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Turku School of Economics

Preparing for Change

A Foresight Analysis of Finnish Foreign Trade in the next 30-50 years

International Business

Master's thesis

International Management and Entrepreneurship

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The 2020s have been a time of radical change globally. This period is strongly shaped by megatrends and the smaller drivers of change. As a result, the global trading environment has experienced many significant crises and changes in recent years. Events such as Covid-19, the Ukraine crisis and the great power struggles have shaped the international trade environment and forced global actors to adapt to these. Finland's foreign trade has been one of those adapting to the changes.

These changes have been reflected in, among other things, a blocking of the trading environment, an increase in protectionism, the reshaping of international value chains, the growing importance of technology, and a greater emphasis on the importance of sustainable development. The purpose of this thesis is to examine how the factors shaping the global trading environment will affect the development of Finland's foreign trade in the next 30-50 years. The study is based on the assumption that global change factors will shape Finnish foreign trade, as Finland is a small export-driven open economy that is strongly integrated into global trade.

The thesis was carried out as a qualitative study, and semi-structured expert interviews were chosen as the method of data collection. A total of five different trade and economic experts from four different organisations were interviewed. The selected interviewees represented trade policy and economic experts, none of whom were employed by a corporation. The interviewees were selected to represent as wide a range of educational and professional backgrounds as possible. The data collected through the interviews were analysed using thematic analysis, which identified three scenarios for Finland's foreign trade. These scenarios represented possible developments and outcomes of Finland's foreign trade in 30-50 years. The scenarios represented probable, preferred and preposterous futures, for each of which the drivers of change and the process of emergence were identified.

This study and the resulting scenarios provide a comprehensive and holistic view of the future of Finland's foreign trade and the drivers of change affecting it. The study concludes that Finland's foreign trade may develop in a probable, preferred or preposterous direction, depending on the developments and decisions taken at the domestic and international level in relation to geo- and trade policy. Thus, the results show that change factors, policy decisions and investments play a significant role in how Finland's foreign trade will develop in the long run. Furthermore, the study shows that random factors such as crises, war or pandemics play a significant role in the development of the global trade environment and thus in the development of Finland's foreign trade.

The findings of the empirical study are in line with the theoretical framework of the thesis. The theoretical framework of the study shows that Finland is strongly integrated into the European trading environment, with EU membership, and thus is particularly affected by changes in the Union's trading environment. In addition, Finland is also directly affected by global change factors, as the Finnish economy relies heavily on foreign trade. This study shows that the future development of Finland's foreign trade can be actively influenced and that the future is being created from the present moment.

Key words: foreign trade, Finnish foreign trade, trade policy, change, futures studies

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2020-luku on ollut radikaalin muutoksen aikaa globaalisti. Tätä ajanjaksoa muokkaavat vahvasti megatrendit sekä niistä johdetut pienemmät muutos tekijät eli trendit. Tästä johtuen globaali kauppaympäristö on kokenut monia merkittäviä kriisejä sekä muutoksia viimevuosien aikana. Tapahtumat kuten Covid-19, Ukrainan kriisi sekä suurvaltakamppailut ovat muokanneet kansainvälistä kauppaympäristöä ja pakottaneet globaalit toimijat sopeutumaan näihin. Suomen kansainvälinen kauppa on ollut yksi murrokseen sopeutujista.

Nämä muutokset ovat näkyneet mm. kauppaympäristön blokkiutumisena, protektionismin kasvuna, kansainvälisten arvoketjujen muokkautumisena, teknologian merkityksen kasvuna sekä kestävän kehityksen tärkeyden korostumisena. Tämän tutkielman tarkoituksena on selvittää, kuinka globaalia kauppaympäristöä muokkaavat tekijät tulevat vaikuttamaan Suomen ulkomaankaupan kehitykseen 30-50 vuoden aikavälillä. Tutkimus perustuu siihen käsitykseen, että globaalit muutostekijät tulevat muokkaamaan Suomen ulkomaankauppaa, sillä Suomi on pieni vientivetoinen avotalous, joka on vahvasti integroitunut globaaliin kauppaan.

Tutkielman toteutettiin kvalitatiivisena tutkimuksena, ja tiedonkeruun menetelmäksi valittiin puolistrukturoidut asiantuntija haastattelut. Yhteensä viittä eri kaupan- ja talouden asiantuntijaa haastateltiin neljästä eri organisaatiosta. Haastateltavaksi valitut henkilöt edustivat kauppapolitiikan ja talouden asiantuntijoita, joista kukaan ei ollut yrityksen palveluksessa. Haastateltavat valittiin edustumaan mahdollisimman erilaisia koulutus- ja työtaustoja. Haastatteluilla kerätyt tiedot analysoitiin temaattisella analyysillä, jonka identifioitiin kolme skenaariota Suomen ulkomaankaupalle. Nämä skenaariot edustivat Suomen ulkomaankaupan mahdollisia kehityskulkuja sekä lopputulemia 30–50 vuoden päästä. Skenaariot edustivat todennäköistä, haluttua ja järjenvastaista tulevaisuudenkuvaa, joille jokaiselle määriteltiin niitä ajavat muutostekijät sekä syntyprosessi.

Tämä tutkimus ja sen tuloksena luodut skenaariot antavat laajan ja kokonaisvaltaisen käsityksen Suomen ulkomaankaupan tulevaisuudesta ja siihen vaikuttavista muutostekijöistä tekijöistä. Tutkimuksen tuloksena todetaan, että Suomen ulkomaankauppa voi kehittyä todennäköiseen, menestyksekkääseen tai järjenvastaiseen suuntaan, riippuen siitä millaisia kehityskulkuja ja päätöksiä tehdään kotimaisella sekä kansainvälisellä liittyen geo- ja kauppapolitiikkaan. Täten tulokset osoittavat, että muutostekijöillä, poliittisilla päätöksillä sekä investoinneilla on merkittävä merkitys siinä, kuinka Suomen ulkomaankauppa kehittyy pitkällä aikavälillä. Tämän lisäksi tutkimus osoittaa, että satunnaistekijöillä kuten kriiseillä, sodalla tai pandemioilla on merkittävä merkitys globaalin kauppaympäristön kehitykseen ja siten Suomen ulkomaankaupan kehitykseen.

Empiirisen tutkimuksen havainnot ovat linjassa tutkielman teoreettisen kehyksen kanssa. Tutkimuksen teoreettinen viitekehys osoittaa, että Suomi on integroitunut vahvasti eurooppalaiseen kauppaympäristöön, EU- jäsenyyden myötä ja siten Unionin kauppaympäristön muutoksen vaikuttavat siihen erityisen vahvasti. Tämän lisäksi globaalit muutostekijät vaikuttavat Suomeen myös suorasti, sillä Suomalainen talous on vahvasti ulkomaankauppaan nojautuvat. Tämä tutkimus osoittaa sen, että Suomen ulkomaankaupan tulevaisuuden kehitykseen voidaan vaikuttaa aktiivisesti ja tulevaisuus luodaan tästä hetkestä käsin.

Avainsanat: foreign trade, Finnish foreign trade, trade policy, change, futures studies

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1 Introduction

1.1 Change in global trade environment

The early 21st century is characterized as an age of global uncertainty and rapid changes. Multiple change factors, such as globalisation, natural crises and disasters, global power conflicts, and technological development have contributed to the ever-evolving environment (Karhu & Haaja 2022, 6). These sudden changes in the global environment have been brought to us by rapid developments as well as random factors such as technological advancements, social phenomena, environmental changes, political uncertainty, natural disasters, and epidemics.

It can be said that never in the history of the world have there been so many heterogeneous and continuous drivers of change to which the political environment has had to respond (McGregor 2019, 11). This period of constant external change is underlined by the current 24-hour global media, which reports all the latest events and disseminates up-to-date information around the globe. The media, together with major global drivers of change, have increased the momentum of change and made environments highly dynamic. These external factors are forcing social, political, and economic actors alike to respond to change and to structure their policies and strategies to ensure their future viability (Dufva & Rekola 2023).

Since the uncertainty and rapid changes impact all parts of global environments, the global trade environment has not stayed unaffected. It can be argued that the recent changes that have strongly impacted the global trade environment in multiple aspects (Anderson 2022, 564; Karhu & Haaja 2022, 3). The trade environment, in global and local levels, is arguably most uncertain since World War II, seven decades ago. One indicator that suggests this trend increases is an index of global economic policy uncertainty, which rose rapidly during the global financial crisis and has been rising since the year 2016 (Anderson 2022,563). One indicator is the recent rise in civil wars and repression, as well as the steady rise in import-restrictive measures and the shrinkage of global trade in 2020 due to COVID-19 (Karhu & Haaja 2022, 3). There are also more populist governments in the world in the 2010s than in any of the previous 11 decades, who tend to be more protectionist and xenophobic. Moreover, there are several factors that prove and demonstrate the change in global trade environment (Anderson 2022, 572).

The crisis, pandemic as well as the wars and geopolitical tensions and populism affect the operating environment for the businesses (Hadjikhani et al. 2008). Examples of this include recent crisis such Ukrainian war, COVID-19 pandemic, as well as major geopolitical tensions, which have demonstrated that global trade environment is more uncertain than ever (Dufva & Rekola 2023). The time of change and uncertainty has most definitely affected global trade and the cross-border transactions in a permanent way. Therefore, as Hadjikhani et al. (2008, 922) suggest, businesses and other actors in global trade must fundamentally rethink their role as societal and organizational stakeholders as well as adapt to the changing operational environment.

As noted earlier, changes in the global trade environment affect both individual firms and macroeconomic actors (Hadjikhani et al. 2008, 914). In a global world, changes and crises often affect more than one individual actor. This is because in a global world, trading actors are interlinked across individual firms or national boundaries. Transnational corporations, common market areas and international value chains strongly link global trade together into a spiderweb like entity (Parthaparim 2005, 39).

It is therefore clear that the forces of change, together with the recent crises, have had a strong impact on several actors. One of these actors has been the European Union and its Member States, such as FInland. As is well known, the European Union is an economic and political alliance of 27 Member States with a common trade policy to which they adhere. As a result, the Member States are strongly affected by the various crises and changes in world trade, since trade policy is regulated at Union level (European Commission 2022). Based on this knowledge, it can be argued that changes in the global trade environment also affect the Finnish trade environment, trade policy and foreign trade.

1.2 Change in the Finnish trade environment and justifying the research

Finland, as an EU member state and as an export-driven and small country, is very strongly linked to the European trade policy environment and decision-making as well as the global trade environment. Therefore, recent changes and crises in the European trade policy environment have also had a direct impact on Finnish foreign trade (Zahoor et al. 2022, 506). Although Finland has strong trade relations with many countries, due to its membership of the EU, the future of Finland's foreign trade is, to some degree, outside of our sphere of influence. The European Union's trade policy decisions and political

relations will, together with various other factors, influence the future of Finland's foreign trade.

This new, crisis and change filled environment has changed significantly in a few years. As a result of these major changes, there is a situation where Finland's trade policy and trade environment has gone through significant changes such as the loss of major trade partner Russia. This is due to the Ukrainian war and the inevitable political consequences, which have followed (Observatory of Economic complexity 2022). As a result, Finland's foreign trade has had to adapt in a great change with the loss of a major trading partner and uncertain and unclear foreign trade developments in the future. These changes have thus partly rendered old academic studies irrelevant and it can be argued that there is research gap in studying the future scenarios of Finland’s foreign trade..

The reason why this study is relevant is that the Finnish economy is heavily dependent on foreign trade, and it is particularly export-driven OECD (2022). As a result, global changes, political uncertainty, and international relations have a strong impact on Finland’s economic welfare, through foreign trade. Therefore, researching the future developments and trends on international and national level is particularly relevant, to prepare for the future challenges and ensure the stability of foreign trade. As the recent major economic crises related to Russian political unpredictability, the energy crisis and conflicts between major powers have shown, changes in the global environment also affect Finland (Observatory of Economic complexity 2022). These effects can be seen in direct and indirect ways. From a trade policy perspective, it could be argued that foreign trade is relevant in economic welfare point of view as well social welfare, through tax cumulation.

All in all, due to the changes in the operating environment business, as well as entire nations and political actors have more incentives to study and understand the possible future trajectories. Knowing and understanding change and trends will create significant value for macro-level as well as micro-level trade actors. Understanding global and cross-border developments and trade policy trends will allow political decision makers to create a fruitful environment for businesses to operate. Thus, a country like Finland, which has a strongly export-driven economy, must be well-prepared and informed on the development of its foreign trade, global trade environment and the factors and trends that cause the change in their operating environment. In other words, firms, besides their

market related actions in their operating field, must manage their socio-political market and adapt to geopolitical changes to guarantee longevity and survival of their businesses. (Hadjikhani et al. 2008, 915)

1.3 Purpose of this study

This study focuses on gathering an understanding of the future directions of Finnish foreign trade and the different scenarios for the future. The research is to present to the reader a comprehensive understanding of the current state of Finnish foreign trade as part of the European Union's economic union and the global trade environment. As Karhu and Haaja (2022, 21) argue, the future of trade policy and the change factors in operating environment have been the subject of academic research for many decades. In the light of the new trade environment and changes in trade policy, it can be argued that there is a research gap in this research topic. Therefore, there is no research on future scenarios, which consider the current trade policy situation and global trade environment changes, which have a great impact in Finland. This is the research gap, which this study aims to fill.

The study will show the reader the structure of Finnish foreign trade, the current situation, and the impact of global change factors on the future of Finnish foreign trade. The focus of this study is to gather understanding of the future outcomes in the Finnish foreign trade regarding the changing (global) operating environment. This study is constructed to answer the following research question: *What are the future scenarios for Finnish foreign trade in the transition of international trade environment in 30-50 years?*

The main research question is divided into the sub questions:

1. What are the main change trends in the global trade environment?

2. How may they influence the future development of global/European trade

environment?

3. What are the key elements of Finnish foreign trade policy at the moment?

4. How may the main trends in the global trade environment influence the Finnish foreign trade?

Together, these questions and the answers to those provide a comprehensive understanding and overview of the current state of trade policy and a basis for understanding the future scenarios. The sub-questions provide the reader with the background and concepts of the main research question, so that the main research question is easier to approach. Since this research looks at the trends in Finnish foreign trade and thereby gather an overall understanding of future trends and drivers of change. The data for these will be drawn from expert interviews. The methods will be discussed more thoroughly in chapter three. Through gathering understanding from expert interviews, this study builds future scenarios related to Finland's foreign trade. The purpose of these scenarios is to create comprehensible and concrete pictures of Finland's foreign trade in30-50 years.

Overall, this study provides the reader, the academic community, and the business community with a comprehensive understanding of the structure of Finland's foreign trade and its possible future development. It will help the reader to understand the impact of EU trade policy and the global trade environment on Finland's foreign trade and the potential future impact of both. In order for the reader to understand the changes in the trade environment, trends and the future scenario of Finnish foreign trade, it is relevant to explore these on a theoretical level. The next chapter examines the trade environment, trade policy and foreign trade and their drivers of change. These factors are explained on a Finnish, EU and global scale. This understanding provides the basis for the empirical part of the research and for understanding the findings of the research.

2 Global trade environment and its transitions

2.1 Trade environment and trends factors

2.1.1 Defining trade environment

Trade environment is a broad concept with numerous definitions. Starting with the term trade, which is part of the term “trade environment”. Term trade is basically an exchange, in a voluntary nature, between two parties in need of each other's resources (Dahlman et al. 1995, 156). These resources may vary from goods to services. The word environment describes the area of activity where this exchange takes place (Dahlman et al. 1995, 155). The concept of a trade environment can be viewed from an academic perspective, from a national perspective or from the perspective of a single organization.

From the academic perspective, the trade environment is defined as follows. Trade environment includes the economic, legal, political, and social frameworks that govern trade transactions and the actors involved (Dur 2015, 572). Trade environment is constructed by nation’s different trade policies, which include tariffs, trade regulations, currency exchange rates, intellectual property laws, and political stability all contribute to the trade environment (Etkins 1994). Governments and other political actors, international organizations, multinational firms, civil society organizations, and consumers are just a few of the actors who have an impact on the global trade environment (Etkins 1994).

As this research focuses on the future of Finnish foreign trade in the changing global trade environment, it is useful to examine Finland's position in the global trade environment on a theoretical level. As a member state of the EU Finland's trade environment is strongly defined by the trade environment prevailing in Europe (Ulkoministeriö 2022). From a theoretical point of view, the EU trade environment refers to the policies and factors that affect trade activities in the European Union. This trade environment is an economic union of 27 European countries. This unique trade environment is an economic union whose member states have agreed on a common market and common policies and regulations. In other words, Finland operates in a unique common market (Parthaparim 2005, 30). The EU trade environment is shaped by common elements such as trade agreements, customs tariffs, common commercial policy, customs regulations, cross-border transport infrastructure, intellectual property laws and environmental regulations.

It also considers factors such as the level of economic development, market size and composition, cultural differences, and geopolitical considerations (European commission 2022). Globally, the EU is one of the world's largest and most important trading blocks, with a strong focus on free trade and a commitment to maintaining a level playing field for its Member States (Parthaparim 2005, 6).

From a national economics perspective, trade environment can be understood through understanding the term macroenvironment. The term macroenvironment refers to the conditions that prevail in the economy rather than in a particular sector or region (Pîndiche & Ionita 2013, 330). Broadly speaking, the macro environment includes trends in gross domestic product (GDP), inflation, employment, expenditure, and monetary and fiscal policy. Together, these factors influence and shape the trade environment (Pîndiche & Ionita 2013, 332-333**).**

From an organizational aspect understanding trade environment also includes knowledge of the market size, level of competition, consumer behavior, and technological advancements (Pîndiche & Ionita 2013, 332). One way to understand the market and the trade environment and its constructs is through PESTLE analysis. PESTLE analysis is an acronym for a theoretical framework used to identify the macro-level drivers that an organization faces. The letters stand for Political, Economic, Social, Technological, Environmental and Legal. Through these aspects, different factors affecting the trade environment can be identified (Alanzi 2013, 18), see table 1.

Table 1 PESTLE framework for analysing trade environment on macro-level

Political	The impact of government policies, stability, and regulations on business is assessed by this factor. Taxation policies, trade restrictions, political stability, and government attitudes toward business are all factors.
Economic	The economic factor takes into account the overall economic conditions and trends that may have an impact on the business. This category examines economic growth, inflation rates, exchange rates, interest rates, and consumer spending patterns.

Social	This factor explores the societal and cultural aspects that may have an impact on the business. Some factors to consider include demographic trends, lifestyle changes, attitudes toward work, education, and health.
Technological	This factor assesses the impact of technological advancements on business operations. It includes factors such as R&D, automation, innovation, and the adoption of new technologies.
Legal	The influence of laws and regulations on business is referred to as the legal factor. It includes labor laws, environmental regulations, intellectual property rights, and consumer protection legislation.
Environmental	The impact of ecological and environmental factors on the business is the focus of this factor. It entails exploring issues concerning sustainability, climate change, resource availability, and environmental awareness.

As can be seen above, the macro-level analysis of the trading environment comprehensively covers all aspects of society. It can thus be argued that the trading environment interacts strongly with the society around it (Etkins 1994). Overall, the term "trading environment" can be understood at an organizational, national, or global level. Depending on the level of analysis, different issues influence how the trading environment is viewed and understood. Thus, the concept of "trading environment" is multi-dimensional and therefore the context of the analysis needs to be taken into account.

2.1.2 Megatrends affecting the global environment

Global megatrends are significant, transformative forces that shape the world and have far-reaching consequences for societies, economies, environments, and individuals (United Nations 2022; Sitra 2022). In academic literature megatrends refer to revolutionary trends in the macro environment that affect globally on all societies (Spiros et al. 2022, 11; Tamer Cavusgil 2022, 13). The triggers for such major events can be natural, geopolitical, health or economic (D'Cruz et al. 2022). Megatrends are such extraordinary events that they tend to have lasting and permanent effects. Their impact is globally significant in business, economy, society, culture, our personal lives, research, and politics (D'Cruz et al. 2022, 889). Trends, on the other hand have similar tendencies

but have an impact either on a smaller scale or in a more specific area (Batas et al. 2022, 5).

To understand the changes in the global trading environment and answer the research question, one must first look at the trends affecting the world globally and collectively. Understanding megatrends provides a basis for understanding the drivers of change in the global trading environment and thus for looking at the future of Finland's foreign trade. There are five global megatrends that shape our world and the future (The United Nations 2022). These trend factors are climate change and environmental degradation. demographics trends and population ageing, urbanization and demographic shift, digitalization, inequalities.

