

The TCA's Preferential Treatment and Reduction of NTBs on Electric Vehicles

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England er én af de største eksportører af elbiler til EU, men med Brexit står England uden for Unionen, hvorved elbilproducenter nu skal betale den multilaterale toldsats på 10%, og risikerer at EU og Englands lovgivning begynder at differentiere sig og skabe handelsbarrierer. Derfor er Brexitaftalen et vigtigt redskab for virksomheder, der vil reducere deres handelsomkostninger.

I dette speciale undersøges det, til hvilken grad Brexitaftalens præferentielle regler reducerer toldbarrierer i form af oprindelsesreglerne, produktstandarder og certifikater på elbiler under KN-koden 8703.80.10, sammenlignet med USA's handelsaftale: USMCA. Dette inkluderer en vurdering af hvordan aftalen påvirker virksomheder og den multilaterale toldliberalisering.

Det kan konkluderes, at den bedste måde at reducere omkostninger forårsaget af toldbarrierer på, er ved at harmonisere landes regulering igennem handelsaftaler. Brexitaftalen tilsigter i en høj grad at gøre dette og har med dette formål implementeret flere bestemmelser fra WTO's aftaler. Den fremsætter ét sæt produkt-specifikke oprindelsesregler, der er bindende i begge lande. Samtidig skal parterne fremme handlen med varer, ved at reducere unødvendige regler om produktstandarder og certifikater. For at sikre dette, binder aftalen parterne til at bruge alternativer, hvis muligt, samt internationale standarder, når de planlægger nye produktstandarder og certifikater. Herudover skal de vurdere konsekvenserne ved en ny regulering og dele informationer med hinanden, så deres fremtidige reguleringer harmoniseres.

Selv om Brexitaftalen herved burde reducere handelsomkostninger for virksomheder, så skaber dens specifikke oprindelsesregel for elbiler en ny handelsbarriere. Et ekstra krav om, at batteriet brugt i bilen skal have oprindelse i enten EU eller England får Brexitaftalen til at afvige fra EU's andre handelsaftaler. Reglen er omkostningstung for britiske elbilproducenter, da den gør dem mindre konkurrencedygtige, når de for eksempel skal konkurrere med Japanske elbilproducenter på det europæiske marked.

Sidst kan det konkluderes, at Brexitaftalen er med til at skade den multilaterale handelsliberalisering af elbiler. Handelsaftaler forårsager en "stumbling block" effekt på reduktionen af den multilaterale toldsats på varer, der er inkluderet i aftalerne. Da Brexitaftalen giver præferentiel behandling til elbiler, vil enhver liberalisering af de multilaterale barrierer gøre aftalen mindre præferentiel. Så hvis EU og USA starter forhandlinger om at reducere deres toldsats på forskellige varer, vil England forsøge at få EU til at ekskludere elbiler fra forhandlingerne. Hvis teorien om "stumbling block" effekten holder, vil Brexitaftalen have samme effekt på reduktion af handelsbarrierer på elbiler forårsaget af oprindelsesreglerne, produktstandarder og certifikater.

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Abstract

The purpose of this thesis is to analyse and assess the EU-UK Trade and Cooperation Agreement's preferential treatment of electric vehicles under the tariff heading 8702.8010, by focusing on the non-tariff barriers: the rules of origin and technical barriers to trade.

This was done through the legal method of legal dogmatics, analysing the EU and US's legislation, free trade agreements, case law, and international agreements. The economic method of this paper will take the form of an analysis of economic theories and research on economies of scale, the economic consequences of non-tariff barriers, and free trade agreements as a tool to reduce trade costs.

The key points found in this thesis is that the EU-UK Trade and Cooperation Agreement has implemented multiple provision from the World Trade Organisation's agreements that ensures a reduction of trade costs by non-tariff barriers. This is because the agreements are not directly applicable in the EU, and the Court of Justice of the European Union will not review the EU's regulations if they violate the World Trade Organisation's agreements unless they are directly implementing provisions from the agreements.

Another key point of the thesis is that the hidden agenda of promoting the use of domestically manufactures components through the value-added rule of origin, is seen in both the EU-UK Trade and Cooperation Agreement and the United States-Mexico-Canada Agreement's preferential rules of origin on electric vehicles.

Though the economic research this thesis found that the best way of reducing trade costs caused by non-tariff barriers is through the harmonization of countries regulations in free trade agreements. Although when a good gets preferential treatment through a free trade agreement, it will negatively affect the multilateral trade liberalisation, as one party will lobby for the other party to not reduce their multilateral tariffs or non-tariff barriers.

The conclusion of the thesis is that in compliance with the World Trade Organisation's agreements on the rules of origin and technical barriers to trade, the EU-UK Trade and Cooperation Agreement's has a great focus on reducing the trade costs caused by the rules of origin and technical barriers to trade. The rules of origin have been harmonized in one set of product-specific rules of origin. Even though the agreement does not directly harmonize the technical regulations and conformity assessments of the EU and UK, it does require the parties to cooperate the next time they plan to establish new regulations, so they can harmonize any future technical regulation or conformity assessment. So, the agreement makes sure, that in a few years technical barriers to trade between the EU and UK and its trade costs will be reduce through harmonization.

Although the trade costs of the rules of origin and technical barriers to trade have not been reduced to the same extent as the tariff rate in the agreement. Not only is it difficult for negotiators of free trade agreements to agree on reducing non-tariff barriers. Certain technical regulations and conformity assessments are simply necessary for the sake of human, animal, and environmental safety. At the same time, when the parties in a free trade agreement seek to promote their domestic production through the product-specific ROOs, which is the case with the EU-UK Trade and Cooperation Agreement's product-specific rule of origin on electric vehicles, they create a new non-tariff barrier. The agreement's product-specific rule of origin is simply harder to comply with than the product-specific rules of origin in the EU's other free trade agreements, thereby making it harder for British manufacturers to compete with e.g., Japanese manufacturers on the EU's automotive market.

The thesis only compared the EU-UK Trade and Cooperation Agreement with the United States-Mexico-Canada Agreement. Therefore, further research may be done through analysing e.g., the EU's other free trade agreements. Furthermore, to determine what effect free trade agreements and non-tariff barriers have on companies, a survey should be conducted asking importers of electric vehicles to the EU, whether or not free trade agreements are an important tool for them, and whether multilateral tariffs or non-tariff barriers are the biggest cost driver for them.

1. Introduction

Electric vehicles are the most valuable good the UK exports, at the value of £27 billion¹. Additionally in 2030 all vehicles sold in the UK have to be electric vehicles². Therefore, the automotive industry will be an important topic in the UK's negotiations of the free trade agreements (hereafter "*FTA's*") it now have to conduct after Brexit³.

When the UK left the EU, it also left the 107 FTAs of the EU, that are either in place, being ratified, or negotiated⁴. All the while the US has 14 FTAs with 20 different countries⁵. An FTA is a bilateral trade agreement that establishes a trade relation between the parties. It provides companies within the territories of the parties with preferential access to the parties' markets, by removing and reducing trade restrictions such as tariffs and non-tariff barriers (hereafter "*NTBs*"), hereunder technical barriers to trade (hereafter "*TBTs*"). This preferential treatment is given to goods that gain preferential origin within the territory of an FTA by complying to the preferential rules of origin (hereafter "*ROOs*"). Mutual advantageous agreements create a levelled playing field, as the foreign companies to a considerable extent get the same access to a market as the domestic companies⁶.

Uncertainty caused by the risk of sudden trade restrictions are quite common within international trade, often due to protectionism⁷. Especially Brexit created uncertainty, resulting in Tesla deciding to place their new Gigafactory in Germany rather than the UK⁸. The trade relationship created through an FTA can help reduce this uncertainty for companies. It reduces the chances of trade disputes that could result in sudden trade barriers⁹.

Reducing this uncertainty is important in the automotive industry, as the production of vehicles relies on the "*just-in-time*" production method, where the vehicle is manufactured when the order comes in¹⁰. With 80% of Honda's vehicles produced in the UK being exported, 51% going to the EU¹¹, an FTA between the EU and UK was important to the company, when Brexit became a reality. According to their written evidence arguing the need for an FTA, they stated that an FTA was the best way to reduce uncertainty, by creating "[...] *regulatory certainty* [...]". While the multilateral tariff of a no-deal Brexit would make their vehicles uncompetitive

¹ SMMT (2021): *Vehicles remain Britain's most valuable trade good, as export revenues reach £27 billion*

² The UK Government (2020): *Government takes historic step towards net-zero with end of sale of new petrol and diesel cars by 2030*

³ SMMT (2021): *Vehicles remain Britain's most valuable trade good, as export revenues reach £27 billion*

⁴ The European Commission: *Negotiations and agreements*

⁵ The International Trade Administration: *Free Trade Agreement Overview*

⁶ The European Commission: *The EU-UK Trade and Cooperation Agreement*

⁷ Amadeo (2022): *Trade Wars and their Effect on the Economy and You*

⁸ Durkin (2020): *A World of Trade uncertainty*

⁹ Lakatos & Nilsson (2015), p. 14-15

¹⁰ SMMT (2020): *SMMT calls for immediate ratification and implementation of draft UK-EU Trade & Cooperation Agreement*

¹¹ ACEA (2020): *EU-UK Automobile Trade: Facts and Figures*, p. 3

on the EU's market. Especially for their electric vehicles an FTA between the EU and UK would make it easier for them to introduce their new models¹².

An important and new FTA of the EU is the EU-UK Trade and Cooperation Agreement (hereafter "*the TCA*")¹³. It was signed in late December 2020 and entered into force on May 1, 2021, with the aim of ensuring a levelled playing field for companies and continue the corporation between the EU and UK where there is a mutual interest¹⁴.

When the TCA was created, the parties agreed to believe "*[...] in the benefits of a predictable commercial environment that foster trade [...] and prevents the distortion of trade and unfair competitive advantages [...]*", cf. the TCA Preamble 8. So, similarly to the FTAs in general, the TCA was created with the goal of reducing the uncertainty of international trade. Therefore, the TCA has the potential of creating a more predictable environment for manufacturers of electric vehicles.

1.1 Problem Statement

The purpose of this thesis is to analyse and assess to what degree the TCA's preferential treatment reduces the barrier of the ROOs and TBTs on electric vehicles under the tariff classification 8703.80.10. This will include an assessment on how this may affect companies and the multilateral trade liberalization.

1.2 Delimitations

In order to keep constrain the scope of this thesis, the following delimitations have to be stated. Firth of all the EU's Union Customs Code (hereafter "*the UCC*")¹⁵ contains multiple regulations on origin spanning from article 59 to 68, while the UCC's Delegated Act (hereafter "*the UCC-DA*")¹⁶, which is a legislation than entail further regulation on certain articles in the UCC, regulates origin in its article 31 to 36 regulates origin. Though as the thesis is focussing on the regulations in the TCA and the United States-Mexico-Canada Agreement (hereafter "*the US-MCA*")¹⁷, only article 60, 64, and shortly article 59 will be included. For the UCC-DA only article 32 and its Annex 22-01 will be used.

Since another primary focus of this thesis is preferential origin, and non-preferential origin is only used to amplify why companies aim to gain preferential origin, the TCA's implementation of the World Trade Organisation's (hereafter "*the WTO*") Agreement on the Rules of Origin

¹² The UK Parliament (2018): *The impact of Brexit on the automotive sector, Non-tariff barriers*

& The UK Parliament (2017): *Written evidence from Honda Motor Europe (BRA0008)*, p. 2-3

¹³ Trade and Cooperation Agreement between the European Union and the European Atomic Energy Community, of the one part, and the United Kingdom of Great Britain and Northern Ireland, of the other part

¹⁴ The European Commission: *The EU-UK Trade and Cooperation Agreement*

¹⁵ Regulation (EU) No 952/2013 of the European Parliament and of the Council of 9 October 2013 laying down the Union Customs Code

¹⁶ Commission Delegated Regulation (EU) 2015/2446 of 28 July 2015 supplementing Regulation (EU) No 952/2013 of the European Parliament and of the Council as regards detailed rules concerning certain provisions of the Union Customs Code

¹⁷ Agreement between the United States of America, the United Mexican States, and Canada 7/1/20

(hereafter “*the ROO Agreement*”)¹⁸, will only focus on preferential origin. Therefore, the implementation of article 2 to 9 of the ROO Agreement will not be assessed, as it only warrants non-preferential origin.

Appendix I of this thesis contains a table over the ROOs on electric vehicles in all the EU’s FTA’s. A delimitation to this appendix is that four FTAs are not included. The EU’s FTAs with Andorra and Kosovo are excluded, as the protocols containing their product-specific ROOs were not available. The FTAs with Norway and Iceland are also excluded, as they do not give preferential origin to electric vehicles under heading 8703¹⁹.

The UK, US, Japan, and South Korea are all the greatest exporters of electric vehicles to the EU. Though due to lack of space the focus of this thesis will only be on the UK and US. The EU’s FTA with Japan was excluded because the preferential tariff in the FTA with Japan is only reduced to 6.5%. Meanwhile the FTA with South Korea only contains a value-added rule at 45%, compared to the current 60% value-added rule in the TCA. So, on first sight the TCA is more beneficial and therefore more relevant to analyse.

At the same time, the EU and US do not have an FTA, so the US is included to shed light on how the lack of an FTA affect the requirements for origin. The USMCA is also analysed, despite the EU not being a party of the agreement. This is to put the TCA in perspective of FTAs in general instead of simply being compared to the EU’s other FTAs, as these are often built on the same template.

Another way the thesis is constrained is choices of NTBs. As it will be explained in chapter 2. on what NTBs are, the definition of NTBs result in a great scope, as any type of trade restriction that is not a tariff is an NTB. Therefore, it is important to stress that this thesis only focusses on the ROOs and TBTs. Otherwise, every time NTBs are mentioned, it would refer to any type of obligation on goods crossing borders, which would be too extensive.

Lastly, the UK seems to not have their own set of non-preferential ROOs yet, therefore this thesis is built on the assumption that the non-preferential ROOs of the UK will eventually start to differ from the EU’s non-preferential ROOs, especially as the UK seeks to promote their domestic production of vehicle batteries through the ROOs, as this thesis will show.

