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Rivalry and Supportiveness of Multilateralism and Regionalism in Trade

Master dissertation

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Declaration of Authorship

I, Zuzana Medveďová, hereby declare that the dissertation thesis entitled: "Rivalry and Supportiveness of Multilateralism and Regionalism in Trade" was written by myself, unless stated otherwise. The literature sources are listed in the list of references.

Prague, September 29th 2019 ...……………………….

Signature

Research question and methodology

This thesis aims at showing the impact of regional trade agreements on multilateral trade liberalisation. Firstly, this question is treated on theoretical level by providing overview of the WTO rules on preferences and literature review. Secondly, the thesis shows on empirical level the effects of selective preferences on trade flows with third countries using as example the North American Free Trade Agreement.

In the empirical part, the complementarity of regionalism and multilateralism is evaluated using partial equilibrium model of Francois and Hall (2002) and data on trade flows and average tariffs from the World Bank WITS database. Due to the model requirements for data on selected industry, the empirical part is focused only on trade of SITC 7 category given its high share in intra-NAFTA merchandise trade.

Finally, both theoretical and empirical part try to answer the following questions: Are the RTAs compatible with the WTO conditions for establishing trade agreements or can they be trade-distorting? Specifically, what was the impact of NAFTA agreement on the territorial structure of its trade and how would this outcome change if the tariff preferences were conducted in multilateral way?

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List of Abbreviations

AHS	Effectively applied tariff
CU	Customs union
CUSFTA	Canada-United States Free Trade Area
FTA	Free trade area
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariffs and Trade
GSIM	Global simulation model
GSP	Generalized System of Preferences
Mercosur	Southern Common Market (Mercado Común del Sur)
MFN	Most favoured nation
NAFTA	North American Free Trade Agreement
NTB	Non-technical barriers to trade
PTA	Preferential trade arrangement
ROW	Rest of the world
RTA	Regional trade agreement
SITC	Standard International Trade Classification
TRIPS	Agreement on Trade-Related Aspects of Intellectual Property Rights
UNCTAD	United Nations Conference on Trade and Development
USMCA	United States-Mexico-Canada Agreement
WITS	World Integrated Trade Solution
WTO	World Trade Organization

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Introduction

In recent years, international trade has been characterized by an increasing number of regional trade agreements. Along with slow negotiation progress at the World Trade Organization (WTO), the rising role of regional trade agreements (RTAs) and their compatibility with the rules of the WTO has become a major topic surrounding international trade liberalisation.

In the beginning of 2019, there were 291 (WTO 2019a) physical regional trade agreements in force notified under the WTO. Naturally, the increase in the number of RTAs raises a question whether the agreements do not harm most-favourited-nation treatment promoted by the WTO and do not cause trade distortion. Moreover, as the number of RTAs is rising, the depth of the commitments and rules rises as well. Most of the regional trade agreements go beyond the rules of the WTO in terms of trade liberalisation and they often provide rules in areas, which are not yet covered by the WTO. This all contributes to the ongoing debate on the compatibility of the RTAs with the rules of the WTO and their effects on international trade among the WTO members. As result, the RTAs are perceived either as building blocks allowing for facilitation of future multilateral trade liberalisation or as stumbling blocks, thus having a potential to destroy future incentives of countries to multilaterally liberalise trade under the WTO. Whether the RTAs may cause trade distortion towards its non-members is one of the key focus areas of this thesis.

Firstly, the thesis deals with the relationship between regional and multilateral trade liberalisation. Together with the classification of trade agreements, the thesis also provides rules and conditions of the WTO connected to the establishment of regional trade agreement. In literature review section, relevant theoretical and empirical studies are compared and the topic of complementarity of regionalism to multilateral trading system is discussed.

Secondly, the thesis provides a case study on the North American Free Trade Agreement (NAFTA) for empirically assessing effects of regional trade agreements on

its members and third countries. To evaluate the changes in structure of trade and welfare after conclusion of the agreement, the thesis relies on partial equilibrium model developed by Francois and Hall (2002) modelled in two scenarios simulating regional and multilateral trade liberalisation.

Finally, this thesis contributes to the international trade theory by providing theoretical and empirical background for regional and multilateral trade liberalisation, assessing potential trade-distortive effects of regional trade agreements and linking these findings to the current situation of NAFTA and the WTO.

1. International trade liberalisation

International trade has been accompanying world economies for centuries. Over this time, international trade has been a subject to trade policies conducted by the governments of participating countries in order to promote trade flows and consequently increase the overall wealth and performance of the country. In past, trade policies were in general very protective, however after numerous theoretical contributions to the theory of gains from trade more countries started to engage in international trade. The fact that international trade is a positive-sum game for participating countries led to increase in trade flows among countries and opened doors for future integration of international trade, which was in general carried out on regional or on multilateral level.

1.1 Regional liberalisation and its latest development

Trade liberalisation among countries goes along with their closer cooperation and economic integration. An institutional cooperation between at least two countries in order to share mutual advantages, which are not in general applied to third countries is referred to as regionalism (Barry, Keith 1999). Clearly, it is mainly liberalisation, which is one of the key features of regionalism. In the case of international trade, liberalisation takes mainly form of gradual elimination of barriers to international trade. Apart from that, regionalism usually also includes closer inter-country cooperation and coordination of their trade-related procedures and policies.

1.1.1 Regional integration and its types

Throughout the time, regionalism has taken different forms of regional trade blocks, which were voluntarily exchanging preferential treatment and other trade-related benefits based on their membership. However, regionalism may according to Telò and Shaw (2016) also emerge as a result of concentration of trade and other activities on regional level such as in the case of regionalization or regional fora. This shows that regionalism may not always be a part of government-driven integration but may also refer to spontaneous increase in trade flows among a group of countries.

Given the aim of this thesis and given different classifications of regional integration types, the thesis relies on the classification given by Jovanović (2015) who distinguishes six main types of international economic integration:

o Preferential tariff agreement

o Free trade area

o Customs union

o Common market

o Economic union

o Total economic union

In the classification above, integration is a result of closer inter-country cooperation targeted at lowering trade and other investment and business-related barriers. In the case of preferential tariff agreement and free trade area, a group of countries agrees to reciprocally lower or eliminate tariffs on selected goods or in the latter case on all mutual trade. Additionally, for the free trade area to work effectively, it is important to clearly set the rules of origin to which preferential tariff is applied. Custom union extends free trade area with common external tariff and common market adds free movement of factors of production. The last two cases of Jovanović's classification present the deepest forms of economic integration assuming harmonization of other economic policies and/or creation of supranational institutions.

According to Telò and Shaw (2016) typical economic integration should follow the stages mentioned above and after the creation of free trade area, the integration should gradually turn into total economic integration through the creation of common market, adoption of common currency and establishment of common economic policies. Even though some of the regional integrations adopted this pattern of gradual liberalisation in past, regional agreements can also skip the lower phases of integration and directly integrate on deeper level as suggested by Kang (2016).

This distinction of different types of regional integration and the issues linked to it show that countries choose different levels of integration according to different criteria,

which may be quite specific. Nevertheless, these are mainly the differences in the willingness to commit of the countries, which turn the world into a global network of regional trade blocks of different depths[1].

1.1.2 Latest development in regional trade integration

Regionalism is often viewed as recent phenomenon bundled to the continuing process of globalisation. Even though early regionalism can be dated back to the 19th century (Söderbaum 2015) today's composition of regional trade blocks is mainly a result of expansion of regional trade agreements during the post-war period. The first period of regionalism was predominantly linked to the integration in Europe. The so-called old regionalism, which usually refers to the development of regional integration during 1950s and 1970s, pursued the need for post-war reconstruction and establishment of new economic order. The data of the WTO depicted below in the Figure 1 show that during the period of old regionalism there were notified only few physical RTAs in force.