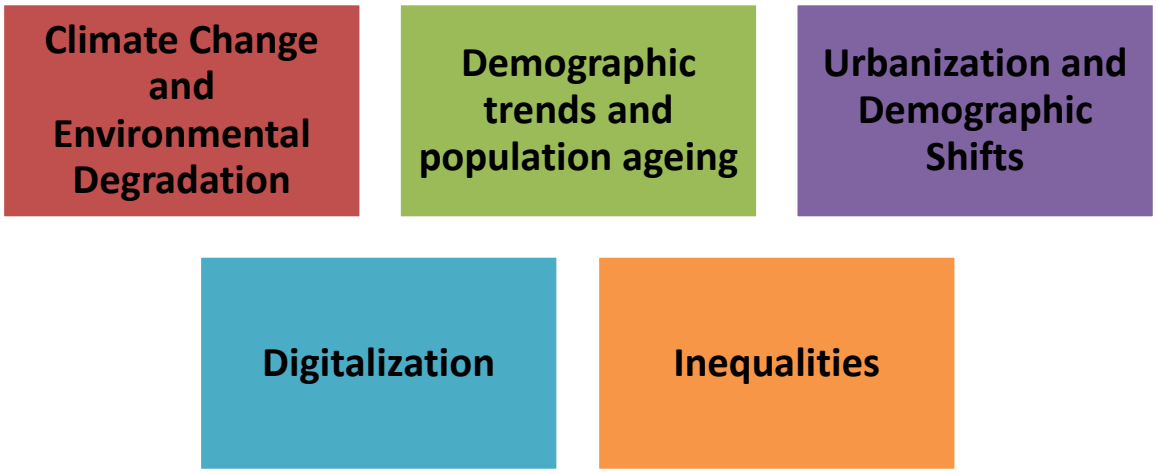

Figure 1 United Nations megatrends (adapted from United Nations, 2022)

First and foremost, climate change is one the most prevalent and cross-cutting megatrends (Spiros et al. 2022). This trend is being driven by factors such as carbon dioxide emissions and deforestation, which have severe repercussions for ecosystems, weather patterns, sea levels, and natural resources. More frequent and severe weather events (e.g., hurricanes, droughts), loss of biodiversity, disruption of agriculture and water supplies, and displacement of communities due to rising sea levels are among the consequences (Miles et al. 2016).

Second, an impactful megatrend is the aging population. Since of declining birth rates and rising life expectancy, many societies are undergoing an aging population. This trend places a burden on healthcare systems, retirement plans, and social support networks (United Nations 2022). To meet the needs of an aging population, policies and services must be adjusted to provide adequate care and support.

Thirdly, a globally significant megatrend is the urbanization and demographic shifts (Spiros et al. 2022,11). With more people urban centers, the global trend of urbanization brings both opportunities and challenges. Cities, while providing economic benefits and cultural exchange, also face issues such as overcrowding, inadequate infrastructure, pollution, and social inequality.

Fourthly, a major shift in the global environment is the rapid technological advancements and digitalization, which shapes all areas of human life. Thus, rapid technological progress and digitalization are reshaping economies, industries, and societies (Shaheer & Li, 2020). Increased connectivity, efficiency, and access to information is shaping the global collective. However, the transformation also includes risks and negative effects. These include job displacement as a result of automation, privacy concerns, cybersecurity risks, and the possibility of increased inequality as some regions benefit more than others from technological advancements (Shaheer & Li, 2020).

Finally, inequality is a global megatrend that refers to the unequal distribution of resources, opportunities, wealth, income, education, and power within societies and globally (Spiros et al. 2022,11). Inequality has wide-ranging social, economic, and political consequences, and it frequently interacts with other megatrends, exacerbating their effects. There are different forms of inequality such as economic, social, technological, environmental as well as political inequality (United Nations 2022). All of which refer to the unequal distribution of resources, democracy, or opportunities between individuals, either globally or within individual states.

These megatrends interact in complex ways, with different consequences depending on factors such as geography, culture, and policy decisions. To mitigate negative impacts and capitalize on positive opportunities, addressing these trends requires global cooperation, innovative solutions, and long-term planning. With the research question of the study in mind, the next section examines trends in the global trading environment that are linked to megatrends or are a consequence of their development.

2.1.3 Trends in the global trade environment

As the previous section explains, the global world is shaped by pervasive and large-scale trends or megatrends. These significant and long-lasting social, economic, and technological forces are broad and powerful drivers. As a result, they shape and drive smaller trends and phenomena.

This chapter looks at the most recent trends in the trade environment at global and EU level. The term trend refers to a general phenomenon over a long period of time. A trend is a feature of the present that may continue in a way that is relatively easy to trace or predict (Wu 2007). This chapter examines the trends observed in the trade environment, as presented in the academic literature, and the implications of these trends. The chapter aims to provide the reader with a comprehensive understanding of the changing factors that have affected the trading environment over the last decade or so and how these changes have been reflected.

First trend, which academic literature recognizes in the trend of *growing importance of geopolitical environment*. The trade environment is influenced by more than just political and consumer choices. The trade environment in the 2020s is strongly linked to the geopolitical environment (Cepni et al. 2022; Song et al. 2023). Political tensions and instability, such as trade disputes and trade wars, sanctions, and Brexit, create uncertainty and risks in the global trade environment, which can affect businesses operating across borders. Increased geopolitical tensions are potentially damaging and challenging for the trade environment (Cepni et al. 2022, 2). Those may distort investor behavior, lead to excessive volatility, and reduce carry trade activity in global financial markets. Recent affairs have dramatically increased global geopolitical tensions and caused disruptions in investor behavior and global value chains, such as the US-China trade dispute, tensions in Libya, Brexit, the Syrian war, and the COVID-19 pandemic (Cepni et al. 2022, 3). Therefore, it can be stated that in today's business environment all the firms must understand their socio-political market and adapt to geopolitical changes to guarantee their longevity and survival for their business practices. The rise of populism and increased geopolitical uncertainty have accelerated these the need for understanding the firm's sociopolitical network Hadjikhani et al. (2008, 922). Most recently, the war in Ukraine, which has created significant global tensions, economic sanctions, and an energy crisis (Kulikov et al. 2022).

Another trend, which is directly linked to the geopolitical environment and rising political tensions, is the trend of *rising protectionism* (Miroudot & Nordström 2020, 197; Geref 2019). Protectionism is a system of trade protection that seeks to protect and promote the economy of a country by imposing various trade restrictions (Evenett 2019). Since the 2008 financial crisis, the slowdown in globalization due to protectionist measures has been recognised (Miroudot & Nordström 2020, 221). According to Evenett (2019), protectionism was first observed among G20 economies as a proliferation of trade restrictive measures and then became more common with trade wars. Many countries have imposed trade barriers such as tariffs and import restrictions that can make it more difficult and costly for firms to trade. Furthermore, global value chains have shortened significantly since 2012 and international production has become fragmented (Miroudot & Nordström 2020, 221). They also suggest that global value chains are shortening and moving from international to domestic. This kind of development indicates the rise of protectionism. Overall, it can be seen in the trade environment it is due to the rise of protectionism (Geref 2019). Protectionist developments create higher costs of doing business with other countries The costs of protectionist developments should be reflected, for example, not only in a reduction in international fragmentation, but also in an increase in national clusters in international supply chains (Miroudot & Nordström 2020, 212; Geref 2019). While new technological advances in the digital age can further lower trade costs, protectionism can offset the benefits of foreign sourcing and encourage companies to source locally (James 2018).

As mentioned earlier, political uncertainty and geopolitical tensions are affecting the international trade environment. These effects are strongly interlinked with *changes in global supply chains*. The pandemic and other current crises have disrupted global supply chains, leading to shortages of goods, increased transport costs and created new challenges in logistics and inventory management (Ahmedov 2020, 141). In addition, long supply chains that cross national borders are particularly vulnerable to disruptions and national challenges or global crises. This supply chain uncertainty creates full-time challenges and uncertainty in the global trade environment (OECD 2020). In other words, with the recent crisis, a new debate has emerged on the global value chains (GVCs) and their sustainability. Researchers have questioned whether the excessive globalization of production has created new economic vulnerabilities (Mirdout & Nordström 2020, 120).

When analyzing global value chains, one can notice factors that cause it. One trend that has caused the fragmentation of global value chains, is the *use of non-tariff measures in international trade* (Beghin et al. 2015, 1515). The use of measures such as technical regulations and standards to regulate trade and protect domestic industries is becoming more widespread (Malenkov 2019). These measures can have a significant impact on international trade flows and require firms to comply with complex regulatory requirements (Beghin et al. 2015, 1514). Another example of a trend towards trade restriction is the *regionalization of trade*. Trade regionalization is a growing trend, with countries entering into regional trade agreements, such as the Comprehensive and Progressive Agreement for a Trans-Pacific Partnership (CPTPP), to promote regional economic integration and trade (Wu & Chadee 2022). As Karhu and Haaja (2022) suggest, the age of global markets and globalization might be over, and the age regionalized trade might be ahead.

Another significant trend in the global trade environment has been *the increase of interest in sustainability* due to the climate change and environmental crisis. In the past few decades, the interest in increasing focus on sustainability and environmental protection, has led to new regulations and policies (Jiménez-Almazán et al. 2020). The focus on CSR (corporate social responsibility) has had a major impact on the overall business environment through trade and supply chain management (Jiménez-Almazán et al. 2020, 11; Liu et al. 2013). An example of the increased interest in the environment and sustainable development in recent decades are the transnational agreements such as the Kyoto Protocol and the Paris Climate Summit have created major international agreements and targets that are significantly shaping the trade environment. One example is also known as Agenda 2030, created by the United Nation, which set 17 objectives covering social, economic, and environmental aspects, and 169 targets to be achieved by 2030 (Jiménez-Almazán et al. 2020, 3). These major international agreements are constantly shaping both the overall trade environment and the way individual companies operate. Thus, sustainable development and climate change can be seen as both a challenge and a transformative factor.

The above-mentioned change in the trade environment and the shift in political interests towards sustainable development is strongly linked to *changing consumer behavior.* Consumers have in recent decades shifted more strongly to e-commerce platforms and prefer sustainable choices more than ever (Rita and Ramos 2022). In other words,

consumers are increasingly aware of the environmental and social impacts of their purchases, leading to changes in the products and services they demand (Rita & Ramos 2022, 3; He et al. 2016). Therefore, in the last decades the time-trading business has been under pressure to improve its performance in the eyes of shareholders, governments, and society (Kiba-Janiak et al. 2021). Such pressure has led to the inclusion of environmental, social, and economic considerations into e-commerce processes (Kiba-Janiak et al. 2021, 3). This is followed by sustainability in e-commerce and consumer behavior has become increasingly important in recent years (Rita & Ramos 2022, 2). This and the political pressures above are shaping the service provision structure of companies and how business and commercial actors are perceived as legitimate in the trade environment (Jiménez-Almazán et al. 2020).

Since, the consumer behavior has change, one trend that has been prevalent in global trade environment is the *shift towards service trade.* This trend generally refers to a change in the way businesses offer services in a retail environment, where more services are produced in relation to goods than before (Ganne 2018). Internationally, trade in services is becoming more widespread (Przybylinski & Wyszkowska 2021, 35). Because of globalization and the deepening of global collective efforts to save energy and reduce emissions, economic growth is now increasingly being driven by trade in service (Sun et al. 2021, 1457). The trend towards service trade is increasing as firms identify growth potential in sectors such as technology, finance, and healthcare (Sun et al. 2021, 1467). This trend is driven by the growing importance of intangible assets such as intellectual property and information, which points to a change in consumer behavior.

Another major trend that has been transforming the global trade environment is *technological development* and its impact. The academic literature recognizes the impact of rapid technological developments on the trade environment (Alam and Murad 2020). Factors such as e-commerce, search engine optimization, the development of blockchain, social media capabilities and artificial intelligence are changing the way goods and services are traded (Ganne 2018, 4). These factors are shaping both the virtual and physical environment, consumer behavior (as mentioned before) and hence the supply and production of services (Ganne 2018, 4). Thus, those will create new opportunities and challenges for businesses. In addition, it is important to note that these factors are often ahead of legislation and other regulation due to rapid technological developments,

which creates challenges for policy makers and for operating in a trade environment (Alam & Murad 2020, 388).

Lastly, the academic literature identifies the trend of *growing importance of emerging markets* (Cavusgil 2021). Emerging markets are countries where strong economic growth combined with population growth is driving demand on a broad front and boosting economic growth in surrounding countries, increasing demand for goods and services and creating new opportunities for companies to expand their global operations (Cavusgil 2021). According to him emerging markets include for example China, Mexico, Russia and Brazil. Reasons to invest in emerging markets are that GDP growth is typically faster because these economies have much more room to expand. As Karhu and Haaja (2022, 14) suggest the global economy has shifted from European- US centered West to East. According to them China has become the largest economy in the world, when looking at purchase power parity. This will inevitably change the world economic dynamics. In addition to that, in emerging countries capital markets also tend to grow strongly as innovation, debt issuance and capital formation take off in more established financial infrastructures (Janusz & Ryszard 2020, 15).

In conclusion, the evolving global landscape is marked by the interplay of various factors, including protectionism, changing supply chains, non-tariff measures, regionalization, sustainability, consumer behavior, service trade, technological advancements, and the ascent of emerging markets, as listed in figure 2.

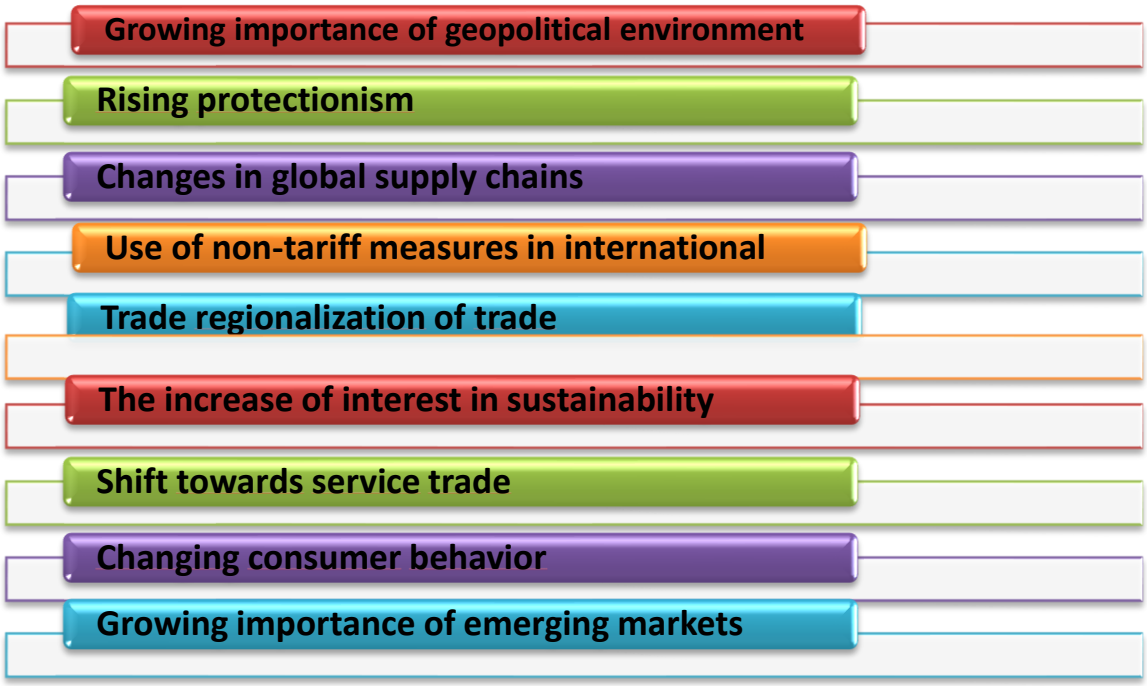

Figure 2 Trends and change factors in global trade environment

Since there are various change factors and trends in global trade environment, businesses and policymakers must navigate these complexities to thrive. In an environment, where the geopolitical backdrop is of ever-growing significance in shaping the future of international trade and commerce. To further deepen this understanding, the next chapters examine trade policy in more detail at a theoretical level.

2.2 Trade policy

2.2.1 Defining trade policy

The conceptualization of the term 'trade policy' has varied depending on the interpretation, disciplines, and times when it has been studied (Karhu & Haaja, 2022, 4). The theoretical concept of trade policy has evolved together with world economy and academic field (Karhu & Haaja 2022, 4; Velut, 2018, 486). However, it is important to note that the term 'trade policy' does not strictly fall under the category of single academic field. Therefore, the term has been studied widely across multiple discipline such as international business, law, development studies and international relations (Velut 2018, 485).

A trade policy, also known as a commercial policy or international trade policy, is a government policy that governs international trade. According to Gruber (2005, 64), trade

policy falls under the category of public finances, which is a study of the governmental role in the economy. Trade policy is a broad term that encompasses all aspects of international trade. As a whole trade policy refers to a nation's formally set practices such laws, regulation as well as agreements that govern cross-border trade practices and transactions. These include practices such as foreign trade, imports, and exports to foreign countries (Dani 1995, 1458). Trade policy concerns the rules and regulations of international trade. This means that trade policy is concerned of who trades with whom and what kind of rules, costs and regulations are in place for these transactions. Thus, trade policy is a tool to optimize a balance between international trade transactions, global value chains, cross-border investment flows, innovation, and labor as well as economic growth (Karhu and Haaja 2022, 4).

The emerging picture of trade policy's empirical landscape is complex, with significant variation along some dimensions. According to Dieter (2009, 40) an unhealthy dichotomy between the trade policies has existed, meaning that trade policies are described as a scale between extremes. Although trade policy is formed individually based on the government or in a cooperation with trade agreements, the scale of trade policy is frequently viewed as a binary choice between free trade with no trade restrictions and protectionism (Wolf 2003) meaning that a country has high restrictions on trade to protect local actors or no trade restrictions at all (Dieter 2009, 400). Under some circumstances, a country will pursue a more active protectionist strategy to promote or support its local industries over those of its competitors abroad. Policies that promote protectionism may include imposing taxes on imported products, establishing import quotas, and providing subsidies for domestic manufacturers (Dur 2015, 6).

On the other side, a country can seek to stimulate foreign investment and adopt a free trade strategy, also known as liberalizing trade policy, which reduces trade barriers, also known as an open trade policy (Dur 2015, 5). However, the trade policy of many countries or common market areas are often a combination of these two trade policy orientations, combining elements of both (Dur 2015). These measures can be negotiated or unilateral. Negotiated or unilateral measures can be preferential or preferential measures. As Dur (2015, 6) mentions there are many types of trade policy measures and often countries or markets apply combinations of these depending on the sector or partnership country. In other words, it is unlikely that any country would apply only one or the other approach to trade policy. Many nations implement trade policies that fall between these two,

modifying them as the state of the global economy and internal political forces alter (Foster & Robert 2011, 388).

Normally, trade policies aim to strengthen the domestic economy and maximize the economic benefits available. Trade policies can address a variety of issues related to foreign trade, such as foreign retaliation, labor, or tariffs, in the case of restrictive trade policy (Foster & Robert 2011, 405). On the other hand, trade policy can focus on intellectual property protection, setting standards that encourage collaboration and reduce trade barriers, or establishing trade agreements and trade laws. Tariffs, voluntary export constraints, local content requirements, subsidies, import quotas, administrative policies, and antidumping penalties are among the most commonly used trade policy instruments (Dani 1995; Dieter 2009, 399). A common commercial policy, such as the European Union's common trade policy, can sometimes be agreed by treaty within a customs union (Parthaparim 2005, 29).

All in all, as argued above trade policy is a cross-cutting issue that is studied by many disciplines (Parthaparim 2003, 30). Trade policy is therefore country-specific or can be implemented in cooperation with different countries and actors. According to Parthaparim (2005, 30) there are different kind of trade agreements, as part of trade policy formation. Figure 3 shows the levels of cooperation defined by Parthaparim (2003).

