especially socially responsible. When focus is on developmental issues, can be used term sustainable development investing (SDI), that refers to investing capital in ways that make a positive contribution to sustainable development measured based on using the Sustainable Development Goals (SDGs).[65]

There are several terms that are used to describe activities related to the interaction between finance and sustainability. Besides sustainable finance, other terms include sustainable investing, responsible finance, responsible investment, responsible banking, climate finance and green finance. These terms are often used as synonyms but there are differences in their scope, especially whether they include social and governance aspects. This study focuses mostly on terms sustainable finance and sustainable investment.

The vast variety of definitions of sustainable finance and investment is considered as an important barrier to scaling up sustainable finance. The lack of universal rules and standardisation is a great concern among participants in the market. A commonly ac-

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[62] European Commission, Overview of sustainable finance

[63] Schoenmaker — Schramade (2019) p.3-4

[64] Eurosif

[65] GISD (2020)

cepted definition would be essential to maximise the efficiency of the market and to mobilise investment in the context of a broader supportive policy framework.[66]

3.1.2. From traditional to sustainable finance

Sustainable finance is easier to understand when compared with traditional meaning of finance. In the traditional type of finance as usual mindset, that is consistent with the ideas of Friedman doctrine, it is argued that it is only the governments task to take care of social and environmental goals and set the rules for sustainability. In traditional finance the shareholder value is maximised by looking for the optimal return and risk combination, while the business has no other responsibility than the profit motive for its shareholders. Due to the built-in incentives for short-termism, such as quarterly financial reporting, shareholder value is predominantly assessed at short term, not at medium to long term. In sustainable finance the perspective has broadened, firstly from shareholder value to stakeholder value, considering also how the society as a whole is affected by, and also from short-termism to the long term approach.[67]

The concept of sustainable finance has evolved as part of the broader idea of business sustainability since the 1990s. Schoenmaker and Schramade have made a clear sequence breaking down how sustainable finance has evolved through three stages:

- Stage 1 - Minimum level, where the financial institutions avoid investing in or lending to so-called sin companies, such as companies selling tobacco, dumbing waste or exploiting child labour, with very negative impacts.
- Stage 2 - Halfway, where financial institutions incorporate negative social and environmental externalities into their internal decision-making, by many times attaching a financial value to social and environmental impacts, such as carbon tax.
- Stage 3 - Optimal level, where the focus moves from risk to opportunity by investing only in sustainable companies and projects, instead of avoiding unsustainable companies. In this approach finance is contributing to sustainable development while observing financial viability, for example by funding green buildings or wind farms.[68]

The first two stages aim to avoid reputation risk, while the third stage aims to grasp the opportunities of realising social-environmental impact through investment and lending. Majority of the firms are at the minimum level stage 1 putting financial value first. Schoenmaker and Schramade evaluate that about 30 to 40 % of financial institutions and 20 to 30 % of corporates adopt sustainable principles in their investment and business practices, being somewhere between stage 1 and 2, meaning financial value is

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[66] OECD (2020); Migliorelli, M. (2021)

[67] Schoenmaker — Schramade (2019) p.19-28; Friedman (1970)

[68] Schoenmaker — Schramade (2019) p.19-28

dominant but social-environmental value is incorporated. Less than 1 % of financial institutions are in the optimal level.[69]

3.1.3. Why - Reasons for sustainable finance

There is a huge and ever-growing need for sustainable finance. The information, incentives, policies and recommendations in the area of sustainable finance are improving and extending. The financial system is an integral part of how modern economies develop. Banking, savings, investment and insurance play a critical role in supporting and enabling economic growth and development. Many ask, why should finance contribute to sustainable development. From a more open mindset the question would be, how can sustainability and sustainable finance contribute to the business.

One of the misconceptions around sustainable investing is the notion that there is a trade-off between returns and doing the right thing. This myth has been invalidated in many studies of the correlation between environmental, social, and governance (ESG) criteria and corporate financial performance (CFP). Friede, Busch and Bassen found out in their extensive meta-analysis that around 90 % of studies find a non-negative ESG -CFP relation. Even more importantly, the large majority of these studies find a positive impact. This means that integrating ESG resulted in same level of performance or outperformance of the benchmark.[70] Sustainable investing is good business. It is intelligent investing where sustainability factors are integrated into the investment decision process allowing investors to understand how sustainability involves risks or opportunities to long-term value. In practice this means that sustainable investing helps in identifying attractive investment in pursuit of financial returns. Sustainable finance can be at its best opportunity seeking.[71]

Higher level of sustainability and responsibility disclosure are associated with higher firm value and lower cost of equity capital. More responsible companies have better access to finance. This can be attributed to reduced agency costs due to improved stakeholder engagement and also reduced informational asymmetry due to increased transparency.[72] Improved engagement with stakeholders reduce the agency cost. This means that more responsible companies are more committed with stakeholders and as a result the likelihood of short-term opportunistic behaviour is smaller and the overall contracting cost is reduced. With improved engagement, conflicts of interest between shareholders and management tend to reduce. Increased transparency, on the other hand, re-

[69] Schoenmaker — Schramade (2019) p.19-28

[70] Friede et al. (2015)

[71] World Finance 24.7.2020

[72] Cheng et al. (2014); Dhaliwal et al., (2012); Agency cost means expenses from actions of an agent acting on behalf of a principal.

duce the price premium in consequence of information asymmetry. By disclosing non-financial responsibility information about the company, especially in regions where the stakeholder legitimacy is exceptionally high (i.e. high stakeholder orientation), it results in decreased uncertainty. Increased transparency between the firm and investors lead to lower capital constraints.[73]

Sustainability and responsibility information can be used also to evaluate the resilience of a firm. Lins, Servaes and Tamayo suggest in their research that the trust between a firm and both its stakeholders and investors, that is built through social responsibility, pays off when the overall level of trust in corporations and markets suffers a negative shock. This type of longterm view on risk management has helped responsible companies in situation such as the 2008-2009 financial crises.[74] New UNEP study also shows that ESG-related investments have mildly outperformed benchmarks in the crisis of COVID-19 pandemic.[75]

To many investors the main reason for sustainable investing is risk management. Since investing is by its definition about the risk-adjusted returns of different assets, it is quite natural that risk management is an important motive.[76] The financial system itself is also prone to sustainability challenges that can weaken investors ability to fulfil their purpose notwithstanding of the investment decisions they make. Some risks and sustainability challenges, if they result in specific shock events or accumulate over time, can limit the ability of the financial system to operate efficiently and fairly. The effectiveness and resilience to risks and sustainability challenges of the financial system influences the performance of the investors.[77]

This two way dilemma can be described with the concept of double materiality. Oman and Svartzman (2021) consider that: *“Double materiality suggests that a comprehensive approach to climate-related financial risks calls for assessing two related phenomena: the fact that climate change can affect financial institutions (as captured by the risk-based approach), and the fact that financial institutions impact the climate system and therefore contribute to the risks they aim to measure.”*[78]

The first phenomena of double materiality, explained above, can be referred to as sustainability risk. Sustainability risk means an environmental, social or governance condition or event, that can have a negative impact on the value of an investment, if it occurs. Sustainability risks are not defined as its own new risk category, instead as one

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73 Ibid.

74 Lins et al. (2017)

75 UNEP (2020)

76 Schaltegger — Wagner (2006)

77 UNPRI (2016)

78 Oman — Svartzman (2021)

factor of existing risk types, such as market risk, reputational risk or credit risk. However, they can be divided into physical risks, that are result of climate change or environmental conditions like extreme weather, and transition risks, that are result of the transition to a low-carbon economy like new regulation for emission certificates. For example, in case a pension fund has invested in company that might be affected by regulatory changes, these investments might become stranded assets that suffer abrupt declines in value. Likewise, a bank that has financed a property that might be exposed to flooding or other extreme weather event suffers from physical sustainability risk, since customers ability to repay together with the value of the collateral decreases.[79]

Lastly, sustainability practises such as sustainable finance and investing are also done for purely to benefit marketing and public image. Sustainability has become important competitive advantage and part of public image. Sustainable finance actions shouldn't however become just a marketing tactic, but have the intention to create real sustainable impact.

3.1.4. How - Sustainable investment strategies

Sustainable investing can be done with thee different approaches: exclusion, integration and impact investing. With an exclusionary approach, investors determine what activities they wish to avoid financing and those activities are removed from their portfolios. These choices are mainly subjective and investor-specific. Integration investing combines ESG information with traditional financial considerations to direct investment decisions. It's popularity has increased during the past decade and it's more proactive involving higher level of expertise and available data. Impact investing has a clear objective to have a positive and measurable impact on society or the environment, in addition to achieving a positive financial return.[80]

The above mentioned three approaches can be also described through the sustainable investing ABC framework. Investors have a wide range of values and motivations, and therefore various reasons for sustainable investment. Depending on investors motivation, the intention can range from broad commitments, such as risk management and long-term financial performance, to more detailed objectives such as addressing a specific social or environmental challenge. Each of these intentions relates to one of three types of impact: A, B or C. The most basic form of investor impact is Avoiding harm, the next phase is Benefiting stakeholders and the most advanced is Contributing to solu-

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[79] Eurosif (2021)

[80] Harvard Business Review 15.11.2019; Similar idea with three Stages of sustainable finance of Schoenmaker and Schramade on Chapter 3.1.1.

tions. The ultimate impact of sustainable investment can be to *contribute to solutions* of pressing social or environmental problems, such as malnutrition or poverty.[81]

The 2020 Global Sustainable Investment Review has made a more detailed list of seven core strategies to sustainable investment that are seen as a global standard classification. Responsible investing can be done with: ESG integration, negative screening, corporate engagements strategy , norms-based screening, positive screening, sustainability themed strategy, and impact investing strategy.[82]

ESG integration strategy is the systematic and explicit inclusion of environmental, social and governance factors into financial analysis by investment managers. ESG integration is the largest sustainable investment strategy globally with a USD 25.2 trillion in assets under management.

Negative/exclusionary screening strategy is the exclusion of certain sectors, companies, countries or other issuers based on activities considered not investable from an investment fund or portfolio. Exclusion strategy is based on norms and values, and can refer for example to product categories (such as weapons or tobacco), company practices (animal testing or corruption) or controversies. Negative screening is the next most used sustainable investment strategy with a USD 15.9 trillion in assets.

Corporate engagement & shareholder action strategy is to exercise shareholder power in order to influence corporate behaviour. This can be done through direct corporate engagement, such as communicating with senior management or company boards, filing shareholder proposals, and representative voting that is guided by extensive ESG guidelines. This is the third most used sustainable investment strategy with USD 10.5 trillion in assets.

Norms-based screening strategy is screening of investments against minimum standards of business or issuer practice based on international norms issued by the UN, ILO, OECD and NGOs such as Transparency International.

Best-in-class/positive screening strategy is investment in sectors, companies or projects selected for positive ESG performance relative to equals in same sector and that achieve a rating above a defined benchmark.

Sustainability themed/thematic investing strategy is investing in themes or assets specifically contributing to sustainable environmental and social solutions such as sustainable agriculture, green buildings, gender equity and diversity.

Impact investing strategy is investing to achieve positive, social and environmental impacts, and also measuring and reporting against these impacts, demonstrating the investor contribution. Under impact investing strategy can be separated *community investing* strategy where investment is specifically directed to traditionally underserved individuals or communities, as well as financing that is provided to businesses with a clear

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[81] IMP, How investors manage impact

[82] GSIA (2021)

social or environmental purpose. Some community investing is considered also impact investing, however community investing is broader and considers other forms of investing and targeted lending activities.

These sustainable investment strategies make clear division and breakdown to separate strategies, however it is increasingly evident that many investment organisations are using combination of these strategies instead of only relying on just one.[83]

3.1.5. Sustainable finance market globally

Sustainable finance and investing has been on a stellar growth. It was in the acceleration point before COVID-19 pandemic and the crises has made this pace even faster. The pandemic forced a shift in the way financial market view sustainability and ESG. COVID-19 has forced to recognise that the social component of ESG is to be taken seriously in financial market because there is such a big potential for risk mitigation. Even though, the pandemic has had an immense negative impact on the most productive types of investment, it has been raising awareness in the investment community about sustainable finance.[84]

Increasing investment to support a sustainable and inclusive recovery from the pandemic is now a global policy priority. Global foreign direct investment (FDI) flows dropped by 35 % to USD 1 trillion in 2020, from USD 1.5 trillion in 2019. This is almost 20 % below the 2009 rock bottom after the global financial crisis. The developed economies, where FDI fell by 58 %, were hit especially hard by the decline. This is very concerning since international investment flows are vital for sustainable development especially in the least developed regions of the world.[85]

At the beginning of the 2020 global sustainable investment reached USD 35.3 trillion in five major markets, making it a considerable 15 % increase from 2018 to 2020. From total assets under management (USD 98.4 trillion) sustainable investment assets made up a total of 35.9 % in 2020, up from 33.4 % in 2018. This means that sustainable investments account for more than a third of global assets. Sustainable investment is increasing globally. Europe and the US continue to represent more than 80 % of global sustainable investment assets.[86]

While sustainable finance is increasing its market share and investors increasingly integrate sustainability considerations into their investment process, the deterioration of the planet's ecological system continues and no visible positive environmental or social

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[83] GSIA (2021)

[84] UNCTAD (2021); IFLR 31.8.2021

[85] UNCTAD (2021)

[86] GSIA (2021); Five major markets refer to Europe, United States, Japan, Canada and Australasia (Australia and New Zealand)

outcomes have been achieved. This lack of impact can be a result of intense phase of mainstreaming sustainable finance, resulting in a situation as Heeb and Kölbel refer where *"almost everything is in some way marketed as sustainable now*". Instead of having a primary objective to be effective in addressing sustainability challenges, investors might be simply aligning their portfolios with favourable ESG criteria. Investors should start to consider, how their investment practices could achieve real-world impact. In addition, public policies are also necessary to change current market in favour of sustainable investments.[87]

A report of PwC summarises the main factors that would make a well functioning sustainable finance market. A well functioning sustainable finance market has increased demand and supply of sustainable assets. Current demand is lower than ideally, because unstructured information hampers making informed investment decisions. Supply, on the other hand, is unable to attend the increasing demand due to market barriers like high costs of meeting and disclosing ESG standards, and as a consequence suffer from misalignment of incentives to participate in the sustainable finance market. Sustainable finance market also needs to be trustworthy in order to be well functioning. The lack of recognised legal definition and global standards are a real legal risk for both sustainable finance issuers and investors.[88]

Despite all the challenges current sustainable finance market is globally facing, there exists all the tools and resources needed, waiting to be deployed in an effective way. PwC describes in its report an optimistic image of the future where: "*sustainable finance will not be a distinct market; rather, sustainability will need to be a key feature across all financial decision making, globally. Therefore, instead of a sustainable finance market, there will be a financial market which is sustainable".*[89]

3.1.6. Regulatory situation

Mainstreaming of sustainable finance has affected mainly two regulatory systems, financial regulation and corporate law. Financial regulation is making it mandatory for conventional investment funds to engage with sustainable finance. Laws are obligating conventional funds to integrate sustainability risks into the investment strategies. New regulations are also introduced to clarify the definition of sustainable investment, although these effort are more focused on environmental sustainability, leaving social sustainability definition for future.[90]

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[87] Eurosif (2021); Heeb — Kölbel (2021)

[88] PwC — Euroclear (2021)

[89] Ibid.

[90] Chiu, I. H.-Y. (2021)

Corporate law reforms are mainly increasing the transparency of the sustainable behaviour and performance of corporations that conventionally receive financial investments. This increased transparency allows investment funds to take into consideration the sustainability of business when pricing their equity and debt. However, this reform is also defective due to the limited perspective of only environmental sustainability, while corporate social and human development have been left outside of the regulation and depend on voluntary measures of corporate responsibility. These sustainable finance regulatory reforms have been done in a context of decentered regulation, meaning that private business are overseeing actors that impose regulation through private action.[91]

Regulating institutional investors would have a decisive role in sustainable finance. Sustainable finance depends largely in institutional investors, since most individuals own indirectly shares in the worlds biggest corporations via institutional investors. Institutional investors dominate big share of the financial market, and have a strong alignment to choose maximised profitability over sustainability. Individuals might care for sustainability but these preferences do not reflect in institutional investors actions. Regulation should improve the incentive alignment of the institutional investors with the sustainability-preferences of their beneficiaries. Besides, while the concepts of risk and return are well defined, sustainable investment also needs to be defined unambiguously. It is not meaningful to demand increase of sustainable investments from the institutional investors, while it is unclear or subject to interpretation, what constitutes as sustainable investment. There is also need for a regulation addressing the transparency of voting policies and voting behaviour of all institutional investors. This has been regulated in US since 2003, and in the EU similar rules apply since 2019 due to recent Shareholders Rights Directive II (EU 2017/828).[92]

Regulatory reforms on disclosure and risk management can also improve sustainable finance mobilisation. Sustainability disclosures of financial and non-financial institutions can help to identify possible climate, environmental and social risks. In recent years various sustainable finance reporting frameworks, principles and standards have emerged to meet with the growing demand. However, the quality and comparability of these sustainability disclosures and reports, as well as their cost, needs improvement. There is a need for single, global sustainability disclosure standard , and development of a global set of sustainability reporting standards.[93]

Besides disclosure, also risk management measures need to be improved. Climate and sustainability factors are increasingly incorporated in financial institutions risk assessment methodologies. Climate and sustainability risks are progressively seen as a

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[91] IBID.

[92] Busch et al. (2021)

[93] NGFS (2021b)

source of financial risks. This improves the correct pricing of assets and more efficient allocation of resources. However, there is a need for regulation for credit and ESG rating providers to improve transparency on methodologies and disclosing criteria used to assess climate and sustainability risks. Regulation would improve the manner climate and sustainability is measured, the factors incorporated into ratings and on what emphases. Lastly, regulatory reform is needed to require financial institutions to deal with material climate and sustainability factors as financial factors. Financially material climate and sustainability factors need to be regulated to be part of the fiduciary duty of assets managers.[94]

During the last years sustainable finance regulatory reforms have become more relevant as well contested. Regulatory interventions on sustainable finance have a big role in forming the relationship between finance and sustainability. This relationship can be described as complementary, when finance is seen as a means towards sustainability, or conflictual, when finance is widely seen as an end in itself (I.e. *means-end decoupling*). Means-end decoupling refers to a situation when "*the degree to which means are coupled to goals is unexamined and the means—such as profit-maximisation—become ends in themselves, leading to a drift away from the original goals of policy reforms"*. Finance is perceived as part of the problem, and at the same time the solution to achieving more sustainable future. Ahlström and Monciardini (2021) have made an analysis *The Regulatory Dynamics of Sustainable Finance,* where they remind about the importance to question the relevance of regulatory interventions, and whether they have a negative or positive impact on moderating the existing conflicted relationship between sustainability and finance. Overall, the analysis of Ahlström and Monciardini came to a conclusion that financial regulation has had a key role in the emergence of sustainable finance, particularly in Europe.[95]

3.1.7. Global action to mainstream sustainable finance

Global action for new sustainable finance strategies, instruments and pilot programs has increased its pace in the last few years. Multiple actors within the sustainable finance value chain has come up with new innovative ways to increase sustainable finance. Several industry-led, intergovernmental, and central bank/ financial market authorities powered initiatives have been created in order to improve the functioning of sustainable finance and increase its market share. Most of these initiatives have global reach for an international market, as well as quite broad scope. They are created with coordinated action on common concerns, with aim to facilitate the exchange of information and best practices, as well as build a network for peer pressure in order to minimise unsustain-

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[94] Ibid.