Figure 1: Cumulative number of RTAs notified under the WTO
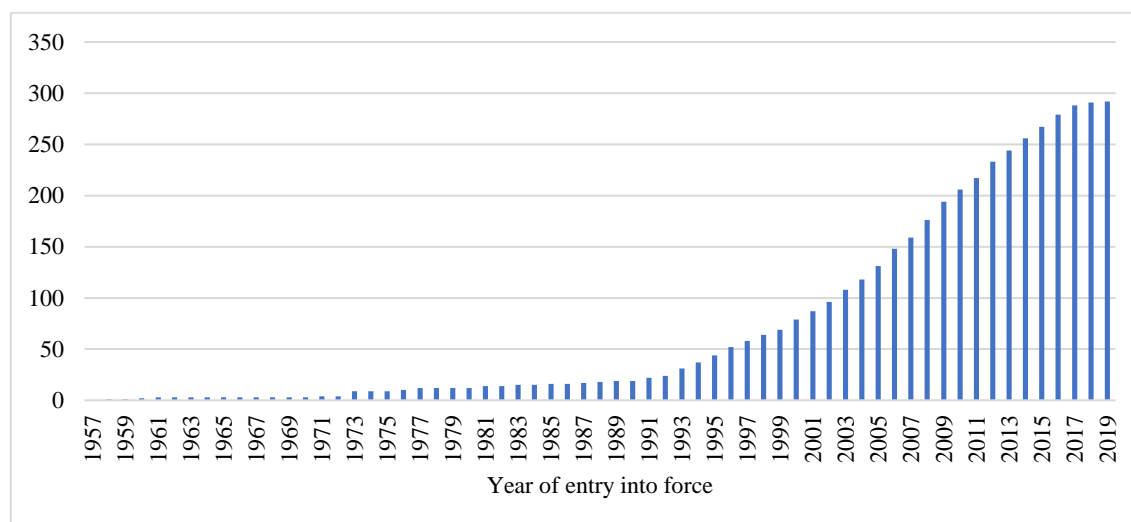
Source: Figure redrawn based on the data of (WTO 2019a)

Along with more intense globalisation and liberalisation of financial markets during the eighties, regional trade blocks became less protectionist and outer-oriented (Söderbaum 2015). During this period, known as new regionalism, regional trade

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[1] This fact is referred to as Spaghetti Bowl (Baldwin 2006).

agreements proliferated. The North American Free Trade Agreement (NAFTA) and Mercosur both concluded during the nineties serve as the most prominent examples. The proliferation of RTAs continued also after 2000 and by the end of January 2019 there were 292 physical RTAs in force notified under the WTO.

While the number of physical RTAs calculates the notifications on goods and on services together, the WTO statistics on RTAs also provides total number of regional trade agreements notified. Today, there are in total 472 RTAs in force when separating for goods and services, out of which the largest part consists of free trade agreements and economic integration agreements (WTO 2019b).

1.2   Regional versus multilateral liberalisation in trade

After the World War II. regional trade agreements and custom unions were no longer the only options how to liberalise trade among participating countries. The General Agreement on Tariffs and Trade (GATT) provided a basis for multilateral trade liberalisation and successfully reduced many trade barriers during its eight negotiation rounds. The last round of the GATT commonly known as "the Uruguay round" established the World Trade Organization (WTO) with the aim of improving free and fair trade and facilitating world trade growth. The WTO as multilateral trading system continued the process of multilateral liberalisation under GATT, which was in 1995 integrated into the WTO. Together with the General Agreement on Trade in Services (GATS) and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) these 3 agreements form the three pillars of the WTO. Under this framework, multilateral trade negotiations have continued every two years at Ministerial Conferences and in the first negotiation round of the WTO called Doha Development Agenda, which is being held since 2001. Although many negotiations were successful at the WTO, the overall negotiation process experienced lately small progress (Leal-Arcas 2011). This contributed to the proliferation of regional trade agreements (RTAs), which provide faster and deeper trade liberalisation even in the areas that have not yet been covered on the multilateral level. Contrarily to the RTAs, the WTO is based on the non-discriminatory

principle, which ensures fair and the best available treatment for every WTO member (WTO 2013).

1.2.1 WTO rules on preferential treatment

The non-discriminatory principle is reflected in the most-favoured-nation (MFN) treatment and national treatment (WTO 2019c). The most-favoured-nation treatment ensures non-discriminatory treatment among trading partners meaning that any special favour granted to trading partner must be expanded to all WTO members. The same applies to national treatment, which is applied on products, services and items of intellectual property after their entrance to the market. It ensures that they are treated equally despite their origin, which means that any imported good, service or item of intellectual property is given the same treatment as one's own nationals.

The non-discriminatory pattern of international trade is one of the key focus areas of the WTO. Although it may seem as going against one of its most fundamental principle, the WTO members have right to give discriminatory preferences and form regional trade agreements under given set of conditions. Upon reaching conditions specified in corresponding articles of GATT, GATS and TRIPS[2] where the MFN is with slight modifications included, the WTO members can derogate from most-favoured-nation principle and establish trade blocks or agreements allowing for selective trade preferences. The WTO generally distinguishes two main types of preferences that can be granted: regional trade agreements (RTA) and preferential trade arrangements (PTA). According to the WTO (2019d) RTAs are classified as common types of trade agreements with reciprocal liberalisation. On the other hand, PTAs are trade arrangements, which allow for unilateral trade preferences and are usually granted by developed countries to the developing ones. Establishment of such economic integration agreements outside of the WTO is justified by continuous world trade liberalisation that arises when new RTAs

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[2] In the case of TRIPS agreement, minimum requirements for protection of intellectual property rights are set, which do not allow for exception from MFN treatment (Štěrbová 2013).

and PTAs are concluded and thus can be seen as the *second-best* option to multilateral trade liberalisation (Michalak, Gibb 1997).

GATT Article XXIV

The rules on regional trade agreements concerning trade in goods are included in the Article XXIV of the GATT. Due to the lack of clarity of its provisions, the article was interpreted in 1995 in the text of Understanding[3], which mainly focused on more precise definition of aspects connected to the formation of customs unions (Leal-Arcas 2011). The Art. XXIV of GATT (1986) and its Understanding define two main forms of regional integration: free trade area (FTA) and customs union (CU). Free trade area is defined as a group of two or more territories where the parties eliminated duties and other restrictive regulations of commerce on substantially all the trade between the parties. Moreover, the duties and other restrictive regulations applied to either FTA or WTO members cannot increase with the formation of free trade area. The same two conditions apply to the establishment of customs union defined as a formation of single customs territory, which applies substantially all the same duties (common external tariff) and substantially all the same regulations of commerce to third countries and ensures that these provisions do not harm third countries not included in the CU. Specifically, the non-discriminatory principle stipulated in GATT (1986) cannot conditionally hinder its members from forming FTAs or CUs provided that their purpose is to facilitate trade among trade block members and that they do not raise barriers with the respect to other WTO members, which are not members of the trade block. Clearly, these two conditions focus on internal and external impact of regional trade agreements since the first condition defines the effects within RTA (Intra-RTA impact) and the second condition deals with the relation of RTA to third countries (Extra-RTA impact) (WTO 2013).

Despite the requests of the WTO members on clarification of the meaning of *substantially all the trade* condition, this term has not yet been numerically defined (WTO 2013). Therefore, there is no fixed percentage of trade needed to be liberalised in

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[3] Understanding on the Interpretation of Art. XXIV of the General Agreement on Tariffs and Trade 1994.

order to fulfil the *substantially all the trade* condition. The lack of clarity of the conditions clearly gives space for workarounds and different interpretations of the conditions that may undermine the WTO rules and lead to establishment of potentially trade-distortive integrations (Leal-Arcas 2011). These issues naturally call for stricter conditions such as the ones proposed by Bhagwati (1993) who recommended designing a new discipline structure and constraints helping to minimize trade diversion, which may arise as a consequence of trade agreements and insufficient legal enforcement of the WTO rules.

GATS Article V

Conditions for establishing RTA with preferences concerning trade in services are specified in the Article V of the General Agreement on Trade in Services. Similarly to the trade in goods, the GATS also sets conditions under which the WTO members can deviate from the most-favoured-nation principle. Under GATS, the MFN principle obliges its members to treat services and service suppliers as ones of any other country (GATS 1994). However, with respect to the Art. V, this should not prevent any members from concluding agreements for liberalisation of trade in services. The so-called economic integration agreements liberalizing trade in services are given exception from the MFN treatment if their purpose is facilitation of trade, which has substantial sectoral coverage[4] and provides for substantial elimination of existing discriminatory measures and/or prohibition of new or more discriminatory measures. Similarly to the conditions of the GATT, the GATS also includes unprecise substantial condition for liberalising trade and offers a level of flexibility in the WTO rules interpretation (Leal-Arcas 2011). It also gives higher degree of flexibility to developing countries, which may accord different treatment to one own's nationals only (WTO 2013).

Enabling Clause

Specific conditions for developing countries engaged in trade agreements were introduced in 1979 in the Enabling Clause[5]. The Enabling Clause allows for different and

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[4] Considered in terms of modes of supply, number of sectors and trade volume.
[5] Decision of 28 November 1979 on differential and more favourable treatment reciprocity and fuller participation of developing countries (L/4903).

more favourable treatment of developing countries than other WTO members (GATT 1979). The Enabling Clause allows for formation of regional or global arrangement if (i) it facilitates and promotes trade of developing countries and (ii) it does not raise barriers to trade of any other member. Unlike the previous articles, the Enabling Clause does not include the substantial condition and only requires the members of RTA to mutually reduce or eliminate tariffs (WTO 2013). This deviation from the MFN principle can be given under the Generalized System of Preferences (GSP), which allows for unilateral preferences granted by developed countries to developing countries (Leal-Arcas 2011). Apart from that, the preferential treatments allowed by the Enabling Clause can cover non-tariff preferences, special treatment in favour of least developed countries and regional trade agreements concluded only among developing countries.

