

Tariffic* Tuna

A study on the impact of rules of origin on Thailand's tuna trade

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* From *Tarrification*: An effort of converting existing agricultural Non-Trade Barriers (NTB) to bound tariffs and reducing them over time.

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ABSTRACT

The purpose of this study is to evaluate the impact of Rules of Origin (RoO) on the tuna trade in Thailand by comparing the existing trade agreements of two major partners, the EU and Japan. It is widely recognised that RoO affect the outcome of preferential trade agreements (PTA) due to its complicated nature. Thailand is the largest producer of canned tuna in the world and conducts its trade with the EU under the Generalized System of Preferences (GSP) and with Japan under the recently implemented Japan-Thailand Economic Partnership Agreement (JTEPA). Comparing the two trading arrangements, focusing especially on the RoO, this study found significant differences between the two. The JTEPA has more lenient RoO than the GSP which affects Thailand's trade pattern, both in terms of import and export. The cumulation rules offered by the JTEPA were found to be particularly beneficial for the Thai tuna industry, leading to increased south-south trade in the region. Utilization rates for the EU GSP are very low, much due to the strict RoO. Comprehensive data for the JTEPA is lacking in this study, but the more liberal RoO in the JTEPA is likely to lead to a higher utilization rate. The study concludes that extended cumulation has a significant effect on the economic impact of the RoO and therefore has a vital role to play in the future reform of the RoO.

Keywords:

Rules of Origin, Thailand, Canned tuna, PTA, GSP, JTEPA, Utilization rate

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LIST OF ABBREVIATIONS AND ACRONYMS

ACP	African, Caribbean and Pacific countries
ASEAN	Association of Southeast Asian Nations
CRO	the Committee on Rules of Origin
EEZ	Exclusive Economic Zone
EU	European Union
FAO	Food and Agriculture Organization of United Nations
FTA	Free Trade Agreement
GATT	General Agreement on Tariffs and Trade
GSP	Generalized System of Preferences
HS	Harmonized System
HWP	the Harmonization Work Programme
iEPA	Interim Economic Partnership Agreement
IOTC	Indian Ocean Tuna Commission
IUU	Illegal, Unreported and Unregulated fishing
JTEPA	Japan-Thailand Economic Partnership Agreement
LDC	the Least Developed Countries
MFN	Most Favoured Nation
MT	Metric Tonnes
NSO	National Statistics Office of Thailand
PNG	Papua New Guinea
PTA	Preferential Trade Agreement
RoO	Rules of Origin
TRQ	Tariff Rate Quota
USD	US Dollar
WTO	World Trade Organization

1 INTRODUCTION

There are 283 Preferential Trade Agreements (PTA) in force in the world today and in total, 474 agreements have been notified to the World Trade Organization (WTO) throughout the years.² The sheer number of agreements has created an intricate web of overlapping agreements and this is where the Rules of Origin (RoO) come into play. The rules determine the geographical origin of a good and consequently ensure that only the beneficiary countries in the PTA can gain from the agreement.

RoO is included in virtually all trade agreements today, but despite the wide use, there is a lack of harmonization. The rules are often formulated in a technical way which leaves room for goods to have their origin set in different ways, which in turn leads to transaction costs and economic inefficiencies. This makes it interesting to analyse the impact of RoO. How do the rules affect trade and to which extent does the design of the RoO affect the economic outcome of a PTA? Failure to meet origin requirements excludes the product from preferential treatment, a fact that makes RoO a central market-access instrument in the PTA context.³ It is generally accepted that participation in global, economic activities promotes economic growth and reduces poverty through trade creation.⁴ If RoO are too strict and too costly, these benefits will not occur which potentially affect economic development.

This paper uses the tuna industry in Thailand as case study to illustrate the economic impact of RoO. Thailand is a developing country with a high dependency on trade. It is also one of the world's major tuna exporters. The tuna trade is conducted under preferential agreements, but the terms of the agreements, and thus the design of RoO,

² WTO (2010) *Regional Trade Agreements*

³ Estevadeordal and Souminen (2004) p.70-71

⁴ Erasmus, Flatters and Kirk (2003) p.265

differ between the export partners. This study will compare the differences in the trade agreements between two of Thailand's most important trade partners, the EU and Japan. The EU Generalized System of Preferences (GSP) and the Japan-Thailand Economic Partnership Agreement (JTEPA) differ in many ways, not least in terms of cumulation. Based on these differences, this study aims to make an assessment on the effects of RoO.