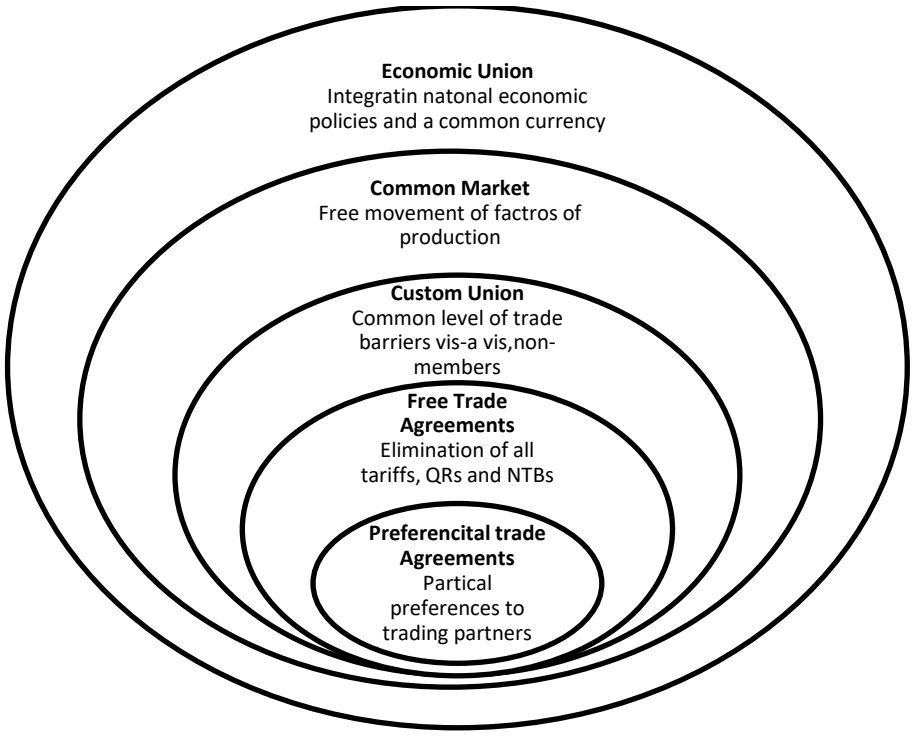

Figure 3 Types of Trade agreements, (adapted from Parthaparim 2005, 30)

As shown in the top of the figure, an economic union is an agreement between two or more nations that permits unrestricted trade in products, services, money, and labor. The common market can be supported by countries coordinating their social and financial policies (Parthaparim 2005). The strongest level of integration is consequently economic unification. An economic union is exemplified by the European Union (EU). The next level is the Common Market Area, which includes EU member states and certain other EU countries (LEFT) and the Maastricht Treaty. Similar to an economic union, but with a lower degree of integration, is the single market. The common market is designed to establish bilateral trade between member nations; in these areas, trade barriers are less restrictive for the exchange of goods, services, and capital than they would be otherwise (Parthaparim 2005, 29).

This is followed by customs unions, which is a form of trade policy in which country's imports, exports, and transiting commodities are subject to the same set of processes, regulations, and tariffs. Customs union participants typically have similar trade and competition laws (Parthaparim 2005). A free trade agreement is a union in which member countries lower barriers to trade in goods produced in the Union, with some flexibility for each member country in the extent of the reduction (Jeffrey 2004). Lastly, on the bottom of the figure, the preferential trade area (also known as the preferential trade agreement, PTA) is the first stage of economic integration and the least integrating stage. A PTA is a trade grouping that gives preferential treatment to certain products from participating countries. This is done by reducing tariffs, but not by eliminating them altogether. PTAs can vary from country to country depending on the trade policy implementation (Panagariya 2000).

2.2.2 The development of Finland’s trade policy

When examining specifically Finland's trade policy as a Member State of the European Union, Finland's trade policy is largely determined by the European Union institutions (see section 2.2.2). Thus, Finland obeys and follows European Union (EU) market practices and trade policy, which define Finland's trade relations both inside the EU and with non-EU countries. Therefore, it is relevant to note that the EU trade policy practices and theoretical references mentioned in section 2.2.2 are also valid when considering Finnish trade policy, as Finland ins one of the 27 EU member countries (European Comission 2022).

In order to understand the current state of Finnish trade policy, it is relevant to look at briefly to history of Finnish trade policy and its transitions. According to Aunesluoma (2018) the brief history of Finnish trade policy can be divided roughly into five different stages, see figure 4.

Figure 4 Five stages of the Finnish trade policy history (adapted from Aunesluoma 2018, 18)

Prior to its independence from Russia in 1917, Finland was a part of the Russian Empire. Being part of the Russian empire Finnish trade was inextricably linked to Russia, and the imperial authorities largely determined trade policies. Finland exported raw materials such as timber and agricultural products while importing manufactured goods from Russia. (Auneusluoma 2018, 54)

After becoming independent of Russia (post 1917), Finland faced significant challenges due to its small domestic market and limited natural resources. The formation of trade policy really began when the country implemented an import substitution policy in order to develop domestic industries and reduce reliance on imported goods. Tariffs were imposed on imported goods to encourage the growth of domestic industries. (Auneusluoma 2018, 54)

Following WWII, Finland concentrated on post-war reconstruction and industrial development. The country pursued an outward-looking trade policy, focusing on exports to finance imports of necessary goods and technology. According to Aunesluoma (2018, 55) the Nordic countries formed the Nordic Free Trade Association (NFTA) in 1959, and Finland joined the association, facilitating trade with other Nordic countries. Finland also pursued closer economic ties with the Soviet Union during these years, eventually to become a major trading partner. Due to the scarcity of convertible currencies, the Finnish-Soviet trade relationship was governed by bilateral agreements, which frequently included barter arrangements.

Following the dissolution of the Soviet Union, Finland's trade policy underwent significant changes, one of which was the country's 1995 accession to the European Union (European Comission 2022). As an EU member, Finland joined the European Single Market, which eliminated trade barriers within the EU and provided Finnish businesses access to a larger market. (European Commission 2022; Aunesluoma 2018, 55.)

In the 2000s, during the era of fast globalization and global trade Finland has actively supported global trade liberalization efforts and the establishment of the World Trade Organization (WTO) (Haaparanta et al. 2017, 14). Finland has been a proponent of free trade and has signed numerous bilateral and multilateral trade treaties. Finland has also encouraged innovation and technology-intensive industries to boost its global competitiveness (Haaparanta et al. 2014, 12). Finland's unique trade policy is strongly defined by a few elements: EU membership, free trade agreements, an export-driven economy, and innovation and trade to promote exports (Haaparanta et al. 2017).

When looking at Finland's trade policy, the most important determinant is its membership of the European Union: as an EU Member State, Finland benefits from the EU's internal market and participates in the formulation of the EU's common trade policy (Ulkoministeriö 2022; European Comission 2022). The EU internal market is therefore the most important trade partner for Finland (Haaparanta et al. 2017). The Union promotes the removal of trade barriers within the EU, trade agreement negotiations with other countries and the protection of intellectual property rights, from which Finland, as a small export-driven country, benefits significantly. (Haaparanta et al. 2017)

Additionally, Finland actively supports the negotiation and implementation of free trade agreements. It has been involved in several FTAs, both as part of the EU and bilaterally. The EU has negotiated FTAs with countries such as Canada (CETA), Japan (EU-Japan FTA) and Mercosur (pending ratification). These FTAs strongly shape external trade and policies in third countries (Nilsson Hakkala et al. 2019). In addition, Finland's trade policy is strongly focused on trade and development. Finland stresses the importance of linking trade and development policies. It supports trade-related capacity building, technical assistance, and development aid to developing countries to enable them to better participate in international trade and benefit from globalization (Nilsson Hakkala et al. 2019).

In addition to the above, Finland recognizes the importance of the digital economy and

innovation for trade. Finland encourages the development of digital infrastructure, e-commerce, and digital services. This is aimed at facilitating international trade and promoting economic growth both at home and abroad (Nilsson Hakkala et al. 2019). Furthermore, an element of support for sustainable development can be found in Finnish trade policy. Finland emphasizes sustainable trade and supports initiatives that promote environmental protection and combat the climate crisis. Finland seeks to integrate sustainability considerations into trade agreements and supports measures to ensure sustainable use of natural resources (Haaparanta et al. 2017).

In summary, it can be said that Finnish trade policy has undergone significant transitions in the past 100 years. Finland's trade policy and position in global trade is heavily dependent on other countries, due to its export-driven nature. Finland's trade policy is very open, internationally integrated and committed to innovation and sustainable development.

2.2.3 European Union as the governing body of member state's trade policy

European Union trade policy is the collective strategy and set of guidelines guiding trade relations between the European Union (EU) and other nations and regional blocks (Wouters et al. 2015, 42). In practice this means that the EU, which consists of 27 member states and is a political and economic union, participates in trade discussions as a single body and establishes common trade policies to promote coherence and coordination among its members (European Commission 2022).

According to European Union (2022) the trade policy is an example of a tool for political decisions and development of the economy and innovation. EU trade policy is the common trade policy pursued by the European Union, which is responsible for trade with all non-EU countries (European Commission 2022). To put it another way, a unified trade and investment policy is applied by the European Union to govern its trade and investment relations with non-EU nations. In other words, the EU takes an integrated approach to trade policy, also known as the Common Commercial Policy (CCP) (Wouters et al. 2015, 43). Common Commercial Policy means that EU develops trade policy and negotiates trade agreements on behalf of its Member States to promote the interests of EU Member States and their businesses, as well as the EU's collective interest in global trade policy (Wouters et al. 2015, 43; Drieghe et al. 2022). The EU negotiates trade agreements with other countries and regions through an open consultation process involving EU

Member States, the European Parliament, and civil society (Wouters et al. 2015, 43; European Comission 2022). Instead of the national governments of member nations, the European Union is exclusively responsible for trade with countries outside of the EU. Thus, the EU institutions negotiate and implement international trade agreements in addition to enacting laws on trade-related issues (EU Commission 2022).

The direction of EU trade policy is defined in cooperation between the main power institutions within the European Union: European Commission, the EU Member States (Council), and the European Parliament. The Member States provide direction for the European Commission's work despite the Commission's strong and notable position on trade policy matters. The Council of the European Union (Council of Ministers), which consists of representatives of the governments of the Member States, makes the decisions about different trade policy measures as well as international agreements and mandates for negotiations (EU Commission 2022). The European Commission has exclusive trade policy competence, which entitles it to take initiative, make suggestions about the common commercial policy, and negotiate trade agreements with third countries **(**Drieghe et al. 2022, 583). The EU's responsibilities include patents, public procurement, and foreign direct investment, as well as trade in goods and services (Ulkoministeriö 2022) EU trade policy is greatly influenced by the EU's bilateral relationships with major trading partners such as the United States, Brazil, India, Russian Federation, China and Japan (EU Comission 2022).

Despite the EU's centralized political power in decision-making, it seeks to consult civil society as much as possible in its trade policymaking (Drieghe et al. 2022, 583). However, especially with the development of diversity in the European Union, there has been academic debate about the strategy of the EU and the inclusiveness of the decision-making process has been questioned. The EU itself says it consults civil society in its policymaking, however, the involvement of non-business partners in decision-making has been questioned, particularly (Drieghe et al. 2022, 591).

Altogether, the EU trade policy seeks to promote internal economic growth, innovation, fair trade, and job creation within the EU (Wouters et al. 2015, 45). According to EU, while negotiating trade agreements with foreign nations, EU nations gain from having more influence by working as a unit. To boost the economy and increase employment, the EU negotiates trade agreements on behalf of the member countries (European

Comission 2022). This suggests that the EU intends to establish preferential trading agreements (PTAs), eliminate non-tariff barriers, lower tariffs, and improve market access for goods, services, and investments. These agreements are detailed and cover a wide range of topics, including intellectual property rights, competition policy, government procurement, and sustainable development with aims to better member states economy (European Comission). However, the academic literature has questioned the sufficiency of the policy making. As Drieghe et al. (2022, 584) argue, the EU has delegated responsibility for monitoring the sustainable development chapters of its trade agreements to the CSMs (civil society mechanism), without providing civil society actors with adequate resources or a realistic prospect of effective policy impact.

Besides the critique, it has been stated that trade agreements allow European firms to acquire the raw materials and other inputs they need more quickly and at cheaper rates, assisting them in maintaining their competitiveness, compete more successfully overseas and export more to nations and areas outside the EU (Lee 2010). Moreover, by incorporating EU standards and principles into trade agreements, the EU can influence globalization, particularly in areas like environmental protection, labor practices, and human rights (Ulkoministeriö 2022).

The European Union's (EU) trade policy contains various protectionist elements as well as elements of free trade (Leblondaand & Viju-Miljusevic 2019). The EU's protectionist elements include tariffs, tariff barriers, subsidies to domestic industries and anti-dumping measures as well as countervailing measures, and safeguards. Below are mentioned seven most prevalent EU trade policy elements (Leblondaand & Viju-Miljusevic 2019; Ulkoministeriö 2022; European Comission 2022)

Trade Agreements: Non-tariff barriers (NTBs): The EU influences and intervenes in non-tariff barriers that can impede trade, such as technical regulations and standards. It aims to standardize regulations and standards. As a result, it facilitates mutual recognition agreements and encourages regulatory cooperation with trading partners in order to reduce NTBs.

The EU operates a common customs union, which means it has a unified external tariff known as the *Common External Tariff* (CET). The CET imposes uniform tariffs on imports from non-EU countries, ensuring a level playing field and a consistent trade policy approach among EU member states.

Trade Defense Instruments: To protect its industries from unfair trade practices, the EU employs trade defense instruments. These include anti-dumping, anti-subsidy, and safeguard measures. Anti-dumping duties can be imposed when imports are found to be sold at unfairly low prices, whereas countervailing measures address foreign government subsidies. Imports can be temporarily restricted using safeguard measures if they cause or threaten to cause serious harm to EU industries (European Comission 2022).

Dispute Settlement Mechanism: To resolve trade disputes with other countries, the EU, like other WTO members, uses the WTO's dispute settlement mechanism. It has the authority to file complaints against trade practices that it considers to be in violation of WTO rules and seek resolution through adjudication (European Comission 2022).

Trade Sustainability Impact Assessment (TSIA): The EU conducts Trade Sustainability Impact Assessments to assess trade agreements' potential social, economic, and environmental impacts. These assessments help to ensure that trade policies are consistent with long-term development goals and address potential risks or negative consequences. Generalized System of Preferences (GSP): The EU has a GSP scheme that allows developing countries preferential access to its market. It entitles eligible countries to reduced or zero tariffs on a wide range of products, thereby promoting economic development and integration (European Comission 2022).

Market Access Strategy: The European Union's market access strategy seeks to expand market opportunities for European exporters. It entails negotiating with trading partners in order to remove barriers, improve regulatory cooperation, and address specific market access issues affecting EU businesses (European Comission 2022).

Altogether these trade policy instruments form a comprehensive framework through which the EU pursues its trade policy objectives of open and fair trade, promoting the interests of member countries in world trade and the economic development of the Union. In addition, it is worth noting that the EU uses trade policy as part of its geopolitical action (Leblondaand & Viju-Miljusevic 2019, 1840).

Thus, trade policy can be seen as a tool for developing political agendas, economic growth, innovation and development. They are designed to protect EU domestic industry, trade and workers. This approach, which combines geopolitics and trade policy, has also been criticized. As Leblondaand and Viju-Miljusevic (2019) argue, EU trade policy has

become increasingly "politicised", i.e., trade policy has become increasingly focused on international relations and politics. This can be seen in the negotiation of agreements with various partner countries. However, the legitimacy of European trade policymaking has not been questioned (Leblondaand & Viju-Miljusevic 2019, 1841). Overall, EU trade policy reflects a balance between the objective of promoting free trade and the need to protect domestic industry and workers as well as promoting free trade and is committed to promoting trade both within the EU and globally (Lee 2010).

2.3 Foreign trade

2.3.1 Defining foreign trade

Foreign trade is a term that has been widely studied in the economic, social, environmental, and geopolitical sense of nations. Foreign trade as a term is broad and multidimensional and is also known as international trade or world trade. Overall, foreign trade refers to transactions involving the exchange of goods, services, and capital across national borders (Helpman 1999). It plays an important role in the economic development of nations and has been extensively studied and analyzed in the academic literature. Foreign trade allows countries to specialize in the production of goods and services in which they have a comparative advantage and to exchange them for products that they are less efficient or have fewer resources to produce (Helpman 1999, 122; Etro 2017, 28).

Several theoretical frameworks have been developed to understand and explain the structure and functioning of foreign trade. One of the most important theories explaining it include *Heckscher-Ohlin theory* (Kaczmarczyk 2023, 77; Etro 2017). This theory of international trade and international economic theory emphasizes the importance of factors of production (such as labor, capital and natural resources) in the formation of trade patterns (Kaczmarczyk 2023, 78; Lerner 1952, 2). According to this theory, countries export goods that use their abundant factors of production and import goods that require their scarce factors of production. This theory presents an overall equilibrium state of foreign trade, representing imports and exports (Kaczmarczyk 2023, 78). Briefly, the Heckscher-Ohlin model explains foreign trade in a way that countries export what they can most efficiently and plentifully produce.

Another theory, which explains the formation of foreign trade is *the comparative advantage theory*, which was created by David Ricardo (Krugman et al. 2018). In this

theory he argues that countries should specialize in producing goods and services with lower opportunity costs than other countries, which will lead to mutual gains from trade (Krugman et al. 2018). Through comparative advantage agents have incentives to produce product over others since there is a lower relative opportunity cost or autarky price, i.e., a lower relative marginal cost before trading (Kaczmarczyk 2023, 71). Briefly, comparative advantage theory argues that economy should produce a particular good or service if the opportunity cost is lower than its trading partners. The theory of comparative advantage exposes opportunity cost as a factor to be considered when making the decision between different production options (Kaczmarczyk 2023, 71; Krugman et al. 2018, 255).

The third theory which explores the concept of foreign trade is called *the new trade theory*, which is a collection of economic models from global trade theory (Neary 2009, 217). The importance of network effects and increasing returns to scale is emphasized in this theory. New trade theory emphasizes economies of scale, product differentiation, and imperfect competition to explain trade patterns. It implies that businesses and industries with a competitive advantage can achieve economies of scale through international trade (Neary 2009, 240).

In conclusion, it can be said that foreign trade is theoretically a multidimensional phenomenon, where the academic research on the topic is extensive. Based on the theories above foreign trade has both positive and negative effects on economies. The benefits of foreign trade and free trade include increased economic growth, job creation, access to a wider range of services and goods, and potential technological spillovers (Neary 2009, 241). These effects, in their positive aspects, have a strong impact in developing countries, for example. However, the literature has also extensively examined the challenges of job displacement, income inequality and trade imbalances, as well as the negative social and environmental impacts of foreign trade. (Neary 2009; Helpman 1999; Etro 2017)

2.3.2 Finnish foreign trade

As this study focuses on the future of Finnish foreign trade and the factors affecting it, it is appropriate to examine Finnish foreign trade from a theoretical and academic perspective. Finnish foreign trade plays an important role in the Finnish economy. This refers to trade that is carried out across Finnish borders by Finnish private or state-owned enterprises (Hjerppe 1993). Finland's economy is strongly export-driven, partly due to its

small and limited domestic market and its abundant resources in sectors such as technology, agriculture and forestry (Piekkola 2018, 9; Hjerppe 1993).

As an export-oriented nation, Finland relies heavily on international trade and its productivity for nation's economic growth and prosperity. Finland has a small and very open economy, with exports accounting for more than 40 percent of GDP (Piekkola 2018, 2). Furthermore, a rather high level of integration into the global economy is revealed by the Trade in Value Added database of the OECD (2020, 1). In other words, the value of Finland's gross exports reflects the high level of integration in global value chains (GVCs), with around a quarter reflecting upstream foreign direct investment (FDI) in Finland. i.e., intermediary commodities and services that serve as production-related inputs for Finnish exports (OECD 2020, 3).

It is noteworthy that the type of services and innovation in Finland varies considerably between geographical areas. Agriculture-related businesses are primarily found in South Ostrobothnia, which is also a major exporter of textiles, apparel, leather goods, wood products, fabricated metal, transport equipment, and furniture (Piekkola 2019, 17). Industries such as ICT are intensely located in regions with larger cities. Areas such Uusimaa, which includes the Helsinki metropolitan area, are in the leading position in exports in services including IC-producing services (Piekkola 2019, 17). Additionally, the Finnish forest industry and its production facilities are located more widely throughout the country (Metsäteollisuus 2022). This reflects regional specialization within Finland and is reflected in foreign trade (Piekkola 2019, 3).

As mentioned earlier, Finland's foreign trade is important for a small and open economy like Finland. This has been underlined in both the ups and downs of the economy. Total exports quadrupled between the recession of the early 1990s and 2008.

