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# Estimating the WCO Revised Kyoto Convention's Impact on International Trade

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## Abstract

When administrations of customs procedures are heterogeneous, lack mutual cooperation and suffer from unnecessary complexity, they become non-tariff barriers to trade. The WCO International Convention on the Simplification and Harmonization of Customs procedures (Revised Kyoto Convention) serve as a blueprint for modern and efficient customs procedures, supplementary to the WTO negotiations on trade facilitation confined by the Doha declaration to the GATT Articles V, VIII and X. This paper examines the Revised Kyoto Convention's impact on international trade. Econometric analysis provided in this essay show that accession to the convention and implementation of the principles of the General Annex is correlated with increased trade volumes, thus promoting the expansion of international supply networks and increases the gains of trade.

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## List of Abbreviations

APEC – Asia-Pacific Economic Cooperation

CUs – Customs Unions

EU – European Union

FDI – Foreign Direct Investment

FTAs – Free Trade Areas

GATS – General Agreement on Trade in Services

GATT – General Agreement on Tariffs and Trade

GDP – Gross Domestic Product

HS – Harmonized Commodity Description and Coding System

MFN – Most Favored Nation

MNEs – Multinational Enterprises

MTNs – Multilateral Trade Negotiations

NTB – Non-Tariff Barrier to Trade

OEDC – Organisation for Economic Co-operation and Development

PTAs – Preferential Trading Agreements

RKC – The International Convention on the Simplification and Harmonization of Customs procedures (Revised Kyoto Convention)

TRAINS – Trade Analysis and Information System

UK – United Kingdom

UN – United Nations

UN/CEFACT – United Nations Centre for Trade Facilitation and Electronic Business

UNCTAD – United Nations Conference on Trade and Development

UNECA – United Nations Economic Commission for Africa

UNECE – United Nations Economic Commission for Europe

WCO – World Customs Organization

WTO – World Trade Organization

## Remarks

References to the World Customs Organization (1999) International Convention on the Simplification and Harmonization of Customs Procedures (Revised Kyoto Convention) including Annexes, Chapters, Standards, Transitional Standards, Recommended Practices and Guidelines therein are hereinafter indicated by the abbreviation *RKC*. Other references are indicated by the publishing author or organization and year of publication.

## Introduction

Trade in goods and services are no new phenomenon, but during the last decades trade has increased significantly. Hoekman and KostECKI (2009:604) point out that “[l]eading car producers now purchase some 95 per cent of the value of their final product as parts sourced outside their workshops”. In such manufacturing conditions in order to ascertain productivity, companies rely entirely on the on-time supply of intermediates from partner firms. As supply chains are becoming increasingly far-reaching and customs administrations play an increasingly larger role to ascertain efficient procedures, superfluous border controls and documentary regulations may result in delays and impose large costs on business.

In order to facilitate the usage of international supply chains and the movement of goods, negotiations on harmonization and simplification of customs procedures are taken place in many forums. The global trade environment is becoming increasingly complex by the rise of regionalism, and many regional approaches to trade facilitation emerge. However, if various regional harmonization procedures act on their own and set their own standards, the global trade environment remains disordered. A multilateral approach is essential. In this essay such a multilateral approach to trade facilitation is discussed, the World Customs Organization (WCO) developed Revised Kyoto Convention<sup>1</sup> (RKC), which focus entirely on simplification and harmonization customs procedures. The RKC does not favor any specific sectors, but aim to facilitate all cross border movement of goods. The international business environment is changing rapidly, with remarkable growth in trade volumes, expanding supply networks, technological development and increased competition. It is clear that Customs administrations have to adapt and “[t]he RKC is considered as the most comprehensive instrument for promoting international trade facilitation in the world today” (Philippine Exporters Confederation, Inc. 2007:4).

Several approaches to quantify the impact of trade facilitation implications have been made, and the results are stunning. But few, if any, focus on multilateral trade facilitation programs. If we are to understand the implications of multilateral trade facilitation programs, the analysis must focus on customs procedures applied not only in a regional or sectorial context. Previous studies on trade facilitation focus on preferential and regional agreements. However, it is uncertain if multilateral trade facilitation programs have any impact on trade.

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<sup>1</sup> Not to be confused with the UN Framework Convention on Climate Change.

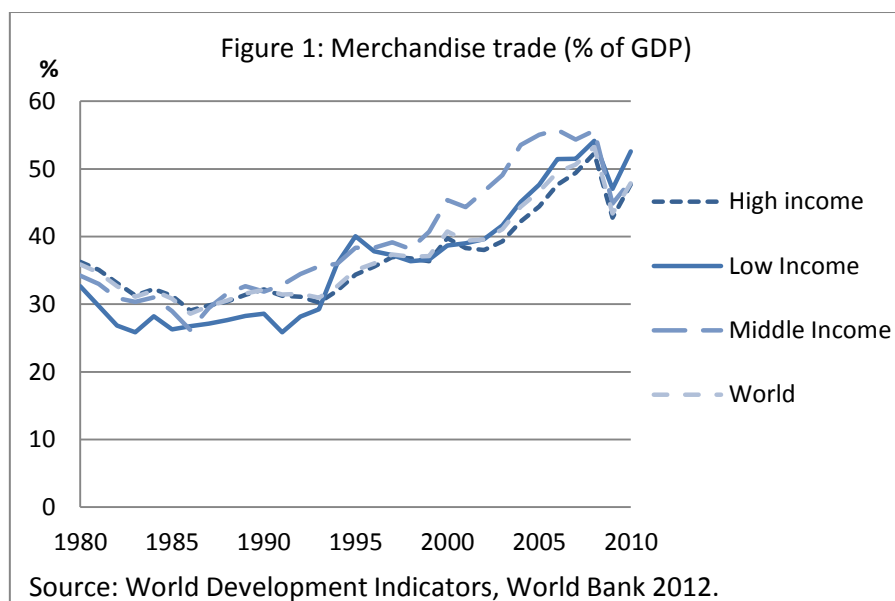
- This essay seeks to determine whether international harmonization and simplification of customs procedures as proscribed by the Revised Kyoto Convention, have any impact on trade.

Econometric findings in this essay show that contracting parties have experienced an increase in imports, implying that a multilateral approach to trade facilitation programs is efficient.

Initial sections of this essay discuss the present international trade environment and the concept of trade facilitation. Following sections focus on the role of the WCO and the RKC. In order to estimate the RKC's impact on trade, an econometric approach is provided.

## Background: The International Trade Environment

In order to put trade facilitation in a contemporary context, one has to overview the international business environment. During the last decades, firms have been increasingly active in international business and aware of foreign markets, thus fueled a restructuring of supply chains either by trade in intermediates or engaging in Foreign Direct Investment (FDI). Grainger (2007a) relates this trend to the present liberalization in trade and successful developments in information technology and enhancement of communication systems. New business opportunities provide incentives for multinational enterprises (MNEs) to take advantage of the more liberal attitude towards global relations, resulting in an increasing amount of international trade. Figure 1 show the increasing trend in merchandise trade as share of gross domestic product (GDP). Note that this tendency is not isolated to the high income countries, but represent a global trend.



This considerable restructuring of supply chains has given rise to an extended set of customs procedures and regulatory operations. Grainger (2007b) have reviewed port and trade procedures in the United Kingdom (UK), which have ended up in an environment characterized by complex operations in order to comply with business actors and governmental regulators. Due to this increasingly complex situation, actors may find it struggling to obtain a comprehensive overview of the everyday cross-border operations. A great variety of intermediary establishments and service agencies facilitate international transactions. For example, MNEs usually adopt international standards such as Incoterms, common sales practices arranged in pre-defined commercial terms developed by the International Chamber of Commerce. Depending on the application of different Incoterms, commercial and regulatory responsibilities can be subjected to different actors. Government regulations focus not only on customs procedures as value added tax, customs duties and anti-smuggling actions, but also cover a wide range of control mechanisms such as management of hazardous goods, vehicle registration and immigration etc. Every procedure involves a number of various actors. Grainger (2007c) count to a sum of over sixty possible trade procedures (in the UK) targeting goods, means of transportation and operators of these vehicles, defined at international (WTO, WCO, UN), regional (EU), bilateral (PTAs) and/or national levels.

Although the establishment of electronic infrastructure aimed to facilitate data collection and customs clearance these systems lack co-operation and inter-compatibility, thus giving rise to increased transaction costs. OECD (2001:6-8) Trade Committee finds that the number of transactions in international trade may of course vary but in order to secure the rights of all contracting parties and comply with legislative regulations a number of essential transactions must take place (concerning public health, environment, dangerous goods, quarantine etc.). Trade transactions are on average involving 27-30 parties (including brokers, vendors, banks, carriers etc.), and in order to comply with regulations extensive documentation is usually needed. A typical transaction requires 40 documents and over 200 data elements of which 15 per cent is re-typed over 30 times. Other OECD studies (OECD 2006:17) show that estimations of trade transaction costs range from 2 to 15 per cent of the value of the traded goods<sup>2</sup>.

United Nations Conference on Trade and Development (UNCTAD 1994:2) statements points out that *“[o]ne single, international transaction can generate hundreds of information elements that must be checked, transcribed, transmitted, re-checked, re-entered into various information systems, processed and filed, thus generating a huge amount of documents which*

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<sup>2</sup> Estimates of trade transactions to date of article (2002). The large gap is due to different years of study, components of trade transactions and geographical regions.

*end being used by as many as thirty to forty different partners in at least two countries.*" This ample variety of regulatory obligation is commonly described as a non-tariff barrier to trade (NTB). Under these conditions it is obvious that simplification and harmonization measures may not only affect trade efficiency in the aspect of direct administrative costs of procedures but may also enhance the management of documentation.

Several successful rounds of multilateral trade negotiations (MTNs) in the GATT 1947<sup>3</sup>/WTO over the last decades resulted in a substantial reduction of tariffs. Outcomes of the Uruguay Round<sup>4</sup> consist of tariff reductions of 38 per cent on average (approximately 2 per cent of total trade value), and initiated talks on NTBs (Hoekman and Kosteci 2009:133). With the decreased tariffs rates, increased exposure to foreign competition and the establishment cross-border supply, various businesses are becoming increasingly sensitive to trade related transaction costs. Consequently, in a low tariff international trade environment the gap between transaction costs and tariff duties is diminishing. It could of course also be that the transaction costs are more burdensome than the actual tariff duties. These highly significant transaction costs serve as a nuisance on international trade diminishing the possible gains<sup>5</sup> of trade liberalization due to forgone business relations and inefficient competition. Inefficient customs administration may in this sense serve as protection for domestic producers. However, protection measures in the practice of NTBs does not result in any collection of tariff revenue, but will instead only increase government expenditures, thus unambiguously reducing domestic economic welfare.

## Customs Agencies

We now know that Customs play an inevitable role in ensuring the function of international supply networks. But what are Customs and what do they do? Many governmental agencies are working simultaneously on various matters concerning cross border relations. Those include border guards, police and immigration agencies, but in most cases Customs is the principal body (Grainger 2007a:8). Furthermore is it possible that even more agencies are involved as goods in transit may be a subject for agencies in transit countries as well. As mentioned above, efforts have been made towards reducing excessive customs-related transaction costs in both private and governmental sectors, as well as on a multilateral basis.

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<sup>3</sup> GATT 1947 refers to the pre-WTO inter-governmental treaty GATT.

<sup>4</sup> GATT/WTO multilateral trade negotiations take place in rounds. Uruguay Round was launched in September 1986 and the Final Act signed in 1994. The Doha Development Round started in 2001, and as of today no agreement has been reached.