1.1 PURPOSE

The purpose of this paper is to analyse the economic impact of RoO on the tuna trade in Thailand. The study focuses on Thailand's export to the EU and Japan. The following questions will be answered in order to fulfil this purpose:

- What are the differences in Thailand's trade arrangements with the EU and Japan respectively, both in general terms and in the design of the RoO?
- Can these differences be considered to influence Thailand's trading pattern? Does Thailand export different goods depending on the PTA and can these possible differences be related to RoO?
- Does RoO affect the import of inputs to the Thai tuna industry?
- To which extent does Thailand utilize its trade agreements with the EU and Japan? Can RoO be deemed to influence the utilization rate?

1.2 DELIMITATIONS

Thailand's perhaps most important market for tuna products, USA, has been excluded in this study. The reason for this is the fact that canned tuna is virtually the only tuna product that Thailand exports at a significant level. In the US GSP, which expired in 2010 and has not been renewed since, reduced tariff for canned tuna exports is only available to A+ countries. A+ countries are the Least Developed Countries (LDC) in the world, a group which Thailand is not counted towards. Therefore canned tuna

cannot be exported to USA under a reduced tariff and the impact of RoO becomes impossible to determine.

1.3 DATA

The data used in the paper has been collected from several different sources. Trade statistics are in general downloaded from the COMTRADE database. However certain numbers have been provided with the assistance of the EU Commission in Brussels. Data on import of inputs as well as Thai export of canned tuna has been acquired from the Department of Fisheries in Thailand, while the National Statistical Office (NSO) in Thailand provided production data for the canning industry.

1.4 DISPOSITION

The following chapter gives a background to the topic including a short historic description of RoO. Chapter 3 continues the background with an overview of the tuna industry in Thailand, focusing especially on the canning industry. The overall development of the industry, production methods and future challenges will be presented here. The next chapter focuses on RoO. It explains the economic theory of the RoO and provides analytical tools for the coming analysis. Chapter 5 deals with the PTAs Thailand have agreed with the EU and Japan, describing them in detail with particular attention to RoO. Concluding the chapter is a comparison between the respective trade agreements. Chapter 6 discusses the questions set out in part 1.1. Import- and export data will be presented here and analysed in depth. Chapter 7 offers a short summary of the study along with concluding remarks.

2 RULES OF ORIGIN – PAST AND PRESENT

This chapter serves as a background and introduction to the RoO. It explains why RoO is needed in the global trading system, with special attention to the increased fragmentation of the production process and the risk of trade deflection. Concluding the chapter is a short historical overview of the RoO and its developments since the 1970s.

2.1 ROO BACKGROUND

In the international trade context, the origin of the product is essential. The economic climate has changed drastically due to globalisation. There has been an increased interdependence between countries which has fuelled the need for trade liberalization. The introduction of the General Agreement of Tariffs and Trade (GATT) has paved way for a surge of PTAs worldwide. Globalization has also split up the production process of goods. It is common today for the production of a good to go through many production stages in different countries. This international fragmentation of production has contributed to a vertical specialization within the production process. Different countries specialize in different stages of the production sequence, depending on their comparative advantage. The increased fragmentation explains the need for the complex set of rules regarding the origin of goods.⁵

The RoO are also used to prevent countries from exploiting different import tariff levels among trade partners. This practise is called trade deflection and can be defined as a change of direction for imports going through the country with the lowest import tariff. For example if the EU has an import tariff on American goods but not on Norwegian equivalents, RoO is needed in order to prevent import of American products into the EU via Norway. Without the RoO, USA could gain advantages by

⁵ Augier et al (2005) p.568

exploiting different tariff levels between partner-countries, which would damage the relations between countries in the PTA.⁶

2.2 ROO HISTORY

Prior to the Uruguay round, no real attempts to harmonize the RoO was conducted. The establishment of the GSP in the 1970s was the first serious effort to deal with the RoO. However most of the preference-giving countries opted against a general agreement and decided to keep their own origin systems. In general the awareness surrounding RoO was low and the system lacked a valid method of determining the origin of goods.⁷