The GATT Article XXIV, Art. V of GATS and the Enabling Clause include also procedures connected to the actual formation of the RTA under the WTO (2013). The process is based on agreement examination, verification of its consistency and notification to other WTO members. Upon finalisation of the procedure the regional trade agreement is considered compatible[6] with the multilateral trading system implying that it should not be trade-distorting and should serve as building block for future multilateral liberalisation (Michalak, Gibb 1997). However, these effects are difficult to be identified ex ante leaving the WTO members to rely on ex post WTO dispute settlement mechanism where the judicial enforceability may not be guaranteed (Bagwell, Staiger 2009).

1.2.2 Literature review

The question of complementarity of regional trade agreements to the non-discriminatory rules of the WTO and, most importantly, their effects on third-countries' trade has been a subject of many papers[7], which explored the effects on theoretical as well as on empirical level.

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[6] Full compatibility of the RTA to the rules of the WTO is however almost never achieved. As Sampson (1996) identified, the only agreement that was in past fully compatible with the WTO rules was the customs union between the Czech Republic and the Slovak Republic.
[7] Such studies include works of Baldwin (2006), OECD (2014) or Leal-Arcas (2011).

Within the range of theoretical literature, we can find case studies[8] examining the rules of the free trade agreements in specific areas such as the rules for investment, services, rules of origin, intellectual property rights and other sectors, which are compared to the rules of WTO and are measured according to their level of similarity to the multilateral system. On the empirical level, the authors usually rely on gravity approach to assess the effects of regional trade agreements on third-countries using the theory of trade creation and trade diversion (Rosson et al. 2007).

OECD: Deep Provisions in Regional Trade Agreements: How Multilateral-friendly?

One of the studies carried out by Lejárraga for OECD (2014) examined level of homogeneity of specific WTO rules across different free trade areas. There were two types of rules identified: first of them providing deeper integration in the areas covered by the WTO rules, which were identified as WTO-plus measures. The latter were defined as WTO-beyond rules measuring integration of RTAs going beyond the areas that are not covered by the WTO (e. g. labour standards). In both cases, the study showed that certain measures are not discriminatory to non-member countries and can be later incorporated into the multilateral system, thus being building blocks for multilateral integration. Moreover, the flexibility that is offered by RTAs is one of the elements that can help to incorporate regionalism into multilateralism. However, the author emphasizes that there still exists a large amount of regulatory measures where geography matters, and which are based on preferential treatment and may act in future as stumbling blocks for multilateral liberalisation. As multilateralization may not be a technically feasible outcome for every single measure of regional trade agreement, the author also refers to political circumstances, which surround trade negotiation process, and which mainly shape how the global network of trade agreements looks like.

R. Baldwin: Multilateralising 21st century regionalism

The same conclusion was reached by Richard Baldwin (2014) in paper that followed Baldwin's previous articles on the role regionalism in multilateral trade

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[8] See WTO (2019d) or Voon (2010).

liberalisation such as already mentioned article of Baldwin (2006). In 2014, Baldwin analysed 21st century trade liberalisation and current situation at the WTO, mainly in the field of non-technical barriers to trade (NTBs), services and investment. Baldwin concluded that certain rules should be liberalised on multilateral level because of the positive spill-over effect that can be generated. Among such rules he involved national tariff systems of each country, which would bring greater efficiency when set globally. However, the author suggested that certain measures and procedures that differ substantially across different countries such as the government procurement procedures should stay separately among the compatibility of every WTO member.

K. Bagwell et al.: Is the WTO passé?

Bagwell et al. (2016) provide much larger assessment of regional and multilateral trade liberalisation and cover almost all the areas connected to regional and multilateral trading system. The authors are also rather positive about the role of the WTO in international trade and predict the multilateral trade integration to continue in future. Furthermore, the authors praise the possibility of coordination gains from multilateral liberalisation and suggest further research in the area of inclusion of developing countries into deep-provision trade agreements. Finally, the authors emphasize the role of plurilateral agreements[9], which they consider more transparent than RTAs and which may be in future easily enlarged for other WTO members. Plurilateral trade agreements as a solution to the clash between regionalism and multilateralism were also suggested before by Leal-Arcas (2011).

Gibb and Michalak: Trading Blocs and Multilateralism in the World Economy

On the other hand, Michalak and Gibb (1997) provided more pessimistic view on complementarity of RTAs and the WTO. Although the authors did not reject the complementarity of regionalism and multilateralism completely, they stressed their contradictory nature and the role of national states. According to the authors, it is mainly national sovereignty that makes RTAs rather than multilateral negotiations more

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[9] Plurilateral trade agreements are concluded voluntarily among subset of the WTO members; e. g. the Agreement on Government Procurement.

appealing to many countries. This is also one of the reasons why the authors predicted increase in the importance and the number of RTAs in future. The authors anticipated that this could weaken the role of the WTO, which may in foreseeable future be dominated by the world's largest trading blocks.

Grossman and Helpman: The Politics of Free-Trade Agreements

A rather negative relation between multilateralism and regionalism was also expressed in paper of Grossman and Helpman (1995) with the aim to assess consequences of political economy on formation of free trade areas. The authors constructed a model of countries trading at MFN tariffs and examined their incentives to create a free trade area. The authors concluded that these incentives rise with welfare and profit gains and most importantly, with the exclusion of some industries from the agreement. This according to the authors suggests large trade-distorting effect and inefficiency associated with the FTAs. The results also suggest that the more trade-distorting the FTA is, the more appealing it is to conclude, which may consequently result in the diminution of the incentives for future multilateral trade liberalisation.

Estevadeordal et al.: Regional Trade Agreements: Development challenges and policy options

The last chosen paper of Estevadeordal et al. (2008) focused on empirical assessment of RTAs, however reached very unclear results. The authors used econometric model to assess the impact of regional trade liberalisation on non-member countries. Their findings suggested that in the case of Latin America, free trade areas can be stumbling blocks for multilateral liberalisation mainly when it comes to preferential tariff rates and their convergence to the applied MFN rates. This is reflected by the fact that RTAs can go beyond the rules of the WTO, provide more complex and deeper trade linkages and allow for faster trade integration. However, the authors also emphasize the importance of the WTO mainly in the context of its dispute settlement mechanism, which remains useful to regulate regional trade agreements. Nevertheless, similarly as other authors, they conclude that more data is needed to assess the impact of regional

agreements on third countries and that current methodologies may not be sufficient to address these issues.

1.2.3 RTAs: Building blocks or stumbling blocks?

The literature review presented above shows that the opinion on multilateral and regional trade liberalisation is not conclusive. As most of the authors emphasize the essential role of the WTO after the World War II., they are more concerned about its future in world trade liberalisation. With the proliferation of regional trade agreements, which can provide more flexibility and retention of countries' sovereignty, the role of the WTO has naturally become more questioned. However, none of the authors refused multilateral liberalisation completely but rather pointed out its weaknesses connected mainly to complicated and long decision-making, which clearly makes RTAs more appealing to conclude.

On the theoretical level, the papers published by OECD (2014) and Baldwin (2014) supported the idea of incorporating regional trade agreements into the multilateral trading system of the WTO in future. However, both authors acknowledged that for certain sectors of trade (e. g. NTBs), multilateral trade liberalisation may not be the most effective solution. This idea was further supported by Bagwell et al. (2016) who mostly emphasized the role of plurilateral trade agreements as future instrument of multilateralising regionalism. On the other hand, Gibb and Michalak (1997) viewed the multilateral liberalisation as boundary to nations' sovereignty and predicted further increase in the number of RTAs concluded. Their prediction was indeed correct as was demonstrated above in the data on the increasing number of RTAs in the beginning of the thesis.

On the empirical level, Grossman and Helpman (1995) showed that FTAs may have trade-distortive effects, which may act as stumbling blocks for future multilateral trade liberalisation. This was a similar conclusion to the one reached by Estevadeordal et al. (2008) whose work was mentioned in the end of the literature review.

As most of the authors are rather supportive of multilateral liberalisation, they acknowledge that the effects of regional trade agreements on the future of the WTO are not determinate. Even though some of the articles showed quite strong empirical results, most of them suggested further research in this area. Therefore, whether the regional trade agreements act as building blocks or stumbling blocks to the world trade system remains unclear based on the conducted literature review. Given the limited conclusions reached by the economists on theoretical level, more effective solution to this issue might be achieved by using a model allowing for trade liberalisation simulations. Taking into consideration also tariff changes, this approach could make the assessment of RTAs effects on third countries more demonstrable and facilitate our conclusions on the role of regionalism in multilateral trade liberalisation.

2. Case study: NAFTA

This part of the thesis examines the role of regional trade agreements in world trade liberalisation using a case study on the North American Free Trade Agreement (NAFTA).