<sup>5</sup> For a detailed description of possible gains of trade, see for example *International Economics, Theory and Policy* by Krugman and Obstfeld (2009).



The main assignment of Customs is of course to control and ensure that foreign economic activity comply with tariff and non-tariff regulations. Before goods can be cleared, Customs require valuation and classification of the goods (for tariff levying), determined origin, foreign exchange controls and statistical data collection.

Efforts to reduce and bind tariffs would be totally pointless if there are no regulations on valuation and classification. Government would be able to preferentially classify products in categories with higher tariff rates and/or overvalue imported goods, thus unconstrained raise tariff revenue. Valuation is regulated within the GATT 1947 and later the WTO (GATT Article VII), and is binding to all members. However, GATT Article VII is not included in the Doha ministerial mandate on trade facilitation negotiations.

An instrument applied by many customs administrations is pre-shipment inspection (PSI) (Hoekman and Kostecki 2009:214). This simply means that specialized PSI firms in the exporting country perform inspection of the goods before shipment to facilitate procedures regarding classification, valuation and determining origin. Another issue is to address the compliance with international regulation on safety and quality. In a sense, PSI and other cooperative initiatives is a way of outsourcing Customs, thus extending the scope of national customs administrations beyond the domestic borders, building a global cooperative network. There is however a decreasing trend in PSI programs. In 2000, The International Federation of Inspection Agencies (IFIA) PSI committee reported 42 countries with PSI services in force (WTO 2000). 2011, only 25 countries use PSI services. The IFIA points out that this reduction in PSI programs is the result from a considerable growth in modern programs less intrusive to for exporters (WTO 2011). The RKC would be such a modern program.

Measuring efficiency of customs administrations is not trivial. World Bank (2011) provides an overview of the global cross-border trade situation, and the differences are tremendous. Countries which in recent time experienced political instability and civil uneasiness usually also experienced significant infrastructural destruction. Poor infrastructure along with inefficient administration and widespread corruption is the main explanation to long import and export time and high transport costs. Studies by Kostecki (2000) show that unofficial payments in developing and transition countries have a huge impact on import costs, raising marginal tax rate of imported products with up to 25 per cent. Many developing countries are dependent on imports for basic needs, and it is generally those same countries suffering from high trade costs and long import and export times. In order to provide some insight in the global border-crossing situation, a table of descriptive statistics is provided. See table 1.

Table 1: Descriptive statistics on trade across borders 2011

Indicator	Mean	Standard Deviation	Min	Economy	Max	Economy
Documents to export (number)	6,5	1,9	2	France	11	Angola, Cameroon, Congo, Rep., Tajikistan
Time to export (days)	22,5	15,0	5	Estonia, Hong Kong (SAR), Singapore	82	Tajikistan
Cost to export (US\$ per container)	2282,7	853,5	150	Malaysia	5902	Chad
Documents to import (number)	7,2	2,2	2	France	17	Central African Republic
Time to import (days)	25,1	17,6	4	Singapore	101	Chad
Cost to import (US\$ per container)	1665,2	1171,5	435	Malaysia	8525	Chad

Source: Doing Business Database, World Bank, 2011.

The statistics in table 1 give proof of a quite diverse situation for international traders. Not very surprisingly, the most favorable trade environment seems to be located in wealthier economies. Geographically landlocked countries such as the Central African Republic, the Chad and Tajikistan are typical cases of trade environment with large frictions. Trade costs represent the total cost associated with trade procedures and include documentation fees, administrative costs for customs clearance and technical control. Trade time indicates the shortest possible time that is necessary to comply with all regulations and customs procedures, including possible accelerated procedures for an additional fee. As for the Chad, the fastest possible legal import takes just over three months. In such circumstances, trade in goods with low durability such as perishable foodstuff is totally inoperable. Surveys by Batra et al. (2003) made in 80 economies show that the release times of imported goods may vary between 1 and 24 days, and high per capita income economies usually had shorter release time.

Considering the aggregated average data for different regions the difference is evident, see table 2. The importing and exporting time in the OECD-countries is below a third of the trade times in South Asian and Sub-Saharan African countries, and the number of documents required is approximately half. It is, however, not only South Asian and Sub-Saharan African economies are suffering from inefficient trade procedures. The OECD countries are way ahead of other parts of the world in both documentation required and time efficiency. As the table suggest, the most favorable trade environment is in the high income economies, but even so trade is a growing trend on the global level (remember figure 1).

**Table 2: Descriptive statistics on trade across borders 2011 (regional average)**

Economy	Documents to export (number)	Time to export (days)	Cost to export (US\$ per container)	Documents to import (number)	Time to import (days)	Cost to import (US\$ per container)
East Asia & Pacific	6	22	906	7	23	954
Eastern Europe & Central Asia	7	27	1774	8	29	1990
Latin America & Caribbean	6	18	1257	7	20	1546
Middle East & North Africa	6	20	1057	8	24	1238
OECD high income	4	10	1032	5	11	1085
South Asia	8	32	1590	9	33	1768
Sub-Saharan Africa	8	31	1960	8	37	2502

Source: Doing Business Database, World Bank, 2011.

What are the underlying factors to a favorable trade environment, characterized by efficiently administrated, fast, low cost movement of goods? Economic strength seems to be a significant factor, but there are other aspects, not directly related to monetary wealth, affecting trade. The obvious benefit of wealth is of course good infrastructure and efficient high technology computerized administration. However, costs and delays are also associated with inefficient practices and extensive regulations on documentation. Hoekman and Kostecky (2009:605) stress that modern high-speed delivery services highly rely on efficient trade procedures, which intermittently are troubled by inefficient practices. Some customs administrations do not accept photocopies of required documents, when the use of such copies is considered a norm in many high income countries. Certificates signed with ink in *wrong* color, or marked with incorrect stamps may prove inadequate. Some examples are very illustrative. Shipments of chocolate are delayed by several weeks due to different indication of packing-date. Another shipment of cider is delayed because the customs administration in the importing country lack appropriate product code and were unable to apply the label “apple drink” (Hoekman and Kostecky 2009:605).

## Trade facilitation

As we have seen, Customs administrations are not alike, and their potential to improve is possibly equally unlike. However, we shall see that efforts to facilitate trade are not always preceded by economic wealth. Trade Facilitation is about the removal and reduction of economic frictions and the facilitation of international trade procedures. What are the elements that make it considerably more burdensome for a manufacturer to sell her products to a foreign market than the domestic? In what way can these elements of burden be handled?

Trade facilitation answers to such questions, and the main challenge is to simplify trade procedures in a way that ensures that the businesses' interests and governmental regulations are ensured. Broadly speaking, trade facilitation refers to change in policies and the adoption of measures aiming to easing trade costs and increase the efficiency of various stages in international trade chains.

Actions aimed to harmonize and simplify trade and market procedures have a long history, and the history of trade facilitation is long. Harmonization of weights, measurements and currency has been performed in ancient China during the unification under Qin (Fairbank and Goldman 2006:56), and trade systems can be dated back to roman times when custom revenue made a considerable contribution to the state revenues (Bowman and Wilson 2009:217).

## Definition

Trade facilitation is a vague concept. Various organizations tend to regard it differently. The WTO definition of trade facilitation is the "*simplification of trade procedures*" where trade procedures are understood as "*activities, practices and formalities involved in collecting, presenting, communicating and processing data required for the movement of goods in international trade*" (WTO 2012a). The WTO General Council's decision on the Doha Development Agenda ( "*July Package*" agreed on 2004) make clear that trade facilitation negotiations "*shall aim to clarify and improve the relevant aspects of Articles V, VIII and X<sup>[6]</sup> of the GATT 1994 with a view to further expediting the movement, release and clearance of goods, including goods in transit*" (WTO 2004). Other definitions of trade facilitation are wider, such as those used by UNCTAD, United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) or Asia-Pacific Economic Cooperation (APEC), and may include provisions on Customs, transports and transit issues, as well as banking, financial systems, insurances, business practices and telecommunication (OECD 2011). In a way, the scope of trade facilitation activities seems to be endless. Staples (1998) points out that the term *trade facilitation* have come to embrace an increasingly large number of trade promoting activities. In his opinion trade facilitation is not about physical infrastructure, trade promotion, tariff negotiations and the removal of NTBs, but is about the actual practice and administration in use.

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<sup>6</sup> MTNs on trade facilitation are initially focusing on GATT article V (Freedom of transit of goods), VIII (Requires that fees connected with import/export formalities reflect actual costs of service rendered) and X (Obligation to publish trade laws and regulations).

Policy implications on trade facilitation may in many cases require some form on harmonization of norms. Thus, international cooperation and multilateral negotiations are vital to progress, implying that efforts towards deeper integration<sup>7</sup> are vital. As already mentioned, trade facilitation has a long history. During the last century, nations have cooperated in sector specific harmonization and norm-creating procedures concerning mail, railway standards, marine signaling, aerial navigation, telegraphy, weights and measures among many others (Hoekman and Kostecki, 2009:609). However, several of these trade facilitation procedures have little to do with the MTNs administrated by the WTO. Instead there is a whole range of international organizations, supported by various MNEs, pursuing trade facilitation negotiations of their particular interest. But Customs is not of interest of a single specific sector, and if there is to be any global standard of procedures, there approach has to be multilateral.

No matter the precise scope of the definition, trade facilitation refers to a wide range of activities aiming to cut red tape at the border and facilitating the movement of goods. United Nations Economic Commission for Europe (UNECE 2003:152) visualize the quintessence of trade facilitation and express it in one question: *“Why should it be so much more trouble for a manufacturer in Cape Town to sell to a customer in Colombia, China or Canada than to one in Johannesburg?”*.

The UNECE (2003:152) sums up trade facilitation activities in four topics.

- Rationalization. By this means that existing procedures must be overseen to ensure administrative efficiency. Outdated procedures have to be modernized or be abolished.
- Simplification. Control systems must be as simple as possible in order to ease compliance. This must of course be done without the expense of efficiency.
- Harmonization. Adoption of common procedures in order to provide information with clarity, consistency and certainty to the actors.
- Automation. Effective usage of technology.

This UNECE description is quite far from the WTO definition but conforms very well to the main principles of the Revised Kyoto Convention which is discussed later. In order to promote and support a wider adoption of trade facilitation programs, an extensive set of trade facilitation recommendations were drafted by the UN/CEFACT and UNCTAD in 2002. The

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<sup>7</sup> Deep integration refers to trade agreements which contain commitments of the contracting parties not only on conventional tariff and non-tariff regulations, but include regulatory implications on business environment such as competition regulations and product standards. Deeper integration is usually associated with common institutions and administrative bodies.

recommendations are “intended to be used as a reference by those engaged in simplifying, harmonizing and rationalizing trade procedures and practices [...but also...] useful for industry, commerce, transport, administrations and organizations, to create awareness of the possibilities that exist in the area of facilitation and harmonization of trade and transport” (UN/CEFACT and UNCTAD 2002:iii).

