
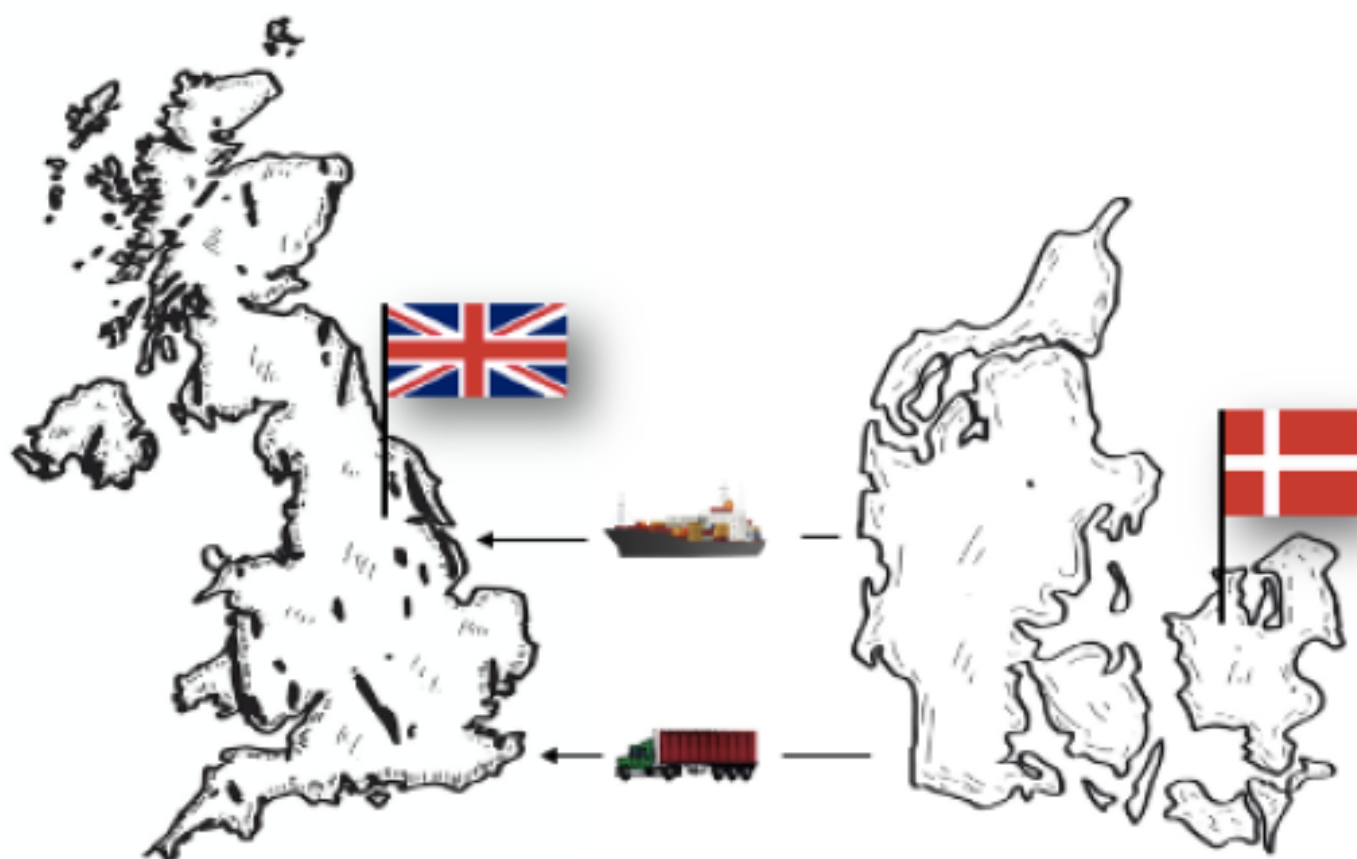


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# The Consequences for Danish Food Companies' Export to the United Kingdom Following the EU-UK Trade and Cooperation Agreement

A Delphi Study

## Preface

First and foremost, I would like to thank the participating experts Esben, Kenneth, Peter, George, Robert, and Simon, for their cooperation, which enabled me to undertake this research. I am very grateful for the time you set aside to talk with me and for your willingness to educate me on the Danish food sector.

This master's thesis culminates my studies at Aalborg University, and therefore I would also like to thank my supervisor Professor Jonas Eduardsen for your contributions and feedback. I especially want to thank you for being very flexible with your counseling. Your flexibility allowed me to ask for guidance during my smaller crisis in the writing process.

Finally, I wish to express my sincere gratitude to my former colleague and mentor during this research process Esben Egede Rasmussen. The outcome of this thesis would have been a lot different if it had not been for your insights, time, and recommendations for participants.

## Abstract

Almost four and a half years after the shocking result of the referendum, the UK officially and practically left the EU's common market. Before leaving, the EU-UK Trade and Cooperation Agreement, also referred to as the TCA, was formed. The agreement removed much of the uncertainty around the future trade relationship between the EU and the UK. Thereby, it also reduced much uncertainty for Danish food companies' export to the UK, which is of great economic value to the Danish food sector. Nevertheless, emerging trade frictions and non-tariff barriers caused by the TCA presents great challenges for many Danish food companies, which recent export figures also emphasize. Conversely, some analyses find the Danish food sector in an opportunistic position following the TCA to maintain and even gain market shares in the UK. The importance of the new trade regime's consequences on Danish food companies' export to the UK is obvious. However, the TCA was recently formed, and the UK postponed its control on food products from the EU until October 1, 2021, making the subject yet to receive much attention from scholars. Therefore, this research sought to identify and examine the main consequences – comprising of current and projected challenges and opportunities – for Danish food companies' export to the UK following the TCA.

On the basis of empirical data from six expert interviews and the application of a qualitative Delphi method, including supporting coding methods, were nine main consequences identified and examined. Of the nine consequences are seven linked challenges, with the remaining two constituting opportunities in exporting to the UK.

Most of the identified challenges are connected to the Rules of origin and SPS measures in the TCA. Comparable to past studies, the analysis finds the Rules of origin in the TCA to unnecessarily restrict many Danish food companies' sourcing possibilities while increasing the costs of exporting to the UK due to required compliance documentation. Additionally, the issues surrounding the SPS measures concern the required conformity assessments (i.e. health certificates and inspections), which adds multiple steps and costs to Danish food companies' export process to the UK. Also, the new measures expose the food companies to the Danish and particularly British authorities' ability to secure the necessary capacity of competent customs officials and veterinarians needed for inspecting and completing the health certificates. The required control, inspection, and completion of documents on the massive volumes of EU goods entering the UK are expected to cause challenges with customs clearance and border-crossing delays for Danish food companies' export to the UK. Notably, groupage export, typically applied by SMEs, face greater risk of challenges with customs clearance

and extensive delays. Another consensus project Danish food SMEs exporting to the UK to be significantly challenged by the new trading regime. Specifically, SMEs with limited experience and non-existing processes managing third country regulation is found to be in a vulnerable position. Hence, many are expected to either lose or forgo market shares to the larger food MNEs with the necessary resources, experience, and capabilities to export under third country regulation.

The data analysis displays a much greater number of challenges relative to opportunities indicating a challenged and plausibly declining export from the Danish food sector to the UK as a result of the TCA. Conversely, many Danish food companies, notably the larger MNEs, have a great reputation combined with the necessary experience, resources, and capabilities to maintain and possibly gain market shares in the UK. Also, a substantial portion of the challenges are temporary and can be overcome, implying a potentially more opportunistic outlook for Danish food companies' export to the UK.

## Abbreviations

EU	European Union
FTA	Free trade agreement
MFN	Most-favored-nation
MNEs	Multinational Enterprises
NTBs	Non-tariff barriers
NTMs	Non-tariff measures
SMEs	Small and medium-sized enterprises
SPS	Sanitary and phytosanitary
TCA	Trade and Co-operation Agreement
UK	United Kingdom
NAFTA	North America Free Trade Agreement
OECD	Organisation for Economic Co-operation and Development

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# 1. Introduction

The introduction has the purpose of illuminating on the uncertainties and challenges that Danish food companies are facing following the new Trade and Co-operation agreement (TCA) between the European Union (EU) and the United Kingdom (UK). The UK is one of the largest markets for Danish food products, and the Danish food sector is therefore facing significant challenges following the establishing of the TCA. Conversely, the declining self-sufficiency in the UK, and increasing awareness for quality food combined with Danish food product's positive reputation among British stakeholders may provide market opportunities for Danish food companies in the UK. The introduction leads to the identification of a research gap that needs further study.

## 1.1. Great Uncertainty for Danish Food Companies Following Brexit

The referendum's polarizing outcome concerning the UK's future membership with the EU, which occurred on 23 June 2016, took all the member states by surprise. The 65-year long integration process of the EU, initially only covering Western European countries followed by Central and Eastern European countries, is regarded as one of the most important political projects since World War II (Tendera-Wlaszczuk, 2018). Nevertheless, on 23 June 2016, the UK became the first nation to formally signal its intention to withdraw its membership from the EU. After 52% of the participating voters voted to leave, the UK government formally announced its withdrawal in March 2017. On January 1, 2021, almost four and a half years later, after multiple deadline extensions and a transition period, the UK officially and practically left the EU's common market (GOV.UK, n.d.).

The new TCA, which includes zero-tariff and zero-quota trade arrangements, removed some of the uncertainty around the future of the trade relationship between the EU and the UK. Thus, the new agreement also minimized a significant portion of the uncertainty related to Danish export to the UK. However, according to Michael Bremerskov Jensen, Functional Manager of International Trade at the Danish Chamber of Commerce, the new agreement leaves Danish companies exporting to the UK with great current and future challenges. Even though the new TCA includes tariff-free access through British customs, all the administrative procedures surrounding customs clearance must be conducted, which requires additional time, resources, and administrative capacity for many Danish companies (Hodzic, 2020).

Especially Danish food companies exporting to the UK face significant challenges and uncertainties as food is the product category subject to the most administrative burdens and requirements of control. A report by the Economist Business Intelligence Unit (2021) predicts that trade frictions will add significant difficulty and cost to the food sector, as the non-tariff barriers are high, given the need for complex customs declarations.

Furthermore, in March 2021, it was reported that the UK had delayed the introduction of import controls at British borders by six months, which provides Danish food companies and the Danish authorities with more time to prepare (Danish Veterinary and Food Administration, 2021). However, the initiative emerged after reports that the UK's border control is not ready to handle and process all the goods coming in from the EU (McElhatton, 2021). Following the news, the Danish Veterinary and Food Administration has expressed gratitude for the delay, as they are still preparing to sign-off 40,000 more export certificates annually for Danish food companies exporting to the UK. Today, the Danish Veterinary and Food Administration issues 100,000 export certificates annually (Danish Veterinary and Food Administration, 2021). Thereby, the additional 40,000 export certificates for food products to the UK will provide an increase of 40% in export certificates issued by the Danish Veterinary and Food Administration. Though the postponement of border controls provides Danish food companies and Danish authorities with more time to prepare, it also generates uncertainty for Danish food companies due to the alarming report that the UK's border control is not ready. On top of that, Danish food companies also have to rely on the Danish authorities being prepared to issue 40,000 more export certificates combined with many other tasks involving the export of food products to the UK. Ultimately, Danish food companies exporting to the UK are still found to be in challenging and uncertain circumstances even though a trade agreement has been formed between the EU and the UK.

## 1.2. The Danish Food Sector's Reliance on the UK

The UK market is very important for the Danish food sector, as it is the fourth biggest export market (The Trade Council, 2021). In 2017, the UK had an export value of DKK 12 billion within the food sector, corresponding to 7.2% of the food sector's total export value (Danish Veterinary and Food Administration, 2018). Approximately 10% of all the exported pork and dairy are shipped to the UK, accumulating to DKK 5.5 billion in export value (see Table 1). The export of meat and dairy products to the UK has great economic value for Denmark.

Category	UK's share of the category	UK's value in DKK	The category's total value
Pork	10.7%	3.4 billion	32 billion
Dairy	9.9%	2.1 billion	21.2 billion
Beef	4.3%	140 million	3.26 billion

Table 1: Export of pork, dairy, and beef to the UK in 2017

Denmark is the largest supplier of pig products in the UK, with a yearly average of 26% of imported pork. Approximately half of the imported pork from Denmark is fresh and frozen, with processed food products constituting the remaining share (Agriculture and Horticulture Development Board, 2019). Conversely, Denmark is the third-largest destination of British pork, constituting 14% of the 335,000 tonnes' pig meat imported in 2017.

The UK has the second-largest dairy trade deficit in the world. The vast majority of the UK's dairy imports are from the EU, where a substantial amount comes from Denmark. Since 2013, the UK has on average imported around 1.3 million tonnes of dairy products annually, with 7% sourced from Denmark. Cheese is the most imported dairy product in the UK, of which 10% is coming from Danish food companies (Agriculture and Horticulture Development Board, 2019).

Thus, it is evident that the Danish food sector sees high-level economic gains in exporting to the UK, making the uncertainties following the TCA of great significance for the Danish food sector. In addition, recent export numbers reveal a very disappointing decline in Danish food products exported to the UK (see. Figure 1). In January 2020, approximately DKK 843 million worth of Danish food products were exported to the UK, whereas roughly DKK 467 worth of Danish food products were exported in January 2021 (Statistics Denmark, 2021). The decrease of DKK 376 million constitutes a drop of 44,6% in export. Food categories such as meat (42%), dairy (47%), and fish (86%) have seen significant drops when comparing January 2020 to January 2021. The following month of February 2021 also experienced a decrease in export, with 12% less than February 2020 exported to the UK (Food & Drink Federation, 2021). There are uncertainties as to whether how much of these recent drops in export to the UK should be attributed to a) transition problems for the food companies in adapting to the TCA, b) permanent structural decline related to the UK not being part of the

common market or c) the consequences of the current COVID-19 pandemic (Food & Drink Federation, 2021; House of Commons, 2021). However, there is no doubt that a significant part of the decline is a direct result of the TCA and the UK leaving the common market.

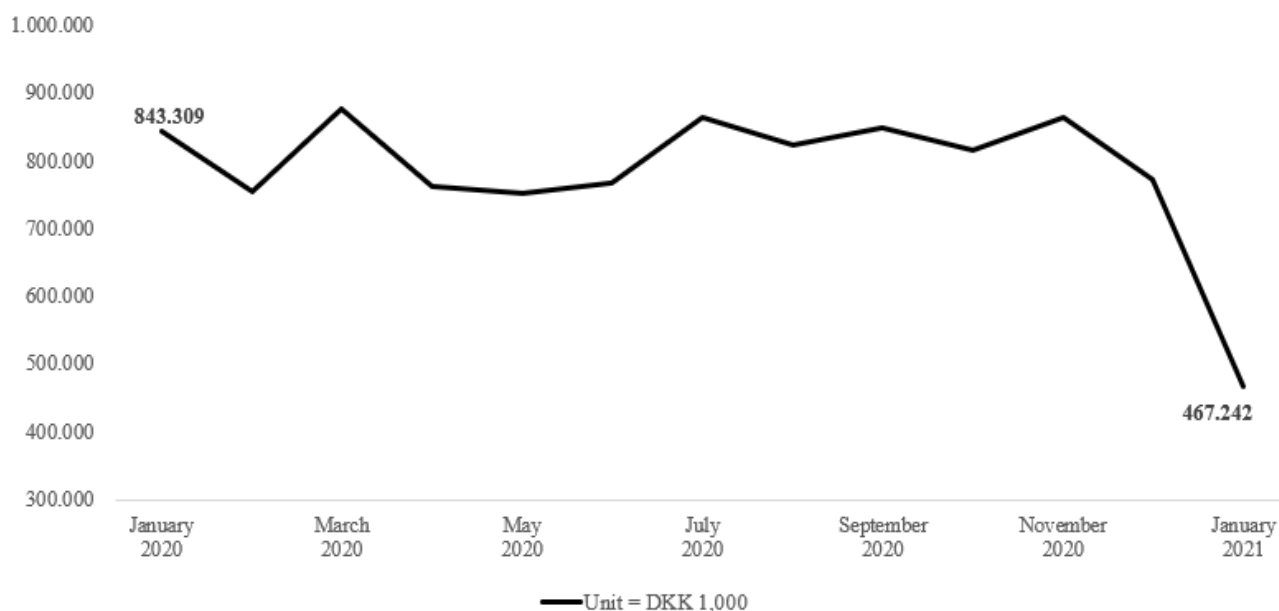


Figure 1: Danish food export to the UK 2020-2021. Source: Statistics Denmark

### 1.3. Opportunities for Danish Food Companies in the UK

Though the majority of articles and reports highlight the challenges and uncertainties for the Danish food sector following the end of Brexit, some sources also estimate great opportunities for Danish food companies in the British market. According to the Trade Council in the UK (2021), food origin and documentation of high product standards are important to the British market and its consumers, putting Denmark in an strong position. A report by Food Nations (2020) highlights that the decision-makers in the British food sector find Danish food products to be of high safety standards, high quality, and 57% of the decision-makers view Danish food products as among the most sustainable in the world (Food Nation, 2020). Also, studies reveal that consumers in the UK are becoming increasingly aware of organic and sustainable food products. A survey conducted by YouGov (2020) shows that UK consumers have during the COVID-19 pandemic become more conscious and engaged in their choice of foods.

Furthermore, the UK's agricultural and food production covers around 50% of domestic demand, meaning that the UK heavily relies on food imports (The Trade Council, 2020). As visualized in the figure below, the UK is primarily a net importer of most food products (see Figure 2).

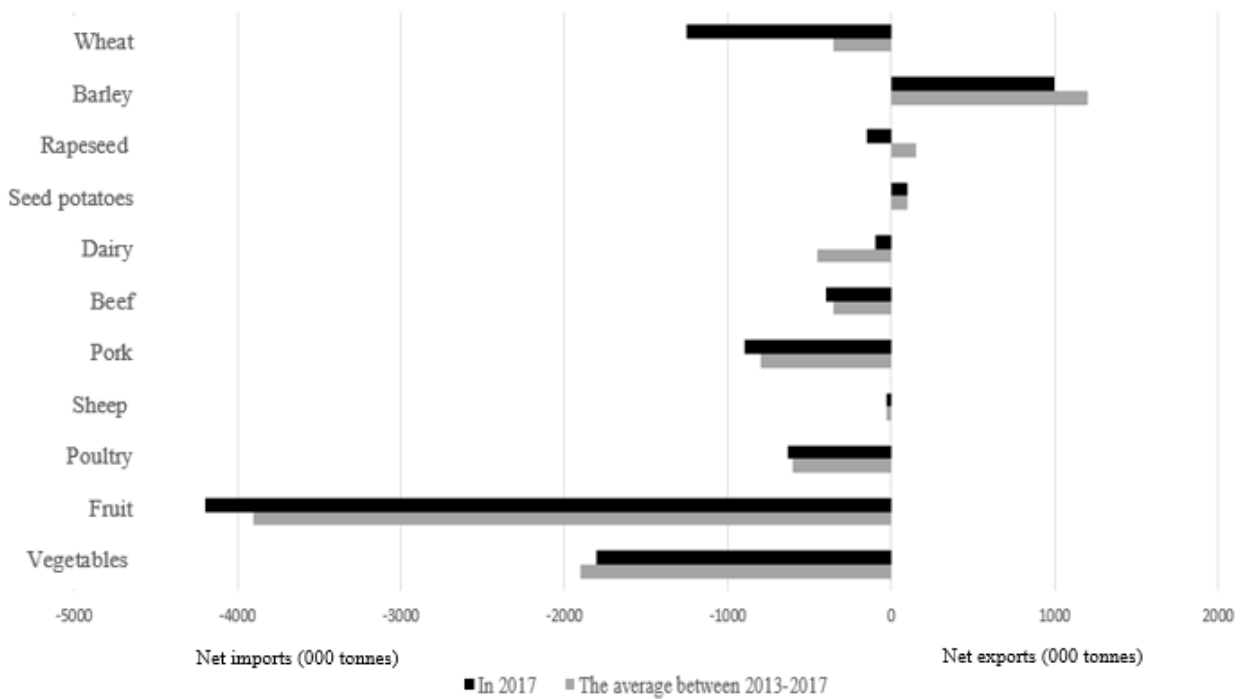


Figure 2: UK's net trade of food products. Source: AHDB, 2019

According to AHDB, the UK's self-sufficiency has declined by more than 13% over the last 35 years (Agriculture and Horticulture Development Board, 2019). In 2017, The UK imported DKK 466 billion worth of food industry-related goods, where the vast majority constituted food products, emphasizing the UK's low self-sufficiency (Danish Veterinary and Food Administration, 2018). The declining self-sufficiency signals a dependency on imported food products, which arguably puts the Danish food sector in an advantageous position to take additional market share in the UK market. Moreover, the Economist Business Intelligence Unit (2021) estimates the British food sector to be facing the most risk and uncertainty of all sectors in the future. Hence, the British food sector is potentially in a significantly more vulnerable and uncertain situation than the Danish food sector.

Consequently, analyses by the Trade Council in the UK (2021) finds the Danish food sector in a position of strength to capture additional market share in the UK, as Denmark is one of the major food exporters to the UK that also has a great reputation for quality and ecology.

## 1.4. Identifying the Research Gap

The TCA between the UK and the EU provisionally entered into force on January 1, 2021 (European Commission, 2021). However, the UK's implementation of border control on food products from the EU have been delayed until October 1, 2021. Hence, research on the consequences of Danish food companies' export to the UK following the TCA is very limited. As outlined in the introduction, the Danish food sector sees great economic value in exporting to the British market, and the emerging trade frictions and non-tariff barriers caused by the TCA presents great difficulties and uncertainties for many Danish food companies, which can already be seen in recent export numbers. Conversely, according to reports, the UK food sector's vulnerable situation and increasing awareness of quality products offer opportunities for Danish food companies to capture additional market share in the UK. Therefore, an investigation of the consequences – comprising of current and projected challenges and opportunities – facing Danish food companies' export to the UK should be of great importance for the Danish food sector. In addition, the outcome of this research should hopefully uncover some of the consequences that market disruptions similar to Brexit generate for food companies. Such market disruptions could emerge if another close trading ally surprisingly decides to leave the EU's common market or decides to alter current trade agreements with Denmark.

Ultimately, this research intends to identify and examine the main consequences of Danish food companies' export to the UK following the new trade agreement between the UK and the EU. Consequently, this research will address the following research questions:

1. What are the main consequences for Danish food companies' export to the UK following the TCA between the UK and the EU?
2. How does the identified consequences cause challenges or opportunities for Danish food companies' export to the UK?
3. What are the implications of the identified consequences on Danish food companies' export to the UK?

Narrowing the project and clarifying the meaning of the research questions to prevent misunderstandings is important. Thus, the research questions are clarified in the following. The



research questions are exploratory, as the objective is to identify and examine the main consequences for Danish food companies' export to the UK following the TCA between the UK and the EU.

*Challenges* are elements in the new trade regime between the UK and the EU that obstruct Danish food companies' export to the UK. In contrast, *opportunities* relate to factors in the new trade relationship that potentially could provide a positive outcome for the Danish food companies.

*Export* refers to food products produced in Denmark by Danish food companies that are sold into the UK. Thus, the Danish food company being the seller of food products, is an exporter. Danish food companies that are exporting to the UK vary significantly in industry and size. This research intends to encompass all Danish food companies scaling from small and medium-sized enterprises (SMEs) that merely export smaller loads to large multinational enterprises (MNEs) with huge exporting activity to the UK.

*Danish food companies* are co-operatives, private and public companies based in Denmark that produces or processes all types of foods and food supplements, which, irrespective of being unprocessed, partially processed, or wholly processed, are meant to be consumed by humans (Danish Veterinary and Food Administration, 2021). These foods include animal foods, drinks, food supplements, additives, ingredients, vegetables, corns etc. Animal food encompasses meat, fish, shellfish, dairy, eggs, and products produced from these raw materials. Food producers and processors entail primary producers that, for example, breed animals for slaughter or animals for milk or egg production and fishermen. It also involves slaughterhouses, dairies, fish companies, and breweries (Danish Veterinary and Food Administration, 2021).

Furthermore, the researcher wishes to conduct a qualitative Delphi Study by interviewing several experts within the Danish food sector to identify and examine the consequences. The experts will consist of representatives from organizations with interest and direct influence on the trade of food products between Denmark and the UK. Therefore, the research includes representatives from government bodies, food companies, and trade associations, as they have significant knowledge and influence on the Danish food sector's export to the UK. The aim of interviewing representatives from government bodies and trade associations is to obtain and publish an overall representation of the TCA's consequences on Danish food companies' export to the UK. Thereby, understand the overall consequences for Danish food companies of various sizes, industries, and quantities of export to the UK.

This research will address a contemporary subject that has received limited attention from scholars. Nevertheless, scholars have already investigated parts of the research field in the form of consequences from similar trade agreements, which are examined in the coming literature review.

## 1.5. Research Structure

To comprehend the purpose and process of this study, it is found important to outline and visualize the research structure (see Figure 3). The initial chapter introduces the research field and leads into the research gap. Subsequently, the research questions are clarified.

The second chapter concerns the background and methodology of the literature review, which lead to the third chapter consisting of a narrative literature review based on the current literature on free trade agreements, export- and non-tariff barriers. In addition, the findings of the literature are summarized at the end of the literature review.

The fourth chapter entails the overall philosophy of science and methodology. This chapter involves the considerations and limitations of the research, followed by the applied approach and methods.

In the fifth chapter, empirical data from six expert interviews are coded and subsequently analyzed. The analysis identifies and examines the consensus of main consequences. The literature will provide context to the data analysis.

The sixth and seventh chapter respectively discusses and concludes the study by detailing the identification, examination, and implication of the main consequences.

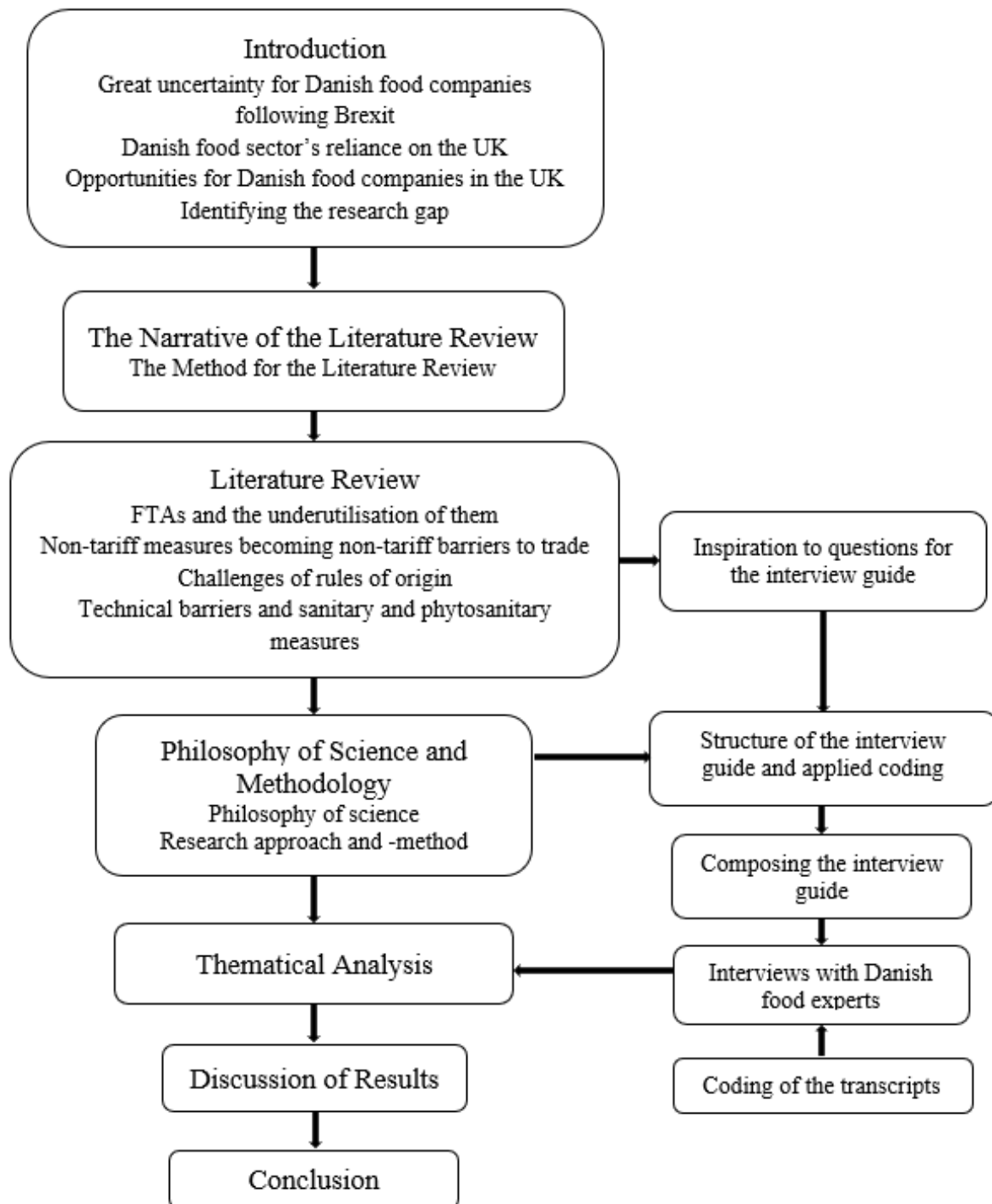


Figure 3: The research structure

## 2. The Narrative of the Literature Review

Before the UK left the EU, a free trade agreement (FTA) was agreed. The TCA, which includes zero-tariff and zero-quota trade arrangements, removed much of the uncertainty around the future of Danish export to and operation in the UK. However, according to the Agriculture and Horticulture Development Board (2020), having tariff- and quota-free access to the EU member states and the other way around is not equivalent to being part of a customs union or common market. Third country regulation now applies between the UK and the EU – and therefore also between Denmark and the UK – which, according to experts, will enforce trade frictions and non-tariff barriers (NTBs) because of implemented non-tariff measures (NTMs). These NTMs include additional physical checks, advance notification of cargo, export certificates, labeling requirements, and additional time spent crossing the borders that will add cost to many Danish food companies (Smail, 2020; Baker, 2021).