[95] Ahlström, H., — Monciardini, D. (2021)

able financing. The most obvious barrier to the influence of these initiatives is their voluntary character. [96]

1. Industry-led initiatives:

1.1. G20 Sustainable Finance Working Group (G20 SFWG),
1.2. UN Environment Programme Finance Initiative (UNEP-FI),
1.3. UN Principles for Responsible Investment (UNPRI),
1.4. Task force on climate-related financial disclosures (TCFD),
1.5. Network of Financial Centers for Sustainability (FC4S),

2. (Inter)governmental initiatives:

2.1. International Platform on Sustainable Finance (IPSF),
2.2. Coalition of Finance Ministers for Climate Action,

3. Central banks, supervisors and market authorities initiatives:

3.1. Network for Greening the Financial System (NGFS),
3.2. Sustainable Banking & Finance Network (IFC-SBFN),
3.3. Operating Principles for Impact Management,
3.4. Sustainable Insurance Forum (SIF),
3.5. Sustainable Finance Network (SFN-IOSCO).

1. Industry-led initiatives:

1.1. *The G20 Sustainable Finance Working Group* (G20 SFWG) is a central group coordinating international efforts to mobilize sustainable finance, that is seen crucial to achieve a global sustainable recovery. The working group has developed a long-term G20 agenda to drive the policy change needed to help focus the attention to key priorities of the sustainable finance agenda and to align the financial system to support the objectives of the 2030 Agenda and goals of the Paris Agreement. The *G20 Sustainable Finance Roadmap* is a multi-year action-oriented document that declare the broader G20 agenda on climate and sustainability. The Roadmap has the intention to improve sustainability reporting, identify sustainable investment and align the international financial organizations and other stakeholders efforts with the Paris Agreement. It is ex-

[96] Richardson, B. (2015)

pected to help focus the attention to the key priorities of the sustainable finance agenda and form consensus on key actions that needs to be taken.[97]

1.2. *The United Nations Environment Programme Finance Initiative* (UNEP-FI) is a partnership between UNEP and the global financial sector to mobilize private sector finance for sustainable development. UNEP-FI works with more than 400 members on financial sector, including banks, insurers and investors, and over 100 supporting institutions to help create a sustainable financial sector serving both people and planet. UNEP-FI has established or co-created the following frameworks: Principles for Responsible Banking (PRB), Principles for Sustainable Insurance (PSI) and Principles for Responsible Investment (PRI)

1.3. *The United Nations Principles for Responsible Investments* (UNPRI or PRI) is the world's leading proponent of responsible investment. It is a United Nations initiative developed together with world's leading institutional investors to promote and provide a framework for investors to incorporate environmental and social responsibility and ESG issues into investment activities. PRI has developed six aspirational principles offering a set of possible actions for incorporating ESG issues into investment practice. Currently over 4000 institutional investors have committed to these principles, and by implementing them, they contribute to developing a more sustainable global financial system.[98]

1.4. *The Task Force on Climate-related Financial Disclosures* (TCFD), created by the Financial Stability Board, aims to improve and increase reporting of climate-related financial information. The TCFD has released climate-related financial disclosure recommendations that are designed to help companies to provide better information in order to channel capital flows into positive action.[99] To complement the TCFD's climate-related framework, was created a new global market-led framework for nature-related

[97] G20 SFWG; G20 SFWG, Roadmap; Wikipedia, G20. The G20 or Group of Twenty is an intergovernmental forum comprising 19 of world's wealthiest countries and the EU. G20 works to address major issues related to the global economy, such as international financial stability, climate change mitigation and sustainable development.

[98] UNPRI, About the PRI; The six Principles for Responsible Investment:

We will incorporate ESG issues into investment analysis and decision-making processes.

We will be active owners and incorporate ESG issues into our ownership policies and practices.

We will seek appropriate disclosure on ESG issues by the entities in which we invest.

We will promote acceptance and implementation of the Principles within the investment industry.

We will work together to enhance our effectiveness in implementing the Principles.

We will each report on our activities and progress towards implementing the Principles.

[99] TCFD

risks, *the Taskforce on Nature-related Financial Disclosures* (TNFD). The TNFD gives companies and financial institutions a complete picture of their environmental risks and opportunities, as well as nature-related risk related reporting and operating instructions. It aims to capture both the risks and opportunities from nature to/for the activities of organisations, as well as the risks and opportunities from organisations to/for nature.[100]

1.5. *The International Network of Financial Centres for Sustainability* (FC4S) is a collective of international financial centres working together to achieve the SDGs and the Paris Agreement. The core mission of FC4S's is to empower financial centres to accelerate the shift to sustainable finance by providing the means and insights to engage with local institutions, inform and influence policy and eventually speed up market transformation. The FC4S is currently preparing a Guide for the application and use of sustainability-related taxonomies that is to be published in 2022.[101]

2. (Inter)governmental initiatives:

2.1. *The International Platform on Sustainable Finance* (IPSF) is a key network of policymakers that share best practices and different approaches and tools of sustainable finance with ambition to make them better comparable and interoperable. The platform's overall aim is to scale up the mobilisation of private capital towards environmentally sustainable investments. IPSF offers a multilateral forum for dialogue between policymakers that are in charge of developing sustainable finance regulatory measures. In 2021 the work of the IPSF focused on two important policy areas: comparison of taxonomies and sustainability-related disclosure.[102]

2.2 *The Coalition of Finance Ministers for Climate Action* is a group of over 60 finance ministers with an objective to bring climate issues to the centre of economic policy and financing decision. These fiscal and economic policymakers are engaged in leading the global climate response and in securing a just transition towards low-carbon resilient development through fiscal policies and the use of public finance. Since its launch in 2019 from the initiative of Finland, governments from 67 member countries

[100] TNFD; Deloitte, TNFD and nature-related financial disclosures; The new recommendations of disclosures on nature-related risks of the TNFD will be launched only in 2023, but since it will complement and be aligned to that of the TCFD, organisations taking action now, for example improving data availability and information, on climate-risk can give them advantage on nature-related risk too.

[101] FC4S

[102] European Commission, International Platform on Sustainable Finance

have each committed to a set of six principles that promote national climate action, known as the Helsinki Principles.[103]

The Coalition of Finance Ministers took part for the first time in the UN Climate Conference COP26 on November 2021. The Finance Minister of Finland and Co-Chair of the Coalition, Annika Saarikko said after the meeting that at this year's climate summit the economy rose to the heart of climate policy and that countries seem to have realised now that carbon pricing has a direct bearing on climate policy outcomes. Saarikko also highlighted the evaluation of the effects of climate change on public finances and the national economy as a whole, and said that: "*In addition to calculating the cost of action, we need to understand that inaction also comes at a price.*" She considers that the biggest shortcoming of the coalition is that China, Russia and India do not belong to it, but the goal is to get these countries involved as well.[104]

3. Central banks, supervisors and market authorities initiatives:

3.1. *The Network for Greening the Financial System* (NGFS) is a global forum formed by central banks and supervisors that are contributing to the debate on green finance and cooperating with other financial sector authorities and participants. The participants of NGFS share their best practices, exchange experiences and contribute to the development of environment and climate risk management in the financial sector. The group aims to mobilise finance to support the transition towards a sustainable economy.[105]

3.2.-3.3. The International Financial Corporation (IFC) is a sister organisation of the World Bank and the largest global development institution focused exclusively on the growth of private sector in developing countries. IFC together with external stakehold-

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[103] Ministry of Finance 11.10.2021; Coalition of Finance Ministers for Climate Action, About Us; Coalition of Finance Ministers for Climate Action, Helsinki Principles. The Helsinki Principles: *Align policies and practices with the Paris Agreement commitments; Share experience and expertise with each other in order to provide mutual encouragement and promote collective understanding of policies and practices for climate action; Work towards measures that result in effective carbon pricing; Take climate change into account in macroeconomic policy, fiscal planning, budgeting, public investment management, and procurement practices; Mobilise private sources of climate finance by facilitating investments and the development of a financial sector which supports climate mitigation and adaptation; Engage actively in the domestic preparation and implementation of Nationally Determined Contributions (NDCs) submitted under the Paris Agreement.*

[104] Helsingin Sanomat 3.11.2021

[105] NGFS, Governance

ers has developed the Sustainable Banking and Finance Network as well as the Operating Principles for Impact Management.[106] *The Sustainable Banking and Finance Network* (SBFN) is a platform for sharing knowledge and building capacity on sustainable finance for financial sector regulators and industry associations on emerging markets. The SBFN helps mobilize information, resources and practical support for members to draw and implement national initiatives that advance sustainable finance.[107] *The Operating Principles for Impact Management* establish a shared code of conduct around the management of investments for impact and promote transparency by requiring annual disclosures of impact management. The Impact Investing Principles are a framework for investors for the model and implementation of their impact management systems, making sure that impact considerations follow throughout the investment lifecycle.[108]

3.4. The Sustainable Insurance Forum (SIF)

The Sustainable Insurance Forum (SIF) is a global network of insurance supervisors and regulators addressing sustainability issues affecting the insurance sector. SIF is international collaborative platform for action on climate issues. Its work includes risk assessments, sharing best practices, high-level policy engagement and joint supervisory statements. The global insurance sector has a central role in the transition to a sustainable global economy, both in terms of the risks it covers and the investments it makes.[109]

3.5. The Sustainable Finance Network (SFN-IOSCO)

The Sustainable Finance Network (SFN) of the International Organization of Securities Commissions[110], is a forum for members to exchange experiences and gain a better understanding on sustainability-related issues. The SFN helps to understand how securities regulators are addressing sustainability efforts, what is their role and position on sustainability issues and what possible challenges they may face. The main focus of the

[106] IFC, Impact Investing at IFC.

[107] SBNF

[108] Operating Principles for Impact Management

[109] SIF

[110] IOSCO, About IOSCO. The International Organization of Securities Commissions (IOSCO) is a global association of world's securities regulators, that is recognised as the global standard setter for the securities sector.

network is on sustainable finance disclosure and its relevance for investor decision making, as well as on the development of industry-led initiatives.[111]

3.2. Sustainable finance in Europe

3.2.1. Mainstreaming sustainability

Sustainable investment is gaining momentum in Europe, both among investors and in policy circles. Sustainable assets under management in Europe have risen from EUR 2.7 trillion in 2007 to EUR 12 trillion in 2020. The share of sustainable assets was 41,6 % of total assets under management in 2020, when in 2007 the share was only 18 %. The European measurement methodology of sustainable investment has changed due tot revised definitions of sustainable investment in legislation of the EU and European Sustainable Finance Action Plan. This has caused a period of transition, and due to this Europe reported a 13 % decline in the growth of sustainable investment. However, in reality sustainable investments have been record high despite the devastating effects of the COVID-19 pandemic. Europe accounts approximately half of the global market for sustainable investment, which amounts to USD 35.3 trillion.[112]

In the EU policy context, sustainable finance is understood as finance to support economic growth while reducing pressures on the environment and taking into account social and governance aspects. In recent years, the EU has positioned itself as the world leader in promoting a vision of sustainable finance. The EU has done a big move, as Vander Stichele stated that "*in 2016 the EU had no policy whatsoever about sustainable finance*" and in recent years it has adopted a comprehensive and aspiring action plan followed by various legislative proposals. With flagship economic policies like the EU Green Deal and the Next Generation EU, EU is leading global efforts to distinguish economic growth from exploiting the Earth and natural resources.[113]

The EU regulatory intervention originated in part from acknowledgement that investments promoted as sustainable were increasingly popular among investors. While the increasing interest in sustainable investments is extremely positive, the simultaneous growth in sustainable investment products enhanced the risk of greenwashing considerably. Therefore the need to ensure that claims related to sustainability could be established with clear definitions and increased transparency. The market evolution made the implementation of the new instruments, plans and requirements paramount to the EU.[114]

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[111] IOSCO (2020)

[112] GSIA (2021); Schoenmaker (2018)

[113] Eurosif (2021); Schoenmaker (2018); Vander Stichele (2018)

[114] Eurosif (2021)

As part of the EU Green Deal, European Commission presented in January 2020 the European Green Deal investment plan, which will mobilise at least EUR 1 trillion of sustainable investments over the next decade. It is also expected that sustainable finance will support investments towards the recovery from the impacts of the COVID-19 pandemic. For the pandemic recovery and its immediate economic and social damage, the EU has agreed to invest more than EUR 800 billion through a temporary recovery instrument the NextGenerationEU.[115]

In order to meet the European Green Deal as well as the international commitments EU has made, the financial sector has a key role to steer private investment into the transition to a climate-resilient and resource-efficient economy to complement the public money. The current levels of investment are insufficient to support an environmentally and socially sustainable economic system. The Commission considers that the financial sector should re-orient investments towards more sustainable technologies and businesses, finance growth in a sustainable manner over the long term, as well as contribute to the creation of a low-carbon, climate resilient and circular economy.[116]

Europe has to close a yearly investment gap of almost EUR 180 billion to achieve EU climate and energy targets by 2030.[117] In September 2020 the Commission presented its 2030 climate target plan, that aims to reduce emissions of 55% by 2030 as compared to 1990. The EU is already providing impulse to help attract the lacking investments, and since the scale of the investment challenge is beyond the public sectors capacity alone, many of the EU strategies focus on private capital.[118]

In December 2016 the Commission set up a High Level Expert Group on Sustainable Finance (HLEG) to develop a comprehensive strategy on sustainable finance. The final report Financing a Sustainable European Economy of HLEG was published in January 2018. This report inter alia calls for the creation of a technically robust classification system at Union level to establish clarity on which activities qualify as sustainable or green.[119] Based on the recommendations of the HLEG, the Commission published on March 2018 an ambitious and comprehensive strategy on sustainable finance, the EU Action Plan on Financing Sustainable Growth.[120]

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[115] European Commission, Overview of sustainable finance; European Commission, Recovery plan for Europe

[116] European Commission, Overview of sustainable finance

[117] European Commission (2018)

[118] European Commission, Overview of sustainable finance

[119] Ibid.

[120] European Commission (2018)

In July 2021, the Commission issued a Renewed Sustainable Finance Strategy which aims to improve the flow of money towards financing the transition to a sustainable economy and contribute to achieving the goals of the EU Green Deal. The Strategy is proposing action in four areas: transition finance, inclusiveness, resilience and contribution of the financial system and global ambition.[121]

3.2.2. High-level Expert Group on Sustainable Finance

The European Commission established an independent High-level Expert Group on Sustainable Finance (HLEG) in December 2016. The HLEG was comprised of 20 senior experts from civil society, finance sector and academia, as well as observers from European and international institutions. The Commission mandated the expert group to provide advice on how to direct the flow of public and private capital towards sustainable investments. It was also asked to help identify the steps that financial institutions and supervisors should take to protect the stability of the financial system from risks related to the environment. To conclude the HLEG was asked to counsel on how to deploy these policies on a pan-European scale.[122]

The HLEG started its work on January 2017 and was given one year to deliver a result, while it was common knowledge that these type of advisory groups can often end in insignificance. Christian Thimann was chosen as the chair of the HLEG, and his strategy was to work closely with the Commission all year so that the new ideas of the HLEG could be digested by the policymakers along the process. Before the HLEG starter its work sustainable finance was not commonly talked about, while today it is impressively viewed as an entirely normal goal for EU policymakers, regulators, capital markets and civil society.[123]

The HLEG published its first interim report on 12 July 2017, identifying two imperatives for Europe's financial system. First it recommended improving the assessment and management of long-term material risks especially related to environmental, social and governance (ESG) issues. Second recommendation was about financing long-term needs, such as innovation and infrastructure, and accelerating the shift to a low carbon and resource-efficient economy.[124]

Based on the consultations and feedback of the interim report, the final report Financing a Sustainable European Economy by the High-Level Expert Group on Sustainable Finance was delivered on 31 January 2018. The final report states that: "*It is important to HLEG members that the Group's work leads to real changes in financial pol-*

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[121] European Commission, Strategy for financing the transition to a sustainable economy

[122] European Commission, High-Level Expert Group on sustainable finance

[123] Thimann, C. (2019)

[124] EU HLEG (2017)

icy and improves Europe's sustainability performance." The report also emphasise that: *"The Group's recommendations in this final report aim to inspire and guide the Commission's action plan on sustainable finance. The art of implementation will be to not increase the overall regulatory burden and complexity, given that the ultimate purpose is to facilitate more investment.*" The final report gives several recommendations for action and suggestions for policy changes, but also subtly mentions the importance to keep the process and implementation of the changes as clear and unambiguous as possible.[125]

The HLEG recommends in its final report as priority actions:

- Establishing an EU sustainability taxonomy to define areas where investments are needed most;
- Clarifying investor duties to encourage long-term investments and bring greater focus on ESG factors into investment decisions;
- Upgrading disclosures to make sustainability opportunities and risks transparent;
- Enabling retail investors to invest in sustainable finance opportunities;
- Developing official European sustainability standards for some financial assets, starting with green bonds;
- Deploying development capacity in EU member states for infrastructure necessary for a more sustainable economy;
- and integrating sustainability firmly in the governance of financial institutions as well as in financial supervision.[126]

The final report by HLEG has also several multidisciplinary recommendations, such as empowering EU citizens to engage with sustainable finance, establishing a sustainability first- principle in the hart of all EU policy-making and also to drive sustainable finance at the global level. The report consist also of more specific financial institutions and sectoral recommendations, as well as recommendations for social and broader environmental sustainability.[127]

3.2.3. EU Action Plan on Financing Sustainable Growth

In December 2017 the European Commission made a totally new commitment and pledged to release Europe's first sustainable finance action plan. In March 2018 the Commission published its Action Plan on Financing Sustainable Growth, that was strongly based on the HLEG final report recommendations. The Action Plan includes ten initiatives and has three stated objectives. The first objective is to reorient capital flows towards sustainable investment, in order to achieve sustainable and inclusive

[125] EU HLEG (2018)

[126] Ibid.