## Trade Facilitation in a Multinational Environment

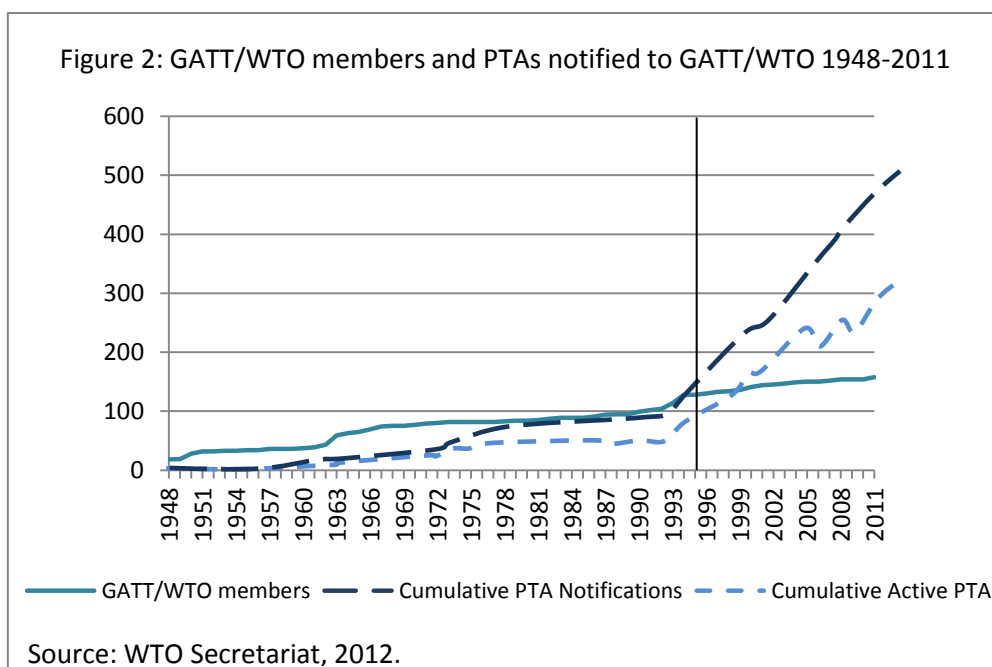
As the number of international trade routes are increasing, the number of preferential trade agreements (PTAs) increase. The concept of trade facilitation has to be perceived from a multinational standpoint. The definition of trade facilitation seems to vary with forum of discussion, but in general comprises policy changes aiming to reduce trade transaction costs. This very broad definition embraces both processes on the border as well as behind the border, of which customs administration and border procedures are but one element. Given the vast set of principles covered by the term trade facilitation, clauses including trade facilitation measures is an increasingly common attachment in all types of international trade relations, both in PTAs and in MTNs. Maur and Shepherd (2011) suggests that the interaction between regionalism and progress in trade facilitation programs will be a significant feature in future international economic integration. This is probably true due the noteworthy increase in PTAs over the last decades which created what Bhagwati (1995) describes as a *Spaghetti Bowl* of Free Trade Agreements (FTAs). The *Spaghetti Bowl effect* was initially targeting rules of origin<sup>8</sup> in FTA trade environments, but is now used in a broader sense to describe the emerging of NTBs as a result of the tangled structure of discriminatory trade pacts, both Customs Unions (CUs) and FTAs . International trade in goods is governed by the international treaty GATT, overseen by the WTO. The core of GATT is the Most Favored Nation (MFN) principle present in Article I. This requires that a good from any of the member nations is treated equally to any other *same good*<sup>9</sup>, no matter where the good is originated. In practice this means that a member nation must charge the same tariff to all other members of the GATT, and may not take discriminatory action against particular members. The MFN also applies for behind border treatment (Article III GATT) which ensures that foreign and domestic goods are treated equally on the national level. This means that the formation of PTAs stand in direct conflict with the

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<sup>8</sup> Rules of origin have in some given rise to an extremely complex and cumbersome regulative state of disorder, aiming to reduce trade deflection. Traders are forced to maintain detailed records in order to benefit from the advantages of preferential treatment, resulting in substantial frictions to trade. For a detailed outline of the rules of origin-impact on trade, see for example *Understanding the rules of origin* by Kala Krishna (2005).

<sup>9</sup> Throughout the years, various product classifications have been used by the GATT 1947/WTO members. Since the 1980s, the WCO developed HS goods nomenclature is applied (Hoekman and Kostecki 2009:188)

fundamental rule of GATT/WTO, as it violates the MFN principle. Nevertheless, there is ways to engage in discriminatory policies within the GATT rules. Developed countries may give unidirectional non-reciprocal trade preferences to developing countries through the Generalized System of Preferences developed by UNCTAD and adopted by GATT (UNCTAD, 2011). Such schemes were permanently integrated in GATT Article I in 1979 through the Enabling Clause, which basically allow developed countries to provide any trade preferences in order to increase export volumes, promote industrialization and accelerate economic growth. Additionally, under the GATT Article XXIV (Territorial Application – Frontier Traffic – Customs Unions and Free-trade Areas), any two or more WTO members may form a FTA or CU as long as (1) trade barriers after the formation of the PTA does not rise above average, (2) all tariffs and other commercial regulations will be substantially lowered for intra-PTA trade and (3) they are notified to the WTO (Hoekman and Kosteci 2009). Similar WTO regulations are present in the General Agreement on Trade in Services (GATS) Article V. Ultimately, there is relatively little WTO can do in order to hinder the rise of regionalism. As of the beginning of 2012, WTO has received over 500 notifications of PTAs<sup>10</sup>. Note the significant increase in notifications from the founding of the WTO 1995. During the GATT 1947 period (1947-1994) only 123 PTAs were notified (WTO 2012b) to the WTO. Have in mind that membership to the organization also has raised during this period. See figure 2.



<sup>10</sup> Note that WTO defines reciprocal trade agreements between two or more partners, including free trade agreements (FTAs) and customs unions (CUs), as Regional Trade Agreements. WTO definition of Preferential Trade Agreement (PTA) is non-reciprocal preferential schemes. Throughout this essay the term Preferential Trade Agreement (PTA) embodies all discriminatory non-multilateral trade agreements (reciprocal and non-reciprocal), as “regional” does not necessarily have a geographically significance in these agreements.

Members of preferential trade agreements may decide on specific practical issues to assist trade. Those can be for example, common communication systems, standardized documentation, licenses and certificates. Maur and Shepherd (2011) point out that such trade facilitating measures have figured in PTAs for a long time, and a study of South East-Asian PTAs show that some 25 per cent of the agreements have explicit trade facilitating requirements. Such measures are found in other bilateral and regional relations as well. In some cases a regional approach would be considered more efficient than a multilateral in order to deal with local issues, such as control of transmittable diseases, vaccination and other sanitary measures. On the other hand, in areas of harmonization of product standards, regional trade facilitating measures may result in discriminatory consequences for non-members. This problem may of course be reduced if PTAs apply international standards as benchmark. In this way regionalism may instead give a momentum to multilateral policymaking on trade facilitation topics.

### Negotiations on Trade Facilitation

No matter the present regionalization of trade flows, a multilateral approach to trade facilitation issues is needed, and WTO have a central role. Cottier and Elsig (2011) describes WTO as the single most important multilateral institution in the heart of the global trading system. The WTO is preceded by the GATT 1947 and the key organization governing multilateral trade issues. GATT was formed in 1947 with the objective to prevent protectionist and discriminatory policies, aiming at the reduction of tariffs and other barriers to trade. Hoekman and Kostecki (2009) present four essential principles for understanding the GATT 1947/WTO code of conduct: (1) non-discrimination, (2) transparency, (3) accountability, and (4) flexibility<sup>11</sup>. By the time of application, GATT had 23 contracting parties, and by the end of the Uruguay Round (1994) this number had increased to 117. Today, the WTO has 153 members<sup>12</sup>. GATT 1947 was not a formal international organization, but an inter-governmental treaty with contracting parties. This changed with the establishment of the WTO in 1995, which is an international organization governing multilateral agreements appertaining trade in goods (GATT), trade in services (GATS) and trade related aspects of international property rights (TRIPS). GATT 1947 was an institution as well as a set of rules on trade. The present GATT is one of three multilateral agreements overseen by the WTO. The WTO works as a regulator of regulatory actions made by the member states which affect international trade and

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<sup>11</sup> Non-discrimination consists of MFN rule and national treatment principle. Transparency refers to information and communication between member states. Accountability ensures that liberalization commitments are implemented and maintained, else can be enforced. Flexibility is expressed though calibrated commitments were members may re-impose tariffs for non-economic purposes.

<sup>12</sup> As listed at the WTO (2012c) website.



competition. In this sense, the main principles in the WTO are no different than the principles of the GATT 1947. However, some changes did occur. Most obviously, the WTO membership is greater and the implications for the developing countries are more evident. The WTO dispute settlement mechanism has become formalized and legalistic, and more efficient transparency and surveillance functions were introduced. Ultimately, the GATT 1947 only covered trade in goods, whereas the WTO covers the GATS and the TRIPS in addition to the GATT.

Grainger (2007a:16) points out that the average tariff on industrial products has fallen to 3.8 per cent since the establishment of the WTO. As a result of this, focus of the MTNs shifted from tariff reduction to non-tariff areas. As the only topic of the four Singapore Issues<sup>13</sup> still on the WTO Doha Development Agenda, trade facilitation remains in multilateral negotiations. After several rounds of negotiation on GATT principles focusing on tariff cutting and trade liberalization, trade facilitation can be regarded as a natural extension to the work done in the promotion of trade liberalization. The Doha trade round was suspended in July 2006 due to unsettled matters regarding commitments on market access issues. However, a broad consensus remained on the trade facilitation area. Interestingly, developing countries have managed, with aid and support from the international community, to make not trivial progress in the trade facilitation area, although the trade facilitation negotiations in the Doha Round still is pending (Jones 2011). According to UNECA (2009), a condition to commence negotiations on trade facilitation was to completely drop the other three Singapore Issues in the Doha Development Agenda. With the other issues dropped, developing countries made a compromise based on the developed countries insurance to provide technical and financial assistance during implementation of trade facilitating measures. Some of the operational procedures in customs administrations in highly developed economies require investments and human resources, which developing countries may find hard to comply with. In the developed economies, customs issues in trade facilitation negotiations tend to focus on the simplification of procedures, while efficient customs revenue collection is a major concern in the developing countries, due to undervalued imported goods. One should have in mind that customs revenue is of much greater importance for developing countries as enforcement of fiscal policies may be weak due to inefficient institutions and widespread corruption. This is, according to UNECA (2009:3) one reason why many African countries may have been unwilling to sign international agreements such as the Revised Kyoto Convention, which mainly

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<sup>13</sup> During the WTO Ministerial Conference in Singapore 1996 proposals related to non-tariff barriers to trade on government procurement, trade facilitation, competition and investment policy were raised. These were the "Singapore Issues". All but Trade Facilitation were dropped due to heavy opposition from developing countries and in 2004 the WTO agreed to launch negotiations within the Doha Development Agenda.

emphasize on simplification. A detailed outline of the provisions of the RKC is provided in appendix 3.

It should be pointed out that the trade facilitation agenda reaches further than the negotiations constrained by the Doha ministerial mandate. There are of course other relevant GATT disciplines, such as goods inspection, product standards and customs valuation, which all have direct effects on costs to cross-border trade. Note that GATT covers only trade in goods, but there are also relevant disciplines within the GATS affecting trade costs, for example logistics-sector services such as transportation, distribution and warehousing. Rules of origin are other issues, which often result extensive and complex regulations, particularly in preferential trade. For example, inter-NAFTA regulations on origin consist of approximately 800 pages, and the situation is similar in other PTAs. WTO does not have any regulations on rules of origin. The only multilateral agreement that comprise rules of origin is the WCO-developed Revised Kyoto Convention (RKC Specific Annex K). However, only 8 of the 78 contracting parties of the RKC have entirely agreed on these rules of origin provisions (See Appendix 1). Trade facilitation is clearly an issue that needs attention both from national, regional and multilateral institutions (Hoekman and Kostecki 2009:611-612).