In addition, according to the Economist Intelligence Unit (2021), NTMs such as Rules of origin have been imposed, which “require products to have certain percentage of their inputs sourced from the EU...” (The Economist Intelligence Unit, 2021). Thus, products traded between Denmark and the UK will now be subject to Rules of origin, providing Danish food companies that want to export to the UK with less flexibility in globalizing their supply chain (The Economist Intelligence Unit, 2021). LSE Consulting (2018) estimates that the administrative processes of complying with the Rules of origin requirements contribute to high extra costs to exporters within the food sector.

From the above, it is evident that the negative consequences of the TCA on Danish food companies concern characteristics of export barriers in the form of NTBs to trade. The enforced NTBs concerns challenges of trade friction and Rules of origin. These challenges are projected to provide additional restrictiveness, complexity, and costs for Danish food companies' exporting to the UK. Thus, FTAs and NTBs, including Rules of origin, are utilized as themes and keywords in the search strategy for the literature review. The following section details the method of conducting the literature review, including the applied search strategy.

### 2.1. The Method for the Literature Review

A comprehensive overview of the current body of literature within the investigated research field is necessary in order to understand the subject. The literature review will generate a strong foundation for the analysis, where it will provide context to the empirical data. By examining previous research,

a broader perspective on the research field hopefully emerges by contextualizing the literature with the obtained empirical data (Bryman & Bell, 2011, pp. 91-92). According to Bryman & Bell (2011), there are two overall methods of conducting a literature review: the systematic and narrative approach.

A systematic literature review is defined as “a replicable, scientific and transparent process...that aims to minimize bias through exhaustive literature searches of published and unpublished studies and by providing an audit trail of the reviewer's decisions, procedures, and conclusions” (Bryman & Bell, 2011, p. 96). A systematic literature review considers the entire body of literature within a specific topic and requires a rigorous, structured, and clearly defined approach to research. Systematic literature reviews more applicable on well-focused research questions where the purpose is to understand whether a specific solution is beneficial and more appropriate than other solutions (Bryman & Bell, 2011, p. 96).

Narrative literature reviews are less rigorous than systematic literature reviews. It focuses on outlining the literature to summarize the subject to the reader, which includes relevant theories, definitions, methods, and concepts related to the subject (Bryman & Bell, 2011, p. 101). The approach enables a more comprehensible understanding of the literature's current state. The approach is also helpful in identifying gaps or inconsistencies in the literature, making the approach beneficial when comparing the literature to new qualitative data (Cronin, Ryan, & Coughlan, 2008).

The coming literature review follows a narrative approach. The scope of a narrative literature review aligns with the wish to provide a deeper understanding of NTBs in FTAs to enable a contextualization between the literature and the empirical data.

During the research, a search diary was maintained detailing the choice of database, the scope, and search strings used in gathering literature about FTAs, NTBs, including Rules of origin (see Table 2). In addition, the snowball method was also utilized in conducting the literature review.

Search string	Database	Scope	Output
(Non-tariff barriers OR NTB OR NTBs OR export barrier) AND (free trade agreement OR FTAs OR PTAs OR preferential trade agreement OR trade agreement)	SCOPUS	Title, Abstract & Keyword	589
(Rules of origin OR ROO OR Rules of origin OR preferential origin)	SCOPUS	Keyword	4,371

Table 2: Search diary

NTBs, FTAs, and Rules of origin are terms with several synonyms and abbreviations. Thus, synonyms and abbreviations identified through the initial search were applied in the literature search to get a literature output that encompassed as much relevant literature as possible. Afterward, some refinement criteria were applied to narrow the output down and exclude irrelevant articles (see Table 3). Applying these criteria to the search of NTBs and FTAs, which had an initial output of 589 documents, resulted in an output of 343 articles. Also, applying the search criteria on Rules of origin, which had an initial output of 4,371 documents, ended with an output of 243 articles. Subsequently, a screening of the 586 articles was carried out. The screening process involved an initial screening of the article's title, followed by a second screening of the article's abstract. Ultimately, 52 articles were chosen for the literature review.

	Subject area	Document type	Publication stage	Source type	Language
<b>Refinement criteria</b>	Business, Management, and Accounting OR Economics, Econometrics and Finance	Article	Final	Journal	English

Table 3: Refinement criteria

When examining the literature obtained from the applied search method, it became apparent that administrative trade barriers, technical barriers and sanitary and phytosanitary measures (SPS) are highly influential NTBs, especially within the food and agriculture sector. Thus, the following literature review will also include insights on administrative trade barriers, technical barriers, and SPS measures.

The research method of a narrative literature review carries certain limitations to the research. When conducting a narrative literature review, it enhances the possibility of selection bias, as the researcher tends to focus on literature that is found valuable to the research. Furthermore, the approach has received criticism for lacking transparency and reliability (Bryman & Bell, 2011, p. 101). However, arguing for the reason to investigate specific NTBs such as Rules of origin, technical barriers, SPS measures, and administrative trade barriers while also outlining the methodological considerations of this research hopefully increases the transparency of this study.

### 3. Literature Review

The following literature review will initially clarify the meaning of FTAs and how they differ from the most-favored-nation principle enforced by the WTO, which leads to underutilization of FTAs due to specific NTMs. Afterward, export barriers are briefly outlined, as export barriers include NTBs, which tend to derive from NTMs implemented by governments. Subsequently, NTMs, including Rules of origin and SPS measures are detailed to give an overview of the challenges in complying with these measures. Finally, a summarization of the findings from the literature review are presented.

#### 3.1. FTAs and the Underutilization of FTAs

Since the early 1990s, there has occurred a remarkable increase in the creation of trade agreements. Especially, the formation of FTAs has seen an exponential increase over the past 30 years. Today, nearly all countries are members of an FTA. As of February 2019, the World Trade Organization (WTO) reported that the number of FTAs has increased to 685, with 471 in force, compared to 25 in 1990 (Hayakawa, Laksanapanyakul, Mukunoki, & Urata, 2019). Following Cooper (2014), FTAs cover a broad category of trade arrangements in which preferential treatment is granted to the participating member countries (see Table 4).

Type of FTA	Description
Free Trade Area	Member countries provide mutual elimination of tariffs and some non-tariff barriers on trade, but each member country has its own trade policies, including external tariffs
Customs Union	A trade bloc composed of a free trade area with no customs duties and common external tariffs.
Common Market	A Customs Union including free movement of people across national borders within the union.
Economic Union	A Common Market with common currency and unified monetary policy system.

Table 4: Category of FTAs

Following the theoretical considerations and analysis of Viner (1950), Kemp & Wan (1976), and Krueger (1999) on the differences between free trade areas and customs unions, they find customs



unions to be the preferred policy choice due to the possibility of implementing a standard external tariff. In theory, the formation of a customs union will have no significant effects on non-members while substantially improving members' welfare. Krueger (1999) identified a considerable inherent protectionist bias in free trade areas, which is not found in customs unions. The inherent protectionist bias of free trade areas derives from the implications of Rules of origin that have the ability to distort trade in free trade areas (further detailed in chapter 3.3.1. Challenges of Rules of origin). The differences between free trade areas and customs unions are very substantial, and the role and definition of FTAs are important to this research. Thus, it was found necessary to clarify the understanding of FTAs in relation to this research. Because the TCA resembles Cooper's (2014) definition of free trade areas, the utilization of the term FTAs follows his' definition of free trade areas (see Table 4).

In general, countries seek to form or join FTAs because of six factors; 1) creating a more stable and predictable trading environment, 2) increased access to markets enhances the possibilities of economic growth, 3) advantages of scale economies, 4) benefits from regional specialization, 5) technical spillover, and 6) possibilities of attracting investments to an expanded regional market (Nielsen, 2003). One of the primary purposes of creating or joining FTAs is to obtain economic growth through increased international trade between the FTA member countries. FTAs stipulate free trade in the form of zero-tariff among FTA member countries, and in the case of the TCA, it also includes zero-quota. FTAs provide a rapid alternative to trade liberalization since fewer countries are involved in an FTA than in the WTO. Many countries have in recent times exploited "exceptions" to the WTO's most-favored-nation (MFN) principle by constituting FTAs (Hayakawa, Laksanapanyakul, Mukunoki, & Urata, 2019). Though concerns about FTAs undermining the WTO's MFN principle, members of the WTO are allowed to form FTAs as long as it promotes freer trade and does not create additional trade barriers for non-member countries (Couillard & Turkina, 2015). The MFN principle is related to the WTO agreements and forbids countries to discriminate between trading countries by, for example, granting lower tariffs to one country relative to other WTO members. However, some exceptions are allowed, such as forming and joining FTAs.

A key difference in the economic impacts of international trade under FTAs, compared to the MFN principle, is that exporters must comply with the Rules of origin in FTAs and benefit from tariff-free access. Whereas under the MFN principle in the WTO, all countries are equally treated. As described by Jongwanich & Kohpaiboon (2017), "products must comply with the rules of origins – that is, the rules proving the origin of goods for the purpose of determining eligibility for tariff concessions".

Therefore, products exported under FTAs need to originate from member countries of the FTA, which may prompt exporters to change their procurement sources and increase costs of components (Hayakawa et al., 2019). In addition, several procedures and measures are implemented in FTAs, which exporters and importers must comply with in order to receive preferential treatment (Jongwanich & Kohpaiboon, 2017).

However, despite the escalation of enforced FTAs, many companies tend to underutilize the benefits of FTAs or entirely chose not to use them (Yi, 2015). For example, the North American Free Trade Agreements (NAFTA) average utilization rate was roughly 64% in 2000. Also, a comprehensive survey conducted by the Federation of German Industries in 2018 found that more than half of German exporters do not utilize specific FTAs, even though they have trading relations with countries of the agreements (BDI, 2020). The study revealed that the primary hinders in utilizing FTAs were the cost and complexity of NTBs, especially compliance with Rules of origin and inadequate internal capacity to manage FTAs. Yi (2015) argues that the underutilization of FTAs reduces the impact of these agreements on free trade and undermines the incentives for countries to form new agreements. Studies have found the implementation of specific NTMs to be the primary reason for the underutilization of FTAs, as NTMs, in some cases, becomes export barriers. Studies by Kawai & Wignaraja (2009), Katsuhide & Shujiro (2008), Athukorala & Kohpaiboon (2011), and Hayakawa et al. (2012) identified administrative difficulties, small margins, delays, and costs associated with complying to Rules of origin to be the main reasons for underutilization of FTAs.

### 3.2. Barriers to Exporting

The study of export barriers has received considerable attention both conceptually and empirically (Hook & Czinkota, 1988; Leonidou, 1995; Leonidou, 2004; Myhre, 2017). According to Leonidou (1995), export barriers refer to all types of constraints that obstruct companies' ability to initiate, develop or sustain business operations in foreign markets. Barriers can originate internally or externally. Internal barriers tend to be associated with organizational resources, capabilities, and approaches to exporting. Whereas external barriers stem from the company's environment, meaning the industry, home-, and host market (Leonidou, 2004; Pinho & Martins, 2010). In addition, Leonidou (2004) breaks internal and external barriers further down by dividing internal barriers into functional, informational, and marketing. While separating external barriers into procedural, government, task, and environmental (see Figure 2).

Because this research examines consequences – including barriers to trade – following a trade agreement, the consequences derive externally from the Danish food companies.

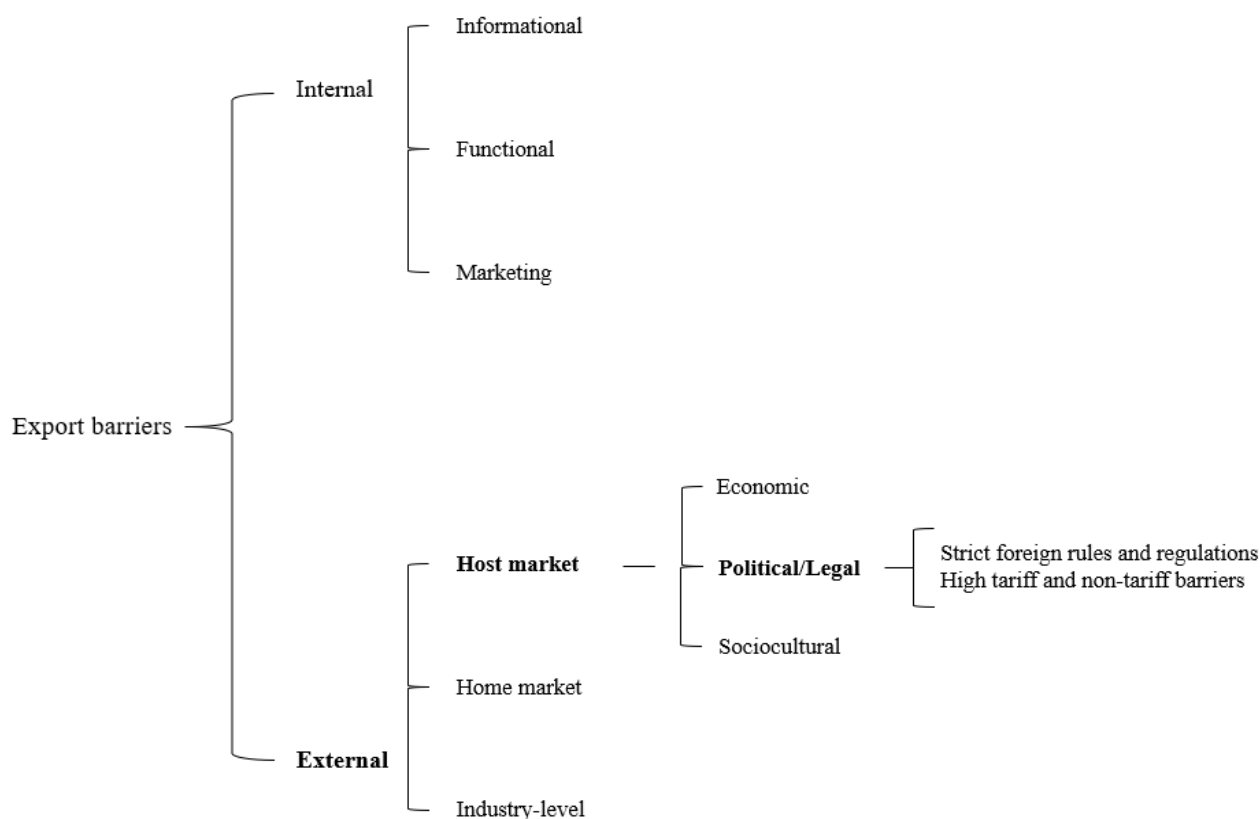


Figure 4: Classification of export barriers. Inspired by Leonidou (2004) and Tesfom & Lutz (2006)

Following Leonidou (2004), external barriers include factors that the individual exporter has minimal control over. These factors are associated with export barriers that can impact companies in two ways: 1) they can be the source of barriers in the home market, for instance, barriers linked to the domestic government, and 2) challenges derived from foreign market conditions (e.g., economic, political and sociocultural) of which the company operate within (Leonidou, 2004). External barriers are affected by rapid external changes and involve high levels of uncertainty (Leonidou, 2004). Similar to Leonidou (2004), Tesfom & Lutz (2006) also divide external barriers into home-based market barriers and host-based barriers. However, they add industry-level barriers to their research. All three scholars find external barriers to constitute some of the most challenging constraints for international trading companies (Leonidou, 2004; Tesfom & Lutz, 2006).

Research by Dean, Mengüç & Myers (2000) and Suarez-Ortega (2003) find that home market barriers tend to involve unfavorable geographic location, lack of bank with sufficient international expertise,

absence of tax incentives, limited government promotion programs, inconsistent government policy, and inflation and interest rates.

Industry-level barriers often concern industry structure encompassing unfavorable industry regulations and restrictions, falling international market prices, international measurement standards, and limited technology (Tesfom & Lutz, 2006).

Host market barriers can appear as unfavorable operating conditions and foreign restrictions and regulations. Identified among unfavorable market conditions are the pace of business in foreign countries, harsh economic climate, red tape and bureaucracy, political instability, and corruption (Kwon & Hu, 1996; Barnes & Palihawadana, 2006; Neupert, Baughn, & Dao, 2006). Foreign restrictions and regulations comprise of general restrictions, standards, tariff barriers, non-tariff barriers, import permits and licenses, and other compliance-related documentation (Jensen & Davis, 1998; Köksal & Kettaneh, 2011; Milanzi, 2012). According to Leonidou (2004), host market barriers with the highest impact on exporting companies are often regulatory barriers, including NTBs imposed by governments in trade agreements. NTBs can include technical barriers to trade, administrative subtleties, and customs administration, resulting in severe difficulties for exporting companies (Leonidou, *An Analysis of the Barriers Hindering Small Business Export Development*, 2004).

### 3.3. Non-tariff Measures and Non-tariff Barriers to Trade

According to the Organisation for Economic Co-operation and Development (OECD), NTMs “covers a diverse set of measures in terms of purpose, legal form and economic effect” applied on imported and exported goods. Due to the diversity of NTMs, their impact is difficult to quantify (Cadot, Gourdon, & Tongeren, 2018). Following a report by UNCTAD (2012), NTMs covers a wide variety of policy tools, which are visualized in Figure 5, “including, sanitary and phytosanitary measures (SPS), technical barriers, quotas, import and export licenses, export restrictions, customs surcharges, and anti-dumping and safeguard measures” (Cadot, Gourdon, & Tongeren, 2018; UNCTAD, 2012). Generally, NTMs objective is to overcome or minimize the impact of perceived market imperfections. For example, market imperfections related to externalities with negative characteristics: information asymmetry or risks for human, animal, or plant health (van Tongeren, Beghin, & Marette, 2009).

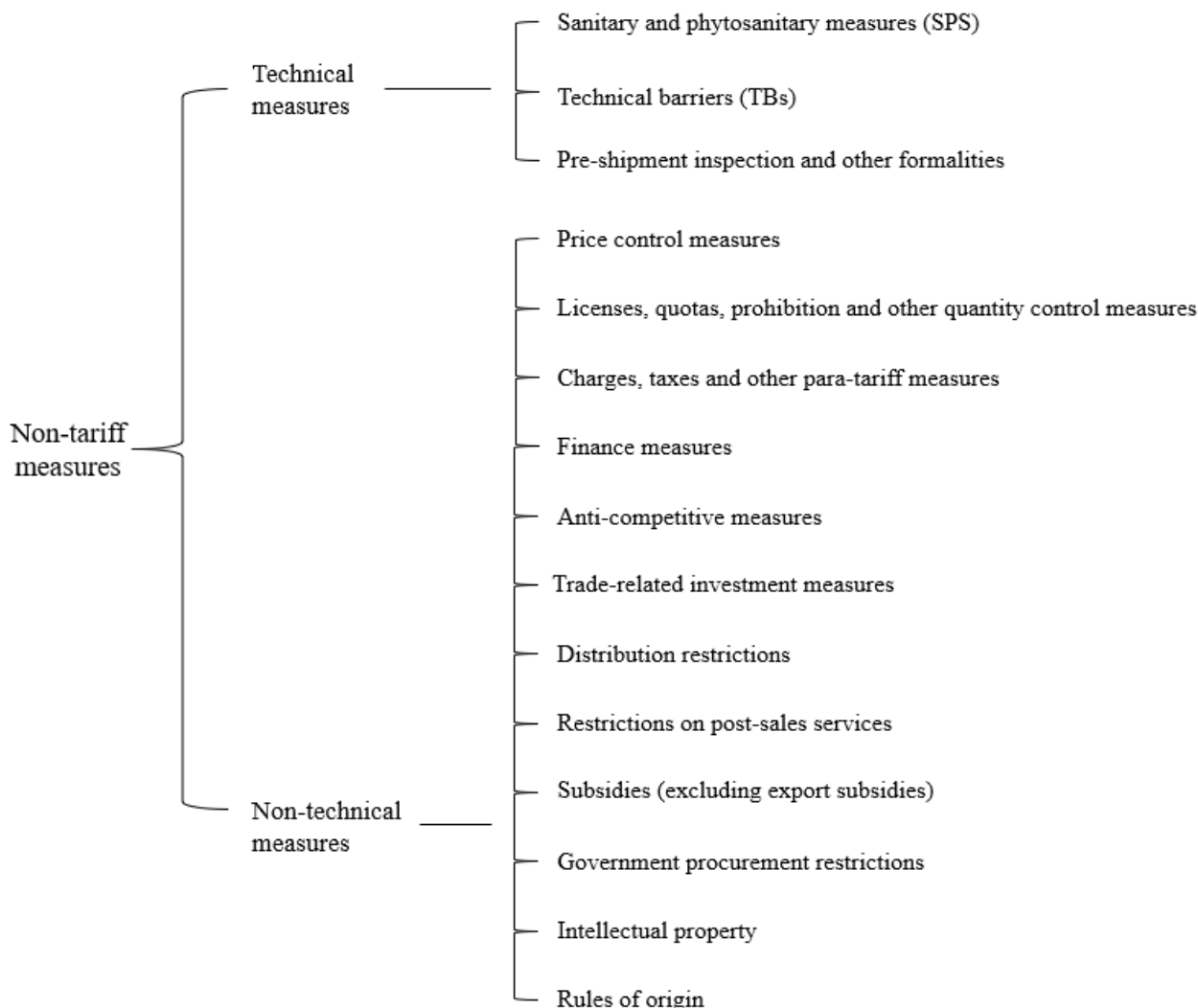


Figure 5: Classification of NTMs. Inspired by UNCTAD (2012)

However, according to UNCTAD (2012), these NTMs can affect trade flows. In addition, Cadot et al. (2018) find that NTMs tend to increase production and trade costs. The study clarifies the costs of NTMs by stating that they are:

...related to identifying and processing the information on relevant requirements in the target market (information costs), the need to adjust the product or production process to the requirements of the importing country (specification costs), to verifying and proving that these requirements are actually met (conformity assessment costs), or a combination of the three. (Cadot, Gourdon, & Tongeren, 2018).

Studies by various scholars emphasize concern over governments implementing NTMs as substitutes for diminished tariff protection due to the WTO and GATT agreements (Moore & Zanardi, 2011; Kee, Nicita, & Olarreago, 2009; Orefice, 2017; Cadot, Gourdon, & Tongeren, 2018). These studies have raised concerns that – despite diminishing tariff protection – the implementation of NTMs has caused the overall costs of trading across border to remain high. Thus, making NTMs to become NTBs to trade by imposing unnecessary costs, compliance, and time burdens. Research has found NTBs to cause significant damage to international trade, as they present a significant source of trade friction among many countries and many traded goods (Jaroensathapornkul, 2017).

NTMs tend to be implemented as a package and not as a single stand-alone measure. They encompass specific procedures to comply with a particular regulation, such as Rules of origin or SPS measures, which can be restrictive and complex and provide additional costs for companies. Scholars refer to this type of barrier as administrative trade barriers (Baldwin, 1970; Bjelic, Mitrovic, & Petrovic, 2013; Liu & Yue, 2009; Devadason, 2020).

Administrative trade barriers contribute significantly to trade friction within FTA member countries. Administrative trade barriers are a heterogeneous group of NTBs named “administrative hindrances to trade” by Baldwin (1970). Baldwin (1970) described them as formalities emerging from the implementation of a customs procedure. In practice, administrative trade barriers occur through increasing demands for unnecessary documentation of exporters’ goods, resulting in delays at customs (Bjelic, Mitrovic, & Petrovic, 2013). According to UNCTAD (2009), administrative trade barriers can be categorized into many groups: requirements for a large number of documents at customs, complex and time-consuming procedures for international trade, lack of transparent rules and obligations for participants in international trade, and multiple controls at crossings of borders. Customs and administrative procedures are intended to smoothen trade among countries. However, protracted customs and administrative procedures can result in burdensome costs that reduce or even hinder trade between countries (Liu & Yue, 2009). Time delays caused by these lengthy procedures enhance costs, reduce trade volumes, and prevent some exporting companies from entering certain markets. The negative consequences of additional costs and delays caused by customs and administrative procedures can especially cause challenges to the food and agriculture sector. Many food products have limited shelf life, making delays (e.g., at the border) significantly damaging to food companies’ export. Also, companies within the food and agriculture sector tend to operate on small margins, and therefore, additional costs from customs and administrative procedures generates significant inconvenience (Liu & Yue, 2009).

Furthermore, a report by UNCTAD (2015) found Rules of origin to be the NTM that are perceived as most burdensome due to mainly procedural obstacles causing delays, higher costs, and administrative challenges. Scholars have raised concerns that Rules of origin are being implemented as a commercial policy instrument to prevent companies from utilizing FTAs (Falvey & Reed, 1998; Estevadeordal & Suominen, 2004; Ju & Krishna, 1998).

### 3.3.1. Challenges of Rules of Origin

The Rules of origin are by many scholars identified as the main causality for the underutilization of FTAs. As emphasized by Falvey & Reed (1998), Rules of origin are implemented because governments wish to discriminate between products on the basis of “country of origin”. There exist two types of Rules of origin: Non-preferential rules of origin and Preferential rules of origin. Non-preferential rules of origin are utilized to distinguish between foreign and domestic products by establishing anti-dumping and countervailing duties, safeguard measures, origin marking requirements, and discriminatory quantitative restrictions or tariff quotas. Whereas Preferential rules of origin define the conditions under which the importing country regards the goods entering as originating in an exporting country that receives preferential treatment from the importing country (Estevadeordal & Suominen, 2004). As the TCA encompasses Preferential rules of origin, the following concerns Preferential rules of origin.

Preferential rules of origin are utilized as instruments to avoid trade deflection. Trade deflection can occur when goods from companies within non-FTA countries are distributed through a low-tariff FTA country into a higher-tariff country, which has an FTA with the low-tariff country. Thus, trade deflection is a method some companies utilize to pay minimal tariffs (Andersson, 2016). Therefore, the purpose of Rules of origin is to prevent trade deflection by assuring that only goods originating in countries entitled – due to an FTA – are given tariff-free access (Andersson, 2016).

The complexity and restrictiveness of Rules of origin employed in FTAs have given rise to concerns over the effects Rules of origin have on trade flows (Estevadeordal & Suominen, 2008). A gradually growing literature on Preferential rules of origin has attempted to measure its restrictiveness and impact on trade. A significant portion of literature concerning Rules of origin has focused on measuring the use of tariff preferences of various FTAs (Herin, 1986; Brenton & Miriam, 2003; Manchin, 2006; Estevadeordal & Suominen, 2004). According to Yi's comprehensive literature review (2015), Rules of origin are often identified as the main barrier to why established FTAs are

underutilized. In the same paper, she emphasizes that “FTAs liberalise trade on the basis of a product's origin using Rules of origin which designates a product's origin in order to determine its eligibility for preferential tariff rates” (Yi, 2015). Rules of origin are becoming increasingly complex, and therefore the costs of complying with Rules of origin can result in exporting companies not utilizing FTA benefits (Yi, 2015). Studies by Herin (1986), Brenton & Manchin (2003), and Manchin (2006) indicate that companies that do not utilize free-tariff arrangements within areas of FTAs are often because the cost of obtaining preferential status for their goods is higher than the tariff rate. These studies display a large share of companies exporting within areas of FTAs pays the non-preferential tariff when exporting goods primarily due to a restrictive Rules of origin. Herin's research (1986) on the utilization of tariff preferences showed an unexpectedly large portion of companies exporting from the European Free Trade Association (encompassing Iceland, Liechtenstein, Norway, and Switzerland) to the EU paid the non-preferential tariff. Even though, these companies are entitled to tariff-free exporting. Brenton & Manchin's (2003) and Manchin's (2006) research also suggest that strict Rules of origin correlate with the underutilization of tariff-free preferences. In addition, more recent studies by the Federation of German Industries & UNCTAD (2020) and the National Board of Trade Sweden (2018) show similar results of strict Rules of origin requirements leading to underutilization of tariff-free passage in exporting goods. A comprehensive study by the Federation of German Industries on German exporters' tariff preferences identified five factors to the primary hindering of tariff-free exporting. Extensive costs and bureaucracy associated with compliance with Rules of origin were identified as one of these barriers (BDI, 2020). As a result, 54% of the surveyed German exporters indicated that there are tariff-free opportunities that they do not use (BDI, 2020).