1.3 Methods

The problem statement will be answered through an analysis of economic research, the TCA’s regulations on the ROOs and TBTs, its implementation of international agreements, and include a comparison the USMCA. As this thesis is interdisciplinary, both legal and economic methods will be used. These methods will be described in the following chapters.

1.3.1 Legal Method

In the legal method of this thesis is the method of legal dogmatics, where the EU and US *acquis* within customs law, meaning the current binding law and case-law, will be described, interpreted, and analysed²⁰.

¹⁸ Agreement on Rules of Origin, Sep. 20, 1986, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1868 U.N.T.S. 397

¹⁹ The European Commission: *Negotiations and agreements*

²⁰ EUR-Lex: *Acquis*

In the area of customs law within the Customs Union of the EU, except the regulations on the customs authorities, the EU has exclusive competence to regulate, cf. the Treaty on the Functioning of the European Union (hereafter “TEUF”)²¹ article 3(1)(a). This regulation can be found in the UCC, and its implementations acts. As these are regulations, rather than directives, they are directly applicable in the member states, cf. TEUF article 288.

The EU’s Customs Union assures, that any customs barriers between member states are prohibited. Though the Union still imposes a “*Common customs tariff*”, a multilateral tariff, on foreign goods from third countries, cf. TEUF article 28(1) and 34. This is why giving preferential treatment to some countries compared to other foreign countries in FTAs is possible.

Furthermore, the EU also has exclusive competence to enter into international agreements on behalf of the member states, such as the TCA, cf. TEUF art. 3(2) and article 216(1) Similar to the regulations, international agreements are also binding in the member states, cf. TEUF article 216(2).

Therefore, this thesis will focus on supranational law, which is a law that goes beyond the EU’s borders²². This will include analysis of both the UCC, the UCC-DA, the TCA, and the TCA’s implementation of international agreements.

The case-law of the Court of Justice of the European Union’s (hereafter “*the Court*”) on the legality of the WTO’s agreements within EU law will be analysed, in order to explain why an implementation of the regulations into the EU’s FTAs is necessary. This will also lead to an analysis of EU case-law on the legality of the EU’s agreements with third countries.

Lastly, the method of comparative law will also be used in this thesis, in order to analyse the differences and similarities in the legislation between the EU and the US²³. When it comes to the US, the analysis of comparing the law to the EU’s law will include both national and supranational law, in the form of the Code of Federal Regulations (hereafter “*C.F.R.*”)²⁴, and the USMCA.

1.3.2 Economic Method

The purpose of the economic analysis of this thesis is to research the effect of the regulations of FTAs. Not only does FTAs affect companies but also the actions of countries. Therefore, both the methods of microeconomics and macroeconomics will be used in the economic analysis.

The microeconomic method is used to explain why the reduction of trade costs is important for companies and the end user, through the theory of economies of scale²⁵.

The macroeconomic method includes an impact assessment of the regulations in the TCA and USMCA. The focus will be on the impact FTAs have on the reduction of NTBs, trade costs, and multilateral trade liberalization. This will be done by analysing and comparing different

& Evald (2016), p. 13

²¹ Consolidated Version of the Treaty on the Functioning of the European Union (TEUF), nr. C 326, 26/10/2012

²² Sørensen et al., (2014), p. 29

²³ Evald (2016), p. 177

²⁴ Code of Federal Regulations (CFR), 1996, 2021 version

²⁵ Parkin et al., (2017), p. 2

economic papers and their observations of how NTBs can be reduced by harmonizing regulations. This will also include an analysis on FTA's stumbling block effect on countries decision regarding multilateral trade liberalization.

It is importance to stress that none of these papers specifically focus on electric vehicles. The closest the papers get to the specific good is by focusing on the automotive industry. Here the NTBs may differ between different types of vehicles, and since electric vehicles are so focussed on new technologies to reduce the damage of the environment, the number of TBTs on electric vehicles may differ from non-electric vehicles.

The papers also tend to look at the majority of the world's countries. So, they do not fully represent the EU and US, as their actions may differ from the actions of other countries, which are not similar to the EU and US. This will also be highlighted through a paper on the EU and South Korea's different focus on the use of tariffs and NTBs.

Therefore, the economic papers can only be used to give indications of the consequences the TCA and USMCA have on the trade of electric vehicles.

2. What Are NTBs?

A tariff is a tax put on goods that are imported from one country to another, which leads to a trade cost for companies. Though, it is not the only measure that creates trade costs. NTBs also increase the overall costs of trade transactions for companies. In fact, a study done on 78 countries from 2009 showing that trade-costs caused by NTBs, the average ad-valorem equivalent (hereafter "AVE"), are equivalent to a 12% tariff²⁶. This chapter will define what NTBs are, while also analysing why they impose as big a cost on companies as tariffs. Additionally, a focus will be put on the most common NTB on vehicles: TBTs, including an analysis of TBTs between the EU, UK, and US.

The definition of NTBs lies in the name. It is any type of barrier put on goods that are traded internationally other than tariffs. This also means that an NTB only occurs when a non-tariff measure imposes a restriction to trade²⁷. By its definition, the scope of "NTBs" is quite wide, therefore as mentioned as a delimitation in chapter 1.2, when NTBs are mentioned in this thesis, it only refers to ROOs and TBTs. Both the ROOs and regulations dictating the production process of a good are regarded as NTBs²⁸.

The ROOs become an NTB when the difference in the ROOs for specific goods differs between countries, thereby creating trade costs. Certain ROOs may be more costly to comply with than others. Thereby increasing the price of the good and making it harder for the companies to compete on the market.

2.1 What Are TBTs?

TBTs are differences in countries' technical regulations and standards on goods' characteristics, which ensure a good can be sold on the domestic market²⁹. Specifically, when TBTs are

²⁶ Kee et al., (2009), p. 182

²⁷ Australian Government: *What is a Non-Tariff Barrier?*

²⁸ The WTO: *Non-tariff barriers: red tape, etc*

& Institute for Government: *Non-tariff barriers*

²⁹ The European Commission: *Technical barriers to trade*, p. 1

mentioned in this thesis it is referring to technical regulations and conformity assessments³⁰. The costs arise from complying to the regulations and hiring experts in order to understand what foreign technical regulations they have to comply with³¹.

Technical regulations are product standards that establishes requirements to the production process of the good³². It is justified in the protection of human safety, animals, and the environment, though sometimes they are caused by a country's protectionism³³. TBTs tend to affect foreign companies' ability to competition on the market, as the compliance with the requirements increase trade costs. According to the EU Commission this causes a lot of companies to view TBTs as one of the biggest trade barriers, they face³⁴.

Conformity assessments can take the form of “[...] *product testing, inspection, and certification* [...]”, and are used to verify that the good complies with the other TBTs³⁵. when the conformity assessments differ between countries, it may result in the manufacturer having to conduct two separate assessments, thereby adding extra costs to the overall price ex-work of the good.

For vehicles, the EU describe conformity assessments, or “*Certificate of conformity*” as they call it, as a certificate that shows on whether or not the vehicles “[...] *conforms to the EU type-approval requirements.*”³⁶. So, it is safe to say that both technical regulations and conformity assessments are intertwined.

2.1.1 Examples of TBTs Between the EU, UK, and US

When it comes to imposing TBTs, the EU and US are some of the biggest contributors³⁷. An example is that due to Brexit a TBT has been created between the EU and UK. It is caused by the differences in the conformity assessments required to sell the vehicles in the domestic markets of the EU and UK.

After Brexit, companies need a certification issued by an UK authorized body, to sell their vehicles on the UK market. So, if a UK company sell electric vehicles on both the EU and UK market, they will need one certification approved by the UK, and another approved by the EU, making it more expensive to conduct international trade³⁸. By time we will likely see an increasing amount of TBTs between the EU and UK, because changing the legislation away from that of the EU takes time.

3. What Is Origin?

Determining the origin of a good is important when figuring out which customs measures should be put on the good. In this chapter the overall definition and purpose of origin and the

³⁰ The WTO: *Technical barriers to trade*

³¹ The WTO: *Technical Information on Technical barriers to trade*

³² Kure (2017), p. 58

³³ The European Commission: *Technical barriers to trade*, p. 1
& CFI: *Non-Tariff Barriers*

³⁴ The European Commission: *Technical barriers to trade*, p. 1

³⁵ *Ibid.* p. 1

³⁶ The European Commission: *Technical harmonisation in the EU*

³⁷ Cha & Koo (2020), p. 26

³⁸ The UK Government (2021): *UK conformity assessment*

ROOs will be analysed, in order to set the stage for the later analysis of then non-preferential and preferential ROOs.

Determining the country of origin of goods, it not only important to determine the tariff rate, but TBTs. This is reflected in the UCC article 59 on non-preferential origin. its states that th UCC’s regulations on origin make it possible to apply measures on goods based on its origin, such as “*measures, other than tariff measures*”, in other words: NTBs.

Origin is divided into two: non-preferential and preferential origin. The non-preferential origin is given to goods, which do not gain preferential origin through an FTA, whereas preferential origin is given to goods that are included in an FTA and comply with the ROOs. The multilateral tariffs are put on goods with non-preferential origin, while preferential tariffs and other preferential measures, are imposed on goods with preferential origin, cf. the ROO Agreement Annex II(2) and the TCA article 37.³⁹.

The ROOs are a tool that facilitates the process of determining the country origin of the good. So, they ensure a correct and uniform tariff rate and restrictions are put on goods⁴⁰.

If a good is not wholly obtained both non-preferential and preferential origin are determined by product-specific ROOs: the non-preferential ROOs and the preferential ROOs. The product-specific ROOs are objective criteria that help define what the last substantial processing/transformation is for a specific good, cf. C-372/06, Asda Stores, paragraph 48.

4. Research on FTAs Ability to Reduce Trade Costs Caused by NTBs

As mentioned, the AVEs of NTBs on average impose a trade costs equivalent to a 12% tariff. The problem with increased cost is how it affects the selling price of the good. When costs increase, the price of goods increase making it harder for companies to compete on foreign markets with companies without domestic companies. With FTAs removing NTBs for goods with preferential origin to a certain extent, companies seek to gain this type of origin, to reduce their trade costs and regain their ability to compete on the market. But are these trade costs really that big of a problem for companies? And do FTAs possess the potential of reducing these costs? This will be examined in this chapter by assessing economic theories and the evidence from several economic research papers.

4.1 Economies of Scale

When a company endures costs, they are spread out per unit of good produced. If the cost per unit falls as more units are produced, economies of scale occur⁴¹. This decrease in production costs, also decreases the selling price of the good. So, as FTAs decrease NTBs, the costs decrease, thereby adding to the decrease in costs per unit. When the costs cannot be lowered further the minimum efficient scale has been reached, creating a constant return of scale, as seen on the graph below. This is the point where the costs per unit is at its lowest, because producing one more unit would increase the cost per unit and create diseconomies of scale,

³⁹ Lyons (2018), pp. 253 & 255

⁴⁰ Ibid., pp. 253 & 255

& The WTO: *Non-tariff barriers: red tape, etc*

⁴¹Parkin et al. (2017), p. 210

e.g., if a new machine is needed to do so, or more staff is needed to conduct conformity assessments of goods⁴².

Figure on minimum efficient scale⁴³

Due to copyright rules, the figure has been removed, and can instead be found in the link of the original publisher, *Investopedia*: https://www.investopedia.com/terms/m/minimum_efficiency_scale.asp

By reducing NTBs it will help companies gain a lower minimum efficient scale. Therefore, British manufacturers of electric vehicles benefit a great deal from the TCA, as it creates certainty, ensuring that trade barriers are less likely to be put in place between the EU and UK, due to trade disputes being less likely.

With EU and UK manufacturers being able to sell their goods alongside the domestic companies at market price, it will increase the import of electric vehicles in both the EU and UK. Because decrease of the price of the electric vehicles, will cause the demand to increase⁴⁴.

4.2 Literature on the Economic Consequences of NTBs?

In the paper “*Non-tariff measures, preferential trade agreements, and prices: new evidence*” from 2016, by Cadot and Gourdon, they analyse the AVEs of NTBs based on different industries. The AVEs of NTBs measures the rise in the price of goods caused by NTBs⁴⁵.

They measure the NTBs by using data on NTBs published by four sources: World Bank, The United Nations Conference on Trade and Development, the International Trade Center, and the African Development Bank. All of the data was validated at governmental level, and was based on 65 countries, including all the EU member states⁴⁶.

They found that 42.5% of the goods in the automotive industry are under at least one TBT. Compared to this under 10% of the goods in the industry are under any of the other types of NTBs⁴⁷. So, out of all the NTBs, TBTs is main cause of AVEs on the automotive industry, and therefore electric vehicles. Though this is also the case for all but four industries, so a focus on trade costs from TBTs may surely be common across industries⁴⁸.

Adding to this the authors also estimated the AVEs of the different NTBs for 20 different industries. In general, they found that TBTs have an effect on the domestic prices of goods across industries compared to the other NTBs, with only a few exceptions. For the automotive industry, the difference of the AVEs for the NTBs is large. TBTs increase the domestic prices by 9.3%, which is 4.3% above the average AVE for TBTs across the industries⁴⁹. By comparing these numbers, we can see that most the frequent NTB in the automotive industry, TBT, is also the NTB imposing the highest trade costs on the automotive industry.

⁴² Parkin et al. (2017), p. 235

⁴³ Tardi (2021): *Minimum Efficient Scale (MES)*. Due to copyright rules, the figure has been removed, and can instead be found on the link: https://www.investopedia.com/terms/m/minimum_efficiency_scale.asp

⁴⁴ Parkin et al. (2017), p. 155-156

⁴⁵ Cadot, Gourdon, & Tongeren (2018), p. 2

⁴⁶ Cadot & Gourdon (2016), pp. 231-232

⁴⁷ Cadot & Gourdon (2016), p. 234, Table 1

⁴⁸ Ibid., pp. 233-234, table 1

⁴⁹ Ibid., p. 241, table 4

In total they estimate the AVE of all NTBs in the automotive industry to be 10.9%. It is therefore clear that NTBs impose a greater trade cost than multilateral tariff on electric vehicles, at the rate of 10%⁵⁰.