[127] Ibid.

growth. More specifically, the Commission is setting up a classification system, which will start with identifying activities that are officially recognised as climate mitigation and climate adaption. The second objective is to manage financial risks stemming from climate change, environmental degradation and social issues. The Commission is obliging investors to disclose how sustainability risks are taken into account in investment decisions. The third objective is to foster transparency and long-termism in financial and economic activity. The Commission is regulating what can be called *carbon benchmarks* and *positive carbon impact benchmarks* to help investors measure the carbon footprint of their investments.[128]

The Commission narrowed the scope of sustainability and prioritised the encouragement of more investment to address sustainability challenges, especially those related to climate change. In order to reorient private capital to more sustainable investments the financial system requires an extensive shift. The Action Plan has ten initiatives aiming to enable the needed change:

Action 1: Establishing an EU classification system for sustainable activities;

Action 2: Creating standards and labels for green financial products;

Action 3: Fostering investment in sustainable projects;

Action 4: Incorporating sustainability when providing financial advice;

Action 5: Developing sustainability benchmarks;

Action 6: Better integrating sustainability in ratings and market research;

Action 7: Clarifying institutional investors' and asset managers' duties;

Action 8: Incorporating sustainability in prudential requirements;

Action 9: Strengthening sustainability disclosure and accounting rule-making;

Action 10: Fostering sustainable corporate governance and attenuating short-termism in capital markets.[129]

The Commission recognises that the strategy set out in this Action Plan is a first essential step in moving towards sustainability. This Action Plan emphasises in particular the importance and urgency of developing an EU taxonomy. The Action Plan states that: "*The implementation strategy combines non-legislative and legislative actions with new measures and carefully targeted amendments to existing rules. Alongside legislative measures, non-legislative measures would ensure adaptability and minimise administrative burdens.*"[130]

In May 2018 the European Commission adopted a package of measures implementing several key actions announced in its Action Plan. The package included a proposal

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[128] European Commission (2018)

[129] Ibid.

[130] Ibid.

for an EU Taxonomy regulation, a proposal for a regulation on Sustainability Disclosures and a proposal for regulation on Low-carbon Benchmarks. The Commission's regulatory proposals were unique and first of its kind. In order for them to be well prepared, accepted and to have as straightforward path as possible the Commission required help from expert groups and public consultations.

The Commission set up a Technical expert group on sustainable finance (TEG) to assist it in developing, in line with the Commission's legislative proposals of May 2018, the EU Taxonomy, the Green Bond Standard and the Climate Benchmarks, as well as the Climate-related Disclosures. The TEG started its work in July 2018 and its mandate was extended until the end of September 2020. The group of 35 members from civil society, academia, business and the finance sector, as well as additional members and observers from EU and international public bodies helped the Commission in the technical work and with expertise on sustainable finance.[131]

Besides the Technical expert group, the Commission created the Member States expert group (MSEG) that gather financial markets and environmental experts from EU Member States. The MSEG facilitates efficient coordination of sustainable finance initiatives at both the Union and national level, and assist the Commission in implementing EU regulation related to sustainable finance.[132]

The Commission also made a public consultation on the Renewed Sustainable Finance Strategy available for 14 weeks between April and July 2020 gathering feedback and views of individuals, public authorities and private organisations both in the EU and beyond. All citizens, member States and private organisations within the EU and beyond were invited to give their views and opinions on sustainable finance through online questionnaire. The Commission received total 648 responses, from which 24 came from Finland. The highest repose rates were from Belgium (37), UK (28) and France (26). Stakeholders based in Belgium were mainly representing international or EU-wide organisations. The largest groups of respondents came from representatives of companies and financial institutions. The overall feedback from the consultation of the Sustainable Finance strategy was generally supportive. Key challenge reported, among others things, was the risk of complexity of the overall new regulatory framework.[133]

3.2.4. EU Renewed Sustainable Finance Strategy

Within the framework of the European Green Deal, the European Commission published its Renewed Sustainable Finance Strategy (RSFS) on July 2021. The strategy for financing the transition to a sustainable economy builds on previous initiatives and re-

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[131] European Commission, Technical expert group on sustainable finance (TEG)

[132] European Commission, Overview of sustainable finance

[133] European Commission 10.2.2021

ports, such as the 2018 Action Plan and the reports of the Technical Expert Group on Sustainable Finance, as well as public consultation on the Renewed Sustainable Finance Strategy in 2020. The Renewed Sustainable Finance Strategy aims to provide policy tools to ensure that financial system truly support the transition of businesses towards sustainability, and create enabling setting for the private investors together with public sector to facilitate sustainable investments.[134]

The new Sustainable Finance Strategy includes six sets of actions. First action is to extend the existing sustainable finance toolbox, such as standards, labels and bonds, to facilitate access to transition finance. Second action is to improve the inclusiveness of small and medium-sized enterprises (SMEs), and consumers, by giving them the right tools and incentives to access transition finance. For example, increasing access of citizens and SMEs to sustainable finance advisory services and leverage the digital technology possibilities for sustainable finance. Third action is to enhance the resilience of the economic and financial system to sustainability risks. This can be done with the so called double materiality perspective, meaning that companies have to report about how sustainability issues affect their business and about their own impact on people and the environment. It calls for "*systematic integration of both financially material sustainability risks (outside-in) and sustainability impacts (inside-out) in financial decision-making processes"*. Fourth action is to increase the contribution of the financial sector to sustainability. For example, by improving financial institutions' disclosures of sustainability targets and transition planning. Fifth action is to ensure the integrity of the EU financial system and monitor its orderly transition to sustainability. As an example, knowledge sharing on sustainable finance between academia and the industry by establishing a Sustainable Finance Research Forum. Sixth and last action is to develop international sustainable finance initiatives and standards, and support EU partner countries. For example, by expanding the work and strengthening the governance of the International Platform on Sustainable Finance.[135]

This is a detailed action plan on financing the transition of the real economy towards sustainability. It sets out over 50 legislative and non-legislative initiatives to be implemented over the next few years. It determines how the objectives of the EU Green Deal are addressed throughout the financial system, as well as how all actors of the economy can finance their green transition notwithstanding their starting point. The European Commission will report on implementation of the strategy by the end of 2023.[136]

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[134] European Commission, Overview of sustainable finance; European Commission, Renewed sustainable finance strategy and implementation of the action plan on financing sustainable growth

[135] European Commission (2021b); European Commission, Strategy for financing the transition to a sustainable economy

[136] European Commission, Strategy for financing the transition to a sustainable economy

3.3. Main regulation on sustainable finance in EU

3.3.1. EU Sustainable Finance Regulatory (net)work

The EU regulates the banking and financial sector with law. The *general* financial sector regulation is also the base and foundation for sustainable finance and its regulation. This general financial sector regulation is applicable and binding for sustainable finance market.[137]

For example, directive 2014/65/EU of Markets in Financial Instruments Directive 2 (MiFID II), that aims among other things to improve financial market transparency, has its impact on sustainable finance market too. When it comes to sustainable finance, MiFID II ensures that that investors ESG preferences are taken into consideration during investment advice and portfolio management. The first original version of this directive was introduced after the 2008 financial crisis, when it became clear that a more robust regulatory framework was needed to further strengthen investor protection. Now the Commission is preparing again new updated version through delegated directive (EU 2017/593) to reinforce the obligation on investment funds to advise clients on social and environmental aspects. The updated version reflects the current phase of green transformation. As written in the draft delegated directive, the EU "*puts sustainability considerations at the heart of the financial system".[138]*

It can be difficult to effectively navigate the space of EU sustainable finance regulation, that might seem like a complicated, constantly renewed and updated regulatory puzzle. While some of the legislative work has been formalised and put in place already, a lot of the implementation of the regulations will continue through the next few years. For example the new EU Sustainable Finance Staregy is a communication in nature including proposals for legislative initiatives and other actions. Many of these proposals and actions are forthcoming, malleable and evolving over time. For the legislative work the EU has many tools and instruments it can use.

The best known legal instrument EU is using for sustainable finance is EU Regulation, which is legally binding act and directly applicable in all member states of the Union. Regulation is the most pervasive of all the legal instruments of the EU and has a similar impact and generated effect to national legislation. When EU Regulation comes into force, it overrides all national legislation covering with the same subject matter and subsequent national laws must be consistent with and made congruent of the regulation. For example, the EU Sustainable Finance Taxonomy Regulation (EU 2020/852) is one

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[137] European Commission, EU banking and financial services law

[138] European Commission, Investment services and regulated markets; Commission Draft Delegated Directive (EU) Ares/2020/2955234

of the most talked and timely Regulations of the EU in recent years, and will be directly applicable in all member states.[139]

Besides Regulations the European Commission has given several Delegated Acts, especially supplementing the Taxonomy Regulation. These Delegated Acts are legally binding but limited in what they can set out to regulate. Delegated Acts can only be used to supplement already existing legislation on its non-essential parts, or amend a legislative-act's specific and non-essential parts. The Commission adopts the Delegated Act and if the European Parliament and Council have no objections, it enters into force.[140]

The EU uses also recommendations without legal obligations or binding force as a non-legislative act to suggest a line of action and make their views known. For Sustainable Finance the Commission proposed, inter alia, a high-quality voluntary standard, the European Green Bond Standard (EUGBS). Although the EUGBS is voluntary, meaning any bond issuers can opt out from using these standards, if the bond issuer however wishes to call their bond a *European green bond* or *EUGBS*, it needs to comply with uniform requirements stated by the standard. The Commission is criticised form lack of ambition in proposing act without legal obligation, stating that making the European Green Bond mandatory would reduce greenwashing.[141]

Besides EU regulation, also the EU court's case law is an important source of law. As an example the case of the European Investment Bank (EIB) and environmental funding transparency (ClientEarth v EIB (Case T-9/19)). The European Investment Bank, the world's largest multilateral lender and biggest provider of climate finance, was taken to the EU's highest court, by an environmental law charity, ClientEarth. The Court of Justice of the European Union ruled on January 2021, that the EIB illegally avoided environmental scrutiny of its financing decisions after it refused the NGOs request for an internal review of a EUR 60 million loan for a biomass energy generating project in Spain. The obligation to conduct an internal review is based on the Aarhus conventions Article 10 that states the NGOs right to request an internal review of administrative acts under environmental law. The ruling has a significant contribution on the transparency policy and environmental standards implemented on development banks. It marks a new precedent of more transparent decisions on environmental funding. Besides, this decision can enforce the role of civil society in the implementation of EU law and improve stakeholder engagement.[142] In the next years the new sustainable finance regulation is likely to entail also case law.

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[139] European Commission, Type of EU law

[140] European Commission, Type of EU law

[141] European Commission, Type of EU law; European Commission 6.7.2021; Politico 5.7.2021

[142] Judgment of the General Court (Case T-9/19); Alexandraki, C. (2019)

The financial sector and its regulation form an essential part of the EU efforts to complete the internal market, under the free movement of services and capital.[143] Following the financial crisis, the EU reformed its regulatory process in financial services that's based on 4 institutional levels from Lamfalussy Report, as well as its framework for financial supervision. During the reform were set up the three European supervisory authorities (ESAs) that are responsible for financial supervision in the EU: the European Banking Authority (EBA), the European Securities and Markets Authority (ESMA), and the European Insurance and Occupational Pensions Authority (EIOPA).[144]

Next important phase for EU is the digital and green transformation, that has brought additional opportunities and challenges for financial sector policy. Sustainable finance, the EU Action Plan on Financing Sustainable Growth and Renewed Sustainable Finance Strategy have important papers in this transformation. The Action Plan included a sustainable finance package with several regulatory proposals for sustainable finance. The key elements of the current legislative framework for sustainable finance include the Common EU Taxonomy Regulation (EU 2020/852), the Sustainability Disclosures Regulation (EU 2019/2088), the Regulation on Climate-related Benchmarks (EU 2019/2089), as well as the Corporate Sustainability Reporting Directive and EU Green Bonds Standard.[145]

3.3.2. Sustainable Finance Taxonomy Regulation

The Taxonomy Regulation (EU 2020/852) was published in the Official Journal of the European Union on 22 June 2020 and entered into force on 12 July 2020. After the publishing the regulation has been supplemented with Delegated Acts. The Taxonomy Regulation is a classification tool to determine whether an economic activity is environmentally sustainable. The classification system helps to identify activities that make substantial contributions to environmental objectives and help to finance the transition to a more sustainable economy. This is extensively seen as a first and essential enabling step in the overall effort to channel investments into sustainable activities. The EU Taxonomy will be explained and researched in detail in the Chapter 4.2.

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[143] European Parliament, Financial services policy. Before this period of sustainability considerations, the EU progress towards integration can be distinguished in five phases: "*(1) removal of national entry barriers (1957-1973); (2) harmonisation of national laws and policies (1973-1983); (3) completion of the internal market (1983-1992); (4) creation of the single currency area and the pre-crisis period (1993-2007); and (5) the global financial crisis and post-crisis reform (from 2007 onwards).*"

[144] European Commission, Regulatory process in financial services

[145] European Parliament, Financial services policy

3.3.3. Sustainable Finance Disclosure Regulation

The regulation (EU 2019/2088) on Sustainable Finance Disclosure Regulation (SFDR) , which came into effect on 10 March 2021, determines what are the sustainability disclosure obligations for manufacturers of financial products and financial advisers towards end-investors. The SFDR sets out common EU rules on how financial market participants should inform end-investors about sustainability risks, how they should inform about the impact of investments on the environment and society, and how sustainability-marketed financial products actually meet that ambition. The SFDR disclosure requirements include the double materiality concept, meaning that company needs to include information both on the impact of the company's activities on the environment and society, as well as the risks faced by the company due to its sustainability exposures. The specific Regulatory Technical Standards (RTS) of the SFDR determine the content, methodology and presentation of the sustainability disclosures both at entity level and at product level. The objective of the regulation is to trigger changes in the patterns of behaviour in the financial sector, prevent greenwashing and help attract sustainable investments.[146]

The SFDR also require financial market participants to measure and report on Principal Adverse Impact (PAI) of their investments. The regulation defines PAI as "*negative, material, or likely to be material effects on sustainability factors that are caused, compounded by, or directly linked to investment decisions and advice performed by the legal entity*." PAI's are the most significant negative impact of investment decisions on sustainability factors relating to environmental, social and employee matters, respect for human rights, anti−corruption and anti−bribery matters. These PAI indicators are essentially a set of ESG indicators and metrics, varying from carbon and water emissions to social violations and gender parity. The EU has identified 64 adverse impact indicators focused on ESG factors that must be calculated, of which 18 will be mandatory to report, and 46 will be voluntary.[147]

The European Commission announced that the next stages of SFDR disclosures will be delayed again from by a further six months until 1 January 2023 due to the length and technical detail of the Regulatory Technical Standards, as well as the late submissions to the Commission by the European Supervisory Authorities, and forecasted amendments. The delay might help the companies to prepare the detailed metrics in relation to the products sustainability objectives, as well as facilitate the implementation of the standards by product manufacturers, financial advisers and supervisors.[148]

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[146] European Commission, Sustainability-related disclosure in the financial services sector; European Commission, Strategy for financing the transition to a sustainable economy

[147] Forrester 11.10.2021; Robeco, Principal Adverse Impact indicators

[148] European Commission, Sustainability-related disclosure in the financial services sector

3.3.4. Corporate Sustainability Reporting Directive

On 21 April 2021, the European Commission adopted a proposal for a Corporate Sustainability Reporting Directive (CSRD), which will amend the existing reporting requirements of the current Non-Financial Reporting Directive (NFRD). The CSRD aims to create a set of rules that will over time bring sustainability reporting on same level with financial reporting. Companies will have to report on how sustainability issues, with main focus being on mitigating and adapting to climate change, affect their business, as well as the impact of their activities on people and the environment. The aim of the proposal is to make sustainable investing easier and more comparable.[149]

The proposal extends EU's sustainability reporting requirements scope to all large companies and all companies listed on regulated markets, with an exception of listed micro-enterprises. This means that nearly 50000 companies in the EU will need to follow detailed EU sustainability reporting standards, a significant increase from the 11000 companies that are subject to the existing NFRD requirements.[150]

The CSRD proposal has the intention to ensure that companies report reliable and comparable sustainability information that meets the information needs of investors and other stakeholders. The proposed standard provide companies with a single solution simplifying the reporting process especially for companies that currently use a range of different sustainability standards and frameworks. The mandatory reporting requirements are more detailed, require external audit of reported information, in addition to companies to digitally tag the reported information to be machine-readable. With this proposal sustainability reporting will become mandatory, standardized, and digitized, and subject to external assurance.[151]

The timetable on CSRD will depend on how the European Parliament and the Member States in the Council progress in their negotiations of a final legislative text on the basis of the Commission's proposal. If they reach agreement in the first half of 2022, then the European Commission should be able to adopt the first set of reporting standards under the new legislation by the end of 2022. That would mean that companies would apply the standards for the first time to their reports published in 2024, covering financial year 2023.[152]

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[149] European Commission, Corporate sustainability reporting; European Commission 21.4.2021c

[150] European Commission 21.4.2021c

[151] Ibid.