Furthermore, scholars have also examined the complexity and costs of adhering to Rules of origin, given the rules often differ among the many FTAs (Anson J. , et al., 2003; Anson J. , et al., 2005; Estevadeordal & Suominen, 2008). Anson et al. (2005) found a negative correlation between Rules of origin and trade, revealing that restrictive Rules of origin are negatively related to trade. In the same study, the scholars calculated that the average compliance costs of Rules of origin in NAFTA are six percent of the good's price, which is higher than the average tariff of four percent (Anson J. , et al., 2005). A study by Cadot et al. (2006) estimates the cost of compliance of Rules of origin when importing into the EU to be around eight percent of the value of the underlying good. In addition, approximately 85% of the compliance cost is the extra paperwork, indicating that companies meeting the standards of Rules of origin will still accommodate extra compliance costs.



A panel study by Estevadeordal & Suominen (2008) on the trade effects of Rules of origin revealed that restrictive Rules of origin have a negative impact on trade flows and produce trade diversion in intermediate inputs. Cantin & Lowenfeld (1993) and more recently Harris & Staples (2009) emphasized that the administering protocols of Rules of origin tend to cause significant uncertainty for exporting and importing companies, typically due to unclear procedures, lack of capacity at customs or incomplete legal provisions.

### 3.3.2. Technical Barriers and Sanitary and Phytosanitary Measures

In 1995, the Agreement on Agriculture entered into force with the establishment of the WTO, and many countries and companies worried that reducing support to the agriculture sector would result in governments employing additional technical barriers – especially SPS barriers – to protect its domestic producers and farmers (Calvin & Krissoff, 1998). Technical barriers can be defined as “import standards or regulations that reflect a country’s concern and valuation for safety, health, food quality and for the environment” (Calvin & Krissoff, 1998). They include SPS measures connected to food safety and the protection of humans, animals, and plants. SPS measures are quarantine and biosecurity measures enforced to protect humans, animals, or plants from risks of additives, contaminants, toxins, and disease-causing organisms in food and feed. These measures are also applied to protect from risks of pests and other diseases (UNCTAD, 2019). NTMs such as technical barriers and SPS measures, unlike tariffs and other types of NTMs, are generally viewed as legitimate regulatory measures for non-trade policy objectives of safety, security, and environmental protection. Still, there have been identified examples of technical barriers and SPS measures implemented to have subtle protectionist effects (Calvin & Krissoff, 1998; Govind, 2017; Vanzetti, Knebel, & Peters, 2018). With the Agreement on the Application of Sanitary and Phytosanitary measures, each WTO member determines its level of protection. According to Calvin & Kristoff (1998), the SPS measures utilized by countries to obtain a particular level of protection require a reliant scientific argument. However, there is often uncertainty regarding the level of risks when trading food and agriculture products, which can provide the basis of legitimate concern by countries when importing or a convenient excuse to implement an NTB (Calvin & Krissoff, 1998).

Research by Calvin & Krissof (1998) found that technical barriers in Japan were more crucial than tariffs in discouraging trade. Japanese technical barriers applied to apples seemed to have the primary role of protecting domestic producers from foreign competition rather than the welfare of the Japanese

people (Calvin & Krissoff, 1998). More recently, the WTO ruled against Australia who had eliminated the import of apples from New Zealand for many years. Australia's argument for keeping out apples from New Zealand was due to concerns of introduced diseases damaging the local industry. Nevertheless, The WTO characterized Australia's actions against New Zealand to be protectionist (Vanzetti, Knebel, & Peters, 2018). Studies by Crivelli & Gröschl (2016) and Webb, Gibson & Strutt (2017) find that SPS measures, Rules of origin, and other NTMs that carries conformity assessments, i.e. testing, certification, and inspection, significantly reduce the number of countries exporting to a market containing those NTMs. Crivelli & Gröschl (2016) calculated the effects of SPS measures and found that its conformity measures negatively affect market entry.

### 3.4 Summary of the Literature Review

Governments typically employ FTAs to remove tariff barriers and thereby increase trade among the member countries. However, studies find that, despite the escalation of enforced FTAs, many companies tend to underutilize the preferential treatment granted to them (Yi, 2015; BDI, 2020). Scholars have found export barriers consisting of administrative difficulties, small margins, delays, and compliance with the Rules of origin to be the primary factors in the challenges and underutilization of FTAs (Kawai & Wignaraja, 2009; Katsuhide & Shujiro, 2008; Athukorala & Kohpaiboon, 2011; Hayakawa et al., 2012). Many of these export barriers derive from NTMs. NTMs are in most cases implemented by governments in FTAs to overcome or minimize market imperfections such as information asymmetry, trade deflection, and risks for human, animal, or plant health (van Tongeren, Beghin, & Marette, 2009). However, NTMs can intentionally or unintentionally become NTBs to trade. Following Leonidou (2004) and Tesfom & Lutz (2006), NTBs are external barriers imposed directly or indirectly by governments in host markets. Thus, characterized as political and legal barriers to trade. Studies by various scholars have highlighted concern that – despite diminishing tariffs – the increasing implementation of NTMs and associated conformity assessments causes overall trading costs to remain high. Thereby, some NTMs become NTBs to trade by generating unnecessary costs, compliance procedures, and time burdens to internationally trading companies (Moore & Zanardi, 2011; Kee, Nicita, & Olarreago, 2009; Orefice, 2017; Cadot, Gourdon, & Tongeren, 2018).

Several studies have recognized administrative trade barriers to contribute to trade friction among companies trading within FTAs. Administrative trade barriers are characterized as compliance

procedures of certain NTMs (e.g., SPS measures and Rules of origin) that involve unnecessary complexity, restrictiveness, time, and costs. In some studies, administrative trade barriers have been identified as the conformity assessments, which are among other applied on Rules of origin and SPS measures (Baldwin, 1970; Bjelic, Mitrovic, & Petrovic, 2013; Liu & Yue, 2009; Devadason, 2020). In many instances, scholars identified the conformity assessment of NTMs to be the causality for companies' struggle with trading goods among FTA countries.

Rules of origin are by several scholars highlighted as the most challenging and often protectionist NTM. Rules of origin are utilized as an instrument to primarily avoid trade deflection by requiring documents detailing the origin of the traded goods. The implementation of Rules of origin "require products to have a certain percentage of their inputs sourced from the EU..." (The Economist Intelligence Unit, 2021). In addition, a report by UNCTAD (2015), based on an extensive sample of surveys, found Rules of origin to be the NTM perceived as most burdensome for companies to comply with due to mainly procedural obstacles causing delays, higher costs, and administrative challenges. Estimates by Cadot et al. (2006) saw the cost of compliance of Rules of origin when importing into the EU to be approximately eight percent of the value of the underlying goods, with 85% of these costs being the additional paperwork. As a result, research has found the compliance requirements of Rules of origin to cause underutilization of the preferential tariff-free access in FTAs (Brenton & Miriam, 2003; Manchin, 2006; Herin, 1986; Yi, 2015; Federation of German Industries & UNCTAD, 2020; The National Board of Trade Sweden, 2018).

NTMs such as technical barriers and SPS measures are generally found to be legitimate regulatory measures with objectives to protect countries' human, animal, and plant life from risks of additives, contaminants, toxins, and diseases (UNCTAD, 2019). However, scholars have identified cases of technical barriers and SPS measures inducing protectionist effects, and also examples where the conformity assessments surrounding SPS measures present negative effects on trade and international trading companies (Calvin & Krissoff, 1998; Govind, 2017; Vanzetti, Knebel, & Peters, 2018). Hence, technical barriers and SPS measures – despite their legitimacy – can present significant NTBs to trade.

## 4. Philosophy of Science and Methodology

The following presents the philosophy of science and the methodological approach of this research. The philosophy of science and methodology supports the empirical and theoretical findings to identify and examine the main consequences for Danish food companies' export to the UK following the TCA. The initial chapter explains the researcher's inherent ontological and epistemological assumptions and considerations. Subsequently, in-depth clarification of the methodological process, including the research approach and research method. A comprehensive clarification of my philosophical understanding and methodological process is necessary in order for the reader to understand the decisions carried throughout the research.

### 4.1. Philosophy of Science

The philosophy of science is essential to comprehend the basic notions of the researcher's perception of reality and thus the perception of the study. Reality can be perceived differently, and these differences in perspectives of reality are called paradigms. Arbnor and Bjerke (1994) define a paradigm as "any set of general and ultimate ideas about the constitution of reality, the structure of science, scientific ideals, and the like" (Arbnor & Bjerke, 1994, p. 26). Hence, a paradigm is viewed as the inherent assumptions undertaken by the researcher throughout this study. Choices made when conducting research are influenced by one's inherent assumptions, including the choice of research questions, research design, and methods. These choices also impact the selected literature utilized in the literature review and affect the outcome of the subsequent analysis. Therefore, the inherent assumptions are important to explore and clarify, as they ultimately impact and define the conclusion (Darmer, Jordansen, & Madsen, 2010).

This research is positioned in the constructivist paradigm, which "assumes that reality as we know it is constructed intersubjectively through the meanings and understandings developed socially and experientially" (Lincoln, Lynham, & Guba, 2011), and implies that multiple realities exist (p. 57). Also, in following Bryman & Bell (2011), "constructivism implies that reality and the social phenomena are in a constant state of revision, which emerges through social interaction" (p. 21). Therefore, my interaction with various social actors influences the perception of reality and the outcome of this study, making this a qualitative research. My and the participants' beliefs and assumptions are exposed. Therefore, different outlooks appear throughout the project and are

interpreted (Saunders et al., 2012). Having several interactions with various participants concerning their perception and reality on the investigated phenomena (i.e. consequences from the TCA on Danish food companies' export to the UK) enables co-creation of understandings. Thereby, creating a deeper understanding of the phenomena. By contrast, positivism, often applied in quantitative research, views reality objectively merely focusing on what is measurable, undeniable, and identifiable (Lincoln, Lynham, & Guba, 2011). Positivism do not value the exploratory of the phenomena and patterns among the phenomena. Hence, following a constructivist position enables a deeper understanding of the identified consequences

Though this research emerges from interaction with multiple participants, it is important to stress that their perceptions are not found to be the complete reality. However, in constructivism “we [constructivism] do not believe that criteria for judging either “reality” or validity are absolutist” (Denzin & Lincoln, 2017, p. 219). Still, similar to quantitative research, qualitative research must also to demonstrate credibility, but not by assessing reliability and validity, as the possibility of deducing generalizable findings are more improbable in qualitative research. This research is qualitative, and it is recognized that the gathered data is socially constructed. However, this does not imply that the research is without credibility (Myhre, 2017). In constructivism, credibility derives from community consensus: “what is useful and what has meaning...within that community, as well as for that particular piece of research” (Denzin & Lincoln, 2017, p. 219). Thus, it is important for the quality of this research to find the consensus of the phenomena (i.e., consequences) among individuals that represents the community linked to the phenomena. Hence, to represent the community, these individuals must follow certain criteria. The relevance and credibility of the participants are detailed in section 4.3.1. Expert Interview.

To identify the main consequences from a constructivist position, this research intends to identify a consensus among the interviewees (clarified in 4.3. Research Method). Thus, methodologies of dialectics are employed in this research. Dialectics is the constant process of creating synthesis from thesis and antithesis. It establishes the foundation for creating meaning through interactions – imposing new knowledge and a deeper meaning. Incorporating the method of dialectics transpires by using the knowledge from the literature review to conduct the interview guide, which allows for comparison and contextualization of the expert's statements with the literature. Thus, the literature review – which also acts as the thesis – is incorporated into the interview guide and the analysis, which functions as the antithesis (see Figure 6). Thereby creating a synthesis by having experts answer questions directly connected to the literature (Arbnor & Bjerke, 1994). In sum, the method of

dialectics is being utilized throughout this project to compare the interviewed experts' perspectives to seek a form of consensus and identify the main the consequences faced by Danish food companies while contextualizing with the literature. Hopefully, this method will assist in achieving a more robust understanding of the challenges and opportunities that Danish food companies exporting to the UK are currently facing or projected to face.

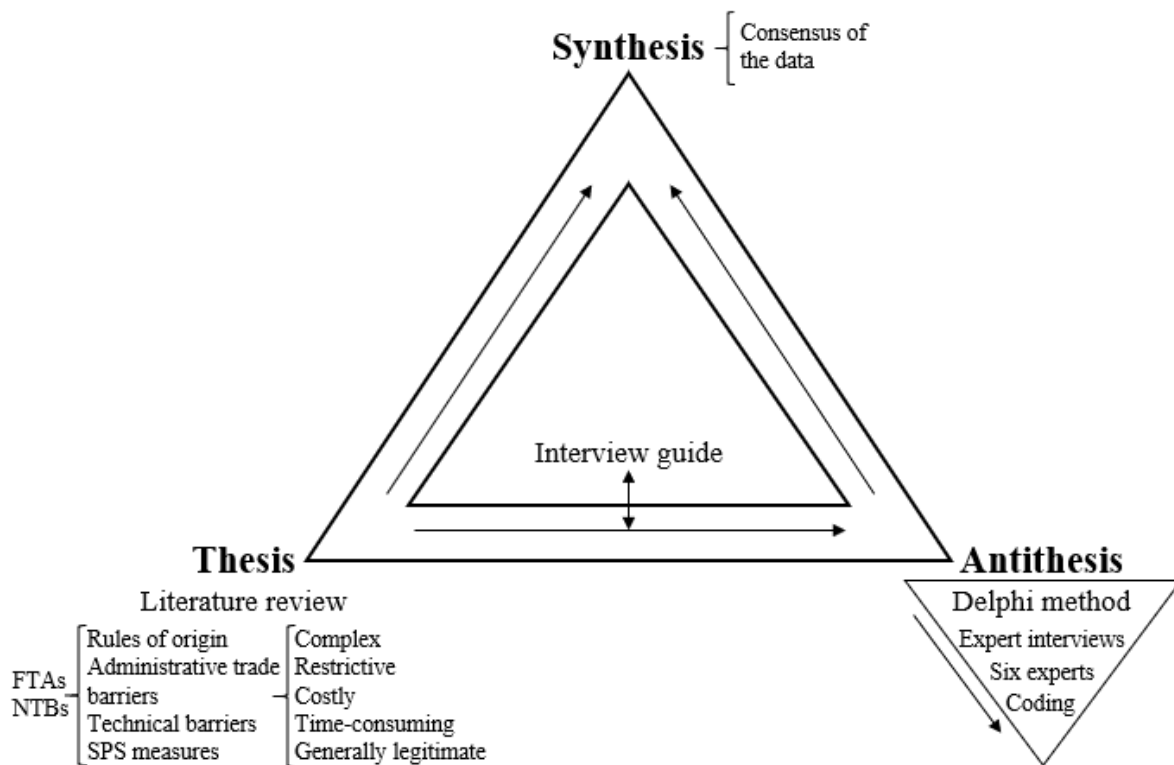


Figure 6: Dialectics in the research

## 4.2 Research Approach

The research approach is inherently related to the relationship between theory and research and can be inductive or deductive. The deductive approach utilizes theory as the initial point of research. Different propositions can be deduced from the initial research point. The propositions, which have been deduced on the basis of what is known about the domain, including relevant theoretical considerations, will then be subject to empirical examination (Bryman & Bell, 2011, p. 11). Through an inductive approach, theory becomes the outcome of the research. Thereby the intention and process of the inductive approach are to achieve a more generalizable outcome (Bryman & Bell, 2011, p. 13).

This project follows mainly an inductive approach, but also carries characteristics of deduction. The inductive approach emerges through this research's objective, which is to identify and explore the consequences from the participants' perspective. Thus, the coding was primarily inductive as it focusses on codes and themes that emerged from the empirical data, meaning the interviews with the participants. Subsequently, the coding process became more deductive as linkages between the themes and the literature were sought after and examined. Utilizing these deductive qualities adds context to the empirical data. In addition, traits of deduction also appeared in gathering the data, where findings from the literature review are incorporated into the interview guide. Hence, the examined literature on FTAs and NTBs (including Rules of origin, administrative trade barriers, technical barriers, and SPS measures) constitute a portion of the foundation for obtaining data (Bryman & Bell, 2011). This approach enabled me to compose questions relevant to the investigated phenomena. Still, it is important to emphasize that the participant's perspective is the focus of this research, as the codes and themes being identified and examined are mentioned by the interviewees. Overall, my research approach applied for this study align with the method of dialectics.

Conducting interviews with multiple representatives of various food organizations hopefully provides valuable insights on the current and projected consequences of the TCA on Danish food companies' export to the UK. In following this mainly inductive approach, the methods applied to obtain and process data for this research must be compatible and clarified (Bryman & Bell, 2011, p. 11).

#### 4.3. Research Method

The research method details the process of collecting and examining data in accordance to my constructivist stance. By illuminating the research method, the reader will gain a stronger understanding of the choices made during the research. Explaining the research process will enhance the transparency of the project and thereby improve the credibility (Saunders, Lewis, & Thornhill, 2009; Brady, 2015). According to Saunders et al. (2009), the choice of research method depends on the scope of the research, and therefore different methods can be applied. To support the constructivist position and the method of dialectics, this project utilizes attributes of the qualitative Delphi method to identify and examine the main consequences. The qualitative Delphi method has origins from the philosophies of Locke, Kant, and Hegel, whom each emphasized the importance of people's opinions and perceptions in considering what reality is and how to approach decision-making (Brady, 2015). Thus, a compatible method to my constructivist position. In addition, the Delphi method was

developed for practical research and can thereby be used to inform practice. According to Dalkey & Helmer (1963), the Delphi method was created following the philosophical assumptions of Dewey's pragmatism, which makes the method flexible and compatible with qualitative data. In following the Delphi method, this research incorporates interviews involving questions ranging from semi-structured to more structured (Brady, 2015). The interview guide takes a descriptive and exploratory form by focusing on "what", "why", and "how" questions that are inspired by the literature. Because the Delphi method seeks data input from a purposive sample of expertise – rather than a generalizable sample – the interview guide will be applied in interviews with individuals that are qualified as experts (Brady, 2015). In 4.3.1 Expert Interviews, the participants' expertise is detailed.

Qualitative Delphi studies can take different forms depending on the purpose of the research. This research seeks to identify and explore the consensus of the expert's perceptions of current and projected consequences for Danish food companies' export to the UK following the TCA. Thus, themes of consequences found among the majority of interviews receives all attention in the analysis. Hence, the main consequences are equal to the experts' consensus. By analyzing the experts' perceptions and identify a consensus, the project aims at assisting in three areas: 1) influence and further develop the literature on NTBs in FTAs; 2) enlighten the Danish food sector on the current and projected consequences for Danish food companies' export to the UK subsequent to the TCA; 3) and inform of the market disruptions that can emerge if another close-trading ally within the EU decides to leave the common market.

The primary rigor of this research is measured by the quality criteria: trustworthiness. By contrast to quantitative research, the integrity of qualitative Delphi studies does not depend on a generalizable outcome. In Delphi studies, the rigor control of trustworthiness is the ability for the participating experts to extend and revise the data and the outcome of the research to reach a consensus (Brady, 2015). Therefore, additional rounds of interviews to revise and extend findings would enhance the trustworthiness of this research. However, due to the participants' busy schedules, which have no open spots for additional interviews, it is impossible to conduct additional interviews to extend and revise the findings. Therefore, this study is not able to reach a consensus under an ideal correspondence with the Delphi method. Unfortunately, by only conducting one round of interviews enhances the risk of excluding and misinterpreting important themes of consequences. In continuation, it cannot be ruled out that the experts' limited focus on a theme may be the result of the interview moving in another direction. Hence, it must be accounted that the exclusion of one or multiple significant consequences is possible. Nevertheless, a form of consensus and synthesis is still



sought by incorporating a checklist matrix, where identified subthemes equal to main consequences are legitimized by the number of experts highlighting them. Thus, to legitimize and reach a consensus on a consequence, the majority of experts have to highlight that specific consequence in the interviews. Utilizing a checklist matrix to reach consensus are further detailed in 4.3.2. Applied Coding. Hopefully, detailing the methodological process throughout the project enables the reader to track the logic of my decision-making, which also improves the credibility of this research.

In addition, limitations of overlooking specific consequences may also appear due to the following: several industries with many unique food companies exporting to the UK are found in the Danish food sector. Many of these companies and industries encounter unique consequences, due to particularities of the industry or company. Thereby, important consequences may be overlooked. To overcome this limitation, half of the experts work at trade associations and government bodies in positions that provide consultancy to Danish food companies of all sizes and industries within the Danish food sector (clarified in 4.3.1 Expert Interviews). These experts enhance the probability for a trustworthy representation of the main consequences for all Danish food companies' export to the UK. In addition, the TCA was agreed upon very recently, and much of the regulation on goods entering the UK is still not implemented because of the UK's phased implementation of the TCA. Therefore, the experts may not have full knowledge of the consequences. Hence, a portion of identified main consequences are projections by the experts.

In following the qualitative Delphi method, supporting methods, which have briefly been introduced, are utilized to produce a satisfying outcome. These methods concern methods of collecting data (interviews) and processing data (coding), which are techniques that will be further detailed in the coming sections.

#### 4.3.1. Expert Interviews

Six interviews were carried out with professionals from Danish Crown, Arla Food, Espersen A/S, the Confederation of Danish Industries, Danish Agriculture & Food Council, and the Trade Council of Denmark in the United Kingdom (see Table 6). Interviewees for the research were initially recommended by Esben Egede Rasmussen, Councilor of Agriculture, Food and Fisheries at the Trade Council of Denmark in the United Kingdom. The interviewees were screened for credibility through searches on Google and LinkedIn. To ensure creditable interviewees, two screening criteria were applied:

1. The experts must work in organizations with direct involvement in the Danish food sector's export to the UK.
2. The experts must be employed in positions concerning export activities of Danish food products to the UK.

From the screening of the recommended participants, the experts were selected and contacted on the basis of their knowledge within field of Danish food companies' export to the UK. The screening criteria concerning position and experience with Danish food companies' export to the UK follows the criteria of Meuser & Nagel (1991) and Myhre (2017) for being considered an expert. Therefore, these participants are found to be valid experts, making them credible to draw consensus from. Furthermore, it should be acknowledged "that there is no such thing as *the* expert interview" (Bogner, Littig, & Menz, 2009, p. 6) as the application of expert interviews ranges from quantitative measures to demanding qualitative approaches (p. 6). Thus, it is important to surround the expert interviews with supporting methods and philosophical considerations (Bogner, Littig, & Menz, 2009, p. 6). According to Bogner, Littig & Menz (2009), the use of experts as sources of objective information is problematic. Because the answers of the experts are their subjective truth and reality, which makes it plausible that their answer do not state the entire reality. Still, the selected experts follow the criteria stated above, and thus found to be valid representatives of the community (i.e. Danish food companies' export to the UK) to draw consensus from.

Unfortunately, it was not possible to conduct an interview with a representative from a Danish food SME. All the contacted Danish food SME that are known to export to the UK rejected the invitation for an interview. Still, three of the experts work at organizations where many of the members are Danish food SMEs. Also, these experts consult various Danish food SMEs that export to the UK. Hopefully, these three experts counterbalance the lack of interviews with representatives from Danish food SMEs.

All the interview follows the same general outline of three themes stated in the interview guide: 1) introduction, 2) challenges, and 3) opportunities (see Appendix 2 & 3). In accordance with the applied dialectics, the interview guide is based on key findings identified in the literature (see Table 5).

Key findings applied in the interview guide	
<b>Challenges</b>	<p>Non-tariff barriers to export</p> <p>Rules of origin</p> <ul style="list-style-type: none"> <li>- Complexity in complying</li> <li>- Restrictiveness in complying</li> <li>- Costs of compliance</li> </ul> <p>SPS measures</p> <ul style="list-style-type: none"> <li>- Testing</li> <li>- Veterinary checks</li> <li>- Inspections</li> <li>- Health certificates</li> </ul> <p>Administrative trade barriers</p> <ul style="list-style-type: none"> <li>- Complex and time-consuming procedures</li> <li>- Delay from border control</li> <li>- Excessive documentation</li> </ul>
<b>Opportunities</b>	<p>Capture market share from competitors</p> <p>Low self-sufficiency in the UK</p> <p>Accustomed to third country regulation</p> <p>Danish foods' great reputation in the UK</p>

Table 5: Findings from the literature applied in the interview guide

Prior to the interviews, a pilot interview was conducted with one of the experts, Esben Egede Rasmussen to test the applicability of the interview guide and the virtual setup. The objective of the pilot interview was to evaluate the questions in the interview guide, the virtual setup, and the quality of the recording. Esben subsequently provided feedback on the interview and interview guide, which assisted in generating a more precise interview guide and professional setup for the interviews. Hence, the initial semi-structured interview guide was revisited and modified after the pilot interview.

The interview guide is constructed through a semi-structured approach, which seeks to create a dynamic and explorative dialogue with the participants. Semi-structured interviews are characterized as interviews that utilize a combination of prepared questions and themes, together with natural questions that emerge during the interview (Kvale et al., 2015). Follow-up questions are used in the interviews depending on the answers of the participants. These questions tended to more structured to obtain more precise knowledge from the experts, which is encouraged when following the

qualitative Delphi method (Brady, 2015). Open-ended questions were applied in the interview guide and interviews to not influence the participants' perception and answers on consequences. For example, before asking questions into more specific challenges inspired by the literature, the experts was always asked an open question: "What are the main challenges for Danish food companies' export to the UK following the TCA. The same tactic was applied before questions concerning opportunities. Thus, enabling the experts to include themes that are not related to the literature from the literature review. In the interview guide, there is added reflective sentences beneath some of the questions to help the interviewees reflecting on their experience with the subject (see Appendix 2 & 3). The prepared interview guide is attached in Appendix 2 and Appendix 3.

In all the six interviews, the participants decided the mode of the interview. Out of respect for the global pandemic and geographic distance, the experts agreed to have the interviews virtually. The interviews were conducted in English to accommodate the three British participants (George, Robert and Simon) and a potential foreign censor. Also, conducting the interviews in English minimize knowledge loss because of potential translation inaccuracies when transcribing the recordings (Kvale et al., 2015). All of the experts formally agreed to be recorded. Recording the interviews enabled a freer interaction with the experts than would have been possible if I were dependent on taking notes (Myhre, 2017, p. 73).

Although transcribing appears to be a straightforward technical task, there are substantial considerations to undertake regarding transcription. For instance, the researcher must decide on the level of detail for transcribing (Myhre, 2017, p. 74). Prior to transcribing the six interviews, I decided to only transcribe the start of the interview from the first question was asked to end of the interview when the last question was answered. Also, noises such as "umm" and "hmm" were omitted during the transcription, as they do not present any value to the analysis. The transcripts of the interviews are in Appendix 4, 5, 6, 7,8, and 9. The sections in the transcripts have been numbered on the left side to be make the referencing more precise and to simplify it for the reader to locate referenced quotes. The participating experts consist of Esben Egede Rasmussen, Peter Bernt Jensen, Kenneth Lindharth Madsen, George Morrison, Robert Smith, and Simon Rilatt. Henceforth, the experts are mentioned by their first name.

Name	Position	Organisation
Esben	Councilor of Agriculture, Food and Fisheries	Trade Council in the United Kingdom
Peter	Consultant in the Department of Food Industries	Confederation of Danish Industries
Kenneth	Head of Department for Trading Market Relations	Danish Agriculture & Food Council
George	Director of Global Affairs	Arla Foods Amba
Robert	UK Market Director	Danish Crown
Simon	Procurement Director	Espersen A/S

Table 6: Interviewed experts

Esben is the Councilor of Agriculture, Food and Fisheries at the Trade Council at the Embassy of Denmark in the United Kingdom. His tasks concern activities surrounding food, agriculture, and fisheries connected to Denmark and especially the UK (Appendix 4, 2). The purpose of the Trade Council is, among others, to provide consultancy and lobbying to Danish companies of all sizes seeking entry to the UK market or additional market share in the UK. Therefore, Esben spends much of his time providing market analysis, communicating with British and Danish authorities, and solving many other problems for Danish companies within agriculture, food, and fisheries (Appendix 4, 4). Esben has worked in the UK at the Trade Council for approximately one year and was before the CEO of the Danish Veterinary and Food Administration for over 11 years (Appendix 4, 2).

Peter is a Consultant at the Confederation of Danish Industries within the Department of Food Industries, which is also referred to as the Danish Food and Drink Federation. The Confederation of Danish Industries is the largest private trade association. His department's objective is to lobby for and provide consultancy to companies within the Danish food industry, which can be related to issues around Brexit. Peter has worked for the Confederation of Danish Industries for over 12 years and has previously worked in the Ministry of Agriculture (Appendix 5, 2 & 4).

Kenneth is the Head of Department for Trading Market Relations at the Danish Agriculture & Food Council and has occupied the position for almost seven years. His department manages trade policies, market activities abroad, development policies in international markets, and promotion activities for Danish food and agriculture. The Danish Agriculture & Food Council is the second-largest private

trade association. They represent all types and sizes of companies within the Danish food sector ranging from farmers and ingredient SMEs to Danish Crown and Arla (Appendix 6, 2 & 4).