In the Uruguay-round the multilateral negotiations regarding the RoO started to show some significant results. Discussions started in June 1989 and an agreement was made a year and a half later. One of the most significant achievements was the definition of the difference between preferential and non-preferential RoO systems. A general harmonization of the rules was also achieved, along with a mechanism for dispute settlement, notification and consultation. This laid the foundation for the Agreement on Rules of Origin which was established along with the WTO in the Marrakesh Agreement in 1995.⁸

In recent years the debate regarding RoO has focused on harmonization. The Harmonization Work Programme (HWP) started with the creation of WTO and aimed for further harmonization of the non-preferential RoO. The programme started at 1995 and was supposed to be completed in 1998. But due to the complexity of the issue the

⁶ Nauman (2010) p.1

⁷ Nauman (2010). p.2

⁸ Brenton and Imagawa (2004) p.188

completion was postponed to 1999.⁹ In June 1999 around 500 issues concerned with RoO were presented to the WTO Committee on Rules of Origin (CRO). A new deadline at 2007 was put up in order to solve these issues.¹⁰ Leading up to present date the CRO have agreed on specific origin rules for 1528 out of 2738 products. This accounts for approximately 55 % of the work that committee set out to do.¹¹ In 2010 new regulations were adopted by the EU for countries affected by the GSP. Rules and procedures have been simplified in order to make it easier for developing countries to meet the terms of the RoO. The LDCs were given special provisions to state origin on an increased amount of goods produced within the country. These changes apply since January 1, 2011.¹²

⁹ WTO (1998)

¹⁰ WTO (2009)

¹¹ WTO (2010) *Outgoing chair says 55% of the rules of origin agreed*

¹² EU Commission (2010) *The future of rules of origin.*

3 THE THAI TUNA INDUSTRY

Chapter 3 focuses on the Thai tuna industry, especially the canning industry. First the overall development of Thailand's tuna exports will be reviewed. The second part of the chapter takes a closer look at the canning industry, beginning with a description of the production process and continues discussing the exceptional growth of the industry in the last ten years. Lastly the chapter offers a glimpse of future challenges for the Thai canning industry.

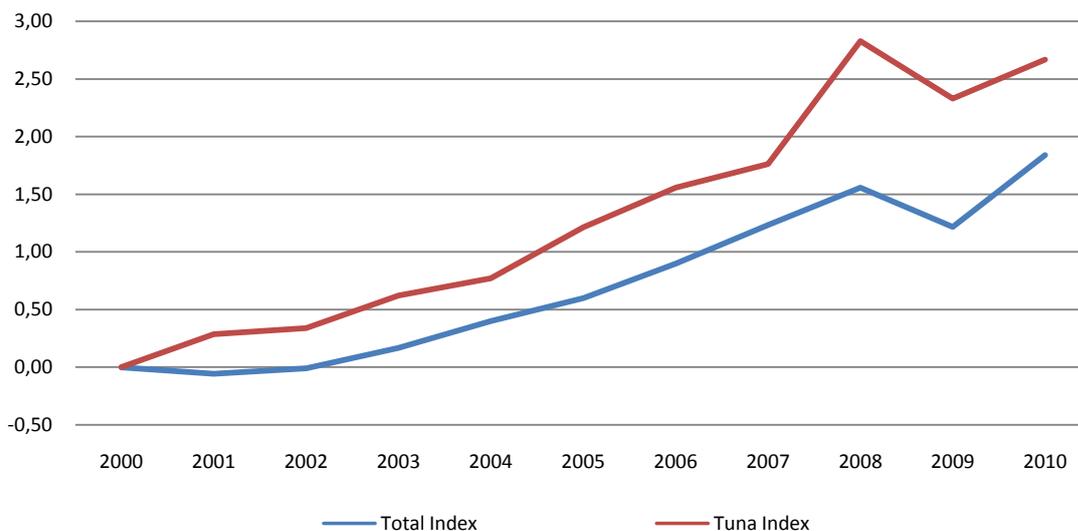
3.1 THAILAND'S TUNA EXPORTS

Thailand is one of the top exporters of seafood products in the world and tuna are one of the most important commodities. Canned tuna is particularly important; in 2010 the export value amounted to 1900 million USD which makes Thailand the largest exporter of canned tuna in the world. The canned tuna industry alone makes up for more than 25 % of the total seafood export in Thailand.¹³