Though, it is important to remember, that this paper only looks at goods at industry level, whereas this thesis look at a specific good within that industry: electric vehicles. In 2021 electric vehicles made up 9% of total sales of vehicles. With that number being 4.1% in 2020, and 2.5% in 2019, it is safe to say that the markets share of electric vehicles within the automotive industry will continue to increase⁵¹.

As discussed in chapter 2.1.1, there are TBTs between the EU, UK, and US that affect electric vehicles. But as electric vehicles differ from other types of vehicles, the NTBS on electric vehicles may differ. In theory there may be greater product standard requirements, to prevent companies from being able to market their vehicles as electric, when they are not.

4.3 Can FTAs Help?

Cadot and Gourdon also looked at how trade agreements can reduce the AVE effect of NTBs based on the different industries, which can be seen in table 5, as seen below. The AVEs for the different types of NTBs differ a bit from its previous AVE percentages, because they re-estimated their formula by introducing dummy variables for NTBs and the mutual recognition created in FTAs.

According to the authors, trade agreements have a clear effect in reducing AVEs. Though the table shows, that even though trade agreements do reduce AVEs of NTBs, they do not tend to reduce the trade costs of NTBs by a large margin. On average, the reduction is only at 1.5%. So, even though NTBs impose greater trade costs on the automotive industry than tariffs do, the potential of reducing these costs is not utilized in trade agreements⁵².

While the multilateral tariff on electric vehicles, as mentioned, is fully reduced by 10%, the total reduction of AVEs for the automotive industry is only 1.4%. So, whereas the tariff is reduced by a rate of 100%, the NTBs are only reduced by a rate of 15.4%. It is important to clarify, that this paper is based on data from 65 countries. So, the results are not fully representative of the EU, as their reduction of NTBs in their FTAs might differ from other countries' FTAs. Still, table 5 is a great indication that trade agreements do have the ability to reduce trade costs of NTBs, showing the great potential FTAs actually hold for companies⁵³.

Table 5: AVE-reduction effect of deep-integration clauses, by HS section⁵⁴

Due to copyright rules, the table has been removed, and can instead be found in the link of the original publisher, *Review of World Economics* volume: <https://link.springer.com/article/10.1007/s10290-015-0242-9>

⁵⁰ Ibid., pp. 240-241

⁵¹ Paoli & Gül (2022): *Electric cars fend off supply challenges to more than double global sales*

⁵² Cadot & Gourdon (2016), pp. 228, 241, 242, & 245

⁵³ Ibid., pp. 228, 241, 242, & 245

⁵⁴ Ibid., p. 242

4.3.1 Mutual Recognition vs. Harmonization

In their table 6, the authors research whether “*mutual recognition*” of regulations or a full “*harmonization*” of the regulations are better at reducing AVEs of NTBs. The authors describe mutual recognition as the situation where “[...] *two countries agree to mutually recognize each other’s standards as equivalent.*”, so when companies comply with the standards in at least one of these countries, they get access to both markets.

Cadot and Gourdon looked at how mutual recognition and harmonization of technical regulations and conformity assessment affect NTBs. They found that FTAs have a greater effect in reducing the AVEs caused by TBTs if the technical regulations and conformity assessments are reduced by a harmonization rather than a mutual recognition between the parties of the FTA. For technical regulations on vehicles, a harmonisation will reduce the AVE by 29.1% compared to a reduction of only 6.8% through mutual recognition. A harmonization has the exact same reduction rate on conformity assessments of vehicles, while a mutual recognition will only have a 18% reduction on AVEs. So, for TBTs the best tool to reduce trade costs is through a harmonization in the FTAs⁵⁵.

According to the authors, a mutual recognition imposes the risk of making the less liberal regulation pointless. Whereas a harmonization would make sure the regulations and assessments in the different countries are more alike, thereby finding a middle ground that both parties can agree on⁵⁶.

This is for example what we see with the ROOs, where the TCA contains a new set of product-specific ROOs that both the EU and UK have agreed are enough to constitute preferential origin. Had they instead agreed that their own domestic product-specific ROOs can constitute origin, problems may occur.

As it will be discussed in chapter 6.5, the EU’s non-preferential ROO on electric vehicles is a value-added rule, while the TCA adds a specific requirement that the battery used in the electric vehicle has to be originating. It was likely the UK that wanted to include it. So, when the UK in the near future get its own set of ROOs, the ROO on electric vehicles will probably include the battery requirement, leading the EU and UK’s ROOs to differ. So, if they simply mutually recognise each other’s ROO to constitute origin in both countries, the UK’s addition of the battery-requirement will lose its importance. Therefore, a harmonization is the better choice for the TCA.

4.5 The Difficulty of Agreeing During FTA Negotiations

Are Cadot and Gourdon’s correct that NTBs hold a great potential of reducing the AVEs of NTBs? If we look at the paper “*Non-Tariff Barriers, Integration, and the Trans-Atlantic Economy*” by Egger et al. from 2014 the answer is yes. They examined the T-TIP deal between the EU and US, a potential FTA where the negotiations never lead to an actual agreement and was eventual abandoned in 2019⁵⁷. In this paper they confirm the potential NTBs hold, stating that “[...] *the real gains are expected to be in the non-tariff barriers.*”. In figure 2-3, as seen below, they use a survey to show both the difficulty of agreeing on different topics during negotiations,

⁵⁵ Cadot & Gourdon (2016), p. 243, table 6

⁵⁶ Ibid., pp. 234 & 243-245

⁵⁷ The European Commission: *Making trade policy*

but also the importance of including them in the FTA. Interestingly regulation of manufactured goods is quite important, even more important than tariff reductions⁵⁸.

Figure 2-3: Potential Sticking Points⁵⁹

Due to copyright rules, the figure has been removed, and can instead be found in the link of the original publisher, *Economic Policy*, Oxford Academic: <https://academic.oup.com/economicpolicy/article-abstract/30/83/539/2392366?redirectedFrom=fulltext>

Even more interestingly, regulation of manufactured goods scores high on the degree of difficulty. If we assume this data on the T-TIP is also usable on other FTAs, then we can use this information to explain the findings of Cadot and Gourdon. As mentioned above, trade agreements do reduce the AVEs of NTBs, but not by a large margin compared to tariffs. Not only is this true for the automotive industry, but also for the rest of the industries, where the average proportional reduction of the AVEs is 24.8%. So, with Egger et al.'s findings in figure 2-3 below, an explanation to this is likely that agreeing on policies on regulations of manufactured goods during negotiations, is almost twice as difficult as tariff reductions are, making it less likely that the parties agree on harmonizing or even mutual recognising the others' regulations in an FTA⁶⁰.

4.6 The Data Differences between Cadot and Gourdon and Egger et al.

While Cadot and Gourdon's data show that FTAs have not reduced AVEs of NTBs by a lot so far, Egger et al.'s data shows a different result. When they looked at the potential FTAs hold in reducing AVEs, they found that for vehicles FTAs have reduced the AVEs by 19.7%⁶¹, compared to the 1.4% in Cadot and Gourdon's findings.

An explanation might be their data pool. While Cadot and Gourdon look at FTAs from 65 countries, Egger et al. look at FTA's where the EU or US are one of the contracting parties. The regulation in the EU and US might be different and greater than those in other countries, such as developing countries. Some countries included in Cadot and Gourdon's data might simply be focussing more on imposing tariffs on goods rather than NTBs.

What is interesting about Egger et al.'s findings are that vehicles have the third highest AVE reductions out of all the goods, the authors have looked at. So, based on their findings we can say, that FTA negotiators in the EU and US have a great focus on NTBs in vehicles when they negotiate, which will be discussed in the later chapters 7.2 and 7.3 on the TCA and USMCA's regulations on preferential ROOs, and chapter 8. on the TCA's regulations on TBTs⁶².

4.7 Partial Conclusion

In conclusion companies seek preferential origin to lower their costs and get a lower minimum efficient scale, thereby making their goods more competitive in the foreign market at the market

⁵⁸ Egger et al. (2015). pp. 4 & 28

⁵⁹ Ibid., p. 28

⁶⁰ Ibid., p. 28

⁶¹ Egger et al. (2015), p. 33, table 3-3

⁶² Ibid., pp. 8 & 33

price. According to Cadot and Gourdon TBTs are by far the greatest and most costly NTB for electric vehicles. Thereby, the TBTs is the NTB that is most important for companies to be reduced in an FTA, as it drives the trade costs of electric vehicles.

Cadot and Gourdon found that FTAs hold a great potential of reducing trade costs caused by NTBs. The best way of doing this is through harmonizing the parties' regulations, rather than the parties simply recognising, and accepting the other party's regulations as being valid within the territory of all parties. Unfortunately, they found that the current FTAs tend to not utilize this potential, resulting in companies missing out on great reductions of their trade costs. Currently the NTBs of the automotive industry have only been reduced by 1.5%, at a rate of 15.4%, whereas we can see the TCA reduces the tariff rate by a rate of 100%.

Egger et al. agreed on the FTAs potential of reducing AVEs. They also explained why this great potential of FTAs have not been used. They found that despite both TBTs being of greater importance than tariff rates during FTA negotiations, it is far more difficult to agree on reducing technical regulations than it is to reduce tariff rates.

Opposite Cadot and Gourdon, Egger et al.'s data is more specific on the EU and US and showing that FTAs actually decrease the AVE of NTBs on vehicles by 19.7% instead of the 1.5% in the Cadot and Gourdon paper. Therefore, it can be stated that the EU and US tend to be better at reducing NTBs than other countries in general, thereby indicating that both the TCA and USMCA should have a great deal of regulations on the ROOs and TBTs, which will be examined further in the following chapters.

5. The Role of the WTO and International Agreements

The WTO aims to “[...] to ensure that trade flows as smoothly, predictably and freely as possible.”. The organisation does this by creating international agreements, its members sign and uphold on a national level⁶³. Though the legitimacy of the WTO's agreements is debatable, therefore this chapter will shine some light on the Court's view on the WTO's agreements legitimacy in the EU law. This will include an analysis of the purpose behind harmonizing trade regulations in the WTO's agreements, while also looking at the Court's historic opinion on the WTO's agreements by analysing case law.

5.1 The purpose of harmonising the Trade Regulations

The Technical Barriers to Trade Agreement of the WTO (hereafter “the *TBT Agreement*”)⁶⁴ aims to make the members use harmonized international standards to form their TBTs, in order to facilitate the trade in goods. This harmonization also aims to ensure transparency in the members' TBTs, in order to lower the uncertainty of international trade⁶⁵. Quite similar to this, the purpose of harmonizing the ROOs is to “[...] facilitate the flow of international trade.”⁶⁶. Although, as the analysis of this chapter will show, the Court does not view the WTO's agreements or their provisions as directly legally binding in the EU.

⁶³ The WTO: *The WTO*

⁶⁴ Agreement on Technical Barriers to Trade, Jan. 1, 1995, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1868 U.N.T.S. 120 (“

⁶⁵ The WTO: *Technical barriers to trade*

⁶⁶ The WTO: *Technical Information on Rules of Origin*

5.2 The WTO's Role in EU Law

Why would the EU and UK implement the WTO's ROO and TBT Agreements into the TCA? Both parties are part of the WTO and thereby bound under the agreements, as they have signed them⁶⁷. The Court's view on the legality of the WTO's agreements may have played an interesting role in why the TCA contains regulations that implement the WTO's agreements.

A paper from 2015 by Petra Jeney, Director of the European Institute of Public Administration, titled "*Judicial Enforcement of WTO Rules before the Court of Justice of the European Union*", examines the history of the Court's opinion on the WTO's agreements⁶⁸. All of the court cases involved member states of the EU claiming that an EU regulation was not in compliance to one of the WTO's agreements. In the following chapters the findings various of these court cases will be analysed.

5.2.1 The History of the Court's Opinion on the WTO's Agreement Under EU Law

In her paper Jeney found that the Court started out denying that the General Agreement on Tariffs and Trade (hereafter "*the GATT*")⁶⁹ had any direct effect in national courts within the EU, because this type of agreement is not clear and precise enough, due to its flexibility, which is a requirement for regulations to have a direct effect within the EU law, cf. C-21-24/72, International Fruit Company, paragraph 21 and 27.

Later on, the Court allowed the EU's measures to be revised with regard to the regulations of the WTO. The Court had found that despite an international agreement's lack of a direct on EU law, the legality of the EU's regulations could still be reviewed based on these international agreements, cf. C-69/89 Nakajima v Council, paragraph 27, 31, and 32. This view has since been confirmed in other court cases, such as C-280/90 Germany v Commission and C-76/00 Petrotub, giving it precedence.

Though, despite this precedence, later rulings the Court has turned back to the Court's initial position and no longer demand the EU's measures to be reviewed to fit the WTO's regulations. Through C-351/04, Ikea Wholesale, the Court has made it possible for the EU to decide not to follow the WTO's agreements, cf. paragraph 28 and 29. The Court states that they are only to review the EU's regulations when the EU has intended to implement or refer to the WTO's agreements, cf. paragraph 30, as the TCA has done with TBT, which will be discussed in chapter 9. So, if the EU does not want to follow the WTO's agreements, they can simply do it by the act of not implementing or referring to them into EU legislation. This Court has given this opinion precedence by repeating it in a later case, C-120-121/06 FIAMM.

5.2.2 The Court's Effect on the TCA

So, what does that mean for the TCA? Technically there is no need to implement their regulations into the TCA, because both the EU and UK have signed the WTO's agreements. Though the later court cases clearly show that without an implementation or referral to the WTO's agreements, their legality cannot be challenged at the Court. This is why we see will see in chapter 7.2.3 and 9. that the TCA has implemented multiple provisions of the ROO and TBT Agreements.