[152] European Commission 21.4.2021b

3.3.5. EU Climate Benchmarks

The European Commission amended the Benchmarks Regulation (EU 2016/1011) to have new rules setting out minimum technical requirements of the methodology of EU climate benchmarks. The benchmarks serve as a standard by which others may be measured to see how each business compares with other businesses. The climate benchmarks allow cross-industry comparison on energy-efficiency ratings and help investors measure the carbon footprint of their investments. The amending regulation (EU 2019/2089), which came into application on 23 December 2020, introduced two new categories of low carbon benchmarks the EU Climate Transition Benchmark (EU CTB) and EU Paris-aligned Benchmark (EU PAB). Besides the new benchmarks the amendment also sets out another measure to introduce a new ESG disclosure obligation, applicable to all investment benchmarks. Benchmark administrators need to disclose whether and how the benchmark reflect ESG objectives, including the disclosure on the alignment with the Paris agreement.[153]

An EU Climate Transition Benchmark means: *“a benchmark that is labelled as an EU Climate Transition Benchmark where the underlying assets are selected, weighted or excluded in such a manner that the resulting benchmark portfolio is on a decarbonisation trajectory and is also constructed in accordance with the minimum standards laid down in the delegated acts.”* An EU Paris-aligned Benchmark means: *“a 'benchmark that is labelled as an EU Paris-aligned Benchmark where the underlying assets are selected in such a manner that the resulting benchmark portfolio's GHG emissions are aligned with the long-term global warming target of the Paris Climate Agreement and is also constructed in accordance with the minimum standards laid down in the delegated acts.”*[154]

The two climate benchmarks have similar objectives but vary in their level of ambition. As a result, most of the recommendations are equivalent to both benchmarks but with different thresholds. The Climate Transition Benchmark main users are institutional investors in their core asset allocation protecting their assets against the risks related to climate change, while the Paris-aligned Benchmark has stricter minimum requirements and is designed for highly ambitious climate-related investment strategy. Both benchmarks have the objective to allow a significant level of comparability of climate benchmarks while leaving benchmarks’ administrators with an important level of flexibility in designing their methodology. For investors the benchmarks provide an appropriate tool that is aligned with their investment strategy, as well as increased transparency on alignment with the needs of ambitious climate scenarios. Many investors

[153] European Commission, EU climate benchmarks and benchmarks’ ESG disclosures; TEG (2019)

[154] TEG 30.9.2019

rely on benchmarks for creating investment products, measuring their performance and devising asset allocation strategies.[155]

3.3.6. European Green Bond Standard

The new regulation on a voluntary European Green Bond Standard (EU GBS), which issuers will need to abide from 31 December 2022, creates a high-quality standard available to all issuers for green bonds to help financing sustainable investments. The European Commission defines that: "*The EUGBS will set a 'gold standard' for how companies and public authorities can use green bonds to raise funds on capital markets to finance ambitious investments, while meeting tough sustainability requirements and protecting investors from greenwashing*." This new standard aims to make use of the existing potential to scale-up and increase the environmental ambition of the green bond market. Green bonds can be used to raise financing in sectors such as energy production and distribution, low-carbon transport infrastructure and resource-efficient housing.[156]

The EU has played a central role with progress on green bonds already before. It was the European Investment Bank (EIB) that issued the world's first green bond in 2007, the Climate Awarness Bond.[157] More recently, the Commission announced in September 2021 that it has the intention to issue up to EUR 250 billion in green bonds between October 2021 and end-2026, making EU the largest green bond issuer in the world. These EUR 250 billion in green bonds cover 30 % of the EUR 800 billion recovery effort of the NextGenerationEU. The NextGenerationEU green bond framework has been aligned, to the extent feasible during the implementation period, with the European green bond standard. In addition to becoming the largest green bond issuer in the world, EU has also announced to use the proceeds sustainably to finance green investments and reforms.[158]

3.3.7. EU Ecolabel for Retail Financial Products

The European Commission is preparing an EU Ecolabel for Retail Financial Products. While the EU Taxonomy regulation defines environmental sustainability criteria for economic activities, the Ecolabel regulation will define sustainability criteria for financial products. The Ecolabel will define the minimum environmental performance of financial products group and will be based on the requirements of the EU Ecolabel Regulation (EU 66/2010), with the objective of awarding the best environmentally perform-

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[155] TEG (2019); TEG 30.9.2019

[156] European Commission (2021b)

[157] EIB, Climate Awareness Bonds

[158] European Commission 7.9.2021

ing financial products. The development of the EU Ecolabel is based on the Sustainable Finance Action Plan and it is anticipated to contribute to the achievement of the Action Plan by encouraging investments in the sustainable economic activities.[159]

The European Environmental Bureau (EEB) has criticised the EU Ecolabel proposal form extremely low level of ambition, since it would allow investment funds deriving only 18 % of total revenue from environmentally sustainable activities to obtain the label. The EEB suggested a more conservative proposal to set the green revenue threshold at 70 % of the total portfolio. On the other hand, some investment managers considers a rate between 10 to 15 % to be realistic and relative, saying that any higher rate would cause a large-scale failure for Ecolabel, because it would be nearly impossible to develop listed equity products that would meet the criteria. The threshold should find a right balance between level of ambition and practical feasibility for fund managers due to the absence of aggregated data. The criteria could be also regularly updated and tightened over time. The dissenting opinions suggest that the preparation of the proposal is not unambiguous, and might be a reason why the Commission has not set a clear timeline for the introduction of the Ecolabel for financial products.[160]

3.3.8. EU Sustainable Finance Regulatory Problems

The EU Joint Practical Guide for drafting EU legislation states that "*The drafting of a legal act must be: clear, easy to understand and unambiguous; simple and concise, avoiding unnecessary elements; precise, leaving no uncertainty in the mind of the reader."* However, many have questioned the clarity and relevance of the EU Sustainable Finance regulation.[161] For example Ahlström and Monciardini (2021) challenge "*the relevance of such regulatory interventions in negatively or positively moderating the conflicted relationship between finance and sustainability*.". While finance can be seen as part of the problem of environmental challenges, due to the dual relationship it is also seen as the solution to the fundamental challenges to achieve more sustainable future.[162]

Ahlström and Monciardini also recognise a division between two sharply different ideas of EU sustainable finance, one that wants a radical transformation of the financial industry, and other supporting incremental change and controlled reform. As an example, the EU regulation is criticised because the current regulation is still narrowed down to climate finance rather than social and environmental sustainability. Social and gover-

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[159] European Commission, Retail financial products

[160] EEB, Progress towards an EU Ecolabel for Retail Financial Product; ESG Clarity 19.3.3021

[161] European Union (2015)

[162] Ahlström, H., — Monciardini, D. (2021)

nance aspects are only a feature in the finance regulation, currently dedicated to environmental considerations, rather than the main focus. [163]

When it comes to social sustainability, EU has answered at least partly to the critics about social sustainability by creating proposal for Social Taxonomy Regulation extending the Taxonomy regulation to social objectives. The Draft Report on Social Taxonomy state that there are "*many indications that investors see social investments as an opportunity, just as they acknowledge that it is risky not to take social factors into account in investments".*[164]

The division of the two drastically different views of sustainable finance's future can be explained when considering the diversity of the stakeholders concerned. The sustainable finance regulations are influenced by and will have an affect on both civil society and NGOs, as well as fund managers and high emission corporations. Both of these sides try to do lobbying on behalf of their own interests. Also the EU member States present homogeneous set of varying opinions and realities. For example some EU Member States, such as France, are widely dependant on nuclear power, while other States, like Germany, have decommissioned all of the country's nuclear reactors. As a result, their policy goals are very different. The EU Member States want to have a successful and thriving national industry, therefore the common EU policy measures are highly disputed.[165]

The sustainable finance regulation is set to be based on scientific evidence. However, since a majority of lawmakers or EU countries could block a proposal for regulation, the regulation needs to be also politically accepted. The Commission has been warned "*not to sacrifice scientific evidence to win a political compromise*". The regulation should reflect science-based evidence in order to not risk its intended purpose and the overall credibility. On the other hand, the political pressure and lobbying increase the confrontation.[166]

Since sustainable finance regulation has seen unprecedented interest form the market, it has been directly reflected to the intensity of its lobbying. The CEO and chairman Larry Fink of BlackRock, the world's largest investment manager, wrote in his 2021 letter to CEOs that: "*No issue ranks higher than climate change on our clients' lists of priorities."* BlackRock's CEO affirms that climate transition presents a historic investment opportunity, and that the growing availability and affordability of sustainable investment options is essential to this transition.[167] Reuters even go as far as compliment-

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[163] Ahlström, H., — Monciardini, D. (2021)

[164] Platform on Sustainable Finance (2021a)

[165]Reuters 27.9.2021

[166] Reuters 12.4.2021

[167] BlackRock (2021)

ing BlackRock's CEO as champion of sustainable investment.[168] However, according to a research by environmental non-profit group InfluenceMap, BlackRock Investment Management is one of the least climate-friendly members of the trade associations lobbying on EU sustainable finance policy.[169] BlackRock have spent EUR 30 million per year on lobbying EU institutions, and multiplying its EU lobbying expenditures in recent years. In addition, BlackRock met 31 European Commission officials between 2014 and the end of 2020, and have answered to 22 EU public consultations related to sustainable finance. Contrary to the public image maintained, BlackRock's answers to EU consultations show a clear resistance to stringent requirements and to sustainable finance regulation in general.[170]

BlackRock's intense lobbying came widely public in April 2020, when the Commission decided to award to BlackRock a contract to carry out a research on integrating ESG objectives into EU financial regulation. Since BlackRock manages USD 17 billion worth of investments in coal plant developers, making it a major investor in the fossil fuel industry, the conflict of interest in providing advice to the EU on important policy measures to reduce carbon emissions became clear. After several complaints from MEPs and civil society organisations on the conflict of interest the European Ombudsman opened an inquiry. The Ombudsman found in the decision of the complain (853/2020/KR) that it is understandable that: "*the Commission relies in part on the resources and expertise from the industry that it is also involved in regulating*", however it agrees on "l*egitimate concerns around the risk of conflicts of interest*".[171]

For the critics the prevailing finance lobbying led by industry groups and corporate sector in this critical moment "*no less than a transformation of the entire financial system*" appears as the industry hijacked the regulatory process. They regret that the offensive lobbying on EU sustainable finance has resulted in softer, voluntary policies without clear definitions and binding requirements. The critics see a clear correlation on BlackRocks report delivered to the Commission and a relaxed tone of the new Sustainable Finance Strategy.[172]

All in all, the sustainable finance regulatory work and process is important, has many stakeholders and political opinions, making it disputed and initially complex. One of the main challenges of the EU is a lack of clear definition of what is sustainable, and for this the EU Taxonomy Regulation is created. Next we are going to take a closer look at

[168] Reuters 2.6.2021

[169] InfluenceMap (2020)

[170] Financial Times 4.1.2021; Reclaim Finance 30.6.2021

[171] Reclaim Finance 30.8.2021; European Ombudsman (853/2020/KR)

[172] InfluenceMap (2020); Reclaim Finance (2021)

what means taxonomy, sustainable finance taxonomy and the EU Taxonomy Regulation.

4. Taxonomy for Sustainable Finance and EU taxonomy

4.1. What is sustainable finance taxonomy?

4.1.1. Definition

Taxonomy refers to a categorisation of things or concepts, as well as to the principles underlying such a categorisation.[173] The OECD defines that Sustainable Finance Taxonomies are "*definitions of sustainable finance that aim to be comprehensive classification systems, while definitions of sustainable finance are less ambitious in scope*."[174] In the G20 input paper Ehler et al. define a Taxonomy for Sustainable Finance as: *"a set of criteria which can form the basis for an evaluation of whether and to what extent a financial asset can support given sustainability goals"*. Simplified; sustainable finance taxonomies are developed and used as classification systems. The starting point of a taxonomy are sustainability goals, and by aligning these goals with high-level policy objectives, such as carbon emission reduction in line with the Paris agreement, sustainable finance taxonomies can be important instruments for achieving these policy objectives.[175]

The sustainable finance definitions and taxonomies are being developed in response to a perceived need for greater certainty on the environmental sustainability of different types of investments and economic activities. However, taxonomies are only one part of the range of policies needed to mobilise investment. A broader supportive policy framework should include fiscal policies (such as a carbon tax), financial regulatory policies (e.g. taking into account climate-related financial risks), as well as central banking operations (including higher haircuts on carbon-intensive assets).[176]

The purpose of a taxonomy for sustainable finance is to provide a strong orientation to investors and other stakeholders, and help their decision making by identifying the non-financial sustainability benefits of an investment.[177] Precise and consistent definitions of which investment are green and sustainable facilitate investment by giving confidence and assurance to investors. Clear definition and classification also improve tracking of sustainable finance flows making it easier to measure the flows and take needed policy actions such as setting incentives.[178] A good taxonomy also mitigates

[173] Wikipedia, Taxonomy

[174] OECD (2020)

[175] Ehlers et al. (2021)

[176] Ehlers et al. (2021); ECB, What are haircuts?. In financial markets, a *haircut* refers to a reduction applied to the value of an asset.

[177] Ehlers et al. (2021)

[178] OECD (2020)

greenwashing in cases that the apparent sustainability benefits are nonexistent in practise.[179]

4.1.2. Main defining characteristics

Ehler et al. have identified four key defining characteristics classifying taxonomies:

Objective. Which sustainability goals are supported?

Scope. Which activities/industries/entities are included?

Target. How is the purpose translated into a measurable target?

Output. What types of information are provided?[180]

Sustainable finance taxonomies can cover a wide range of environmental *objectives* besides carbon emission reduction and climate mitigation. Broader set of environmental objectives can include for example climate adaptation, circular economy, pollution and biodiversity. Taxonomies can also have social and governance objectives. These objectives can be independent or interdependent, so that an activity may only qualify on one objective if it also fulfils criteria relating to other objective. Taxonomies can also identify economic activities or financial products with colours. For example activities complying with environmental objectives can be called *green* or *dark green*, and activities that are on their way to become green can be called *transition* or *light green*. Taxonomies identifying activities that are not compatible with environmental objectives can be even called *brown taxonomies*.[181]

The *scope* of the taxonomy can be either in static activities that are already low-carbon (green and dark green), or in transition activities that contribute to the transition to the net-zero emission target (transition and light green), or enabling activities that are carbon intensive themselves but enable decarbonisation of other activities (brown). To date, most of the sustainable finance related capital flows have been directed towards low-carbon activities. However, the need for finance in transition and enabling activities is considerable, and of paramount importance in the process of transition to more sustainable economy. The scope of the taxonomy can be also contemplated from the point of view, whether the taxonomy is purely national and based on given jurisdiction's standards and definitions, or does it have some level of international interoperability.[182]

The *target* of a taxonomy can be to define the sustainability from the perspective of specific activity, entire entity or based on asset. Most widely used target of the taxonomy is the activity, rather than the entire entity, such as a corporation, undertaking the

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[179] Ehlers et al. (2021)

[180] Ibid.

[181] OECD (2020)

[182] Ehlers et al. (2021)

activity. In activity-based taxonomy, environmental benefits of business activities do not necessarily imply on similar signal at the entity level. To prevent the possibility of greenwashing, is needed reporting on metrics with thresholds in line with jurisdictional regulations.[183]

Taxonomies that are well defined provide a clear *output* to investors about the non-financial benefits of the investment. Taxonomies can improve data availability and endorse harmonised mandatory disclosure of sustainability data. Using external review and facilitating verification is also important for a well developed taxonomy. While the taxonomy-compliant disclosure obligations are important, the reporting burden can't be too heavy especially for small and medium enterprises (SMEs). When it comes to data granularity, taxonomies can be classified as binary, meaning that activities are either complying with taxonomy or not. Other option is to offer grater granularity and classify differentiates among those activities that are harmful. Since taxonomies serve as an instrument to identify investment opportunities, the binary approach to taxonomies runs the risk of being both too strict and too loose in its labelling. A binary approach in which only the greenest of activities are labelled as such, could deter certain firms from investment all together. Greater granular output, with better coverage of both sustainable and unsustainable activities, can also include differences by industrial sector and technology, as well as at different levels of national economic development.[184]

4.1.3. Major sustainable finance taxonomies

Definitions and classification systems to determine the eligibility of investments for inclusion in ESG and sustainable investment products have been used already for decades. Initially these were mainly private sectors "bottom-up" approaches developed by specialist service providers or in-house by a fund managers. These definitions were many times appropriate, but the total amount of different approaches and their impalpable criteria resulted in lack of clarity and risk of greenwashing. Later on public sector developed more top-down approaches determining activities compatible with sustainable investment products. The focus was in the beginning on promoting guidelines and growth for green bond markets. These green bond guidelines proved useful in promoting transparency and disclosure, however greenwashing persisted without external reviews, clear methodologies and disclosure obligations.[185]

Together with the increasing interest to integrate sustainability concerns into the investment decisions, and widely perceived need for greater clarity on the sustainability of different types of investments and economic activities, a number of jurisdictions have

[183] Ibid.

[184] Ibid.

[185] UNDESA — IPSF (2021)

taken action and started to legislate official definitions of sustainable activities.[186] Currently more than twenty countries and regions around the world are in the process of developing their own taxonomy or have already released versions to the public. The first one to announce a more detailed mandatory assessment for issuance of green bonds was China. The People's Bank of China issued the first version of its *Green Bond Endorsed Project Catalogue*, which is commonly referred to as the Chinese taxonomy, in 2015. However, the more resent EU Taxonomy Regulation, adopted in June 2020, is seen as the most sophisticated initiative to define and scope environmentally sustainable economic activities. It establishes a framework to facilitate sustainable investment and will feed into several forthcoming regulations, such as the EU Green Bond Standard and the EU Ecolabel for financial products.[187]

In contrast to the EU, in China there is no legislative definition that falls into the exact category of a taxonomy. The Chines taxonomy has three main frameworks for green finance definitions: the *Guiding Catalogue for the Green Industry*, green credit guidelines, and the *Green Bond Endorsed Project Catalogue*. The Green Bond Catalogue is often referred to as the Chinese green bond taxonomy, although it does not align with international ICMA standards of green bond definitions. As seen with the Chines taxonomy, not all taxonomies have in their official name the word *taxonomy*, even though they address the issues of sustainable finance taxonomy and therefore can be bundled and entitled under the taxonomies.[188]

The current taxonomies can be divided in National/Jurisdiction taxonomies and Market based taxonomies. Besides EU and China, several other jurisdictions are defining their National taxonomies. In Japan, the Ministry of Environment of Japan launched a set of green bond guidelines that are consistent with the ICMA Green Bond principles in 2017. In 2020 Japan updated these guidelines to the *2020 Green Bond, Green Loan and Sustainability Linked Loan Guidelines*.[189] In Malaysia its central bank published the *Climate Change and Principle-based Taxonomy* in April 2021, creating a classification system for assessing economic activities that promote transition towards a low carbon and climate resilient economy. In Bangladesh the Bangladesh Bank published a policy document Sustainable Finance Policy for Banks and Financial Institutions, which summarise what constitutes sustainable and green finance in Bangladesh. The Bangladesh taxonomy is extensively mirroring the contents of the EU Taxonomy, for example in the use of technical screening criteria. The Mongolian Green Taxonomy, that was approved by the Financial Stability Commission of Mongolia in 2019, takes a similar form to

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[186] OECD (2020)

[187] IPSF (2021)

[188] GFMA — BCG (2020)

[189] Ibid.

China's catalogue. The Mongolian taxonomy identifies their key environmental challenges, such as climate change mitigation and adaptation, and also set down a list of activities considered environmentally sustainable for investment purposes, such as green loans and green bonds.[190]

In Singapore, the Green Finance Industry Taskforce by the Monetary Authority of Singapore, is proposing design of a taxonomy for Singapore-based financial institutions. The Singapore taxonomy sets out similar environmental objectives to the EU taxonomy, such as the *do no significant harm* criteria. It aims to classify activities that can be considered green or transitioning towards green, based on the economic activities and environmental objectives of all the 10 southeast Asian countries in ASEAN.[191] Also South Africa is preparing its national taxonomy based on several criteria from EU taxonomy. South African taxonomy strive for producing a not exhaustive list for environmental activities, covering fully green and transitional activities. Several other countries, such as Australia, Colombia and Canada, are currently developing their taxonomies, but have not yet published any progress updates or revealed information or reports.[192]

Inside of the EU before the Union wide taxonomy initiatives, individual countries have made National taxonomy initiatives. For example, the Netherlands has had a legislative approach to green lending since 1995, called *Green Funds Scheme*. In France, they have four frameworks of legislation that define sustainable finance, including the *Socially Responsible Investment* label and the *GreenFin* label for investment funds, which is based on the Climate Bonds Initiative taxonomy, in use since 2015. Both the Netherlands and France have also issued sovereign green bonds, allowing for consideration of the definitions under those frameworks. When the EU Taxonomy regulation enters in force it is binding in its entirety and directly applicable in all Member States of the Union.[193]

Besides National and Jurisdiction bases taxonomies, there are also few Market based taxonomies. Most important Market based taxonomies are Climate Bonds Initiative Taxonomy, Multilateral development banks *Common Principles for Climate Finance Tracking* and ISO standards for Green Taxonomy. The Climate Bonds Initiative (CBI) is an international organisation working to mobilise green bonds for climate change solutions. The CBI Taxonomy, released in 2013, is a globally recognised tool providing an overview of green investment opportunities across the major economic sectors. The CBI Taxonomy adopts a traffic light system to determine eligibility of instruments in its

[190] ICMA (2021)

[191] Wikipedia, ASEAN. ASEAN refers to the Association of Southeast Asian Nations, an economic union of 10 member states in Southeast Asia with intergovernmental cooperation.