2.1 Basic characteristics of NAFTA

The North American Free Trade Agreement was concluded in 1994 by its three signature parties: the United States of America, Mexico and Canada. The agreement emerged from a previous free trade area concluded between the US and Canada known as CUSFTA[10]. CUSFTA, which was initiated in 1989, motivated Mexico for negotiating a free trade agreement with the USA as well. As for Mexico the main aim of the agreement was to improve its economic conditions, for the US the agreement was a way how to prevent Mexican market issues from negatively affecting the US market (Abbott 2000). Moreover, the subsequent opening of South American countries and their involvement in trade negotiations also contributed to pressures for forming a trade agreement with Mexico. Bilateral negotiations between Mexico and the US were later expanded to include Canada and a new agreement was created. After the establishment of NAFTA, the previous agreement between the US and Canada ceased and was substituted by the new trilateral agreement between the three countries.

The main aim of NAFTA was to liberalise trade and capital flows (Abbott 2000). Apart from that, NAFTA aimed also at elimination of trade barriers connected to facilitation of cross-border movement of goods and services, promotion of free trade competition, protection of intellectual property rights, increase in investment activities and opportunities in the territory and creation of trade cooperation framework compatible on regional and multilateral level (NAFTA 1994). Consequently, the aim of the agreement was to create a free trade area that would be compatible with the rules of the GATT agreement and which would be the final stage of the integration between the three countries. Even though the agreement is highly detailed and also includes legal provisions

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[10] Canada-United States Free Trade Area.

on dispute settlement mechanisms, NAFTA has never aimed at integrating beyond the free trade area and no political union between the three countries was ever presumed (Abbott 2000).

2.1.1 Selected rules applied under NAFTA

The objectives of NAFTA were to be achieved through the sets of rules concerning merchandise trade, trade in services, intellectual property rights, investment, dispute settlement mechanism and other trade-related areas. In this sense, the NAFTA agreement can be classified as new-regionalism type of agreement including also other trade barriers apart from tariffs. Even though the agreement is based on reciprocity, the obligations arising from the agreement are not completely balanced. More precisely, some of the authors such as Abbott (2000) and Uriarte et al. (1995) refer to inequality between the obligations of Canada and the US and the ones of Mexico. More specifically, in the case of Mexico, Abbott (2000, p. 533) justifies that poorer provisions granted to Mexico were acceptable given the aim of Mexico to attract foreign capital and to build interest in Mexican financial markets.

As for the rules included in NAFTA, large part of the agreement is dedicated to merchandise trade. Naturally, NAFTA (1994) refers to national treatment principle stipulated in GATT and introduces elimination of tariffs on goods, which are classified in different categories and are to be removed in different time periods. As some of the duties were supposed to be eliminated by the beginning of 1994, others were made effective after 2008. In addition, NAFTA largely deals with the rules of origin, which determine under which conditions are the imports given preferential treatment. The rules of origin are supposed to prevent trade deflection, which would result in re-exporting in order to obtain more favourable import conditions (Lederman et al. 2004). In order to prevent trade deflection, the rules of origin are strictly set and may be difficult to fulfil[11].

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[11] The strictness of the rules of origin can be apparent in the textile and apparel industry, which is given quite high preferential treatment, however only 62 % of Mexican textile exports enter NAFTA under these preferential conditions (Lederman et al. 2004, p. 88).

Finally, NAFTA also covers rules on non-tariff measures imposed on traded goods, investment and trade in services, technical barriers to trade, government procurement, dispute settlement mechanisms and administrative/institutional provisions. All the rules of the agreement bind its members to a quite high level of obligation. Specifically, NAFTA requires its members to either take actions or forbids them from taking it (Abbott 2000). The so-called *binding obligations* can increase the incentive of the governments to fulfil their commitments and enhance predictability and trust within the free trade area.

2.1.2 International trade of NAFTA

According to the data of the WTO (2018) NAFTA is the second largest regional trade agreement in terms of intra-RTA trade. Below in Table 1, we can see that trade within NAFTA members constitutes 49.41 % of total NAFTA merchandise trade while the rest of the merchandise trade is exported to third countries noted as the rest of the world (ROW). The most intra-traded categories within NAFTA are transport and machinery equipment (SITC 7), manufactured goods (SITC 6) and beverages and tobacco (SITC 1). Transport and machinery equipment category (SITC 7) also represents the most exported merchandise with a share of 36.52 % in total NAFTA export.

Table 1: Intra and extra NAFTA exports by product in 2018 (millions of US$)

	Intra-RTA	Intra-RTA (%)	ROW	ROW (%)	Total trade
SITC 0	82 650.56	47.61 %	90 939.36	52.39 %	173 589.92
SITC 1	9 877.34	60.53 %	6 440.17	39.47 %	16 317.51
SITC 2	31 606.85	25.01 %	94 790.68	74.99 %	126 397.53
SITC 3	153 433.49	47.72 %	168 064.44	52.28 %	321 497.93
SITC 4	3 369.56	49.27 %	3 468.87	50.73 %	6 838.43
SITC 5	99 529.22	36.19 %	175 504.75	63.81 %	275 033.97
SITC 6	139 774.87	60.33 %	91 913.97	39.67 %	231 688.85
SITC 7	581 531.60	62.06 %	355 506.29	37.94 %	937 037.89
SITC 8	106 119.57	45.05 %	129 463.55	54.95 %	235 583.12
SITC 9	60 114.43	24.83 %	181 991.38	75.17 %	242 105.81
All products	1 268 007.49	49.41 %	1 298 083.48	50.59 %	**2 566 090.97**

Source: Table redrawn based on data of UNCTADstat (2019a)

The table above shows that the value of merchandise trade within NAFTA members cannot be neglected. Naturally, countries that are geographically closer tend to

trade more intensively rather than with distant countries (Michalak, Gibb 1997). Such *natural trading partners* would constitute large part of the trade even in the absence of trade agreement. Despite this fact, the conclusion of trade agreement may consequently change trade structure of the participating countries and harm third-countries trade. For the evaluation of such effect in the case of NAFTA, this thesis relies on partial equilibrium model simulations.

2.2   GSIM: Partial equilibrium model application

There are various methods how to measure impact of regional trade agreements on trade structure and third countries. Nowadays, a lot of studies relies on computable general equilibrium models that consider different interactions in the economy and can be modified for different parameters. These models can predict effects of regional trade agreements quite precisely however they would be beyond the scope of this thesis. Therefore, this thesis relies on partial equilibrium model, which can help to capture the effects of trade policies on specific sectors of the market while holding other interactions and markets constant. Even though partial equilibrium models have constraints and low data requirements, they can be useful in capturing basic effects of trade policies.

The partial equilibrium model presented below was introduced by Francois and Hall (2002) in article Global Simulation Analysis of Industry-Level Trade Policy in 2002. This global simulation model (GSIM) extended the available simulation tool[12] developed by World Bank and incorporated simulations of global markets clearing (WTO 2012). It is mainly the multilateral aspect of this thesis that requires a model that deals with global markets, which led to the decision of using the GSIM model for the simulations of NAFTA effects. The GSIM model is available in Excel sheet developed by Francois and Hall (2009) and allows for trade policy simulations. The model calibrates input values and calculates the effects of trade policy on welfare using consumer and producer surplus, tariff revenue and changes in world prices, which turn into the changes in trade volume.

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[12] SMART trade and tariff simulation tool.

The model requires detailed set of trade and tariff data and information on elasticities of import demand, export supply and elasticity of substitution. The trade data required are import flows from all members of the regional agreement. In the case of a simple 4x4 model that was used for this thesis, the model requires data on 4 countries: the USA, Canada, Mexico and the rest of the world (ROW). The import demand of each country is defined as a function of prices and total import expenditure:

$$M_{(i,v),r} = f(P_{(i,v),r}; \; P_{(i,v),s \neq r}; y_{(i,v)})$$

where r and s are exporting regions, v is importing region, $P_{(i,v),r}$ is the domestic price of good i from region r within country v, $P_{(i,v),s \neq r}$ is the price of other varieties and $y_{(i,v)}$ is the country v's total import expenditure on product k.

The model solves for global prices using individual demand and supply conditions, including the values of the elasticities. Based on the inputs on import values and tariffs, the model calculates new market clearing price and solves for the changes in welfare based on the calculation of consumer and producer surplus and tariff revenue. Once the model solves the change in world prices, the equations will also lead to a solution on changes in import quantities.

There were two simulations conducted in order to show the impact of regional trade agreement on territorial structure of the trade and other WTO countries. The aim of the first simulation was to predict the effect of NAFTA on trade and welfare of the countries, which was based on tariff reductions that occurred after the conclusion of the agreement. This scenario showed the effects of regional agreement on its member countries and most importantly on the rest of the world, which in these simulations represented multilateral WTO trading partners. This scenario served as a reference to the second scenario, which was a hypothetical one and which predicted the effects on welfare of the concerned countries after multilateral tariff reduction.