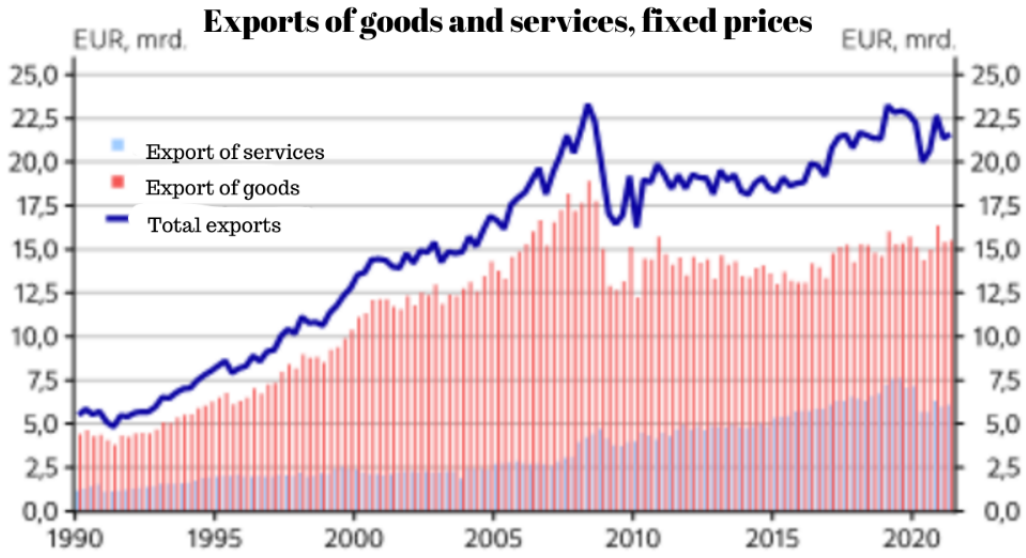

Figure 5 Finland's export development between 1990- 2020 (Tilastokeskus, Nordea, Macrobind)

In 2009, exports of goods and services fell by as much as a fifth. The recovery was slow, with export figures only returning to 2008 levels in 2018. With the Covid-19 epidemic and the restrictions introduced to combat it, the value of exports fell by 11% in 2020 compared to the previous year, before returning to 16% growth in 2021 (OEC 2022). In other words, Finland's exports are strongly linked to international changes and trade developments. Finland's most important export sectors are the following:

- Machinery and equipment
- Metal products and fabrication
- Chemical industry
- Information technology and telecommunications (ICT)
- Food industry

Finland is renowned for its expertise in manufacturing *machinery and equipment*, such as industrial machinery, metalworking machinery and electrical machinery. Large Finnish companies such as KONE, Metso and Wärtsilä are major players in this sector and account for a large share of foreign exports of machinery and equipment. In addition, Finland has a major international *forest resources and the forest industry* is an important

sector of the country's economy. Products such as pulp, timber, paper and wood-based materials make a significant contribution to Finnish exports. Finnish companies such as UPM, Stora Enso and Metsä Group are among the largest in Finland (Piekkola 2018).

The third major industrial sector is *metals and fabricated metal products*. Finland has a significant metal industry, specialising in products such as aluminium, steel, copper and iron. These metals are used in various sectors such as construction, engineering and industry. Companies such as Valmet Automotive and Wärtsilä are major players in this sector. The fourth most important export industry in Finland is *the chemical industry.* The Finnish chemical industry produces a variety of products, including pharmaceuticals, plastics, petrochemicals, and specialty chemicals, and exports them around the world (Piekkola 2019). Large companies such as Neste, Orion and Kemira are major players in this sector. Fiftly, *information technology and telecommunications* can also be considered a major industrial sector. Finland has a significant IT and telecommunications sector, where companies like Nokia have been global pioneers. Lastly, other important sectors for the Finnish export industry include the *food industry*, which covers a wide range of products, including dairy, fish, meat, beverages and processed food. Well-known Finnish food producers include Valio, Fazer and Raisio and these have a strong position in international markets (Piekkola 2018).

Additionally, *cleantech and renewable energy* are the most recent major export drivers. Finland has made significant RDI investments in renewable energy and environmental technologies. Cleantech solutions for renewable energy, waste management, water treatment and sustainable construction are areas of expertise. According to Sitra (2022), for example, future growth can be found in this area. More recently, services have been a major growth driver of Finnish exports: services play a key role in Finland's foreign trade, covering areas such as tourism, education, consultancy, engineering and logistics.

In order to meet domestic demand and support a variety of sectors, Finland also imports a wide range of products and services. The main import categories are machinery, pharmaceuticals, automotive, food, and oil and petroleum products. Finland mostly imports commodities from European Union nations like Germany, Sweden and the Netherlands (Jensen-Eriksen 2015).

The major trading partners for Finland's foreign trade are strongly located in Europe. Around 60% of Finland's exports go to other EU countries such as Germany, Sweden and

Netherlands are Finland's most important trading partners within the EU. Outside the EU, Finland's main trading partners are Russia China, the United States and (OEC 2022) as shown in figure 6.

Figure 6 The structure of Finnish foreign trade (Suomen Tulli 2021)

Finland's main import partners are Germany, Sweden, Russia, the Netherlands, China and the United States. Firstly, Germany is Finland's main import partner. Its imports include *machinery and equipment, cars, pharmaceuticals and chemicals*. The next most important import partner is Sweden, which is a major import destination, especially for *machinery and equipment, food products and chemicals*. Before the war in Ukraine, Russia was also an important import partner for Finland. It was an important import destination, especially for energy and raw materials. Russian imports included *oil, natural gas, metals, wood products.* In addition, the Netherlands is an important import partner. The Netherlands imports *foods products, chemicals, machinery and equipment*, among other things. From the Asian continent, China is also an important trading partner and is of growing importance for Finnish imports. Chinese imports include *electronics, textiles, plastic products, toys, etc*. The United States is also a major import partner, and an important destination for imports, particularly in the technology sector and consumer

goods. Its imports include *electronics, pharmaceuticals, machinery and equipment.* (Suomen Tulli 2021; Tilastokeskus 2021)

Table 2 Main import partners and the import products

Country	**Import products**
Germany	machinery and equipment, cars, pharmaceuticals, and chemicals
Sweden	machinery and equipment, food products and chemicals
Russia	oil, natural gas, metals, wood products
Netherlands	foods products, chemicals, machinery and equipment
China	electronics, textiles, plastic products, toys, etc.
United States	electronics, pharmaceuticals, machinery, and equipment

When looking at Finland's main export partners, one can notice the same countries reoccurring in the export sector: *Germany, Sweden Russia, the United States, the Netherlands and China* (Tilastokeskus 2021). In 2021, Finland's main export partner was Germany. Finland's export products to Germany include *machinery and equipment, transport equipment, metal products and pharmaceuticals* (Suomen Tulli 2021). The same exports apply to Finland's second most important trading partner, Sweden. Before the war in Ukraine, Russia was also one of Finland's most important export partners. Russia was an important export destination, especially for raw materials and forest industry products. Finnish exports to Russia included oil, *timber, paper and cardboard* (Suomen Tulli 2021). The fourth important trading partner was the United States, which was an important export destination, especially for technology products. Exports include *electronics, computers, pharmaceuticals, machinery,* etc. In addition to the USA, the Netherlands is an important export partner, especially for *chemicals and electronics*. Export products include chemicals, petroleum products, electronics, etc. The last more important export partner is China, which is of growing importance for Finnish exports. Important exports to China include *forest industry products, machinery and equipment, chemicals* (Suomen tulli 2021).

Table 3 Main export partners and the export products

Country	**Export products**
Germany	machinery and equipment, transport equipment, metal products and pharmaceuticals
Sweden	machinery and equipment, transport equipment, metal products and pharmaceuticals
Russia	raw materials and forest industry products such as timber, paper and cardboard
United States	electronics, computers, pharmaceuticals, machinery
Netherlands	chemicals and electronics
China	forest industry products, machinery and equipment, chemicals.

Overall, Finland's foreign trade performance and trade balance have fluctuated over the years. Historically, Finland's trade balance was in surplus in the 1990s and early 2000s, mainly due to strong foreign exports of machinery, electronics, and paper products. However, the trade balance turned negative in the mid-2000s and has remained generally negative since then. However, Finland's trade balance has remained stable. Several factors influence the development of Finland's trade balance. One important factor is the structure of the domestic economy. As mentioned earlier, Finland has a significant manufacturing sector, especially in machinery, electronics and forest products (Piekkola 2018). These industries are heavily dependent on imported raw materials and components for their production, which can contribute to a trade deficit. In addition, Finland is heavily dependent on imported energy resources, such as oil and natural gas, due to low domestic energy production. The cost of imported energy has a significant impact on the development of the trade balance. (Finland’s Bank 2022) Looking ahead, academic literature suggests that Finland's foreign trade is facing a wide range of challenges, including global economic uncertainty, trade disputes and geopolitical factors (Haaparanta et al. 2017). These affect Finland in particular through the openness of its economy and the importance of exports. However, it also offers opportunities for growth and diversification. (Haaparanta et.al. 2017)

Now that the study has examined the structure of Finnish foreign trade, its relevant to examine some methods of futures studies. In the next section, the theoretical framework of futures studies and the methods most relevant to this study are reviewed. As mentioned earlier, the purpose of this study is to examine the future of Finnish international trade, using a scenario method.

2.4 Future studies methodology for exploring Finnish foreign trade future

2.4.1 Introducing futures studies

Futures studies, also known as futurology or foresight, is a multidisciplinary or interdisciplinary field of research that studies and predicts possible, desirable, undesirable, and probable futures (Hines et.al 2017,13; Bishop 2012, 5). It is a discipline based on a wide range of disciplines and their theories. The study of the future applies to psychology, economics, engineering, and anthropology, among others (Rubin 2023; Bishop 2012, 3).

Foresight was the original term for this scientific branch, and H.G. Wells first used it in this sense in 1932 (Wells 1987, 90). Futurology is a term that is common in the vernacular. The term "futurology" is defined as "the study of the future" by Flechtheim, who proposed it as a new branch of knowledge that would include a new science of probability. However, the term "futurology" has lost its meaning in recent decades, as modern academics emphasize the importance of alternative, plausible, preferable and plural futures rather than a single monolithic understanding of future (Bishop 2012, 4).

There are many different views and interpretations on the history of the development of futures studies. Some scholars identify the origins of futures research from thousands of years (Hester 2018, 113.), whereas others recognize the development stages from the 1900s. Kuosa (2011, 330) identifies three distinct stages in the development of futures studies. According to him, the development of futures research spanned the 1940s to the present day in three different stages. The stages took place in 1940-1950s, from 1960-1970s and from 1980 to the modern times.

According to Kuosa (2011, 329) in the first phase of the development of futures research, the key player in futures research at that time was the RAND (Research and

Development) Corporation, an American military think tank. This period was driven by conditions of advanced technology, industrialization, economic growth, urbanization, and globalization. The future of research during this period was influenced by positivism, empiricism, statistical analysis, quantitative methods, planning and finance (Kuosa 2011).

In the 1960s and 1970s, futures studies became more international, which meant that the field began to be accepted in more countries, especially in Europe. Strong international tensions like the Cold War and the pacifist movement characterized this time. The ongoing nuclear war threat and the energy crisis has caused scientists and policymakers to start thinking about the long-term effects, particularly for younger generations (Kuosa 2011,330).

In the third phase,there has been multiple influencing factors and some trends are controversial. On the one hand, it can be observed that there have been many debates in the field of identity and change, which is a sign indicating the relevance of the discipline (Kuosa 2011, 331). Overall, futures studies as a discipline are based on the idea that the future is not predetermined (Malaska 2019; Amara 1981).

Thus, futures studies reflect on what is likely to happen by considering different possibilities. Futures studies, in general, recognize that humans can influence the future through actions and choices. It is therefore important to know what is possible, what is probable and what is desirable (Amara 2018). The importance of values and value debates in considering future options is therefore unavoidable (Malaska 2019).

Futures studies researchers use a variety of methods and frameworks to analyses current trends, predict future scenarios and identify potential impacts. The prospects of scenarios and the implications are often studied at the individual, organizational and societal levels (Kuosa 2011, 332). One can only form ideas and perceptions about what is going to happen - hence the term 'alternative futures'. Thus, it can be said that the future cannot be studied directly. It does not exist in the present moment in the same sense as the present and the past (Nowack et al. 2011, 1604). Instead, it exists in the present as intentions that can be explored. We can also explore facts and phenomena that have implications for the future (Bell 1997, 174). Since the quality of the actual future can be influenced by individual choices, it is obviously necessary to determine which choices lead to the best and most acceptable possible future state.

Various methods can be used to study the future. Methods that can be identified include examining changes in the operating environment (wild cards or driving forces etc.), scenario work, delphi technique (Kuosa 2011, 328), soft systems methodology as well as future wheel (Rubin 2023). The validity and scientific of futures studies is a controversial issue that has also been the subject of criticism (Boström et al. 2003). As they argue, a key controversial issue in futures studies is distinguishing between the major changes in the flow of information.

Another important challenge relates to experts' biased and value-based judgements about what is relevant and valuable in any decision-making process. The risk is that the future and the vision are based on the values of the people in charge (Boström et al. 2003, 39). In addition, there is the challenge of defining expertise and who can assess future developments. There is no universal criterion for identifying experts and measuring the values of the different actors. As a result, futures studies as a discipline is in danger of being heavily biased (Boström et al. 2003, 39). A final criticism of futures research is its potential pseudoscientific nature (William 2013). Futures research focuses on the realm of uncertain, whereas science exists in the realm of certain and builds knowledge through falsifying predictions that are not accurate.

2.4.2 Scenario building as a tool to explore future of Finnish foreign trade

The method used in this research is scenario planning, also known as the scenario method or scenario building (Gidley 2017). The word "scenario" is originally a term used in theatre and filmmaking to refer to the functional script of a play. Future scenario as "a sequence of events or processes in which the present state of a world, nation or system evolves into some future state" (Godett 2000). In the academic literature, Godet (2000, 11) defines scenarios as "a set of stories consisting of a description of a future state of affairs and a sequence of events that allows one to progress from the initial state of affairs to a future state of affairs". In other words, scenarios are descriptions of possible courses of events that people develop about how the world could or should be in the next few decades. Since scenario planning always involves people’s perceptions of the future, it is therefore always associated with values and desired outcomes (Böstrom et al. 2003, 39). In a scientific or business context, scenarios can serve as a tool for discovering one's own perceptions of alternative futures or for building strategy (Schwartz 1996, 3).

As a strategic planning tool in a business context, the first user of schema planning can be considered Royall Dutch Shell (Brandfield 2005). The company was the first to use the scenario building process in the development of its strategy. Led by Pierre Wack, this planning department looked for events that could affect the price of oil, which was stable in the post-World War II period. It was from this development of scenario planning that the company developed two scenarios that helped it to better adapt to the oil price shock or so-called energy crisis (Brandfield 2005, 799). Because of its leadership in scenario planning, Royall Dutch was the only company in the industry that was prepared for changes in oil prices, which allowed it to react quickly and effectively. This adaptability had a positive impact on the company's growth and profits.

Cairns et al. (2013) have done an extensive literature review on the use of scenario planning. Scenario planning is often applied in addressing complex, uncertain and ambiguous challenges in for example business world, finance sector, military or geopolitical context (Brandfield 2005, 800). Scenario planning is a method that facilitates group thinking about possible, probable or desired alternative futures (Brandfield2005, 804; Puglisi 2001, 440). These scenarios are presented on the uncertainty matrix. The uncertainty matrix is frequently represented as two intersecting axes. When two opposing polarities can be distinguished, these axes typically identify relevant megatrends or trends with a high degree of uncertainty. (Peterson et al. 2003, 339). Thus, the scenarios are intended to create a path that connects the current reality with the future reality in a way that is understandable. The result of the scenario planning process is not an accurate picture of the future, but rather a set of alternative futures that support better decisions about the future (Peterson et al. 2003, 340). Because the scenario process takes many factors into account, often the end result of scenario work is multiple pictures of the future Nowack et al. (2011, 55). The number of scenarios in a series typically ranges from one to three to four, but the final number should be chosen according to the underlying scenario logic.

The reason why scenario planning is widely used in many fields is that scenarios are easy to grasp for the human mind. Since scenarios are commonly depicted as narratives, pictures, visual graphs, or even dramatic performances Hiltunen (2012) tend to stay in memory longer than reports or statistics. According to Hiltunen (2012, 124) scenario planning helps to reduce uncertainty, facilitate communication and encourage discussion.

A classic scenario development process includes six individual stages. These stages are framing, scanning, forecasting, scenario transfer, implementation, and control (Nowack et al. 2011; Bishop et al. 2009). The stages 1-3 represent the scenario development phase, where the scenario developer does visualize the possible future scenarios. In the scenario transfer phase, the implications of current decisions are derived by the scenario developer.

There are also other descriptions of scenario planning. As Godet (2000, 11) argue, scenario planning is divided into two phases: an exploratory phase and a descriptive phase, in which desired or feared futures are imagined by extrapolating past and present trends into the future to construct probable or possible futures. The scenario method and its use in this study are described in more detail in chapter three on methods. This chapter describes in detail the research approach and how futures studies and the scenario method were used to build scenarios for the future of Finland's foreign trade.

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3 Research design for exploring the future of Finnish foreign trade

3.1 Building scenarios

In this study, a qualitative research approach is be used. The qualitative approach focuses on the interpretation of an in-depth understanding of the phenomenon under study (Eriksson & Kovalainen 2008, 3; Tuffour 2017,1). A qualitative research method is a holistic approach to knowledge acquisition, where data collection is often conducted in a human-centered and/or human-contact manner. In other words, the human being acts as the instrument of data collection. Qualitative research methods include methods such as interviews and case studies (Morgan & Smirichi 1980, 498). Consequently, qualitative research is suitable for complex social or business contexts (Eriksson & Kovalainen 2008, 3-5.) On the contrary to qualitative approach, quantitative research seeks to describe phenomena based on numerical data (Eriksson & Kovalainen 2008, 3).

The research topic, which is the future of Finnish foreign trade, is a multidimensional and ever-changing social phenomenon, which is affected by multiple social factors. Therefore, it can be said that qualitative research is justified when a comprehensive understanding of the subject is needed. Also, the subject areas of the research such global trade environment, European Union as well as Finnish trade policy are strongly social constructions, for the explanation of which the qualitative research approach is best suited to explore and gather understanding for those (Morgan & Smirchi 1980, 497). Hence, qualitative research, which utilizes smaller data and therefore more in-depth analysis (Tuffour 2017, 2), is more suitable as a basis for this research. Qualitative analysis also enables a reflexive examination of the research topic in this case, which is important when examining socially complex phenomena (Morgan & Smirichi 1980, 500).

The main question of the study is to explore *the future scenarios for Finnish foreign trade in the transition of international trade environment in 30-50 years?* The sub-objective of the study is to examine the factors influencing it at the global, EU and domestic level, and thus to create a comprehensive picture of the trends in foreign trade. The study examines trends in the global and EU trade environment and their impact and link them to Finland's trade policy and its current situation. The objectives and approach of the study are based

on the understanding that Finland's foreign trade and its future are strongly linked to the activities of the European Union, as Finland is a member state of the EU.

The objectives of this study were achieved by using the scenario method. As mentioned in section 2.4, the scenario method is one of the methods used in futures research. This research construction is inspired by a framework presented by Nowack et.al (2011), see figure 7

Figure 7 The generic scenario planning approach (Nowak 2011, 1608)

The framework includes six different stages that are *framing, scanning, forecasting, visioning implementation and controlling.* In this study, the scenario construction was done by applying parts of to the above diagram. The steps of this study were: literature review, defining the research question, identifying the research methods to answer the research questions and conducting the research, classifying the scenarios and providing managers and policy makers with implications, see figure 8.

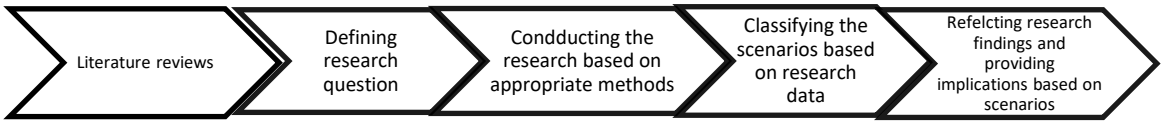

Figure 8 Research process to create future scenarios

According to Nowack et.al (2011) the first stage of scenario planning is *framing*, which represents the stage of the project where the purpose is to shape the project according to the public's attitude or the team working on the project or situation. According to them this phase results in a written plan for the project. In this research, the framing was done by doing an extensive literature review. In other words, the research started by conducting

a comprehensive literature review of existing academic publications and current publications. This was done in order to understand the existing knowledge and identify gaps in the field of Finnish foreign trade and the future of it. The literature review included a review of academic papers and in this way enough information was obtained about the research topic and to lay the groundwork for the study.

According to Nowack et.al (2011) second phase of scenario planning is *scanning*. This is the stage, where all beneficial knowledge about the system, its history and context are collected. All relevant information and history, including the system, history, and context, as well as the product to be used. At the end of the second stage, information on trends and drivers is provided. In this research, this step meant collecting the relevant information from the literature review and defining the research question. Based on the literature review and the gaps identified, specific research questions were clearly formulated to address the gaps identified. These questions guided the focus of future research and limited the scope to Finnish foreign trade. The delineation of the research questions provides a clear framework for data collection and analysis.