⁶⁷ The International Trade Administration: *Trade Guide: Marrakesh Agreement Establishing the WTO*

⁶⁸ Jeney (2015)

⁶⁹ General Agreement on Tariffs and Trade 1994, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1867 U.N.T.S. 190, 33 I.L.M. 1153

An implementation directly into the TCA ensures that both the EU and UK are bound by the WTO's agreements, despite the Court's findings in the mentioned court cases. Because of the later court cases, the WTO's agreements have to be implemented, as they are not directly applicable, but also because without adding them to the TCA, the EU would be able to create regulations that violates the agreements.

5.3 The Courts Opinion on the EU's International Agreements with Third Countries

Similar to the WTO's agreements, the EU's FTAs are agreements, the EU has agreed to with third countries. So, how does the Court view the legality of FTAs? In the court case previous mentioned, Asda Stores, a British importer of coloured televisions that were assembled in Turkey, claimed the origin of the good to be in Turkey. Contrary to this the British customs authorities did not view the assembly in Turkey to constitute origin but views the origin to be China and south Korea, where the components originated. These countries were under anti-dumping duties at the time, so Asda Stores challenged this decision to the VAT and Duties Tribunal in the UK, that then took the case to the EU Court, cf. Asda Stores, paragraph 23, 25, and 27.

The tenth question asked whether the Trade Agreement between the EU and Turkey and its regulations on anti-dumping duties, are directly applicable in national court, cf. Asda Stores, paragraph 28. Referring to case-law, the Court finds that regulations within an agreement between the EU and a third country is directly applicable. Though, this is only the case, when the regulation contains a “[...] *clear and precise obligation* [...]” and no extra measures are required to implement the regulation. This was not the case with specific regulations in the agreement between the EU and Turkey. Here the Court emphasized that the regulations in were simply allowing the parties to establish protecting measures and exchange information, rather than warranting any obligation, cf. Asda Stores, paragraph 82, 87, 89, and 91.

So, what happens when the TCA simply refers to one of the WTO's agreements? In theory the regulation in the TCA is not clear on the requirements, but only refers to an agreement, that according to the other court cases is not directly applicable in the Court. So, in that sense it can be argued, that the regulations that simply refer to the ROO or the TBT Agreements, are not directly applicable in the national court in the EU member states, compared to the regulations that directly implement clear and precise provision, cf. Asda Stores, paragraph 82. Compared to this, the preferential ROOs in the TCA, are precise enough to be directly applicable in the EU.

5.4 Partial Conclusion

In conclusion the purpose of the WTO's TBT and ROO agreements is to harmonize the WTO members' ROOs and TBTs, to facilitate the international trade in goods. Despite signing the agreements, the members do not necessarily view these agreements as binding.

This is the case for the EU. After some years with an open mind to the WTO's agreements, the Court went back to its initial position of denying reviewing EU law in reference to the WTO's agreements, unless the EU's regulations have directly implemented provisions from the WTO's agreements. While also denying the WTO's agreements to be direct applicable in the EU law because their provisions are generally not clear enough, cf. International Fruit Company paragraph 21 and 27 & Ikea Wholesale, paragraph 28 and 29.

Similarly, when it comes to the EU's own agreements with third countries, the Court only view regulations that are clear requirements as directly applicable in the EU, cf. Asda Stores, paragraph 82, 87, and 89.

So, for the TCA this means that only its requirements implemented from the ROOs and TBTs are directly binding, and only the direct implementations of the ROO and TBT Agreements can be challenged in the Court. Any regulations violating the agreements, will not be reviewed by the Court.

6. Non-preferential Origin

In order to fully understand why companies, strive towards preferential origin, we first need to look at the residual rules: the non-preferential rules of origin. So, in this chapter both the EU's regulation warranting non-preferential origin, and the international agreements it is based on will be analysed and assessed. The different types of ROOs that exists and their advantages and disadvantages will be discussed, in order to assess the non-preferential ROOs in the EU and the US . The comparison between the non-preferential ROOs in the EU and US will be used to show just how different countries' ROOs and multilateral tariffs are, and why that can be a problem for companies.

6.1 The Most-Favoured Nation Principle of the GATT

“*The WTO Establishment Agreement*”⁷⁰, also known as “*the Marrakesh agreement*” is the agreement of the establishment of the WTO. The agreement contains several specialised agreements on the trade of goods in its Annex 1A. The specialised agreements: the GATT and the ROO Agreement, both regulate the ROOs. The GATT was established in 1947 and later revised in 1994⁷¹, with the countries the countries agreeing on regulations regarding a reduction of trade barriers, and therefore it regulates both preferential and non-preferential origin⁷².

The GATT constitutes that if a good has non-preferential origin, it will incur a multilateral tariff, no matter what country the good originates from, making it non-discriminatory. This is because of the “most favoured nation” principle (hereafter “*the MFN principle*”) in the GATT, article I. As the article states any favour or advantage given to one country “[...] shall be accorded immediately and unconditionally to the like product originating in or destined for the territories of all other contracting parties.”. So, member states cannot discriminate against certain countries. If the EU gives a more favourable multilateral tariff rate, which is warranted in the UCC article 56(1), to one country but fails to comply to the exception in article XXIV, which will be discussed in chapter 7.1, then the member state is obligated to give every other country access to the same favourable tariff rate.

Similar to the MFN principle the ROO Agreement prohibits countries from discriminating against foreign goods by making their ROOs on foreign goods stricter than their ROOs on domestic goods, cf. the ROO Agreement article 3(c). The EU's regulation on non-preferential

⁷⁰ WTO Agreement: Marrakesh Agreement Establishing the World Trade Organization, Apr. 15, 1994, 1867 U.N.T.S. 154, 33 I.L.M. 1144 (1994)

⁷¹ The WTO: *GATT and the Goods Council*

⁷² Majaski (2021): *General Agreement on Tariffs and Trade (GATT)*

origin and preferential origin, are therefore applicable for both domestic and international goods⁷³.

6.2 The UCC article 60(2)

It is important to understand, that the origin follows the good, and not intermediaries such as the seller. Therefore, production and similar processes, the good is put through, are the only methods of altering the origin of a good⁷⁴. As mentioned, the TCA distinguishes between wholly obtained goods and goods where more than two countries were involved in the production. For non-preferential origin this is warranted in the UCC article 60.

The EU describes a good to be “*wholly obtained*” in the EU if it is solely produced or processed in the Union, or a “*partner country*” through an agreement, without the use of foreign components. The EU explains that vegetables are wholly obtained in the country they are harvested in, while animals are wholly obtained in the country they are born and raised in⁷⁵.

When more than one country has been involved in the production, a good gains origin in the country where they “[...] underwent their last, substantial, economically-justified processing or working, [...]”, cf. the UCC article 60(2). Here the UCC-DA elaborates how to determine if a good adheres to article 60(2). If the good can be found in the UCC-DA’s Annex 22-01 and comply with the product-specific ROO then its production is deemed to have involved more than one country, cf. the UCC-DA article 32. If the good cannot comply with the product-specific ROO, the origin is determined by the residual rule of the specific chapter in Annex 22-01.

6.2.1 The List Rules

If a good, like electric vehicles as it will be discussed in chapter 6.4, is not included in the Annex 22-01, it falls back on the residual rule in the UCC article 60(2). The lack of a specific ROO may on one hand be an advantage, as companies can interpret the residual rule to their advantage as long as they can argue for that interpretation.

Though on the other hand, without a specific value-added rule, it may become harder to prove the origin of electric vehicles, since companies’ interpretation a “*sufficient transformation*” might not be the same, as the interpretation the authorities deem fit. Fortunately, the EU has established “*the List Rules*”⁷⁶, that companies can use as a guidance. The list contains a set of product-specific ROOs based on how the authorities usually determine the origin of specific goods. As it is simply a guidance, companies may still run into problems, despite following the list⁷⁷.

The list is soft law and thereby not binding, but it makes it easier for companies to argue for and justify their choice of country of origin. When companies use the authorities’ own norms on determining sufficient transformation when the ROO is missing in the UCC-DA, it becomes harder for them to prove bad faith. So, utilizing the list rules both makes it easier to determine

⁷³ Lyons (2018), p. 257

⁷⁴ Ibid., p. 254 &

⁷⁵ The European Commission: *Goods wholly obtained*

⁷⁶ The European Commission, Taxation and Customs Union: Table of list rules conferring non-preferential origin on products

⁷⁷ The European Commission: *Table of list rules conferring non-preferential origin on products (following the classification in the CN)*

the origin, while also making it easier to prove that the country of origin chosen is also where the last substantial process has occurred.

The fact that the List Rules are not binding is important, if the product-specific list rule goes against the UCC Article 60, because this will make the specific list rule invalid, and origin will not be given despite the good complying to the list rule, cf. C-260/08, HEKO, paragraph 20 and 21.

6.3 The Product-Specific ROOs

The GATT is quite liberal and leaves the interpretation of substantial transformation to the members, as it does not contain any regulation on how they should determine a goods origin. Luckily, the Revised Kyoto Convention⁷⁸, has specified some requirements, which warrants three different types of ROOs. Although it can only be used as guidance, as it is soft law. In this chapter about the product-specific ROOs, these three types of ROOs will be analysed highlighting their advantages and disadvantages.

6.3.1 Change of Tariff Heading

The first and main type of ROO involves a change in the good's heading. When a good is subject to this rule in the UCC-DA is written as “*CTH*”, meaning a “[...] *change to the heading in question from any other heading.*”, cf. the UCC-DA, Annex 22-01, introductory note 3. Therefore, the production of the good results in a “*substantial transformation*” if components under one heading are transformed into a good under a different heading.

6.3.1.1 Advantages and Disadvantages

An advantage of this ROO is how easy it is to prove and document the realisation of the ROO, as you simply have to supply the heading of the components and the produced good. A clear disadvantage is the requirement for both the exporting and importing countries to have same nomenclature⁷⁹. Luckily if the part of the good's heading mentioned in the ROO is only 6 digits or under, the Harmonized System ensures that the heading is the same in roughly every country, as 212 countries have signed the Harmonized Commodity Description and Coding System or “*the HS Convention*”⁸⁰. So, the disadvantage is only realistic in the chances that a ROO uses more than six digits of a good's classification code.

6.3.2 Manufacturing or Processing Operation

The second type of ROO is specifically listing processes that do or do not constitute a “*sufficient transformation*”, and thereby grants the good origin in the country where the process occurred. Here the advantages and disadvantages are equal to those of the first type of ROO of a change of heading. Though adding the disadvantage of the lists often being long and meticulous, making it complicated to fulfil the rule making mistakes more likely to occur⁸¹.

⁷⁸ International Convention on the Simplification and Harmonization of Customs Procedures, May 19, 1973, Revised version of 1999

⁷⁹ Lyons (2018), p. 260

⁸⁰ International Convention on the Harmonized Commodity Description and Coding System, Jun. 14, 1983

⁸¹ Lyons (2018), p. 260

6.3.3 The Value-Added Rule

The last type of ROO is the value-added rule, also known as the “*ad valorem percentage*” rule. This type of ROO imposes a percentage limit to how big a share of the value of a good can be either non-originating or has to be originating⁸². The TCA focuses on the first type, where the percentage indicates the limit for non-originating components. It is this type of ROO that both the UCC-DA Annex 22-01 and the TCA Annex 3 use for the ROO of electric vehicles under heading 8703.

There are multiple ways of calculating the value to determine the origin, though for this thesis the relevant method is the “*ex-works price*” method, cf. the Revised Kyoto Convention, recommended practise 5. The ex-works price, or EXW, is the price that was paid to the manufacturer who undertook the last process that is claimed to be the last substantial transformation, cf. the TCA Annex 2, note 4(b)(i). It is a requirement that the value of the costs and components be added to the price, while any tax that may be repaid in the future is deducted from the overall price cf. the TCA Annex 2, note 4(b)(i). If there is no price, the value of the components simply has to be added to the value of all costs, cf. the TCA Annex 2, note 4(b)(ii).

Specifically in the TCA, the value-added rule is formulated as “*MaxNOM (EXW)*”, meaning the origin is determined by taking the maximum value of the non-originating components and dividing it by the ex-works price and multiplying by 100 to get a percentage, cf. the TCA Annex 2, note 4(c). It is this percentage that cannot exceed the given percentage that is given in the ROO. The TCA defines a non-originating component as a “[...] *material which does not qualify as originating [...]*”, meaning the opposite of an originating good, cf. the TCA article 38(f).

6.3.3.1 Advantages and Disadvantages

The advantages of this ROO are that the percentage sets a clear limit, where as soon as the limit is exceeded, the production is not a “*sufficient transformation*”. Another advantage is the information needed to determine if the limit is met, is easy to obtain through records and documents, such as the sales price of the good⁸³.

Though a disadvantage is that currency is not static but dynamic. So, if the components used to manufacture the electric vehicle were bought long before the production occurred, it becomes questionable to compare the value of the non-originating goods with the value of the finished good⁸⁴.

Another disadvantage is that it does not take more than minor changes to make the difference in whether or not the limit has been crossed⁸⁵. It can be theorized, that adding useless components to the electric vehicle that originates from the desired country of origin, may be a way for companies to utilize this disadvantage. Adding high-value components from the desired country of origin, may also increase the overall value of the vehicle, causing the share of the value of foreign components to drop.

⁸² The UK Government (2020): *Check your goods meet the rules of origin*

⁸³ Lyons (2018), p. 260

⁸⁴ *Ibid.*, p. 260

& SMMT (2020): *SMMT calls for immediate ratification and implementation of draft UK-EU Trade & Cooperation Agreement*

⁸⁵ Lyons (2018), p. 260

6.4 The EU's Non-Preferential ROO of Electric Vehicles

With 79% of the world's electric vehicle batteries being produced in China, it is safe to say that is normal for manufacturers of electric vehicles to source non-originating components for their production⁸⁶. Therefore, the chances of an electric vehicle gaining origin in e.g., the EU by being “*wholly obtained*” are low. Therefore, the non-preferential origin of electric vehicles must be found through article 60(2), where at least two countries, as mentioned, have been involved in the production of the good.

We therefore have to look at the UCC-DA Annex 22-01, cf. the UCC-DA article 32. Though, chapter 87 is not included in the annex, so we fall back on the UCC article 60(2). Here we can seek guidance in the List Rules. For goods under heading 8703, the list rule is a value-added rule of 45%, thereby limiting the share of the foreign components to 45% of the electric vehicle's overall value, cf. the List Rules, section XVII, chapter 87, heading 8703.