Figure 1 shows the development of Thailand's tuna industry during the last ten years. The numbers presented is an aggregation of all the different tuna products exported by Thailand during the period. To put the development of the tuna industry in perspective the total export of all commodities for the period has also been added. The vertical axis represents the indexed development. It is clear that from the year 2000 the tuna industry has grown at a faster pace than Thailand's total export.

¹³ Julintron & Chalatarawat (2007) p.12

Figure 1: Thailand export world total and tuna 2000-2010



Source: COMTRADE

To a large extent it is the canning industry that is driving the growth in the tuna sector in Thailand. Global trade in tuna products has grown steadily since 2000, mainly because larger landings have made raw material easily attainable. As seen in figure 1, Thailand has been no exception. 2007 represented a break for the global tuna industry when prices suddenly rose after several years with declining prices. Thailand benefitted greatly from the higher price which is highlighted by the sharp rise between 2007 and 2008.

The US market is very important for Thailand's tuna industry and since 2002 exports have increased with nearly 6000 tonnes. As the overall American imports of canned tuna have declined slightly during the same period, Thailand has managed to increase its market share. In 2007 Thailand had a 50 % share of the US market. One of the main reasons behind this is the strong connection Thai canneries have with several American brands.¹⁴

¹⁴ FAO Globefish (2008) p.6-9

EU is also one of the most significant markets for Thai tuna products. However Thailand does not have the same dominant position in Europe compared to the US market. The Tariff Rate Quota (TRQ) arrangement with the EU between 2003 and 2008 has had a positive effect on the tuna exports. Under the presence of the TRQ Thailand was allowed to export 13000 tonnes at a reduced tariff rate to the EU.¹⁵

Exports to Japan have been growing steadily over the last decade, however not with the same pace compared to, for example, the EU. The country still qualifies as one of the major trading partners to Thailand and there are signs that the signing of the JTEPA has a positive effect on exports.

The last decade has also seen Thailand successfully targeting Arab countries like Libya, Saudi Arabia and Egypt. A significant growth in export to this region has benefitted the Thai tuna exports as a whole.¹⁶ The large drop between 2008 and 2009 is much due to the financial crisis in combination with volatile prices on fuel and raw materials.¹⁷

The sudden rise of export has put a strain on the supplies of inputs to the industry, especially in the last couple of years. Thailand has a very small tuna fishing fleet and only around 15 % of the inputs are landed by Thai fishing vessels, the rest is imported.¹⁸ This is problematic from a various reasons. Importing raw material leads to transportation costs which in turn affect the production cost. It is also a disadvantage when complying with RoO since imported inputs not always satisfies the

¹⁵ FAO (2010) *Recent developments in the tuna industry* p.98

¹⁶ FAO Globefish (2008) p.11

¹⁷ FAO (2010) *Tuna market report - Thailand*

¹⁸ Aramwatananont (2010) p.3

wholly obtainable criterion. This fact has been recognised by the Thai government. To be able to raise the yearly landings and lessen the dependence on imports for the tuna industry, significant investments has been suggested. In a first step to address the situation, 130 million Baht has been set aside for investment in longline fishing vessels. Also fishermen will also be given the opportunity for a ten year loan if they wish to convert their original fishing vessels into longline versions. As tuna stocks have declined, fishermen are forced further out at sea where longline vessels are best equipped for fishing at greater depths.¹⁹

3.2 THE CANNING INDUSTRY

In the 1970s USA was the largest producer of canned tuna. Since then the USA has gradually lost ground and today it is Thailand that is the largest producer with 46% of the world production. There has been a shift in production from highly developed areas like America and Europe, with the exception of Spain, to developing countries. Part of the shift is explained in the fact that many developing countries are closer to the raw materials. Transportation costs have been cut, along with labour costs and efficiency has increased as a result. The number of operators in the tuna industry has also been declined with a concentration of capital to a few large producers following. In the globalized world today it is not uncommon that a single operator owns both fishing vessels and canneries, while also acting as a wholesaler and retailer at the same time.²⁰ This is called vertical integration. If successful, vertically integrated companies can reduce transaction costs by controlling a larger part of the production process, standardization of products and less bargaining when conducting business.²¹