[192] ICMA (2021)

[193] OECD (2020)

green bond list. Green assets are considered automatically eligible, orange need to meet certain screening criteria, red assets are considered ineligible and grey assets don't have determined screening criteria yet.[194]

In 2015 was developed jointly by nine multilateral development banks (MDBs) and 26 regional and national development banks, that are members of IDFC[195], common principles to align their tracking and reporting of climate development finance, and to provide definitions for climate-related financing. The MDBs-IDFC common principles, the *Common Principles on Climate Mitigation Finance Tracking* and the *Common Principles on Climate Adaptation Finance Tracking,* are voluntary and primary applicable in development finance.[196]

In addition to the development banks taxonomy, under Market based taxonomies is also ISO's upcoming Green Taxonomy. The International Organization for Standardization (ISO), the worldwide federation of national standards bodies, is currently developing an internationally applicable standard on *Environmental performance evaluation — Green debt instruments*. It aims to provide specific requirements and guidance for the designation and verification of green bonds (ISO 14030-1) and green loans (ISO 14030-2). These standards are complemented by a taxonomy (ISO 14030-3) and verification programme requirements (ISO 14030-4). The objective of the ISO Green Taxonomy is to identify activities with positive environmental benefits. The ISO Taxonomy will provide a framework for classifying all potential projects, assets and activities against an extensive set of environmental objectives that are largely based on the EU taxonomy.[197]

4.1.4. Effective Taxonomy Design

Ehlers et al. have made in their publication *A taxonomy of sustainable finance taxonomies* vast comparison of major taxonomies across key markets for sustainable finance. They have found that the existing taxonomies often mix several sustainability goals and provide output that could be more transparent and helpful for investors decision making. The main problems for taxonomies are "*the need for more use of relevant and measurable sustainability performance indicators, a lack of granularity and lack of verification of achieved sustainability benefits*". However, it is anticipated that increasing sustainability disclosures, third party data collection and technological innovations

[194] ICMA (2021)

[195] The International Development Finance Club (IDFC) is a network of 26 national, regional and bilateral development banks.

[196] ICMA (2021)

[197] Ibid.

in collecting these data will enable rapidly increasing amount of available sustainability related data. [198]

Based on their research on major sustainable finance taxonomies Ehler et al. have developed five core principles for designing effective taxonomies:

- *Alignment with high-level policy objectives and measurable interim targets*
- *Focus on one single objective ("One taxonomy, one objective")*
- *Outcome-based using simple and disclosed key performance indicators (KPIs)*
- *Incorporation of entity-based information whenever possible*
- *Sufficient granularity, covering both high and low sustainability performance.*[199]

None of the current existing taxonomies cross all the boxes of Ehler et al.'s effectively designed taxonomy. However, most of the taxonomies are quite new and still evolving. The most evolved taxonomy of them all is the EU Taxonomy. Next we are going to look closer in the EU Taxonomy Regulation and its design. In the end of the chapter as part of the EU Taxonomy's future perspective is discussed about international taxonomy harmonisation.

4.2. EU Taxonomy

4.2.1. EU Taxonomy Regulation 2020/852/EU

EU Taxonomy is an EU classification system for sustainable activities. It was created by the European Commission to achieve the key objective of the Action Plan on Financing Sustainable Growth to reorient capital flows towards sustainable investment and ensure market transparency. The development of an EU wide classification system of green activities was identified as the priority action under the recommendations of *High-Level Expert Group on Sustainable Finance* and *Action Plan on Financing the Sustainable Growth.*[200]

The EU Taxonomy Regulation (EU 2020/852) was published in the Official Journal of the European Union on 22 June 2020 and entered into force on 12 July 2020. It is an important piece of legislation for enabling and increasing sustainable investment and hence implementing the European Green Deal. By providing companies, investors and policymakers with the uniform criteria and definitions of which economic activities can be considered as environmentally sustainable, it is expected to help shift investments where they are most needed. The regulation aims to increase transparency and consis-

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[198] Ehlers et al. (2021)

[199] Ibid.

[200] ICMA (2021)

tency by classifying activities, as well as limit the risk of greenwashing and fragmentation in relevant markets.[201]

The Taxonomy Regulation creates a legal basis for the EU Taxonomy. The Taxonomy Regulation defines the comprehensive framework of the EU taxonomy, including the four basic conditions that an activity must meet to be Taxonomy-aligned, the six environmental objectives to which an activity can substantially contribute, and the means by which an activity can make a substantial contribution to each of the six environmental objectives. The Regulation sets out the framework and environmental objectives for the Taxonomy, as well as new legal obligations for financial market participants, large companies, the EU and member states. The EU taxonomy has obligations of reporting to regulators and stakeholders applicable to financial market participants, when selling a financial product as a sustainable investment, as well as large companies with over 500 employees. It also applies to EU and its member states when they establish labels or standards regarding financial products or corporate bonds presented as environmentally sustainable.[202]

The mandatory reporting under the Taxonomy will apply from January 2022 for the climate change mitigation and adaptation objectives, and from January 2023 for the other four objectives. Alongside the mandatory reporting, companies can also use the EU Taxonomy voluntarily.[203]

It is important to note that the Taxonomy Regulation really aims to *enable* and *increase* sustainable investment. The Regulation sets some obligations, however on a general level markets can continue business as usual. The OECD report describes this well: "*The EU taxonomy is a mandatory scheme in the sense that financial market participants will be obliged to comply with the regulation when they want to market a financial product as "environmentally sustainable as per EU legislation". It is worth noting that an issuer, for instance a bank, will still be able to issue a (self-labelled) "transition bond" with no reference to the EU taxonomy, as long as the bank does not mention "environmentally sustainable" in communications on the transition bond.-*".[204] Delegated act under the Taxonomy Regulation states that: "*Investors may continue to invest as they wish and the Taxonomy Regulation does not imply any obligation on investors to invest only in those economic activities that meet specific criteria*."[205]

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[201] European Commission, EU taxonomy for sustainable activities; Commission Delegated Regulation (EU) C/2021/4987; Commission Delegated Regulation (EU) C/2021/2800

[202] World Bank (2020); TEG (2020); Canfora et al. (2021)

[203] European Commission 21.4.2021a

[204] OECD (2020)

[205] Commission Delegated Regulation (EU) C/2021/2800

The EU Taxonomy Regulation is developed on a principle that it is dynamic and evolving tool. By 13 July 2022, and subsequently every three years thereafter, the Commission will publish a report on the application of the Taxonomy Regulation. This reviewing report is set to evaluate the progress in implementing the Regulation with regard to the development of technical screening criteria for environmentally sustainable economic activities, as well as the possible need to revise and complement the criteria for an economic activity to qualify as environmentally sustainable. The reviewing is needed in order to adjust the criteria to be coherent with technological changes and the changing transition period of the Regulation.[206]

This Regulation is binding in its entirety and directly applicable in all EU Member States. The Regulation will be supplemented by delegated acts which contain detailed technical screening criteria for determining when an economic activity can be considered sustainable and therefore can be considered Taxonomy-aligned.[207]

4.2.2. Delegated Acts supplementing and amending

Since the EU Taxonomy Regulation is sophisticated and detailed, as well as novel in its kind, it would be laborious to prepare the entire regulation at once. For this, the European Commission uses Delegated Acts to supplement and amend the already existing Taxonomy Regulation. Delegated Acts are practical and useful also considering the principle of EU Taxonomy as a dynamic and evolving tool. Under the Taxonomy Regulation, the Commission had to come up with an actual list of environmentally sustainable activities by defining technical screening criteria for each environmental objective through Delegated Acts.[208]

The first Delegated Act (C/2021/2800) establishes the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation, and for determining whether that economic activity causes no significant harm to any of the other environmental objectives. "*The technical screening criteria need to specify the performance requirements for any economic activity that determine under what conditions that activity (i) makes a substantial contribution to a given environmental objective; and (ii) does not significantly harm the other objectives.*" The EU Taxonomy Climate Delegated Act builds on the recommendations of the European Commission expert group, the Technical Expert Group on Sustainable Finance (TEG), and over 200 additional experts to develop recommendations for the technical screening criteria. The first delegat-

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[206] OECD (2020); European Commission, EU taxonomy for sustainable activities

[207] Commission Regulation (EU) 2020/852

[208] European Commission, EU taxonomy for sustainable activities

ed act was approved on 21 April 2021 and formally adopted on 4 June 2021. A second delegated act for the remaining objectives will be published in 2022.[209]

Besides technical screening criteria for environmental objectives, delegated acts have been used to supplement specific articles of the Taxonomy Regulation. The Commission adopted the Delegated Act (C/2021/4987) supplementing Article 8 of the Taxonomy Regulation on 6 July 2021. Article 8 of the Regulation determines the obligation to publish non-financial information on how and to what extent corporations activities are associated with economic activities that qualify as environmentally sustainable. "*This delegated act specifies the content, methodology and presentation of information to be disclosed by financial and non-financial undertakings concerning the proportion of environmentally sustainable economic activities in their business, investments or lending activities."* The Delegated Act supplementing Article 8 of the Taxonomy Regulation sets out the Taxonomy related reporting, and serve as a basis for various future and ongoing initiatives in sustainable finance. The Taxonomy related disclosures will create an entire assortment of sustainable finance tools, including standards and labels, as well as access to a coherent sustainability data, which are all necessary to channel capital towards sustainable investments.[210]

The above mentioned delegated acts *supplement* and add something to complement the Taxonomy Regulation. Other type of delegated act is *amending* and making minor changes and improvements. The Commission adopted on 21 April 2021, as part of its comprehensive sustainable finance package, six amending Delegated Acts on sustainability preferences, fiduciary duties and product governance. These six amending Delegated Acts will ensure that financial firms include sustainability in their procedures and their investment advice to clients.[211]

The most recent delegated act was presented by the Commission on 2 February 2022. The Complementary Climate Delegated Act on climate change mitigation and adaptation covers certain gas and nuclear activities. It sets out clear and strict conditions on certain nuclear and gas activities that can be added as transitional activities under EU taxonomy. Both gas and nuclear have been politically so sensitive topics, that the Commission decided to deal with them separately. The co-legislators will have four months to scrutinise the complementary Delegated Act, and if necessary to object to it. In case qualified majority of at least 20 Member states don't object the act, it will enter into force and apply as of 1 January 2023.[212]

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[209] Commission Delegated Regulation (EU) C/2021/2800; European Commission, EU taxonomy for sustainable activities

[210] Commission Delegated Regulation (EU) C/2021/4987; Commission Regulation (EU) 2020/852; European Commission, EU taxonomy for sustainable activities

[211] European Commission, Sustainable finance package

[212] European Commission 2.2.2022

4.2.3. Objectives and conditions to be environmentally sustainable

The EU Taxonomy aims at being a classification system that provides a common language on what can be considered as sustainable activity. In other words, it sets out the criteria an economic activity must meet to qualify as contributing to EU sustainability objectives. The *objectives* of EU Taxonomy are linked to those of the Action Plan on Financing Sustainable Growth to reorient capital flows towards sustainable investment, in order to achieve sustainable and inclusive growth, as well as to manage financial risks entailing from climate change, environmental degradation and social issues, and lastly, to foster transparency and long-termism in financial and economic activity.[213]

The EU legislators aimed to create a definition of sustainability that goes beyond climate objectives and includes also social and governance aspects. The *six environmental objectives* established in the Taxonomy Regulation are:

1. Climate change mitigation
2. Climate change adaptation
3. The sustainable use and protection of water and marine resources
4. The transition to a circular economy
5. Pollution prevention and control
6. The protection and restoration of biodiversity and ecosystems. [214]

The Taxonomy Regulation establishes the basis for the EU Taxonomy by setting out 4 overarching conditions that an economic activity has to meet in order to qualify as environmentally sustainable. Conditions to be environmentally sustainable under EU Taxonomy:

1. *Substantially contribute* to achieving one or more of the environmental objectives outlined in the Taxonomy Regulation.
2. *Do no significant harm* (DNSH) to any of the other listed environmental objectives.
3. Be carried out in compliance with *minimum social safeguards.*
4. Comply with the *technical screening criteria* (TSC), which, in effect, define what it means to substantially contribute and DNSH.[215]

The definition of *Substantially contribute* depends on each environmental objective and concrete requirements for what defines the substantial are established in the Technical Screening Criteria.[216] However, across all objectives can be determined three main

[213] OECD (2020)

[214] European Commission, EU taxonomy for sustainable activities; OECD (2020)

[215] Ibid.

[216] ICMA (2021)

ways in which an activity can make a substantial contribution to an environmental objective. An activity can contribute by either improving the state of the environment, reducing the pressure on the environment, or enabling either of the two previous types.[217] The Technical Expert Group on Sustainable Finance developed thresholds and metrics for substantial contribution to 70 climate change mitigation and 68 climate change adaptation activities. These economic activities are from the economic sectors of agriculture, forestry, manufacturing, electricity, waste, water, transport, buildings, and Information and Communication Technologies.[218]

Do no significant harm means that substantial contribution to an environmental objective should not come at the cost of significantly harming another one. This means that economic activities, even when making a substantial contribution to climate change mitigation and/or adaptation, will not be eligible if they cannot be carried out in a way that avoids significant harm to other environmental objectives.[219]

Compliance with *minimum social safeguards* is aligned with the social dimension of the EU Taxonomy and asses on *how* an economic activity is performed rather than *what*. Minimum social safeguards require compliance and alignment with the OECD Guidelines for Multinational Enterprises and UN Guiding Principles on Business and Human Rights, including the ILO declaration on Fundamental Rights and Principles at Work, the eight ILO core conventions and the International Bill of Human Rights.[220]

The *technical screening criteria* (TSC) refer to the operationalising and implementation part of the EU Taxonomy. These thresholds provide concrete requirements for both *substantially contribute* and DNSH to achieving an environmental objective. The TSC are established through a series of delegated acts. The first act covers economic activities generating a substantial contribution to climate change mitigation and adaptation. The Taxonomy Regulation provides limitations and requirements of design for the TSC. The TSC need to be based on technological neutrality, refer to the EU labelling and certification schemes, follow conclusive scientific evidence, take into account the nature of the activity (such as enabling or transitional), avoid the risk of creating stranded assets and distorting competition in the market, among other requirements.[221]

In a nutshell, in order to be eligible as environmentally sustainable by the EU Taxonomy, an economic activity must be checked at the same time against the six objectives, one for *substantial contribution* and the five others for *do no significant harm*. As a consequence, all environmental objectives are interlinked together in the EU Taxonomy

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[217] Canfora et al. (2021)

[218] European Commission, EU taxonomy for sustainable activities; OECD (2020)

[219] ICMA (2021)

[220] ICMA (2021); OECD (2020)

[221] ICMA (2021)

framework. This feature of taxonomy is significant and unique, however in practice may raise usability issues if it involves significant time and cost for multi criteria compliance from financial market participants. However, one of the main principles that have guided the preparation of the EU Taxonomy is that it is intentioned to be easy to understand and use. This means that it should be user-friendly and not too costly in terms of money and time.[222]

4.2.4. Scope, target and output

There are four key defining characteristics that classify taxonomies: objective, scope, target and output. The EU Taxonomy have several *objectives* that are interlinked and closely committed to emission reductions to achieve climate neutrality by 2050 (see previous chapter). Next we look closer to scope, target and output of the EU Taxonomy.[223]

Scope refer to the activities and industries that are included in taxonomy.[224] For climate change mitigation, the EU Taxonomy identifies the following priority sectors based on their significant contributions to greenhouse gas emissions:

- Agriculture, forestry, and mining
- Manufacturing
- Electricity, gas, steam, and air conditioning supply
- Water, sewerage, waste, and remediation
- Transportation and storage
- Information and communication technologies
- Buildings.[225]

For climate change adaptation, the EU Taxonomy identifies a list of economic activities selected from six sectors on the basis that they are particularly vulnerable to the impacts of climate change:

- Agriculture, forestry, and mining
- Electricity, gas, steam, and air conditioning supply
- Information and communication technologies
- Financial services and insurance
- Professional, scientific, and technical activities
- Water, sewerage, waste, and remediation.[226]

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[222] OECD (2020)

[223] Ehlers et al. (2021)

[224] Ibid.