Though, as mentioned, this list is simply soft law, so manufacturers of electric vehicles still risk not gaining origin in the country where a process, they deem to be the last substantial process, even though the list rule has been fulfilled. Thereby, making the determination of origin more uncertain for companies. Although, as the list rule for electric vehicles is a value-added rule, similar to the preferential ROO which will be discussed in chapter 7.2, it suggests, that the list rule does comply with the UCC article 60(2). Therefore, it is not likely for the authorities to deny the chosen country of origin, as long as the specific list rule has been fulfilled.

6.5 The US' Non-Preferential ROO

In the US origin is warranted in C.F.R. title 19, chapter I, part 102, subpart B. If a goods is not wholly obtained or not all the components are domestic, then in order to determine if a process constitutes non-preferential origin, the good has to comply to the “*Specific rules by tariff classification*” in § 102.20, cf. the C.F.R., title 19, chapter I, part. 102, subpart B, § 102.11(a)(3).

For heading 8701-8705 the product-specific ROO requires a change of heading to 8791-8705 “[...] from any other heading [...]”, except 8706, in order to constitute a substantial transformation, cf. the C.F.R., chapter 19, chapter I, part 102, subpart B, § 102.20, heading 8701-8705. So, compared to the EU's non-preferential ROO on electric vehicles, the origin of the components used to manufacture electric vehicles in the US does not matter, thereby making it easier to source components globally, without it affecting the origin. At the same time, this makes it easier to prove the origin of the good.

Interestingly, , in the US the multilateral tariff on electric vehicles is only 2.5% compared to the 10% multilateral tariff in the EU, cf. the Harmonized Tariff Schedule of the United States Revision 4 (2022)⁸⁷, chapter 87, subheading 8703.80.00 and the Combined Nomenclature⁸⁸, part two, section XVII, chapter 87, heading 8703.80.10. This may cause European consumers to prefer electric vehicles from the UK over electric vehicles from the US. The difference is

⁸⁶ Bhutada (2022): *Mapped: EV Battery Manufacturing Capacity, by Region*

⁸⁷ Harmonized Tariff Schedule of the United States (2022) Revision 4, Apr. 9, 2022, publication number: 5318

⁸⁸ Corrigendum to Commission Implementing Regulation (EU) 2021/1832 of 12 October 2021 amending Annex I to Council Regulation (EEC) No 2658/87 on the tariff and statistical nomenclature and on the Common Customs Tariff

likely caused by lobbying done by German manufacturers of vehicles and the German government, because the automotive industry plays a key role for the German economy⁸⁹. Therefore, German lobbying may also be the reason the EU's ROO is focussed on securing that at least 55% of the components originate within the EU, thereby securing the EU's domestic use of components produced in the EU. This difference has been criticized by the previous president of the US calling it unfair, leading him to threaten the EU with increasing the US multilateral tariff from 2.5% to 25%⁹⁰. The difference means it is easier for EU electric vehicles to enter the US market, compared to US electric vehicles entering the EU's market.

6.6 Partial Conclusion

In conclusion both the EU and US use the types of ROOs that are warranted in the Revised Kyoto Convention: the value-added rule and a change in tariff heading.

When it comes to non-preferential origin in the EU, electric vehicles under heading 8703 are interestingly not included in the UCC-DA Annex 22-01's product-specific ROOs. Companies instead have to take the more uncertain path of determining the non-preferential origin of electric vehicles through the List Rules. Luckily for electric vehicles, the list rule that constitutes origin through the UCC article 60(2), is a value-added rule similar to the preferential ROO in the TCA, making the determination less uncertain for companies. The specific list rule for electric vehicles states that 45% of components used can be non-originating, cf. the List Rules, section XVII, chapter 87, heading 8703.

In comparison to this the US also use product-specific ROOs to determine the non-preferential origin. Though the chosen type of ROO is a change of tariff heading instead of the value-added rule, cf. the C.F.R. chapter 19, chapter I, part 102, subpart B, §102.20, heading 8701-8705. Electric vehicles with non-preferential origin in the EU only face a 2.5% multilateral tariff when exported to the US. Meanwhile electric vehicles with non-preferential in the US face a much larger multilateral tariff at 10%, when exported to the EU.

So, in comparison the EU's ROO restrict manufacturers global sourcing, while the US' ROO is more simple and easier to prove through documentation. Because of vehicles being important for the German economy, German lobbying may just be the reason the EU has focussed on the origin of component, but also why there is such a high multilateral tariff on electric vehicles in the EU compared to the US.

7. Preferential Origin

To avoid the EU's multilateral tariff of 10% it is important for manufacturers of electric vehicles to gain preferential origin through the TCA, as the regulations of the TCA, will reduce time and costs for companies. The same goes for manufacturers who trade within the countries of the USMCA, as the multilateral tariff of 2.5 is fully reduced through the preferential tariff, which, despite not being as high as in the EU, will lower the trade costs of companies. This is significantly useful for the automotive industry because the production model used by many manufacturers, are based on the "just-in-time" principle and need smooth and less costly

⁸⁹ Dorsch (2020): *Can Germany's Auto Industry Keep Pace?*

⁹⁰ Richter (2019): *EU-US Automobile Trade a Lopsided Affair*

trade⁹¹. In this chapter, the legal basis for preferential origin will be assessed. Both through international agreements, such as the GATT and the ROO Agreement, but also EU law in the form of the UCC. Lastly the product-specific ROOs of the TCA and USMCA will be discussed and compared.

7.1 The Exemption in the GATT

As mentioned above, article I of the GATT obligates countries to treat every country of the world as they treat their “*most-favoured-nation*”. Though, the GATT contains an exemption from this, allowing countries to conduct measures such as preferential trade agreements. In article XXIV(5) of the GATT, countries are exempt from article 1 if the favourable regulation towards a country take the form of a customs union, a free trade area, or an interim agreement regarding the establishment of those areas. This article is the reason the UCC’s regulations on preferential origin and the TCA are not violating the MFN principle, despite resulting in the EU “*discriminating*” countries.

Though this is not without requirements. These are set forth in section 5’s subsection a, b, and c of the GATT. With subsection b regulating the requirements for FTAs. It requires any “[...] duties and other regulations [...]” to “[...] not be higher or more restrictive than the corresponding duties and other regulations [...] prior to the formation [...]”]. Meaning FTAs can only be favourable. The EU can therefore only reduce the tariffs and NTBs, and not increase them. Though interestingly enough, the preferential rules of origin are oftentimes stricter than the non-preferential ROOs, indicating that these requirements in the GATT do not involve ROOs.

7.2 The TCA’s ROO on Electric Vehicles

The EU’s regulation on preferential origin from FTAs is found in the UCC article 64. The article warrants that in order to gain preferential treatment regarding preferential tariffs and NTBs in an FTA, the good has to fulfil the preferential ROOs, cf. the UCC article 64(1). When preferential treatment is given through an FTA, the UCC article 64(2) requires that FTA to contain the preferential ROOs, that constitute preferential origin and gives access to the preferential treatment.

The TCA defines an originating good as a good that is “[...] qualifying under the rules of origin set out in Chapter 2 [...]”, cf. the TCA article 17(e). In chapter 2 of the TCA, we can see that origin is given, when a good is either wholly obtained, fully produced by 100% originating components, or complies to in Annex 3 of the TCA, cf. the TCA article 39(1). Annex 3 is where we find the product-specific ROOs. If the product-specific ROOs have been fulfilled, the parties are required to grant a good preferential origin, cf. the TCA article 54(1).

The product-specific ROO of heading 8703 is in the form of a value-added rule in all of the EU’s FTAs except two, as the agreements with Iceland and Norway do not include electric vehicles in their FTAs with the EU⁹². The ROOs in the majority of the rest of the EU’s FTAs contain a value-added rule allowing 40% of the components to be non-originating.

⁹¹ SMMT (2020): *SMMT calls for immediate ratification and implementation of draft UK-EU Trade & Cooperation Agreement*

⁹² See Appendix I of this thesis

A handful of the EU's FTAs have a ROO that is a bit more liberal though. The value-added rule of the EU's agreements with the Republic of Korea and Vietnam is at 45%. Whereas the agreements with the Ardean Community, Canada, and Central America, all contain a value-added rule where 50% of the components can be non-originating. Though currently the TCA has the most liberal ROO, stating a "*MaxNom 60% (EXW)*" value-added percentage, and thereby is by far the easiest FTA to gain access to, cf. the TCA, Annex 3, section XVII, chapter 87, heading 87.02-87.04.

Though, it is important to read the footnotes to the TCA's ROO, as this rather beneficial percentage is only valid for a certain amount of time, as part of an implementation period. From the 01. of May 2021 to the 31. of December 2023, the percentage is at 60%, cf. the TCA Annex 5, section 1. From the 01. of January 2024 and until the 21. of December 2026 the percentage falls to 55%, cf. The TCA Annex 5, section 2. Hereafter, the percentage will continue at a 45%, and thereby wall to the level of the agreements with the Republic of Korea and Vietnam, cf. the TCA, Annex 3, section XVII, chapter 87, heading 87.02-87.04. So, technically by time the TCA will no longer be the easiest of the EU's FTAs to gain access to.

7.2.1 Why Does the Preferential ROO Get Stricter Over Time?

It can be theorized that the value-added percentage of the TCA ROO for electric vehicles will slowly be constricted over the years in order to slowly increase the domestic productions of electric vehicles in the EU and UK. By starting out with a high percentage, it gives domestic companies an incentive to move their production back to the EU and UK, and away from Asia, because they can include a greater amount of non-originating components.

The incentive is creating because compared to producing electric vehicles with preferential origin in e.g., Japan with only 40% of the component being allowed to be non-originating, global sourcing will be easier through the TCA. Then by reducing the percentage bit by bit over time going from 60% to 55% and then end at 45%, the TCA ensures that companies are less likely to have an incentive to move back to Asia again, compared to going directly from 60% to 45%. Companies will therefore slowly adapt their production to use more originating components from the EU and UK.

7.2.2 Battery Packs

Another way the TCA differs from the EU's other FTA's is that it adds another requirement to its ROO. Battery packs under heading 85.07 used "[...] *as the primary source [...]*" in the electric vehicles also have to be originating within the territory of one of the parties, cf. the TCA, Annex 3, section XVII, chapter 87, heading 87.02-87.04. This may make it that more difficult for certain companies to comply with. It may be hard for new manufacturers to meet this requirement. Take for example Tesla⁹³. The company started out needing the expertise of Taiwanese manufacturers of batteries. Additionally, 79% of batteries for electric vehicles are produced in China⁹⁴, as mentioned in chapter 6.4. So, there seems to be a custom to source batteries for electric vehicles in Asia, thereby making it a radical change for certain companies to have to source their batteries in the EU or UK, where the production of batteries may not be as developed as in Asia.

This may impose an NTB on British electric vehicles, as electric vehicles with Chinese batteries produced in e.g., Japan, can be exported to the EU and still gain preferential origin, which

⁹³ Chang (2020): *The Life and Death of Tesla Motors in Taiwan*, p. 7

⁹⁴ Bhutada (2022): *Mapped: EV Battery Manufacturing Capacity, by Region*

is not possible for a British manufacturer⁹⁵. Thereby contradicting the ROO Agreement's goal of making sure the ROOs do not result in NTBs. Gaining access to preferential origin through the TCA, will add extra trade costs to UK manufactures, which have to change the sourcing of their batteries in order to get a similar preferential treatment as the Japanese manufacturer.

Why does the TCA contain this extra requirement for the batteries used? The answer may be found looking towards the UK. In January 2022, the UK government invested £100mil into the British manufacturer of batteries for vehicles: Britishvolt. This was at the moment when the company was planning to build a gigafactory within the UK⁹⁶. So, the UK likely wanted the requirement added to the ROO, in order to boost the UK's sales of batteries for electric vehicles, thereby seeing the fruit of their investment.

7.2.3 The Implementation of the ROO Agreement

The ROO Agreement was created with the aim of harmonizing the members ROO, cf. the ROO Agreement article 3. Specifically for preferential origin, the regulation is found in the ROO Agreement's Annex II.

A further objective of the agreement is to recognise that the flow of international trade is facilitated by clear and predictable ROOs, cf. the ROO Agreement's introduction. At the same time the agreement seeks to ensure that the ROOs do not create an NTB, but instead establishes transparent regulations, cf. the ROO Agreement's introduction. It can be gathered from this, that the WTO wants to make it easier for companies to determine the origin of their goods. This is directly referred to in the TCA. It states that parties vow to fulfil their commitment to the WTO by aiming to transparent regulations, cf. the TCA article 332(1) and (2).

This is why the agreement puts forth requirements to the wording of three types of ROOs in its Annex II(3)(a)(i), (ii), and (iii). For the rule of a change in tariff classification, the heading or subheading has to be specified, the same goes for the operations mentioned in the ROO of listing manufacturing and processing operations. Lastly when it comes to the value-added rule, the product-specific ROO has to specify what method is to be used to calculate the percentage. We see this requirement being followed in the TCA's product-specific ROO for electric vehicles. As mentioned in chapter 6.3.3 on the value-added rule, the preferential ROO of electric vehicles in the TCA specifies that the percentage has to be calculated using the ex-work method, meaning comparing the total value of the good ex-work, to the value of the components used that are non-originating.

Furthermore, the members of the ROO Agreement have made a common declaration stating that they commit to ensuring that “[...] *their preferential rules of origin are based on a positive standard.*”, cf. The ROO Agreement, Annex II (3)(b).

We see this in the UCC article 64, that does not warrant any specifics regarding what is required to determine origin. Instead, the article refers to FTAs to put forth their own ROOs. In the TCA we see that the positive standard is implemented in that a good either gains origin in the EU or UK by being wholly obtained, fully produced with originating components, or produced with both originating and non-originating components. The latter requiring the product-specific ROOs in the TCA's Annex 3 to have been satisfied, cf. the TCA article 39(1)(a), (b), and (c). So, the ROO Agreement does not contain many regulations on preferential origin, but the few important ones have been implemented in the TCA.