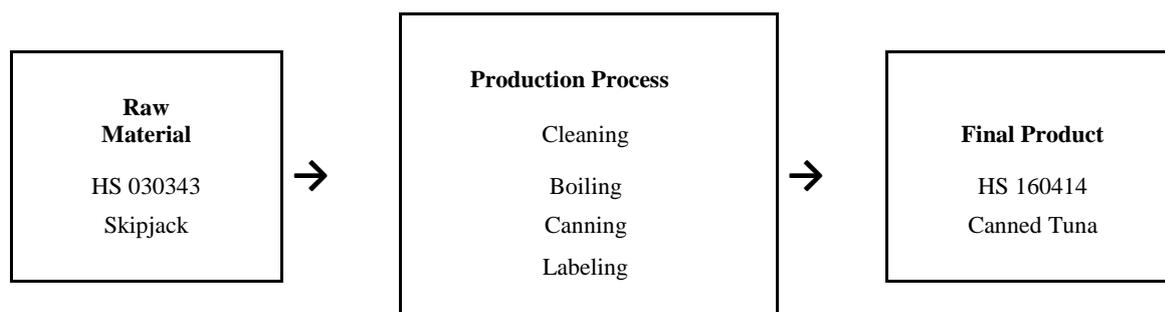
¹⁹ Bangkok Post (2010)

²⁰ FAO (2010) *Recent developments in the tuna industry* p.xviii-xix

²¹ FAO (2002) p.60-62

Thailand has 30 active canning processors today with a yearly capacity of 1.2 million metric tonnes (MT). These canneries do not only produce canned tuna, but a variety of other canned fish products as well. Canned tuna is however the most important among these type of products. The estimated production in 2010 was 815000 MT.²² Out of the 85 % imported inputs; Skipjack tuna is by far the most common in the Thai canning industry. Yellowfin tuna is also commonly used as raw material. Figure 2 shows how the production process of canned tuna works. In the process, raw material, frozen skipjack (HS 030343) in most cases, is transformed through cleaning, slicing, boiling, canning and labelling. Through this process the harmonization code changes to HS 160414 which is an important criterion in order to comply with RoO.²³

Figure 2: The production process of canned tuna



Source: Julintron & Chalatarawat (2007) p.26

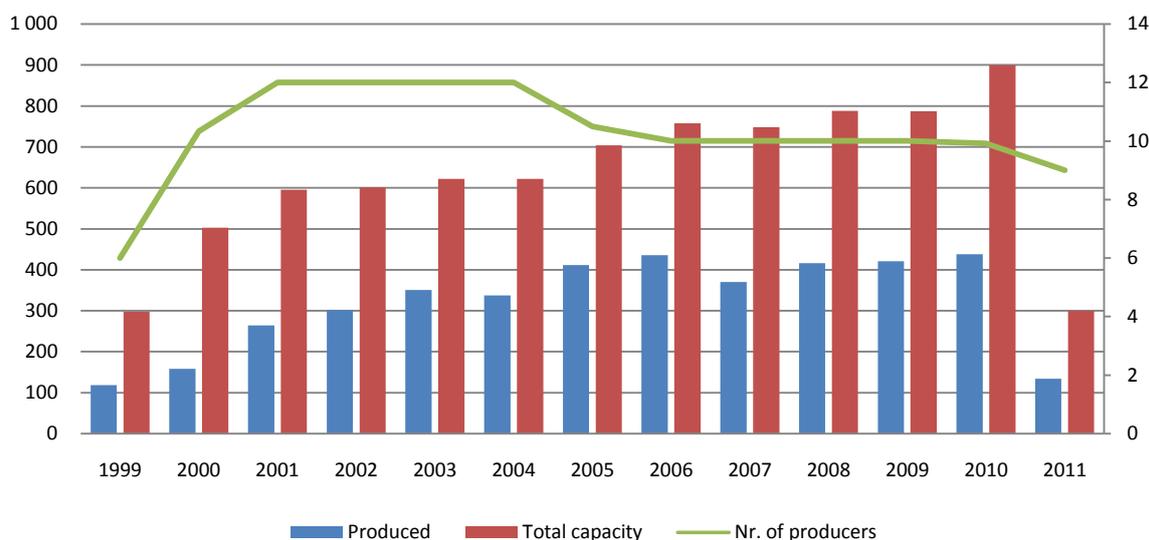
The production process is also a good example of the fragmented, global production process previously mentioned. Inputs are sourced from different countries all over the world. The first value added process, preparation of the fresh tuna by freezing it, takes place on site. The raw material is then imported by Thailand and processed further according to figure 2 above. The final product, canned tuna HS 160414, is then exported to different markets over the world.