More precisely, the thesis compares two situations: the real NAFTA reduction of tariffs only towards its members and a hypothetical situation where the tariffs are reduced

not only for NAFTA members but for all WTO members. Even though the second scenario is highly unlikely to happen in real world, it is one of the ways how to capture the difference between multilateral and regional trade liberalisation. The regional liberalisation is represented by the first scenario, where tariff reductions are only applied to NAFTA member countries whilst the second scenario gives us solution for multilateral trade liberalisation where the whole world benefits from the agreement equally.

Both scenarios are industry-focused and consider only the data on merchandise trade and the product group SITC 7: Machinery and Transport equipment. This limitation was given by the requirements of the model that requires data on one industry and for the great importance in the merchandise trade of NAFTA[13]. The simplification also helped to gain more precise data on average tariffs and subsequent tariff reductions and allowed the model to be within the scope of the thesis.

2.2.1 Simulation 1: Effect of NAFTA liberalisation on selected industry

The first simulation attempts to measure real effects of NAFTA on trade flows and welfare of its member and non-member countries. For the first scenario, real data on imports and bilateral tariffs of NAFTA countries and ROW (represented by the WTO members[14]) is used. The model then turns the data into bilateral trade matrix and using the bilateral import tariffs and elasticities calibrates the values and gives solution for global markets clearing.

Both scenarios use the data inputs obtained from UNCTADstat (2019b). The inputs on bilateral trade mix were obtained from import flows statistics from 1995 for category machinery and transport equipment (SITC 7). All the data is measured in thousands of dollars and is included for the three NAFTA countries and the rest of the world. Data on tariffs were obtained from WITS (2019) and contain preferential import tariffs rates applied in 1995 for SITC 7 category of goods calculated as AHS[15] Simple Average

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[13] Category SITC 7 accounted for 44.8 % of total NAFTA imports in 1995 and has increased its margin up to 49 % of NAFTA import trade in 2017 (UNCTADstat 2019b).
[14] The data for the ROW is calculated only for the countries that were members of the WTO by 2018.
[15] Effectively applied rate.

tariff. The simple average tariffs were used instead of weighted average tariffs, because of the consistency issues linked to the weighted average tariffs[16]. To capture the changes in tariffs after conclusion of NAFTA, the scenario calculated the changes in welfare and value of trade based on the changes in import tariffs and elasticities. Therefore, for all NAFTA countries the final import tariffs were set to zero level, whilst the tariffs vis-à-vis the rest of the world were kept on previous level. This way, the scenario could predict the solution for discriminatory regional integration, which lowers trade barriers only towards the RTA members. As for the elasticities, which reflect the reactions of trade to price changes, the import demand elasticity was set according to the estimates provided by Kee et al. (2008) who provided estimated values of import demand elasticities for all concerned countries. The export supply elasticity and elasticity of substitution were adopted from the original model of Francois and Hall. Summary of the data inputs for first simulation can be found in Appendix 1.

After all the required data were input in the model, the Excel solver contained in the model gave the solution to market clearing conditions, which rely on the calculation of new world price given by the equalisation of supply and demand by setting excess demand to zero. The solution of the model for changes in world trade in absolute values can be found below in Table 2.

Table 2: Simulation 1: Change in values of trade at world prices

		Destination				Export
		USA	Canada	Mexico	ROW	Total
Origin	**USA**	0	92 899	1 959 587	-1 034 579	1 017 907
	Canada	293 861	0	42 139	-122 874	213 126
	Mexico	160 539	171 784	0	-133 782	198 541
	ROW	-258 761	-89 972	-854 860	1 204 470	877
	Import Total	195 639	174 710	1 146 866	-86 766	

Source: Author's results of GSIM model simulation

Table 2 shows the changes in bilateral trade matrix in thousands of US dollars after the reduction of tariffs between the NAFTA countries to zero while holding tariffs to the

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[16] In the case of AHS weighted average tariffs, the effectively applied tariff rates are given weights according to the amount of merchandise traded. In this case, however, goods that have zero tariffs are given zero weight, which may lead to unprecise and more protectionist-like result.

ROW constant. The table shows that the changes in values were quite small corresponding to the percentage change in goods traded in the range between 0 % and 10 %. Clearly, the NAFTA members benefited the most from the tariff reductions. This change is reflected in lower prices for the NAFTA members given by the tariff reduction, which positively influenced the amount of imports traded within NAFTA.

For the rest of the world, the values are negative reflecting negative change in imports to the NAFTA member countries. On the other hand, lower trade between the ROW and NAFTA positively influenced trade between the countries outside NAFTA agreement. In total, the model suggests classic Vinerian trade creation and trade diversion effect, which raised total imports of the USA, Canada and Mexico, however negatively influenced total imports from NAFTA non-members. This also turned into more positive change in exports of NAFTA countries as seen in the last column of Table 2.

Table 3: Simulation 1: Total welfare effects

		Producer surplus	Consumer surplus	Tariff revenue	Net welfare effect
Country	**USA**	407 075	95 775	-175 106	327 743
	Canada	85 258	93 164	-164 941	13 481
	Mexico	79 429	952 612	-1 049 299	-17 259
	ROW	-9	-451 459	-28 009	-479 478

Source: Author's results of GSIM model simulation

The model also calculated welfare effects on the concerned countries. Table 3 above shows that the rest of the world suffered loss of welfare, whilst the NAFTA countries expect for Mexico were better off with the USA being the main gainer. For the US, the largest amount of welfare comes from producer surplus, which is probably given by the position of the US in world trade. The largest gain in the case of the US can be also due to the highest import flows used as inputs for the model. In the case of Mexico, the loss in welfare is given by the loss in tariff revenue. This is given by the fact that Mexico in 1995 had the largest initial import tariff rates out of all NAFTA countries. After the simulated tariff reduction to zero, the tariff revenue of Mexico decreased significantly and resulted in negative net loss of welfare for Mexico. However, it is also important to note that Mexico benefited the most out of all the countries from the change

in consumer surplus. More precisely, the zero-tariff simulated in the model decreased the prices for consumers, which increased consumer surplus and made Mexican consumers better off.

In total, we can see that the first scenario is in line with the predictions how regional trade agreements impact its member and non-member countries. Even though the partial equilibrium model cannot account for all the interactions and is based only on small amount of data, it was able to show that tariff reduction between selected members leads to geographical reorganisation of trade and may lead to welfare loss for countries that are not included in the agreement. This would mean that the second condition of the WTO for establishing the RTA (no harm towards third-countries trade) would not be fulfilled and that the RTA would not be compatible with multilateral trade liberalisation.

We also need to take into consideration the limitations of the model. In the model, the changes in tariffs have immediate impact, which was not the case during the real NAFTA implementation. The bilateral tariffs between the NAFTA countries for SITC 7 category reached zero AHS simple average level which was simulated in this scenario in 2005, that is ten years after conclusion of the agreement (WITS 2019). During this period, the trade of NAFTA countries in machinery and transport equipment raised by 92 %, which also cannot be included in our model as the model calculates immediate change in trade values. Also note that the elasticities, which were set in the beginning of the model have large influence on result and responsiveness of import values to tariff changes.

2.2.2 Simulation 2: Prediction of multilateral liberalisation effects

The next simulation corresponds to a hypothetical situation where tariff reduction for the category of goods SITC 7 would apply to all the WTO members, that is not only to the US, Canada and Mexico but also to the rest of the world represented by all WTO members. In this case, we try to simulate multilateral trade liberalisation using partial equilibrium model and compare the welfare effects and changes in trade values with the first scenario, which showed the effects of regional trade liberalisation.

Simulation 2 uses the same input values as the previous one concerning bilateral trade matrix, initial import tariffs and elasticities, which can be found in Appendix 2. Only difference to the first scenario is the value of final import tariffs. In the first scenario, the tariffs between NAFTA countries were completely eliminated, but kept on the same level for the ROW. In this scenario, we cannot introduce complete tariff elimination, because such scenario would be highly improbable on the multilateral level. To approach a more likely situation, the scenario calculates with equal tariff reduction, which applies to all WTO members including the NAFTA members. Therefore, the final import tariffs were in the simulation eliminated by 5 % for all countries including the rest of the world. This scenario thus allows to evaluate the changes in trade if the trade liberalisation is done in non-discriminatory way equally to all WTO members.

The model solved for global markets clearing as in the previous simulation by making excess demand equal to zero. With the changes in world prices after the market clearing, the model gave solution on changes in trade at world prices, which can be seen in Table 4.

Table 4: Simulation 2: Change in values of trade at world prices

		Destination				Export
		USA	Canada	Mexico	ROW	Total
Origin	USA	0	2 639 101	1 060 202	7 871 644	11 570 947
	Canada	1 871 931	0	20 036	2 149 274	4 041 240
	Mexico	958 800	133 364	0	1 113 907	2 206 071
	ROW	18 692 696	1 907 997	722 255	107 515 160	128 838 108
	Import Total	21 523 426	4 680 462	1 802 493	118 649 985	

Source: Author's results of GSIM model simulation

Table 4 shows in thousands of US dollars that all analysed countries experience larger imports as well as exports and are better off than in the previous simulation. As the result might have been expected because of equal tariff reduction, the gain of the countries is not balanced. The largest amount of trade after reduction of tariffs by 5 % is experienced by the rest of the world. However, this result is given by high share of ROW in merchandise trade. This has also influence on the US being the largest winner out of all NAFTA countries because of its large initial import share. It is also important to note that the US, Canada and Mexico are geographically closer and therefore would be

expected to trade more because of the gravity rule[17] despite the tariff reductions towards the rest of the world.