George is the Director of Global Affairs at Arla, which provides him with the overall responsibility for all of Arla's government relationships and global policies. He has been with Arla for over four years and has been the Director of Global Affairs for approximately three years (Appendix 7, 2 & 4). Arla is a global dairy cooperative based in Denmark and owned by more than 12,000 farmers across seven countries. The cooperative is the fifth largest dairy company globally and the world's largest supplier of organic dairy products (Arla Foods, n.d.). Its UK subsidiary Arla Foods Ltd is the largest dairy company in the UK with a turnover of €2.28 billion in 2019. In addition, 2,400 of the 12,000 farms in Arla Food's co-operative are farms located in the UK (Arla Foods, 2020). The UK operation consists of approximately 3,500 employees located in 17 sites across the UK (Arla Foods, n.d.; Arla Foods, 2020).

Robert is the UK Market Director for Danish Crown, which primarily involves tasks in public affairs and being Danish Crown's Key Account Manager for Tesco (Appendix 8, 2). Danish Crown is one of the world's largest exporters and one of Europe's largest pork producer. Also, Danish Crown is the largest meat-processing company in Europe and a significant participant in the European beef market (Danish Crown, n.d.). Danish Crown has been trading with the UK for more than 130 years and exports approximately 195,000 tons of meat annually – worth DKK 4 billion – to the UK: DKK 3 billion of pork and around DKK 1 billion processed-meat products (Euromeat, 2021; Fortune, 2019). Danish Crown UK Ltd is headquartered in Manchester and employs 510 people.

Simon is the Procurement Director for the Danish fish-based company, Espersen. His primary responsibility is buying raw fish material used at Espersen's factories in Poland, Lithuania, and Vietnam. However, he also spent a significant amount of time on trade policy work in Europe and the UK (Appendix 9, 2). Espersen manufactures and exports chilled and frozen fish products. The company directly exports 30% of all their products to the UK, which is approximately 15,000-20,000 tonnes of products equal to DKK 800-900 million. Simon is based at Espersen's sales office in the UK, where he is in charge of the remaining six people at the UK office (Appendix 9, 6).

#### 4.3.2. Applied Coding

Coding methods of explaining and exploring are employed in seeking an understanding of *what* the main consequences are and *why* they are the main consequences (Miles, Huberman, & Saldaña, 2014, p. 134 & 198). Each of the interviews is coded to find themes and patterns of consequences. These patterns and themes will then be applied to identify a consensus of consequences among the interviewed experts. The process of discovering patterns, themes, and consensus is displayed in explanatory frameworks (Miles, Huberman, & Saldaña, 2014, p. 149). These steps constitute the overall analytical direction for the coming analysis. The following will detail the process of managing the gathered data.

The coding of this research is applied to the six interviews with the six experts. Following Miles, Huberman & Saldaña (2014), coding is a method of data condensation that enables researchers to retrieve the most important data, assemble clusters of compatible data, and further condense the clusters of data into analyzable units. Coding is also a method of discovery, where clusters of data can be assigned to themes related to the content or meaning of the data (Miles, Huberman, & Saldaña, 2014, p. 80). In following Miles, Huberman & Saldaña's (2014) view on coding, a code can be defined as:

a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data... In qualitative data analysis, a code is a researcher-generated construct that symbolizes and thus attributes interpreted meaning to each individual datum for later purposes of pattern detection, categorization, theory building, and other analytic processes. (Miles, Huberman, & Saldaña, 2014, p. 79).

The first part of the data analysis is conducted through First Cycle coding to initially identify codes related to consequences for Danish food companies, which are then labelled with either one word or a short phrase (see Table 7). In addition, all codes that are related to analyzed themes have been color-coded in the transcripts (see. Table 7). Afterward, Second Cycle coding, also referred to as Pattern coding, is applied (see Figure 8). Codes are then categorized into clusters of interrelated codes, which in this study constitute the subthemes (Miles, Huberman, & Saldaña, 2014, p. 80 & 90). First Cycle coding is a method to summarize segments of data, whereas Second Cycle coding aims to group those summaries of codes into a lesser number of subthemes. The subthemes are eventually divided into overall themes. The interrelationship of all the codes, subthemes, and themes is displayed in a network

visualized in Figure 8 (Miles, Huberman, & Saldaña, 2014, p. 213). The interrelationship of the codes, subthemes, and themes is detailed in the analysis. In addition, the figure below shows a simplified illustration of the coding process applied to the data, which were manually coded. The figure visualizes a part of the coding for the theme SPS measures (see Figure 7).

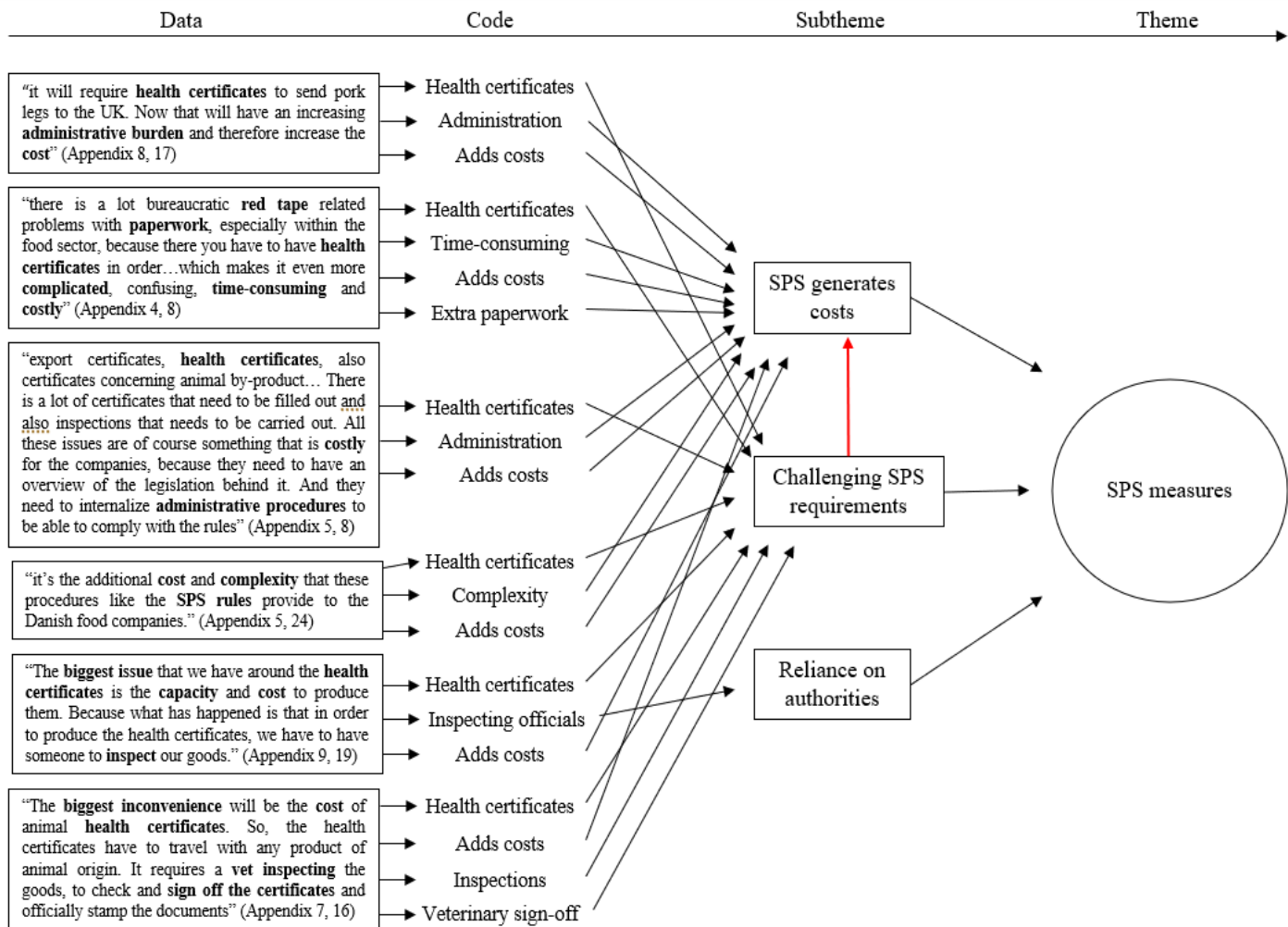


Figure 7: Coding for SPS measures

The second part of the analysis is structured around a checklist matrix (Miles, Huberman, & Saldaña, 2014, p. 134). All the codes, subthemes, themes, and experts are incorporated into the matrix to identify a consensus (see Appendix 1). A consensus of a consequence is found when a subtheme is emphasized by the majority of experts. Matrices are one of the fundamental methods of analytical display that can assist in condensing data and findings from studies to analyze further and represent and present the conclusions (Miles, Huberman, & Saldaña, 2014, p. 106). According to



Miles, Huberman & Saldaña (2014), a “matrix is essentially the “intersection” of two lists, set up as rows and columns” (p. 107). The developed matrix will present the codes, subthemes, and themes of consequences in the columns, and the participants are listed in a row at the top of the matrix. Codes and subthemes found in the interviews are marked by an X in the matrix to display who and how many of the participants mentioned the specific code and subtheme (see Appendix 1). The objective of the matrix is to display and condense the data to be able to identify a consensus and reach a synthesis of the investigated subject.

Codes (First Cycle coding)	Subthemes (Second Cycle coding)	Themes
Health certificates, Inspections, Veterinary sign-off, Extra paperwork, Time-consuming, Administration, Requires practice, Adds costs, Inspecting officials, Need for veterinarians, consistency in applications	1. SPS generates costs 2. Reliance on authorities 3. Challenging SPS requirements	SPS Measures <b>Bright Green</b>
Customs procures, Certificates, Border delay, Many new border officials	4. Trouble with customs clearance	Customs Clearance <b>Yellow</b>
Limits sourcing, No threshold, Hurts supply chain, Adds bureaucracy, Problem for ingredient firms, Troubles sourcing outside the EU, Adds costs in documentation	5. Restrictive Rules of origin 6. Costs from documentation	Rules of Origin <b>Turquoise</b>
Bigger issue for SMEs, Delays due to mixed loads, Delay due to control and paperwork, Not used to third country regulation, Trouble with curriers	7. SMEs to be most affected	SMEs <b>Purple</b>
Optimistic, Strong position, Animal welfare, Sustainability, Quality, TCA gives certainty, Used to third countries	8. Strong position from reputation 9. Used to third country regulation	Optimism <b>Grey</b>

Table 7: First and Second Cycle coding

Utilizing First and Second Cycle coding combined with the matrix helps structure the gathered data, which is often needed when examining multiple perceptions to discover and understand the alignment of data (Saldaña, 2009, p. 109 & 58). Taking these steps hopefully validates the quality of this study, even though ideal Delphi methods are not implemented.

Because of the written narrative literature review and the methodological process detailed above, it was found appropriate to compose a thematical analysis structured around themes identified from the

subthemes and codes in the interview. During the analysis, findings from the literature review are included to provide context to the themes.

## 5. Thematical Analysis

The forthcoming constitutes a thematical analysis conducted from six interviews with six experts representing various Danish food organizations (see Table 6). The analysis is conducted through explanatory and exploratory coding methods with the intent to identify and examine themes of consequences and linkages among the consequences. The coding should lead to the discovery of a consensus, thus identifying the main consequences for Danish food companies' export to the UK upon establishing the TCA.

The analysis is structured around five overall themes comprising of challenges and opportunities, as these are the outcome of consequences. These five themes represent nine main consequences (subthemes) identified during the coding process to contain a consensus among the experts. The themes in the forthcoming analysis consist of 1) SPS measures, 2) Rules of Origin, 3) Customs Clearance, 4) SMEs, and 5) Optimism (see Figure 8). Throughout the analysis, the expert's perception on the identified consequences is examined while simultaneously contextualizing with the findings from the literature review.

The interviews were coded with inspiration from Miles, Huberman & Saldaña (2014). The coding process has enabled the researcher to discover interrelationships and consensus, enabling the identification and examination of the main consequences (see Figure 7, Figure 8 & Appendix 1). The interrelationships among the themes, subthemes, and codes, enabled from the coding process, are visualized in Figure 8. Throughout the coding process, 36 codes were identified and divided into clusters with matching interrelations (see Figure 8). Codes only mentioned by few participants with no linkages to other codes were excluded, as they do not contain a consensus. The clusters and their respective codes were subsequently linked to nine subthemes equal to consequences – of either challenging or opportunistic nature – for Danish food companies' export to the UK following the TCA (see Figure 8). Because the nine subthemes, derived from the clusters of codes, were mentioned by the majority of participating experts, they are considered to be consequences of consensus (see Appendix 1). Thus, also representing the main consequences. The following will detail the identified main consequences (subthemes) in relation to their associated themes.

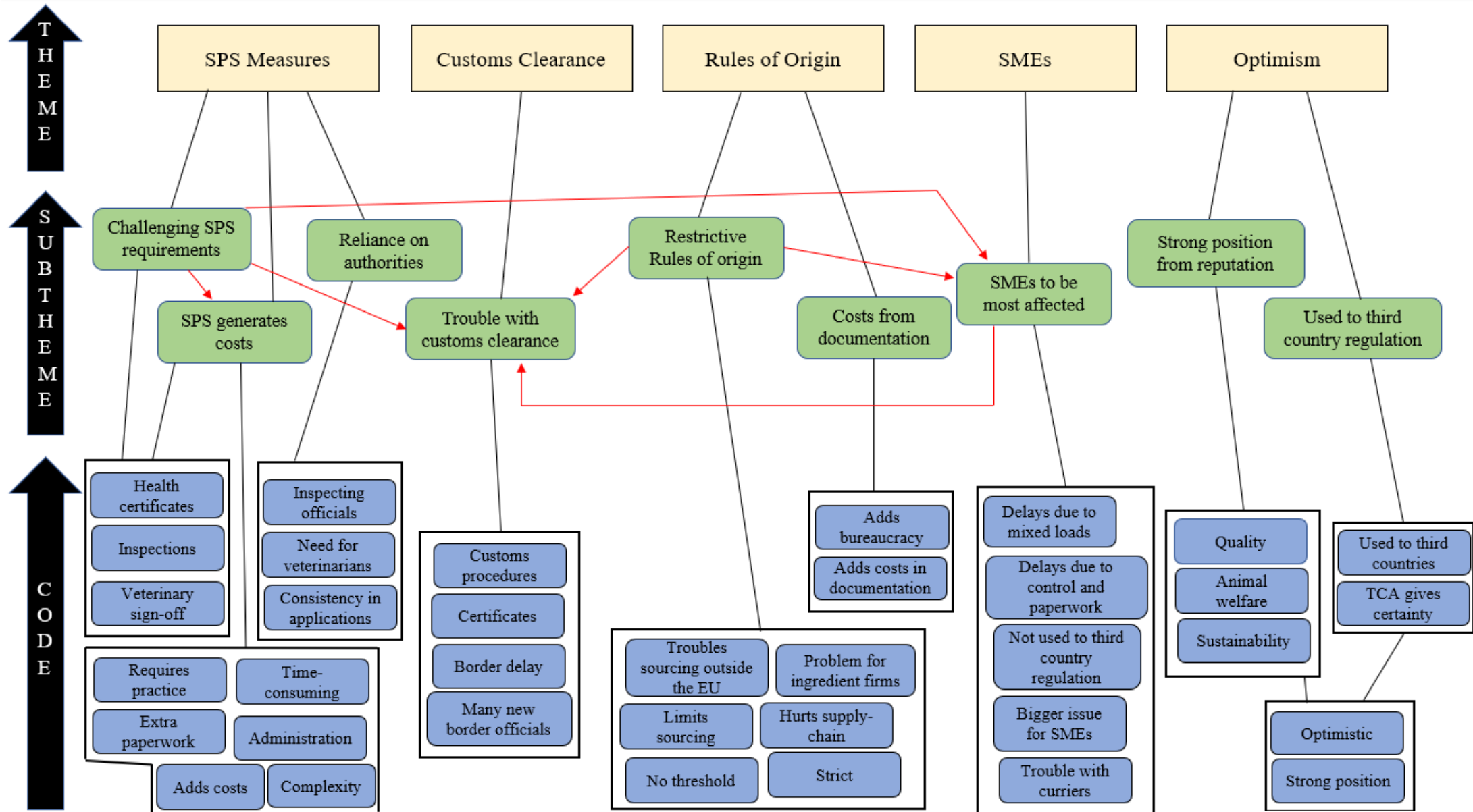


Figure 8: Network of codes, subthemes, and themes

## 5.1. Challenges for Danish Food Companies' Export to the UK

The coding process of the interviews identified 28 codes with linkages to challenges. From these 28 codes, seven challenges of consensus (subthemes) with interrelationships were found: Challenging SPS requirements, Reliance on authorities, SPS generates costs, Restrictive Rules of origin, Costs from documentation, SMEs to be most affected, and Trouble with customs clearance (see Matrix 1).

From the literature, SPS measures and Rules of origin were identified as highly influential and potentially challenging NTBs in FTAs. In the food and agriculture sector, SPS measures are generally perceived as legitimate regulatory safety measures for humans, animals, and the environment. Still, the conformity assessments surrounding the SPS measures (i.e., certification, testing, and inspection) were found to cause challenges in international trade, especially for food companies. In the literature review it was also emphasized how many scholars find Rules of origin to be the most challenging NTB primarily due to procedural difficulties, compliance costs, and restrictiveness. Similar characterizations were discovered in the coding process, where the SPS measures in the TCA were depicted as challenging and costly to comply with, and Rules of origin were found to be strict and also costly to comply with. In fact, the majority of challenges met with consensus are connected to the SPS measures and Rules of origin in the TCA. Exactly, five of the seven identified challenges for Danish food companies' export to the UK concern difficulties with SPS measures or Rules of origin (see Matrix 1).

Additionally, the subtheme *SMEs to be the most affected* comprise of the experts' projecting Danish food SMEs to be significantly more challenged in exporting to the UK under this new trading regime than the larger Danish food MNEs. The final main challenge, *Trouble with customs clearance* concerns anticipated challenges with customs established at the UK border subsequent to Brexit. The following further details the challenges.

Participants Subthemes	George	Simon	Esben	Kenneth	Peter	Robert
<b>SPS Measures</b>						
Challenging SPS requirements	X	X	X	X	X	X
Reliance on authorities	X	X	X	X	X	X
SPS generates costs	X	X	X	X	X	X

Rules of Origin						
Restrictive Rules of origin	X	X	X	X	X	
Cost from documentation	X	X	X	X		X
SMEs						
SMEs to be most affected			X	X	X	X
Customs Clearance						
Trouble with customs clearance	X	X	X	X	X	X

Matrix 1: Challenges of consensus

### 5.1.1. SPS Measures

Within the interviews, 12 codes linked to challenges of the SPS measures were identified. From these codes, three current and projected challenges gained consensus among the participants: *Challenging SPS requirements*, *Reliance on authorities*, and *SPS generates costs* (see Matrix 1). The two subthemes, Challenging SPS requirements and SPS generates costs concern issues in the requirements of the SPS measures' conformity assessments. The SPS measures' conformity assessments (e.g., certification, testing, and inspection) have by Crivelli & Gröschl (2016) and Webb, Gibson & Strutt (2017) found to cause difficulties for food companies and generate negative effects on trade. Similar findings were identified in the coding process of the interviews. All the experts expressed challenges with these conformity assessments. When asked about the most challenging NTB in the TCA, George stated that:

The biggest inconvenience will be the cost of animal health certificates. So, the health certificates have to travel with any product of animal origin. It requires a *vet* inspecting the goods, to check and sign off the certificates and officially stamp the documents. Then the goods travel to the UK, where inspection will look at the goods and documents to see if everything is 100% correct. So that could lead to *delays* and it will lead to extra costs because we have to pay vets to do the inspections, which we never had to do...Given the volumes we exported last year it will be approximately 15,000 extra documents needed to export from Denmark to the UK...All of that adds costs and complexity.” (Appendix 7, 16 & 20)

Thus, the negative causality of the SPS measures in the TCA is the additional costs Danish food companies face in complying with the SPS measures' conformity assessments. Complying with these requirements adds multiple steps and complications to the export process. These additional steps consist of obtaining and completing health certificates combined with other documents that must be attached to the exported food products. And booking of veterinarians to inspect exported goods and check if the food products comply with the standards of the SPS measures. Subsequently, have them sign-off the health certificates stating that the food products being exported to the UK lives up to the required standards. Veterinarians in the UK check the Danish food products when entered the UK. Many of these added steps in the exporting process generate additional costs to Danish food companies, who in many cases already operate on small margins. Similar patterns were also identified in the other interviews (see Table 8), where these conformity assessments surrounding the SPS measures are characterized as: time-consuming, complex, an administrative burden, providing additional paperwork, demanding extra working hours and practice, and in some cases, requires the hiring of more staff.

Robert	"it will require health certificates to send pork legs to the UK. Now that will have an increasing administrative burden and therefore increase the cost...the burdens and costs will be significant" (Appendix 8, 17)
Esben	"there is a lot bureaucratic red tape related problems with paperwork, especially within the food sector, because there you have to have health certificates in order...which makes it even more complicated, confusing, time-consuming and costly" (Appendix 4, 8)
Kenneth	"it's the additional cost and complexity that these procedures like the SPS rules provide to the Danish food companies." (Appendix 5, 24)
Peter	"export certificates, health certificates, also certificates concerning animal by-product... There is a lot of certificates that need to be filled out and also inspections that needs to be carried out. All these issues are of course something that is costly for the companies, because they need to have an overview of the legislation behind it. And they need to internalize administrative procedures to be able to comply with the rules" (Appendix 5, 8)
Simon	"Until we have done that process [complying to SPS measures] with enough <i>practice</i> to understand what it is we are trying to its difficult" (Appendix 9, 32)

Table 8: Quotes concerning SPS measures

Common to the experts' characterizations in managing the SPS measures are the additional costs being generated, which were not present prior to the TCA. Apparent linkage between the two subthemes; Challenging SPS requirements and SPS generates costs were identified and displayed in the figure below (see Figure 9).

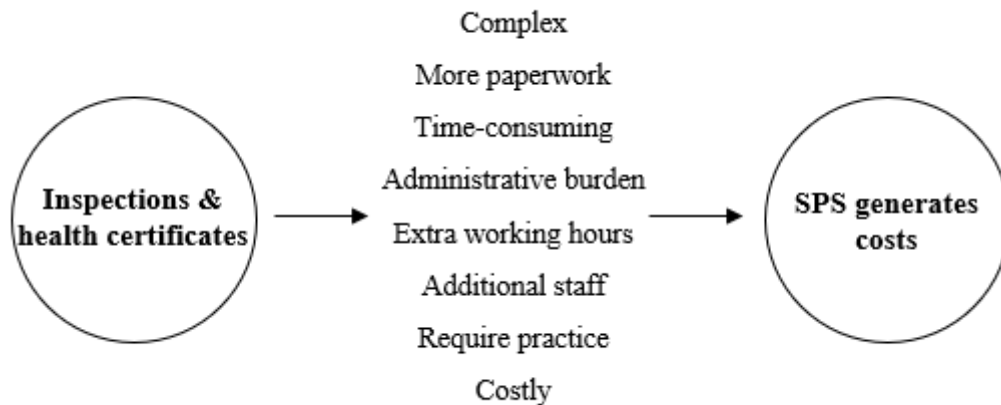


Figure 9: The linkage between Challenging SPS requirements and SPS generates costs

Additionally, having veterinarians to inspect and sign-off the health certificates in both Denmark and the UK constitutes another challenge for the Danish food companies. This challenge is projected by the majority of the experts and concerns the subtheme, Reliance on authorities. Following the TCA, Danish food companies exporting to the UK rely heavily on the Danish and British authorities' capacity and competences to conduct the required controls and inspections, which Kenneth stated could be one of the main challenges: "Danish food companies depend a lot on the Danish and the UK's administrative capacities for processing and checking of these health and veterinary certificates, which can cause problems with customs clearance" (Appendix 6, 6). According to Simon, the issue surrounding inspections of exported food products is that "inspection is a human skill, so the resources lie on having competent people with the right skills...That's, at the moment, an area of great concern and a big weakness because that is something that no member state within the EU and the UK have built sufficient resources to do" (Appendix 9, 34). The capacity and competence of veterinarians are questioned by the experts. They especially question the UK's ability to secure the necessary number of customs officials including veterinarians with adequate competences to control and inspect the massive quantities of goods coming into the UK. Esben noted in the interview that the UK "need to employ 50,000 people at the border doing all these paperwork, duties, inspections and all that. But you can't really hire 50,000 people from one day to the other and also make them



competent in such a short period of time” (Appendix 4, 13). According to the experts, the actual reason the UK decided to employ a phased implementation of regulation and customs control, instead of immediate full customs control as the EU, is due to lack of sufficient capacity and competences to conduct these controls and inspections. In particular, the three executives from Arla, Danish Crown and Espersen (George, Robert and Simon) find this added dependency on Danish and British authorities to be a significant challenge in the exporting process. The remaining three experts also found it worrisome in these early stages of adapting to the new trade regime with the UK.

Furthermore, the six experts find the Danish food SMEs' export to the UK to be most affected by this new regime and project them to face significantly more challenges than large Danish MNEs. Later in the analysis, this challenge is outlined in the theme SMEs. However, there is a consensus among the experts that much of the current and projected challenges and costs are temporary. In the interview with Esben, he made the following statement:

If you have a graph showing the cost of complying to all these new rules, then you will see high temporary costs in the beginning... gradually when IT systems work, management procedures will work, people will get their competences in order, so they can do it faster, they can do it more correctly and make fewer mistakes, then the cost goes down. However, the cost won't go down to zero, because you still have to comply with the SPS measures and there will always be time spent on making certificates and on IT systems and more. As long the UK is outside the EU, there will be these kind of costs associated with trading with the UK. (Appendix 4, 10)

Many of these additional costs are temporary and will decrease concurrently with Danish food companies and the authorities adapt to all of these new rules, standards and procedures. Still with Brexit and the TCA, some of the costs are fixed and will be present for all Danish food companies exporting to the UK.

### 5.1.2. Rules of Origin

As revealed in the literature, the objective of having Rules of origin implemented in FTAs is to prevent trade deflection by assuring that only goods originating in countries part of the FTA are entitled to tariff-free access. Though being a legitimate measure to avoid trade deflection, several

scholars have raised concern over Rules of origin's problematic impact on flow of international trade and international trading companies. In the literature review, the challenges of Rules of origin were highlighted, as the costs and restrictiveness of Rules of origin in many FTAs have shown to have challenging impact by being difficult to comply with. Comparable characteristics can also be ascribed to the Rules of origin implemented in the TCA, as most of the experts found it difficult to manage and strict and costly to comply with. Thus, posing significant challenges to many Danish food companies' export to the UK. Throughout the coding process, eight codes related to difficulties with the Rules of origin applied in the TCA were identified. Two subthemes of challenges were deduced from the eight codes: *Restrictive Rules of origin* and *Costs from documentation* (see Matrix 1). Common to these two subthemes, beside their linkage to Rules of origin, are that both were emphasized by most of the experts during the interviews. The strictness was first highlighted by Esben: "a lot of companies were surprised by such strict Rules of origin, and they will suffer now and try to adapt to it. So, it's a big deal" (Appendix 4, 22). Also, Peter, George and Simon used the word strict to describe the Rules of origin in the TCA (see Table 9). The consensus among the experts finds Rules of origin to be a great challenge with the potential to damage and alter the supply chains of many Danish food companies. Otherwise, many companies can end up in situations, where they have to pay tariffs to export their goods to the UK (see Table 9).