The WTO serves as a forum for discussion in MTNs, and topics may be suggested by other institutions or nations interested in the area. Trade facilitation was introduced in the WTO agenda in 1996, negotiations commenced in 2004. The WTO (2004) July Package (Annex D, Modalities for Negotiations on Trade Facilitation) explicitly states that “[i]n order to make technical assistance and capacity building more effective and operational and to ensure better coherence, [WTO-] Members shall invite [...] WCO [...] to undertake a collaborative effort in this regard” as well as “[d]ue account shall be taken of the relevant work of the WCO and other relevant international organizations in this area.” As WCO is the developer of the RKC, focus foremost on customs procedures and works closely to WTO in these negotiations, proposals from the WCO is of particular interest<sup>14</sup>.

## The Role of the WCO

The World Customs Organization (WCO) is an international intergovernmental organization exclusively dedicated to Customs issues. As the WTO functions as an international organization managing MTNs, national customs authorities govern the collection of duties and

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<sup>14</sup> Naturally, there are a vast number of contributors providing remarks and reviews on the GATT articles relevant to the multilateral trade facilitation negotiations including the European Commission, the European Communities, UNCTAD, OECD as well as individual nations.

administration of tariff processes. The WCO (2009) *“aims to improve the effectiveness and efficiency of [national] Customs administrations across the globe, and help them fulfill their dual role of facilitating trade whilst ensuring its security.”* The history of the WCO goes back to the time when GATT was created in 1947, when a Study Group agreed to examine the possibilities of setting up inter-European customs unions based on the recently negotiated GATT principles. This Study Group established two committees, an Economic Committee and a Customs Committee. The Economic Committee became the Organisation for Economic Cooperation and Development (OECD) and the Customs Committee became the Customs Cooperation Council (CCC) officially established in 1952, which in 1994 became the WCO (Hoekman and Kostecki 2009:188).

The organization is particularly noted for its efforts in developing harmonized systems for customs procedures, facilitation of international trade and addressing of NTBs (WCO 2009). The main purpose of the organization is to support the cooperation between customs administrations. Many of the instruments are bound to various international agreements, giving the WCO significant influence over national trade mechanisms and customs procedures in the member countries. In this sense, the WCO also has the opportunity to develop instruments targeting policy changes within the scope of trade facilitation. With 177 customs administrations as members (see appendix 2), more than 98% of worldwide international trade is processed by, and under the responsibility of WCO members. In addition to the trade facilitation negotiations in the Doha, the WCO is cooperating with the WTO in ensuring the consistency in the technical interpretation of the GATT Article VII (valuation of goods for customs purposes are based on actual value), and non-preferential rules of origin<sup>15</sup> (Grainger 2002a). In 2005 the WCO members unanimously adopted the Framework of Standards to Secure and Facilitate Global Trade (WCO 2005). The broad acceptance and support from the WCO members shows a determined motivation for developing a secure and facilitated world trade. WCO maintains the internationally recognized Harmonized Commodity Description and Coding System (HS) goods nomenclature built on previous CCC classification, which is practiced worldwide. Another noteworthy instrument developed by WCO is the International Convention on the Simplification and Harmonization of Customs Procedures, also recognized under the abbreviation Kyoto Convention due to the place of drafting. Now revised, the convention provides a contemporary approach to multilateral trade facilitating measures.

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<sup>15</sup> Non-preferential rules of origin are necessary to discriminate between sources of supply in order to apply trade policy instruments such as anti-dumping duties and tariff quotas.

In communications to the WTO, the WCO points out that “[t]he GATT Articles set out the rules for trade facilitation, while instruments of the WCO, including the Revised Kyoto Convention, provide the basis and practical guidance and information for the implementation of those rules” (WTO 2002a). Reviewing the WCO contributions to the multilateral negotiations in the WTO forum (WTO 2002a, 2002b, 2002c), it is clear that the RKC play a central role as RKC principles address issues related to all three of the GATT articles present to the Doha mandate.

### ... And Other Actors

Naturally, there are several other international organizations working with development of trade facilitation. In order to get a full overview of the trade facilitation, a short presentation of other actors is provided.

The UNECE manages, among other things, a number of electronic document and messaging standards used in international trade transactions. International Organization for Standardization develops guidelines for implementing supply chain security. Others are the International Maritime Organization, the International Chamber of Shipping, the International Road Transport Union, the International Civil Aviation Organization and the International Chamber of Commerce. As there are a great number of organizations working in the field of trade facilitation, the vast number of guidelines presented by different organization may provide a complex and somewhat unclear environment for policymakers<sup>16</sup>.

The development of trade facilitation measures is performed by a range of international, regional and national organizations (Grainger 2007a). Today’s global economic environment is characterized by regulations by various international organizations (WTO, UN commissions, OECD etc.), sovereign states and individual groups of interest including non-governmental organizations or concerned communities (Braithwaite and Drahos 2000:194-206). Trade facilitation looks at operations regarding international trade and seeks to extend the borders of business. In this aspect, trade facilitation is intimately linked to trade liberalization, and is formed by the interests of business actors. Trade facilitation development has attracted both public and private parties to fund research. OECD (2006:12-13) stress that private sector involvement is crucial as reforms may provide great efficiency gains. To efficiently include the private sector in the trade facilitation reforms, private-public partnerships are essential.

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<sup>16</sup> The UN/CEFACT and UNCTAD (2002) summarize various trade facilitation guidelines in the “Compendium of Trade Facilitation Recommendations”.

At first it may seem that cross border procedures is ostensibly dictated by the guidelines of international organizations. However, this is not entirely true as many of the principles put forward by the international bodies have origin in individual national states. Experiences and thoughts have been discussed and been fed to the regional and international organizations. For example, the UNECE (2012) together with the UNCTAD are developing an institutional coordinating mechanism, encouraging countries to set up national trade facilitation committees sharing their experiences with the regional and international communities. Additionally, unilateral changes in cross-border procedures may contribute to the multilateral negotiations. Grainger (2007a) points out that the increased security measures implemented unilaterally by the USA after the terrorist attacks September 11, 2001, have significantly affected the debate on trade facilitation in both international organizations such as the WCO as well as in other individual states.

## Previous Literature

Estimations of trade facilitation measures impact on trade volumes and economic welfare are generally applied on specific geographical regions or preferentially selected economies. By contrast, the approach in this essay aims to estimate a multilateral trade facilitation programs' impact on international trade. Even though there is a difference in approach, a short review of findings on trade facilitation may elucidate the potential benefits.

Numerous studies have been made on the area of trade facilitation, and researches are launched by several international institutions (World Bank, OECD and APEC among others), national administrations and academic scholars (Grainger 2007a:36). Much effort has been put into attempts to quantify the effects of the implementation of trade facilitation measures. In one sense this can be understood as an indication that there is an increasing interest in trade facilitation issues as well as the pressure on international negotiations on trade facilitation is greater than before. In an increasingly disordered trade environment the possible gains of trade facilitation is relatively larger.

Moisé et al. (2011) present findings on specific trade facilitation measures' influence on the economy and trade. The study identifies policy areas where trade facilitation measures result in the significant increase in international trade. Advance ruling<sup>17</sup> seems to be the most effective trade facilitating indicator, but there are other relevant indicators such as information availability, harmonization and simplification of documents as well as co-operation

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<sup>17</sup> Advance ruling mechanisms primarily regard tariff classification and origin (Moisé et al. 2011).

between border agencies. Those areas are all promoted by the RKC. The impact varies between different sectors, where the largest impact is on the manufactured goods. Net benefit of implementation of all trade facilitation indicators is estimated to a cost reduction of international trade by almost 10 per cent. This is consistent with several other estimations of the impact of implementation of trade facilitation measures (Moisé et al. 2011:6).

Other estimations made by Wilson et al. (2005) show that improvement in the areas of port Efficiency, customs environment, regulatory environment and service sector infrastructure of the 'below average' countries to 'halfway' of global average in those areas will increase total trade by US\$ 377 billion. In another similar study on the APEC countries, Wilson et al. (2003) show that if countries with 'below average' indicators would improve to 'APEC-average', the intra-APEC trade flows are expected to rise by 21 per cent. Approximately half of the effect is a result of 'Port Efficiency' improvements.

The OECD (2003:39) finds that the world aggregate economic welfare would increase by some US\$ 40 billion as a result of 1 per cent reduction in trade transactions costs<sup>18</sup>. However, if the trade facilitation measures were to be implemented only by the OECD members, the net welfare effect on non-OECD countries is expected to be negative. It is therefore necessary to strive for a multilateral approach to trade facilitation reform.

Studies by Anderson and van Wincoop (2003:189) find that natural borders between nations are immense barriers to trade. Trade between industrialized economies tends to decrease by 20-50 per cent, merely due to the existence of a natural border, this border-effect being larger for smaller countries. These results illuminate the dimension of inefficient customs procedures and complications related to cross-border trade. The advantages of trade facilitation appear obvious. Case studies on African economies show that customs revenue in Ghana was rising by almost 30 per cent after implementation of an electronic interchange system facilitating customs procedures, in addition document administration experienced tremendous progress where customs document review prior reform took 24 hours, now on average take ten minutes (de Wulf and José 2004:29). In Uganda, improved customs administration along reforms against corruption increased customs revenue by 24 per cent between 2007 and 2008 (World Bank 2009:50).

The UNECE (2003:13) stress that “[e]xperts agree that trade facilitation has a clear benefit for all”. Among the economic benefits resides effective allocation of resources due to increased

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<sup>18</sup> All countries are expected to benefit, while non-OECD countries would be benefiting relatively more than OECD members.

competition, reduction of illegal trade due to security efficiency as well as increased FDI activity accelerating economic development. Companies engaging in foreign markets benefit not only in the aspect of market access and new business opportunities but also of lower transaction costs, faster customs clearance and lower risk of corruption. On the other hand, one should bear in mind that reforms and policy changes within trade facilitation (as in other areas) bring about implementation-costs connected to the national customs infrastructure and human resources (Morrissey 2007:11). Although, trade facilitation measures are generally implemented together with some form of technical assistance, Hellqvist (2003:10) stress that *“[t]echnical assistance and capacity building is vital, but equally important is that this assistance must be based on the need and current situation in each particular country”*. One must not narrow mindedly believe that financial support is the sole solution to unwillingness to reform.

## The WCO Revised Kyoto Convention

Previous researches on trade facilitation tend to focus on regional or preferential programs. In order to estimate the impact of trade facilitation measures implemented on a multilateral basis, the Revised Kyoto Convention will act as benchmark in this paper.

The International Convention on the Simplification and Harmonization of Customs Procedures (Revised Kyoto Convention) comprises a set of principles that lay out standards and recommendations regarding customs procedures and administrative practices. Originally the Convention was drafted in 1973, but due to major development in the technology and trade practices efforts to produce a revised version were concluded in 1998. The revised edition entered into force in 2006 and became a blueprint for modern and efficient customs procedures. Today the number of contracting parties has risen to a number of 78 nations, approximately half of the WTO membership. The RKC is developed and administrated by the WCO and the implementation of the procedures depends entirely on the WCO members. WCO does not have any enforcement mechanism (in contrast to WTO) and cannot force contracting parties to reform. Hoekman and Kostecki (2009:612) states that international industries have suggested that the WTO should make the RKC mandatory among the WTO members. However, the RKC has been developed by another organization and the WTO doesn't have the authority to enforce such conventions. Cooperation between the WCO and the WTO in this issue would probably be a step towards possibilities of enforcement and wider implementation. The UNECA (2009:13) points out that there exist many international standards, norms and recommendations among them the RKC. These international standards are available for any

nation but not mandatory in the WTO. Some members may find it convenient to implement some standards but reluctant to sign an international convention of binding nature. Proposals to implement such standards in the WTO regulations are opposed by developing countries which may face difficulties participating in the standard setting process. Even if many of the trade facilitation measures seek to be implementable no matter economic strength, Hoekman and Kostecki (2009:613) stress that poor countries will find both technical and financial difficulties to attain the practices enumerated in the RKC.