The results in terms of welfare are presented in Table 5. Table 5 shows that all countries gain higher producer and consumer surplus. For all countries the consumer surplus is higher than the surplus of producers, which is mainly given by the reduction in import prices, which affected mainly final consumers. However, as in the previous case, because of the tariff reduction, the countries lose a proportional part of their revenue from tariffs. As previously, the biggest loss in tariff revenue was experienced by the largest contributors to the world trade, that is by the ROW and the US. In total the net welfare effect is quite balanced between all four analysed regions and shows that the whole world is better off after multilateral tariff reduction.

Table 5: Simulation 2: Total welfare effects

		Producer surplus	Consumer surplus	Tariff revenue	Net welfare effect
Country	**USA**	4 636 670	17 386 633	-18 880 363	3 142 939
	Canada	1 619 258	3 645 209	-4 436 301	828 166
	Mexico	883 948	1 403 361	-1 630 710	656 599
	ROW	1 333 209	102 310 493	-100 252 362	3 391 340

Source: Author's results of GSIM model simulation

It is clear, that the positive result on all economies was expected, however it is mainly the connection to the first scenario, which can help us to evaluate differences between multilateral and regional trade liberalisation.

2.3 Evaluation of the model and concluding remarks

Both simulations showed that tariff removal within group of countries increases their overall trade. The reduction of tariffs was reflected in changes in market prices, which mostly positively affected consumer and producer surplus. However, large tariff reductions decreased in certain cases country's welfare because of negative effect on tariff

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[17] According to the gravity rule, trade between two countries is positively given by their national incomes and negatively by the distance between them (Štěrbová 2013). This empirically proven relationship therefore predicts higher trade flows between geographically and economically related countries.

revenue. The net welfare effect was thus given by the size of the three effects and evaluated the impact of trade liberalisation on selected regions.

In the first scenario, the model evaluated how tariff reduction within NAFTA countries influenced world trade with machinery and transport equipment (SITC 7) and how this change influenced welfare of NAFTA and the rest of the world. The results of the first scenario showed that tariff reduction on regional level, that is only between the NAFTA members, increases trade within these countries, however decreases trade towards the rest of the world. Moreover, the welfare of the US and Canada increased, whilst the rest of the world and Mexico suffered a loss in total welfare. As mentioned before, even though the net welfare gain for Mexico was negative, it was given only by the loss in tariff revenue, which in the case of Mexico was the largest given the largest initial import tariffs of Mexico when compared to other NAFTA countries. This result is in line with the findings of Romalis (2007) who got very similar result on increased trade flows within NAFTA members and strong decline in tariff revenues of Mexico.

The second scenario was a hypothetical one, which served as an example of multilateral trade liberalisation. In the second scenario multilateral liberalisation was modelled as a 5% reduction in import tariffs for all NAFTA countries as well as the rest of the world. Naturally, this scenario led to a positive result for all four concerned regions and increased world trade and total net welfare. Although all the countries experienced a loss in tariff revenue as in the first scenario, this loss was compensated by rise in consumer and producer surplus. The scenario thus showed that multilateral trade liberalisation is beneficial to all members and increases world trade. Further consequences on changes in import and export structure are, however, left for more detailed analysis.

The two scenarios empirically showed that regional liberalisation in the case of NAFTA might have been discriminatory towards other WTO members. This means that the agreement might not have fulfilled the WTO conditions for establishing RTA and may have caused trade distortion. The harm on third countries trade however can be debatable. It is important to note that the model presented above is a partial equilibrium model, which looks at the consequences in one market only. The model did not take into

account other interactions and regional agreements of the economies, other groups of merchandise trade, nor trade in services, which has been undoubtably influenced by the NAFTA agreement as well.

The results reached in the two scenarios above may lead to a conclusion that no regional trade agreement is harmless to third countries. However, this conclusion would not be entirely correct. Based on the Kemp-wan theorem presented in Kemp and Wan (1976), there exists such level of tariff that allows for creation of regional trade agreement[18] without making non-members of the agreement worse off. The argument of Kemp and Wan proves that under a given set of assumptions (such as fixed vectors of imports, exports and prices) the regional trade agreement might be Pareto improving, thus can make some of the members better off without causing harm to other countries. Even though the fulfilment of the Kemp and Wan criteria might not be reachable in real world, the argument can be used for evaluation of RTAs using the indicators of trade volumes before and after conclusion of the agreement. In this sense, the argument would be consistent with the results of the model above, even though it would as well need to take into account several limitations that might not be applicable in the case of NAFTA agreement.

2.4   Current situation in NAFTA and its renegotiation

The model above showed that the clash between regional and multilateral trade liberalisation persists. Despite large amount of literature dealing with this issue, direct effects are not easily measurable and need to rely on several limiting assumptions. Furthermore, recent changes in international trade connected to digital trade and IT technologies make regional trade agreements quite complex and more difficult to measure their impact. The need of the RTAs to keep up with the latest trends in international trade has been reflected in new generation of trade agreements that contain provisions on digital trade, intellectual property rights and data flows. The North American Free Trade Agreement is to undergo several changes as well. The original agreement signed in 1994

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[18] The original article concerns customs unions, however can be applied to regional trade agreements as well (Kirmani et IMF 1994: 94).

is to be replaced by a new agreement in few months. The United States-Mexico-Canada agreement (USMCA) was agreed upon in November 2018 by the leaders of all three NAFTA countries (Horton 2019). The text of the agreement is finished and is due to replace NAFTA after its ratification by each government.

The USMCA is to modernise rules of intellectual property rights protection, includes a chapter dedicated to digital trade and updates criteria for the rules of origin. It is mainly the part concerning the rules of origin that captures the most attention (Whiting, Beaumont-Smith 2019). The USMCA is to increase rules of origin requirements in auto sector and prescribes minimum wage requirements. These provisions aim at concentration of the automotive production in North America and the subsequent decrease of trade deficits with China. However, this protectionist-like provisions are highly criticised by the proponents of free trade since they can severely harm trade of third countries (e. g. the exports of the EU to the US) and can further increase the margin of NAFTA's intra-RTA trade. Study of Titievskaia and Pietsch (2018) published by European Parliamentary Research Service doubts the USMCA compatibility with the WTO rules and criticises also the notification requirements for trade agreements with non-market economies[19]. Moreover, the authors predict large negative impact on European producers and companies that rely on trade with North America.

The new agreement between the US, Canada and Mexico will inevitably have large impact on total world trade. Current protectionist tensions of the US president are likely to trigger trade disputes in the WTO and may result in protectionist behaviour of other economies as well. Despite recently weakened role of the WTO, multilateral rules and the binding obligations may serve as the only way how to avoid the recent rise of protectionist trade policies.

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[19] The so-called China clause.

Conclusion

The objective of this thesis was to show the impact of regionalism on multilateral trade liberalisation and to evaluate the compatibility of the RTAs with the conditions of the WTO for the establishment of trade agreements.

First part of the thesis provided theoretical background to regionalism and multilateral trading system supported by literature review and discussion of complementarity of multilateralism and regionalism. Afterwards, the thesis dealt with linkages between the WTO and regionalism, defined the non-discriminatory principle of the WTO and listed the main conditions of the WTO for establishing free trade area and customs union. It was mainly the condition that restricts to harm trade of third countries, which became central to the second part of the thesis.

Second part of the thesis focused on the assessment of tariff reduction consequences using as example the second-largest free trade area NAFTA. The key issue was to show changes in territorial structure of trade of NAFTA members after regional tariff reductions and to compare this outcome with tariff reductions conducted on multilateral level.

The partial equilibrium model developed by Francois and Hall (2002) used as data inputs the real data on trade and tariffs of SITC 7 category in the year of conclusion of the NAFTA agreement. Two simulations were carried out in order to compare regional and multilateral trade liberalisation and its impact on trade and welfare distribution. In the first scenario, tariffs were removed solely for NAFTA members, in the second scenario the tariffs were lowered by 5 % towards all countries. The simulations showed that tariff reductions within NAFTA members decreased trade flows towards third countries and lowered their welfare. In the second case of equal tariff reduction, the trade between countries significantly increased for both members and non-members of NAFTA and the welfare of all countries rose. These results appeared to be in line with the results of existing studies dealing with the same topic.

The model provided a simple comparison of multilateral and regional liberalisation and showed that regional liberalisation may lead to decreased trade flows towards third countries and may lower world welfare. On the other hand, multilateral liberalisation proved to be beneficial to all countries, raised overall welfare and increased total world trade. Therefore, the thesis showed that regional trade blocks may cause harm to third countries and thus may not be fully compatible with the WTO conditions for non-trade-distorting trade agreements.