²² Aramwatananont (2010) p.3

²³ Julintron & Chalatarawat (2007) p.26

The canning industry has grown rapidly over the last couple of years, both in terms of capacity and production. Better access to raw material is one reason behind the positive development. Improved equipment, advanced navigational systems and modernized fishing vessels have all helped to increase tuna landings all over the world. However the canning industry itself has also developed, becoming more efficient throughout the years. Figure 3 highlights the development of the canned tuna industry in Thailand over the last twelve years.

Figure 3: Capacity, production and number of producers in the canning industry, 1999-2011, 1000 tonnes



Source: National Statistics Office of Thailand

The green line shows the number of producers under the given year while the red pillar is the yearly capacity and the blue pillar the amount of canned tuna produced the given year. From 1999 until 2004 the number of producers matches the total capacity, meaning that the operators produced the same amount each year. An addition or withdrawal of an operator therefore resulted in an increase or decrease in capacity. After 2004 there is a break, the number of producers goes down while the capacity increases. In other words; the remaining producers have grown and their capacity have increased. This is an example of the concentration of capital and vertical integration

previously mentioned in this chapter. In the long run only those with a large enough production capacity manage to compete and survive.

Except for a few odd years, aggregated production has risen steadily between 1999 and 2010. Data for 2011 is only available for the first four months so making any conclusions for the year is premature. The growth in production has matched the increased capacity and beyond. Put differently the canning industry is producing closer to its full capacity in 2010 than it was in 1999. In 1999 40 % of the full capacity was produced, in 2010 it was 9 % higher. This is impressive because not only has the overall capacity increased, the number of producers have decreased slightly at the same time. The fact that Thai canned tuna producers only produce 50 % of their capacity stems from a large stock of goods. For example data from the NSO show that by the end of 2010 there was nearly 97000 tonnes of canned tuna in stock in Thailand.

3.2.1 Future outlook for the canning industry

There is however a number of future points of concern for the canning industry in Thailand. The new IUU regulations (Illegal, Unreported and Unregulated fishing) are questioned by the industry. It is doubted whether everyone is ready for the new regulations and the tuna industry has highlighted the need for a longer transition period before complete implementation. Another worry for the industry is the current trade arrangements with some of the major export partners. Competitors in Latin America and in the ACP (African, Caribbean and Pacific) countries enjoy duty free access to some of Thailand's major export markets, such as the EU. Lastly the price of raw material is highly volatile which leads increasing production costs. It also creates

uncertainty and affects sales and demand. A more stable price on raw material would promote stability and further growth.²⁴

In 2009 the EU agreed to form an interim Economic Partnership Agreement (iEPA) with Papua New Guinea (PNG) and Fiji, allowing for duty free exports to the EU and at the same time liberalizing the RoO. As a consequence, some of the major Thai tuna producers have started to invest in the area.²⁵ Around 10 % of the world's tuna are caught in PNG waters, which is one of the reasons behind the surge in foreign direct investments in the country.²⁶

²⁴ Aramwatananont (2010) p.15

²⁵ Atuna (2010)

²⁶ Business Advantage International (2011)

4 ROO THEORETICAL ASPECTS

There are two sets of RoO, preferential and non-preferential. The former applies to PTAs while the latter are more in use regarding quantitative restrictions or anti-dumping measures and government procurement.²⁷

The procedure to determine the origin of a good is a complicated matter. The requirement of “substantial” or “significant” transformation of the product is widely used. If the good is produced in only one country, then that country determines the origin of the product, this is also called the “wholly obtainable” criterion. If, on the other hand, the production process is divided between several countries, as the case is with most products today, then the origin is decided by where the last significant processing took place. The problem with this is to define what “significant” processing means. There are three general methods to specify this; change of tariff classification, ad valorem percentage and manufacturing and processing operation.