[225] Commission Delegated Regulation (EU) C/2021/2800

[226] Commission Delegated Regulation (EU) C/2021/2800

Most of the green and sustainable finance to date has been directed to activities that are already low-carbon. Transition and enabling activities in carbon-intensive industries have received substantially less investment. Transition activities are activities that contribute to the transition to the net-zero emission, but are not green yet, such as passenger cars. Enabling activities might be carbon-intensive themselves, but generate goods and services that enable decarbonisation of other activities, such as manufacturing of solar panels. It is important to note that only minority of sectors today operate at zero or close to zero emissions. Transition and enabling activities are fundamental in the transformation to achieve transformation to more sustainable future.[227]

The EU has come up with a technical screening criteria for 70 climate change mitigation and 68 climate change adaptation activities. These criteria are based on the NACE codes, which is the EU classification of economic activities. The term NACE is derived from the *Statistical classification of economic activities in the European Communit*y in French. Each economic activity has its own NACE code providing the framework for collecting and presenting a large range of statistical data according to economic activity.[228] Under the broad industrial categories are additional NACE subcategories. The OECD estimates that EU Taxonomy covers economic activities of roughly 40 % of listed companies. In addition, in the future even more economic activities will be taxonomy-eligable, i.e. covered by the EU Taxonomy.[229]

Scope can also refer, besides the sectors concerned, to whom the EU Taxonomy Regulation sets mandatory requirements. The EU Taxonomy is obligatory for Member states and the EU, when setting out any public measures, standards and labels for green financial products or green bonds. It is also obligatory to financial market participants, when selling a financial product as a sustainable investment. Otherwise financial market actor needs to make a disclaimer, if not applying the EU taxonomy. Taxonomy also obliges large companies with over 500 employees. They need to disclose proportion of turnover, capital expenditure (CapEx) and, if relevant, operational expenditure (OpEx) that is taxonomy-aligned. Taxonomy-aligned refers to economic activity that is covered by the EU Taxonomy and fulfils the technical screening criteria. Taxonomy-aligned turnover reveals where the company is now in relation to Taxonomy, while CapEx provides information on where the company is going in relation to Taxonomy. If there are no taxonomy-aligned activities, then it is required to make disclosure related to non-

[227] Ehlers et al. (2021)

[228] ICMA (2021); Eurostat

[229] IPSF (2021)

eligble activities. Taxonomy non-eligible refers to economic activity that is not covered by the EU Taxonomy.[230]

Target of the taxonomy means the way its purpose is translated into a measurable target. As part of the EU *Action Plan on Financing the Sustainable Growth* to reorient capital flows towards sustainable investment was created EU Taxonomy. It is good to remember that the ultimate target of the EU is to achieve its 2030 Climate Target Plan to reduce greenhouse gas emissions to at least 55 % below 1990 levels by 2030. The EU Taxonomy, a common classification system for sustainable economic activities, help direct investments towards sustainable projects and activities. It sets into law for the first time a common understanding of which and to what extent activities covered are environmentally sustainable. The EU taxonomy regulation defines environmental sustainability criteria for economic activities, not for financial products or entities.[231]

Target of the EU Taxonomy are the economic activities. The sustainability is defined from the perspective of activity with activity-based thresholds. This means that since each activity is classified separately, one company can perform multiple functions, from which some may be sustainable according to taxonomy and some of which may not. In this case it is possible for a company to attract Taxonomy-aligned sustainable financing and also obtain ordinary financing without restrictions. Taxonomy allows investors to determine the percentage of their funds invested in taxonomy-aligned activities. On the other hand, companies that disclose their investments according to the EU taxonomy, provide important information for building green portfolios and for analysing environmental sustainability performance and strategies.[232]

Output refers to the types of information that are provided. Taxonomy should help investors with clear data about the non-financial benefits of an asset. The EU has adopted a proposal for a Corporate Sustainability Reporting Directive (CSRD), which will amend the existing reporting requirements of the current Non-Financial Reporting Directive (NFRD). The CSRD is a set of rules that bring sustainability reporting on the same level with current financial reporting, expected to come into effect during the 2022. The EU also has a Sustainable Finance Disclosure Regulation (SFDR) , which came into effect on 10 March 2021, and determines common EU rules on what are the sustainability disclosure obligations for financial sector. However, the foremost sustain-

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[230] TEG (2020); *Overall turnover is equivalent to a firm's total revenues over some period of time. A capital expenditure is a payment for goods or services recorded, or capitalised, on the balance sheet instead of expensed on the income statement. Operating expenses are shorter-term expenses required to meet the ongoing operational costs of running a business.*

[231] OECD (2020)

[232] Euro & Talous 23.2.2021; EU Taxonomy Info

ability disclosure improvement of EU Taxonomy is the Article 8 and Delegated Act supplementing Article 8 specifying how the taxonomy-compliant disclosure obligations are to be applied in practice.[233]

Information and clear data is at the core of the EU taxonomy. However, lack of data is seen as one of the major problems. Complying with EU Taxonomy regulation demands a totally new set of data that has not been needed before and as a consequence is not available yet. Besides of lack of data, the existing data presents some quality issues. Many financial sector operators also see multiple disclosure standards as an obstacle for EU Taxonomy. It is expected that over time is achieved a situation where the costs, measured in money and time, of the reporting obligations are lower than the benefits the taxonomy brings.[234]

4.2.5. EU Platform on Sustainable Finance

The EU Platform on Sustainable Finance is a permanent expert group of the European Commission that has been established under Article 20 of the Taxonomy Regulation. The Platform is an advisory body that will assist the Commission in developing its sustainable finance policies, in particular the further development of the EU taxonomy. The Platform unites the world leading sustainability experts across all stakeholder groups. It is composed of 57 members and 11 observers, supported by 6 subgroups responsible for the technical work, reports or recommendations. The Platforms's first meeting was held on October 2020.[235]

The main purpose of the Platform is to advise the Commission related to further developing the EU taxonomy and support the Commission in the technical preparation of delegated acts to implement the EU taxonomy. The Article 20 of the Taxonomy Regulation gives the Platform a mandate to work on four main tasks. First task is to advise the Commission on the technical screening criteria for the EU taxonomy, as well as on the usability of the technical screening criteria. Second task is to advise the Commission on reviewing the Taxonomy Regulation and on covering other sustainability objectives to the EU Taxonomy, such as social objectives and activities that significantly harm the environment. Third task is to monitor and report on capital flows towards sustainable investments, and fourth task is to advise the Commission on sustainable finance policy more extensively.[236]

The major and most urgent task of the Platform on Sustainable Finance is to advise the Commission on technical screening criteria on environmental objectives. Besides of

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[233] Ehlers et al. (2021)

[234] IMF (2021); Eurosif (2021)

[235] European Commission, Platform on Sustainable Finance

[236] European Commission, Platform on Sustainable Finance

the environmental objectives of the taxonomy, the Platform is working on developing extensions of social and brown taxonomies. Its task is to advise the Commission on extending the taxonomy to social objectives and compliance with minimum social safeguards, as well as economic activities that significantly harm environmental sustainability (i.e. brown taxonomy). The Platform published on July 2021 draft recommendations on social taxonomy and a draft proposal for an extended taxonomy to support economic transition. It gathered stakeholder feedback on both drafts until September 2021 and was expected to publish its final reports on November 2021, but has extended the deadline of the reports to the first quarter of 2022.[237]

4.2.6. Brown Taxonomy and traffic light colour system

Brown taxonomy means developing criteria for significantly harmful emission levels, and as a consequence reductions for these highly emissions intensive activities. By now, the EU Taxonomy has three layers of green activities that can be taxonomy aligned. The first layer consist of activities that are already low carbon (such as renewable energy), second is activities that enable emission reduction in other activities, and the third layer includes activities that are not low carbon yet, but can transition to become green in the future. In the future EU Taxonomy might also include activities that are significantly harmful to environmental sustainability. These activities that are currently of *significant harm* should transition to a level that at least does not cause significant harm, even if they do not actually reach substantial contribution (green).[238]

The Platform on Sustainable Finance presented on its *Draft report on taxonomy extension options linked to environmental objectives* the traffic light colour system of universally understood Green, Orange Yellow and Red classifying environmentally sustainable economic activities. The Platform has reject the use of a *brown* taxonomy, because of the inappropriate ethnic reference and possible wrong interpretations. While in the existing green taxonomy activities are either green and taxonomy aligned, or simply non-taxonomy aligned, the future extended taxonomy has three levels of activities:

- Green activity that Substantially Contribute (SC)
- Orange activity that have Intermediate Performance between SC and SH
- Red activity that is Significantly Harmful (SH).[239]

The future extended taxonomy with additional categories of activities and performance levels would help improve clarity in financial markets. The Platform believes that since currently activities are either green or *not green*, these *not green* activities are many times misunderstood as automatically unsustainable. This binary classification

[237] European Commission, Platform on Sustainable Finance

[238] TEG (2020); European Commission (2021a)

[239] Platform on Sustainable Finance (2021b)

problem is considered to be caused by the current design of the EU Taxonomy. The Platform considers that: "*In reality the Taxonomy is not binary, but rather only allows activities meeting high standards of environmental performance against objective criteria to be classified as green.*" However, an extended version of the EU Taxonomy is believed to aid in transition to a low-carbon more sustainable economy. The Platform makes an important reminder that while forming this extended taxonomy "*balance needs to be struck between additional complexity in reporting, versus the additionality of more information being made available*".[240]

4.2.7. Social Taxonomy

The current EU Taxonomy is dedicated to environmental considerations and social aspects are a feature, rather than the main focus. Due to the current limited inclusion of social sustainability aspects, the European Commission and the Platform on Sustainable Finance are working on extending the EU Taxonomy to social objectives. There is a huge need to invest in social sustainability in order to achieve the sustainability goals. The Platform also acknowledge that investors consider social investment as an opportunity, as well as a risk, if not taking the social factors into account in investment decision making. Extending the EU Taxonomy to cover also *social objectives* in the regulation would mean a clear definition of what constitutes a social investment, as has been done in the the case of environmental investments.[241]

The Platform has not yet released the final report concerning its advise to the Commission on social taxonomy. It has nonetheless published a draft report arguing that at these times of COVID-19 pandemic, unanswered social questions around sustainable transition and continuing human rights abuses, it is important to recognise economic activities that promote the progress of social objectives. The draft report attest that, when built on the foundation of international norms and principles, such as the SDGs and the UN Guiding Principles for businesses and human rights, the social taxonomy would help investors to identify opportunities to finance enabling solutions for decent work, inclusive and sustainable communities and affordable healthcare and housing.[242]

The Platform has put a lot of effort to consider how to ensure a balance in the relationship between an environmental and a social taxonomy, as well as the main differences between an environmental and a social taxonomy. "*One suggestion is that just as social and governance-related minimum safeguards (UNGPs and OECD guidelines on multinationals) are part of the environmental taxonomy, minimum environmental safe-*

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[240] Ibid.

[241] European Commission (2021a)

[242] European Commission (2021a); Platform on Sustainable Finance (2021a)

guards should be part of whatever social taxonomy is decided on, for example along the lines of the environmental part of the OECD guidelines." One of the main differences is that environmental objectives and criteria can and should be based on science, since science behind climate change gives clear answers on CO2 reduction requirements. However science is not systematically able to play such a role for social factors, and this means that social taxonomy could be founded on international standards of topical relevance such as the International Bill of Human Rights.[243]

There are many concerns for extending the taxonomy and even some experts in the Platform are not convinced that the EU Taxonomy should be extended. One of the main issues is that it would not be possible to define activities as socially sustainable in a positive way, or as negative as part of DNSH criteria, since this would depend on the context and largely on the differences on national level, including the industrial relations system. Accordingly, a social taxonomy is not intended to replace national regulation, but instead, to support investments in activities and economic entities that substantially contribute to achieving social objectives. This would work at length the same way as an environmental taxonomy is designed to support investments in environmentally friendly activities. There are still many questions open related to what social taxonomy will look like, and what will be the relationship between a social and an environmental taxonomy. The Platform on Sustainable Finance will publish its final report on social objectives by the first quarter of 2022 and report on compliance with minimum social safeguards in 2022.[244]

4.3. EU Taxonomy criticism and future perspective

4.3.1. How legislative definition is better than existing market-led definitions?

Definitions and classification systems for identifying environmentally sustainable investments have existed for a long time as private sectors response to the needs of financial market. Financial markets have used their own definitions long before jurisdictions. The EU started to first promote guidelines to green bonds and in the last years develop official definitions of sustainable activities in the form of a taxonomy. The European Commission legislative action has stirred a debate in the financial and regulatory community on the definitions used for identifying environmentally sustainable investments.

The main question is, what is the merit of EU legislative action when compared to letting the financial markets use their own definitions as they have been doing for so many years.[245] Schoenmaker (2018) argues that: "*While such a taxonomy might bring*

[243] Platform on Sustainable Finance (2021a)

[244] Ibid.

[245] OECD (2020)

much needed clarity in certain markets, such as the emerging market for green bonds, the general approach to sustainable investment should be market-led." He considers that official taxonomy might suppress innovation in sustainable investment. Markets would react faster to technological changes than official regulation ever could, administrative burden would increase, and large companies have vantage in lobbying compared to smaller companies lacking needed resources. Schoenmaker considers that: "*Investors and banks are best placed to assess which companies are prepared for the transition to a sustainable economy.*" They have a direct incentive to find out the most promising business and technologies in the sustainability transition as their own money is at stake.[246]

The OECD considers that the potential benefits of well-designed sustainable finance definitions are improving the market clarity and integrity. Clear definitions on which investments are sustainable could facilitate investment by giving confidence and certainty to investors. Legislative definition also makes it easier to track sustainable finance flows in order to measure them and take needed policy actions.[247] The European Commission considers that a common language and a clear definition of what is *sustainable* is essential to direct investments towards sustainable projects and activities. Uniform definition help shift investments where they are most needed.[248]

4.3.2. Usability and high degree of complexity

The EU defines that its regulation should be: "*clear, easy to understand and unambiguous; simple and concise, avoiding unnecessary elements; precise, leaving no uncertainty in the mind of the reader.*"[249] These are quite the opposite of adjectives that come up when talked about the EU Taxonomy regulation. The financial sector has already warned that due to the complexity of the regulation it is highly probable that they will fail to comply with the requirements.[250]

The usability and ease of use of a taxonomy is an important consideration that should be given attention when designing a taxonomy. The OECD considers that the EU Taxonomy's degree of complexity is a result from the use of economic activities and NACE codes as the core structure of the taxonomy, while the NACE codes present non-consistency with corporate accounting frameworks. In addition, the EU has ambitiously interlinked six environmental objectives together through the *Do No Significant Harm* (DNSH) criteria. This means that the Taxonomy regulation requires six types of assess-

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[246] Schoenmaker (2018)

[247] OECD (2020)

[248] European Commission, EU taxonomy for sustainable activities

[249] European Union (2015)

[250] Bloomberg 22.11.2021

ments to be made for every single economic activity. Since the Taxonomy has not yet been implemented in practise, the most important considerations concerning the usability will come out only later after its effective implementation.[251]

The Principles for Responsible Investment have made a comprehensive set of case studies around how to use the EU Taxonomy with over 40 investment managers and asset owners that worked to implement the taxonomy on a voluntary basis in anticipation of upcoming European regulation. The main findings form the case studies are that investors anticipate a need for significant practical and interpretive guidance for all Taxonomy users. The EU Taxonomy demands a significant time investment to understand, interpret and apply the criteria. Guidance and expertise is very valuable in assessing technical screening and criteria, especially when it comes to DNSH. Some of the screening criteria also involve interpretation. In addition, investors are asking for more clarity on the selection and exclusion of some indicators and activities.[252]

4.3.3. Very low level of taxonomy alignment

The EU Taxonomy has been introduced as a tool for investors to send signals to market about their sustainable investment preferences. It is expected that with EU taxonomy the investor preferences will increasingly favour sustainable economic activities and allocate capital accordingly. However, it is uncertain whether the Taxonomy will serve as a tool for capital allocation in the near future. One of the main problems behind this is the lack of possible investment diversification when favouring sustainable economic activities in investment decision making. Currently, it is not possible to concentrate to invest in taxonomy aligned activities and create diversified investment portfolio.[253]

European Sustainable Finance Survey 2020 present a result that European capital markets offer limited investment options that comply with the EU Taxonomy criteria. The survey estimates that broad market indices have a very low level of alignment, between 1 % and 2 % with the Taxonomy.[254] According to the European Commissions estimates, between 1 % and 5 % of all companies and investment portfolios would qualify as environmentally sustainable in accordance with the Taxonomy. The Commission expects that these figures will rise significantly with the implementation of the EU Green Deal.[255] Overall this reflects the reality, that the current EU economy is unsustainable and there is a lot of work required for transition towards carbon neutrality by 2050.[256]

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[251] OECD (2020)

[252] UNPRI (2020)

[253] Eurosif (2021)

[254] Adelphi (2020)

[255] European Commission 21.4.2021a

[256] Eurosif (2021)

Taxonomy alignment is a very important consideration. At that, it is important to remember that the EU have prioritised in the regulatory process of the EU Taxonomy economic activities that can make the most relevant contribution to the two environmental objectives of reducing greenhouse gas emissions and improving climate resilience. The Taxonomy includes sectors with the highest contribution to CO2 emissions, as well as activities enabling their transformation. Through the Taxonomy Climate Delegated Act, the Taxonomy criteria covers economic activities of approximately 40 % of listed companies, that operate in sectors which are responsible for almost 80 % of direct greenhouse gas emissions in all Europe. It was not possible to develop criteria for all economic sectors that can make a substantial contribution at once. However, since the Taxonomy regulation will be developed gradually over time, further delegated acts will likely include other economic activities from different sectors, as the integration into the Taxonomy becomes feasible and relevant.[257]

It can be expected that the EU Taxonomy stirs action in the market to increase sustainable activities, innovation and technologies, as well as improve sustainability reporting, disclosure and compliance. All this would make the EU economy more sustainable and as a consequence the EU Taxonomy alignment would improve remarkably in the next years, even without extending the current regulation, that is foreseeable.

4.3.4. Data problems and lack of data

The issue of data availability is seen as one of the major problems of the EU Taxonmy. Taxonomy increases demand for data significantly from issuers and investors, in order to check eligibility of activities and investments. However, the availability of data is critical in order to make the EU Taxonomy regulation operational. Besides the lack of data, another problem is the quality of data. Since there are a variety of methodologies for reporting metrics, such as carbon emissions, only some of these meet the regulatory obligations and can be used in EU Taxonomy. Discordantly there is a problem of too much and too little of sustainability data. Too much of complex and inconsistent data for financial market and investors to apply in their decisions, as well as too little of available and reliable taxonomy-relevant data.[258]

NGFS has made a comprehensive *Progress report on bridging data gaps,* which affirms that: "*Reliable and comparable climate-related data are crucial in order for financial sector stakeholders to assess financial stability risks, properly price and manage climate-related risks, and take advantage of the opportunities arising from the transition to a low-carbon economy.".*[259] Also FSB published a report on climate data gaps.