Finally, the thesis discussed potential effects of renegotiation of NAFTA and current trends in trade policies. Together with slow negotiation process at the WTO, they may pose a threat to multilateral trading system and lead to breaches of the multilateral binding rules. With the latest negative development of trade relations, the role of the WTO may become essential for keeping down recent tensions for protectionist trade policies. Possible real consequences remain, however, for further research.

References

ABBOTT, Frederick M., 2000. NAFTA and the Legalization of World Politics: A Case Study. *International Organization* [online]. 2000. Vol. 54, no. 3, p. 519–547. [Accessed 5 August 2019]. Available from: https://www.jstor.org/stable/2601343

BAGWELL, Kyle, BOWN, Chad P. and STAIGER, Robert W., 2016. Is the WTO Passé? *Journal of Economic Literature* [online]. 2016. Vol. 54, no. 4, p. 1125–1231. [Accessed 29 January 2019]. Available from: https://www.jstor.org/stable/26303159

BAGWELL, Kyle and STAIGER, Robert W., 2009. The WTO: Theory and Practice. *NBER Working Paper Series*; Cambridge [online]. October 2009. [Accessed 21 August 2019]. DOI http://dx.doi.org.zdroje.vse.cz:2048/10.3386/w15445. Available from: http://search.proquest.com/docview/1689400293/2FF9B020C6AE4B36PQ/9

BALDWIN, Richard, 2006. Multilateralising Regionalism: Spaghetti Bowls as Building Blocs on the Path to Global Free Trade. *NBER Working Paper Series*; Cambridge [online]. October 2006. [Accessed 29 January 2019]. DOI http://dx.doi.org.zdroje.vse.cz:2048/10.3386/w12545. Available from: http://search.proquest.com/docview/1688619621/3834D21F3F36404FPQ/1

BALDWIN, Richard, 2014. Multilateralising 21st century regionalism. *OECD Conference Centre* [online]. 2014. [Accessed 2 March 2019]. Available from: http://www.oecd.org/tad/tradedev/Multilateralising%2021st%20century%20regionalism.pdf

BARRY, Donald and KEITH, Ronald C., 1999. *Regionalism, Multilateralism, and the Politics of Global Trade*. UBC Press. ISBN 978-0-7748-0752-4

BHAGWATI, Jagdish, 1993. Regionalism and multilateralism: an overview. *New Dimensions in Regional Integration* [online]. July 1993. [Accessed 21 August 2019]. Available from: https://www.cambridge.org/core/books/new-dimensions-in-regional-integration/regionalism-and-multilateralism-an-overview/AEF62EC4CDF1707E899F5B915133A3C5

ESTEVADEORDAL, Antoni, FREUND, Caroline and ORNELAS, Emanuel, 2008. Does Regionalism Affect Trade Liberalization toward Non-members? *The Quarterly Journal of Economics* [online]. 2008. Vol. 123, no. 4, p. 1531–1575. [Accessed 9 February 2019]. Available from: https://www.jstor.org/stable/40506216

FRANCOIS, Joseph and HALL, H Keith, 2002. Global Simulation Analysis of Industry-Level Trade Policy. [online]. 2002. P. 17. [Accessed 17 August 2019]. Available from: http://wits.worldbank.org/data/public/GSIMMethodology.pdf

FRANCOIS, Joseph and HALL, H Keith, 2009. Calibration-based numerical trade policy models. [online]. 2009. [Accessed 20 July 2019]. Available from: http://www.i4ide.org/people/~francois/Models/index.htm?fbclid=IwAR3J1cVgo8LhWe DRu5_3qdKi8kRWXUuKgVijRzc5qBCX-WHXMmdmXlQzzLs

GATS, 1994. *The General Agreement on Trade in Services* [online]. 1994. Marrakesh. [Accessed 30 April 2019]. Available from: https://www.wto.org/english/docs_e/legal_e/ 26-gats.pdf

GATT, 1979. *Decision of 28 November 1979 (L/4903)* [online]. 11 1979. Tokyo. [Accessed 30 April 2019]. Available from: https://www.wto.org/english/docs_e/legal_e/ enabling1979_e.htm

GATT, 1986. *The General Agreement on Tariffs and Trade (GATT 1947)* [online]. 1986. Geneva. [Accessed 30 April 2019]. Available from: https://www.wto.org/english/docs_ e/legal_e/gatt47_e.pdf

GROSSMAN, Gene M. and HELPMAN, Elhanan, 1995. The Politics of Free-Trade Agreements. *The American Economic Review* [online]. 1995. Vol. 85, no. 4, p. 667–690. [Accessed 5 May 2019]. Available from: https://www.jstor.org/stable/2118226

HORTON, Roberta L., 2019. The USMCA Treaty: What Changes Lie Ahead for U.S. Trademark Law? *Intellectual Property & Technology Law Journal* [online]. January 2019. Vol. 31, no. 1, p. 3–6. [Accessed 3 February 2019]. Available from: http://search.ebscohost.com/login.aspx?direct=true&db=bsu&AN=133765123&lang=cs &site=ehost-live

JOVANOVIĆ, Miroslav N., 2015. *The Economics of International Integration*, *Second Edition*. Edward Elgar Publishing. ISBN 978-1-78195-453-9

KANG, Yoo-Duk, 2016. Development of Regionalism: New Criteria and Typology. *Journal of Economic Integration*; Seoul [online]. June 2016. Vol. 31, no. 2, p. 234–274. [Accessed 13 April 2019]. DOI http://dx.doi.org.zdroje.vse.cz:2048/10.11130/jei.2016.3 1.2.234. Available from: http://search.proquest.com/docview/1898683620/abstract/C22 21ECD4FDB49EDPQ/2

KEE, Hiau Looi, NICITA, Alessandro and OLARREAGA, Marcelo, 2008. Import Demand Elasticities and Trade Distortions. *The Review of Economics and Statistics* [online]. 2008. Vol. 90, no. 4, p. 666–682. [Accessed 17 August 2019]. Available from: https://www.jstor.org/stable/40043107

KEMP, Murray C. and WAN, Henry Y., 1976. An Elementary Proposition Concerning the Formation of Customs Unions. *Journal of International Economics* [online]. 1976. Vol. 6, no. 1, p. 95–97. [Accessed 2 May 2019]. Available from: https://ac-els-cdn-com.ressources-electroniques.univ-lille.fr/0022199676900258/1-s2.0-00221996769002 58-main.pdf?_tid=2570b718-4420-4a16-9313-ec9d2df3abdd&acdnat=1549365681_9e7 3a23bdac3e07d2297db8fc8919493

KIRMANI, Naheed, CALIKA, Nur and INTERNATIONAL MONETARY FUND (eds.), 1994. *International trade policies: the Uruguay Round and beyond.* Washington, DC: International Monetary Fund. World economic and financial surveys. ISBN 978-1-55775-469-1

LEAL-ARCAS, Rafael, 2011. Proliferation of Regional Trade Agreements: Complementing or Supplanting Multilateralism? *Chicago Journal of International Law; Chicago* [online]. Winter 2011. Vol. 11, no. 2, p. 597–629. [Accessed 29 January 2019]. Available from: http://search.proquest.com/docview/855631997/abstract/E8221BF89B AF4C53PQ/9

LEDERMAN, Daniel, MALONEY, William F. and SERVEN, Luis, 2004. *Lessons from NAFTA for Latin America and the Caribbean* [online]. The World Bank. [Accessed 2 February 2019]. Available from: http://documents.worldbank.org/curated/en/787441468 318270837/Lessons-from-NAFTA-for-Latin-America-and-the-Caribbean

MICHALAK, Wieslaw and GIBB, Richard, 1997. Trading Blocs and Multilateralism in the World Economy. *Annals of the Association of American Geographers* [online]. 1997. Vol. 87, no. 2, p. 264–279. [Accessed 5 May 2019]. Available from: https://www.jstor.org/stable/2564370

NAFTA, 1994. *North American Free Trade Agreement.* [online]. 1994. [Accessed 5 August 2019]. Available from: https://www.nafta-sec-alena.org/Home/Texts-of-the-Agreement/North-American-Free-Trade-Agreement?mvid=2#5a1b5f25-8904-4553-bf16-fef94186749e

OECD, 2014. *Deep Provisions in Regional Trade Agreements: How Multilateral-friendly?* An Overview of OECD Findings [online]. OECD Trade Policy Papers. Lejárraga, I. [Accessed 3 February 2019]. Available from: https://www.oecd-ilibrary.org/trade/deep-provisions-in-regional-trade-agreements-how-multilateral-friendly_5jxvgfn4bjf0-en