The ad valorem or the value added test is probably the most common of the three methods. In short, it states that a production process must add a significant value to the good in order to set the origin. This can be done by using three different techniques. Import content, domestic content or value of parts. The import content approach states that only a certain amount of imported goods can be used in the production process. The domestic content method on the other hand implicates that a minimum of local value must be added in the last country of production. Lastly, the value of parts system establishes origin by looking at the value of production parts. Parts from the originating country must reach a certain share of the value of the total

²⁷ Kommerskollegium (2011)

product. The downside of the value added test is the high costs related to the method.²⁸

The change of tariff classification decides the origin of the good depending on if the production process changes the classification or heading of the product, compared to the origin of the parts or materials used in the process. It is a fairly simple test; however it is also full of exceptions which affect the functionality of the system.²⁹

The processing test is basically a test designed to specify where the substantial transformation in the production process takes place. In theory this test might be the most efficient one dealing with specific cases. However it is also the one that is the most easily misused.³⁰

4.1 COSTS ANALYSIS

The potential benefits from a PTA are what Viner called trade creation. In short trade creation is when a PTA makes it more profitable for countries to give up on relatively expensive and ineffective domestic production in favour of cheaper imports from a partner country. In this way domestic resources can be made available and put to more effective use in other sectors, leading to an increase in trade and welfare. However trade creation has an opposite in trade diversion. Which of the two effects occur depends on the tariff rate. Let us assume that the partner country in the PTA is not the most effective producer of the traded good. Instead there is a third country which can produce the same good at a lower cost. This third part is however not a member of the trade agreement. Reducing tariffs for the partner country can make the importer switch to goods from the more expensive partner country instead of the cheaper third

²⁸ Falvey & Reed (1998) p.212

²⁹ Falvey & Reed (1998) p.213

³⁰ Falvey & Reed (1998) p.214

country. As the PTA members switch suppliers, no additional trade is created and as a result world efficiency declines.³¹

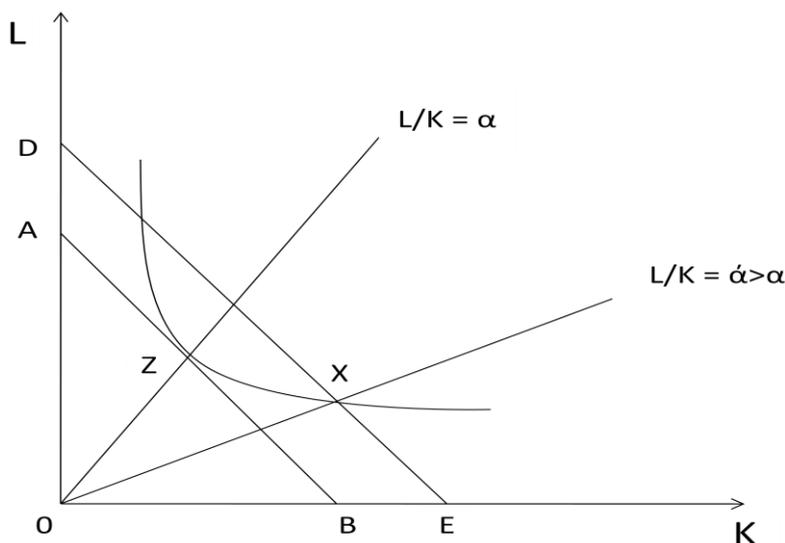
RoO can have a very direct impact on the success of a PTA. Depending on how strict or lenient the rules are they can potentially be the difference between trade creation and trade diversion. As previously mentioned globalization has meant an increase in trade agreements around the world. Many of the agreements overlap, i.e. a single country can engage in several trade agreements with many different partners, creating what Bhagwati called the “Spaghetti Bowl” of international trade arrangements. This practise brings possible distortion effects. The PTAs are often negotiated at different points in time and tariff levels are in general sector specific. The same goods can therefore have differing tariff levels depending on which PTA it is traded under and how the origin in that specific agreement is defined. Differentiating tariff levels lead to higher administration costs for both exporters and importers. The administration required complying with the varying tariff levels and RoO within PTAs creates transaction costs which, in turn, risk offsetting the benefits with the trade agreement.³²