Esben	"Rules of origin, which is a complication for all kinds of companies and also food companies. If the product that your selling is not entirely European product...then you actually might be in a situation where you have to pay customs in order to enter the UK market. (Appendix 4, 18)
Kenneth	"So, the Rules of origin is really challenging, especially for the SMEs and those who source many things outside of the EU for their final product being exported to the UK. (Appendix 6, 7)
George	"the rules of origin in the TCA is quite strict compared to normal FTAs. So, it has the potential to limit your sourcing and it adds a bit more bureaucracy to the process..." (Appendix 7, 17)
Simon	"The rules of origin criteria in the TCA are extremely strict...the situation in our sector in fish is that the EU is a deficit bloc...most of the raw materials that the EU consumes in fish are imported. We are roughly 75% dependent of non-EU originating fish to meet our needs." (Appendix 9, 21)

Peter	“It was a surprise to me how strict they have made it. I have heard from companies and colleagues about the rules of origin being a challenge for Danish companies that export to the UK.” (Appendix 5, 16)
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Table 9: Quotes concerning Rules of origin

The strictness of Rules of origin in the TCA came as a surprise to the experts because the rules unnecessarily restrict many UK and EU companies' supply chains. Simon provided an example of the unnecessary strictness and restrictiveness of the Rules of origin, which initially caused problems for Espersen's export to the UK:

If we [Espersen] import a material from Norway, and we handle it in the EU and then it comes to the UK. It is then not a product of the EU and has lost its originating status in that process. Countries like Norway and Iceland has free trade agreement with the EU...but that fish no longer qualifies for preferential origin, because Norway and Iceland are not members of the EU. When we process it and send it to the UK, it has lost its preferential status...even simple fish that moves from Norway, into Denmark and then gets trucked to the UK via Denmark, will potentially lose its EU status because under rules of origin Norway its isn't the EU. So, what is happening is that we are starting to see changes to the flow of trade, because the UK now has a free trade agreement with Norway and Iceland, so now it only makes sense to export it directly from Norway or Iceland to the UK.  
(Appendix 9, 22)

Many scholars concern of Rules of origin changing the flow of trade and causing significant challenges for international trading companies also seems to be the reality with the Rules of origin in the TCA. As highlighted in the above quote, both Norway and Iceland have FTAs with the EU and the UK, and the UK and the EU have the TCA. Hence, intuitively these agreements should enable companies to transport goods from Iceland or Norway through the EU into the UK, as the four parties have all agreed to tariff-free trade. Also, all parties mutually recognize the origin and standards of their products and both Norway and Iceland have identical external tariff-barriers as the EU. Yet, the strictness of the Rules of origin currently restricts Danish companies to source materials from Norway, process it in Denmark and export it to the UK. Usually, rules of substantial transformation enable companies to change the origin of their product by processing the components to a certain

threshold and transforming them to a new product. However according to Simon, the strictness of the Rules of origin has further restricted the rules of substantial transformation: “the rules that previously applied to substantial transformation, in other words you buy a raw material and make into something else, don’t apply. Because the rules of origin in the TCA is so strict.” (Appendix 9, 25).

In addition, Rules of origin are estimated by most of the experts to increase costs in Danish food companies’ export to the UK. The issue of increased costs as a result of Rules of origin was identified as the second subtheme, Costs from documentation (see Matrix 1). During the interview, George elaborated on those costs: “yes, there will be extra cost, no doubt about it. We are continually trying to estimate what impact the deal will have on us. So, the cost of documentation is going to be fixed” (Appendix 7, 21). Thus, similar to the compliance of the SPS measures, the Rules of origin will also increase costs when exporting Danish food products to the UK because of the required documentation in complying to Rules of origin. The consensus among the experts aligns with much of the literature highlighting Rules of origin as an administrative burden that generates costs. Studies by Herin (1986) Brenton & Manchin (2003), Manchin (2006) and Yi (2015) revealed that the high cost of compliance with Rules of origin were the main reason a sample of international trading companies do not utilize the tariff-free access in FTAs. Similar measures by Danish food companies are found unlikely as the tariffs on food are in the highest category of tariffs. Many of the experts’ project Danish food companies currently sourcing from outside the EU to either revise their supply chain or seek market opportunities elsewhere and stop exporting to the UK.

Within the Danish food sector, particularly Danish food SMEs and Danish ingredients companies are expected to accommodate significant challenges in complying with Rules of origin. Both Peter and Kenneth expect Danish ingredients companies to encounter significant problems with the Rules of origin “because they [Danish ingredients companies] normally source their inputs to Denmark, and then they export to the UK” (Appendix 6, 7). Consequently, Danish food companies sourcing inputs from outside the EU for products exported to the UK may be in a situation of either securing new suppliers based in the EU or not receiving tariff-free access to the UK, which is problematic in an industry operating on small margins and high tariffs. According to Kenneth, the tariffs Danish food companies faces, if they cannot comply with the Rules of origin can “in some cases be quite high and also prohibitive, which will mean that for a Danish exporter it wouldn’t make a lot of sense to export to the UK market” (Appendix 6, 7). Also, many Danish food SMEs are not accustomed to third country regulation including Rule of origin, which are expected to cause difficulty for their export to

the UK. In the theme SMEs, the challenge of many Danish food SMEs in complying with third country regulation including Rules of origin are further detailed.

In sum, the strict Rules of origin applied in the TCA are projected to cause significant damage to many Danish food companies with either limited experience in trading under third country regulation or highly dependent on sourcing inputs from outside the EU. However, the experts, similar to the SPS measures, finds many of the challenges and costs in complying to the TCA's Rules of origin temporary and decrease at the same rate as Danish food companies get acquainted with the rules and administrative procedures.

### 5.1.3. SMEs

The majority of the experts including Esben, Peter and Kenneth projects Danish food SMEs' export to the UK to be more affected by the NTBs deriving from the TCA than the larger Danish food MNEs such as Danish Crown and Arla (see Table 10). However, the examined literature displayed in the literature review does not emphasize the challenges of NTBs in FTAs to be more impactful on SMEs relative to larger MNEs. Still, in International Business the concept of liability of smallness is well-known. In short, the theory suggests that SMEs are much more limited in resources and organizational capabilities than compared to the larger companies (e.g. MNEs), making them more likely to face challenges (Meschi, Ricard, & Moore, 2016). Consequently, as the TCA increases trade barriers by adding several NTBs between the EU and the UK, then, as liability of smallness suggest, Danish food SMEs exporting to the UK will encounter more and greater challenges comparative to the larger Danish food MNEs.

During the interviews, four out of six experts expressed concern for Danish food SMEs' export to the UK to be significantly affected by the TCA (see Table 10). Specifically, the SMEs that are not experienced in exporting to third countries and do not have established processes in complying with SPS measures, Rules of origin and other NTMs.

Esben	“SMEs who have only been trading within the EU and have the UK as a big customer. Then, the UK is their first third country to trade with, which means that they have a lot to learn about processing the paperwork, the bureaucracy and all that. That will be quite challenging for some companies for a period.” (Appendix 4, 8)
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Kenneth	"...they [SMEs] need to understand the demands and request in the agreement...In general, many small and medium-sized will be very challenged by all of these new rules, especially the smaller companies who are not used to trade with third countries regulation." (Appendix 6, 7)
Peter	"They [Danish Crown and Arla] properly don't face these issues to the same extend as the smaller companies. The smaller and medium-sized companies face challenges of greater impact in these issues than compared to the big companies such as, Arla and Danish Crown." (Appendix 5, 6)
Robert	"...the smaller companies will be hit the hardest and many will question their ability to export into the UK due to the administrative burdens...I don't think it will impact Danish Crown too badly, but it will definitely impact the SMEs." (Appendix 8, 15)

Table 10: Quotes concerning SMEs

According to Esben and Kenneth, the Danish food SMEs who are not experienced in complying to third country regulation must promptly familiarize with the rules and the administrative demands together with incorporating compliance procedures and processes into the organization (see Table 10). Otherwise, they risk losing market shares to their larger competitors (e.g., Danish Crown and Arla) with already established processes in managing third country regulations (Appendix 4, 8). Esben also expressed an anticipation of future situations where large food MNEs would obtain market shares from a) the SMEs that are not able to adjust fast enough to the new regulations, and b) the SMEs that decides to leave the UK market and seek other market opportunities (Appendix 4, 8 & 12). Additionally, Danish food SMEs dispatching smaller quantities to the UK by groupage transport are found to be exporting under vulnerable conditions, due to the risks of delays with mixed shipments. Groupage can be necessary as exporters and couriers must fill up the trucks and containers to maximize earnings. In the interview, Esben elaborated on the vulnerability of these SMEs:

One of the big issues we see in SMEs exporting to the UK is if their goods is being exported by trucks among hundreds of other goods from other companies. That a very different situation compared to Arla and Danish Crown, where they have all their own products sent in their own containers in huge volumes. Arla will not be dependent on the paperwork of other producers, because their volumes are so big that they fill out their own containers. So, they are only dependent on knowing their own paperwork and can produce that correctly. If you're a SME you have your

cargo in a container together with other goods from other companies, and if one of the companies has messed up their paperwork, then you're stuck at the border maybe for days, because someone else made a mistake. (Appendix 4, 14)

According to Esben and Robert, Danish food companies exporting by groupage are exposed to other companies' ability to comply with third country rules. Thereby, encountering much greater risk in exporting to the UK than companies such as Arla, Espersen and Danish Crown that are able to fill up their own containers. Making them non-dependable to other companies' competences in complying to the TCA. Consequently, many shipping companies have decided to not accept groupage, because "it [can] cause massive delays at the border to the UK, because customs has to go through mountains of paperwork and it becomes too complex" (Appendix 8, 13). Hence, many shipping companies currently find the risk of mixed cargo too great as mistakes with the required paperwork could lead to massive delays at the UK border following October 1, 2021. The EU implemented full customs on January 1, 2021, and many logistics companies have already witnessed at first hand the massive border delays from the UK into the EU.

Thus, many of the experts sees a substantial portion of Danish food SMEs' export to the UK being challenged by the new trading regime, particularly the SMEs that are not accustomed to third country regulation. According to the experts, these food companies need to promptly understand the rules and the demands of the TCA, and then integrate the necessary compliance procedures and processes into the organizations in order to maintain market shares. Additionally, the SMEs perceiving the challenges (e.g., customs delays, Rules of origin and SPS measures) greater than the expected market earnings are recommended to seek other market opportunities.

#### 5.1.4. Customs Clearance

Throughout the interviews, all the experts raised concern on current and projected challenges for Danish food companies in relation to the newly established customs at the UK border (see Matrix 1). In the coding process, four codes linked to challenges regarding customs were identified: *Customs procedures*, *Certificates*, *Border delays* and *Many new border officials*. These four codes are interrelated and constitute a cluster of current and forecasted problems with customs. Thus, one subtheme derived from these codes: *Trouble with customs clearance*. In the coding process it became evident that challenges with customs clearance are linked to subthemes from all the above themes

(see Figure 10). Due to these linkages, many of the challenges with customs clearance have been unfolded. Thus, only the core of this subtheme and its linkages are detailed.

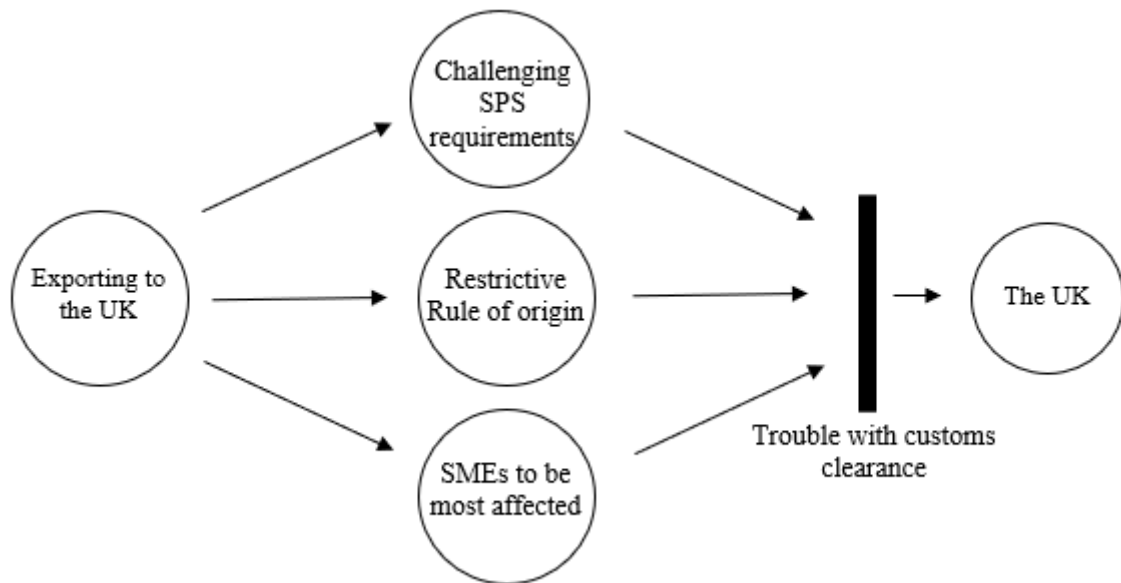


Figure 10: The linkage between SPS measures, Rules of origin, SMEs, and customs clearance

As already established, the Danish food companies exporting to the UK are obliged to comply with the SPS measures and the requirements for the SPS measures' conformity assessments (i.e., health certificates and inspections). However, for exported food products to enter the UK, customs officials including veterinarians will following October 1, 2021 conduct controls on products and its attached health certificates at the border (Appendix 6, 6). Similar to Rules of origin, where Danish food companies have to attach compliance documentation covering Rules of origin on food products being exported to the UK. When approaching the border, customs officials will check the attached compliance documentation to control that the Danish food products complies to Rules of origin. The control, inspection, and filling-out documents on the massive volumes of cargo from the EU are projected to cause problems for Danish food companies' customs clearance and also generate delays at the border (Appendix 5, 12; Appendix 6, 6; Appendix 7, 16). Particularly, suspected or detected imperfections in the documentation can result in extended delays. According to Esben and Robert, companies utilizing groupage transportation, typically SMEs, have greater risk of encountering issues at customs and extended delays (Appendix 4, 14; Appendix 8, 13). Additionally, the damaging potential of these delays have already been witnessed by companies exporting goods from the UK into the EU. George highlighted in the interview that "over the past three months with goods exported



out of the UK, where there have been big delays and stuff. That's the scenario we can be facing in October" (Appendix 7, 16). The experts' projection on Danish food companies' problems with customs due to among other control of SPS measures and Rules of origin align with Liu & Yue's (2009) research on Japanese import of cut flower. Their study revealed that the tariff equivalents of Japan's customs procedures (delays) and SPS measures (compliance costs) were high enough to prevent many companies from importing cut flower into Japan (Liu & Yue, 2009).

Moreover, the experts question the UK government's ability to secure the necessary number of competent officials and veterinarians to control and inspect the massive quantities of goods exported to the UK. According to Esben, the UK government must "employ 50,000 people at the border doing all these paperwork, duties, inspections and all that. But you can't really hire 50,000 people from one day to the other and also make them competent in such a short period of time" (Appendix 4, 13). Companies must obtain customs clearance to export products into the UK. Thus, the Danish food companies exporting to the UK rely heavily on the UK government to secure the necessary capacity and competence at customs. Otherwise, many Danish and other EU companies will encounter great difficulty.

## 5.2. Opportunities for Danish Food Companies' Export to the UK

In the literature review, the primary objective was to unfold the potential barriers and challenges of FTAs including relevant NTBs. Thus, the positive and opportunistic features of FTAs were not detailed. This delimitation is due to the premise of forming the TCA between the UK and the EU. As previously clarified, the TCA was not formed as a steppingstone to more trade liberalization by further decreasing barriers to increase trade among EU countries and the UK, which tends to be the reason for establishing FTAs. Quite opposite, the UK chose to leave the EU's common market. Afterward, the TCA, granting tariff- and quota-free access, was formed between the EU and the UK. However, with the TCA, third country regulation now applies (e.g., Rules of origin and SPS measures and separate customs). Hence, the agreement has decreased the trade liberalization between the EU and the UK. Because this is the first case of a country leaving the common market, it has unveiled a gap in the literature. Therefore, the premise of establishing the TCA makes the positive and opportunistic features of FTAs irrelevant, because there does not exist a theoretical foundation supporting this perspective of forming an FTA. Still, this opportunistic perspective was found valuable to include as it enables an examination on whether opportunities can arise from

circumstances that should make the export of Danish food products to the UK more challenging. Therefore, the following outlines the consensus of opportunities for Danish food companies' export to the UK following the TCA.

Throughout the coding process, seven codes linked to opportunities were identified. Two subthemes of opportunities, which draw consensus, were deduced from the seven codes: *Strong position from reputation* and *Used to third countries* (see Matrix 2). Thus, it is evident that the number of current and projected challenges is significantly greater than the number of opportunities for Danish companies' export to the UK, which aligns with the premise of forming the TCA.

Participants Subthemes	George	Simon	Esben	Kenneth	Peter	Robert
<b>Optimism</b>						
Strong position from reputation	X	X	X	X	X	X
Used to third countries	X	X	X	X	X	X

Matrix 2: Opportunities of consensus

### 5.2.1. Optimism

During the six interviews, a general optimism was emphasized, which also became apparent in the coding process. Though a much greater number of challenges than opportunities were identified, all the experts expressed either an optimism for Danish food companies' export to the UK or found them in a strong position to maintain or increase market shares in the UK market (see Appendix 1). The experts' positive outlook on the UK market are linked to two main opportunities: 1) many Danish food companies exporting to the UK have much experience and already established internal processes managing third country regulation and can potentially capture market shares from competitors; and 2) Danish food products have generally a strong reputation amongst British stakeholders.

The subtheme Strong position from reputation were deduced from five codes: *Quality*, *Optimistic*, *Animal Welfare*, *Strong position*, and *Sustainability* (see Appendix 1). The interrelation of these five codes concerns a consensus on Danish food companies being in a strong and optimistic position in exporting to the UK, partly due to Danish food products' great reputation in the UK. According to the experts, Danish food products are known for its quality, sustainability, and animal welfare amongst British stakeholders (see Table 11).

Esben	“I believe that Denmark [Danish food companies] is in a strong position to keep or increase our market shares in the UK. We have a great reputation for quality and sustainable food products, which British food stores and consumers values more and more.” (Appendix 4, 31)
Kenneth	“I am optimistic, because I think and know that Danish products and especially our food and agriculture products are liked in the UK. We make high quality food products, and it is very sustainable compared to many other countries.” (Appendix 6, 20)
Peter	“Our products are of high quality, it is safe and very sustainable, which is something many consumers look for and want to pay for now a days. Our track record in sustainability is very strong, which is a big advantage moving forward.” (Appendix 5, 26)
George	“The UK is the biggest contributor to our revenue and the country also have a lot of growth opportunities. I am curtain that with the quality of our products, British consumers will still in the future want buy cheap, quality dairy products in the stores.” (Appendix 7, 27)
Robert	“We want to the importer of choice for the retailer, which I think we are and will continue to be, especially when considering the increasing awareness of animal welfare, quality and sustainability. These are areas where Danish Crown excel and spend a lot of resources on.” (Appendix 8, 19)

Table 11: Quotes concerning Danish food products' reputation

Danish food products' association with quality, sustainable and animal welfare have five experts projecting an opportunistic future for Danish food companies' position in the UK market. In underlining this opportunity, Esben noted that these qualities are something “British food stores and consumers values more and more”, which was also backed by Peter, George and Robert (see Table 11 & Appendix 4, 31). The experts' prediction on the growing importance of quality and sustainable food products amongst British stakeholders match recent studies the by Food Nations (2020) and YouGov (2020), which were included in the introduction.

Furthermore, the second reason for the expert's positive outlook is due to many Danish food companies currently exporting to the UK also export to other third countries. Thus, these companies (e.g., Arla, Danish Crown and Espersen) are experienced in trading under third country regulation and have established internal processes managing the various measures and administrative demands of third country regulation. As Robert noted in the interview: “we [Danish Crown] are a global food

company with existing structure and infrastructures used to deal with third countries. We are in a better place than many, because we have systems in place, and we have consistently shown agility to adapt to these challenges” (Appendix 8, 15). Similar confidence in exporting to the UK as a third country were also expressed by George and Simon who respectively represents Arla and Espersen (Appendix 7, 27; Appendix 9, 41). Hence, these experienced Danish food companies, particularly the large Danish food MNEs are in relative comfortable position to continue exporting to the UK. In addition, Esben even stated that:

this [Brexit] might even be a blessing in disguise, because if they [Danish companies like Danish Crown and Arla] are the most able to deal with this situation, then maybe they can take market shares from competitors and actually benefit from it [Brexit]...I do think that some SMEs around might find it too hard to trade with the UK and give up or have less activity, which will properly create additional market share to some of the bigger food companies such as, Arla and Danish Crown. (Appendix 4, 12 & 31)

In sum, the Danish food companies, notably the larger food companies that have a great reputation combined with the experience, resources, and internal processes in managing third country regulation are in an opportunistic position to potentially capture market shares from their smaller competitors.

### 5.3. Overview of the Main Consequences

Throughout the data analysis, nine consequences concerning Danish food companies' export to the UK following the TCA were identified and examined. Following the applied qualitative Delphi method, these nine consequences constitute the main consequences, as the coding process identified a consensus amongst them. Seven challenges and two opportunities were deduced from the nine consequences, making the number of current and projected challenges significantly greater than the number of opportunities. Recommended by Miles, Huberman & Saldaña (2014), a summary was constructed to provide an overview of the main consequences for Danish food companies' export to the UK following the TCA (see Table 12)

<b>Challenges</b>	
<b>1. Challenging SPS requirements</b>	SPS measures add multiple steps to the export process that generate costs, paperwork, working hours, complexity and require practice for many Danish food companies.
<b>2. Reliance on authorities</b>	Danish food companies exporting to the UK depend on the Danish and British authorities' ability to secure the necessary capacity of competent border officials, including veterinarians, to control, inspect and sign health certificates.
<b>3. SPS generates costs</b>	Complying with the SPS measures generates costs for Danish food companies. Many of these costs are temporary and decrease as companies and authorities adapt to the rules in the TCA.
<b>4. Restrictive Rules of origin</b>	The Rules of origin are very strict and can potentially restrict the supply chains of many Danish food companies exporting to the UK. Particularly, SMEs and ingredient companies are projected to be more affected by the Rules of origin.
<b>5. Costs from documentation</b>	The compliance procedures for Rules of origin will add costs to Danish food companies' export to the UK. Like the SPS measures, many of these costs will decrease as the companies and authorities adjust to the TCA.
<b>6. SME to be most affected</b>	Danish food companies, particularly SMEs with no experience and internal processes in managing third country regulation will be heavily challenged. They are recommended to adjust quickly or seek market opportunities elsewhere.
<b>7. Trouble with customs clearance</b>	The massive quantities of export from the EU to the UK combined with the huge number of competent border officials needed at the UK border will likely cause delays for many Danish food companies' export. Companies exporting by groupage have greater risks in encountering problems at customs and extensive delays.
<b>Opportunities</b>	
<b>8. Strong position from reputation</b>	Danish food products' association with quality, sustainability, and animal welfare provides optimism for Danish food companies to maintain or potentially increase market shares in the UK.
<b>9. Used to third country regulation</b>	The larger Danish food companies' great reputation and experience, resources, and internal processes in managing third country regulation create opportunistic circumstances for them to capture market shares from the smaller competitors.

Table 12: Overview of the main consequences

## 6. Discussion of Results

On the basis of the literature, it was expected that the experts would emphasize great challenges with Rules of origin in connection to Danish food companies' export to the UK following the TCA. The majority of literature on NTBs in FTAs concerns Rules of origin, where a substantial portion of that literature characterizes Rules of origin as protectionist, restrictive, costly to comply with, and altering the trade flow of goods. Consequently, many studies have found Rules of origin as the main causality for the underutilization of preferential access in FTAs (Herin, 1986; Brenton & Miriam, 2003; Manchin, 2006; Estevadeordal & Suominen, 2004; Yi, 2015; BDI, 2020). Therefore, it was not a surprise when most of the experts explicitly found the Rules of origin in the TCA to be strict, restrictive, and costly to comply with and projected its implementation to cause significant challenges to many Danish food companies. However, the level of strictness in the Rules of origin was rather unexpected when considering Simon's experienced problem with re-exportation. Simon highlighted that Danish food companies, including Espersen, are restricted in sourcing materials from Norway for products subsequently exported to the UK because Norway is not part of the EU. Even though Norway has FTAs with both the EU and the UK, and all parties mutually recognize the standards and origin of one another. Besides, the EU and Norway have identical external tariff barriers, which prevent the issue of trade deflection. Still, Espersen had to alter its supply chain and export directly from Norway to the UK due to the Rules of origin in the TCA. Thereby, enhancing the argument that the TCA's Rules of origin is unnecessarily strict.

Even more unexpected considering the literature were the several challenges highlighted, in consensus, concerning the SPS measures in the TCA. Unlike Rules of origin, the literature finds the SPS measures to be generally legitimate regulatory measures for non-trade policy purposes (UNCTAD, 2019). Nevertheless, the conformity assessments of the SPS measures (i.e., health certificate and inspection), required for exporting food products into the UK, are described as an administrative burden that generates additional costs to many Danish food companies. Over time, the Danish food companies are projected to adjust to this new trade regime, reducing much of the difficulty and costs associated with these NTBs. Furthermore, over time the political tension between the UK and the EU should wear off, enabling a revision of the current requirements, which Esben explicitly emphasized as necessary:

The control and suspicion from the UK on EU goods and from EU on UK goods is in my opinion out of proportion and unnecessary as the products are being treated

like they are being imported from Africa, where food safety and security is a completely different manner. All this, in my opinion, excessive control and suspicion, are just costly and frustrating to the involved companies within the UK and the EU. It will continue to be this way until the EU and the UK find a way through a veterinary agreement...that will ease all this. (Appendix 4, 34)

Based on Esben's statement, the strictness of the requirements for complying with the SPS measures and Rules of origin are expected to be reduced in the future, as they are currently found disproportional. Both the EU and the UK have high demands for food safety and security, which makes the present standard of requirements to some extent unnecessary and damaging for many international trading companies, notably food companies. Many companies exporting from the UK into the EU have already witnessed the damaging attributes of these current levels of control by, for instance, encountering extensive delays at the border. Relieving some of the requirements would arguably minimize the challenges of the TCA on many Danish food companies. Thereby significantly lessen the impact on Danish food SMEs, as a substantial portion of them are projected to be in a vulnerable position due to liability of smallness. Specifically, the SMEs with limited experience in exporting to third countries, limited capital, and no established processes in complying with SPS measures and Rules of origin. Because of the current requirements, many Danish food SMEs exporting to the UK are projected to either lose or forgo market shares to the larger food MNEs that have the resources, experience, and capabilities to export under third country regulation. Hence, many food SMEs may potentially be the victim of this new trade regime, where the larger food MNEs are likely to be victorious in capturing additional market shares.

Evident and somewhat anticipated were the fewer identified opportunities relative to challenges for Danish food companies' export to the UK following the TCA. In consensus, the experts mentioned two opportunities were one of them, i.e. Strong position from reputation is arguably not a direct causality of the TCA. Thus, only Used to third countries may be considered an obvious opportunistic causality of the TCA. Nonetheless, the experts expressed a general optimism for Danish food companies' future export to the UK. The majority even found a substantial portion of the Danish food companies to be in a strong position to gain additional market shares. In particular, the larger Danish food companies, such as Arla, Danish Crown, and Espersen, are projected to be in opportunistic positions to capture market shares from their smaller competitors. Their argument for such projection relates to these companies' great reputation combined with their experience, resources, and internal

processes to manage third country regulation, which many food companies within the EU apparently do not possess.

The expert's bias towards the opportunistic future of the larger Danish food MNEs may be connected to the unfortunate overweight of interviewees representing the large Danish food MNEs: Arla, Danish Crown, and Espersen. The results would possibly be different if experts from Danish food SMEs were represented in the data. Conversely, the representation of Danish food MNEs' projected opportunistic future relative to the Danish food SMEs' less positive future can arguably be found trustworthy. As both Esben and Kenneth, who consult many Danish food SMEs, supported this consensus, and Esben even stated:

I do think that some SMEs around might find it too hard to trade with the UK and give up or have less activity, which will properly create additional market share to some of the bigger food companies such as, Arla and Danish Crown. So, I think that we are going to see a shift from SMEs to the larger companies in market shares in the UK. (Appendix 4, 31)

Having identified a much greater number of challenges than opportunities naturally lead to questions regarding the future of Danish food export to the UK: does the much greater number of challenges relative to opportunities signify an overweighing challenging future for Danish food export to the UK? A future where export volumes continue to be lesser than prior to the TCA, because the challenges of, for instance, Rules of origin and SPS measures are too great? Not necessarily. As the data implies, Danish food companies have a great reputation in the UK, and a lot of the companies have the experience, resources, and organizational processes to continue export to the UK. Also, though only mentioned by Esben, the clear majority of the Danish food products exported to the UK are basic food products, such as meat, dairy, and fish, which the British consumers would likely prefer to continue consume in the future (Appendix 4, 31). Also, it is found unlikely that the UK would be able to satisfy the population's demand from domestic production when considering the UK's negative self-sufficiency in those food categories (see. Figure 2). Thereby, the future export to the UK may not be as negative as the results from the analysis implicate.

With time, the political tension between the EU and the UK should decline, and the economic rationality may overcome the current political dogma. Both the EU and the UK are most likely better served with a future revision of the TCA. Perhaps, an emulation of the agreements the EU has with Switzerland, Norway, and Iceland. According to Esben, such agreement would entail:



an understanding of mutual recognition and equivalence. This the conundrum that you have to break and find a way to where the EU are assured that the rules of regulation in the UK are good enough and is not destroying competition and it is still a level playing field. While they at the same time allow the UK to be sovereign and allow them to make their own rules. (Appendix 4, 36)

A similar agreement between the EU and the UK would plausibly remove much of the disproportionality of the current requirements and controls, which would benefit many companies within the EU and the UK, including Danish food companies.