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[257] European Commission 21.4.2021a

[258] OECD (2020); Bloomberg 1.12.2021

[259] NGFS (2021a)

FSB considers that since the EU Taxonomy categorises economic activities, compared to taxonomies that categorise sectors and have advantage of usability but lack granularity, the EU Taxonomy can provide greater granularity of information. However, the EU Taxonomy is complex to construct due to a lack of data on the activities of some firms.[260]

Silvola and Landau (2021) recognise that there is no single internationally approved standard, as for now, for preparing sustainability ratings and analysis. During the last years the selection of data and tools for sustainability analysis has increased at great phase, especially with regard to the assessment of climate impacts. Sustainability has been measured in approximately 50 different ways, such as using an index of companies reported sustainability indicators or using only one sustainability rating. In practise each service provider have their own methodologies for compiling their sustainability ratings. However, there is a need for multifaceted data from several sources. Only one sustainability database alone as a source of information for sustainability analysis is not enough, "*because we cannot expect the data to be absolutely correct"*.[261]

The EBF and UNEP FI made a study *Testing the application of the EU Taxonomy to core banking products* involving 26 major European banks, which pointed out that: "*the availability of data is the single biggest challenge identified in the early application of the EU Taxonomy.*" According to the study the data availability proved to be most difficult challenge especially when evaluating the DNSH criteria and in the alignment of SMEs and non-EU based assets. The study made a total of 8 recommendations for regulators, from which 3 are about data issues.[262]

While the reporting obligation of the financial market participants starts in January 2022, there are still some details being developed, as well as deadlines for regulatory reporting staggered. The new technical screening criteria for the EU Taxonomy for sustainable activities have been delayed for months, because it proved to be harder to design than expected, and is expected only sometime in 2022. However, the technical standards are still due to be applied from July 2022, meaning that taxonomy-alignments disclosures should be provided before access to the necessary data. The European Commission recognise the need for: "*guidance and options for how companies and fi-*

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[260] FSB 7.7.2021

[261] Silvola, H. — Landau, T. (2021)

[262] EBF — UNEP FI (2021). Recommendations concerning data issues: "*Legislators and regulators should facilitate the collection and handling of data, through the development of tools to facilitate the application of the EU Taxonomy." "Banks are encouraged to start methodical data collection for taxonomy-relevant information as part of new origination, on a best effort basis, based on internal strategy and priorities." "Legislators and regulators should consider and seek to address the timing mismatch between corporate data availability and banks' ability to apply and disclose against the EU Taxonomy."*

nancial market participants can meaningfully report in the first year of their reporting obligations, taking into account certain data gaps.". Actions of the Commission regarding the data gaps are still unclear.[263]

The European Securities and Markets Authority's chair Verena Ross recognised in her speech *the challenges with the implementation timelines* and *the lack of complete and comparable data.* However, she said that: "*As with all novel areas of legislation, some practical difficulties may exist."*[264] Whit these difficulties and data problems, it is important to keep in sight of the fact that the key added value of data will be to allow an increasingly larger group of investors to make better informed investment decisions with improved sustainability data available. Eurosif summarises that: "*This is arguably far more important than the availability of data to meet regulatory obligations if we wish to see changes in capital allocation away from excessively harmful and towards more sustainable companies.*"[265]

4.3.5. Political battle: Science based or Greenwashing tool

The idea of EU Taxonomy is to clearly define and break down what activities are environmentally sustainable, and by doing this, contributing to increased transparency and consistency in the classification of such activities and limiting the risk of greenwashing. However, the EU Taxonomy is targeted with serious criticism, particularly from NGOs, claiming that EU Taxonomy does not help in avoiding greenwashing, but on the contrary can be actually used as a greenwashing tool. These claims are based on several reasons, such as that the EU Taxonomy is subject to intense lobbying and as a consequence, instead of science based decisions, decisions are political, and made under economical and political pressure.

The EU Taxonomy is designed to be based on screening a number of activities that must follow activity specific thresholds in order to reach carbon neutrality by 2050. Designing the Taxonomy with number of activities and activity specific thresholds includes number of complexities and raises several issues. Deciding which activities are included in the EU taxonomy, as well as the technical screening criteria for each activity, requires careful consideration. These decisions are to be based on scientific evidence.[266]

Several NGOs claim that the European Commission is watering down the science and allowing unsustainable activities, such as fossil gas, burning trees and flying, to be labeled as sustainable. Greenpeace EU green recovery spokesperson Ariadna Rodrigo

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[263] European Commission 21.4.2021a; Bloomberg 1.12.2021

[264] ESMA 19.11.2021

[265] Eurosif (2021)

[266] OECD (2020)

said: "*The EU taxonomy was supposed to be the gold standard of green investments, but it looks set to become a greenwashing exercise*".[267] The European Consumer Organisation BEUC even suspended its participation in the EU Platform on Sustainable Finance when logging the forests and bioenergy production was included in the Delegated Act. BEUC is most concerned that the EU Taxonomy will *actively mislead people into making unsustainable investments* and will divert investments to sectors that are creating the problem rather than solving it. It claims that the Taxonomy is *set to become little more than a greenwashing tool.*[268]

Most of the criticism of EU Taxonomy comes from the energy sector. The first Delegated Act included controversial logging and bioenergy, that were in the interest of Finland and Sweden in particular. In June 2021 more than 90 environmental and consumer groups appealed to the European Parliament not to accept logging and burning the trees to be counted as sustainable investment under EU Taxonomy. The group claimed that intense lobbying from interested EU Member countries led to the deletion of science-based criteria.[269]

Also the Taxonomy Delegated Act has divided the opinions over whether investments in gas power plants and nuclear energy should be labeled as green. Member countries such as France and Czech Republic support nuclear for its low CO2 emissions, while opponents, such as Germany and Austria, are concerned over accidents and the disposal of nuclear waste. Austria has even threatened with legal action if EU includes nuclear in the taxonomy. The EU has delayed the Delegated Acts and politically sensitive decisions due to the political battles.[270]

The EU itself is also criticised for not leading with example on sustainable finance since its own budget supports some polluting activities. Part of the EU budget can be spend on financing infrastructure projects for natural gas and fossil fuels. The EU funding programmes don't have strict enough environmental standards, meaning that the EU can fund harmful activities. Besides the harmful infrastructure projects, around 40 % of the EU budget goes to agriculture subsidies, that is a sector with rising emission levels.[271]

The very idea of the EU Taxonomy is to define what activities are sustainable in order to create clarity and reliability, as a counterweight to markets self regulation. However, since the EU is preparing the Taxonomy regulation and definitions together with the stakeholders and market participants, there exists a risk that the legal definitions are

[267] Greenpeace 22.3.2021

[268] BEUC 21.04.2021

[269] Transport & Environment 9.6.2021

[270] Reuters 22.9.2021

[271] EUobserver 21.9.2021; Reuters 20.9.2021

biased for market participants that manage to have a strong influence in the preparation of regulation. Official regulation for sustainable activities that includes unsustainable and questionable activities would be very misleading for greenwashing objectives. All decisions should be made based on science.

4.3.6. Inaction is not an option

For most countries, the cost of inaction and the economic opportunities from climate action are likely to be very significant. In order to tackle climate change, change from the current situation is inevitable, and the disruption it causes often brings both inconvenience and opportunity. The chair of the High-level Expert Group on Sustainable Finance Thimann summed up that: "*Sustainable finance will be achieved only with politics and regulation that manage to reduce the short-term speculation abusing long-term instruments.*"[272]

The GFMA and BCG have made a good breakdown of the evolution of sustainable finance market structure. In the first steps between 2018 and 2020 sustainable finance market is nascent with unclear taxonomies, limited data and inconsistent standards. In the second step 2021-2023 the market is growing with well aligned definitions and taxonomies, as well as established dataset standards. In third step in 2025 the sustainable finance market is mature and climate finance is integrated into core financial products. In the last fourth step between 2005 and 2030 and beyond the financial market is long term oriented and sustainable, with all market mechanisms aligned with climate outcomes.[273]

The first steps might have delayed a little due to the global COVID-19 pandemic. Unclear taxonomies, limited data and inconstant standards still seem like a good description of the current situation. However, the takeout in this is the expected rapid progress. If this evolution comes to reality, in 5 years we should have a situation that climate is fully integrated into regular finance. In order to achieve this evolution, it is necessary to take the first steps and start with the unclear taxonomy(ies).[274]

The EU has taken great action, as Vander Stichele stated that "*in 2016 the EU had no policy whatsoever about sustainable finance*" and in recent years it has adopted a comprehensive and aspiring action plan followed by various legislative proposals.[275] The EU taxonomy is one, and the most important one, of the pieces in this action plan. However, even the taxonomy is a tool, not the end came. The effectiveness of EU Taxonomy in contributing to sustainability in the end depends on sustained interest of in-

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[272] Thimann, C. (2019)

[273] GFMA — BCG (2020)

[274] Ibid.

[275] Vander Stichele (2018)

vestors in assets that receive a taxonomy based label.[276] The European Commission reminds that: "*There is also no obligation on companies to have activities aligned with the EU Taxonomy and there is no obligation on investors to invest in Taxonomy-aligned activities.*" The Commission expects that in general the taxonomy-aligned activities are most likely interesting to investors looking for green investments.[277]

4.3.7. International Taxonomy Harmonisation

Since the financial markets are global, having global taxonomy and globally recognised sustainable finance definition would be desirable. There have been important steps towards international taxonomy harmonisation and the eventual development of a global taxonomy. The EU's Technical Expert Group (TEG) presented 4 common design approach between international taxonomies to support future harmonisation. The principles cover clear environmental goals, classification list of economic activities, environmental performance metrics and performance thresholds for each economic activity. The TEG promoted consistency with its own, the EU Taxonomy approach, by focusing on goals consistent with the Paris Agreement and building an economic activity-based classification system.[278]

On the international front, the European Commission initiated an International Platform on Sustainable Finance (IPSF)[279] in October 2019. IPSF works as a multilateral forum with 18 members and 12 observers to coordinate sustainable finance regulatory actions across jurisdictions. The IPSF has an objective to share best practices and compare sustainable finance approaches and tools in order to make them more comparable and interoperable. It created a working group dedicated on taxonomies to make extensive comparison on existing taxonomies for environmentally sustainable investments, as well as identify common features and differences in their approaches, criteria and outcomes. The IPSF published a report "*Common Ground Taxonomy*" comparing thoroughly the commonalities between the EU and China's taxonomies. These two taxonomies were developed through very different processes but the report manages to find commonalities and ease the path towards taxonomy harmonisation.[280]

Many international organisations are intensifying their work on development of taxonomies across the globe as well as examining the possibility of international taxonomy harmonisation over time. In June 2020, the World Bank published its Guide on *Developing a National Green Taxonomy* for emerging markets, that recommends 6 actions

[276] Ehlers et al. (2021)

[277] European Commission 21.4.2021a

[278] ICMA (2021)

[279] See more about IPSF in Chapter 3.1.6.

[280] European Commission, International Platform on Sustainable Finance; IPSF (2021)

when developing a national taxonomy. The recommendations promote usability and international compatibility.[281] Also the OECD is very active in providing guidance on taxonomies and has published a report on *Developing Sustainable Finance Definitions and Taxonomies* focusing on best practices for harmonisation of taxonomies. In addition, the OECD sits as an observer in the Platforms established by the EU to pursue the international dialogue on taxonomies.[282]

The G20 published on October 2021 a multi-year document *Sustainable finance roadmap* that lays down the key priorities of the sustainable finance agenda for the coming years. The Roadmap focuses on five key areas. One of them calls for action to international taxonomy harmonisation by improving "*coordination at the regional and international level to facilitate the comparability, interoperability, and as appropriate the consistency of different alignment approaches*". It also encourage "*Jurisdictions which intend to pursue a taxonomy-based approach to consider developing sustainable finance taxonomies using the same language - -, voluntary use of reference or common taxonomies, and regional collaboration on taxonomies.*"[283]

The development towards a common understanding of sustainable finance definition has also started a standard-setting race between competing jurisdictions. As the EU taxonomy is the most advanced and ambitious taxonomy, many countries have decided to build upon it. This is useful, since common features across different taxonomies can provide a good basis for creating a comparable framework. Well-coordinated efforts and sharing of best practises across jurisdictions are essential, with a special focus in regions where taxonomies don't exist yet. Reporting and examining the new taxonomies being developed, and studying the possibilities of harmonising them over time, are important and necessary measures towards the eventual development of a global taxonomy.[284]

In a comprehensive study made by the Principles for Responsible Investment investors together with PRI's own policy analysis have made recommendations about the taxonomy development. The policy recommendation encourages policymakers to: "*Work internationally to encourage harmonisation of Taxonomies"*. However, investors also "r*ecognise the need to avoid creating competition between international Taxonomy frameworks*".[285] International taxonomy harmonisation is desirable in co-operation. The most upbeat estimates about the timeline for the phase of harmonization and standardization have projections in the mid-term. As a consequence a globally harmonised tax-

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[281] World Bank (2020)

[282] OECD (2020)

[283] G20 SFWG, Roadmap

[284] Gondjian, G. — Merle, C. (2021)

[285] UNPRI (2020)

onomy system would be possible after four to five years through platforms like the International Platform on Sustainable Finance.[286]

[286] Gondjian, G. — Merle, C. (2021)

5. Sustainable finance and EU Taxonomy in Finland

5.1. Sustainable Finance in Finland

5.1.1. Sustainable policies and business thinking

Finland was ranked number one in international comparison of sustainable development in 2021. The work on sustainable development is done with a participatory approach with the state, municipalities, organisations and businesses, all contributing together. Finland is excelling in several areas, such as the rule of law, water, energy and education. Biggest challenges are mitigating climate change and biodiversity loss, as well as more sustainable consumption and production. To meet these challenges, Finland has set an ambitious target of achieving carbon neutrality by 2035 and carbon negativity soon after that. In addition, obligations and policy decisions under the EU climate and energy legislation are binding on Finland as well. By amending the Climate Change Act, Finland will anchor the ambitious 2035 target into law and impose new climate related obligations to private sector.[287]

Sustainability has unfolded to the core of Finnish economy and business. When compared the general maturity level of sustainable business thinking, Finland is on the top. FIBS, the largest Finnish corporate responsibility network, discovered in its annual Corporate Responsibility research 2021 that corporate responsibility of Finnish companies is increasingly more strategic, goal-oriented and organised. The CEO of Confederation of Finnish Industries, Jyrki Häkämies, commented that investing in responsibility is really important for companies also because the financial markets require companies to provide evidence of responsibility.[288]

5.1.2. Responsible investing

Finnish investors are increasingly interested in responsible investing. More than 5000 Finnish private investors responded to Finland's Sustainable Investment Forum (Finsif) survey, and 60 % of respondents take ESG factors into account when making investment decisions. Responsible investing is more common among millennials, i.e. investors under 40-years-old, regardless of gender. In addition, women, couples, parents of children, people living in larger cities, highly educated and native Swedish-speaking investors are more responsible than average. The share of responsible investments in

[287] Finnish Government 14.6.2021; Finnish Government, Government Programme

[288] FIBS 10.1.2022

their portfolios is currently approximately 45 %, and within five years estimated to grow to an average of 57 %.[289]

In Finland ESG integration was the most widely used, and exclusion the second most popular strategy, to responsible investment. Globally exclusion is the most popular and ESG integration the second most popular approach. Finnish organisations would like to have more expertise in sustainability themes. The quality and quantity of ESG data and the lack of benchmark are the main challenges for responsible investment. In addition, skeptic attitude, greenwashing, regulations and profitability levels are common barriers.[290]

The UN Principles for Responsible Investment (PRI) published in 2006 have had a great impact on institutional investors interest in responsible investing in Finland. The PRI has been the main standard for responsible investment and contributed to the growing public awareness. Especially the principles of ESG integration and active ownership have been for many investors in Finland the basis for a responsible investment strategy.[291] In 2021 PRI made a recommendation for investors to favour substantive links between sustainability performance and executive remuneration. Only few companies in Finland are linking the corporate responsibility and ESG issues with executive pay. The new PRI recommendation together with the European Commissions Sustainable Corporate Governance proposal, that is linking sustainability objectives as part of variable remuneration of executive directors, might increase ESG-linked pay.[292]

The Bank of Finland is one of the organization that have signed the Principles of Responsible Investment in 2019 and as a consequence publicly committed itself to incorporating ESG issues into its investment decisions as well as its ownership practises and policies. "*With the signing of the PRI, in the management of its financial assets the Bank of Finland committed itself to sustainability, to the active development of responsible investment practices and to providing annual progress reports on this.*" The Bank of Finland considers the sustainability issues in its investment activities based on the objective to meet the sustainability requirements as well as on the objective to improve management of various risks.[293]

Väänänen (2021) has made researched comparing the sustainability of Finnish and Swedish public pension reserve funds. He concluded that responsible investment is more established in Sweden than in Finland, where it has become more usual only in the last decades. Keva the Finnish pension fund of the public-sector pension scheme, has

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[289] Silvola, H. et al. (2021)

[290]Finsif (2021)

[291] Finsif, Vastuullinen sijoittaminen Suomessa

[292] Finsif (2021); European Commission, Sustainable corporate governance

[293] Bank of Finland, Responsible investment

integrated responsible investment process in a holistic way, as an industry-driven process. Väänänen consider that: "*There has not been much development in the legislation – or, more precisely, there has been none. Neither has been there much of a public debate.*" In Finland the responsible investment practices have been led by decision makers within industry that have been inspired by national and international developments. Further, he considers that the investment policies in Sweden are more transparent, because Finnish pension funds don't make all investment reporting publicly available and they compete against each other. Väänänen also points out that there is no formal cooperation in Finland about responsible investment.[294]

5.1.3. Finnish Sustainable Finance Roadmap

Finland has done a national study on developing Finland's sustainable finance ecosystems. The study *Sustainable Development Goals Finance Roadmap - Finnish Roadmap for Financing a Decade of SDG Action 2021* outlines how Finnish stakeholders can contribute to achieving the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs). Special focus of the study is on how to mobilise the funds needed to achieve the SDGs. The Roadmap is aimed to be implemented to support Finnish public and private sector, as well as NGOs, academia and other stakeholders in systematically increasing finance to provide solutions to the SDGs in Finland and globally. The aim is to in 2022 increase alignment of sustainable finance ecosystems, in 2023 to mainstream sustainable finance, and by 2025 increase mobilisation of private capital towards sustainable investments and positive impact.[295]

The Roadmap points out five key recommendations on developing Finnish sustainable finance ecosystems:

1. Creating an investment pipeline of high quantity and SDG aligned quality.
2. Complement existing and tailor already available financial instruments.
3. Improve credible management of SDG aligned investments.
4. Generate monitoring, reporting and verification to ensure the quality, comparability and transparency of SDG impact.
5. Build up an enabling environment, appropriate regulatory framework, as well as SDG finance knowledge.[296]

The Roadmap recalls that the Finnish sustainable finance enabling environment is changing, due to the EU regulatory developments as well as the broader international sustainability commitments. In addition, the sustainability transformation in the financial sector is driven by the growing pressure and market demand for sustainable financ-

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[294] Väänänen, N. (2021)

[295] Ministry of Economic Affairs and Employment (2021)

[296] Ibid.

ing products and services from customers, competitors and other stakeholders. The Roadmap points out that the Finnish financial sector, investors, banks and asset managers, are increasingly recognising the risks and challenges of sustainability issues, as well as the opportunities that SDG aligned investments present.[297]

In the Finnish finance market, the Roadmap finds that, impact and thematic investing is becoming more mainstream. New funds include Taaleri Impact A fund that was launched in June 2020, as well as OP Finnfund Global Impact Fund I with total value of 135 million, that was raised in two rounds in 2020 and 2021. Finnish institutional investors are increasingly linking sustainability issues in their strategy and portfolios. For example in September 2019 a Finnish pension fund Varma informed, that it starts to better align its equity portfolio investments with climate targets. Also Nordea, the largest financial group in the Nordic countries, announced in February 2021 that it intends to reduce the carbon footprint of its investment and credit portfolio by 40-50% by 2030 compared to 2019 levels.[298]

Sustainable bond market is growing in Finland. The Municipality Finance (MuniFin) and Nordic Investment Bank (NIB) are leading green bond issuers, although other financial institutions, such as Nordea, OP Financial Group and Taaleri, have issued green bonds lately as well. In addition, several companies have linked their debt financing with sustainability goals and targets. Also public financial institutions continue to develop their sustainability strategies. For example, Business Finland, public organisation that offers innovation funding and internationalisation services, have sustainability issues in the centre of its operations. Also, Finnfund, the main mobiliser of private finance for SDG aligned investments in developing countries is increasing its efforts to mobilise finance for climate adaptation.[299]

The Roadmap concludes that the implementation of the sustainability issues and SDGs is ongoing, but these processes happen separately. There would be great opportunities to share best-practises and lessons learned in a coordinated and systematic manner. The study calls for collaboration and coordination, especially of public financial institutions, in Finland.[300]

5.1.4. Sustainable Finance Regulation

The European Union law is an important part of the Finnish legal system. The recent changes in EU sustainable finance regulation affect all Member states, Finland included.