Third and the final step of the scenario development is *forecasting*, which is the stage where key drivers and uncertainties are systematically analyzed and incorporated into the scenarios. This step identifies the key drivers and uncertainties and systematically incorporates them into the scenarios. (Nowack et.al 2011). In this research, this part represented the empirical part: the data collection and scenario building. In this step, the most appropriate research methods to answer the research questions are identified as well as conducting the research. For this study, the best method was to conduct the research as a qualitative study, rather than approaching the research as a quantitative or mixed-methods study.

The empirical part of the study also included the choice of a detailed methodology. In this phase of the study, the data collection, analysis and interpretation done, taking into account possible biases or limitations, safeguards and ethical issues. The data collection was selected to be conducted through semi-structured expert interviews. The data analysis was done by using NVIVO data analysis software. In this phase of the study, a thematic analysis was carried out, making use of the data analysis functions available in NVIVO (coding, theme summarization, theme development, etc.). More about data analysis in

chapter 3.2. Based on the data analysis, the researcher coded recurring themes and based on these, three different scenarios were put together.

The fourth stage of scenario building is called *visioning*. The consequences of current decisions must be estimated based on the scenarios. Consequently, a desirable future can be created. Based on the strategic approach, objectives and performance indicators must be specified (Nowack et al. 2011). In this research, it means classifying the scenarios in the preferrable, preposterous and probable. At this stage, the scenarios as a whole were reflected on in relation to the data and the values, aspirations and perceptions that emerged from them. The research interviews revealed certain values and views on what is beneficial for Finland's foreign trade, and reflecting these meanings, the studies were classified into three different categories.

After visioning, comes *implementation* stage. The implementation stage represents the phase, in which the necessary resources organized, the plan must be implemented and communicated (Nowack et al. 2011). In the last phase, *controlling*, the plan has been implemented in to use. As a result, the achievement of the objectives must be evaluated on a continuous basis. Continuous monitoring and evaluation are required. As a result, the achievement of the objectives must be evaluated on a continuous basis. Continuous monitoring and evaluation are required and the process should be iterative; if new information about the future becomes available or new challenges arise, the scenario should be updated (Nowack et al. 2011). In this study, the implementation phase and the controlling phases were not carried out in practice, as it is neither within the scope of this study nor the research question. However, this study provides managers and policy makers with implications on how these scenarios can be used. In other words, this study suggests possible implications without putting them into practice nor monitoring them.

3.2 Collecting data for scenario building

Interviewing is one of the data collection methods in qualitative research, where the researcher interacts with the interviewee to produce the data (Flick 2018, 4). Interview methods can be classified according to the role of the researcher in the interaction situation. In this study, the data collection is done as semi-structured interview, where questions are prepared in advance, but the way of answering is free (Ruusuvuori &

Tiittula 2015, 215). The semi-structured interview was conducted with five different trade policy experts. The data for the study was collected based on these expert interviews. Expert interviewing is not in principle a stand-alone interviewing method, but rather a specific approach focusing on a particular group of interviewees, i.e., experts (Ruusuvuori & Tiittula 2015).

Semi-structured interviews offer flexibility in terms of question wording and interview process. Researchers can adapt and modify questions based on the context, participants' responses, and emerging themes. In this study, semi- structured interviews offer high degree of flexibility. Therefore, the researcher is allowed to explore unexpected areas or to pursue areas of interest, thus providing a more comprehensive understanding of the research topic (Flick 2018,4).

The advantages of semi-structured interviews as well as key characteristics are in-depth research, participant-centered approach, contextual understanding, and ample opportunity for data collection. In this research, the semi-structured interviews provided researchers with the opportunity to delve into the experiences and opinions of participants and to gain a wide range of insights related to the respondents' perspectives (Adeoye-Olatunde et al. 2021, 1361). In practice this meant, asking clarifying questions and exploring personal expertise further. In addition, semi-structured interviews gave priority to the participants' perspectives and voices, which was crucial to collect broad and heterogenous research data and strengthens the dialogical approach of the research (Brown & Danaher 2019, 79). Clarifying questions help reveal the meanings, motivations, and rationales behind participants' statements, allowing for a more comprehensive analysis of the data (Brown & Danaher 2019). For the purposes of this research, clarifying questions were used to further discover new outlooks, analyze trends and gain a holistic understanding of the future of Finnish foreign trade (Brown & Danaher 2019, 80).

In order to gain this holistic knowledge, five different experts in trade policy and economics were interviewed for this study. In this study, the identification of expertise and participation was particularly important as the research question is framed in terms of expertise and answers are sought based on trade policy expertise, in addition, interviews in this study were designed to delve deeper into the factors affecting the future of Finland's foreign trade and the semi-structured interview allowed for more in-depth exploration and clarification when participants gave incomplete or unclear answers.

In order to collect the data, precise criteria for the experts to be interviewed were drawn up in advance, which the researcher followed when looking for experts for his research and collecting data through interviews. As Adeoye-Olatunde et al. (2021, 1361) suggest the trustworthiness of research findings rely heavily on sample participants' knowledge of the subject matter. The experts to be interviewed for the study had to meet the following pre-defined criteria:

- Relevant higher education background (university degree from a Finnish or foreign university)
- Extensive work history in trade policy or a strong presence in the academic field on the subject
- Expert status recognized by an external organization (e.g. academy, expert organization or ministry)
- Clearly identifiable merits in the field

In addition, the experts participating in the study were expected to have different educational backgrounds and to work in different organizations. With a heterogeneous background, as seen in the table 4, a diverse set of participants was sought, as well as diversity in trade policy views. This was done to ensure the diversity of the research findings as well as the comprehensiveness and diversity of expertise. With this diversity, the aim was to obtain the most diverse research data possible and thus increase the applicability and reliability of the research results.

Table 4 Interviews and participants

Interviewee			**Interview**	
Expert/Name	**Organization and position**	**Educational background**	**Date and place**	**Length of interviews**
Heli Siikaluoma	Confederation of Finnish Industries, Senior Advisor in Trade Policy	Foreign relations and economics	7.6.2023 Zoom	45 minutes

Timo Vuori	Confederation of Finnish Industries, Director	Law	10.6.2023 Zoom	42 minutes
Topias Tamminen	Foreign Ministry of Finland, Officer in charge	Social sciences	13.6.2023 Zoom	1h 08 minutes
Anna Karhu	Pan-European Institute, University of Turku Research Manager	Industrial management	20.6.2023 Zoom	49 minutes
Anni Marttinen	Soste, Chief Economist	Business and Administration, Economics	29.6.2023 Zoom	38 minutes

It is important to note that the number of experts interviewed was not predetermined. As the academic literature suggests, in qualitative research there is no predetermined number of interviews or observations to be made (Pratt et.al 2009, 586). In other words, there is no predetermined amount of data to be collected and the number of data to be accepted. This term refers to a "boilerplate", which in this context refers to the so-called "accepted template" for writing a qualitative study (Pratt 2009, 586). This is the “boilerplate” in which there were no additional value is added after conducting for more than those interviews (Pratt 2009). In this study, the saturation was achieved by interviewing five different experts. When designing the study, the researcher outlined the number of expert interviews at around 3 to 8 experts. The study also found that the five experts interviewed answered the questions comprehensively and provided sufficient insight to answer the research questions. Thus, in the data collection phase of the study, it was not considered necessary to collect further data but to stop the interviews after five experts.

The interviews were preceded by a contact phase with the experts, where the researcher called the experts and asked about their availability for the interview. According to Adeoye-Olatunde et al. (2021, 1362) this is considered active recruitment. In addition,

before the interviews, the experts were informed about the questions to be asked of them and the question framework. However, it is important to note that even though the interviews were structured to some degree in advance, this was a semi-structured interview, so the interview process did not proceed in a fully repetitive way for each interview. In the interview situation, the interviewees were asked possibly clarifying questions, to support the pre-prepared questions, as well as asked for clarifications on certain topics. This considered a one of key characteristics of a semi- structured interviews (Adeoye-Olatunde et al. 2021, 1362). These expert interviews were conducted by preparing an interview guide covering six different themes (Appendix 1), which was sent to the experts in advance. This interview guide was based on a selection of topics relevant to the main and sub-themes of the study (Appendix 2).

The interviews were conducted remotely on Zoom platform provided by the University of Turku. About an hour was allocated for the interviews, but the interviews took between 30 and 75 minutes, depending on the interviewee. The interview proceeded according to the main questions, however, there were occasional comments in between.

After the interviews, the researcher transcribed each interview in written form into a Word file, which was used as data for the study. The written research data was then analyzed using the NVIVO software, for more information on data analysis of the study see section 3.3. The data collection phase of the study, i.e. the interviewing phase, has also taken into account the Research Ethics Advisory Board's guidelines on the conduct of research (Tutkimuseettinen neuvottelukunta 2019). The following ethical considerations have been taken into account during the data collection phase of the study.

The research participants have had the right to know about the storage of the research material, its use and the data protection practices of the University of Turku (Tutkielman tekijän käytännön opas 2018). Additionally participants have had the right to withdraw their participation and the right to withdraw afterwards, even after the data has been collected. Furthermore, participants have had the right to have their statements destroyed and not used in the study. This has been said to the participants when they were contacted and during the interview situation. In addition, the privacy of the research participants has been protected and no personal data or other information has been collected from them that is not relevant to the research (Tutkimuseettinen neuvottelukunta 2018).

Moreover, the study has respected the principle of transparency, whereby the experts participating in the study have had the right to be informed about the content of the study, the processing of personal data and the practical implementation of the study, such as what participation in the study means and the life cycle of the processing and storage of the collected data (Tutkimuseettinen neuvottelukunta 2018). This information has been communicated to them before the interviews and verbally during the interviews. In the collection and design of the research data, the University of Turku's thesis author's guide and data protection practices have been followed. Participants have also been given the opportunity to familiarize themselves with the work before publication and to ask questions about the work.

In addition, the participants in the study have had access to an understandable and truthful objective of the study and the participation. The impact and potential benefits of the study have been presented in a realistic way. Overall, the study was conducted in accordance with the key principles guiding the research ethics board's work, which are the principles of design, responsibility, and legality in the conduct of research (Tutkimuseettinen neuvottelukunta 2018).

3.3 Data analysis and creation of scenarios

In this study, the aim of qualitative data analysis was to identify factors shaping the prospects for Finnish trade policy from the interview data, and to extract possible different scenarios for Finland's foreign trade from the experts' responses. The goal of data analysis is to explore the data to find useful information, draw conclusions and support decision making. Data analysis is the process of examining, transforming, and modelling data into an understandable form (Laycey and Luff 2001, 6).

In general, data analysis involves a variety of techniques and methods to extract meaningful extractions from raw data and derive useful insights and hence conclusions (Laycey &Luff, 2001; Eriksson & Kovalainen, 2008). In the data analysis of this study, interview data transcribed with NVIVO software was analyzed using thematic analysis. These steps in the analysis of qualitative research data are based on the framework for analyzing qualitative data presented by Laycey and Luff (2001). The following steps were followed in conducting the data analysis to create the scenarios:

1. Data collection (described above)

2. Data cleaning and pre-processing (transcription)
3. Data coding in NVIVO
4. Thematic classification
5. Interpretation and visualization using the Futures Cone
6. Creating the scenarios based on backcasting method
7. Reflecting back to interview data

After the data collection, in this case, the interviews, the second step was the processing of the data: the transcription. In the transcription phase, the interview data was written down in an open, written form and formatted so that the interview data was in an understandable format (Lacey & Luff 2001, 20). The raw data contained a lot of filler words, incoherent sentences, and rephrasing. The transcription was carried out in stages, with each person's speech placed starting on their own line. The speaker's name and colon were placed at the beginning of the speech. This ensured that the interview data was suitable for analysis in NVIVO. Each interview was transcribed linearly from start to finish, following the same pattern (Eriksson & Kovalainen 2008, 13).

The third step of the data analysis involved coding the data in the NVIVO software. NVIVO is Lumivero's collaborative qualitative analysis software that allows researchers to import, organize, explore, combine, and collaborate with their data to extract meaningful insights more quickly from qualitative data. The NVIVO version available under license from the University of Turku was used for the data analysis. At the beginning of the analysis, a new project was created in NVIVO. Then the interview data was transferred into NVIVO in Word format. After transferring the data, a two-step coding process began. The first step of data coding was to sort the data into pre-defined question codes. The semi-structured interview framework consisted of a total of six questions that were asked to all interviewees (Appendix 2). However, depending on the interview method, the interview included many probing questions. In addition, many of the questions were answered in a sort of cross-answering manner and the experts interviewed were able to clarify the answers to the previous questions as the interview progressed. As a result, the first data segmentation phase of the interview consisted of sorting the answers to each question. This was done by creating a code for each interview

question, under which the answer to that question was placed. That is, question number one was coded in NVIVO as K1, question two as K2 and so on. The coding was done by Laycey and Luff (2001, 22) coding framework. Each transcription was then gone through three times and the answers to the questions were sorted under different codes. This ensured that the data was carefully and thoroughly reviewed, and that no important information was left out of the first round of coding.

After the first round of coding, the extracted data was reviewed under each code. This gave the researcher a comprehensive understanding of the potential number and quality of future scenarios. From the data, three different possible scenarios could be distinguished, namely probable future, preposterous future, and preferable future. These future scenarios were then separated into three different themes, after which the second round of data analysis consisted of thematic analysis (Lacey & Luff 2001, 25).

Thematic analysis is the process of locating the themes that are relevant to the research problem (Eskola & Suoranta 1998, 174-180). Thematic analysis is one of the methods of analysis in qualitative research and can be considered as a form of content analysis (Tuomi & Sarajärvi 2018). In this case, thematization is used to highlight key issues and frequently occurring typical features from the data that are relevant to the research question. In practice, this was done by coding each scenario into a single theme. Themes were coded as preferable future PFR, preposterous future was coded PPST and probable future was coded as PRBP. These scenarios were presented according to the futures cone.

The futures cone is a visual representation of the placement of different future scenarios on the timeline and the probabilities of their future realization, as presented by Gall et al. (2022, 10), see figure 9.

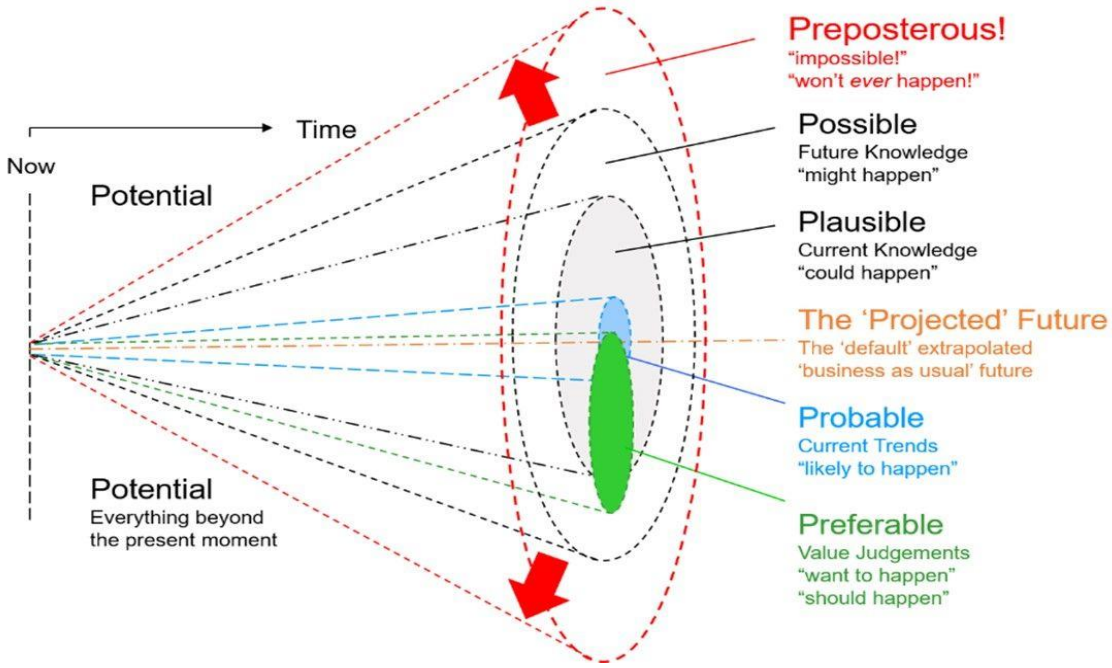

Figure 9 The futures cone (Gall 2022,3)

As seen in figure 9, the futures cone is a visual representation of different future scenarios, which occur when time passes. The future cone includes preferable, probable, projected, plausible, possible as well as preposterous futures. Futures cone is one of the most common visual ways of representing futures concepts and different scenarios (Gall et al. 2022, 2- 3). The whole aim of the futures cone is to show that the further into the future you look, the wider the range of potential futures that appear (Gall 2022, 3).

Utilizing the future cone framework to provide a breakdown of the interview data, the first round of breakdowns was revisited, and themes were identified from the responses that fit these codes. The themes noted in the coding were key features of the different future scenarios:

- Which trends influence it
- How these trends will evolve
- What the future picture will look like based on this pathway in about 30-50 years' time.

By answering these questions, the aim was to find concrete answers to the research question in the data and thus bridging between the theory and methodology (Langley & Abdallah 2011). This results chapter presents the scenarios identified in the data analysis

results. As stated earlier, three different scenarios for foreign trade in Finland could be distinguished from the research data.

The preposterous future refers to the cone's outer edges, which represent highly unlikely or speculative future scenarios (Gall et.al 2022). These futures are frequently characterized by radical shifts, disruptive innovations, or improbable events. They call into question existing assumptions and may involve ground-breaking technologies, extreme social shifts, or unprecedented developments. Preposterous futures are included in the cone to encourage imaginative thinking and to broaden the range of possibilities considered, even if they are unlikely or impossible (Voros 2017: Gall 2012).

As we can see in figure 9, the probable future is closer to the cones center and represents the most likely or expected future scenarios (Gall 2012, 10). These projections are based on a thorough examination of trends, patterns, and data, as well as historical trajectories and current conditions. Probable futures are based on existing knowledge, expert opinions, and projections, and they indicate which paths society, technology, or other relevant factors are likely to take (Voros 2003; Gall 2012). Given the current state of affairs, they provide a realistic outlook on what the future may hold.

The desired or preferred outcome envisioned by individuals, organizations, or societies is represented by the preferred future (Gall 2012, 6). As shown in the graph above, it falls within the Cone of Possibility but may or may not correspond to the most likely or probable future. Values, goals, and aspirations guide preferred futures, which reflect the ideals and vision of the stakeholders involved. They frequently involve deliberate efforts to shape the future in a specific direction and may necessitate strategic planning, policy changes, or collective action. Preferred futures act as a motivator for decision-making and goal setting in order to achieve the desired outcome (Gall et.al 2022).

In this study, each scenario presentation discusses the outcome of the scenario, the factors that influence it and the trajectory that leads to the final scenario. In other words, the scenarios in the following subsections are presented according to the principles of the backcasting method.

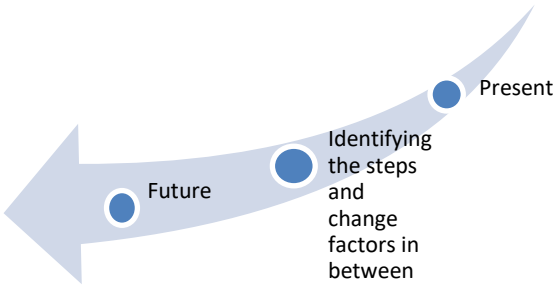

Figure 10 Backcasting method visualised

The idea of the backcasting method is to build alternative development paths from the present day towards a future with some predefined characteristics (Dreborg 1996, 818). Backcasting differs from more conventional scenario building in that the goal or desired future state is predetermined and the scenarios to be built lead to that state of the future (Dreborg 1996, 819).

In this case, the future to be considered is open at the start of the work and the scenarios that are developed may lead to different outcomes. The presentation of the back casting method is suitable for this study as the scenarios are precisely defined on the basis of the research data. In chapter four, the aim is to describe the scenarios as precisely as possible and to present to the reader the path and the currently observed drivers of change that create the different alternative futures. Thus, the aim of the results findings is to identify the different outcomes and describe the trajectory leading to them.

3.4 Evaluation of the study

This chapter assesses the research process and its trustworthiness. The assessment of the trustworthiness of the research is based on the Lincoln and Guba criteria and the criteria for qualitative analysis (Lincoln & Guba 1985). In this analysis, each criterion of the Lincoln and Guba criteria is reviewed and examined in relation to the study and the research process. In reviewing the criteria, the following is considered: what in the study increased the prevalence of a particular trustworthiness criterion and what decreased it. Finally, the combined effect of all the criteria on the reliability of the study is summarized.

The Lincoln and Guba criteria is an academic framework that analyses the trustworthiness of qualitative research or the trustworthiness of quantitative research (Rose & Johnson

2020, 437). The reason why the Lincoln and Guba criteria framework was chosen to assess the reliability of the study is that the four-dimensional criteria framework is a clear and consistent framework that addresses the trustworthiness of research in a cross-cutting way (Lincoln & Guba 1985, 297).