## 7. Conclusion

On the basis of empirical data from six expert interviews in a qualitative Delphi study, have nine main consequences been identified, with consensus, in relation to Danish food companies' export to the UK following the TCA. These nine consequences – comprising of current and projected challenges and opportunities – are as follows: 1) Challenging SPS requirements, 2) SPS generates costs, 3) Reliance on authorities, 4) Restrictive Rules of origin, 5) Costs from documentation, 6) Costs from documentation, 7) SMEs to be most affected, 8) Strong position from reputation, and 9) Used to third country regulation (see Table 12 for an overview). Of the nine consequences are seven linked to challenges to export where the remaining two constitutes opportunities to export.

In accordance with the literature, the experts shared great concern for the Rules of origin in the TCA. As a result, two main challenges directly linked to Rules of origin were found. Past studies have highlighted Rules of origin in FTAs to trigger changes in flow of trade while being costly to comply with and restrictive for many companies' supply chains. Comparable to past studies, the data analysis found the Rules of origin in the TCA to restrict many Danish food companies' sourcing possibilities and increasing the costs of exporting to the UK due to required compliance documentation. Characterized as unnecessarily strict, Rules of origin restrict Danish food companies in sourcing materials from non-EU countries, for instance Norway, for products subsequently exported to the UK. Even though both the UK and the EU have FTAs with Norway and all parties mutually recognize each other's standards and origins.

Somewhat diverging from the literature was the several highlighted challenges concerning the SPS measures applied in the TCA. Three challenges, directly connected to the SPS measures, were identified in the data analysis. One of the main issues surrounding the SPS measures are the conformity assessments (i.e. health certificates and inspections) required for complying with the SPS measures, which adds multiple steps and costs to Danish food companies' export process to the UK. In addition, these measures make Danish food companies exporting to the UK more dependent on the Danish and British authorities. In particular, the authorities' ability to secure the necessary capacity of competent officials including veterinarians, needed for inspecting and completing the health certificates of Danish food products exported to the UK. The experts particularly question the UK's ability to ensure the necessary number of competent customs officials before October 1, 2021. The required control, inspection, and completion of documents on the massive volumes of goods from the EU into the UK are projected to cause considerable challenges with customs clearance and border-

crossing delays. Especially, the food companies exporting by groupage, usually SMEs, have greater risk of facing challenges with customs clearance and extensive delays, as groupage increases the amount of documentation to be checked while enhancing the probability of mistakes in the documentation.

Consequently of the new trade regime, a consensus finds the Danish food SMEs exporting to the UK to be significantly challenged due to liability of smallness. Specifically, SMEs with limited experience in exporting to third countries, limited resources, and non-existing processes in complying with third country regulation (e.g., SPS measures and Rules of origin) are found to be in a vulnerable position. As a result, a considerable amount of Danish food SMEs are projected to either lose or forgo market shares to the larger food MNEs that possess the necessary resources, experience, and capabilities to export under third country regulation.

Nevertheless, the experts emphasized a general optimism for Danish food companies' future export to the UK. The experts' positive outlook is partly due to Danish food companies' association with quality, sustainability, and animal welfare, which are increasingly valued in the UK. Also, many Danish food companies, notably the larger food MNEs (e.g., Arla, Danish Crown, and Espersen) are even projected to be in opportunistic positions to obtain market shares from their smaller EU competitors. The consensus for such projection concerns these companies' great reputation combined with their experience, resources, and capabilities to manage third country regulation, which many competing food companies, primarily SMEs, do not possess to the same extend.

The data analysis shows a distinct greater number of challenges relative to opportunities for Danish food companies' export to the UK following the TCA. Consequently, implicating a challenged and plausibly declining future for Danish food export to the UK, where especially Danish food SMEs may be affected. Conversely, further examination suggests that many of the identified challenges are temporary and can be overcome. These challenges are expected to decline concurrently with Danish food companies and authorities adapting to the new requirements enforced by the TCA. Still, many of the Danish food companies are viewed to have the experience, resources, capabilities, and reputation to maintain market position and even gain additional market shares in the UK. Consequently, implicating that Danish food companies' export to the UK will experience challenges, but adjusting and adapting to the TCA should reduce those challenges sufficiently and enable a more optimistic outlook on Danish food export to the UK.

## Bibliography

- Agriculture and Horticulture Development Board. (2019). *Brexit prospects for UK agri-food trade*. Agriculture and Horticulture Development Board.
- Andersson, A. (2016, August ). Export Performance and Access to Intermediate Inputs: The Case of Rules of Origin Liberalisation. *The World Economy*, pp. 1048-1079.
- Anson, J., Cadot, O., Estevadeordal, A., de Melo, J., Suwa-Eisenmann, A., & Tumurchudur, B. (2005, July 06). Rules of origin in North-South prefferential trading arrangements with an application to NAFTA. *Review of International Economics*, pp. 501-517.
- Anson, J., Cadot, O., Estevadeordal, A., Melo, J., Suwa-Eisenmann, A., & Tumurchudur, B. (2003). Assessing the costs of rules of origin in North-South PTAs with an application to NAFTA. *Centre for Economic Policy Research Discussion Paper*.
- Arbnor, I., & Bjerke, B. (1994). *Methodology for Creating Business Knowledge*. SAGE publications.
- Arla Foods. (2020, February 19). Arla Foods report 2019 annual results . United Kingdom.
- Arla Foods. (n.d.). *About Us*. Retrieved from Arla Foods: <https://mea.arla.com/company/about-us/>
- Arla Foods. (n.d.). *Our UK sites*. Retrieved from Arla Foods UK: <https://www.arlafoods.co.uk/contact-and-help/our-uk-sites/>
- Baker, S. (2021, January 08). EU Exit Perspecitves: New deal, new rules, new era for UK food and farming.
- Baldwin, R. (1970). Nontariff Distortions of International Trade. *Journal of International Economics*, 205-307.
- Barnes, B. C., & Palihawadana, D. (2006). Investigating the Export Marketing Activity of SMEs Operating in International Healthcare Markets. *Journal of Medical Marketing* , 209-221.
- BDI. (2020, May 29). *The Utilisation Rate of EU Free Trade Agreements* . Retrieved from BDI: <https://english.bdi.eu/article/news/the-preference-utilization-rate-of-eu-free-trade-agreements/>

- Bjelic, P., Mitrovic, R., & Petrovic, I. (2013, August). Administrative Barriers to Trade as Predominant Non-tariff Barriers in the Western Balkans Trade. *International Scientific Conference*, pp. 1-28.
- Bogner, A., Littig, B., & Menz, W. (2009). Introduction: Expert Interviews - An Introduction to a New Methodological Debate. In A. Bogner, B. Littig, & W. Menz, *Interviewing Experts* (pp. 1-17). London: Palgrave Macmillan.
- Brady, S. R. (2015). Utilizing and Adapting the Delphi Method for Use in Qualitative Research. *International Journal of Qualitative Methods* , pp. 1-6.
- Brenton, P., & Miriam, M. (2003, May). Making EU Trade Agreements Work: The Role of Rules of Origin. *The World Economy*, pp. 755-769.
- Bryman, A., & Bell, E. (2011). *Business Research Methods* . Oxford: Oxford University Press.
- Cadot, O., Gourdon, J., & Tongeren, F. (2018, May 16). Estimating Ad Valorem Equivalents of Non-Tariff Measures . *OECD*.
- Calvin, L., & Krissoff, B. (1998). Technical Barriers to Trade: A Case Study of Phytosanitary Barriers and U.S.-Japanese Apple Trade. *Journal of Agriculture and Resource Economics* , pp. 351-366.
- Chang, W. (2017, December 27). Brexit and its economic consequences . *World Economy*, pp. 2349-2373.
- Chu, W. (2018). Rules of origin demands expose UK food industry to a 'hidden hard Brexit,' report warns. *Food Navigator* .
- Couillard, C., & Turkina, E. (26. April 2015). Trade Liberalisation: The Effects of Free Trade Agreements on the Competitiveness of the Dairy Sector . *The World Economy*, s. 1015-1033.
- Countryside. (2020). Contributing to the economy. *Countryside*.
- Cronin, P., Ryan, F., & Coughlan, M. (2008, January 17). Undertaking a literature review: a step by step approach . *ResearchGate*.
- D'Angelo, A., & Kofman, E. (2018, April 09). From Mobile Workers to Fellow Citizens and Back Again? The Future Status of EU Citizens in the UK. *Social Policy and Society*, pp. 331-343.

Danish Crown. (n.d.). *Who are we?* Retrieved from Danishcrown.com:

<https://www.danishcrown.com/en-gb/about-us/who-are-we/>

Danish Veterinary and Food Administration. (2018). *Brexit - så vigtig er Storbritannien for dansk eksport*. København: Danish Veterinary and Food Administration.

Danish Veterinary and Food Administration. (16. April 2021). *1.1 Definitioner*. Hentet fra

<https://www.foedevarestyrelsen.dk/Selvbetjening/Vejledninger/anprisningsvejledning/Sider/1-1-Definitioner.aspx>

Danish Veterinary and Food Administration. (16. April 2021). *Bilag 2. Definitioner*. Hentet fra

<https://www.foedevarestyrelsen.dk/SiteCollectionDocuments/Vejledninger/Autorisationsvejledning/Bilag%202.pdf>

Danish Veterinary and Food Administration. (2021, March 31). Briterne udskyder grænsekontrol af fødevarer.

Darmer, P., Jordansen, B., & Madsen, J. A. (2010). *Paradigmer i praksis*. Gylling : Narayana Press.

Denzin, N. K., & Lincoln, Y. S. (2017). *The SAGE Handbook of Qualitative Research* . London: SAGE Publications.

Devadason, E. (2020, December 24). "New Protectionism" in ASEAN. *Journal of Asia-Pacific Business* , pp. 57-76.

Estevadeordal, A., & Suominen, K. (2004). Rules of Origin: A World Map and Trade Effects. 1214-1245.

Estevadeordal, A., & Suominen, K. (2008). *Gatekeepers of Global Commerce: Rules of Origin and International Economic Integration*. Inter-American Development Bank.

Euromeat. (2021, January 07). Danish Crown expects export flow to the UK to remain unchanged.

*Euromeat*. Retrieved from Euromeatnews.com: <https://euromeatnews.com/Article-Danish-Crown-expects-export-flow-to-the-UK-to-remain-unchanged/4400>

European Commission . (2021). *The EU-UK Trade Agreement Explained* . European Commission.

European Commission. (2016). *National Treatment and Markets Access for Goods in TTIP*. European Commission.

Falvey, R., & Reed, G. (1998). Economic Effects of Rules of Origin. *Weltwirtschaftliches Archiv*, pp. 209-229.

- Food & Drink Federation. (2021). *UK-EU Food and Drink Trade Snapshot: February 2021*. Food & Drink Federation.
- Food Nation. (2020). *Insight Report: On Denmark as a Food Nation 2020*. Food Nation.
- Fortune, A. (2019). Danish Crown claims Brexit readiness. *Food Navigator*. Retrieved from Food Navigator.
- GOV.UK. (19. February 2020). *UK points-based immigration system: policy statement*. Hentet fra GOV.UK: <https://www.gov.uk/government/publications/the-uks-points-based-immigration-system-policy-statement/the-uks-points-based-immigration-system-policy-statement>
- GOV.UK. (03. December 2020). *UK sets ambitious new climate target ahead of UN Summit*. Hentet fra <https://www.gov.uk/government/news/uk-sets-ambitious-new-climate-target-ahead-of-un-summit>
- GOV.UK. (n.d.). *Brexit*. Retrieved from <https://www.gov.uk/transition>
- Govind, S. (2017). Moving beyond non-tariff barriers . *New Straits Times*.
- Green, A. (May 2019). Low-skilled employment in a new immigration regime: challenges and opportunities for business transitions. *National Institute Economic Review*, s. 17-27.
- Hasnain, S., Ingram, J., & Zurek, M. (2020). *Mapping the UK Food System*. Oxford: University of Oxford.
- Hayakawa, K., Laksanapanyakul, N., Mukunoki, H., & Urata, S. (2019, October). Impact of Free Trade Agreement Use on Import Prices. *The World Bank Economic Review* , pp. 643-660.
- Herin, J. (1986). *Rules of Origin and Differences Between Tariff Levels in EFTA and in the EC*. Geneva: European Free Trade Association.
- HM Revenue & Customs. (29. December 2020). *GOV.UK*. Hentet fra 1. Introduction to rules of origin and claiming preferential tariffs (duties): <https://www.gov.uk/government/publications/rules-of-origin-for-goods-moving-between-the-uk-and-eu/introduction-to-rules-of-origin-and-claiming-preferential-tariffs-duties>
- Hodzic, S. (2020). Brexit-aftalen kan ramme danske virksomheder: >>Jeg tror på sigt, vi vil se en mindre samhandel med Storbritannien<<. *Berlingske*.
- Hook, R. C., & Czinkota, M. R. (1988). Export Activities and Prospects of Hawaiian Firms . *International Marketing Review*, 51-72.

- House of Commons. (2021). *Seafood and meat exports to the EU*. House of Commons.
- Jaroensathapornkul, J. (2017, January ). Effects of non-tariff barriers on Thai exports of key vegetables to ASEAN countries . *International Journal of Trade and Global Markets* , pp. 3-12.
- Jensen, K., & Davis, G. (1998). An analysis of export market strategies and barriers perceptions by U.S. agricultural HVP exporters. *International Food and Agribusiness Management Review*, 509-524.
- Jongwanich, J., & Kohpaiboon, A. (May 2017). Exporter responses to FTA tariff preferences: evidence from Thailand. *Asian Pacific Economic Literature*, s. 21-38.
- Ju, J., & Krishna, K. (1998). Firm behavior and market access in a free trade area with rules of origin. *National Bureau of Economics Research Working Paper*.
- Kee, H., Nicita, A., & Olarreago, M. (2009). Estimating Trade Restrictiveness Indices. *Economic Journal*, s. 172-199.
- Kwon, Y.-C., & Hu, M. Y. (1996). Comparative Analysis of Export-Oriented and Foreign Production-Oriented Firms' Foreign Market Entry Decisions: A Reply. *Management International Review*, 371-379.
- Köksal, M. H., & Kettaneh, T. (2011). Export problems experienced by high- and low-performing manufacturing companies: A comparative study. *Asia Pacific Journal of Marketing and Logistics*, 108-126.
- Leonidou, L. (1995). Empirical Research on Export Barriers: Review, Assessment, and Synthesis. *Journal of International Marketing*, 29-43.
- Leonidou, L. (2004). An Analysis of the Barriers Hindering Small Business Export Development. *Journal of Small Business Management*, pp. 279-302.
- Lincoln, Y. S., Lynham, S. A., & Guba, E. G. (2011). Paradigmatic controversies, contradictions, and emerging confluences. I N. K. Denzin, & Y. S. Lincoln, *The SAGE handbook of qualitative research* (s. 163-186). Great Britain : SAGE Publications Ltd.
- Liu, L., & Yue, C. (2009, April). Non-tariff Barriers to Trade Caused by SPS Measures and Customs Procedures with Product Quality Changes . *Journal of Agricultural and Resource Economies*, pp. 196-212.



- LSE Consulting. (2018). *The impact of Brexit on the UK dairy sector: A report for Arla UK*. London: LSE Consulting.
- Manchin, M. (2006, September 08). Preference Utilisation and Tariff Reduction in EU Imports From ACP Countries. *The World Economy*, pp. 1243-1266.
- McElhatton, N. (11. March 2021). Government delays new controls on GB border with EU 'in response to business concerns and Covid-19'.
- Meschi, P.-X., Ricard, A., & Moore, E. T. (2016, January 11). Fast and Furious or Slow and Cautious? The Joint Impact of Ageat Internationalization, Speed, and Risk Diversity on the Survival of Exporting Firms. *Journal of International Management* , pp. 279-291.
- Milanzi, M. (2012). The impact of barriers on export behavior of a developing country firms: evidence from Tanzania. *International Journal of Business and Management*, 10-21.
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative Data Analysis: A Methods Sourcebook*. SAGE Publications .
- Moore, M., & Zanardi, M. (2011, October). Does reduced trade tax revenue affect government spending patterns? *International Tax and Public Finance*, pp. 555-579.
- Myhre, M. (2017). *The Internationalization of Small and Medium-sized Enterprises: A Qualitative Study*. Copenhagen: CBS Business School.
- Neupert, K., Baughn, C., & Dao, T. T. (2006). SME exporting challenges in transitional and developed economies. *Journal of Small Business and Enterprise Development*, 535-545.
- Nielsen, C. P. (2003). *Regional and Preferential Trade Agreements: A Literature Review and Identification of Future Steps* . Copenhagen: Fødevareøkonomisk Institut.
- Orefice, G. (2017). Non-tariff Measures, Specific Trade Concerns and Tariff Reduction. *The World Economy*, s. 1807-1835.
- Pinho, J. C., & Martins, L. (2010, February 24). Exporting barriers: Insights from Portuguese small- and medium-sized exporters and non-exporters . *Journal of International Entrepreneurship*, pp. 254-272.
- Pullen-Stanley, L. (2020, December). *Immigration after Brexit: The new points-based system*. Retrieved from

<https://www.nortonrosefulbright.com/en/knowledge/publications/2fd4c32b/immigration-after-brexite>

Saldaña, J. (2009). *The Coding Manual for Qualitative Researchers* . Sage.

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students* . Harlow: Pearson Education Limited.

Smail, J. (2020, January 03). Third country status for UK in trade deal with EU.

Tendera-Wlaszczuk, H. (2018, January 02). Study on the Brexit's background and causes. *Ekonomia I Prawo. Economics and Law*, pp. 307-317.

The Department for Environment, Food and Rural Affairs. (2021). *Agriculture in the United Kingdom 2019*. National Statistics .

The Economist Intelligence Unit. (January 2021). Brexit: Risk and resilience for business. *The Economist*, s. 1-13.

The Trade Council. (2020). *Potentials for Danish agri- and food-tech solutions on the British market*. London: The Trade Council.

The Trade Council. (2021). *Kom på den grønne gren i Storbritannien med bæredygtige fødevarer*. London: The Danish Embassy in the United Kingdom.

UNCTAD. (2012). *Evolution of non-tariff measures: Emerging cases from selected developing countries*. Geneva: United Nations Publication .

UNCTAD. (2019). *International Classification of Non-tariff Measures*. New York: United Nations Publications .

van Tongeren, F., Beghin, J., & Marette, S. (2009). *A Cost-Benefit Framework for the Assessment of Non-Tariff Measures in Agro-Food Trade*. France: OECD Publishing .

Vanzetti, D., Knebel, C., & Peters, R. (2018, June 13). Non-tariff Measures and Regional Integration in ASEAN. *The World Economy*.

Yi, J. (2015, January). Rules of origin and the use of free trade agreements: a literature review. *World Customs Journal*, pp. 43-58.

## Appendix 1: Matrix of Codes, Subthemes, Themes, and Experts

The following checklist matrix contains all the codes, subthemes, and themes identified in the six transcripts, which are listed in the columns of the matrix. The experts' names are included in the rows of the matrix. Codes and subthemes identified in the participants' transcripts are marked by an X in the matrix to display who and how many of the participants mentioned the specific code and subtheme. The matrix aims to display and condense the data to identify a consensus of consequences. The two matrices in the analysis do not display the codes, but they are deduced from this matrix.

<b>Experts</b> <b>Codes &amp; Themes</b>	<b>George</b>	<b>Simon</b>	<b>Esben</b>	<b>Kenneth</b>	<b>Peter</b>	<b>Robert</b>
<b>SPS Measures</b>						
<b>Challenging SPS requirements</b>	X	X	X	X	X	X
Health certificates	X	X	X	X	X	X
Inspections	X	X		X	X	X
Veterinary sign-off	X	X		X	X	X
<b>Reliance on authorities</b>	X	X	X	X	X	X
Inspecting officials	X	X	X		X	
Need for veterinarians		X	X	X		X
Consistency on applications						X
<b>SPS generates costs</b>	X	X	X	X	X	X
Adds costs	X	X	X	X	X	X
Time-consuming		X	X		X	
Administration					X	X
Extra paperwork	X				X	
Requires practice		X	X		X	
<b>Rules of Origin</b>						
<b>Restrictive Rules of origin</b>	X	X	X	X	X	
Strict	X	X	X	X		

Troubles sourcing outside the EU		X				
Limits sourcing	X					
No threshold		X				
Hurts supply chain		X	X			
Problem for ingredient firms				X	X	
<b>Costs from documentation</b>	X	X	X	X		X
Adds bureaucracy			X	X		X
Adds costs in documentation	X	X				X
<b>Optimism</b>						
<b>Strong position from reputation</b>	X	X	X	X	X	X
Strong position			X	X	X	X
Optimistic	X	X		X		
Quality	X		X	X	X	X
Animal welfare					X	X
Sustainability			X	X	X	X
<b>Used to third countries</b>	X	X	X	X	X	X
Used to third country regulation	X	X	X	X	X	X
TCA gives certainty	X					
<b>SMEs</b>						
<b>SMEs to be most affected</b>			X	X	X	X
Bigger issue for SMEs			X	X	X	X
Delays due to mixed loads			X			X
Delays due to control and paperwork			X		X	
Not used to third country regulation			X	X	X	
Trouble with curriers			X			
<b>Customs Clearance</b>						

<b>Trouble with customs clearance</b>	X	X	X	X	X	X
Customs procedures		X	X		X	
Certificates	X	X	X	X	X	X
Border delay	X			X	X	X
Many new border officials			X			

## Appendix 2: Interview Guide for Representatives of Danish Food Companies

The experts employed at Arla, Danish Crown, and Espersen (George, Robert, and Simon) received the following interview guide with identical questions: four introductory questions followed by five questions related to challenges in exporting to the UK. Finally, one question about the opportunities in the UK. The sentences at the punctuation marks – below the questions – are meant as inspiration for the questions. The X in the questions acts as a substitute to the name of the Danish food companies, which the three representatives are employed at.

Themes	Questions
Introduction	<ol style="list-style-type: none"> <li>1. What is your position at X?</li> <li>2. What kind of food company is X?</li> <li>3. What and how much does X export to the UK?</li> <li>4. How comprehensive is X operation in the UK? <ul style="list-style-type: none"> <li>- Processing, production, distribution or sales</li> </ul> </li> </ol>
<b>Challenges following the TCA</b>	
Main challenges	<ol style="list-style-type: none"> <li>5. What are the main challenges for X's export to the UK following the TCA? <ul style="list-style-type: none"> <li>- Non-tariff barriers</li> </ul> </li> </ol>
Non- tariff barriers	<ol style="list-style-type: none"> <li>6. Are X facing non-tariff barriers when exporting to the UK?</li> </ol>
Rules of Origin	<ol style="list-style-type: none"> <li>7. Are the Rules of Origin implemented in the TCA causing challenges for X? <ul style="list-style-type: none"> <li>- Complexity in complying</li> <li>- Restrictiveness in complying</li> <li>- Costs of compliance</li> </ul> </li> </ol>
SPS measures	<ol style="list-style-type: none"> <li>8. Are the SPS measures and the compliance procedures of SPS causing challenges for X's export to the UK? <ul style="list-style-type: none"> <li>- Challenges with testing, vet checks, inspections, health certificates etc.</li> </ul> </li> </ol>
Administrative trade barriers	<ol style="list-style-type: none"> <li>9. Are there any administrative trade barriers causing difficulties for X's export to the UK?</li> </ol>

	<ul style="list-style-type: none"><li>- Complex and time-consuming procedures</li><li>- Time delaying border controls</li><li>- Excessive documentation</li></ul>
<b>Opportunities following the TCA</b>	
Main opportunities	<p>10. What are the main growth opportunities for X in the UK?</p> <ul style="list-style-type: none"><li>- Market share from competitors</li><li>- Accustomed to third country regulation</li><li>- Danish food's reputation</li></ul>

## Appendix 3: Interview Guide for Representatives from Danish Food Organizations

The experts representing the Embassy of Denmark in the United Kingdom, Confederation of Danish Industries, and Danish Veterinary and Food Administration (Esben, Peter, and Kenneth) received the following interview guide with identical questions: three introductory questions followed by five questions related to challenges in exporting to the UK. Finally, one question about the opportunities in the UK. The sentences at the punctuation marks – below the questions – are meant as inspiration for the questions. The X in the questions acts as a substitute to the organizations' name, which the three representatives are employed at.

Themes	Questions
Introduction	<ol style="list-style-type: none"> <li>1. What is your position at X?</li> <li>2. What is the purpose of X?</li> <li>3. What is the X's connection to the Danish food sector's exporting activities to the UK?</li> </ol>
<b>Challenges following the TCA</b>	
Main challenges	<ol style="list-style-type: none"> <li>4. What are the current and projected main challenges for Danish food companies' export to the UK following the TCA? <ul style="list-style-type: none"> <li>- Non-tariff barriers</li> </ul> </li> </ol>
Non-tariff barriers	<ol style="list-style-type: none"> <li>5. What kind of non-tariff barriers do you see Danish food companies face when exporting to the UK? <ul style="list-style-type: none"> <li>- Administrative and procedural barriers <ul style="list-style-type: none"> <li>o Complex and time-consuming procedures</li> <li>o Time delaying border controls</li> </ul> </li> <li>- Technical barriers and SPS measures <ul style="list-style-type: none"> <li>o Testing, vet inspection, vet and health certificates etc.</li> </ul> </li> <li>- Rules of Origin</li> </ul> </li> </ol>
Rules of Origin	<ol style="list-style-type: none"> <li>6. Are the Rules of Origin implemented in the TCA causing challenges for Danish food companies? <ul style="list-style-type: none"> <li>- Complexity in complying</li> <li>- Restrictiveness in complying</li> </ul> </li> </ol>



	<ul style="list-style-type: none"> <li>- Costs of compliance</li> </ul>
SPS measures	<p>7. Are the SPS measures and the compliance procedures of SPS causing challenges for Danish food companies' export to the UK?</p> <ul style="list-style-type: none"> <li>- Testing, vet checks, inspections, health certificates etc.</li> </ul>
Administrative trade barriers	<p>8. Are there any administrative trade barriers causing difficulties for Danish food companies' export to the UK?</p> <ul style="list-style-type: none"> <li>- Complex and time-consuming procedures</li> <li>- Time delaying border controls</li> <li>- Excessive documentation</li> </ul>
<b>Opportunities following the TCA</b>	
Main opportunities	<p>9. Do you see growth and market share opportunities for Danish food companies in the UK following Brexit and the agreement?</p> <ul style="list-style-type: none"> <li>- Market share from competitors</li> <li>- Accustomed to third country regulation</li> <li>- Danish food's reputation</li> </ul>

## Appendix 4: Transcript of the Interview with Esben Egede

**1. So, Esben to start with could you please tell me about your position at the Trade Council in the Danish Embassy of the United Kingdom?**

2. Yeah, sure, I am the Councilor of Agriculture, Food and Fisheries. I have been at the Embassy since August 2020. So, I deal with everything around food production, agricultural production, and fisheries in the UK, and I am split between the Political Department and the Trade Department at the embassy.

**3. So, what is the function of the Trade Council in the UK?**

4. Well, partly political – following the political debate, part legislation, and the general political discussions in the UK on agriculture, food, and fisheries, which right now is strongly related to Brexit and the post Brexit situation. And the other part is that I engage in helping Danish companies wanting to have at a foothold in the British market or want a market analysis about the UK market, or just helping with practical problems for Danish companies in the UK such as providing contact to authorities. So these are the basic function of my job.

**5. So, the companies that you assist are they only big Danish food companies, or is it also SMEs?**

6. There are a lot of SMEs that I provide help to. Generally, the British market is a very mature market. It is also close both geographically and culturally to Denmark. Danish food companies have operated here for centuries almost. So, you will find Danish food companies in all sizes and in all part of the value chain from the farm to the fork here in the UK.

**7. So, a big part of my dissertation is about the challenges for Danish food companies following the new agreement, and of course, these challenges differ depending on the size of the company. So, what would you say are the main challenges for Danish food SMEs' export to the UK?**

8. I think that you have to consider now at the moment that we also have the COVID-19 situation while the whole Brexit adjustment is occurring. And within the Brexit adjustment, we also have to distinguish between what is teething problems and more lasting structural changes that companies in any size have to adjust to. But currently, all companies are facing COVID-19 related problems of course. There are temporary problems right now about learning what's life after Brexit and with the new TCA. If we are talking about SMEs who have only been trading within the EU and have the UK as a big customer. Then, the UK is their first third country to trade with, which means that they have a lot to learn about processing the paperwork, the bureaucracy, and all that. That will be quite

challenging for some companies for a period. At the same time on the British side, the ones who are importing it is maybe also their first time trading under third country regulation. So, there is a lot of bureaucratic red tape related problems with paperwork, especially within the food sector, because there you have to have health certificates in order. The UK has introduced a phased-approach regarding many procedures, which has now been postponed to the 1st of October because there is so many adjustments taking place, and they have to hire so many people and implement new IT-systems, and then there is the whole Northern Ireland problem at the same time. So, there is a lot of thing going on, which makes it even more complicated, confusing, time-consuming, and costly. A whole lot of that will go away, when they learn how to use the different forms and certificates and what time they have to be applied, and also get the IT-systems going. That cost time and money in the beginning. So, if you're a small company, if the British market isn't that important to you, if your margin is slim, then of course this is a challenge that could make them think that "okay, the UK is no long worth the effort, and we will lay low and leave the market for the time being". So, if you think about it from a competitive perspective the big companies who are used to trading all over the world, also with other third country market, they have a big organisation behind them. So it is a lot easier for them to adjust and make this work, and they export volumes that makes the cost pr unit low compared to a small company. So, there is a competition issue here, and it is important for the SMEs that they learn fast, and they find the easiest way around all this.