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[297] Ibid.

[298] Ibid; Nordea 4.2.2021

[299] Ministry of Economic Affairs and Employment (2021)

[300] Ibid.

In key national laws there are, in principle, no provisions on sustainability obligations.[301]

The EU Renewed Sustainable Finance Strategy *Strategy for Financing the Transition to a Sustainable Economy* will have impact on sustainable finance regulation in Finland. The EU Sustainable Finance Strategy is a communication in nature, but includes proposals for legislative initiatives and other actions. In Finland the Ministry of Finance is responsible for the national sustainable finance actions. It has prepared a report on Finland's ideas on the EU Sustainable Finance Strategy. In general Finland supports the objectives of the strategy and welcomes the fact that it emphasises, not only climate change, but also other aspects of sustainability.[302]

The Ministry of Finance's Financial Markets Department works in co-operation with the Ministry of Agriculture and Forestry, the Ministry of Economic Affairs and Employment, the Ministry of the Environment and the Ministry of Transport and Communications to implement the EU sustainable finance strategy in Finland. Sustainable finance regulation has broad implications to whole society, and as a result, to the responsibilities of many different ministries. The ministries are proactively working on EU regulations and their national adaptation.[303]

Most of the EU sustainable finance regulations are directly applicable in Finland, and therefore they do not require implementation measures. However, since the substantive obligations in regulations, such as the obligation for disclosure, are not provided in national legislation, it is necessary to add informative references to some laws to increase clarity. Finland, and all EU Member states, are responsible for providing competent authority for jurisdiction and deciding on the measures to be taken in the event of infringements and sanctions related to EU sustainable finance regulation. From the point of view of the coherence of the national control and sanction system and the principle of equivalence, there was necessity to amend the Finnish Act on the Financial Supervisory (878/2008) and certain related acts. The amends include supervision and sanctions for reporting and transparency obligations related to sustainability, its effects and risks. Besides these amends, there is no need to change national law significantly.[304]

Finland has also created a national Green Transition Plan to support its aim to achieve carbon neutrality by 2035. On January 2022 was set up a Green Transition Finance Working Group to form an overall view on the financing of the green transition. The purpose of the national working group is to prepare proposals for public and private funding to achieve the goals of carbon neutrality and biodiversity, while promoting sus-

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[301] Hallituksen esitys (VM/2021/1)

[302] Ministry of Finance (VM2021-00479)

[303] Ibid.

[304] Hallituksen esitys (VM/2021/1)

tainable growth. The Green Transition Finance Working Group is based on the same reasoning than the EU Renewed Sustainable Finance Strategy, that achieving climate and sustainability goals will require significant investment from both the private and public sectors in the future. The working group will prepare an interim report by 31 March 2022 and issue its final report by the end of June 2022. It is likely that as a result of the increasing EU regulation on sustainable finance and following the national working group on financing the green transition, the sustainable finance regulation in Finland is going to increase.[305]

5.2. EU Taxonomy in Finland

5.2.1. Impact in Finland

It is challenging to asses the impact of the EU Taxonomy regulation. The impact will depend on how actively companies start using taxonomy and how much emphasis is ultimately placed on sustainability issues in investment decision. The affects of the regulation on the availability and cost of corporate finance in different sectors is unclear. The Technical Expert Group have estimated that only a few percent of economic activities will be in line with the Taxonomy at first. This means that the impact of the regulation on the financial position of many sectors and their companies is very small. For some sectors that have defined the Technical Screening Criteria, Taxonomy might direct more funding towards a more sustainable approach. Taxonomy is voluntary for entities other than large companies with over 500 employees. Since there are less than a hundred companies with more than 500 employees in Finland, this indicates that the instant impact of Taxonomy regulation stays low.[306]

The Government of Finland have tried to asses the impacts of the EU Taxonomy regulation. However, since the impacts depend on forthcoming realisation of the various actions of the regulation, there are no detailed information or exact amounts in euros assessed at this stage.[307]

For households as investors the regulation will improve access to information on financial products and their sustainability perspectives. The disclosure requirements will significantly increase investors and public awareness of the sustainability aspects of financial products. On the other hand, the disclosure obligations increase the reporting burden of entities. In Finland, financial market participants have not previously been required to report on sustainability of their operations and financial products. Based on the Act amending the Accounting Act (1376/2016) large corporations have been re-

[305] Finnish Government 27.1.2022; Ministry of Finance, Green transition

[306] Hallituksen esitys (VM/2021/1)

[307] Ibid.

quired to report on their corporate social responsibility (CSR) already since 2016. The EU taxonomy disclosure and reporting obligations are not entirely new to those companies, although they impose new administrative burden.[308]

5.2.2. Private sectors reception

Two out of three large companies in Finland see EU taxonomy as a positive issue based on a survey carried out by the Confederation of Finnish Industries (EK) in April 2021. While companies consider Taxonomy extremely important, it raises many doubts. The biggest concerns of companies in Finland is the implementation of the legislation, since the content is in many ways still open and the preparation time is very limited. Nearly 40 % of business leaders were unsure what the EU Taxonomy regulation will mean, particularly in relation to reporting obligations. One-third of companies consider to be fairly or very well prepared for the new reporting. Nearly 70 % of companies that are familiar with the Taxonomy regulation estimate that the reporting burden will increase significantly or by a reasonable amount.[309]

The Confederation of Finnish Industries (EK) has declared to be a strong supporter of the EU taxonomy. EK represents private sector and has 15300 member companies. "*There is a need raising from the market participants to create a classification system known as a "taxonomy" according to which investors and businesses can assess whether certain economic activities are "sustainable*"." However, EK has strongly criticised several Technical Screening Criteria, that have repercussions on several fields of Finnish industries and services, for not being realistic, technology-neutral and science based. "*The taxonomy exercise is too important to be undermined by a hasty technical process.*" EK has been, for example, a vocal supporter of including nuclear power in the Taxonomy regulation as an essential part of Europe's climate neutral energy system. EK has also been part of the Nordic business federations joint position on classifying hydropower and biofuels in EU Taxonomy.[310]

Also Finance Finland (Finanssiala Ry) endorses the EU sustainable finance and Taxonomy regulation. Finance Finland represents Finnish banks, insurers, fund managers and financial employers. Endorsing comes, nonetheless, with cautions on maintaining flexibility and companies freedom to innovate different ways of exercising sustainable finance. Finance Finland considers that the EU Taxonomy classification should be science-based and build on the recommendations of the Technical Expert Group (TEG). It also considers the Taxonomy regulation implementation more complex than anticipated and remind of the risk of over-regulation when preparing new legislation on a very tight

[308] Ibid.; Ministry of Economic Affairs and Employment, CSR

[309] EK 16.04.2021

[310] EK 16.12.2020; Svenskt Näringsliv 16.12.2020

schedule. Finance Finland considers that: "*At the moment, the biggest value of the taxonomy lies in the fact that it enables us to discuss sustainable finance in concrete terms.*"[311]

5.2.3. Public sector considerations

Finland was holding the Presidency of the Council of the EU from July to December 2019, when the EU Member states reached political agreement on the EU Taxonomy Regulation. Finland represented the Council in the trilogy negotiations with the European Parliament and the Commission. Thus, during its presidency, Finland promoted the Council's view.[312]

Finnish Government is actively monitoring and participating the developments of the EU Taxonomy regulation. Finland has expressed the need for clear and timely information regarding the new regulation for the Commission. The Commission has, for example, suggested that Member States should start to monitor and prepare an assessment on sustainable finance alignment in the national level. Finland considers that more information is needed in order to understand what it means exactly.[313]

Inside of the Government the EU Taxonomy Regulation has also aroused previously unseen interest. The Ministry of Finance's Financial Markets Department has prepared several memorandums for public use and within the ministries also. Since EU taxonomy is totally novel, prepared in really fast schedule and has so wide-ranging impact on the area of several Ministries it has evoked wide interest and need for co-operation.

In general, Finland considers that Taxonomy regulation has an important role in guiding private investments to actions that support climate change mitigations and adaptation. Since financial markets are global, international co-operation on sustainable finance is desirable, not only in EU but also globally. The Finnish Government has mainly supported the proposals of the TEG as technical screening criteria. However the Government has pointed out few issues from sectors that are of national interests, particularly in forestry and energy sector.[314]

5.2.4. Forestry and nuclear power

Politically most important subjects to Finland in EU Taxonomy are forestry and energy sector. Finland has not accepted the technical screening criteria for sectors such as bioenergy, hydropower and forestry.

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[311] Finance Finland 18.1.2022; Finance Finland 14.1.2022

[312] Ministry of Finance (VM2020-00189)

[313] Ministry of Finance (VM2021-00479)

[314] Ministry of Finance (VM2021-00479)

Forests are crucially important for Finland. From Finland's land area 73 % is covered by forests, forest industry is responsible for 20 % of Finland'd exports and forest carbon sinks cover 30-50 % of emissions from other sectors. Forest policy in Finland, as well as in Sweden and few other EU countries, is an issue of a completely different scale than most EU countries. Finland considers that the technical screening criteria for forestry are against the EU Treaties, taking forestry form national competence to a EU wide common forestry policy. Finland wants forest issues to remain within national decision-making. The ministers responsible for forestry from five highly forested EU countries, Finland, Sweden, Germany, Slovakia and Austria, published a joint statement on the promotion of forest cooperation and national decision-making after meeting in October 2021. The EU Taxonomy's technical screening criteria included requirements for *improved forest management* practises, that have now been removed. *Improved forest management* refers to practises resulting in increased carbon stocks within forests and reduced greenhouse gas emissions from forestry activities, compared to business-as-usual. It would have left big part of forestry outside of the classification as sustainable under the Taxonomy regulation, because sustainable forest management is already a standard in Finland.[315]

In November 2021 the Government of Finland decided not to support the adaptation of the first delegated act under EU Taxonomy due to the technical screening criteria for forest management, as well as treating hydropower and bioenergy worse than other forms of low-emission energy. Finland rarely votes against the majority's view at the EU level, but considered important to make a stance in the EU also in order to influence future policy decisions. The government coalition partners the Green Party and the Left Alliance supported the delegated act. The resistance of Finnish Government, along with 13 other EU Member countries including Sweden, didn't have impact and the delegated act passed.[316]

Moreover, Finland has given its support for nuclear energy. While Finland focused its main efforts on supporting forestry, nuclear-dependent France was in the forefront fighting for nuclear energy and received side support from Finland. Finland has supported adoption of a complementary delegated act for nuclear energy as soon as possible. Finland and Sweden also joined forces on this issue and sent letter to the European Commission to express their concerns on proposed technical screening criteria for nuclear power. The Commission approved in principle on 2 February 2022 a Complementary Climate Delegated Act for specific nuclear and gas energy activities under strict conditions to be covered by the EU taxonomy.[317]

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[315] Finnish Government 16.7.2021; Finnish Government 5.10.2021; Finnish Government 17.11.2021

[316] Yle 17.11.2021; Finnish Government 17.11.2021

[317] Finnish Government 17.11.2021; Finnish Government 1.2.2022

Apart from these politically challenging sectors, Finland has supported the preparation of the EU Taxonomy Regulation and considers that Taxonomy regulation has an important role in guiding private investments to actions that support climate change mitigations and adaptation.[318]

[318] Ministry of Finance (VM2021-00479)

6. Conclusions

6.1. Discussion and results

Sustainable finance is mainstreaming. A small group that started to consider sustainability issues in investments around 2006 when Principles for Responsible Investment (PRI) launched has expanded year after year. In 2015, along with the Paris Agreement on climate change, sustainable finance got even more attention. When in March 2018 the European Commission published its extensive and ambitious Action Plan on Financing Sustainable Growth sustainable finance began to touch everyone's lives.

The mind-set and know-how has evolved and today nobody can consider to be protected or above climate change and the risks it possess. Sustainability issues and climate change are also closely linked to risk management. Risk management concerns every responsible business, organisation, individual and jurisdiction. Therefore also investment decisions and sustainability issues need to be taken as a whole. However, current levels of investment are insufficient to support an environmentally and socially sustainable economic system. Financial markets cash flows are today too often contributing to environmental destruction, over-consumption and climate change instead of sustainable technologies and businesses, that would result in sustainable long-term growth.

The voluntary measures, such as PRI, are not enough, in order to accelerate the mainstreaming of sustainable finance. Sustainable finance needs regulations, standardisation and clear definition on what is sustainable. The lack of regulation and acknowledged definition on what is sustainable investment has slowed down the mainstreaming process.

The EU has introduced several new sustainable finance regulations in the last years. It has long pursued a leading role in policies to tackle climate change, and in the last years these actions have focused on how to make sustainability considerations an integral part of its financial policy in order to support climate action. The most important EU sustainable finance regulations are Sustainable Finance Disclosure Regulation (SFDR), EU Climate Benchmarks, European Green Bond Standard and EU Taxonomy. From these regulations, the EU Taxonomy is the most extensive, groundbreaking and politicised.

The EU Taxonomy creates a clear definition of what is sustainable. It builds a common classification system for sustainable economic activities. It was created by the European Commission to achieve its key objective of the *Action Plan on Financing Sustainable Growth* to reorient capital flows towards sustainable investment. The Taxonomy Regulation aims to enable and increase sustainable investment.

The EU Taxonomy Regulation (EU 2020/852) creates a legal basis for the EU Taxonomy. The Taxonomy Regulation defines the comprehensive taxonomy framework of the four basic conditions that an activity must meet to be taxonomy-aligned, the six environmental objectives to which an activity can substantially contribute, and the means by which an activity can make a substantial contribution to each of the six environmental objectives.

The four basic conditions to be environmentally sustainable under EU Taxonomy are to s*ubstantially contribute* to achieving one or more of the environmental objectives, to *do no significant harm* (DNSH) to any of the other listed environmental objectives, to be carried out in compliance with *minimum social safeguards,* and to comply with the *technical screening criteria* (TSC).

The definition of *substantially contribute* depends on each environmental objective and concrete requirements for what defines substantial are established in the TSC. *Technical screening criteria* refer to thresholds for each environmental objective that provide concrete requirements to achieving an environmental objective. The EU had to come up with an actual list of environmentally sustainable activities and created a screening criteria for 70 climate change mitigation and 68 climate change adaptation activities through a series of Delegated Acts. *Do no significant harm* means that economic activities, even when making a substantial contribution to climate change mitigation and/or adaptation, will not be eligible if they cannot be carried out in a way that avoids significant harm to other environmental objectives. *Minimum social safeguards* require compliance and alignment with the OECD Guidelines for Multinational Enterprises and UN Guiding Principles on Business and Human Rights.

The six environmental objectives to which an activity can substantially contribute are: climate change mitigation, climate change adaptation, the sustainable use and protection of water and marine resources, the transition to a circular economy, pollution prevention and control, and the protection and restoration of biodiversity and ecosystems. The most important environmental objectives are climate change mitigation and adaptation.

In a nutshell, in order to be eligible as environmentally sustainable by the EU Taxonomy, an economic activity must be checked at the same time against the six objectives, one for *substantial contribution* and the five others for *do no significant harm*.

The EU taxonomy sets out legal obligations of reporting to financial market participants, when selling a financial product as a sustainable investment, as well as large companies with over 500 employees. It also applies to EU and its Member states when they establish labels or standards regarding financial products or corporate bonds presented as environmentally sustainable. The mandatory reporting under the Taxonomy started to apply from January 2022 for the climate change mitigation and adaptation ob-

jectives, and will apply from January 2023 for the other four objectives. Companies can also use the EU Taxonomy voluntarily.

The EU Taxonomy Regulation has received a lot of critics and it has been questioned. It has faced challenges with the implementation timelines and the lack of complete and comparable data. Lobbying and political pressure obscuring science-based decisions has been also shadowing the regulation. The problems are numerous, however the most important doubt is the necessity and expediency of the regulation.

The main objective of the taxonomy regulation is to enable and increase sustainable investment. It is expected that with EU taxonomy the investor preferences will increasingly favour sustainable activities and allocate capital accordingly. According to the European Commissions estimates only 1-5 % of all companies and investment portfolios would qualify as environmentally sustainable in accordance with the Taxonomy. This reflects the reality that the current EU economy is unsustainable and there is a lot of work required for transition towards carbon neutrality by 2050.

It can be expected that the EU Taxonomy stirs action in the market to increase sustainable activities, innovation and technologies, as well as improve sustainability reporting, disclosure and compliance. All this would make the EU economy more sustainable and as a consequence the EU Taxonomy alignment would improve remarkably in the next years, even without extending the current regulation, that is also foreseeable. Improved EU Taxonomy alignment means also more economic activities that make a substantial contribution to climate change mitigation. Hence, the EU taxonomy stirs action to increase sustainable activities that make a substantial contribution to climate change mitigation. The EU Taxonomy will also enable and increase sustainable investment, and therefore the regulation is necessary and expedient.

6.2. Limitations

The main limitation of this research is the novelty of the EU Taxonomy Regulation and the consequent lack of information and research about it. The EU Taxonomy Regulation is still taking shape and the results and consequences of its application will be seen during the next years. This research is strongly based on the European Union’s and its institutions, mainly the European Commission’s, documents about the EU Taxonomy. A more profound research and study about the impacts and efficiency of EU Taxonomy is not possible at this stage. However, due to these limitations, there are multiple options for future research about EU Taxonomy. Future research could be about the results and consequences of the EU Taxonomy Regulation, or how the EU Taxonomy Regulation has been received in the financial market, or how the EU Taxonomy has affected the emergence of taxonomies in other jurisdictions, or what is the situation of the international taxonomy harmonisation.

6.3. Research evaluation

The research topic is demanding, but has a significant value in society. The EU Taxonomy is the only comprehensive science based environmental taxonomy available. It applies partly from January 2022, besides the regulation is still amended regularly. Since the regulation is only now implemented in practise, the most important considerations will come out only later after its effective implementation.

The scope of the research is wide due to the multidisciplinary research method and lack of research on the specific subject. Limited previous research on the topic may affect the reliability of the research. Future researches are desirable and will increase the knowledge of the subject and offer different perspectives.

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