The criteria were aimed to develop standardized practices and principles that would be comparable to the criteria commonly used to evaluate quantitative research (Loh 2013, 3). They aimed to develop standards that would be comparable to the criteria commonly used to evaluate quantitative research. These criteria, which address the issue of establishing the credibility, transferability, dependability, and confirmability of qualitative research findings, are commonly referred to as "trustworthiness" criteria. Lincoln and Guba's four key evaluative criteria are classified as seen in the table 5.

Table 5 Criteria for trustworthiness, based on Lincoln and Guba (1985, 289-331)

The element	**Contribution to trustworthiness**
Transferability	In quantitative research, transferability relates to external validity. It refers to the extent to which qualitative study findings are applicable to other settings or contexts, which is not aimed in this study
Credibility	In quantitative research, this credibility is similar to internal validity. It refers to how well the findings of a qualitative study reflect the participants' experiences and perceptions. Briefly, credibility measures the truth value of a qualitative study, i.e., whether the results of the study are correct and accurate.
Confirmability	Confirmability in qualitative research is related to objectivity and neutrality, similar to the concept of validity in quantitative research. It refers to the extent to which the findings are shaped by the participants rather than the biases or preconceptions of the researchers.
Dependability	Dependability focuses on the consistency and stability of qualitative research findings over time and across different researchers. This means that the data from a qualitative study is reproducible, and it is ensured that others are likely to be able to replicate the results.

Firstly, to increase transferability in the qualitative research process, the researcher ensures that the results and conclusions of the research can be applied to other contexts or populations outside the immediate research setting (Lincoln and Guba 1985, 297).

When considering the transferability of this study, it is clear that the research context of this study is not relevant or practically transferable. This research is only intended to be conducted in the context of Finnish foreign trade and its future, hence this research design is not transferable to other countries' contexts. Thus, the results of this study are country-specific and there is no intention to transfer the study, so there is no need to analyze transferability.

As Lincoln and Guba (1985, 302) define credibility as one of the criteria for assessing the reliability of naturalistic research. Briefly, credibility measures the truth value of a qualitative study, i.e., whether the results of the study are correct and accurate. According to Lincoln and Guba (1985, 301), there are five techniques that can be used to measure the credibility of research: prolonged engagement, persistent observation, triangulation, negative case analysis and peer debriefing. The credibility of this study was enhanced by the researcher's long-term commitment and persistent and extensive observation (Loh 2013, 5). The researcher can be considered to have spent sufficient time in the research setting, with the participants and observing the phenomenon under study. The study used a semi-structured expert interview, which allowed for longer interaction with the participants and a rich observation of the phenomenon. The extensive observation of the topic was made possible by the one-to-one research moment and delve deeper into the research topics, as well as ask detailed questions. Intense observation allowed the researchers to understand the context in more depth and increased the credibility of the findings.

In addition, the research topic can be said to have been extensively observed as, prior to conducting the study, the researcher conducted a comprehensive literature review to identify academic gaps in the topic and designed the study to respond to these gaps. Furthermore, the study provided a clear and transparent account of the data analysis process, including coding procedures, themes, and their interpretations. In addition, the study presents visual graphs of the data interpretations provided by the data analysis software. Overall, the above detailed data analysis allows for the evaluation and verification of the results and adds to the credibility of the study.

Furthermore, a critical review of this research process reveals that this study could have implemented some few credibility-enhancing factors better. The credibility of the study would have been enhanced by source triangulation, which is the process of collecting data

from multiple sources, such as interviews, observations and documents (Loh 2013, 5). This study collected research data only from interviews and a literature review of academic and current sources. The diversity of data sources could have been increased, which would have helped to confirm the findings from different data sources, thus increasing the credibility of the study.

Thirdly, dependability focuses on the consistency and stability of qualitative research findings over time and across different researchers (Lincoln & Guba 1985, 317). Dependability is based on the credibility of the researchers themselves and their research methods. To increase dependability in qualitative research one must ensure that the research process is consistent, transparent, and well-documented (Lincoln and Guba 1985, 317).

In this study, dependability was ensured by a well-described and easily replicable research process. The study was conducted using a clearly recognizable qualitative research method, applying appropriate sequencing and a systematic design. In other words, the research methods are easily identifiable, replicable, and academically common since an audit trail was created. This kept a complete and transparent record of the research process, including decisions, changes, and the reasoning behind them. This audit trail or research process (chapter 3.1) contributes to the research's clear and traceable path, increasing dependability. Overall, the researcher succeeded in methodological transparency, which provided a clear and detailed description of the research methodology, data collection techniques, data analysis procedures and participant criteria. This transparency allows for the study to be evaluated and replicated, increasing dependability.

The fact that the researcher herself had a strong influence on the selection of the interviewees and the analysis of the data reduced the dependability of the study (Elo et al. 2014). This highlights the possibility of human error, something may have been overlooked in the analysis of the data, or an important point may have been missed by the researcher. Therefore, it can be argued that researcher reflexivity could have been better. The researcher critically reflects their own biases, assumptions, and values. However, these might have influenced the research process, especially in choosing the participants and analyzing the data. A practice such as inter-coder reliability, where multiple coders are involved in the data analysis, discuss coding decisions, and reconcile any

discrepancies could have created more consistency for the data (Loh 2013, 5). Thus, inter-coding could have enhanced the dependability of the analysis.

Lastly, the confirmability of the study is analyzed. Conformability means that the data from a qualitative study is reproducible. This means that the results of the study are checked and rechecked several times to ensure that others are likely to be able to replicate the results. In order to increase the prevalence of confirmability qualitative research involves establishing the neutrality and objectivity of the research process (Elo et al. 2014). In a trustworthiness study, findings are grounded in the data rather than influenced by the researchers' interpretations or biases. Confirmability can be documented by a clear coding diagram that identifies the codes and patterns found in the analyses (Loh 2013, 8).

Confirmability of this study was enhanced by the consistency of the methods. Methodological consistency ensured that the research design (which aimed at future research), methods (interviews and scenario work) and procedures were consistent with the research questions and objectives. Maintaining methodological consistency helped to strengthen the robustness of the study by ensuring that the methods used were appropriate to achieve the research objectives. In addition, open reporting increased the confirmability of the study. Transparent and open reporting increases the confirmability of the study because readers can assess and evaluate the reliability of the results themselves.

A crucial criterion for confirmability (and all other criteria of trustworthiness) is the degree to which the researcher analyses their reflexivity (Loh 2013, 5). In this study, reflexivity is demonstrated by looking critically at the research process. As mentioned earlier, the conduct of the research relies in part on the researcher's own actions and observations. Although the participants were selected according to a strict set of predefined criteria, the coding and analysis of the study data was heavily dependent on the researcher's own practices. In addition, the personal perspectives, educational backgrounds, and values of the experts involved in the study certainly influenced the research data. Therefore, the results of the study may have been influenced by the personal thoughts and observations of the experts involved and the person conducting the study.

4 Three scenarios for Finland’s foreign trade

4.1 Probable future scenario - Strong among the Nordic block

4.1.1 Description of the probable future scenario

The probable future scenario of Finnish foreign trade in 30-50 years is identified as follows. In the long term, Finland's foreign trade has been transformed. From a global perspective, Finland is still a strong player in international trade. At the global level, emerging markets will become increasingly important and tensions between the major powers will grow even more in the future. This will also be reflected in Finland. What is significant for the likely future is that Finland is a strongly Western-integrated open country that promotes the idea of free trade, which is in the interest of our economy and our foreign trade-oriented economy. Finland's foreign trade will continue to play an important role in the country's prosperity.

The most recurring picture of the future in the expert interviews was the continuation of the “*blocking trend*”. The world blocking refers to the growth of trade blocks in international trade. This means that in the long term, if the blocking trend and a significant increase in protectionism (within the EU) continues, Finland will intensify strategic cooperation with like-minded countries. Looking internationally and at EU level, it means that it is likely that Finland will act in a Nordic block, possibly including Sweden, Norway, Denmark, where we have a strong common market and joint ownership of companies. This will be reflected in closer business cooperation and mergers and acquisitions, which will inevitably be reflected in the pattern of foreign trade. In other words, at EU level, the internal market will be partially fragmented, and the unity of the European Union is likely to become more fragmented into trade blocks.

The likely long-term future scenario for Finnish foreign trade is a strong transformation towards trade in services and intermediate goods and services. Overall, it can be said that technological developments will reshape the structure of foreign trade in a completely new way, and in 30 to 50 years the production structure will most likely be completely transformed. An example of this is the cheap goods imported from developing countries, which may no longer need to be imported if 3D printing and its use continues to grow. In addition to the above, the importance of IT innovation, high-tech products and the provision of clean tech will grow significantly and the importance of these products for

Finnish exports and imports will increase greatly. It is likely that products and especially services related to artificial intelligence and clean technology will be Finland's most important exports to the world. Finland's foreign trade is dominated by providers of certain niche services that match our expertise to a significant extent. Large industries such as forestry, chemistry, wood, and metals will in the long term undergo significant transformation and their functions will change. In addition, the importance of exports of goods will decline significantly relative to exports of services and the volume of intermediate goods in foreign trade will increase.

4.1.2 Drivers and trajectory of the probable scenario

This vision of the future is shaped by certain factors perceived in the present moment. As identified in the scenario-building methodology, certain current trends, values and developments shape the above-mentioned futures. In the expert interviews conducted, the following current trends and factors were identified as important drivers of the above scenario:

- Increasing great power struggles and political tensions
- Technology and artificial intelligence are becoming increasingly important in all sectors
- The growing importance of emerging markets, challenging Western-driven global trade.
- Increasing uncertainty in geopolitics, and thus the role of trade policy in politics, i.e. the role of the state
- EU carbon and climate neutrality target for 2050
- Increasing importance of sustainable development
- Increasing regulation in the EU related to sustainability and climate objectives.
- Internal EU shift to protectionism towards third countries and growing role of the state in the economy leading to internal camping.
- The war in Ukraine has increased uncertainty, forcing Finland to stop trading with Russia

Thus, the above factors were found to be current factors/trends that will in part influence the likely future developments mentioned at the outset. These factors were mentioned several times in the interviews and are based on the actual current situation and can therefore be considered as a starting point for the likely future scenario of Finland's external trade. These factors alone and in combination will create the following trajectory over the next 30-50 years.

The first of these will lead to a reduction in open global trade, significant multilateral challenges, and trade blockages as global actors protect their own interests through their own markets. For its part, this will also affect Finland's foreign trade, as Finland will have to choose which “camp” we will belong to in the future, especially in high-tech sectors. Most likely, Finland will choose to be a Western-integrated economy and increasingly partner with the US as mentioned above. In addition, at the global level, risk management and strategic partnerships will become increasingly important. Long global value chains will be fragmented in the coming decades and production will be domesticated or brought closer to the final customer.

Geopolitical struggles will lead to a major transformation of the European and US-driven, i.e., Western-driven, economies and the global trade they define. Emerging markets (including China) will play a growing role in global trade. The EU will respond to this growth and increased influence by increasing regulation, which was identified as a major factor for the future. This will challenge Finland's foreign trade and create intra-EU conflicts and most likely intra-EU blocs (such as the Nordic bloc mentioned above).

Environmental and sustainability trends and factors, such as the EU's 2036 carbon neutrality target and increasing regulation in the EU, will partly force Finnish export sectors and major European trading partners to undergo significant transformations. They will add creative destruction and force companies in many sectors to make significant changes. This may create a momentary degrowth, which means a momentary decline in the economy as the transformation takes place. This will contribute to the growth and development of a new breed of innovative and sustainable actors. The carbon and climate neutrality objective is likely to promote the export of sustainable products and services and innovation and their importance in the overall trade balance.

In a probable future scenario, the main trade relations between Finland and Russia will have returned to normal within 30-50 years. This means that Finland's foreign trade with

Russia will return to what it was before the 2022 invasion of Ukraine. This is supported by past conflicts with Russia and Finland's own history with Russia. The likely future picture repeats the evolution of Finland's relations with Russia, where conflicts and crises have always been followed by years of return to political and economic cooperation. However, according to experts, this will require a change of political power in Russia in order for the EU to open trade with Russia.

4.2 Preferable future - Innovative solution provider in a green global community

4.2.1 Description of the preferable future scenario

When designing the preferred scenario in this study, various factors were considered, such as social, economic, technological, environmental, and political trends, which emerged from the interview data. Values, aspirations, and collective goals were also taken into account in the analysis of the research interviews. Of these, it was noted that the experts participating in the study presented a preferable scenario, with the value assumption that it is in Finland's interest to succeed in foreign trade, to have high exports and to be ahead of the curve, for example in the green transition. The fundamental idea behind creating the preferred future scenario is not just to dream of a utopian outcome, but to base it on clear visions, opportunities that are opening in the present moment and the views of experts. When organizations and societies have a clear vision of what they want for the future, they can focus their efforts and resources on achieving this shared vision.

The preferable future scenario was obtained from the data by analyzing the experts' responses and their wishes for the future of foreign trade. It should be noted that the desired and the likely scenario often intersect in the survey data ideals and value-based views were used to form the preferred future scenario.According to the research data, in the preferred scenario Finland is at the forefront of the green transition both at EU and global level. In terms of foreign trade, this means that Finland will be at the forefront of the carbon neutrality goals and achieving them in the setup timeframe successfully when looking at the foreign trade and business environment. This will be transferred to international trade so that Finland is able to transform its own businesses to carbon neutral by 2050 and foreign trade is driven by climate resilient companies that are leading the way in the EU and globally.

In the preferred scenario, Finland is a strong provider of solutions to global challenges such as sustainability issues, demographic ageing, and urbanization. In this scenario, Finland is a global provider of innovative solutions to these challenges, both in terms of services and goods. In this future scenario, Finland is strong in high-tech sectors, innovative and uses artificial intelligence and technological developments to increase its competitiveness. In the preferred scenarios, Finland has strong innovative skills and uses technology for a variety of purposes, and its international competitiveness is based on innovation, green solutions such as clean tech, green steel, etc. In a preferable and desired future, Finland is able to commercialize its clean tech know-how. In the long term, Finland could be Russia's energy solution provider. Furthermore, Finland's foreign trade would be significant and flourishing globally, within the EU and with Russia. In this preferred scenario, relations with Russia would be restored and profitable and bilateral trade with Russia would take place.

According to the experts, Finland would benefit from a multilateral trade system that is not blocked and operates strongly according to the principles of open trade. Therefore, in the preferred scenario, the blocking trend would not continue, the major power competition would ease and the increase in regulation would decrease. This would prevent the emergence of trade barriers or a strong state support system, which would be a major challenge for a small open economy like Finland. In the preferred future scenario, Finland would benefit from an open EU internal market, low barriers and regulations for foreign trade. In addition, global political tensions would ease, and companies would not have to choose between Chinese or US markets.

4.2.2 Drivers and trajectory of the preferred scenario

The factors and trends that would enable such a future scenario in 30-50 years were identified on the basis of the interview data. In order to be able to create the above-mentioned picture of the future, which would be preferable for Finland's foreign trade, the following trends and developments must take place.

- EU carbon neutrality target by 2050
- Continuing the green transition (with the right support for businesses in the green transition)

- Maintaining competitiveness, e.g. investing in education and training and addressing skills shortages
- Advocating for free trade in the EU and WTO
- Easing conflicts between major powers
- Reducing geopolitical uncertainty (e.g. end of war in Ukraine)
- Halting the blocking trend in international trade
- Halting the growth of protectionism
- Support for domestic investment and internationalization of foreign trade
- Reduction of increased international regulation and facilitation of investment

Thus, the above factors were identified as current factors/trends that partly influence the recommended future developments mentioned at the beginning. These factors were mentioned in the interview responses and are based on the experts' wish, vision, and desired outcome. Thus, they can be considered as a starting point for the preferred future scenario of Finland's external trade. If these factors and trajectories can be actively promoted, it is possible to create the preferred scenarios of Finland's foreign trade. How these factors could create a trajectory for the future scenario is explained as follows.

The EU's carbon and climate neutrality target by 2050 will force companies operating in the Union and trading abroad to become carbon neutral. With Finland, as the current plan states, the carbon neutrality objective is in year 2035. Thus, the green transition and new regulations will significantly change the business environment and require companies to change in the upcoming decades. If Finnish companies can get the same support from the European Union and their own government, invest in innovation, get funding and know-how, Finland has a chance to develop into the above-mentioned future. However, this would require conscious and strategic measures to promote internationalizing and innovative companies. In other words, without conscious development and support measures, Finland has no chance of developing into an internationally significant player.

The interviews show that if the recommended vision for the future is to be achieved, there must be a strong focus on supporting SMEs in their internationalization and creating a

business environment that supports their own internationalization. This therefore means as few obstacles to business internationalization as possible, such as regulations, rules, or legislation. In addition to this, the interviews revealed that the international operation must be supported when it comes to the 25 largest companies. Practically, this means supporting them through the green transition, which will raise costs, create challenges, and thus affect competitiveness.

To look at it another way, the internationalization, innovation, and competitiveness of Finnish companies must be supported throughout the green transition, as significant transition periods may create degrowth. In addition, if the future scenario of Finland's foreign trade is to look favorable to us and we are to stay ahead of the curve, we must be able to support and create an open trade climate. This means, for example, slowing down the growth and distribution of protectionism within the EU, strengthening the role of the WTO and easing conflicts between major powers. These three major international factors and their trends are key to the development of a small open economy like Finland and its foreign trade.

If one can put the brakes on international blocking, regulation and market differentiation, Finland has the opportunity to play a strong role in foreign trade as a provider of various services and high-tech and, in particular, as a pioneer. How Finland designs taxation and improves the business environment has a direct impact on the ability of business to transform. Moreover, if EU trade policy becomes more protectionist and state aid-centric, this will pose a threat to the competitiveness of a small country. Thus, as noted above, certain international deglobalization and trade blocking trends will have to stop or change shape if the Finnish external trade scenario is to evolve along the lines described above. Thus, the trajectory will have to change slightly from the decentralization of world trade and the growth of protectionism to an earlier open mode of transmission.

4.3 Preposterous future - Reversing the trade development alongside Russia

4.3.1 Description of the preposterous scenario

In this study, the preposterous future scenario is created as a counterpart to the probable future. From the data in this study, it was possible to clearly distinguish between a preferred and a probable future in relation to the future of Finland's foreign trade. However, when mirrored against a probable future based on actual societal trajectories and expert perception, this future can also be turned upside down. Turning the probable future upside down produces an improbable or absurd future, which lies at the edge of the futures cone. In other words, the future scenario below is constructed from the analysis and representation of the probable future scenario. The preposterous future scenario is the opposite of the probable future scenario built on the basis of the analysis, which is based on the opposite of the probable trajectories, i.e. the improbable trajectories.

The purpose of the preposterous scenario is therefore to present a near-impossible future that should not occur. The scenario takes into account factors such as global trade, EU developments, Finland's interests in being involved in international trade, the great power struggle and the war in Ukraine. The purpose of this scenario is to generate ideas, question trends, stimulate debate and offer alternative possibilities for future developments, speculating on the consequences of certain decisions, the potential risks of different technological developments and the impact of unlikely societal trends.

In a preposterous scenario, Finland's foreign trade has been completely transformed from international, open and Western-integrated foreign trade to closed, smaller and strongly declining in many respects. In this preposterous scenario of the future, foreign trade has shrunk and is conducted in a state-led manner and with very carefully selected partner countries. More specifically, in this scenario Finland would act like Belarus as a strongly Russian-integrated state, where the economy and thus the companies engaged in foreign trade would be significantly state-led. In this case, Finland's Western-integrated linkage would have ended, and the most important foreign trade partnerships would have changed. Where once Finland traded with Germany, Sweden and the USA, Finland would now be a Russia and Eurasia oriented country, a member of the Eurasian Economic Union instead of the EU.

In this case, the most important partners for the Finnish economy and foreign trade would be Russia and Belarus, and companies would only be able to operate in these markets because of international relations. In this scenario, there would be a strong dependence on the Russian market for both exports and imports, even more than before the break-up of the Soviet Union. Thus, technological development, the provision and development of innovations and the flourishing of various sectors would depend heavily on the demand and operating conditions dictated by Russia. This would likely slow down and take technological developments and innovation far back in time. Overall, the value of exports and imports would inevitably not fall with Russia's large market but would make Finland heavily dependent on its eastern neighbor.