9. **So, all these papers, processes, health certificates, and standards that all the all the Danish food companies have to follow is that in terms of the SPS measures and rules of origin?**

10. Yeah, so SPS measures and that where we get into the structural part, because the SPS measures will be there always. So, if you have a graph showing the cost of complying to all these new rules, then you will see high temporary costs in the beginning due to adjustments and then gradually when IT systems work, management procedures will work, people will get their competences in order, so they can do it faster, they can do it more correctly and make fewer mistakes so the cost goes down. However, the cost wont go down to zero because you still have to comply with the SPS measures, and there will always be time on making certificates and spending time on IT systems, and more. As long the UK is outside the EU, there will be these kinds of costs associated with trading with the UK. The freedom of movement of goods, capital, and people is not free anymore with the UK, so the more companies are depending with these freedom, and the smaller their margins are, the harder it will be moving forward.

**11. So, companies like Danish Crown and Arla, who have large process facilities and a lot of workers in the UK, are they going to be affected by the limitation of the free movement?**

12. Yeah, basically any company in any size are facing similar problems. However, the bigger companies are used to trade with third countries and have people in their organisation that knows everything about SPS regulation and everything about health certificates. They have access directly to decision-makers in the UK. They have huge complicated supply lines that are very flexible and can be change to fit under new circumstances. They have more opportunities and leverage to deal with the challenges of Brexit. So, depending on companies' situation, this might even be a blessing disguise because if they are the most able to deal with this situation, then maybe they can take market shares from competitors and actually benefit from it. So, some companies, maybe Danish food companies, might benefit from this situation if they have the size, products, agility, and competences and understand the customs and all the following procedures better than others, then they may be able to take advantage of other companies struggles.

13. Of course, they are also affected by all the non-tariff barriers and affected by the British market being heavily influenced by COVID-19 and a lot of internal problems that comes with leaving the EU. It has been estimated that you need to employ 50,000 people at the border doing all these paperwork, duties, inspections, and all that, but you can't really hire 50,000 people from one day to the other and also make them competent in such a short period of time. So, you have these problems accumulating on each other. So, it is and will be especially hard for the SMEs for a period of time.

14. One of the big issues we see in SMEs exporting to the UK is if their goods is being exported by trucks among hundreds of other goods from other companies. That a very different situation compared to Arla and Danish Crown, where they have all their own products sent in their own containers in huge volumes. Arla will not be dependent on the paperwork of other producers because their volumes are so big that they fill out their own containers. So they are only dependent on knowing their own paperwork and can produce that correctly. If you're a SME, you have your cargo in a container together with other goods from other companies, and if one of the companies has messed up their paperwork, then your stuck at the border, maybe for days, because someone else made mistake with another product that has nothing to do with you.

**15. Yeah, so that's provide procedural complications for especially SMEs.**

16. So, SMEs that are selling perishable products that wont be eatable or drinkable within a few days, then you cant afford to have it stuck at the border.

17. **So, would you say that the challenges that especially the SMEs are facing are associated with administrative and procedural trade barriers?**

18. Yeah, the paperwork causes by the different certificates is causing big problems for SMEs. Then you also have the rules of origin, which is a complication for all kinds of companies and also food companies. If the product that your selling is not entirely European product but is based on products from outside of the EU, then you actually might be in a situation where you have to pay customs in order to enter the UK market.

19. **The Rules of origin is that something that has already or is projected to cause difficulties for Danish food companies?**

20. It has caused problems. One case that I have heard of is a company making fish-based products, where some of their raw materials is imported from the Far East, Vietnam. If you import fish from Vietnam, Norway, or any other country outside the EU, take it to Denmark, where your production is, and send it to the UK, then it is all up to if the production and processing in Denmark adds more value to the product than the material. So, if the raw material is the main component of the product, then you will have to pay duty on customs. That has come as a bad surprise for a lot of companies. Of course, if you have already paid duty on one end, then that means that you can detract that, but it still means that you have to deal with a lot of bureaucracy from both ends. Some of the companies that have the biggest problems right now are actually the fish companies in Greenland and the Faroe Island because they are not members of the EU, they used to have a TCA with the EU and export their fish to Hirtshals and then package or process it there and then export it to the UK. They don't have a TCA with the UK, so they cant export it directly to the UK or export it through Denmark without tariffs. So, they are no longer competitive in the UK market.

21. **So, is that something that will hurt Royal Greenland?**

22. Yeah, definitely. It's hurting them badly already. So there will be a lot of cases with companies who will suffer from this and of course if they have a really good product that people are willing to pay more for, then great they can still operate in the UK. If they have a flexible supply line, then they can source their material inside the EU instead. Or they can try to add more value to the product in the EU to prevent tariff. But as you can imagine, if a company from these two countries is running on long-term contracts of sourcing raw materials. It all cost money, which could have been spent elsewhere. I us think that a lot of companies were surprised by such strict Rules of origin, and they will suffer now and try to adapt to it. So, it's a big deal. In the UK a lot of companies were also

surprised, because they have realized, and I think also the British government have been surprised because they thought the UK would become some sort of hub, with products coming from outside of the EU going into the UK and their warehouses and be redistributed throughout Europe and create a lot of workplaces in the UK. Quite the opposite has happened. Warehouses have been shut down in the UK and moved to Europe because if it is produced outside the EU, then goods run into the problem of rules of origin, which will provide duties and taxation. The same goes with the Republic of Ireland, where products are being shipped directly to the EU instead of through the UK even though it takes many more hours.

**23. And with the Northern Ireland protocol, is there a lot of Danish food companies that suffer from that?**

24. Not yet, because the UK government has decided that they are not implement the TCA regulation on control and all the paperwork. They had a grace period until April and also until July. Now the UK has unilaterally decided they are not ready for that. So, it has been pushed to the 1st of October and until January. As we speak now, there isn't any problems, but down the line, there might be.

**25. With the technical measures such as the SPS measures has those measures, which involves among other standards, certificates, and inspection. Have these caused problems for Danish food companies' export to the UK?**

26. What we have seen so far is that the Danish goods arrive in the UK. There were some issues in the beginning, but it looks like that the UK authorities are handling it well. But there were some smaller problems in the beginning about people not knowing the rules of regulations and what to do with it. But now it goes quite well. So, basically, the Danish companies just have to do the paperwork in Denmark and spent time in paperwork that they didn't had to before, and they have to do some work with your British customers to make sure that the products are coming in time, and some of the transport companies have introduced higher prices because they are afraid of waiting too long at the border and thus pay the driver more for the longer hours. So, freight rates have gone up. But all the stuff is getting in.

27. Not long ago, I talked to someone from Danish Crown, and he said that the situation with the UK depends on what department in Danish Crown you talk to. If you talk to marketing and sales, then everything is fine, we sell just as much as before, and they arrive in time to the customers. If you ask their logistics and transport department, then you'll get a different answer, because they are going nuts, because they get all the work of complying to the new regulations, and they receive all the

**problems.** Basically, what's important is that they are selling their product and getting a profit and having the customers being happy about what they get. Luckily, it is going that way for most Danish food companies. So, it is not like it's at catastrophe. It is new, and we will just have to get used to having costs that seems unnecessary because you might have trade for years with the UK without having these costs. So, the companies have to adjust and then find out if trading with the UK is still sustainable economically. So that's what everyone is struggling with right now.

**28. After the UK have left the EU, the UK have now also implemented a new immigration policy, which is a point-based policy with salary requirements, among other. Is this new policy going to cause problems for large Danish food companies such as Arla and Danish Crown, who have big operations in the UK and have large workforces?**

29. Well, for those who are in the UK and are residents in the UK, it doesn't matter. The real difference is all the people travelling back and forth, such as IT-people and machine engineers. They might come for three to six months to do a job at a facility. They face issues of visas and work permits, which wasn't there before. So yeah, they face issues as well. The main threat to some of the bigger Danish companies in the UK is that the UK production is heavily dependent on workforces from Europe, especially Eastern Europe. And they are required for work that is not over the limit of the salary requirements. So, recruiting people for the food, agriculture, and fish industries to do the regular every day work will be a challenge. They are working on schemes to allow seasonal workers to come to the UK. But I think that is one of the main worries for companies with big productions in the UK that rely heavily on workforces from the EU.

**30. So, I have only a couple of questions left. You briefly, in the beginning, talked about opportunities. Are there any Danish food companies that are in position of opportunities that can create additional growth or market share in the UK?**

31. It is hard to say. I do think that some SMEs around might find it too hard to trade with the UK and give up or have less activity, which will properly create additional market share to some of the bigger food companies such as Arla and Danish Crown. So, I think that we are going to see a shift from SMEs to the larger companies in market shares in the UK. I think the overall challenge is the for the SMEs losing out. So, for them, it is really, really to adjust as quickly as possible to the new realities and to have an effective way to deal with these technical and administrative barriers and non-tariff barriers in general. But I believe that Denmark is in a strong position to keep or increase our market shares in the UK. We have a great reputation for quality and sustainable food products, which

British food stores and consumers values more and more. Also, a lot of the food products we export to the UK are basic food products such as meat, dairy, and fish. It is not luxury food products. So, the UK still needs those products because they can't manufacturer enough to satisfy their own needs.

**32. Lastly, would it be possible for you to elaborate on which challenge and non-tariff barriers that have or will have the biggest impact on Danish food companies?**

33. It really depends on the individual company. If the company produces complex products and utilise a lot of different components, which are sourced from all over the world, then the rules of origin would be the most challenging to the companies' business and export to the UK. If you are not challenged by that because your product comes from within the EU, then it is not rules of origin, and thus, the certificates, the bureaucracy, and also inspections are the most challenging due to the cost and complexity as some are not used to it.

34. The control and suspicion from the UK on EU goods and from EU on UK goods is, in my opinion, out of proportion and unnecessary as the products are being treated like they are being imported from Africa, where food safety and security is a completely different manner. All these, in my opinion, excessive control and suspicion, are just costly and frustrating to the involved companies within the UK and the EU. It will continue to be this way until the EU and the UK find a way through a veterinary agreement like the one they have with Switzerland, Norway, and Iceland that will ease all this.

**35. And just lastly, how does the veterinary regulation between the EU and the UK differ from the one they have with Switzerland?**

36. With Switzerland, they have a understanding of mutual recognition and equivalence. This the conundrum that you have to break and find a way to where the EU are assured that the rules of regulation in the UK are good enough and is not destroying competition, and it is still a level playfield. While they at the same time allow the UK to be sovereign and allow them to make their own rules. With Switzerland there have been made some really complex rules and strong rules to deal with conflict and new rules of regulation. But basically, Switzerland can at any time decide to make their own rules of regulations and then there is a means of arbitration and negotiation with the EU. So in that agreement you have solved that conundrum at least partially, and at some point they need to come to some kind of similar agreement with the UK. It is ridiculous when all member states of the EU and the UK have all these food regulations in place, which means that the food safety is on point, that you have all these new regulations and controls similar to the ones you have with food coming from Africa.



## Appendix 5: Transcript of the Interview with Peter Bernt Jensen

**1. So, if we start with the introduction. Peter, could you please tell me your position at the Confederation of Danish Industries?**

2. Ohh yes, my name is Peter Jensen. I work as a consultant in the Confederation of Danish Industries within the Department of Food Industries, where I have been for over 12 years. We are called Danish Food and Drink Federation, which is part of the Confederation of Danish Industries. We lobby for the food industry primarily in Denmark. With the food industry, I mean slaughterhouse, dairy, confectionary, ingredients companies. So, it's a broad of spectrum of Danish food companies that we support, mainly with lobbying and advice on technical terms on legislation or similar. Primarily in relation to what we do in Denmark but also some international issues such as Brexit, but Confederation of Danish Industries is a pretty large boutique, so if we are not able to give advice to our companies, then we have some colleague who can take over and join us, especially when it comes to international subjects. Well, my role is primarily supporting with economic analysis, lobbying in general on sustainability, climate, tax issues in Denmark. That's what I do. I have studied Economy at the University of Copenhagen, and I have a past in the Ministry of Agriculture. So, I have worked with the food sector for quite a while. So I have some experience within the food sector.

**3. And so, the Department that you are in, what connection does your department have with Danish food companies who export to the UK?**

4. Primarily, by setting up webinars or help them with interpreting some of the legislation or the certificate they need. We are bridging information with the Danish Veterinary and Food Administration. We help them to establish dialogue with the ministry. We are a pretty small department of 10 people working with the food companies. So, we are not the biggest. We have several competitors including, the Danish Agriculture Council, who are at least the same amount of people as we are in our department, but we also with other issues as well.

**5. Perfect, so if we dig into the challenges of Danish food companies following the TCA. What are the main challenges you see for Danish food companies that export to the UK following the agreement?**

6. It's all the new procedures they need to comply to. One thing is the non-tariff barriers they face now, which could disturb the competition a bit. But the next issues are how do the companies cope with all the new control procedures and how many certificates should they have to comply to in order

to export to the UK. The companies, of course, need to be prepared, and authorities in Denmark also need to be well prepared. So, these are the overall issues that companies that export to the UK. Some of the Danish food companies have production in the UK, such as Danish Crown and Arla. They properly don't face these issues to the same extent as the smaller companies. The smaller and medium-sized companies face challenges of greater impact in these issues than compared to the big companies such as Arla and Danish Crown.

**7. So, the regarding the SMEs. What are the certificates that are and are properly going to cause a lot of challenges?**

8. It's primarily export certificates, health certificates, also certificates concerning animal by-product. The fish industry has especially issues regarding their certificates. There is a lot of certificates that need to be filled out and also inspections that need to be carried out. All these issues are, of course something that is costly for the companies because they need to have an overview of the legislation behind it. And they need to internalise administrative procedures to be able to comply with the rules that the UK authorities work with. So, this is something new for the Danish food companies, and it is not something they can comply with from day one. They need some time to get used to. We know it is a big issue for SMEs, but they'll get used to it by time.

**9. And you also briefly touched upon the Danish food companies with operation in the UK, such as Arla and Danish Crown. Do you see challenges for their operation in the UK following the agreement and with the free movement of people being limited in the UK?**

10. Well, it is obviously something that matters for them, because they have many in their workforces that comes from other EU member states, especially from countries within Eastern Europe. So, they are properly being challenged by that. But I don't know about the specifics.

**11. And, you also mentioned the customs and border control. The UK are gradually implementing many of their procedures but what kind of issues do you expect to come at the UK border in regards to customs and border control?**

12. I am not all into that, but I am sure that they will face some difficulties operating in this new regime. And I have heard some stories of Danish SMEs having experienced big delays of their products at the border. But, as you mentioned the UK haven't many of their procedures, so it's hard to know the total impact. However, looking at the difficulties of goods being transported into the EU, I'll expect the Danish companies, mainly the SMEs, to experience challenges at the borders due to massive amounts of documents that the UK officials have to go through.

**13. I am also interested to get your opinion about the non-tariff barriers that you hear about. What kind of non-tariff barriers do the Danish food companies face currently or will face that you think will be most challenging?**

14. Yeah, so the SPS-rules are properly the one that is the most challenging for some Danish companies. Of course, big companies like Arla and Danish Crown are used to those rules, but some of the smaller companies are not used to these kinds of regulations and certificates. So, they are very uncertain and challenged by the whole thing, and especially of the export and health certificates, where the SPS-rules play a big part.

**15. And have you heard about any Danish food companies having challenges with the rules of origin?**

16. Yeah, a little bit. It was a surprise to me how strict they have made it. I have heard from companies and colleagues about the rules of origin being a challenge for Danish companies that export to the UK. Some of our ingredient's companies, such as Chr. Hansen and Dupont, I've heard, are challenges by the rules of origin.

**17. What is it about the ingredients companies that makes them more affected by the rules of origin?**

18. Well, they import materials in their products from third countries, so that makes it difficult. Because of the re-exportation to the UK, which now is also a third country. There are some real difficulties for these Danish companies to address.

**19. And, have you experienced some Danish companies having problems with vet checks and vet inspections prior to exporting to the UK?**

20. Yes, we have a company, who is a member, that we have massive dialogue with. They have had issues around these checks, but it is not something that I have been involved in, so I can't say much more. Meat-producing and exporting companies face with this challenge. We have tried to help them by establish close dialogue with authorities to make it easier for them.

**21. How do you project it all going for Danish food companies' export to the UK with all the new regulation and procedures coming into place?**

22. We see a massive decrease in export from the Danish food sector to the UK. We have interesting statistics from the Drink and Food Federation in the UK, where we can see a massive a drop in export from Denmark to the UK from November 2020 to January 2021 in food products. This is obviously

because of the uncertainty of the agreement and the difficulties these barriers, we have talked about, cause Danish food companies, especially the SMEs. This will properly still be problematic in the next couple of months, but I think when we face new rules at the 1<sup>st</sup> of October, and later on, then companies will start to cope with the procedures. Then I think we will start to see an increase in export again. Danish food products has a good brand in the UK, and among UK consumers, so I guess that this is a drop that we won't see permanently, but I don't think we will come back to the same volume of export as six months to 12 months ago. We will find ways to cope better with the new legislation and the new administrative procedures, so the export will definitely increase when the Danish food companies have got used to it.

**23. And you have mentioned administrative procedures a couple of times now. What are the issue of that?**

24. Well, it's the additional cost and complexity that these procedures like the SPS rules provide to the Danish food companies, and especially the SME that don't have that many employees and resource and are properly now used to deal with third country regulation. They will learn to cope with them over time.

**25. You also mentioned that the Danish foods have a good brand in the UK and among the UK consumers. Do you see opportunities for Danish food companies in the UK going forward?**

26. We are a food nation of traders. We trade a lot with companies abroad, so we know how to do it. The UK food market was the third largest market, now it is the fourth, and it is still dropping down the list. It is still a very important market, and it is very close to us. It is a market where the Danish food companies still wanna be in. Our products are of high quality, it is safe and very sustainable, which is something many consumers look for and want to pay for now a days. Our track record in sustainability is very strong, which is a big advantage moving forward.

## Appendix 6: Transcript of the interview with Kenneth Lindharth

**1. Could you initially tell me about your position at the Danish Agriculture & Food Council?**

2. Yes, I am the Head of Department for trading market relations, so it's a department related to trade policies, market activities abroad, and promotion activities for Danish food and the agriculture sector. We also deal with development policies in international market relationships and also delegation coming from abroad visiting Denmark.

**3. And could you briefly explain what is the Danish Agriculture & Food Council?**

4. The Danish Agriculture & Food Council is a private business organization. We would argue that the Danish Agriculture & Food Council (DAFC) is the second largest Danish business organization, where the biggest is The Confederation of Danish Industries. The DAFC represents the value-chain from farm to fork. What we normally call the agriculture and food cluster. So, we represent farmers, the big and small business, and co-operatives. Also, companies within everything from ingredients, genetics to machinery and equipment and also food processing.

**5. And if we talk about some of the challenges with the TCA. From your perspective, what are the main export barriers for Danish food companies' exporting to the UK?**

6. If we look at the companies export final food products, such as Danish Crown and Arla. The main issue for them would be all the technicalities related to the fact that now that the UK has become a third country, you need export and veterinary certificates to export into the UK market. So the health and vet certificates and as you properly know the initial timing of conformation and request and also the need to have veterinary certificates was 1<sup>st</sup> of April, but the UK government just changed that, and now it is going to be the 1<sup>st</sup> of October. So that is, of course, a change where the Danish food companies depend a lot on the Danish and the UK's administrative capacities for processing and checking of these health and veterinary certificates, which can cause problems with customs clearance. The port of Esbjerg has been prepared for all the outgoing and incoming activities, but then again, we also depend on the capacity in the UK. So, of course, if you have big loads like Arla and Danish Crown, then you depend on the necessary capacity of the UK. And that also goes for export from the UK to Denmark because it is going to cost companies in the UK to have the certificates by the vets on their side in order to export to the EU. The cost of these certificates in the UK when exporting into the EU are quite high. That's the UK government who are charging these costs. They

are quite higher than the ones in Denmark when exporting from Denmark to the UK. So that's for the food producing companies.

7. If we look at companies within ingredients and also companies that provide equipment solutions for food and agriculture. They have to look carefully at the rules of origin because they normally source their input to Denmark and then they export to the UK. They will have to make sure that they live up to the general rules in the trade agreement of rules of origin, especially about the processing taken place in Denmark and also the applying the product-specific rules in the rules of origin in the Annex 2. And that's quite complex, especially for small and medium-sized companies, because they need to understand the demands and request in the agreement, and then they need to be able to do the calculations of the product-specific rules. In general, many small and medium-sized will be very challenged by all of these new rules, especially the smaller companies who are not used to trade with third countries regulation. Some of these rules state specifically that you need to document that at least 50% of the product-value exported comes from processing and production in the EU. They need to be able to showcase that document at the borders. Otherwise, they will have to live up to the product-specific rules in the rules of origin. They also have to be able to provide supply declarations, so if you export a machinery to the UK and you import parts of that from China. That's a third country outside of the EU. Then you need to be able to deliver supply declarations from your supplier in China that quite specifically state what the value of the input of this product coming from China is. What are the specific tariff-lines these parts goes under, and then you need to take that into a calculations when documenting for the UK customs authorities that you live up to the requirements in the agreement. Otherwise, you are not able to get the preferential tariffs in the agreement. Then you will have to pay the tariff that applies for all other countries that does not have a trade agreement with the UK, and in some cases be quite high and also prohibitive, which will mean that for an Danish exporter, it wouldn't make a lot of sense to export to the UK market, because if you have a small margin of 10% in a product and you need to pay 15% in customs because your not able to deliver on the requirements on the FTA. Then you do not have a business case. So, the rules of origin is really challenging, especially for the SMEs and those who source many things outside of the EU for their final product being exported to the UK.

8. So, the vet checks that you talked about. Are they part of the SPS rules in the agreement?

9. Yes, it is the SPS rules, but the SPS rules that apply to all exporting/importing. If you look at the EU as an importer, so the UK wants to export animal products to the EU and a number of non-animal

products such as plants, there are a veterinary and health certificate for these kinds of products. Some of them are basic and others are very specific, and you need to be able to have a vet officer signing those certificates that have been agreed between the UK and EU. A vet officer has to sign these documents and document it. The vet has to check that the products live up to the requirements in the certificate concerning the SPS measures. And it is the exactly the same way the other way around. So the EU and the UK have agreed upon many certificates that covers all the sanitary and phytosanitary aspects in trading of e.g., food and agriculture products. So companies have to have that signed in Denmark stating that they live up to the requirements. So that provides a lot of documents of health and vet certificates that has to be signed and documented by vet officers in Denmark.

**10. You mentioned that in relation to “capacity”. Is that referring to if we in Denmark have enough veterinaries to conduct these certificates?**

11. Yeah, so to give you an example. If you have a slaughterhouse in Jutland and every time they slaughter pigs and produce the cuts and deliver it at an freezing house or it could also be fresh, and then they export it to the UK. They need to get the specific certificates for the shipment, and they need to have a veterinary officer at the slaughterhouse and also at the freezing house, depending on what is the final facility before exporting to the UK. They need to control the processes and sign he certificate. The fact that the UK is such a huge market the Danish food and agriculture sector means that now with the UK out of the EU, a big part of export out of Denmark will be in a situation where they need these certificates. So there is a growing demand for vets in Denmark. Then on the UK side, they need also many veterinaries to check these certificates and see if the export lives up to the requirements in the certificates. And that's exactly why they have just delayed this from the 1<sup>st</sup> of April to the 1<sup>st</sup> of October because they don't have the capacity and the system in the UK to do this. It also relies heavily on IT. They don't have the IT system for it yet.

**12. Will these certificates and checks also add a lot of extra costs to the Danish food companies?**

Definitely, because the companies need employees to take care of the certificates and filling out the necessary documents and other administrative things involving the new requirements. The other part is that there is a specific requirement for paying for a certificate and a vet. I think the price in Denmark is about DKK 120 for each certificate. In the UK, the health and veterinary certificates would about 10 times more than the price in Denmark. So, it is gonna be expensive to get these certificates, which can hit Arla's production.

**13. Are there any other barriers besides rules of origin, customs clearance, and the certificates of the SPS that are challenging for Danish food companies?**

14. It depends on how it all evolves on the requirement for health and vet certificates after the 1<sup>st</sup> of October. **Border delays could, of course, have bad effects on products with short shelf-life.** In the longer run, we might get problems if the UK decides to change their rules and apply other rules on food and agriculture. So, if they want to do a free trade agreement with the US and decide to change their rules in order to do such an agreement. But that, of course, is part of the agreement with the EU, where the EU have tried to tie up the UK government in keeping and abiding of the rules of the single market. But the situation can develop, and after five years, we can see another government that might want to change some of these rules. Who knows what happens.

**15. You mentioned customs; what were the specifics that you meant with that?**

16. Well, **they don't have a total customs clearance system set up yet. So, what you have now until the end of the year, companies are not required to do the customs clearance when importing into the UK. So, companies need to prepare for that clearance to when it will be set in motion.**

**17. Okay, do you see the elimination of freedom of movement in the UK to cause problems for Danish food companies with big workforces in the UK, such as Arla and Danish Crown?**

18. I have not heard of any big problems regarding that subject. I might be a problem for the UK farmers who deliver milk to Arla. So, I think that it is gonna be the farmers' issue.

**19. So, looking opposite to challenges. Do you see any opportunities for Danish food companies in the UK following the agreement?**

20. That hard to say. I guess that there might come more competition in the UK, especially if the UK make free trade agreements with other countries. So if, for example, the UK make an agreement with the US, who the EU don't have an agreement with, then there, of course, will be more competition in the UK market. **But I am optimistic, because I think and know that Danish products and especially our food and agriculture products are liked in the UK. We make high quality food products, and it is very sustainable compared to many other countries. So, I think the British consumers would prefer our meat products than the US, as our products follow standards that the British consumers are used to. And our big food companies like Arla and Danish Crown are huge global companies that know how to trade with third countries.**



## Appendix 7: Transcript of the interview with George Morrison

**1. Could you please explain me your position at Arla?**

2. Yes, I am Director for Global Affairs, which means that I am responsible for all government relationship that Arla has and all the policies Arla has globally. I focus mainly on a day-today on the European agenda, so Brexit is still a big part of what I deal with.

**3. Perfect, and just for a good sake, could you briefly tell me about what food company Arla is?**

4. Yeah, sure, I think it is a really good question for when it comes to Brexit. We are a co-operative consisting of many farmers, and those farmers are in seven different countries. So it is not just a Scandinavian company anymore, and some of those farmers are in the UK. We have production in the UK. As we are a co-operative, we use all of the farmer's milk to make dairy products. We have also done a little bit of plant-based products as well, but we are still predominately a dairy company. The key think for us is the co-operative structure.

**5. How comprehensive is your operation in the UK?**

6. The UK market is about a quarter of Arla's revenue. So it is a huge market for us, and we have a quarter of our farmers there as well. So roughly 35% of the milk we produce as a co-operative comes from the UK. We have a business sitting in the UK, which has it own production and supply chain. Most of what we produce in the UK is sold in the UK market, and a little bit is exported out of the UK. So, we have about 7-8 production sites in the UK. So the UK is a big part of the business, both from an ownership, growth, and market perspective.

**7. And how much do you export from Denmark to the UK?**

8. It is a small margin. It primarily cheese – yellow cheese. A few thousand tonnes a year is exported to the UK. It is not a huge amount. And then we bring whey, which is a bi-product of cheese-making, across to the UK. We have a subsidiary called Arla Foods Ingredients, which makes ingredients for our high-protein products. So, we bring that over as well.

**9. And when you export, is that by ship or by lorries?**

10. Yeah, it depends on the product. Whey has a very short shelf-life, so it comes across in cooled containers, usually by ship. Things like cheese that can last longer usually gets put on trucks.

**11. Well, I think that leads me to the new agreement. So following the end of Brexit and with the new agreement, what have been your primary challenges in exporting to and operating in the UK?**

12. Yeah, so, I'll go back a step. So when we were preparing for Brexit on January 1<sup>st</sup>, there were a couple of things we focused on to make sure that we understood the problems. Number one, will there be tariffs on the trade? And number two, what will be the non-tariff barriers and administrative barriers in different scenarios? So, in the middle of 2016, after the referendum, we started planning what the future relationship could look like to make sure we understood what was going on. Our supply chain at the time was completely integrated to the EU. So, we knew that there were gonna be a problem. So those were the two big areas, and then a third area came along close to the deadline, which was about the standards of animal health, the requirements, and that sought of stuff, which is linked to the non-tariff barriers. It became clear that the UK wanted to have a clean break. So there was not gonna be any alignment, which we had hoped for. So those were the areas look into.