⁹⁵ As seen in Appendix I the preferential ROO in the EU's FTA with Japan is only a 40% value-added rule.

⁹⁶ Jolly (2022): *Britishvolt gets £100m boost to build UK's first large-scale 'gigafactory'*

7.2.4 Does the TCA Reduce the Trade Costs of the ROOs on Electric Vehicles?

As discussed in chapter 4.3.1, Cadot and Gourdon found that a harmonization of the parties' regulations is the most efficient way of reducing the trade costs of NTBs in FTAs. When it comes to the product-specific ROO that constitute preferential origin it is clear that the TCA harmonizes the ROOs of the parties by creating one set of product-specific ROOs that are accepted by both parties. Therefore, using Cadot and Gourdon's research, the TCA should have achieved the potential of greatly reducing the trade costs of the ROOs. Though, this harmonization is only regarding preferential origin. Therefore, the non-preferential ROOs of the EU and UK may still differ a lot for certain goods and create a costly NTB.

An argument against the potential of the harmonization of NTBs reducing costs, is the product-specific ROO of electric vehicles in the TCA. The added requirement of using batteries originating in the EU or UK, may result in added sourcing costs for companies, that source elsewhere. These costs will increase the sales price of their electric vehicle and thereby potentially counteract the reduction of the tariff given in the TCA. This will create a barrier for the companies, as they will have difficulty competing with companies that gain preferential origin through one of the EU's FTAs that does not have the same requirement. Thereby, despite harmonizing the product-specific ROO on electric vehicles in the TCA, the parties' choice of adding the battery requirement will restrict the market access to the EU for certain UK manufacturers of electric vehicles. Which goes against Cadot and Gourdon's research.

7.3 The USMCA's ROO on Electric Vehicles

Similar to the EU, the US regulates its preferential ROOs directly in its FTA: USMCA. The USMCA came into force on July 1, 2020, being a substitute to the previous FTA: the North America Free Trade Agreement, or "*NAFTA*"⁹⁷. Although, the USMCA interestingly expresses the value-added rule differently. The USMCA's product-specific ROOs on electric vehicles contains two different ROOs for electric vehicles. For passenger electric vehicles origin is constituted if there is a change in the subheading from any other heading and value-added rule of 75%, cf. the USMCA the appendix on Provisions Related to the Product-Specific Rules of Origin for Automotive Goods, article 2, heading cf. the USMCA Annex 4-B, chapter 4, chapter 87, heading 87.01-87.08. Now they word the value-added rule as: "[...] *provided there is a regional value content of not less than 75 percent [...]*", so while the TCA sets a loft-limit on how great a value can be originating, the USMCA sets a de minimis percentage of how great a value that has to be originating. So, while 60% of the components can be non-originating in the TCA, only 25% can be non-originating in the USMCA.

This difference just goes to show, that the ROOs between countries is not fully harmonized yet, and that the domestic production of vehicle components is more important in the USMCA than in the TCA. It can be theorised that the lack of harmonization may cause problems for certain European companies, which may misunderstand the American value-added rule, and vice versa.

⁹⁷ Office of the United States Trade Representative: *United States-Mexico-Canada Agreement*

7.4 Partial Conclusion

In conclusion despite violating the MFN principle, the GATT allows countries to give preferential treatment to certain countries, one method of doing so is through preferential origin in an FTA, cf. the GATT article XXIV(5).

Compared to each other both the TCA and USMCA use the value-added rule in their preferential ROO for electric vehicles, though formulated differently and thereby risk confusing companies. The USMCA requires at least 75% of the components to be originating, where the TCA only allows 60% of the components to be non-originating. Thereby, making the sourcing requirement stricter in the USMCA.

Interestingly, to ensure that companies slowly make their production more domestic, the preferential ROO for electric vehicles has an implementation face. Currently 60% of the components can be non-originating. From 2024 it falls to 55%, and from 2027 it falls to and stays at 45%. To ensure the domestic production of batteries for electric vehicles, the ROO also require the batteries used to be originating, thereby creating an NTB for EU and UK companies to compete on the EU's market with companies with preferential origin from other FTAs.

So, despite the USMCA having a stricter requirement on the use of originating components, the TCA also seems to have a great focus on the domestic production of vehicle components.

the TCAs harmonisation of the preferential ROOs should reduce the trade costs of electric vehicles greatly. Although the additional requirement of originating batteries, makes the TCA go from reducing a potential NTB between the EU and UK, to introducing an NTB for British manufacturers competing on the EU's market with electric vehicles with preferential origin from other FTAs. Meanwhile the USMCA, by only having the value-added rule, does reduce the trade costs of companies greatly, without creating any new NTBs.

8. The TCA's Regulations on TBTs

As the Cadot and Gourdon's research in chapter 4.3 showed, FTAs hold an immense potential of reducing NTBs, by harmonisation of the parties' regulations. This chapter will analyse to what extent the TCA has managed to harmonize the EU and UK's technical regulations and conformity assessments. The TCA contains both general regulations on TBTs and a specific annex on vehicles and parts thereof, that include regulations on TBTs. This analysis will shine light on how preferential the TCA is for electric vehicles, when it comes to the reduction of TBTs.

8.1 General Rules and the Implementation of the TBT Agreement

As tariffs have begun to decrease over the recent years, the focus on TBTs has increased significantly⁹⁸. This results in an increase in regulations on TBTs, which is also the case with the TCA, and an increased use of the WTO's TBT Agreement. The TCA has implemented article 2 through 9, and Annex 1 and 3 of the TBT Agreement, cf. the TCA article 90(1).

The implementation of the TBT Agreement includes the composition of the regulations. They use a negative standard to indicate what regulations are not permitted. This is a more liberal

⁹⁸ Global Affairs Canada: *Technical Barriers to Trade*

approach that allows the parties to conduct any technical regulations, they wish, as long as they do not go against the restrictions listed in the TCA.

The fact that the TCA has so many general regulations regarding TBTs is no surprise, when looking back at the findings of Cadot and Gourdon in chapter 4.2, since TBTs is the most common NTB across industries.

8.1.1 Unnecessary TBTs

TBTs are generally regulated under Part Two, Heading One, Title I, chapter 4, article 88 to 100 of the TCA. The EU's objective when it comes to TBTs is to facilitate trade by reducing unnecessary TBTs⁹⁹. This is seen in the TCA article 88 stating the purpose of its regulations on TBTs to be facilitating the trade between the EU and UK by “[...] *identifying and eliminating unnecessary technical barriers to trade.*”

Since 10% of global the trade barriers in 2014 were due to the EU's protectionism, it is likely that the TCA holds a great potential of reducing TBTs¹⁰⁰. Though the word “*unnecessary*” indicates that certain TBTs are necessary, such as the safety of the drivers, and therefore the agreement cannot reduce TBTs fully to the same point as it does with tariffs on goods such as electric vehicles. This might also explain Egger et al.'s figure 2-3 in their paper from 2014 in chapter 4.5., that shows that NTBs are more difficult to agree on during the negotiations of FTAs compared to tariffs. Because countries deem some of their technical regulations as necessary, they are less likely to want to agree on any reduction of the restriction they cause.

To ensure that unnecessary TBTs are not established between the EU and UK, the parties are required to conduct assessments of what impact their planned technical regulations will have, cf. the TCA article 91(1). In addition to avoid any unnecessary TBTs the parties have to use alternatives to technical regulations that can fulfil the same objectives of protecting humans, animals, and the environment, if possible, cf. the TCA article 91(2). This means technical regulations should only be used as a last resort, indicating that they are quite extensive measures to put on companies. Thereby ensuring, that both the EU and UK's technical regulations and conformity assessments being justified by the same objectives.

This is an implementation of the introduction and article 2 and 5 of the TBT Agreement. In the introduction, an objective of the agreement is stated to be a desire to ensure that technical regulations do not result in unnecessary TBTs. Article 2 binds members to ensure that their technical regulations are not creating an unnecessary TBTs to international trade, cf. the TBT Agreement article 2(2) . All the while article 5 binds the members ensure they do not create unnecessary measures on conformity assessments, cf. the TBT Agreement article 5(1)(2).

Specifically, the TBT Agreement's article 2(3) warrants that the members should not use technical regulations, if the issues could be addressed in a less restrictive way, similar to the TCA article 91(2). To identify “*alternatives*” the TCA's article 91(2) refers to measures that meet the objectives mentioned in the TBT Agreement's article 2(2), which, as stated, is the protection of humans, animals, and the environment. So, to some extent the TCA implements the TBT Agreement, but some provisions are simply referring to the agreement, instead of directly implementing it. The lack of implementation means the objectives of the alternatives are not the focus of the article and not as important as warranting, that alternatives should be used. This is understandable as the objectives are quite broad.

⁹⁹ The European Commission: *Technical barriers to trade*, p. 2

¹⁰⁰ Parkin et al. (2017), p. 160

Furthermore, as mentioned in chapter 5.3 on the whether the EU's agreements with third countries are directly applicable in the EU, it is debatable whether the obligations in the TCA are clear enough, when they simply refer to one of the WTO's agreements. Thereby, indicating that these referrals are not directly applicable. Though since the article in the TCA contains its own obligation, beyond referring to the TBT Agreement, it suggests that the obligation of using alternatives before imposing technical regulation is after all clear enough to be directly applicable in the EU, cf. Asda Stores, paragraph 82.

8.1.2 International Standards

In the WTO, the EU has fought for a greater harmonization of TBTs by using international standard¹⁰¹. This is reflected in the TCA in article 91. Unless they are unfitting, the parties shall base their technical regulations on international standards, cf. the TCA article 91(3). This is both an implementation of the TBT Agreement's introduction and article 2(4) for technical regulations and article 5(5) for conformity assessments. These articles in the TBT Agreement requires the members to use international standards if they are relevant for the technical regulation they want to establish.

The TCA is quite open which international standards the parties can use. It does state two specific organisations, but also allows for other organisation's standards to be used, cf. the TCA article 91(4) and (5). In case a party does not wish to use an international standard, it is required to give an explanation to why they view the international standards as unsuitable in regard to the purpose of protecting humans, animals, and the environment. This requirement includes providing the evidence they used to decide against using the international standards, cf. the TCA article 91(6).

Over time the parties of the TCA have to review their technical regulation in the light of international standards to ensure that the regulations are still complying to the standards, cf. the TCA article 91(7). So, a lot of provisions have been created to ensure that TBTs only occur if necessary.

The TBT Agreement does not contain provision on which international standards can be used or the long-term review of the country's technical regulations. So, the parties of the agreement have chosen to let it be up to each country to decide for themselves which international standards are sufficient enough. Therefore, if the TCA's regulations, which are not an implementation of the TBT Agreement, goes against the provisions of the TBT Agreement, the Court will refuse to review these regulations, cf. Ikea Wholesale, paragraph 28 and 29, as mentioned in chapter 5.2.1.

8.2 Specific Rules on Vehicles

As mentioned, the TCA contains a specific annex on vehicles and parts thereof: Annex 11. Looking at the objectives of Annex 11 it is clear, that the focus is on TBTs. One of the objectives is to "[...] *eliminate and prevent any unnecessary technical barriers to bilateral trade; [...]*", cf. the TCA annex 11 article 3(a), which similarly to the TCA's general rules on TBTs is an implementation of the TBT Agreement's article 2(2) and 5(1)(2).

Another objective is to promote the use of international standards as a basis for TBTs, similarly to the general regulations on TBTs, cf. the TCA Annex 11 article 3(b). This again reflects the

¹⁰¹ The European Commission: *Technical barriers to trade*, p. 1

TBT Agreement that urges members to use international standards. So, this objective also ensures, that despite the Courts opinion the WTO's agreements, the TBT Agreement is specifically binding to vehicles from the EU and UK.

The annex requires the parties to use specific standards, such as the UN's regulations and standards created by the World Forum for Harmonization of Vehicle Regulation, cf. the TCA Annex 11 article 1(1)(a) and article 4. This ensures that not only do the parties use international standards when creating TBT, but also to harmonize which specific standards the parties use. This is again an implementation of the TBT Agreement's article. Though this time it is more specific which international standards to use.

In addition to using international standards, the parties are prohibited from having any technical regulation that restrict or burden the importation of vehicles approved by the UN, cf. the TCA Annex 11, article 5(5). So, the TCA uses the UN as a mean of mitigating the TBTs between the EU and UK.

The parties are also prohibited from restricting the importation of vehicles with new technology, when the argument for the restriction is a lack of domestic regulation of the new type of technology, with the exception of risk for humans or the environment, cf. the TCA Annex 11, article 7(1). As technology plays an important role in the development of electric vehicles and the protection of the environment, this article will increase the trade of electric vehicles.

8.3 The Reason Behind Reducing the TBTs on Vehicles

Why does the TCA have a specific annex for TBTs and international standards for vehicles? The answer may be found in Title XI, chapter 8 on "Other instruments for trade and sustainable development". Here three different articles, 400, 401, and 405, state that regulating NTBs is a great tool to use to attain an environmental-related objective.

Article 400(5) warrants the parties to cooperate in environmental regulations and measures within international trade. The parties may do this by promoting the trade in environmental goods by tackling tariffs and NTBs related to these environmental goods, cf. the TCA article 400(5)(b).

Differently, the objective of article 401 is to "[...] *combat climate change and its impacts* [...]" through trade. To do this the parties have to make it easier to remove barriers to trade in goods that are important in the fight against climate change. Again, it is suggested to do this by regulating tariffs and NTBs.

Lastly the parties have committed to promoting the sustainable development in increasing trade, cf. the TCA article 405(1). One of the ways, they are obligated to do this is through promoting the international trade of environmental goods, and again it is suggested to realise this goal by tackling NTBs, cf. the TCA article 405(2)(b).

Looking at electric vehicles, an environmental good, by reducing NTBs, such as unnecessary TBTs, the trade-cost will decrease, causing the price of the good to decrease, and thereby increasing the trade of electric vehicles.