4.3.2 Drivers and trajectory of the preposterous scenario

The factors that would create such a future scenario in 30-50 years were identified on the basis of the interview data. In order to be able to create the above-mentioned picture of the future, which would be preposterous for Finland's foreign trade, a few of the following events and developments must occur:

- Major political conflict
- War or armed invasion of Finland
- Change in the internal governance of the country
- Total abandonment of Finland by the West

One of these significant, unlikely factors could change the direction of Finland's foreign trade development and possibly start a trajectory leading to a preposterous future scenario. For this future picture to occur, several of the above would have to happen simultaneously, because given recent developments (Finland's NATO membership), one of these would most likely not be sufficient to change so significantly the current political and trade trajectory of Finland. However, if several of the above changes were to take place, Finland would become a politically and economically segregated country like Belarus, theoretically functioning as an independent state but in practice under the conditions dictated by Russia.

In this case, the trajectory would be for Finland to withdraw from the EU and make a political and economic separation from the West, or alternatively for the West to abandon Finland, which would mean withdrawal from the EU, foreign trade transformation and political reforms. Finland would become a non-EU state and would effectively be annexed to the Russian front. Finland's global and economic position as a Western-integrated state would change and over the decades its strategic partnerships, both political and economic, would shift eastwards. This would also mean a complete transformation of the business landscape and foreign trade, with increased regulations, tariffs and rules and the free-market principle would be replaced by a state-led economy. Such scenario would fundamentally change Finnish trade policy and many companies would suffer from the loss of markets. However, Finland's foreign trade would adapt and find new markets in Russia and Eurasia.

4.4 Discussion on the three scenarios

This study identifies three different scenarios for the future from the survey interview data. The results of the study were presented in chapters above as well as the logic of the back casting method was used to present and dissect them in writing. Briefly backcasting means backing out from the future to the present, step by step (Dreborg 1996, 819). Thus, based on the factors and event sequences identified in the study, the aim is to construct a timeline from three different futures to the present. The outcome chapter was intended to present the identified chain of events that would occur in the scenario. The scenarios presented in the results chapter were the preferred scenario, the probable scenario, and the preposterous scenario based on the futures cone by Gall et al (2022), see table 6.

Table 6 Summary of the scenarios

Probable	Preffered	Preposterous
Blocking trend continue, which lead to growing protective practises	Finland is a pioneer in the green transition	Finland's foreign trade has broken away from Western integration
Bipolarisation of the world	Many internationalizing domestic companies	operating under Russian control
Services exports grow	Foreign trade is booming	Strategic partnerships have changed
Technological developments will transform world trade	an innovative solutions provider	Withdrawal from the EU and accession to the Eurasian Economic Union
Carbon neutrality target 2050 that will transform the entire EU business base	an international and open environment	State-led economy and foreign trade
	low regulation and multilateral world trade	Declining technological development and innovation
	Open trade in the EU	

The first scenario identified in the data was the probable future scenario. This scenario can be considered the most probable long-term future scenario for Finland's foreign trade, as it is based on current trends identified by experts, probable developments and observed activities in world trade. In this scenario, global bipolarization will continue, and global trade will be affected by the great power struggle. These phenomena are directly aligned with the theoretical part, which discussed the change factors and trends in the global trade environment (Hadjikhani et al. 2008).This scenario is strongly linked to the UN megatrends (UN 2022) and the trends mentioned in the academic literature, such as the growing importance of sustainable development in consumer behavior (Rita and Ramos 2022). As well as the growing importance of geopolitics in the international trading environment (Dufva & Rekola 2023). Thus, it can be said that the theoretical framework is the most supportive of this scenario.

Next, a preferred future scenario was detected in the data. This scenario can be considered the most preferable and optimal future scenario for Finland's foreign trade in the long term. This scenario is based on the ideals, values and interests of Finland's foreign trade as mentioned by the experts. It is worth noting that the underlying assumption is capitalist, in which an increased trade balance is in the interest of the state. As table 6 shows, the conditions for this scenario to come through are strongly linked to favorable international trade developments for Finland. What is essential in this scenario is the emphasis on hopes and optimistic preferred futures. However, this scenario also has a link to the theoretical framework, as it takes into account, among other things, the importance of technological innovation for the future of the global trading environment (Zahoor et al. 2022). However,

this scenario is based on the assumption that some of the trends identified in the theoretical figures will not materialize or will change radically. For example, the protectionist trend (Miroudot & Nordström 2020, 197; Geref 2019) and its increase is entirely at odds with the occurrence of this scenario.

Third, based on the findings from the data, a preposterous future scenario was constructed, shown on the right. This scenario can be seen as highly unlikely, even absurd, for Finland's foreign trade in the long term. This scenario is based on the contrasts between current trends identified by experts and the global trade and political climate. This scenario is based on the idea that some sudden and dramatic turning point will completely change Finland's trade policy and foreign trade. These could be e.g., the above-mentioned war, armed invasion, etc. Although this scenario is constructed as completely absurd, it also has a link to the theoretical framework. This scenario takes into account the importance of sudden disasters and political uncertainty and their impact on the international trading environment (Cepni et al. 2022, 2). However, as a whole, this scenario is not grounded in the trends presented in the theoretical chapters, but rather, by its very nature, is intended to challenge trends that are considered true or likely at this point in time.

In summary, all three scenarios are very different and require different trajectories to be realized. The probable scenario can be considered the most likely to happen, the preferred scenario the next most likely and the preposterous scenario the least likely. The likely and desirable scenario repeats the trends presented in the theory chapter and theoretical concepts such as the importance of technology in the trading environment (Pîndiche & Ionita 2013) the emphasis on sustainability in business (Jiménez-Almazán et al. 2020) and the importance of the European Union for Finland's foreign trade (European Commission 2022; Aunesluoma 2018, 55). Overall, each scenario has many different influencing factors and a unique trajectory, each offering opportunities and being thought provoking. In addition, it is worth noting that the three scenarios above are not the only possible futures, but there are endless possibilities.

5 Conclusions

5.1 Theoretical contribution

As mentioned in the introduction to this study, the research gap in this topic is related to new trends in the global trade environment and the effects of those in Finland's foreign trade in 30-50 years. As discussed in section 1.2, the objective of this study was to fill a research gap that takes in to account the new trade environment and changes in trade policy, global trade environment changes as well as the trends affecting the global trade environment. It was thus argued that there is a gap in research on the future development of Finland's foreign trade and it has not been studied in an academic context. Although, a few speculative statements have been noted (Haaparanta e al. 2017) and megatrends have been studied (Sitra 2022), there is no full scenario-based research has been carried out.

In academic literature, research has been conducted on trends and challenges affecting changes in the trade environment (Alam &Murad 2020), the formation of trade policy (Parthaparim 2005), EU trade policy making (Wouters et.al. 2015), its functioning, as well as Finnish trade policy and its historical development (Auneusluoma 2018). In addition, many statistics is available on Finland's trading partners and recent trends in foreign trade (OECD 2022). This study aligns on the trends shaping the international trade environment (see chapter 2.1.3). The impact of digitalization, the rise of protectionism, the domestication of supply chains, the increasing impact of geopolitical tensions on the trade environment and the need to tackle climate change were mentioned in the interviews during the data collection phase. Thus, the study is in agreement with the theoretical framework on the trends and challenges affecting global trade. In addition to being in line with trends and drivers of change, the research adds a new dimension to the theoretical field. The findings of this research contribute to the academia by adding a future element to the theoretical study of Finnish foreign trade. Finnish foreign trade is often studied through the lens of the present moment or history, thus the future element offered by this study is itself a contribution to the academic field.

The findings section of the study does not argue against any of the theoretical framework presented in chapter two. However, the findings revealed that some of the theoretical concepts are more complex than thought. The trade policy framework presented in section 2.2.1 argues that trade policy is a complex multidisciplinary entity, which governs trade

and transactions. For example, Karhu and Haaja (2022) argue trade policy is a tool to optimize a balance between international trade transactions, global value chains. Foster and Robert (2011, 405) argue trade policies can address a variety of issues related to foreign trade, such as foreign retaliation, labor, or tariffs, in the case of restrictive trade policy. This study agrees with the fact that trade policy and international relations and geopolitics has converged significantly in recent years. From this study, it can be concluded that trade policy is a strongly geopolitical instrument in the modern political environment and an important component of international relations.

Overall, this research and the scenarios it presents bring to our attention different scenarios of the future of Finnish foreign trade. Overall, these three scenarios highlight how different developments can be depending on the general world trend, global and trade trends and, at the same time, Finland's own policy decisions. These scenarios underline possible futures in terms of whether to go green, whether Finland and EU countries want to safeguard democracy, or whether multipolar world trade and stopping protectionism from developing is a priority. In general, these scenarios raise both theoretical and practical questions, and you could discuss on a broader and more general level the ideas raised by the scenarios.

5.2 Managerial and policy implications

This research identified three different managerial groups whose activities could be supported by the finding of this study. These groups include political decision-makers, chief executives of domestic companies involved in international trade as well as investors from and outside of Finland (table 7).

Table 7 Conclusions of managerial implications

For whom	The implications
Society's political decision makers such as Members of the Parliament and Members of the European Parliament	• Understand the importance of international trade exercising Finnish companies. • Pro-actively create policies that ensure the support for businesses in foreign trade

Chief executive managers of international companies	• Understand the different possible future scenarios in Finnish foreign trade and use those as strategic planning tool to proactively prepare for the future
Investors	• Understand the impact of crises on the uncertainty of foreign investment, the different investment horizons of the future and the importance of different types of investments (especially sustainable ones)

Firstly, based on the results of this study, political decision-makers are advised to understand the importance of Finnish companies for the export-driven Finnish economy. As noted in the theory large international companies as well as SMEs are a key pillar of the Finnish economy and therefore the future of the foreign trade (Haaparanta et al. 2017). Furthermore, the finding of this study contributes to policy makers by creating an understanding of possible future scenarios for Finnish foreign trade. Although the study cannot directly predict the future of Finland's foreign trade, it offers three different future scenarios that identify a wide range of trend factors, policy drivers, and drivers of change in the trade environment. These scenarios provide added value for policy makers as they can serve as tools for understanding the future and thus for making policy decisions that support Finnish foreign trade. In addition, understanding the different scenarios of the future enable anticipation and preparation for future challenges by creating a proactive trade policy framework.

In this research it is noted that foreign trade is a major factor in a government finance in Finland (Haaparanta et al. 2017). Also, the importance of geopolitics in international trade should be considered a priority in political decision making. Thus, this study implies that policy makers should prepare and create trade policy decisions with long-term interests in mind. Based on the results of this study, three different scenarios for Finland's foreign trade can be expected. Hence policy makers should take preventive as well as supportive measures. Furthermore, the global trade environment will transform significantly and that its changing trends need to be monitored and proactively responded to ensure that Finnish foreign trade is functional and productive in 30-50 years' time.

Secondly, the results of this study also suggest that the strategic management of companies should understand the importance of multinational companies in Finland's foreign trade and the changing factors of the international trade environment. This study adds value to the strategic management of Finnish multinationals and foreign-trading companies by increasing their understanding of the changes in their own operating environment and the different visions for the future. Understanding the future of Finnish foreign trade and examining the related change factors will increase the strategic planning of companies' operations and would enable them to operate in a long-term perspective in a changing international environment.

Therefore, the implication of this study for decision-makers in international companies is that they need to take into account the different trends in their strategy work. Based on the results of this study, managers should consider three different scenarios of foreign trade and build their long-term strategy so that internationally active firms are prepared for the different futures described in the study. This will increase firms' risk management, strategic positioning vis-à-vis competitors, crisis resilience especially in the long term.

Third, this study suggests that investors should familiarize themselves with the results of this study, which describe three different future scenarios for Finland's foreign trade. This research identifies, among other things, the trend that technology and artificial intelligence will shape consumer behavior (Pîndiche & Ionita 2013, 332) as well as geopolitical tensions will affect the trading environment (Hadjikhani et al. 2008).

Hence, it is suggested that investors explore the possible outcomes of the three different scenarios and consider them in relation to their own investments in Finnish companies and their internationalization. This study will help investors to understand the impact of crises on the uncertainty of foreign investment, the different investment horizons of the future and the role of different types of investments (especially sustainable ones) in the future foreign trade environment. By studying these scenarios as well as the change factors, investors will understand possible long-term developments, sectoral changes and policy implications for international trade and hence financial markets. The conclusion from this study is that investors should understand long-term developments, especially in the case of significant long-term investments. Furthermore, this research will help investors to understand potential future risks and thus select the ideal strategic partnerships and investment targets.

5.3 Limitations and suggestions for the research

This research has brought to light many new perspectives on Finland's foreign trade, its relationship with the global trade environment and related trends and changes, as well as future prospects and investments. However, it is relevant to note that this study alone is not sufficient to address this unique topic. In other words, this research has identified limitations and thus needs to be explored more extensively before the results can be used for policy or business-level decision-making.

The first limitation of the study is the potential small sample bias: a small sample size may lead to less reliable results and limit the generalizability of the results to a larger population. The study reached a boiler point where the interview responses began to replicate each other but at the same time, it may be that the survey results could have changed further. The selection of the experts and whether there may have been bias in the selection of the participants, even though the criteria for the participants were precise, may be questioned. The research sought to select experts from a wide range of organizations so that organizational values would not influence the outcome of the study. However, the sample size of the study is small, so bias may be accentuated and thus affect the reliability and applicability of the study. Another limiting factor is the timeframe in which the research was conducted. Due to the nature of graduate research, this study was conducted over a relatively short period of time. For a study of this scope that identifies macro-level phenomena, it would be advantageous to conduct the study over a longer period of time. Research conducted in a short time frame may not necessarily reflect long-term trends or be applicable in different contexts, as it is limited in its results and perspectives due to time constraints.

Based on the above analysis, two different further research implications are proposed. The first topic for further research is a more in-depth implementation of the research design of this study. The insights and understanding of the future of Finland's foreign trade offered by this study should be deepened, based on the data in this study. Therefore, further research could offer valuable and novel insights for many. Deepening this understanding would provide valuable information for academia, policy makers and the business community alike. Thus, the first follow-up research topic proposed is the continuation and implementation of this study on a larger scale and number of participants. As the study examines macro-level phenomena and global megatrends that

affect Finland, it would be advantageous to carry out a study on a broader scale and time span to gain a better understanding of the topic.

It is also suggested that further research should be carried out by applying the scenario research model presented in this study to a sectoral study of the future of Finland's foreign trade. This would provide valuable information on sectoral trends and developments in the various sectors of Finnish foreign trade and their trends. It is therefore proposed that this study should be used as a basis for examining the future prospects of different sectors and the sectoral factors and trends affecting them. These sectors could include, for example, information and communication technologies, metals and chemicals, and forestry. This would allow to examine the sectoral trajectories and challenges of the different sectors involved in external trade, and to obtain detailed and usable information to serve individual sectors. This would strengthen the socio-political agency, legitimacy and business role of enterprises in the various sectors in relation to public finances and welfare.

6 Summary

This research focused on long-term scenarios for the future of Finnish foreign trade. Therefore, the research explored the trends, developments, challenges, and changes in the international trade environment and the effects of those in Finnish foreign trade in 30-50 years.

Firstly, in this research the researcher provided a background to the main features of the 21-century era such as the changes and global uncertainty. The background explores the era of change in a global sense and concludes that it is creating a strong climate of change in the international environment. The examination of change process was done by examining change factors from the global level to the EU level and from there to Finland's foreign trade environment. This background was used to justify the purpose of the study. The review of the academic literature indicated that there is a research gap in exploring future scenarios in the Finnish foreign trade, in 30-50 years, in regards of the current global trade environment and the recent changes in it. The main question of the study was " *What are the ffuture scenarios for Finnish foreign trade in the transition of international trade environment in 30-50 years*?" To support this main question, four sub-questions were chosen to support the formulation of the main question.

After justifying the research, the work explored the theoretical framework, which included trade environment, foreign trade, and trade policy. The key takeaway from the chapter was that Finland is part of the EU Common Market, which is strongly integrated into the global trade environment. The global trade environment is challenged by geopolitical tensions, the rise of protectionism, the sustainability crisis, and the growth of digitalization. These change factors were classified between megatrends and smaller trends, which effect trade environment. In addition, the chapter revealed that EU trade policy is conducted through various trade policy instruments and EU trade policy is Finland's trade policy, as the EU is Finland's member state. Therefore, the global changes, such as climate crisis, geopolitical tension between the major powers as well as natural disasters, will strongly effect the future of Finnish foreign trade.

Due to the complexity dimension and forward-looking nature of the study, a qualitative approach was chosen as the starting point for the methodology of the study. In this study, qualitative research was chosen to be conducted through semi-structured expert interviews. Data collection was carried out for five field experts who met all the

predefined criteria. After data collection, the data was transcribed and analyzed using NVIVO software, which was used for data coding and thematic analysis. This analysis resulted in three future scenarios. These scenarios are preposterous, probable and preferred scenarios. The scenarios were classified by utilizing the Futures Cone and presented by using the back casting method. The trustworthiness of the study was assessed using the Lincoln- Guba criteria, which is four-dimensional framework.

The findings of the empirical study are in line with the theoretical framework of the thesis. The theoretical framework of the study shows that Finland is strongly integrated into the European trading environment, with EU membership, and thus is particularly affected by changes in the Union's trading environment. Finland is also directly affected by global change factors, as the Finnish economy relies heavily on foreign trade. This study shows that the future development of Finland's foreign trade can be actively influenced and that the future is being created from the present moment. For the future research suggestions, this research proposed to repeat this research on a larger scale and applying the same research setup to different individual sectors that are important for foreign trade. Overall, this research expands the academic understanding of Finland's foreign trade, by adding a deeper element of the future, provides valuable information to political decision-makers as well as providing international companies with resources for strategic planning and risk management.

References

Adeoye-Olatunde, O. – Olenik, N. (2021) Research and Scholarly Methods: Semi structured Interviews. JAACP: *Journal of the American College of Clinical Pharmacy Vol*. 4 (10). 1358–1367.

Ahmedov, I. (2020) The impact of digital economy on international trade. European *Journal of Business and Management Research Vol*. 5 (4), 140-142

Alam, M. – Murad, W. (2020) The impacts of economic growth, trade openness and technological progress on renewable energy use in organization for economic co-operation and development countries. *Renewable Energy*, (145), 382–390.

Alastalo, M. – Åkerman, M. – Vaittinen, T. (2017) Asiantuntijahaastattelu. *Vastapaino*, Tampere 214–232.

Amara, R. (1981) The futures field: searching for definitions and boundaries. *The Futurist*, 15 (1), 25-29.

Anderson, K. (2022) Agriculture in a More Uncertain Global Trade Environment. *Agricultural economics*, 53 (4), 563–579.

Amara, R. (1981) The futures field: searching for definitions and boundaries, *The Futurist* (15) 25–29.

Aunesluoma, J. – Heikkinen, S. – Lavikainen, A. (2018) Yli sata vuotta globalisaation aalloilla: Suomen ulkomaankauppa ja kauppapolitiikka 1800-luvun lopulta nykypäivään. *Talous & yhteiskunta* ,46 (1), 52-58.58. < http://www.labour.fi/ty/tylehti/talous-yhteiskunta-1-2018/yli-sata-vuotta-globalisaation-aalloilla/ > retrieved 27.3.2023.

Aunesluoma, J. – Heikkinen, S. – Lavikainen, K. (2018). Yli sata vuotta globalisaation aalloilla -Suomen ulkomaankauppa ja kauppapolitiikka 1800-luvun lopulta nykypäivään. *Talous & yhteiskunta*, 46 (1), 52-58.

Batas, S. – Kuvalainen, O. – Sinkovics, R. (Eds.), Megatrends in international business, 5.

Beghin, J. – Disdier, A. – Marette, S. (2015) Trade Restrictiveness Indices in the Presence of Externalities: An Application to Non-Tariff Measures. *The Canadian journal of economics* 48, (4) ,1513–1536.

Bell, W. (1997). The purposes of futures studies. *The Futurist.* (6), 42-45.

Bhavnani, K. – Chua, P – Collins, D (2014) Critical approaches to qualitative. *The Oxford handbook of qualitative research* 165.

Bishop, P. – Hines, A. (2012) Teaching about the Future. *Springer*.

Boström, S. – Kamppinen, M. – Kuusi, O. – Söderlund, S. (2003). Tulevaisuudentutkimus: perusteet ja sovelluksia. 2. Helsinki: *Suomalaisen Kirjallisuuden Seura*.

Bradfield, R. – Wright, G. – Burt, G. – Cairns, G. – Heijden, K. (2005). The origins and evolution of scenario techniques in long range business planning. *Futures* (37) 795-812.

Bradfield, R. – Wright, G. – Burt, G. – Cairns, G. – Heijden, K. (2005). The origins and evolution of scenario techniques in long range business planning. *Futures*. 37, 795-812.

Brown, A. – Danaher. P (2019) CHE Principles: Facilitating Authentic and Dialogical Semi-Structured Interviews in Educational Research. *International journal of research & method in education* 42 (1), 76–90.