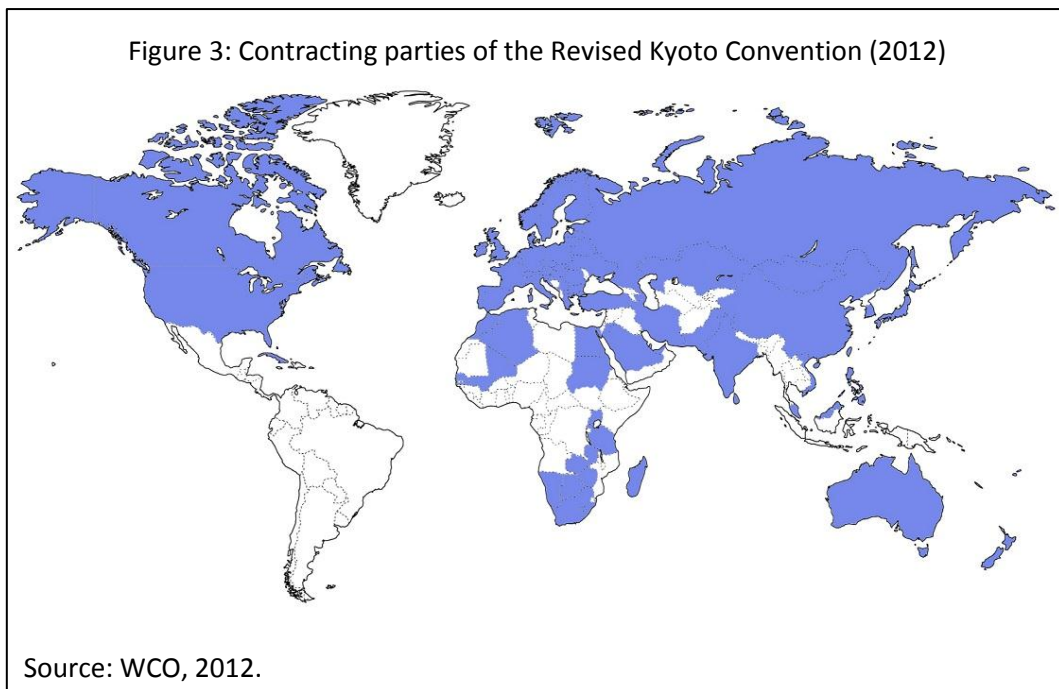
Among the benefits of implementation of the RKC principles, WCO (2002) suggests that members will yield significant and measurable results by improving the effectiveness and efficiency of customs administrations. The econometric approach in this essay will estimate these efficiency gains' impact on trade. In all movement of goods across borders, customs is a required element. By facilitating this essential component in world trade procedures, the RKC will influence the competitiveness of nations and encourage investment as well as development of industry. In order to facilitate trade, the RKC recommends standards for predictability, transparency, legal process and use of modern techniques. On trade facilitation issues, the WCO have the role as being complementary to the WTO. Legal provisions and principles in the RKC are compatible to, as well as complementary to, the GATT articles V, VIII and X referred to in the context of trade facilitation Doha declaration. The GATT articles lay out the principles for procedures for movement of goods. The WCO, including the guidelines of the RKC provide the basis and practical guidance and information of the GATT principles.

At the time of enforcement of RKC in 2006, WCO (2006) present the convention as the gateway to modern efficient customs procedures in the 21st century, and once implemented, it will provide all the predictability and efficiency that modern trade requires. The convention promotes trade facilitation and at the same time ensures that functions of Customs are not compromised. The WCO also ensures that developing countries can adapt to the conventions, since a number of developing countries played an active role during the revision. The structure of the convention provides a flexible approach of the contracting parties. The body of the convention together with the General Annex forms the minimum requirements of the convention. In addition, contracting parties may or may not accept the supplementary Specific Annexes. This structure permits a flexible approach to the convention. The final objective is still total and definitive accession to the RKC.

The 26th of July 1999 the RKC was opened for signature for contracting parties (RKC Protocol of Amendment Article 8), which could consist of individual nations, customs unions or



economic unions (RKC Preamble Article 8). However, as the RKC required forty contracting parties signing the Protocol of Amendment in order to enter into force (RKC Protocol of Amendment Article 3), the convention entered into force first at the 3rd of February 2006. As of today, there are 78 (of the 177 WCO members) contracting parties (as EU customs law is governed centrally, EU-27 is a signatory party in addition to all of the EU nations) signed the RKC. The Democratic Republic of the Congo signed in 2000 but is still a subject for ratification. All in all, most of the European economies have signed the RKC, as have most of the OECD countries<sup>19</sup>. Other large economies such as China, India are contracting parties and during 2010-2011 other major trade nations including Russia, Belarus, Ukraine, Saudi Arabia and the United Arab Emirates have signed. On the other hand, the interest for harmonization of customs procedures appears to be weak in the Caribbean where Cuba is the only signatory state and Middle and South America where no country have signed the convention. See figure 3 for a geographical overview. Other non-contracting parties include important transit countries such as Singapore and Panama.



RKC comprises a set of Standards recognized by the contracting parties as necessary in order to achieve simplified and harmonized customs procedures. Some Standards in the General Annex are regarded as transitional, as they have been granted a longer time of implementation. In addition to standards, the Specific Annexes of the convention comprises a set of Recommended Practices which shall be implemented unless the contracting parties have

<sup>19</sup> Except Chile, Israel and Mexico.

made reservations. All contracting parties must undertake the promotion of simplification and harmonization of customs procedures and conform to the RKC, the Standards, Transitional Standards and Recommended Practices of the convention but contracting parties may of course grant greater facilities than recommended within the RKC (RKC Preamble Article 2). The contracting parties may regard the convention as a minimum requirement. In addition, each annex is accompanied by Guidelines, which are recommended but not binding to the contracting parties. The undertakings in the General Annex and the Specific Annexes shall be specified in the national legislation of the contracting parties (RKC General Annex Chapter 1 Standard 2). Unfortunately, the WCO does not engage in any follow up surveys to ascertain that the provisions in the RKC are incorporated with national legislation of the contracting parties.

All parties are bound by the General Annex and may accept one or more Specific Annexes or single chapters of Specific Annexes. Contracting parties who have chosen to accept Specific Annexes of chapters are bound to the Standards therein. Reservations towards the Recommended Practices can be entered and withdrawn on acceptance or at any time thereafter (RKC Preamble Article 12). The purpose of such reservations is to provide the option to accept Specific Annexes for countries with national legislation contradicting Recommended Practices. Reservations should be motivated upon accession and re-motivated every third year, specifying which provisions of the national legislation preventing withdrawal of the reservations<sup>20</sup>.

Standards and Recommended Practices of the RKC shall be implemented by each contracting Party within 36 months after Annexes and Chapters of such Standards and Recommended Practices have entered into force for that contracting Party. The time for implementation of Transitional Standards is 60 months. In specific cases, a one-year extension of the time limits of implementation may be granted (RKC Preamble Article 13). For the first forty contracting parties of the convention the Standards and Recommended Practices entered into force in 2006, thus being implemented in 2009 at the latest. The Transitional Standards should be implemented in 2011 at the latest. Contracting parties may reform consecutively, thus using a general into-force-year as reference point in econometric analysis may prove inaccurate. The impact on trade derived from the RKC in this paper is therefore accompanied with some inaccuracy. Complete record of actual reforms in national legislation would be applicable, but

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<sup>20</sup> Reservations towards the Recommended Practices in the Specific Annexes of the RKC with motivations by contracting parties are provided on the WCO (2012) website.

unfortunately the contracting parties have no obligation to notify implementation progress. Each contracting member has to be investigated separately.

### Scope of the Convention

In short, modern customs administrations should, according to the principles of the General Annex, simplify procedures, maximize use of technology and work for a co-understanding with traders. The General Annex of the RKC consists of several policy implications to be unexceptionally undertaken by the contracting members for the purpose of achieving simple and harmonized customs procedures and practices. Standards and Transitional Standards in the General Annex comprise principles of customs procedures on clearance of goods, duties and taxes, security, customs control, application of information technology, relationship with third parties, information availability and appeals. A detailed review of the RKC annexes is provided in appendix 3.

The RKC implications in trade facilitation promote both regulatory improvement and application of advanced information and communication technology. The use of appropriate and modern technology is strongly recommended not only by the WCO, but by the UNCTAD, UN/CEFACT and other organizations engaged in trade facilitation development as well. Grainger (2007a:42) points out that efficient use of information and communication technology is a common implication in trade facilitation programs.

Recalling the UNECE interpretation of the trade facilitation concept, trade facilitation is summed up in rationalization, simplification, harmonization and automation. The contents of the RKC General Annex correspond very well with these topics. Reviewing the WCO contributions to the WTO negotiations on trade facilitation, several Chapters of the General Annex contribute to the negotiations as suggestions under GATT Articles VIII and X. Principles of the RKC is also frequently recommended by the UNECE and UNCTAD (2002) trade facilitation recommendations where the RKC principles is suggested in areas of General provisions on Customs and other regulatory bodies as well as provisions relating to official procedures and controls, transport and transport equipment, payment procedures and use of information and communication technology.

As the provisions in the General Annex provide the foundation of the convention there is, supplementary to the General Annex, a set of Specific Annexes each covering a single trade facilitation procedure or a number of related procedures. However, the interest for acceptance of the Specific Annexes is weak (see appendix 1).

The principles in the Specific Annexes cover a wide range of customs procedures. Principles cover arrival of goods, importation, exportation, warehouses and free zones, transit, processing, temporary admission, offences, special procedures and origin. Several of the principles in the Specific Annexes are recommended by the UNCTAD/UNECE (2002), particularly in the areas of official procedures and controls, and transport and transport equipment. The most prominent feature in the Specific Annexes is of course the last, providing a short set of rules governing product origin. Basically, a good which are wholly produced or obtained in a country and does not contain any imported materials is to be considered originate from that particular country (RKC Specific Annex K Standard 2). When two or more countries are involved in the production of a good, the origin of that particular good should be determined by the criterion of substantial transformation used by the Harmonized System goods nomenclature (RKC Specific Annex K Recommended Practice 3 and 4).

The impact on trade caused by the acceptance of individual Specific Annexes will not be estimated in the econometric analysis provided in this paper, due to mutual high correlation<sup>21</sup> between the constructed dummy variables, thus making it impossible to satisfactory isolate the effects.

## Econometric Approach to the RKC

There is a substantial amount of previous research in the field of trade facilitation, whereas most tend to focus on the impact on trade and welfare in PTA environment. Such surveys seek to answer to whether implementation of trade facilitation measures within the member states of a PTA (or other group of countries) affects bilateral trade. This is, on the other hand, quite reasonable as most of the harmonization processes are PTA-specific. A common approach to analyze the effect of trade facilitating measures is the gravity equation<sup>22</sup>, aiming to estimate the impact on trade flows considered the bilateral costs such as distance, language differences, uncommon currency etc. (OECD 2011). However, the RKC is a multilateral approach to address trade facilitation issues and focus mainly on the contracting parties' obligation to adopt certain policies regarding the simplification and harmonization of customs procedures. Applied model aim to estimate import flows given size, population and level of import tariff of the economy.