So, all three articles indicate a great focus on the environment and sustainability during the negotiations of the FTA. Since all three articles suggests regulating NTBs as a mean of promoting the trade in goods, such as electric vehicles, it explains why the TCA contains regulations not only on TBTs in general but also TBTs on vehicles specifically. This is also reflected

in one of the objectives of the Annex 11, which is to promote the protection of the environment, cf. the TCA Annex 11 article 3(e).

8.3.1 The Potential Reason of the Environmental Focus During the Negotiations of the TCA

Why did the protection of the environment and vehicles play a big enough part in the negotiations that the TCA? An explanation may be that the UK has set forth the goal that all vehicles sold by 2030 and beyond have to be electrically driven, as mentioned in the introduction of this thesis¹⁰². Therefore, the UK needs to increase both its domestic production and its import of electric vehicles. As Belgium and Germany combined produced 55.6% of the electric vehicles imported to the UK in 2020, it indicates the UK had a great focus on preferential treatment for electric vehicles in the negotiations for the agreement¹⁰³.

This is reflected in Annex 11's objectives of preventing unnecessary TBTs, promoting the environment and using international standards, as mentioned above. This shows that the parties have applied the suggestions made in article 400, 401, and 405, to Annex 11 to promote the trade in environmental goods.

Interestingly, article 400, 401, and 405, in Title XI, chapter X all warrant a reduction in NTBs in general, while Annex 11 only mentions one form of NTB: TBTs. So, why might that be? Looking at the paper by Cadot and Gourdon from chapter 4., TBTs are the most common type of NTB in the automotive industry, while also being the type of NTB that results in the highest trade costs for companies. So, while the other types of NTBs also occur, they are simply not as big a burden on the sales price of electric vehicles, as other NTBs.

8.4 Does the TCA Utilize the Potential of Reducing the Trade Costs of TBTs ?

If we use Cadot and Gourdon's research in chapter 4.3.1, on how a harmonisation of the countries regulations in an FTA is the best way of reducing trade costs of NTBs, then the TCA does not do a great job in reducing the costs of TBTs on electric vehicles. As mentioned, the TCA simply require the countries to only establish technical regulations and conformity assessments if they are necessary and there are no alternatives. Therefore, it does not harmonize the specific technical regulations and conformity assessment methods of the EU and UK. So, the potential of greatly reducing the trade costs of TBTs, that Cadot and Gourdon talk about, is not used in the TCA.

Although, in the TCA's Annex 11 on vehicles and parts thereof, the parties are required to cooperate in the planning of their technical regulations in order to harmonize these regulations, cf. the TCA Annex 11, article 8(2)(d). So, despite not directly harmonizing the EU and UK's technical regulations, the TCA does indirectly require the countries to work towards harmonizing their regulations to a certain extent. This may be important, as the UK's regulations may start to change from the EU's regulations, the more time pass from the Brexit.

¹⁰² The UK Government (2020): *Government takes historic step towards net-zero with end of sale of new petrol and diesel cars by 2030*

¹⁰³ Workman: *Electric Cars Imports by Country*

Note: UK import of electric vehicles in total is US\$3.9 billion, where Belgium supplied electric vehicles to the value of US\$1.3 billion and Germany supplied at the value of US\$869 million.

8.5 Compared to the USMCA

Compared to the TCA, which has implemented article 2 to 9 of the TBT Agreement, the USMCA has only fully implemented article 2 and 5, and partially implemented the beginning of article 3, 4, and 7, cf. the USMCA article 11.3. So, it is common not only in the EU and UK, but also in the US, Mexico, and Canada to implement the WTO's agreements into their FTAs to ensure all parties comply with the international agreements.

8.5.1 Unnecessary TBTs

The parties of the USMCA are required to conduct assessments on either the impact a technical regulation will have on international trade, or which alternative measures are possible, cf. the USMCA article 11.5(1)(a) and (b). This is close related to the TCA's article 91(1), though that article specifically requires that the assessment be conducted on the trade impact of technical regulations. This is not a requirement of the TBT Agreement, so since both the TCA and USMCA have this requirement, it indicates that it is of common practise to have it included.

In accordance with the TBT Agreement's article 2(3), the USMCA also requires the parties to consider using "[...] *less trade-restrictive approaches*" before turning to technical regulations or conformity assessments, cf. the USMCA article 11.5(2)(a)(ii). This is similar to the TCA's article 91(2), that urges the parties to use alternatives to technical barriers if possible. So, similarly the USMCA requires the parties to only use technical regulations and conformity assessments as a last resort.

8.5.2 International Standards

The USMCA seeks to ensure that technical regulations and conformity assessments do not result in unnecessary TBTs by requiring the use of international standards, cf. the USMCA article 11.4(4). Similar to the TCAs article 91, the USMCA's article 11.4 is an implementation of the TBT Agreement's article 2, all regulating the use of international standards as a basis for a technical regulation. In the USMCA they define acceptable international standards a bit differently than the TCA. Article 11.4(2) of the USMCA states that in order to determine if there is a relevant international standard, which has to be used, the parties have to look at what a TBT Committee has decided in their "[...] *Decision on International Standards*". This option is not mentioned in the TCA, which can be explained in that it is not mentioned in the TBT Agreement either.

Similar to the TCA, the USMCA also contains a regulation requiring the member states to continuously review their technical regulations in regard to the international standards, cf. the USMCA article 11.5(2)(a)(i). Again, the TBT Agreement does not contain such a requirement, so instead the parties include them in their FTAs because it is a custom to do so.

8.6 Partial Conclusion

In conclusion the TCA only indirectly harmonize the EU and UK's technical regulations and conformity assessments. Through an implementation of the TBT Agreement, the TCA's preferential treatment of reducing TBTs, come in the form a prohibition against introducing unnecessary TBTs. The TCA ensures that only necessary TBTs occur by requiring that the parties

assess the impact a planned regulation will have on the trade, use alternatives if possible. Furthermore, the parties have to use international standards as a basis for their regulations and review this over time, to ensure continuously necessity of the regulation.

So, despite the lack of a direct harmonization of the parties' technical regulations, both countries are under the same requirements, thereby ensuring that their regulations are more similarly justified in by safety and the protection of the environment.

In order to protect the environment, combat climate change, and foster sustainable development by promoting, the TCA contains an annex that reduces TBTs on vehicles specifically. Here the TCA have a stricter requirement to which international standards can be used, thereby harmonizing the EU and UK's technical regulations even further. This great focus on vehicles, hereunder electric vehicles, may be due to the UK's need to increase the domestic production of vehicles, and goal of all vehicles being electric by 2030.

With some of the TCA's regulations being direct implementations of the TBT Agreement with clear requirement, and other regulations simply referring to the TBT Agreement, not all regulation may be directly applicable in the EU, cf. Asda Stores, paragraph 82. Thereby, reducing the TCA's potential of reducing the trade costs of TBTs.

Similarly, to the TCA, the USMCA also implement a few provisions from the TBT Agreement, thereby indicating that there is a global practise of implementing the agreements into FTAs, and not just a custom in the EU due to the Court's opinion. So, globally countries do not view the WTO's agreements as very binding in international trade.

9. FTAs In the Light of Trade Liberalization

FTAs are a form of trade liberalization, as it aims to remove trade restriction between the parties. Though this also means, it is only liberalizing the trade between those parties, compared to a multilateral trade liberalization. When trade is only liberalized through an FTA, it may affect companies outside the FTA negatively.

This chapter will illustrate and assess why FTAs prevent multilateral liberalisation, because of their preferential treatment. This will be done by analysing "*the stumbling block effect*", proposed by Nano Limão in his paper "*Preferential Trade Agreements as Stumbling Blocks for Multilateral Trade Liberalization: Evidence for the United States*", in 2006.

9.1 Multilateral Trade Liberalization vs FTAs

9.1.1 The Stumbling Block Effect of FTAs

In his paper Limão, tries to assess whether FTAs are a "[...] *building block* [...]" or "[...] *stumbling block* [...]" on multilateral trade liberalization. He describes a "[...] *stumbling-block effect* [...]" as occurring when a country marginally increases the multi-lateral tariff on their goods that are included in the US' FTAs (hereafter "*FTA goods*")¹⁰⁴.

By using the US' reduction of its multilateral tariffs, he compared the reductions for FTA goods to comparable goods that are not part of the US' FTAs (hereafter "*non-FTA goods*"). Overall, he found that the reduction rate of multilateral tariffs of FTA goods is lower than that of non-

¹⁰⁴ Limão (2006), p. 896

FTA goods, concluding that FTAs cause a stumbling block effect on the reduction of multilateral tariffs¹⁰⁵.

Keep in mind, this research was based on data on the US' tariff reductions¹⁰⁶, so it cannot fully depict, what whether or not the EU's FTA cause a stumbling block effect too EU does, though as this paper shows that governments benefit from the stumbling block effect, it can be theorized, that the EU's trade negotiations to some extent also cause a stumbling block effect.

Another thing to be aware of, is that the study was done using data from 69 different industries. Even though the automotive industry is one of them, the data cannot be used to give a full representation of how governments act when negotiating preferential treatment of vehicles within FTAs¹⁰⁷. Though Limão mentions the stumbling block effect may vary based on a good's importance to the parties of the FTA¹⁰⁸. So, since the automotive industry is important to big economies, such as the EU, UK, and US¹⁰⁹, it is safe to say, that vehicles fall victim to the stumbling block effect highlighted in this paper.

9.1.1.1 The Data

In his method, Limão uses a theory stating that two similar non-FTA will have the same multilateral tariff. Through this theory he states that the multilateral tariff of non-FTA can be used to say what the multilateral tariff of an FTA good would have been, if the FTA had not been in place. Using this, he can thereby measure what impact FTAs have of the tariff reduction of FTA goods¹¹⁰.

In figure 1, below, he uses his data to compare the density of the multilateral tariff reduction between FTA and non-FTA goods. It shows that for FTA goods, the reductions tend to be close to 0%. Compared to this, the non-FTA goods, where the density reduction rates are more scattered out, from 0% to 15%. Multilateral tariff reductions above 6% are more common in non-FTA goods compared to FA goods, where only a few reductions go above that level¹¹¹. This shows that countries tend to make greater multilateral tariff reductions on non-FTA goods, compared to FTA goods.

Figure on the Distribution of U.S. MFN Tariff Changes for PTA and Non-PTA Goods¹¹²

Due to copyright rules, the figure has been removed, and can instead be found in the link of the original publisher, *the American Economic Review*: <https://www.aeaweb.org/articles?id=10.1257/aer.96.3.896>

¹⁰⁵ Ibid., pp. 897 & 912

¹⁰⁶ Ibid., p. 896

¹⁰⁷ Limão (2006), p. 904

¹⁰⁸ Ibid., p. 905

¹⁰⁹ European Commission: *Automotive industry*

& SMMT: *UK Automotive*

& Hill et al.: *Contribution of the Automotive Industry to the Economies of all Fifty State and the United States*

¹¹⁰ Limão (2006), p. 898

¹¹¹ Ibid., p. 904

¹¹² Ibid., p. 905

He also finds that the more important a certain good is to the negotiating parties, the greater the stumbling block effect will be. Specifically, the effect will increase by 48% percent¹¹³. Even further than this, his data showed, that if a good is part of all of the US' FTAs, then the stumbling block increases by 60%¹¹⁴. This goes to confirm that the stumbling block effect occur due to the negotiations of FTAs.

This can also be seen in Limão's findings, that the growth of the domestic price of FTA goods is only 52% of that of the price growth of non-FTA goods. If the FTA good is included in all of the US' FTAs the price growth relative to the price grows of non-FTA goods, falls to 23%. Though, if an FTA good is of importance to the negotiating parties, this relative price growth will not fall as much, but only to 31%, although this is still a low ratio to the price growth of non-FTA goods¹¹⁵. Confirming the existence of the stumbling block effect of FTAs.

9.1.1.2 Why Do Governments Benefit from The Stumbling Block Effect?

According to Limão, governments do “[...] recognize the strategic effect [...] and take it into account during negotiations.”. The countries the US have negotiated with have even gone out to speak against multilateral trade liberalization, as it hurts the preferential measures towards goods, they export to the US . An example that Limão mentions, is that when the EU and US negotiated to lower their multilateral tariffs on alcohol, the Caribbean lobbied the US to ensure that the multilateral tariff on rum was exempt from this removal, because the Caribbean gets preferential treatment on rum through their FTA with the US. All the while the multilateral tariffs on other types of alcohol were reduced.

Without multilateral tariffs, preferential tariffs would not be possible to include in an FTA. Therefore, increases of lack of decreases in the multilateral tariffs of FTA goods ensures that a country can still offer preferential tariffs during an FTA negotiation. as Limão describes it, the ability to offer preferential treatment during FTA negotiations gives the country “[...] bargaining power [...]”¹¹⁶. So, any reduction in the multilateral tariff of an FTA good, will decrease the country's bargaining power during the FTA negotiations.

So, as the EU and US do not have an FTA, the US will in theory bear the costs of the TCA between the EU and UK. The multilateral tariffs, American manufacturers of electric vehicles endure, do not decrease at the same rate, as if electric vehicles were a non-FTA good. As electric vehicles are already part of the EU's FTAs, the stumbling block effect should already be occurring¹¹⁷. As mentioned, the UK, has started to invest in its own production of batteries for electric vehicles, most likely to increase the production of electric vehicles for domestic and foreign sales¹¹⁸. The preferential treatment of British manufactured electric vehicles in the TCA, is therefore likely important to the UK.

With the theory of the stumbling block effect, as electric vehicles are included in the TCA, the UK would likely pressure the EU to exclude electric vehicles, if such a negotiation was to occur between the EU and US.

¹¹³ Limão (2006), pp. 905 & 906 (ANYPTA * HI_EX^t in column 5 in table 2)

¹¹⁴ Ibid., pp. 905 & 906 (EVRPTA variable in column 4 in table 2)

¹¹⁵ Ibid., p. 909,

Note: 52% = table 3, row 2, column 1, 23% = table 3, row 2, column 2, 31% = table 3, row 2, column 3

¹¹⁶ Limão (2006), pp. 896 & 901

¹¹⁷ See Appendix I

¹¹⁸ Jolly (2022): *Britishvolt gets £100m boost to build UK's first large-scale 'gigafactory'*

9.2 Partial Conclusion

Overall, the paper by Limão shows the stumbling block effect means that in order to be able to give a higher preferential treatment of goods in FTA's, the countries have to go against multilateral trade liberalization, causing the price of a good with non-preferential origin to be higher if it is an FTA good rather than a non-FTA good. Meaning regional trade liberalization comes at the cost of the lack of multilateral trade liberalization¹¹⁹.