Cairns, G. – Ahmed, I. – Mullett, J. – Wright, G. (2013) Scenario method and stakeholder engagement: critical reflections on a climate change scenarios case study. *Technological Forecasting and Social Change* 80 (1), 1-10.

Cavusgil, S. (2022) Megatrends and International Business. In Megatrends in International Business: Examining the Influence of Trends on Doing Business Internationally. *Springer International Publishing*, 11–21.

Cavusgil, T. S. (2021). Advancing knowledge on emerging markets: Past and future. *International business review* 30 (2), 101796.

Cepni, O. – Emirmahmutoglu, F. – Ethem Guney, I. – Hasan Yilmaz, M. (2022) Do the Carry Trades Respond to Geopolitical Risks? Evidence from BRICS Countries. *Economic systems.*

Chamhart, J. (2010). Globalization and digitalization." *Transformacje* 2010, 227-237.

D'Cruz, P. – Du, S. – Noronha, E. – Parboteeah, P. – Trittin-Ulbrich, H. – Whelan, G. (2022) Technology, Megatrends and Work.: Thoughts on the Future of Business Ethics. *Journal of business ethics* 180 (3) 879–902.

Dahlman, C – Haque, I. – Takeuchi, K. (1995). The world trading environment." Irfan ul Haque et al. Trade, Technologies, and International Competitiveness, Washington DC: *The World Bank*, 155-178.

Dieter, H. (2009) The Multilateral Trading System and Preferential Trade Agreements: Can the Negative Effects Be Minimized? *Global Governance*. 15 (3): 393–408.

Dreborg, K. (1996) Essence of Backcasting. The journal of policy, planning and futures studies. *Futures* 28, (9), 813–828.

Drieghe, L. – Orbie, J. – Potjomkina, D. – Shahin, J. (2022) Participation of Civil Society in EU Trade Policy Making: How Inclusive is Inclusion? *New Political Economy*, 27 (4), 581-596

Dufva, M. – Rekola, S. (2023), Megatrendit 2023. Sitra julkaisut. *Sitra*, Helsinki <https://www.sitra.fi/julkaisut/megatrendit-2023/#esipuhe >, retrivied 26.1.2023

Dür, A. (2015). International Trade: Commercial Policy and Trade Negotiations. International Encyclopedia of the Social & Behavioral Sciences. 10.

Döringer, S. (2021) The Problem-Centred Expert Interview'. Combining Qualitative Interviewing Approaches for Investigating Implicit Expert Knowledge.*International journal of social research methodology* 24, (3), 265–278.

Economic complexity (2022) Finland, the country profile <https://oec.world/en/profile/country/fin>, retrieved 18.3.2023.

Elo, S – Kääriäinen, M. – Kanste, O. –Pölkki, T. – Päätalo, K. – Kyngäs, H. (2014). Qualitative Content Analysis: A Focus on Trustworthiness. *Sage* Open. 4.

Eskola, J – Suoranta, J. (1998) Johdatus laadulliseen tutkimukseen. Tampere: *Vastapaino*.

Etro, F. (2017) The Heckscher–Ohlin Model with Monopolistic Competition and General Preferences. *Economics* 158, 26–29.

Eriksson, P. – Kovalainen, A. (2008) Qualitative Methods in Business Research. Qualitative Methods in Business Research. 1st ed. London: SAGE Publications.

European Commission (2022) Making trade policy. < https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/making-trade-policy_en >, retrieved 9.3.2023>

Evenett, S. J. (2019) Protectionism, state discrimination and international business since the onset of the Global Financial Crisis. *Journal of International Business Policy,* 2(1), 9–36.

Flick, U. (2018) Doing qualitative data collection – Charting the routes. In U. Flick (Ed.), *The SAGE handbook of qualitative data collection* (pp. 3–16). SAGE Publications.

Foster, N. – Stehrer, R. (2011) Preferential trade agreements and the structure of international trade. *Review of World Economics* 147 (3): 385–409.

Gall, T. – Vallet, F. – Yannon, B. (2022) How to Visualise Futures Studies Concepts: Revision of the Futures Cone. *Futures* 143, 103024.

Ganne, E. (2018) Can Blockchain revolutionize international trade? Geneva. *World Trade Organization.*

Geref, G. (2019) Global value chains and international development policy: Bringing firms, networks and policy-engaged scholarship back in. *Journal of International Business Policy*, 2(3), 195–210.

Gidley, J. M. (2017) *The Future*. A Very Short Introduction. Vol.9 (2) Oxford University Press.

Godet, M. (2000) The art of scenarios and strategic planning: tools and pitfalls. *Technological forecasting and social change*, 65 (1), 10-22.

Godet, M. (2000) The art of scenarios and strategic planning: tools and pitfalls. *Technological forecasting and social change*, 65 (1), 3-22

Gruber, J. (2005) Public Finance and Public Policy. *Technological Forecasting and Social Change*, 105, 63-76.

Haaparanta, P. – Tamminen, S. – Heikkinen, P. – Aunesluoma, J. – Nilsson Hakkala, K.– Kiviluoto, J. – Lavikainen, K. – Rissanen, A. (2017) 100 vuotta pientä avotaloutta: Suomen ulkomaankaupan kehitys, merkitys ja näkymät. (Valtioneuvoston selvitys- ja tutkimustoiminnan julkaisusarja; Vuosikerta 2017, Nro 73). *Valtioneuvoston kanslia*. <http://valtioneuvosto.fi/julkaisut/julkaisu?pubid=URN:ISBN:978-952-287-480-1 >, retrieved 30.7.2023.

Hadjikhani, A. – Joong-Woo, L. – Pervez Ghaur, N. (2008) Network view of MNCs' socio-political behavior. *Journal of Business Research* Vol.61 (9), 912-924.

He, R. – Yu, X. – Zhibin, L. (2016) Carbon Emissions in a Dual Channel Closed Loop Supply Chain: The Impact of Consumer Free Riding Behavior.” *Journal of cleaner production* 134, 384–394.

Helpman, E. (1999) The structure of foreign trade. *Journal of economic perspectives* 13.2,121-144.

Hester, R. (2018). Historical Research. Theory and Methods. EDTECH. p. 113.

Hiltunen, E. (2012) Matkaopas tulevaisuuteen. Helsinki: *Talentum.*

Hines, A. – Jay, G. – Daheim, C. – van der Laan, L. (2017). Building foresight capacity: Toward a Foresight Competency Model. *World Futures Review. 9* (3), 131.

Hirsjärvi, S. – Hurme, H. (2022) Tutkimushaastattelu. Teemahaastattelun teoria ja käytäntö. (2), 47-48 *Gaudeamus*, Helsinki.

https <://www.un.org/development/desa/publications/report-of-the-un-economist-network-for-the-un-75th-anniversary-shaping-the-trends-of-our-time.html >, retrieved 30.6.2023.

James, H. (2018). Deglobalization: The rise of disembedded unilateralism. *Annual Review of Financial Economics*, 10, 219–237.

Janusz, G. – Piasecki, R. (2020) Foreign Direct Investment from Emerging Markets. Theory and Practice. *Comparative economic research*. Central and Eastern Europe 23 (2) 7–19.

Jensen-Eriksen, N. (2015) Business, Economic Nationalism and Finnish Foreign Trade during the 19 th and 20 th centuries." *Revue française d'histoire économique* 1, 40-57.

Jianguo L. – Hull, V. – Batistella, M. – DeFries, R. – Dietz, T. – Fu, F. – W. Hertel, T. (2013) Framing Sustainability in a Telecoupled World. *Ecology and society* 18, (2)

Jiménez-Almazán, M. – Uribe-Toril, J. – Ruiz-Real J. (2020) International Trade and Sustainability: Bibliometric and Cluster Analysis. *Sustainability* (Basel, Switzerland) 12, (17).

Kaczmarczyk, P. (20023) Foreign Direct Investment in Neoclassical Theory of International Trade: A Conceptual Weak Spot. *International journal of political economy* 52. (1), 70–8

Karhu, A. – Haaja, E. (2022) Lessons from Trade Policy Research. In Global Trade and Trade Governance During De-Globalization. Switzerland: *Springer International Publishing* AG, 2022.

Karhu, A.– Haaja, E. (2022) Conclusions: The Future of Trade Policy in the Not So United World. In: Global Trade and Trade Governance During De-Globalization. Switzerland: *Springer International Publishing* AG.

Kiba-Janiak, M. – Marcinkowski, J. – Jagoda, A. – Skowronska, A. (2021) Sustainable Last Mile Delivery on E-Commerce Market in Cities from the Perspective of

Various Stakeholders. Literature Review. *Sustainable cities and societies.* 71, 102984.

Kostadinova, E. (2016). Sustainable consumer behavior: Literature overview. *Economic Alternatives* 2, 224-234.

Krugman, P. (1979) A Model of Innovation, Technology Transfer, and the World Distribution of Income. *Journal of Political Economy* 87 (2), 253–66.

Kulikov, P. – Aziukovskyi, O. – Vahonova, O. –Bondar, O. –Akimova, L. –Akimov, O. (2022) "Post-War Economy of Ukraine: Innovation and Investment Development Project." *Economic affairs* (Calcutta) 67, (5), 943–959

Kuosa, T. (2011). "Evolution of Futures" Studies.the journal of policy, planning and futures studies. *Futures* 43. (3), 327–336.

Lacey, A. – Luff, D. (2001) Qualitative data analysis. Sheffield: Trent focus.

Langley, A. – Abdallah, C. (2011). Templates and Turns in Qualitative Studies of Strategy and Management. *Research Methodology in Strategy and Management.* (6) 201-235.

Leblond, P. – Viju-Miljusevic, C. (2019) EU trade policy in the twenty-first century: change, continuity and challenges, *Journal of European Public Policy*, 26 (12) 1836-1846.

Lee, H. (2010) The EU-Korea FTA: A Boost to Economic Recovery and a Challenge to the U.S. *Brookings*.

Leemans, W. F. (1968) Old Babylonian Letters and Economic History A Review. Article with a Digression on Foreign Trade. *Journal of the Economic and Social History of the Orient* 11, (2), 171–226.

Lerner, Abba P. 1952. "Factor Prices and International Trade." *Economica* 19 (73), 1–15.

Lincoln, Y.S. – Guba, E.G. (1985) Naturalistic Inquiry. *SAGE, Thousand Oaks*, 289–331.

Liuhto, K. (2014) Venäjä ja Suomen talous -Venäjä: uhka vai mahdollisuus? – avointa keskustelua Suomen Venäjä-suhteesta (2014) *Suomen Perusta 2014.*

Loh, J. (2013). Inquiry into Issues of Trustworthiness and Quality in Narrative Studies: A Perspective. *Qualitative Report*. 18, 1–15

Macdougall, G. (1960) The Benefits and Costs of Private Investment from Abroad: A Theoretical Approach. *Economic Record* 36 (73), 13–35.

Malaska, P. (2019) Economic and social evolution: the transformational dynamics approach. The new evolutionary paradigm. *Routledge*, 131-156.

McGregor, S. (2019) Paradigms and Normativity. What Should FCS Do in Light of 21st Century Change? *Journal of family and consumer sciences* 111 (3) ,10–25

Miles, I. – Saritas, O. – Sokolov, A. (2016). Foresight for science, technology and innovation. *Springer International Publishing*. https://doi.org/10.1007/978-3-319-32574-3

Miroudot, S. (2020) "Resilience versus robustness in global value chains: Some policy implications." COVID-19 and trade policy: Why turning inward won't work. 117-130.

Miroudot, S. –Nordström. H. (2020) "Made in the World? Global Value Chains in the Midst of Rising Protectionism. *Review of industrial organization* 57 (2), 195–222.

Morgan, G. – Smircich, L. (1980) The Case for Qualitative Research." *The Academy of Management review* 5 (4), 491–500.

Neary, J.P. (2009) Putting the "new" into new trade theory: Paul Krugman's Nobel Memorial Prize in economics. *Scandinavian Journal of Economics* 111.2, 217-250.

Nilsson Hakkala, K. – Kaitila, V. – Kuusi, T – Lehmus, M. – Wang, M. (2019) The economic impact of EU free trade agreements on Finland and the EU. <https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/161952/TEAS_2019_70_Effects%20of%20EU%20FTAs%20VNK_final_proofread.pdf?sequence=1&isAllowed=y >, retrieved 30.7.2023.

Nowack, M – Endrikat, J. – Guenther, E. (2011) Review of Delphi-based scenario studies: Quality and design considerations, *Technological Forecasting and Social Change.*

OECD (2020) New OECD outlook on the global economy. <https://www.oecd.org/coronavirus>, retrieved 29.6.2023.

Panagariya, A. (2000) Preferential Trade Liberalization: The Traditional theory and New Developments", *Journal of Economic Literature* (2)287-331

Parthapratim, P. (2005) Regional Trade Agreements in a Multilateral Trade Regime: A Survey of Recent Issues. *Foreign trade review* (New Delhi) 40 (1), 27–48.

Paul, E. – Folke, C. –Costanza, R. (1994) Trade, Environment and Development: The Issues in Perspective. *Ecological economics* 9, (1), 1–12.

Peterson, G. D. – Cumming, G. S. – Carpenter, S. R. (2003) Scenario planning: a tool for conservation in an uncertain world. *Conservation biology*, 17 (2), 358-36.

Piekkola, H. (2018) Internationalization via export growth and specialization in Finnish regions. *Cogent Economics & Finance* 6.1, 1514574.

Pîndiche, E. – Roxana I. (2013) The influence of micro and macro environment components on trade companies in Romania. *Journal of knowledge Management, Economics and information Technology* 3 (6), 1-23.

Popper, R. (2008) How are foresight methods selected? *Foresight*, 10 (6), 69.

Pratt, M. (2009) For the lack of boilerplate: Tips on writing up (and reviewing) qualitative research. *Academy of Management journal* 52, (5), 856–862.

Przybylinski, M. – Wyszkowska-Kuna, J. (2021) "The Content of Knowledge-Intensive Business Services in International Trade: Evidence from European Union Countries." *Ekonomický časopis* 69, (1) 34–38.

Puglisi, M. (2001) "The study of the futures: an overview of futures studies methodologies." Interdependency between agriculture and urbanization: conflicts on sustainable use of soil water. Bari: CIHEAM. Options Méditerranéennes, Série A. *Séminaires Méditerranéens* 44, 439-463.

Rita, P. – Ramos, R. (2022) Global Research Trends in Consumer Behavior and Sustainability in E-Commerce: A Bibliometric Analysis of the Knowledge Structure. *Sustainability*, 14 (15)

Rodrik, Dani (1995) Chapter 28 Political Economy of Trade Policy. In: *Handbook of International Economics*, 3, 1457–1494. Elsevier B.V

Rose, J. – Johnson, C. (2020) Contextualizing reliability and validity in qualitative research: Toward more rigorous and trustworthy qualitative social science in leisure research." *Journal of leisure research* 51 (4), 432-451.

Rubin, A. (2023) Tulevaisuudentutkimus tiedonalana. Turun yliopiston tulevaisuuden tutkimuskeskus. Turun kauppakorkeakoulu. Verkkojulkaisu.
<https://tulevaisuus.fi/perusteet/tulevaisuudentutkimus-tiedonalana/ >, retrieved 30.6.2023.

Ruusuvuori, J. – Tiittula, L. (2015) Haastattelu: tutkimus, tilanteet ja vuorovaikutus. Tutkimushaastattelun käsikirja. Tampere: *Vastapaino*, 214–232

Simon, E. – Simola, H. (2006) Russia in the Finnish economy, Sitra

Schott, J. (2004) Free Trade Agreements: Boon or Bane of the WorldTrading System" in J.J. Schott (ed.), Free Trade Agreements: US Strategies and Priorities,Washington: *Institute for International Economics.*

Shaheer, N. – Li, S. (2020). The CAGE around cyberspace? How digital innovations internationalize in a virtual world. *Journal of Business Venturing,* 35 (1).

Spiros, B. – Kuivalainen, O. – Sinkovics, R. (2022) Megatrends in International Business: Examining the Influence of Trends on Doing Business Internationally. Springer International Publishing AG. Research in perspective. *International Business Review*, 30 (2), 1.

Song, Y. – Xiaoyu, J. – Guoheng, H. (2023) Relationships Among Geopolitical Risk, Trade Policy Uncertainty, and Crude Oil Import Prices: Evidence from China. Resources policy 82.

Suomen Tulli (2021) Ulkomaankauppa tilastot <https://tulli.fi/tilastot> , retrieved 20.8.2021

Tilastokeskus (2021) Tavaroiden ja palveluiden ulkomaankauppa <https://www.stat.fi/til/tpulk/ >, retrieved 20.8.2023

Tuffour, I. (2017) A critical overview of interpretative phenomenological analysis: A contemporary qualitative research approach. *Journal of healthcare communications* 2 (4), 52.

Tuomi, J. – Sarajärvi, A. (2018) Laadullinen tutkimus ja sisällönanalyysi. Uudistettu laitos. *Kustannusosakeyhtiö Tammi*, Helsinki

Tutkimuseettisen neuvottelukunta (2019) Ihmiseen kohdistuvan tutkimuksen eettiset periaatteet ja ihmistieteiden eettinen ennakkoarviointi Suomessa. *Tutkimuseettisen neuvottelukunnan ohje.*

Ulkoministeriö (2022) EU Trade Policy. < https://um.fi/commercial-policy >, retrieved 10.3.2023.

UN (2022). Report of the UN Economist Network for the UN 75th Anniversary: Shaping the Trends of Our Time. *United Nations Economist Network*

Velut, J.B (2015). Trade Policy. International Encyclopedia of the Social & Behavioral In. 24. *Second Edition. Elsevier Ltd.* Vol. 78 (9), 485–490.

Voros, J. (2003). A generic foresight process framework. *Foresight*, 5(3), 10-21.

Voros, J. (2017). Big history and anticipation: Using big history as a framework for global foresight. Handbook of anticipation: Theoretical and applied aspects of the use of future in decision making. Cham: *Springer International.*

Wells, Herbert G. (1932) "Wanted professors of foresight." *Futures Research Quarterly* (3) 89-91.

Williams, William F. (2013). Encyclopedia of pseudoscience: From alien abductions to zone therapy. *Routledge*.

Winkler, J. – Moser, R. (2016) Biases in future-oriented Delphi studies: A cognitive perspective. *Technological forecasting & social change*, (105), 63-76

Wolf, M (2003) Is Globalization in Danger? *The World Economy* 26 (4), 393–411

Wouters, J. – Marx, A. – Geraets, D. –Natens, B (2015) Global Governance through Trade: EU Policies and Approaches. Cheltenham: *Edward Elgar Publishing*, 2015.

WTO (2022) World Trade Report 2022. Climate change and international trade <https://www.wto.org/english/res_e/booksp_e/wtr22_e/wtr22_e.pdf > retrieved 10.3.2023.

Wu, T. – Chadee, D. (2022). Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP): Implications for the Asia-Pacific Region. International Business in the New Asia-Pacific. Cham: *Springer International Publishing*, 53–74

Yuri, M. – Evgrafov, A. – Shishkin, V. – Shishkin, V. (2019) Global Innovation Trends in Trade Development and Their Social and Economic Implications. *International scientific conference digital transformation on manufacturing, infrastructure, and service* 497 (1), 1212-1214.

Zahoor, N. – Golgeci, I. – Haapanen, L. –Ali, I. – Arslan, A. (2022) The Role of Dyna mic Capabilities and Strategic Agility of B2B High-Tech Small and Medium-Sized Enterprises During COVID-19 Pandemic: Exploratory Case Studies from Finland. *Industrial marketing management* 105, 502–514.

Appendices

Appendix 1 Interview guide

Professional background

1.What are the main trends in the global trade environment?

2. What are the implications of the above for the future development of the global and European trading environment?

3. What are the key elements/factors influencing Finland's trade policy today?

4.How do these trends affect Finland's foreign trade today?

5.What factors influence the development/future of Finland's foreign trade and how (30-50 years)

6.How do you see Finland's foreign trade in about 30-50 years' time?

Appendix 2 Operationalization table

The research problem	Sub problems	Themes in the literature
What are the Future scenarios for Finnish foreign trade in the transition of international trade environment?	1.What are the main change trends in the global trade environment? 2.How may they influence the future development of global/European trade environment? 3.What are the key elements of Finnish foreign trade policy at the moment? 4. How may these main trends in the global trade environment influence the Finnish foreign trade?	1.Changes and challenges in the trade environment, trade environment, megatrends 2.Megatrends, EU trade policy, Finnish trade policy, trade environment, futures studies 3.Finnish foreign trade, EU foreign trade, Trends, megatrends 4.Finnish foreign trade, change in the trade environment, futures studies, scenario planning, futures cone, backcasting