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<sup>21</sup> No correlation is below 0.8.

<sup>22</sup> Gravity model of trade or gravity equation refers to an economic model suggesting that bilateral trade flows can be explained by economic size and distance, in analogy with Newton's gravitational law.

## Equation and Data

The model is linear and the method of estimating the parameters is Ordinary Least Squares (OLS). Import volume (*IM*) for an economy *i* at the time *t* is estimated by purchasing power parity rated GDP (*GDP*), population (*POP*) and tariff rate, per cent. Import value is used, instead of export value, to estimate trade volumes, as main principles of the RKC provide provisions on Customs. A set of dummy variables is constructed to estimate the impact of certain events.

Equation used is the following:

$$\ln(IM_{i,t}) = \alpha_1 \cdot \ln(GDP_{i,t}) + \alpha_2 \cdot \ln(POP_{i,t}) + \alpha_3 \cdot \begin{bmatrix} WB\_TAR_{i,t} \\ TRAINS\_TAR_{i,t} \\ \ln(WB\_TAR_{i,t}) \\ \ln(TRAINS\_TAR_{i,t}) \end{bmatrix} + \sum_k \alpha_{k+3} [dummy\ k]_{i,t} + \varepsilon_{i,t}$$

Value of goods imports, GDP, total population, and tariff rate (*WB\_TAR*) are for the purpose of this essay collected from the World Bank Development Indicators (2011).

Alternative tariff data from the UNCTAD Trade Analysis and Information System (TRAINS 2012) database is used in comparison since there possibly are inaccuracies in the World Bank data. For example, in the World Bank tariff data, all of the EU-economies have been observed having the same tariffs regardless of individual EU-members year of EU entry. Unfortunately the TRAINS data coverage is narrower than the World Bank. As TRAINS data is disaggregated, an average tariff rate is constructed by waging the tariff against share of imports of the corresponding good. Waged tariff data *TRAINS\_TAR* (per cent) for an economy *A* at the time *t* is calculated as follows:

$$TRANS\_TAR(A_t) = \sum_{i \in M} \frac{V_{i,t} \cdot ST_{i,t}}{\sum_t V_{i,t}}$$

*M* is the disaggregated trade variables in HS 2-digit heading, *V* is trade value and *ST* is the simple average tariff (per cent).

Import, GDP and population data is logarithmic in this model. Tariff data is, on the other hand, initially not. Both of the tariff data sets include some cells with the value of zero, wherefore logarithmic transformation is impossible unless those cells were to be excluded. The downside is of course that the interpretation coefficients are unclear. In the last series of regressions those cells are excluded in order to grant a possibility to estimate the possible impact on trade.

The *WB\_TAR* and *TRAINS\_TAR* data show some differences, see table 3.

	TRAINS_TAR	WB_TAR
Mean	9,05	7,72
Standard deviation	7,60	9,80
Observations	1682	1988

Source: World Bank Development Indicators (2011) and UNCTAD TRAINS (2012)

Constructed dummy variables cover:

- For every given year in the interval 1988-2010, the variable takes the value of 1 if the contracting party...
  - ... has, or during that year achieved, GATT 1947 or WTO membership (*GATTWTO*).
  - ... has previously, or during that year signed, the RKC without reservation or deposit of instruments of ratification or accession (*RKCS*).
  - ... has previously, or during that year signed, the RKC without reservation or deposit of instruments of ratification or accession, and the convention is in force 2006-2010 (*RKCF*).
  - ... has previously, or during that year signed, the RKC without reservation or deposit of instruments of ratification or accession and accepted 15 or more Chapters of the Specific Annexes regardless of reservations against Recommended Practices (*SA15S*)
  - ... has previously, or during that year signed, the RKC without reservation or deposit of instruments of ratification or accession and accepted 15 or more Chapters of the Specific Annexes regardless of reservations against Recommended Practices, and the convention is in force, 2006-2010 (*SA15F*).
 Else, the variable takes the value of 0.
- Additionally, a dummy variable for the time interval when the RKC are in force, 2006-2010 (*RKC\_YEARS*), has been constructed. The variable takes the value of 0 during the interval 1988-2005 and the value of 1 during the interval 2006-2010, regardless if the economy is a member party or not.

Data used for the purpose of this estimation cover the time range from 1988, as earlier data (especially on tariff levels) is unavailable for the majority of economies, to 2010. As the RKC is a multilateral convention, and the global impact on trade is to be estimated, in order to

satisfactory isolate the effects, as many economies as possible are included. Tariff data coverage varies. Regressions with *WB\_TAR* include 159 economies and regressions with *TRAINS\_TAR* include 147 economies (See appendix 4).

## Results

Several regressions are made with three different tariff data sets. In the initial regression series, World Bank tariff data is used. All regressions show a high coefficient of determination (adjusted R-squared). Coefficients  $\alpha_k$  and standard errors to the variables are presented in table 4.

The results of REG1 are not surprising. Increased economic growth tends to increase imports and a growth in population (given no change in GDP) decrease imports. Wealthy countries trade more. Small and poor countries trade less. Higher tariffs have a negative impact on trade. This conforms to general trade theory, as countries with higher tariffs are expected to trade less, as foreign goods are more expensive. In REG2 the variable for time (*RKC\_YEARS*) has been added. As we remember from the introduction (see figure 1), international trade has been increasing rapidly. This trend can be observed in REG2 as well. During the years 2006-2010 economies of the world traded more than before. The effects of GATT/WTO membership is estimated in REG3. As expected, the principal of multilateral agreements on trade regulations, GATT, have a positive impact on trade.

Variables for RKC signature (*RKCS*) are added in REG4 and RKC entering into force (*RKCF*) in REG5. The *RKCS* coefficient is significant and actually greater than the *GATTWTO* coefficient. One explanation could be that the benefits of joining GATT are in the past, and the GATT impact on trade is not as evident in this regression where data coverage is 1988-2010. The *RKCF* coefficient is not significant implying that the effect of the convention entering into force seems to be ambiguous. Customs agencies signing the RKC prior to 2006 may implement the provisions in the General Annex, regardless of that the RKC is not yet in force. This may explain why the *RKCS* show statistical significance and the *RKCF* does not.

Variables for acceptance to 15 or more of the Chapters of the Specific Annexes are added in REG6 and REG7. Both of the variables for the acceptance of Specific Annexes show a negative correlation to imports. Again, the signature seems to have a greater importance than the entering-into-force as *SA15S* is statistically significant and *SA15F* is not. The coefficients show a strong negative correlation. In fact, the effect seems to be much stronger than the positive effects of WTO membership or RTC signature, thus implying that imports in those countries

would decrease considerably. This has no theoretical support, as importing firms in those countries are supposed to benefit from such reforms. As mentioned previously, the interest in accepting the Specific Annexes is weak, and only ten<sup>23</sup> contracting parties accepted 15 or more Chapters. It may be that the regression is suffering from a selection bias, and that those countries have experienced other impulses confining imports, hypothetically during the late 21th century global financial crisis.

**Table 4: Results of OLS regressions (with WB\_TAR)**

	REG 1		REG 2		REG 3		REG 4		REG 5		REG 6		REG 7	
	Coefficient		Coefficient		Coefficient		Coefficient		Coefficient		Coefficient		Coefficient	
	Standard Error		Standard Error		Standard Error		Standard Error		Standard Error		Standard Error		Standard Error	
<b>Intercept</b>	-1,522 ***	0,150	-1,658 ***	0,147	-1,739 ***	0,148	-1,473 ***	0,153	-1,476 ***	0,153	-1,466 ***	0,151	-1,461 ***	0,151
<b>ln(GDP)</b>	1,251 ***	0,011	1,250 ***	0,010	1,245 ***	0,010	1,227 ***	0,011	1,227 ***	0,011	1,226 ***	0,010	1,226 ***	0,010
<b>ln(POP)</b>	-0,400 ***	0,011	-0,396 ***	0,011	-0,391 ***	0,011	-0,380 ***	0,011	-0,380 ***	0,011	-0,379 ***	0,011	-0,379 ***	0,011
<b>WB_TAR</b>	-0,009 ***	0,001	-0,008 ***	0,001	-0,007 ***	0,001	-0,007 ***	0,001	-0,007 ***	0,001	-0,007 ***	0,001	-0,007 ***	0,001
<b>RKC_YEARS</b>			0,233 ***	0,024	0,233 ***	0,024	0,172 ***	0,025	0,176 ***	0,029	0,168 ***	0,025	0,164 ***	0,026
<b>GATTWTO</b>					0,142 ***	0,038	0,135 ***	0,037	0,135 ***	0,037	0,125 ***	0,037	0,126 ***	0,037
<b>RKCS</b>							0,195 ***	0,032	0,206 ***	0,049	0,267 ***	0,033	0,269 ***	0,033
<b>RKCF</b>									-0,018	0,061				
<b>SA15S</b>											-0,499 ***	0,070	-0,567 ***	0,112
<b>SA15F</b>													0,108	0,138
<b>Adjusted R-squared</b>	0,946		0,949		0,949		0,950		0,950		0,952		0,952	
<b>Observations included</b>	1793		1793		1793		1793		1793		1793		1793	

Note: Statistical significance at 10 (\*), 5 (\*\*), and 1 (\*\*\*) per cent.

As there possibly are some inaccuracies in the World Bank data set, a similar series of regressions with the TRAINS tariff data are made. Results of these regressions are presented in table 5. Note that the number of observations is not as many as in the first series of regressions.

This second series of regressions show similar results. Both the *WB\_TAR* and *TRANSIS\_TAR* coefficients show a negative correlation to imports. However, the *TRANSIS\_TAR* coefficient is much greater than *WB\_TAR*, implying that tariffs have a more economically significant impact on import volumes.

<sup>23</sup> The actual number is twelve, but as Uganda and Rwanda signed the RKC in 2011, their entry will not affect the results of this analysis. The twelve economies are Algeria, Australia, Kazakhstan, Madagascar, Mauritius, New Zealand, Norway, Philippines, Rwanda, Uganda, Ukraine and the United States.



Similar result on the time dummy (*RKC\_YEARS*) suggest increased international trade during the period 2006-2010. In this series of regressions, GATT/WTO membership seems to have a smaller significance than in the previous, and is not significant in REG6 and REG7. The *RKCS* coefficients show somewhat higher values than the first series. Acceptance of Specific Annexes still has negative correlation with import volumes. Again, nothing significant can be said about the RKC entering into force (*RKCF* and *SA15F*).