13. What we have seen since 1<sup>st</sup> of January is that tariffs is not there. So that is good. But then you have the Rules of Origin. There are very strict rules of origin in the agreement, and in order to satisfy and get tariff-free access to the UK, we had to understand those rules before 1<sup>st</sup> of January. So know the big issues it the non-tariff barriers. We export lots from Denmark into the UK and not so much from the UK into the EU. At the moment, the EU have said from day one, the border operates as a closed border, where the UK has made a more flexible arrangement. So actually, the impact we are seeing now is less than what we expected because of the way the UK is operating its border. But it is gonna come in later this year. So we still have to do all the paperwork, but the checks at the UK border is not happening, so we don't see a delay at the moment, because they just let the trucks go in. But we still have to operate as we are under the full regime with vet checks and stuff. So that is part of the main destruction.

14. The other thing we are seeing are two things related to Ireland. There are a lot of companies like Arla that uses the UK as a land bridge, where we take products from Denmark into UK and do a lot with them and then take them to Ireland. That is now not possible with a lot of goods because the way the deal is put together as soon as goods arrive in the UK, there get tariffs on the goods if it is re-exported into the EU. So, we have to find ways around that and find a route that means that customers in Ireland can still get our products without having tariffs on the products. And then we have the Northern Ireland, which is a special case with the Northern Ireland protocol. And thankfully, there

was some temporary relaxation of the rules. But it is a real problem for us. We don't have big volumes coming into Ireland, but we have customers who rely on us. And it has been quite tricky to keep the flow going. A lot of more paperwork has to be done.

**15. So, what are the non-tariff barriers that you project to the most challenging for Arla?**

16. So once the UK border is implemented fully, which is gonna be 1<sup>st</sup> of October. It should have been the 1<sup>st</sup> of April, but they have postponed it. The biggest inconvenience will be the cost of animal health certificates. So the health certificates have to travel with any product of animal origin. It requires a vet inspecting the goods, to check and sign off the certificates and officially stamp the documents. Then the goods travel to the UK, where inspection will look at the goods and documents to see if everything is 100% correct. So that could lead to delays, and it will lead to extra costs because we have to pay vets to do the inspections, which we never had to do. And the risk of something not being 100% right is quite high because of human error. We have seen that over the past three months with goods exported out of the UK, where there have been big delays and stuff. That's the scenario we can be facing in October. So, the health certificates is the big one.

**17. What about the Rules of Origin?**

Well, the rules of origin in the TCA is quite strict compared to normal FTAs. The percentages change depending on the agreement. What we had to do between the 24<sup>th</sup> of December until 1<sup>st</sup> of January was that we oversaw all over the inventories and triple checked that it complied to the Rules of Origin. We look very detailed at it, down to where we source our sugar from. Basically, as long as you get your sugar from within the EU, it qualifies under the rules of origin. You can bring in sugar from outside the EU but only up to a certain threshold. But our products contain limited amount of sugar, so we were under the threshold, to begin with. But we had to conduct that analysis to make sure that the goods coming from Denmark into the UK complied with the rules of origin. Of course, now we have to make sure that in the future when we make new products or reformulate existing products that the content complies to the rules of origin, so that has added a factor into the process of product development. So it has the potential to limit your sourcing, and it adds a bit more bureaucracy to the process, but we should be able to comply to keep tariff-free access.

**18. So, you have mentioned the administrative part of exporting. So, the administrative trade barriers that you face while exporting to the UK is that gonna be a big hurdle?**

20. So an example, once the UK borders are in place on 1<sup>st</sup> of October, we will have 15,000 additional papers we will have to fill in only from Denmark. Given the volumes we exported last year, it will be

approximately 15,000 extra documents needed to export from Denmark to the UK. So annually, we will have to fill out 15,000 additional papers. All of that adds costs and complexity.

**21. I read in a report from LSE that the cost of complying to the rules of origin is approximately 8% to the price of the underlying goods. It that still how it is being projected?**

22. Yeah, so the report was predicted without knowing the exact outcome of Brexit. Yes, there will be extra cost, no doubt about it. We are continually trying to estimate what impact the deal will have on us. So the cost of documentation is going to be fixed, but know we look closely to where we can mitigate our spending, maybe at the customers or by taking different routes. So, the headline is that there are going to be extra cost with this. I am not sure about the 8% because we have not gotten to the stage where we have to comply with the UK rules yet.

**23. Okay, and with all your farmers, production, and processing, how are they going to be affected with the new immigration bill?**

24. That's gonna be a challenge because the point-based system has thresholds of salaries, and it is very unlikely that seasonal workers are going to meet those thresholds. There are though rumors that there is going to be a seasonal program as well, which will be helpful. But we are not quite sure how useful it will be – will it be attractive to both the business and the workers. So, it's a challenge at the farms. At the UK, we have a large number of employees at our sites that are from the EU. Mainly around the London area. What we have seen is that quite a few have left and went back to Eastern Europe, and they are not coming back. With the new immigration policy in the UK, we think we will be okay, but it is still gonna be a struggle with the retention and recruitment going forward. Because it is not attractive anymore for EU migrants.

25. We have done everything we could to try to keep the EU migrants we already have in the UK by helping them to apply for settle status, which is the status for working and living in the UK indefinitely. So we have really helped them doing that as it was a bureaucratic minefield. So that have properly helped us retaining some of our employees. But the future might look a bit more tricky. The government have been out saying that they don't think it will be a problem to get the domestic workforce to do those jobs. The home secretary in the UK said that the days of cheap labour should be over. So, they are talking about making a shift in the UK economy. But we don't get a lot of applications from locals at our sites, so it's a bit tricky. So, number one – we want to retain our current staff at our sites. And secondly, we are planning a lot in the recruitment area about how to upskill

employees and getting a technical education, while looking for government support for that. So that is what we are currently looking at.

**26. Okay, brilliant, and that leads me down to my last two questions. So, with the TCA, do you see any opportunities for Arla to, for example, take more market share in the UK?**

27. Yes is the short answer. So, with the tariff-free access and the more certain circumstances of the situation. With the TCA, we have the framework for the future. Of course, there are gonna be some bumps in the road, but the legal framework is there, which gives us some certainty. And we have for many years traded with other third countries. So, we know the rules, and we have the organizational processes to deal with all the paperwork, standards, and such. The UK is the biggest contributor to our revenue and the country also have a lot of growth opportunities. I am certain that with quality of our products, British consumers will still in the future want buy cheap, quality dairy products in the stores. And now, with the end of Brexit, it allows us to plan longer ahead, and as long as the tariff-free access is there, then we can also look at built up our business but also at how do we increase import to the UK when the market demands for it. So the certainty is really important.

## Appendix 8: Transcript of the interview with Robert Smith

### 1. So, Robert, could you please tell me about your position at Danish Crown?

2. I am the UK Market Director for Danish Crown in the UK. Part of what I do, could be deemed as public affairs, and so that would involve engagement both directly and indirectly with the UK government and especially regarding Brexit. I lead the program of engaging with politicians of government. So, over the last couple of years, I have fed our key messages out among the local constituency, members of parliament, and so forth. We have been able to get quite high up in government. So, over the past couple of years, I have been doing a lot of public affairs and industry reputation work. There is also another thing that takes a lot of my time, which is that I am Danish Crown's key account manager of Tesco. So, I am the single contact point of agriculture for Tesco in their Danish supply chain. So, when they have a challenge in that area, I am the one who help them sorting it out. So that's what I do for Danish Crown, and the UK is a very important market for Danish Crown as it remains the fourth biggest market for Danish Crown.

### 3. What kind of food company is Danish Crown?

4. It is a global food company, as they export to more than 130 countries across the globe. Trading with the UK goes back more than 130 years. So, it is and continues to be an important market for Danish Crown.

### 5. Now with the end of Brexit and having the new agreement. From your perspective what are the main challenges for Danish Crown's export to and operation in the UK?

6. There is no singular answer to that. But to summarize it, we worked very hard towards Brexit and when Brexit arrived we had done as much as we could to be prepared. So, we were better prepared than most. That doesn't mean that there hasn't been challenges, but we were quite prepared. One of the benefits of being a global company is that we are used to trading with third countries. So we have structures and infrastructure in place and experience. And we have scale and more resources than the SMEs. But it hasn't been without challenges. I'll give you an example, on the issue of exporting to Northern Ireland, which last time I looked was part of the same country. Fortunately, we have been able to prepare, react and adapt to all the changes.

7. It has putted extreme demands on administrative resources and that continues to be the case. The issue of export health certificates signed by vets. The day after the referendum result, we knew that we didn't have enough vets and vet inspectors structured in the UK, and at the day of departure we

still didn't have enough and we still don't have enough. So that has been one challenge. There has also been challenges of consistency of applications. What one vet would deem to be sufficient information wasn't satisfying information for another vet. So you had challenges of inconsistent applications. There has also been a significant increase in red tape and bureaucracy. So for export you can more or less add up to three days in the whole process, which impacts shelf-life of products.

**8. So is the red tape derived from the implementation of rule of origin, SPS measure or other administrative procedures?**

9. As it stands at the moment, the red tape comes largely from exporting out of the UK, because the EU has implemented all the procedures from day one, where the UK are gradually implementing all the procedures and regulations. So there is a lack effect on imports coming into the UK. My view on the transitional implementation on imports into the UK is that it is because the UK government isn't prepared yet. That's way they are kicking the can down the road. So companies exporting into the UK hasn't really felt the pain yet.

10. We have though seen problems in reexporting meats. So if we got pork legs coming in from Denmark, they go to our plant in Cornwall, Southwest of England. There they will be deboned and some of them are cured, some are fresh. And some of the trim would be reexported into the EU for sausage manufacturing, but the EU systems currently – on the health certificates you can only but on third countries but the EU doesn't see itself as a third country. So we are unable at the moment to reexport fresh meat coming from Denmark into the UK going back into the EU. Because it has not been fundamentally been changed such as cured. And that's down to the EU systems, not the UK.

**11. But is that part of the TCA?**

12. No, it could properly be classed as the law of unintended consequences, or to use another expression: the devil is in the detail. It had not been thought about prior to the agreement. So that has now been discovered as something that wasn't planned but it is a problem. So the EU needs to change the system, because EU companies are being affected by it. The health certificates doesn't allow EU member countries as the origin of the goods when reexporting the goods into the EU, because it is not listed as a third country.

13. We also see and hear about severe problems for smaller companies that does not fill up their own containers and a therefore part of a groupage. Many logistics companies won't take groupage because it cause massive delays at the border to the UK, because customs has to go through mountains of paperwork and it becomes too complex. So the logistics companies don't make money.

But to wrap it out on the exporting side coming from Denmark into the UK, we have seen challenges, but they have not been as severe as exporting out of the UK. We have though experienced problems with exporting into the Republic of Ireland and Northern Ireland and also cases of reexporting into the EU. But we are anxiously waiting to see how it will go when the procedures and regulations are rolled out on 1<sup>st</sup> of October.

**14. What are your expectation about the implementation coming the 1<sup>st</sup> of October?**

15. Well from a Danish Crown perspective, we are a global food company with existing structure and infrastructures used to deal with third countries. We are in a better place than many, because we have systems in place and we have consistently shown agility to adapt to these challenges. But there will challenges similar to the ones we are seeing when exporting out of the UK into the EU. But the smaller companies will be hit the hardest and many will question their ability to export into the UK due to the administrative burdens. So I don't think it will impact Danish Crown too badly, but it will definitely impact the SMEs.

**16. So, what about rules of origin. Will rules of origin have any impact on Danish Crown's export to the UK?**

17. So, with the rules of origin in relation to the current goods we are sending to the UK, then the rules of origin doesn't really impact. Sending primal meat cuts or bacon don't challenge rules of origin. So from a Danish Crown perspective that one is not a big challenge. There might be a few areas such as spam where it might become a challenge, but nothing manageable. For others it will be very different. A pork leg is a pork leg. It does not require any herbs or other ingredients. So it is quite straightforward to document it all. But of course from 1<sup>st</sup> of October it will require health certificates to send pork legs to the UK. Now that will have an increasing administrative burden and therefore increase the cost, but others will have bigger challenges. However, the burdens and costs will be significant, and in this industry, we operate on small margins, so we will have to cover these costs somewhere.

**18. So, on a more positive note, do you see any opportunities for Danish Crown in the UK to gain additional market share and growth following the TCA?**

19. I would argue that Danish Crown is in a good position to continually respond to the demand of pig meat in the UK. Their self-sufficiency is quite low and it does not make sense for domestic farmers to breed more pigs, because its primarily pig lions and legs the UK population demands. Whereas, the demand for shoulders and belly is quite low and therefore it is not profitable for the farmers to



breed more. We want to be the importer of choice for the retailer, which I think we are and will continue to be, especially when considering the increasing awareness of animal welfare, quality and sustainability. These are areas where Danish Crown excel and spend a lot of resources on. In fact, two years ago, we made a strategy for sustainability with the mission of making Danish Crown climate neutral by 2050 and reduce our CO2 emission by 50% by 2030.

**20. And do you see the new immigration policy in the UK with the point-based system to have an impact on the UK workforce and future workforce?**

21. One of the three key challenges that we have worked towards was the access to labor and skills. That remains a key challenge. In some aspects the biggest challenge, because food processing and farming are labor-intensive. Danish Crown has a tremendous track record in investing in technology. However, there are some processes where automation is not possible. Automation is not available in all work areas. For example, you need a person to debone a leg. Automation to debone a pig leg has not been developed enough to be profitable. So, we need butchers, which are hard to find.

22. Seasonal labor is also a challenge and the UK's policies within immigration is primarily driven by political dogma and unfortunately not economic reality. So, we are working hard to recruit and retain so all the people from the EU 27, who are here. We are helping them with the settlement. Also, trying to find different sources of labor, while we continue to invest a lot in technology and automation. So that has been and continues to be one of the biggest operational challenges. I personally think that we will find butchers on the shortages-list at some point. But we will continue to recruit and retain, but it's not the most attractive industry, and as I mentioned it is very labor-intensive. So, many unemployed people choose to work in other industries.

## Appendix 9: Transcript of the interview with Simon Rilatt

**1. So, Simon could you please just briefly explain me your position as Espersen?**

2. I am the Procurement Director for what we call our Primary Division. That means that I buy the raw materials that we use at our factories in Poland, Lithuania and Vietnam. In addition to that, I sort of also look after planning and I also spent a lot of time on trade policy work in both Europe and the UK.

**3. Okay, and what kind of food company is Espersen?**

4. We are fish-based company, which means that our products are entirely fish-based. Our trade channels are both in chilled and frozen fish products.

**5. And how much does Espersen export to the UK?**

6. Well, in total volume about 30% that is directly exported to the UK. In tonnes terms that's about 15,000-20,000 tonnes and in value terms its roughly about DKK 800-900 million. Indirectly, which is our B2B business, there is approximately another 10% of our products that end up in the UK, which has been processed by another party and then end up in the UK eventually.

**7. And where are the goods coming into the UK being exported from?**

If we look at the B2B, then our products are coming from our plants at Lithuania, Poland and Vietnam. If we look at the consumer products, so the added-value products, the majority are coming in from Poland and some from Denmark.

**8. And how comprehensive is Espersen's operation in the UK?**

9. Well, directly it is quite small. We opened a sales office here in the UK last year. It is fundamentally a sales office. Ultimately here in the UK, we have six people in our staff. Two of us are procurement specialist and four of the work in sales and customer relations.

**10. And Espersen as a whole, is that categorized as an SME?**

11. It depends on your definition. In total turnover we make approximately DKK 3bn a year, so I guess in Denmark that's a quite large business, but in European context it is obviously quite small.

**12. And how many employees approximately?**

13. Well, across all Espersen approximately 3,000. But that also includes all our factories, and we have five across the world. And we have offices in 10 countries, but some of them are small offices.

Like the one here in the UK. But our biggest employment is in Poland followed by Vietnam and Lithuania. We also have some operational activity in Denmark, but mostly administrative. We also have a factory in Russia.

**14. So, if we go into the consequences for Danish food companies following the TCA, and we start with the challenges. From your perspective what are the main challenges for Espersen's export to the UK following the new agreement?**

15. Well, the TCA means that from a EU perspective, the UK is now a third country. What that means is that we over time are gonna be treated to a whole different customs regime and everything that goes with it. What will happen in time is that there will be introduced health certificates and we have to comply with what are effectively three forms of regulations. So, in trade terms, we have customs, and customs is largely about tariffs and the status of goods in terms of movement and a monetary point of view of the tariffs that are attached to those goods.

16. The second thing we have to comply with is the sanitary requirements, and the sanitary requirements are built around what will the UK wants as sanitary requirements. Currently, the TCA is that we continue to mirror what the EU does. But over time those things we gradually move apart from each other. Not radically, but gradually. There will be some diversification in the requirements. And one of the big challenges of the TCA is that the intention was to keep the requirements as close to each other in the beginning, however if the UK starts to diverge to much in the requirements in the future, then that can have a big impact on the agreement and for EU companies.

17. The third regulation, which has nothing to do with trade or sanitary is something in the fishery industry and that revolves around IUU regulation (illegal, unreported and unregulated fishing). Back in 2010, we introduced the IUU regulation in the EU, which was basically a system of catch certification and monitoring of fish products around the world. The UK has adopted that regulation. So, now we have a situation where the EU has an IUU regulation system and the UK has an IUU system, which is exactly the same. However, because the transactions between the two are now being done as one trade block in the UK and one trade block in the EU, there are a lot of issues around the amount of paperwork that is generating. And that is unique to fishing. So, when you take those three categories of regulation, increasingly each of those gets more difficult as we move forward in the TCA. Because what we also have is periods in the beginning where the EU regulations was enforced immediately on January 1<sup>st</sup> and the customs declaration are impacting. And on the sanitary requirements, they were originally being implemented on April 1<sup>st</sup> with the export certificates of

goods from the EU to the UK. That's has now been postponed to October 1<sup>st</sup>. This gradual implementation is to eventually to comply with the TCA, but it is not instantly.

**18. And the challenges of that is that in the compliance, cost or how restrict it is?**

19. Well, it shouldn't be a problem for Espersen to comply to it, because it is the same regulations as in the EU. The compliance and the ability to produce products has not been compromised. The biggest issue that we have around the health certificates is the capacity and cost to produce them. Because what has happened is that in order to produce the health certificates, we have to have someone to inspect our goods. So we need veterinary services and we need people who are competent and able to do those things. Of course when we had one trade block, the veterinary service didn't matter as much, because you only needed once something was coming into the EU, but if it was already in the EU then there was no requirements at all. Now that we are separated, not only does the UK have requirements to be able to carry out inspections and verify that the incoming goods are safe, but the exporter in the case of Espersen exporting from the EU into the UK have to be able to do inspections and provide the health certificates in the country where the products are being shipped from. That's a completely new requirement in terms of the burden of that work. Historically, products exported from the EU had health certificates, but the scale of that business was relatively modest. If you now look at the UK, which is a main trading partner with the EU, the number of consignments involved has increased exponentially and the facilities to do that hasn't increased with that. Different member states are moving in different paces to provide that being covered. The second aspects of course is that health certificates is not a standard thing. Each trading bloc whether its America, Asia or other countries such as in this instance the UK has different requirements on the health certificates. What they require can be slightly different, and there is still some debate of what should be exactly on the health certificates. That will be resolved, but of course that does not mean that you have a global health certificate. You have a health certificate for the UK and a different one for other countries. And that's an areas, which at the moment, still require a lot of work. Hence, way things have been delayed.

**20. And, another measure or barriers such as the rule of origin, is that something that has caused challenges for Espersen?**

21. The rules of origin criteria in the TCA are extremely strict. Now all trade agreements has requirements around rules of origin and that's perfectly fair. However, it is not as much that it is complicated. But the situation in our sector in fish is that the EU is a deficit bloc. In other words, most

of the raw materials that the EU consumes in fish are imported. We are roughly 75% dependent of non-EU originating fish to meet our needs. So, as a consequence a lot of the trade that goes on is external to the EU, and that result does not change as a result of Brexit. However, when you look at the movement of fish within the EU, what the UK catches is largely consumed within the mainland of Europe. So, the UK catch are mainly exported into the EU, and most of what the EU catch largely stays within the EU. But fundamentally, the internal trade in the EU is not that great, it's about 25% of everything we eat. So, we have a situation around the process of non-tariff barriers, where the amount of fish processed in the EU coming into the UK and the UK going to the EU is largely based on materials that don't originate in the EU or the UK. Hence, why the Rules of origin is quite important.

22. Now the other thing that has changed in the rules of origin that has caught us by surprise, but we have now become accustomed to, is if we import a material from Norway, for example, and we handle it in the EU and then it comes to the UK. It is then not a product of the EU and has lost its originating status in that process. Countries like Norway and Iceland has free trade agreement with the EU, in what we call the EEA Agreement, but that fish no longer qualifies for preferential origin, because Norway and Iceland are not members of the EU. When we process it and send it to the UK, it has lost its preferential status. Similarly, even simple fish that moves from Norway, into Denmark and then gets trucked to the UK via Denmark, will potentially lose its EU status because under rules of origin Norway isn't the EU. So it loses that status automatically. So what is happening is that we are starting to see changes to the flow of trade, because the UK now has a free trade agreement with Norway and Iceland directly, so now it only makes sense to export it directly from Norway or Iceland to the UK. But if Norway and Iceland supply fish that traditionally came the EU and got broken into different loads and sent to the UK that will no longer be treated as a preferential origin. So the rules of origin is easy to understand but it is significant in terms of changing the flow of trade in seafood products.

23. The contradicting in that is if we have a situation, where we process goods in Poland or Denmark as member states of the EU and the fish in that material comes from non-EU member states such as Norway, then those goods are not of preferential origin. However, the health certificates says that the goods are processed in Denmark and Poland. So, there is a contradiction in the health certificates, which says that the products are processed in the EU, but their status in terms of trade are of non-preferential origin, because the material originally comes from Norway.

**24. But isn't there a threshold in the rules of origin in terms of how much products can be processed?**

25. No, and that's one of the changes in the rules of origin situation that has caught a lot of people by surprise. There is, and that specific for fish products, a category of products, under what's called chapter 1604.19, where a processed product, in this case coated fish products, are free of tariffs because they are deemed to have changed sufficiently in terms of their originated nature into a finished product. The processed is deemed sufficient. And there a categorized as therefore EU preferential origin. However, the rules that previously applied to substantial transformation, in other words you buy a raw material and make into something else, don't apply. Because the rules of origin in the TCA is so strict. There are a few exemptions, which depend on the threshold and the content of the non-preferential material in the final product. But for example, I mentioned the chapter 1604.19 products being free of tariffs, 1604.20 product, which we have quite a lot of in our business, that material is made of raw materials that cumulate from different places and historically would have been free of tariff. Now if that material doesn't originate in the EU, they attract tariffs. Even though, the product we are making are substantially different to the product that came in. Because the main content of that is fish of non-EU origin, there is no longer any preference.

**26. So, what kind of impact will the rules of origin have on Espersen's trade with the UK?**

27. As long as the status remains as it is at the moment, the impact shouldn't be that great, because the vast majority of product we have, in terms of fish products, fall under 1604.19, so there is no tariff presence. It's a little more complicated depending on what we are producing, because there are other schemes of tariff preferences. Within the EU, as I mentioned, of fish products consumed, 75% is imported from non-EU countries, we also have they call tariff-reliefs on imported fish. They come in different forms, but the key form that we used to have is called the ATQ (Autonomous Tariff Quota), which allows you to import a certain amount of material without tariff, as long as you processed it and used it for certain products. The UK has adopted the ATQ in its right. The UK has also taken on what is called tariff-suspensions. So, there are some commodities that the UK imports, where the UK has suspended all tariffs. In the case of materials for Espersen that doesn't apply to what we call our consumer products but it does apply to our B2B products. So, a semi-processed material that will then go on to be processed in the UK. Not all of those, but the majority of those are in a separate UK driven tariff preference scheme. So, as long as they continue to have that status of tariffs on them, it shouldn't affect our trade. However, those things are granted by the UK on a discretionary basis. The current

scheme last for one year. So, we are currently in negotiations of extending it. But they are completely outside of the trade agreement. Because the UK is a sovereign state now and can set its own regime as it wants to. We are not expecting that to inversely affect Espersen, but of course they could be withdrawn in any time. That's always a challenge.

28. The other thing to bear in mind Jeppe, is that at the moment the European Parliament hasn't ratified the TCA. So, it doesn't actually have full formal legal status. People are using it and adapting to it. It is obviously being used by convention, but it hasn't been ratified. That means if the EU or the UK feels that the agreement is not being adhered to, then they could actually change the rules.

29. The TCA is a trade agreement built around rules of origin in certain products. Outside of that individual commodities, fishing in particular, have these other tariff preferences that are managed by each of the trading bloc. So, there are these other tariff-reliefs that are outside the TCA.

**30. So, of these non-tariff barriers such as, customs procedures, rules of origin and SPS measures what do you think will have the most impact on Espersen?**

31. I think that we got to assume that on the customs process and on tariffs, it's on the interest of both parties to stimulate trade. The TCA is not a free trade agreement, it's a trade agreement. Part of the business are free. So, if you have wholly originated products that come from only these two parties, then it's a free trade agreement. But the rules of origin limits that to only materials that are fully originating in either party. Obviously, the long-term ambition would be to have less friction in the trade.

32. If you look at the sanitary requirements, the sanitary requirements shouldn't be that challenging. Because it works both ways. The health certificate process of importing from the UK into the EU was introduced January 1<sup>st</sup>, and it has been very difficult. It has been very hard for people to get the right documentation in place. The EU has been very strict. I think in time that will settle down. We have to get used to needing the system first of all, and the revolution here of course is that we are doing something that we weren't doing. Until we have done that process with enough practice to understand what it is we are trying to do its difficult. In time, people get used to that, they'll learn how to do it and the resources that are necessary will come, and you'll solve the problem. But when you are in the middle of solving the problem then it's difficult and expensive. But two to three years down the line, people will get used to that, the systems will be changed and adopted, and people will do these things as a matter of routine. But getting to that point is going to be very painful.

33. The issue around catch certificates and processing statements, which is unique to fish, is a whole different level of complexity and that is something that the original regulation around in the EU was never designed to cope with this level of complexity. We are changing our systems and we are spending a lot of money and spending a lot resources in terms of employees getting data into systems that previously we didn't need to. But again, it's one of these things that are largely data driven and so if you haven't been recording the data and you need to. Then you got to build up the database and build up the system that allows you to interrogate that data. So again, I think at the moment its extremely intense pressure, because its new. As we move forward and build the systems, some of these things will become automatic, and therefore get easier. So yeah, at the moment it is all a bit difficult, but as we develop new systems and new processes to do these things, a reasonable amount of these things will be automated.

34. The issue with sanitary standards is that by enlarge, and it is not just in the EU or the UK its all around the world, most of the sanitary situations require a level of inspections. And inspection is a human skill, so the resources there lie on having competent people with the right skills to be able to do the inspection and of course having enough of them to do the necessary number of inspections. That's, at the moment, an area of great concern and a big weakness because that is something that no member state within the EU and the UK have built sufficient resources to do.

**35. So, also following Brexit and the TCA, the free movement to the UK has been eliminated. Is that something that effects or will affect Espersen?**

36. Well, it hasn't been eliminated. The system has just changed. So, you can still come to the UK and work in the UK, but the process is not as free as it used to be. Now of course, there are two stages to that: those there are already established in the UK, where if you have been here for more than five years then you can get the settlement status. It hasn't stopped, but the rules have changed. I think that Espersen being an European processor that's export into the UK the impact directly will be limited. Ironically, it might benefit us actually, because we are based in Lithuania and Poland many people who have been in the UK have or are coming back. So, it benefits us at the places where we are processing, because they are skilled people, and they understand the UK. So, that something that will be positive for us for a period.

**37. Is that something Espersen have experienced at your plants?**

38. We have seen instances, and we have seen some people become available, which historically weren't available. I think that the challenges here is that does this affect Espersen indirectly? Because



here in the UK and in other countries, the free movement of people have created pools of skills and expertise where people are moving from one country to the other, which help the laboring industries. The UK today are seeing challenges with that, because something like agriculture is very dependent on seasonal workers and we are seeing significant impact on farmers not being able to get enough workers during the season of harvesting.

39. In the fish industry, many people have historically went to the UK to work at processing plant. So the UK's fish industry is used to have pools of competent workers. However, the pool might shrink due to the new immigration policy. So many local UK plants might have a hard time to process all the fish, due to a limited pool of workers. This might benefit Espersen, because even though the UK wants to process all the fish, they might not have the workers to do so. So, therefore some UK companies might seek to import processed fish into the UK, which can be imported from Espersen. Hence, it can become an advantage for Espersen.

**40. And following up on that. Do you see other opportunities for Espersen in the UK following the agreement?**

41. I think looking on the optimistic side the answer is 'yes'. Of course, we have to look at if volume of trade here in the UK is growing or not and then maybe look at if the nature of our presence should be different to the one we have now. And that could offer us an opportunity to establish a different base here in the UK. For example, it could lead to use becoming a manufacturer in the UK. I think, we want to see more experience of how it all develops and how the TCA is going. At Espersen, we are used to trade under third country regulation, so I think we will manage all of these current challenges. Of course, some of them will be permanent, but it is not something that we are too scared about