As long as countries keep focussing on conducting FTAs, we will not see a great amount of multilateral trade liberalization. With electric vehicles being important for both the EU and UK, any attempt on negotiating a reduction on the multilateral tariff on electric vehicles with the EU, will not lead anywhere, because the UK will lobby against it, and the same goes if the roles were opposite¹²⁰.

Through the findings in the paper, it can also be theorized, that since NTBs, according to the other economic papers, do not tend to be in focus during FTA negotiations, countries may not have the same incentive to keep multilateral NTBs on FTA goods at a high level, like they do with multilateral tariffs. Compared to tariffs, this is of course harder to find data on. Though, as for the TCA, the EU and UK have ensured rather beneficial regulations on electric vehicles, so they may be more reluctant to reduce multilateral trade barriers on electric vehicles. Because without a substantial number of multilateral NTBs on non-originating electric vehicles, the TCA's preferential treatment, in reducing NTBs, will no longer seem as "*preferential*".

10. Conclusion

In conclusion the TCA does utilise its potential of reducing the barriers of ROOs and TBTs on electric vehicles traded between the EU and UK, which the GATT allows despite the MFN principle, cf. the GATT article XXIV(5). Thereby, reducing costs for companies, that can now reach a lower minimum efficient scale, making British manufacturers more competitive on the EU's automotive market.

Cadot and Gourdon found that harmonizing the parties' regulations in FTAs is the best way of reducing trade costs caused by NTBs, something that FTAs unfortunately tend to not do. Though the TCA does harmonize its preferential ROOs through one set of set of product-specific ROOs. The TCA's ROOs use a positive standard and are predictable, thereby implementing the ROO Agreement's Introduction and Annex II (3)(b).

For electric vehicles that ROO sets a limit that only 60% of the value of the good can be from non-originating components. Additionally, the battery used in the vehicle, has to be originating, cf. the TCA Annex 3, section XVII, chapter 87, heading 87.02-87.04 and Annex 5, section 1, cf. UCC article 64(2), cf. the UCC article 64(1).

Compared to this the USMCA's preferential ROO on electric vehicle only contains a value-added rule, requiring 75% of the value to be from originating components, cf. the USMCA the appendix on Provisions Related to the Product-Specific Rules of Origin for Automotive Goods, article 2, heading cf. the USMCA Annex 4-B, chapter 4, chapter 87, heading 87.01-87.08. Although, the TCA is currently being implemented, so from 2024 its value-added rule will fall to

¹¹⁹ Baldwin & Seghezza (2009): *Evidence*, p. 1

¹²⁰ The European Commission: *Negotiations and agreements*

55% and eventually end at 45% in 2027. So, it will get less liberal over time, though the 45% does not come near the 75%.

Similar to the USMCA, the EU and UK do not only use the TCA to promote their trade relationship and reduce trade costs for companies, but also to enhance the domestic production of electric vehicles and vehicle components, especially batteries. The added battery requirement in the TCA's preferential ROO may in fact counteract the TCA's reduction of NTBs. It may create an NTB for British companies, making them have a harder time competing on the EU's market with electric vehicles with preferential origin from other countries, despite the TCA's great level of preferential treatment. Thereby going against the ROO Agreements objective in its introduction of ensuring that the ROOs do not create NTBs.

The TCA's eventual value-added rule of 45% on electric vehicles is similar to the EU's non-preferential ROO on electric vehicles of 45% that constitutes the last process to be substantial. Although, this rule is not binding, as it is not warranted in the UCC-DA's Annex 22-01, but rather in the soft-law List rules' Rules, section XVII, chapter 87, heading 8703, cf. the UCC article 60(2), making it not binding. But as the rule is similar to that of the TCA, it does indicate, that the authorities won't challenge a company's choice of origin if it is based on this ROO.

Interestingly the US' non-preferential ROO for electric vehicles is a change in tariff heading, likely to make it simpler to understand and easier for companies to obtain the documentation, cf. the C.F.R. chapter 19, chapter I, part 102, subpart B, §102.20, heading 8701-8705. This type of ROO does not promote the use of domestic components. Therefore, making it an interesting choice.

As TBTs are the most common type of NTBs in the automotive industry, and the TCA focusing on the environment, climate and sustainable development, cf. the TCA article 400, 401, and 405, it is no surprise that the TCA not only have general regulations on TBTs, but also a specific Annex 11 regulating TBTs on vehicles and parts. To a large extent these regulations are implementing the TBT Agreement, by prohibiting unnecessary TBTs, through the use of alternatives if possible and the use of international standards, cf. the TBT Agreement article 5(1)(2) and 2(2) and (4), cf. the TCA, article 88 and 91(2).

Additionally, some of the TCA's regulations on TBTs, such as an impact assessment, goes beyond the TBT Agreement. Since these preferential regulations also exists in the USMCA, it suggests a global custom of reducing TBTs, cf. the TCA article 91(1) and the USMCA article 11.5(1)(a) and (b).

The TCA's potential of reducing the costs of TBTs has not been fully leveraged, likely due to TBTs being a difficult topic to agree on, let alone harmonize. Although this may change by time, as the TCA requires the parties to cooperate in their planning of future technical measures and conformity assessments on vehicles, cf. the TCA Annex 11, article 8(2)(d). Thereby, by time the TCA will reduce the AVEs of TBTs on electric vehicles at a greater rate.

The reason why the TCA implements the WTO's Agreements, is because they are not directly applicable in the EU, additionally the Court will only review the EU's regulations in the light of the WTO's Agreements if the regulation was made with the intent to implement the agreement's provision, cf. International Fruit Company paragraph 21 and 27 & Ikea Wholesale, paragraph 28 and 29.

Opposite this the regulations in the EU's own agreements can be directly applicable in the EU, if they put a clear and precise requirement on the parties, cf. Asda Stores, paragraph 82, 87, and 89. So, the TCA referral to the TBT Agreement may not be directly applicable. Fortunately

for companies, the majority of the TCA's implementations of the TBT Agreement contain clear requirements.

Lastly according to Limão the preferential treatment of goods in FTAs has a stumbling block effect on multilateral trade liberalization. His research shows that regional trade liberalization through FTAs comes at the costs of reduced multilateral trade liberalization, due to lobbying.

With this theory, as electric vehicles are included in the TCA, it is unlikely that the EU will reduce its 10% multilateral tariff on vehicles, despite criticism from the US. If a negotiation between the EU and the US occurs, the UK will lobby for the EU to exclude electric vehicles from the negotiations. Especially since the preferential treatment of electric vehicles is important to the UK's goal of all vehicles sold in 2030 to be electric.

The same theory can be used on the reduction on NTBs in FTAs, although as seen in the economic papers, NTBs are not regulated in FTAs to the same degree as tariffs. So, the UK is more likely to lobby for the EU to not reduce the multilateral tariff rate, compared to reducing its multilateral NTBs. So, the stumbling effect is not as high for NTBs as it is for the multilateral tariffs.

11. Suggestions on Further research

The suggestions given below describe further research that may be conducted on the basis of the problem statement and would be able to either confirm or challenge the conclusion of this agreement.

During the writing process of this thesis, it was attempted to gather data on whether European importers of electric vehicles focus more on the reduction of NTBs than the reduction of tariffs in FTAs. Though unfortunately it proved to not be possible in time. Therefore, this research could be worth conducting in order to do further economic findings on NTBs. Furthermore, it would also be useful to investigate whether the stumbling block effect is also present regarding NTBs.

Because of lack of space, two other major exporters of electric vehicles to the EU: Japan, and South Korea, were not included. So, to put the conclusion of this thesis into perspective, it would be useful to look into the regulations on the ROOs and TBTs in the EU's FTAs with Japan and South Korea. Furthermore, it could/can be researched whether the other FTAs contain specific regulations on TBT on vehicles, or if the TCA is the only one to do so, thereby being more beneficial for electric vehicles. This could also include a discussion on why the preferential tariff of the EU's FTA with Japan is only reduced with 37% to 6.3%, compared to the full removal of the other FTAs in general.

Another point of further research could be on the negotiations on the T-TIP agreement between the EU and US, to see how they tried to harmonize the preferential ROOs, despite wording their non-preferential ROOs quite differently.

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Appendix I – Table on the Preferential ROOs on Electric Vehicles in All of the EU’s FTAs

Country	A					B	C	
	Africa, the Caribbean and the Pacific (ACP)	Albania	Algeria	Andean Community (Peru, Colombia)	Andean Community (Ecuador)	Bosnia-Herzegovina	Canada	Central America
Given code	ex ch. 87	ex ch. 87	ex ch. 87	ex ch. 87	ex ch. 87	ex ch. 87	8703	ex ch. 87
Multilateral tariff	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
Preferential tariff	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%
Reduction rate	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	84.0%	100.0%
Percentage limit	40%	40%	40%	50%	50%	40%	50%	50%
Rule	Manufacture in which the value of all the materials used does not exceed 40 % of the ex-works price of the product	Manufacture in which the value of all the materials used does not exceed 40 % of the ex-works price of the product	Manufacture in which the value of all the materials used does not exceed 40 % of the ex-works price of the product	Manufacture in which the value of all the materials used does not exceed 50 per cent of the ex-works price of the product	Manufacture in which all nonoriginating materials used are classified within a heading other than that of the product ----- OR ----- Manufacture in which the value of all non-originating materials used does not exceed 50% of the ex-works price of the product	Manufacture in which the value of all the materials used does not exceed 40 % of the ex-works price of the product	Production in which the value of all non-originating materials used does not exceed 50 per cent of the transaction value or ex-works price of the product. (5)	Manufacture in which the value of all the materials used does not exceed 50 % of the ex-works price of the product

C	E		F	G	I	J			
	Ceuta and Melilla	Chile	Egypt	EU Economic Area	Faroe Islands	Georgia	Israel	Japan	Jordan
ex ch. 87	ex ch. 87	ex ch. 87	ex ch. 87	ex ch. 87	ex ch. 87	ex ch. 87	ex ch. 87	ex ch. 87	ex ch. 87
19.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.3%	0.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	37.0%	100.0%
40%	40%	40%	40%	40%	40%	40%	40%	40%	40%
Manufacture in which the value of all the materials used does not exceed 40 % of the ex-works price of the product	Manufacture in which the value of all the materials used does not exceed 40 % of the ex-works price of the product	Manufacture in which the value of all the materials used does not exceed 40 % of the ex-works price of the product	Manufacture in which the value of all the materials used does not exceed 40 % of the ex-works price of the product.	Manufacture in which the value of all the materials used does not exceed 40 % of the ex-works price of the product	Manufacture in which the value of all the materials used does not exceed 40 % of the ex-works price of the product	Manufacture in which the value of all the materials used does not exceed 40 % of the ex-works price of the product	Manufacture in which the value of all the materials used does not exceed 40 % of the ex-works price of the product	Manufacture in which the value of all the materials used does not exceed 40 % of the ex-works price of the product	Manufacture in which the value of all the materials used does not exceed 40 % of the ex-works price of the product

L	M				N	P	R	
Lebanon	Mexico	Moldova	Montenegro	Morocco	North Macedonia	Palestain	Republic of Korea	Serbia
ex ch. 87	ex. Ch. 87	ex ch. 87	ex. ch. 87	ex. ch. 87	ex ch. 87	ex ch. 87	8701 to 8707 and 8712	ex ch. 87
10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
40%	40%	40%	40%	40%	40%	40%	45%	40%
Manufacture in which the value of all the materials used does not exceed 40 % of the ex-works price of the product	Manufacture in which the value of all the materials used does not exceed 40 % of the ex-works price of the product	Manufacture in which the value of all the materials used does not exceed 40 % of the ex-works price of the product	Manufacture in which the value of all the materials used does not exceed 40 % of the ex-works price of the product	Manufacture in which the value of all the materials used does not exceed 40 % of the ex-works price of the product	Manufacture in which the value of all the materials used does not exceed 40 % of the ex-works price of the product	Manufacture in which the value of all the materials used does not exceed 40 % of the ex-works price of the product	Manufacture in which the value of all the materials used does not exceed 45 % of the ex-works price of the product	Manufacture in which the value of all the materials used does not exceed 40 % of the ex-works price of the product

S			T		U		V
Singapore	Switzerland	Syria	Tunisia	Turkey	Ukraine	United Kingdom	Vietnam
ex ch. 87	ex ch. 87	ex ch. 87	ex ch. 87	ex ch. 87	ex ch. 87	87.02-87.04 (p. 1080)	ex ch. 87
10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
0.0%	0.0%	0.0%	0.0%	0.0%	2.5%	0.0%	6.5%
100.0%	100.0%	100.0%	100.0%	100.0%	75.0%	100.0%	35.0%
40%	40%	40%	40%	40%	40%	60%	45%
Manufacture in which the value of all the materials used does not exceed 40 % of the ex-works price of the product	Working, processing or assembly in which the value of the materials and parts used does not exceed 40 % of the value of the finished product	Working, processing or assembly in which the value of the materials and parts used does not exceed 40% of the value of the finished product	Manufacture in which the value of all the materials used does not exceed 40 % of the ex-works price of the product	Manufacture in which the value of all the materials used does not exceed 40 % of the ex-works price of the product	Manufacture in which the value of all the materials used does not exceed 40 % of the ex-works price of the product	MaxNOM 60 % (EXW) (31. Decemember 2023) ; MaxNOM 55 % (EXW) (1. Jan 2024 - 31. Dec 2026) ; MaxNOM 45 % (EXW) and battery packs of heading 85.07 of a kind used as the primary source of electrical power for propulsion of the vehicle must be originating (1) (1. Jan 2027)	Manufacture in which the value of all the materials used does not exceed 45 % of the ex-works price of the product.