**Table 5: Results of OLS regressions (with TRAINS\_TAR)**

	REG 1		REG 2		REG 3		REG 4		REG 5		REG 6		REG 7	
	Coefficient		Coefficient		Coefficient		Coefficient		Coefficient		Coefficient		Coefficient	
	Standard Error		Standard Error		Standard Error		Standard Error		Standard Error		Standard Error		Standard Error	
<b>Intercept</b>	-1,036 ***	0,162	-1,232 ***	0,159	-1,310 ***	0,161	-1,039 ***	0,164	-1,038 ***	0,165	-1,041 ***	0,162	-1,032 ***	0,162
<b>ln(GDP)</b>	1,202 ***	0,012	1,204 ***	0,011	1,200 ***	0,011	1,181 ***	0,012	1,181 ***	0,012	1,181 ***	0,011	1,181 ***	0,011
<b>ln(POP)</b>	-0,350 ***	0,012	-0,348 ***	0,012	-0,343 ***	0,012	-0,332 ***	0,012	-0,332 ***	0,012	-0,332 ***	0,012	-0,331 ***	0,012
<b>TRAINS_TAR</b>	-0,016 ***	0,002	-0,013 ***	0,002	-0,013 ***	0,002	-0,013 ***	0,002	-0,013 ***	0,002	-0,013 ***	0,002	-0,013 ***	0,002
<b>RKC_YEARS</b>			0,226 ***	0,025	0,227 ***	0,025	0,165 ***	0,027	0,164 ***	0,030	0,161 ***	0,026	0,156 ***	0,027
<b>GATTWTO</b>					0,117 ***	0,040	0,110 ***	0,040	0,110 ***	0,040	0,100 **	0,039	0,101 **	0,039
<b>RKCS</b>							0,219 ***	0,033	0,215 ***	0,052	0,300 ***	0,035	0,303 ***	0,035
<b>RKCF</b>									0,006	0,064				
<b>SA15S</b>											-0,496 ***	0,070	-0,579 ***	0,112
<b>SA15F</b>													0,131	0,136
<b>Adjusted R-squared</b>	0,949		0,952		0,952		0,953		0,953		0,955		0,955	
<b>Observations included</b>	1545		1545		1545		1545		1545		1545		1545	

Note: Statistical significance at 10 (\*), 5 (\*\*), and 1 (\*\*\*) per cent.

There seems to be a correlation between signature of the RKC and increased import volumes. In order to more obtain a better interpretation of the coefficients, logarithmic tariff data has to be applied. As some countries in the data set have zero-tariff during some time periods, data on those countries and years have to be excluded<sup>24</sup>. Results from these regressions are presented in table 6.

<sup>24</sup> Countries excluded are Hong Kong SAR, Kyrgyz Republic, Libya, Macao SAR, Singapore, Switzerland and Turkmenistan.

Table 6: Results of OLS regressions (logarithmic tariffs)

	REG 1		REG 2		REG 3		REG 4	
	Coefficient		Coefficient		Coefficient		Coefficient	
	Standard Error		Standard Error		Standard Error		Standard Error	
<b>Intercept</b>	-0,384	**	-0,407	**	-0,180		-0,207	
	0,166		0,164		0,173		0,170	
<b>ln(GDP)</b>	1,153	***	1,155	***	1,131	***	1,133	***
	0,011		0,011		0,012		0,012	
<b>ln(POP)</b>	-0,315	***	-0,315	***	-0,287	***	-0,288	***
	0,012		0,011		0,012		0,012	
<b>ln(WB_TAR)</b>	-0,196	***	-0,190	***				
	0,015		0,015					
<b>ln(WB_TRAINS)</b>					-0,225	***	-0,218	***
					0,016		0,016	
<b>RKC_YEARS</b>	0,124	***	0,119	***	0,164	***	0,154	***
	0,027		0,024		0,028		0,025	
<b>GATTWTO</b>	0,113	***	0,105	***	0,087	**	0,080	**
	0,035		0,035		0,038		0,038	
<b>RKCS</b>	0,170	***	0,242	***	0,168	***	0,235	***
	0,046		0,032		0,049		0,034	
<b>RKCF</b>	0,005				-0,017			
	0,058				0,061			
<b>SA15S</b>			-0,518	***			-0,512	***
			0,105				0,106	
<b>SA15F</b>			0,097				0,109	
			0,129				0,130	
<b>Adjusted R-squared</b>	0,956		0,957		0,958		0,959	
<b>Observations included</b>	1775		1775		1534		1534	

Note: Statistical significance at 10 (\*), 5 (\*\*\*) and 1 (\*\*\*) per cent.

Results are similar to the two previous series of regressions, but now the tariff coefficients can be interpreted correctly. Note that *RKCS* and *SA15S* coefficients show almost identical values between the two tariff data sets. As the quite strong negative correlation between *SA15S* and imports is hard to connect to appropriate theory and possibly is the result of selection bias, REG1 and REG3 probably is more reliable. The *RKCS* coefficients in REG1 and REG3 are approximately 0.17, implying that imports tend to rise by 0.17 per cent as a result of signing the RKC. Considering the REG2 and REG4 coefficients for *RKCS*, the impact on imports is expected to be even higher, 0.24 per cent.

This 0.17-0.24 per cent impact on trade may seem negligible, but if the nations which so far has been reluctant to sign the RKC decide to harmonize their customs administration according to the principles outlined in the General Annex, those 0.17-0.24 per cent imply a US\$ 4.7 – 6.6 billion increase in international trade<sup>25</sup>. Assuming that the present contracting parties of the

<sup>25</sup> Calculated using World Bank Development Indicators data (2011) with import value data for year 2010 for 88 economies which by the year of 2010 have not signed the RKC.

RKC import volumes were to be 0.17-0.24 per cent lower if those countries did not sign the convention, values of international trade would be US\$ 19.3 – 27.3 billion<sup>26</sup> lower.

It is clear that acceptance of principles in the General Annex of the RKC promote international trade and facilitate creation of possible business opportunities as supply chains are guaranteed some basic security. If non-contracting parties choose not to sign in order to protect domestic producers, a more appropriate measure for protection would have been tariff adjustments. If tariffs were to increase by 1 per cent, this would provide approximately the same level of protection for domestic producers and in addition generate government revenue. On the other hand, increasing tariffs may not be an option for many countries as a great number of tariff lines are bound and not easily raised<sup>27</sup>. The Uruguay round negotiations resulted in 99 per cent bound tariffs for developed countries and 73 per cent for developing countries (WTO 2012d).

## Concluding Remarks

This paper aimed to estimate the WCO Revised Kyoto Convention's impact on international trade. The econometric approach has proved that the principles of the General Annex are significantly correlated with increased trade volumes. The results of this paper suggest that signature of the RKC increase trade by 0.17-0.24 per cent. This implies a potential US\$ 4.7 – 6.6 billion increase in world trade if non-contracting parties were to comply with the provisions of the General Annex. Harmonizing customs procedures and signature of the RKC seems to support importers as imports tend to increase. However, the econometric approach shows a strong negative correlation between acceptance of Specific Annexes and import volumes. This is presumably due to selection bias, as this negative correlation is not supported by theory. Implementation of provisions of the Specific Annexes' impact on trade is therefor still unclear.

It is widely agreed that trade facilitation may boost trade through reduction of unnecessary obstacles in procedures regarding the movement of goods, subsequently increasing possible gains of trade. Trade facilitation programs are about simplification of existing procedures, but also about implementation of modern procedures accompanied by modern technology. This may be an explanation to why many African countries have been reluctant to join the RKC. Other reasons are derived from the nations' different objectives, industrialized nations tend to

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<sup>26</sup> Calculated using World Bank Development Indicators data (2011) with import value data for year 2010.

<sup>27</sup> Note that bound tariffs are also promoting trade as a guaranteed tariff provides security for investors.

focus on facilitating the movement of goods, while less developed countries emphasize on efficient collection of customs revenue<sup>28</sup>.

The increasingly tangled structure of trade routes and supply networks put pressure on the national Customs to improve their efficiency. Multilateral implementation is required, and the approach in this paper shows that multilateral trade facilitation programs works. As traditional customs administrations can be regarded as NTBs, the WTO multilateral negotiations on trade facilitation calls for harmonization and simplification of customs procedures. The WCO answered. The RKC is a step in the right direction.

### Further Research

The time of entry into force of the RKC may of course vary a great deal between contracting members, as the implementation period may (and is allowed to) be long. In addition, the WCO principles cannot be enforced, and implementation is entirely up to the individual contracting parties. The impact on trade presented in this paper is probably somewhat inaccurate. Case studies on the contracting members may provide more precise information on implementation and national legislative reform. The appliance of more accurate implementation dates may provide more accurate econometric results.

The World Bank Doing Business Database may constitute an ample tool for trade facilitation research. Unfortunately, the Doing Business Database cross-border trade has no data from before the year of 2005. In the future, analysis on trade facilitation measures may be supported by data on import and export times, documentation (for example simplification on rules of origin) and trade costs.

Other interesting research for further understanding of legislative harmonization may be pursued in the Middle and South American and the Caribbean part of the world, where there is poor interest of the RKC. Regarding the cross-border trade environment in those countries (table 2) they are far from worst off. Obstacles to participation are probably not only linked to economic hardships, as some poor African countries<sup>29</sup> are contracting members, but instead to inefficient legislative system or simply desires to protect domestic producers.

In a broader sense, possible research on trade facilitation is diverse, as the concept of trade facilitation is very wide. For the purpose of evaluating the effects of implementation of trade

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<sup>28</sup> In many developing countries importers tend to undervalue imported goods to avoid duties. (Rajkarnikar 2006:10)

<sup>29</sup> Uganda, Rwanda, Madagascar, Sudan and Zambia are all contracting parties to the RKC and classified as Least Developed Countries by the UN.

facilitation measures, surveys on individual nations should not only comprise national legislation but also look into the relevance of government actors in cross border trade operations. In many cases, it seems as the actual process of implementation of programs, guidelines and recommendation is disregarded and neglected. Difficulties in implementation may not always be derived from economic hardships, but is most certainly affected by the institutional framework, legislative structure, political and social stability, traditions, customs and common values. Naturally, all international involvement in national legislation may be regarded as an infraction damaging the sovereignty of the individual state. It probably takes more than financial and technical support to promote multilateral trade facilitation programs. The conflict of interests of actors, private or governmental, shapes the international trade environment. Possible socio-economic research on international actors may clear the picture, and identify dissimilarities in certain values and attitude in the multilateral trade talks. The efforts of international organizations are substantial, but the implementation varies a great deal between countries. Heterogeneity in implementation has been proven welfare-decreasing for those economies lagging behind (OECD 2003:39).