ROMALIS, John, 2007. NAFTA's and CUSFTA's Impact on International Trade. *The Review of Economics and Statistics* [online]. 2007. Vol. 89, no. 3, p. 416–435. [Accessed 29 January 2019]. Available from: https://www.jstor.org/stable/40043039

ROSSON, Parr, ADCOCK, Flynn J. and SUSANTO, Dwi, 2007. Trade Creation and Trade Diversion in the North American Free Trade Agreement: The Case of the Agricultural Sector. *Journal of Agricultural and Applied Economics*; Baton Rouge [online]. April 2007. Vol. 39, no. 1, p. 121–134. [Accessed 7 February 2019]. Available from: http://search.proquest.com/docview/228017856/citation/57758F7B7DA34688PQ/11

SAMPSON, Gary P., 1996. Compatibility of Regional and Multilateral Trading Agreements: Reforming the WTO Process. *The American Economic Review* [online]. 1996. Vol. 86, no. 2, p. 88–92. [Accessed 21 August 2019]. Available from: https://www.jstor.org/stable/2118102

SÖDERBAUM, Fredrik, 2015. Early, Old, New and Comparative Regionalism. *KFG Working Paper Series* [online]. October 2015. No. 64. [Accessed 13 April 2019]. Available from: https://www.polsoz.fu-berlin.de/en/v/transformeurope/publications/working_paper/wp/wp64/WP-64-Soederbaum.pdf

ŠTĚRBOVÁ, Ludmila, 2013. *Mezinárodní obchod ve světové krizi 21. století [International Trade in the Global Crisis of the 21st Century]*. Praha: Grada Publishing. ISBN 978-80-247-4694-4

TELÒ, Mario and SHAW, Professor Timothy M., 2016. *European Union and New Regionalism: Competing Regionalism and Global Governance in a Post-Hegemonic Era* [online]. Farnham, UNITED KINGDOM: Routledge. [Accessed 13 April 2019]. ISBN 978-1-4724-3437-1. Available from: http://ebookcentral.proquest.com/lib/vsep/detail.action?docID=1718594

TITIEVSKAIA, Jana and PIETSCH, Marian, 2018. United States-Mexico-Canada Agreement (USMCA): Potential impact on EU companies. *European Parliamentary Research Service* [online]. December 2018. [Accessed 2 February 2018]. Available from: http://www.europarl.europa.eu/RegData/etudes/ATAG/2018/630341/EPRS_ATA(2018)630341_EN.pdf

UNCTADSTAT, 2019a. *Intra-trade and extra-trade of country groups by product* [online]. United Nations Conference on Trade and Development. [Accessed 21 August 2019]. Available from: https://unctadstat.unctad.org/wds/TableViewer/tableView.aspx

UNCTADSTAT, 2019b. *Merchandise trade matrix - imports in thousands of US dollars annual* [online]. United Nations Conference on Trade and Development. [Accessed 18 August 2019]. Available from: https://unctadstat.unctad.org/wds/ReportFolders/reportF olders.aspx

URIARTE, Ramos, RUBIN, Seymour J. and ALEXANDER, Dean C. (eds.), 1995. *Foreign Investment in Mexico Under NAFTA* [online]. NAFTA and Investment: Kluwer Law International. [Accessed 8 June 2019]. NAFTA law and policy series, v. 2. ISBN 978-90-411-0032-0

VOON, Tania, 2010. Eliminating Trade Remedies From the WTO: Lessons from Regional Trade Agreements. *The International and Comparative Law Quarterly* [online]. 2010. Vol. 59, no. 3, p. 625–667. [Accessed 29 January 2019]. Available from: https://www.jstor.org/stable/40835427

WHITING, Tori K. and BEAUMONT-SMITH, Gabriella, 2019. An Analysis of the United States–Mexico–Canada Agreement. *CE Think Tank Newswire*; Miami [online]. Miami, US Minor Outlying Islands, Miami, 28 January 2019. [Accessed 3 February 2019]. Available from: http://search.proquest.com/docview/2172298535/citation/FCB2 89A4218645C3PQ/7

WITS, 2019. *Import Product Share By Country All Products from World between 1988 and 2017* [online]. World Integrated Trade Solution: World Bank in collaboration with International Trade Centre, United Nations Statistical Division, UNCTAD and WTO. [Accessed 2 April 2019]. Available from: https://wits.worldbank.org/CountryProfile/en/ Country/BY-COUNTRY/StartYear/1988/EndYear/2017/TradeFlow/Import/Indicator/M PRT-PRDCT-SHR/Partner/WLD/Product/Total

WTO (ed.), 2012. *A practical guide to trade policy analysis* [online]. WTO. [Accessed 20 August 2019]. ISBN 978-92-870-3812-8. Available from: https://www.wto.org/engli sh/res_e/publications_e/wto_unctad12_e.pdf

WTO, 2013. RTAs and the WTO. *WTO E-Learning* [online]. World Trade Organization. October 2013. [Accessed 25 April 2019]. Available from: https://wtolearning.csod.com/ client/wtolearning/default.aspx

WTO, 2018. *Trade profiles 2018* [online]. World Trade Organization. [Accessed 8 June 2019]. ISBN 978-92-870-4629-1. Available from: https://www.wto.org/english/res_e/bo oksp_e/trade_profiles18_e.pdf

WTO, 2019a. *Summary tables containing WTO Figures on RTAs* [online]. World Trade Organization. [Accessed 2 February 2019]. Regional Trade Agreements Information System. Available from: https://rtais.wto.org/UI/PublicMaintainRTAHome.aspx

WTO, 2019b. *Figures on Regional Trade Agreements notified to the GATT/WTO and in force* [online]. World Trade Organization. [Accessed 14 April 2019]. Available from: https://rtais.wto.org/UI/publicsummarytable.aspx

WTO, 2019c. *Principles of the trading system* [online]. 2019. World Trade Organization. Understanding the WTO: Basics. [Accessed 25 April 2019]. Available from: https://www.wto.org/english/thewto_e/whatis_e/tif_e/fact2_e.htm

WTO, 2019d. *Regional trade agreements and preferential trade arrangements* [online]. 2019. World Trade Organization. [Accessed 29 April 2019]. Available from: https://www.wto.org/english/tratop_e/region_e/rta_pta_e.htm

Appendix

Appendix 1: Simulation 1: Model Excel sheet with data inputs (thousands of US$)

INPUTS

trade at world prices:

origin		destination				Totals
		USA	CANADA	MEXICO	ROW	
	USA	-	60 325 415	22 948 570	298 745 594	382 019 579
	CANADA	64 454 603	-	413 522	75 115 660	139 983 785
	MEXICO	33 440 587	2 922 564	-	39 441 627	75 804 778
	ROW	259 986 917	21 516 089	7 928 018	1 504 268 150	1 793 699 174
	Totals	357 882 107	84 764 068	31 290 110	1 917 571 031	

initial import tariffs

origin		destination			
		USA	CANADA	MEXICO	ROW
	USA	1	1.002	1.0411	1.1249
	CANADA	1.0016	1	1.0443	1.081
	MEXICO	1.002	1.0136	1	1.0694
	ROW	1.0197	1.0505	1.1027	1.1

final import tariffs

origin		destination			
		USA	CANADA	MEXICO	ROW
	USA	1	1	1	1.1249
	CANADA	1	1	1	1.081
	MEXICO	1	1	1	1.0694
	ROW	1.0197	1.0505	1.1027	1.1

Elasticities:

	USA	CANADA	MEXICO	ROW
Import Demand	-1.22	-1.13	-1.19	-1.25
Export Supply	1.5	1.5	1.5	99
Substitution	5	5	5	5

Appendix 2: Simulation 2: Model Excel sheet with data inputs (thousands of US$)

INPUTS

trade at world prices:

origin		destination				Totals
		USA	CANADA	MEXICO	ROW	
	USA	-	60 325 415	22 948 570	298 745 594	382 019 579
	CANADA	64 454 603	-	413 522	75 115 660	139 983 785
	MEXICO	33 440 587	2 922 564	-	39 441 627	75 804 778
	ROW	259 986 917	21 516 089	7 928 018	1 504 268 150	1 793 699 174
	Totals	357 882 107	84 764 068	31 290 110	1 917 571 031	

initial import tariffs

origin		destination			
		USA	CANADA	MEXICO	ROW
	USA	1	1.002	1.0411	1.1249
	CANADA	1.0016	1	1.0443	1.081
	MEXICO	1.002	1.0136	1	1.0694
	ROW	1.0197	1.0505	1.1027	1.1

final import tariffs

origin		destination			
		USA	CANADA	MEXICO	ROW
	USA	1	0.9519	0.989045	1.068655
	CANADA	0.95152	1	0.992085	1.02695
	MEXICO	0.9519	0.96292	1	1.01593
	ROW	0.968715	0.997975	1.047565	1.045

Elasticities:

	USA	CANADA	MEXICO	ROW
Import Demand	-1.22	-1.13	-1.19	-1.25
Export Supply	1.5	1.5	1.5	99
Substitution	5	5	5	5