\* \* \*

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## Appendix 2: WCO Members

WCO members as listed on the WCO(2011) website.		
* Also a WTO member		
# RKC contracting party		
Afghanistan (Islamic Republic of)	Gabon *	Nigeria *
Albania *	Gambia *	Norway * #
Algeria #	Georgia *	Oman *
Andorra	Germany * #	Pakistan * #
Angola *	Ghana *	Panama *
Armenia *	Greece * #	Papua New Guinea *
Australia * #	Guatemala *	Paraguay *
Austria * #	Guinea *	Peru *
Azerbaijan #	Guinea-Bissau *	Philippines * #
Bahamas	Guyana *	Poland * #
Bahrain *	Haiti *	Portugal * #
Bangladesh *	Honduras *	Qatar * #
Barbados *	Hong Kong (China) *	Romania * #
Belarus #	Hungary * #	Russian Federation #
Belgium * #	Iceland *	Rwanda * #
Belize *	India * #	Saint Lucia *
Benin *	Indonesia *	Samoa *
Bermuda	Iran (Islamic Republic of) #	Sao Tome and Principe
Bhutan	Iraq	Saudi Arabia * #
Bolivia *	Ireland * #	Senegal * #
Bosnia & Herzegovina	Israel *	Serbia #
Botswana * #	Italy * #	Seychelles
Brazil *	Jamaica *	Sierra Leone *
Brunei Darussalam *	Japan * #	Singapore *
Bulgaria * #	Jordan *	Slovakia * #
Burkina Faso *	Kazakhstan #	Slovenia * #
Burundi *	Kenya * #	South Africa * #
Cambodia *	Korea (Republic of) * #	Spain * #
Cameroon *	Kuwait *	Sri Lanka * #
Canada * #	Kyrgyzstan *	Sudan #
Cape Verde *	Lao People's Democratic Republic	Swaziland *
Central African Republic *	Latvia * #	Sweden * #
Chad *	Lebanon	Switzerland * #
Chile *	Lesotho * #	Syrian Arab Republic
China * #	Liberia	Tajikistan
Colombia *	Libyan Arab Jamahiriya	Tanzania *
Comoros	Lithuania * #	Thailand *
Congo (Republic of the) *	Luxembourg * #	The Former Yugoslav Republic of Macedonia * #
Costa Rica *	Macau (China) *	Timor Leste
Côte d'Ivoire *	Madagascar * #	Togo *
Croatia * #	Malawi *	Tonga *
Cuba * #	Malaysia * #	Trinidad and Tobago *
Curaçao	Maldives *	Tunisia *
Cyprus * #	Mali * #	Turkey * #
Czech Republic * #	Malta * #	Turkmenistan
Democratic Republic of the Congo *	Mauritania *	Uganda * #
Denmark * #	Mauritius * #	Ukraine * #
Djibouti *	Mexico *	Union of Myanmar (Republic of the)
Dominican Republic*	Moldova *	United Arab Emirates * #
Ecuador *	Mongolia * #	United Kingdom * #
Egypt * #	Montenegro * #	United States * #
El Salvador *	Morocco * #	Uruguay *
Eritrea	Mozambique *	Uzbekistan
Estonia * #	Namibia * #	Vanuatu
Ethiopia	Nepal *	Venezuela *
European Union * #	Netherlands * #	Vietnam * #
Fiji * #	New Zealand * #	Yemen
Finland * #	Nicaragua *	Zambia * #
France * #	Niger *	Zimbabwe * #

Total: 177

## Appendix 3: General and Special Annexes of the RKC

- General Annex<sup>30</sup>

### Chapter 3: Clearance and other Customs Formalities.

Several aspects of customs clearance and formalities are to be standardized.

Affected aspects include Customs offices; declarants; goods declaration; lodgments, registration and checking of goods declaration; special procedures for authorized persons; examination of goods; errors; release of goods and abandonment and destruction of goods.

### Chapter 4: Duties and Taxes.

contracting parties should, in national legislation, standardize assessment, collection and payment of duties and taxes, deferred payment and repayment of duties and taxes and rates and duties shall be published officially.

### Chapter 5: Security.

Regulations regarding Customs security requirements, provisions of security and fees and charges related to security requirements. Security *“means that which ensures to the satisfaction of the Customs that an obligation to the Customs will be fulfilled”* (RKC General Annex Chapter 2)

### Chapter 6: Customs Control.

All goods, liable to taxes and duties or not, are subjects to Customs control. These controls *“should be limited to that necessary to ensure compliance with the Customs law”* (RKC General Annex Chapter 6 Standard 2). Customs should use risk management strategies, engage in mutual co-operation and *“to the greatest possible extent”* use information technology (RKC General Annex Chapter 6 Transitional Standard 9).

### Chapter 7: Application of Information Technology.

Technology shall support Customs operations wherever it is cost-effective and efficient and relevant internationally accepted standards shall be used.

### Chapter 8: Relationships between the Customs and Third Parties.

contracting parties should clarify in national legislation under which circumstances a third party may act for and on behalf of another natural or legal person dealing with Customs in matters of importation, exportation, movement or storage of goods. Third parties should have the same rights as the person who designated the third party.

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<sup>30</sup> Chapter 1 and 2 comprise General Principles and Definitions.

Chapter 9: Information, Decisions and Rulings Supplied by the Customs.

All relevant information should be available to any interested person. Changes should be available in advance to ensure that interested persons may take them into account. Information of specific nature should be provided on request.

Reasons for Customs decision should be granted and the right of appeal advised.

Chapter 10: Appeals in Customs Matters.

Any person directly affected by decisions made by the Customs shall have the right to appeal, supported by the national legislation, and also have the right of a further appeal to an independent authority apart from the Customs administration.

- Specific Annex A: Arrival of goods in a Customs territory.

Chapter 1: Formalities prior to the lodgments of the goods declaration.

Provisions on the standardization of operations carried out by concerned persons and by the Customs from the time goods are introduced into the Customs territory until placed under a Customs procedure. Provisions include standards on the introduction of goods to the Customs territory, Production of goods to the Customs, Unloading of goods and limitation of charges.

Chapter 2: Temporary storage of goods.

Provisions on the storage of goods under Customs control. Concerned topics include documentation, management of stores, operations on goods in temporary storage and duration of storage.

- Specific Annex B: Importation.

Chapter 1: Clearance for home use<sup>31</sup>.

This chapter consists of a single Recommended Practice implying that goods intended for home use may be cleared in an alternative manner to the standard goods declaration, naturally upon the payment of any import duties and compliance with Customs formalities.

Chapter 2: Re-importation in the same state.

Provisions regarding Customs procedures under which previously exported goods may be re-imported for home use free of duties and taxes, provided that those goods have not undergone manufacturing, processing or repair abroad.

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<sup>31</sup> RKC definition: "clearance for home use" means the Customs procedure which provides that imported goods enter into free circulation in the Customs territory upon the payment of any import duties and taxes chargeable and the accomplishment of all the necessary Customs formalities.

### Chapter 3: Relief from import duties and taxes.

Provisions on goods relieved from import duties and taxes, essentially goods imported for home use.

- Specific Annex C: Exportation.

#### Chapter 1: Outright exportation.

Provisions on Customs procedures applicable on exported goods intended to remain permanently abroad. Recommended practice is to let such good be declared in an alternative manner to the standard goods declaration.

Furthermore, the exporting Customs administration are not the require evidence of arrival at destination.

- Specific Annex D: Customs warehouses and free zones.

#### Chapter 1: Customs warehouses.

Provisions on Customs procedures regarding imported goods stored under Customs control without payment of import duties and taxes. Concerned topics include establishment and management of stores, operations on goods and transfer of ownership.

#### Chapter 2: Free zones.

Provisions on territories within the geographical territory of contracting parties were introduced goods are treated, insofar as import duties and taxes are concerned, as being outside the Customs territory. Concerned topics include operations on goods, security and duration of stay.

- Specific Annex E: Transit.

#### Chapter 1: Customs transit.

Provisions on transportation of goods under Customs control from a Customs office of departure (transit operation is commenced) to a Customs office of destination (transit operation is terminated) including standardization of formalities and Customs seals.

#### Chapter 2: Transshipment.

Provisions on procedures under which goods in transit are transferred under Customs control from the importing means of transport to the exporting means of transport.

#### Chapter 3: Carriage of goods coastwise.

Provisions on Customs procedures under which goods are transported to another location within the importing Customs territory prior to unloading. Concerned topics include documentation, security, loading and unloading.

- Specific Annex F: Processing.
  - Chapter 1: Inward processing.
    - Provisions on Customs procedures under which certain imported goods are relieved from import duties and taxes under the condition that such goods are intended for manufacturing, processing or repair prior to being re-exported.
  - Chapter 2: Outward processing.
    - Provisions on procedures under which goods may be temporarily exported for manufacturing, processing or repair abroad, prior to being re-imported with, to some extent, relief of import duties and taxes.
  - Chapter 3: Drawback.
    - Provisions on procedures regarding repayment of import duties and taxes when goods, relieved from such duties, are exported.
  - Chapter 4: Processing of goods for home use.
    - Provisions on Customs procedures under which goods intended for home use may be manufactured, processed or worked prior to customs clearance, to such an extent that duties and taxes applicable to the processed products is lower than that of the imported goods.
- Specific Annex G: Temporary admission.
  - Chapter 1: Temporary admission.
    - Provisions on Customs procedures under which goods imported for a specific purpose and intended for re-exportation within a specified period of time without having undergone any transformation except natural depreciation may, to some extent, be relieved from import duties and taxes.
- Specific Annex H: Offences.
  - Chapter 1: Customs Offences.
    - Provisions on the administrative settlement of breaches and attempted breaches of Customs law.
- Specific Annex J: Special Procedures.<sup>32</sup>
  - Chapter 1: Travelers.
    - Provisions on procedures regarding persons, residents and non-residents, either departing from or returning to a territory, including the dual-channel system (red/green channels upon arrival)
  - Chapter 2: Postal traffic.

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<sup>32</sup> There is no Special Annex I, as I may connote the number 1.

Provisions on Customs procedures regarding letter-post and parcels carried by a public or private body.

Chapter 3: Means of transport for commercial use.

Provisions on operations carried out by Customs and other concerned persons on means of transportation (vessels, hovercraft, aircraft, road vehicles and railway rolling stock) which is used in international traffic for transportation of goods and persons.

Chapter 4: Stores.

Provisions on Customs formalities applicable to goods intended for consumption of passengers and on board personnel as well as goods necessary for the operation and maintenance of the means of transportation.

Chapter 5: Relief consignments.

Provisions on Customs procedures regarding goods of prime necessity forwarded as aid to those affected by disaster.

- Specific Annex K: Origin.

Chapter 1: Rules of origin.

Provisions on Customs procedures on specific principles established by national legislation or international agreements applied to determine the origin of goods.

Chapter 2: Documentary evidence of origin.

Provisions on requirements of certificates and declarations of origin.

Chapter 3: Control of documentary evidence of origin.

Provisions on Customs controls on certificates and declarations of origin.



## Appendix 4: Data Coverage in Econometric Approach

World Bank tariff data cover in total 159 economies: Albania, Algeria, Angola, Antigua and Barbuda, Argentina, Armenia, Australia, Austria, Azerbaijan, The Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Belize, Benin, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Brunei Darussalam, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canada, Cape Verde, Chile, China, Colombia, Republic of the Congo, Costa Rica, Cote d'Ivoire, Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Dominica, Dominican Republic, Ecuador, Arab Republic of Egypt, El Salvador, Estonia, Ethiopia, Fiji, Finland, France, Gabon, The Gambia, Georgia, Germany, Ghana, Greece, Grenada, Grenada, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Hong Kong SAR, Hungary, Iceland, India, Indonesia, Islamic Republic of Iran, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Republic of Korea, Kuwait, Kyrgyz Republic, People's Democratic Republic of Lao, Latvia, Lebanon, Lesotho, Libya, Lithuania, Luxembourg, Macao SAR, Former Yugoslavian Republic of Macedonia, Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Mauritius, Mexico, Moldova, Mongolia, Morocco, Mozambique, Myanmar, Namibia, Nepal, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Oman, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Romania, Russian Federation, Rwanda, Saudi Arabia, Senegal, Seychelles, Singapore, Slovak Republic, Slovenia, Solomon Islands, South Africa, Spain, Sri Lanka, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Sudan, Suriname, Swaziland, Sweden, Switzerland, Syrian Arab Republic, Tajikistan, Tanzania, Thailand, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkey, Uganda, Ukraine, United Kingdom, United States, Uruguay, Vanuatu, Bolivian Republic of Venezuela, Vietnam, Republic of Yemen and Zambia.

UNCTAD TRAINS tariff data lack data on 12 economies: The Bahamas, Republic of the Congo, Arab Republic of Egypt, The Gambia, Hong Kong SAR, Islamic Republic of Iran, Republic of Korea, Luxembourg, Former Yugoslavian Republic of Macedonia, Netherlands, Portugal and Spain.