The costs of meeting the RoO from the producers perspective can illustrated from a constant returns to scale scenario. Figure 4 below shows how PTA-made inputs (K) and the imported inputs (L) are used in the production of a good. The line AB shows the lowest possible production cost for the good given certain combinations of K and L. The curve with its tangent point Z is the unit isoquant. Z represents the mix of inputs the producer chooses, the ratio of K and L in point Z equals α .

³¹ Krugman (1991) p.7-8

³² Bhagwati et al. (1998) p.1139

Figure 4: RoO and production costs



Source: Krishna (2004) p.25.

In the presence of RoO, Z will no longer represent the least expensive input mix. The RoO will instead require the L/K ratio to be $\alpha > \alpha_0$, resulting in a shift from Z to X which represent the new, cost minimizing input mix. This in turns shifts the AB curve upwards to DE illustrating the new unit cost under the RoO. Drawing a line from the origin through X shows how the new input mix have an increased amount of the PTA made input K compared to the situation in Z where equal amounts of K and L where used. Both the demand for K and the unit cost is thus higher as a result of the RoO.³³

4.2 PARTIAL EQUILIBRIUM ANALYSIS

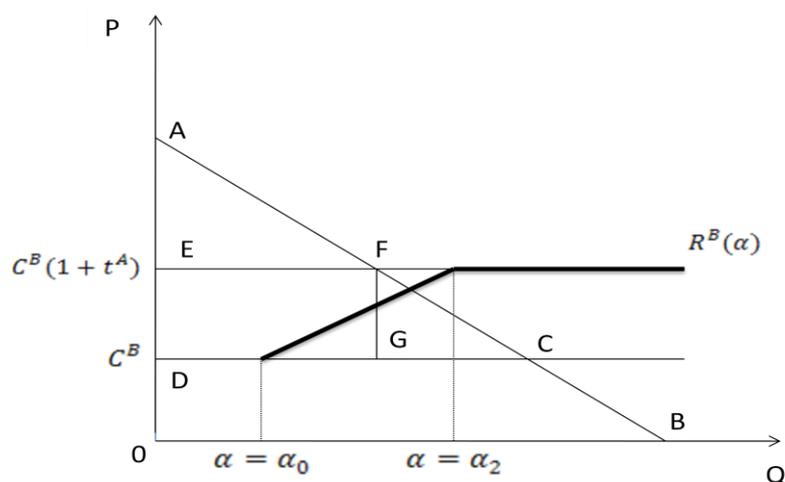
The welfare effects of RoO can be analyzed in a partial equilibrium setting. Depending on the design of the RoO, the long term effects can differ. Lenient RoO will likely have a positive effect on welfare while stringent RoO will result in the

³³ Krishna (2004) p.25

opposite. Figure 5 can help to exemplify the effects on demand, price and costs following the introduction of RoO in a PTA.

In the model there are two countries (A and B) that both import the final good from the rest of the world (RoW). The world price P^* is given. B also produces domestically to a unit cost that equals the domestic price, which in turn equals the world price. The tariff in B is zero while A has a positive tariff. A does not have any domestic production. The export decision of a PTA member will depend on the cost of complying with the RoO, and as a result having higher production costs but zero taxes, or neglecting the rules altogether and pay the tariff.

Figure 5: RoO impact on demand, prices and costs in a PTA



Source: Krishna (2004) p.27.

The world price (and the price in B) is given by C^B and $C^B(1 + t^A)$ or $R^B(\alpha)$ is the minimum price in country A. Therefore C^B represents the unrestricted unit cost and $R^B(\alpha)$ the restricted unit cost in country B. Meaning if production costs in B rises above $R^B(\alpha)$, no production will take place. The L/K ratio is denoted α as in figure 1 and the AB line represent the production possibility curve.

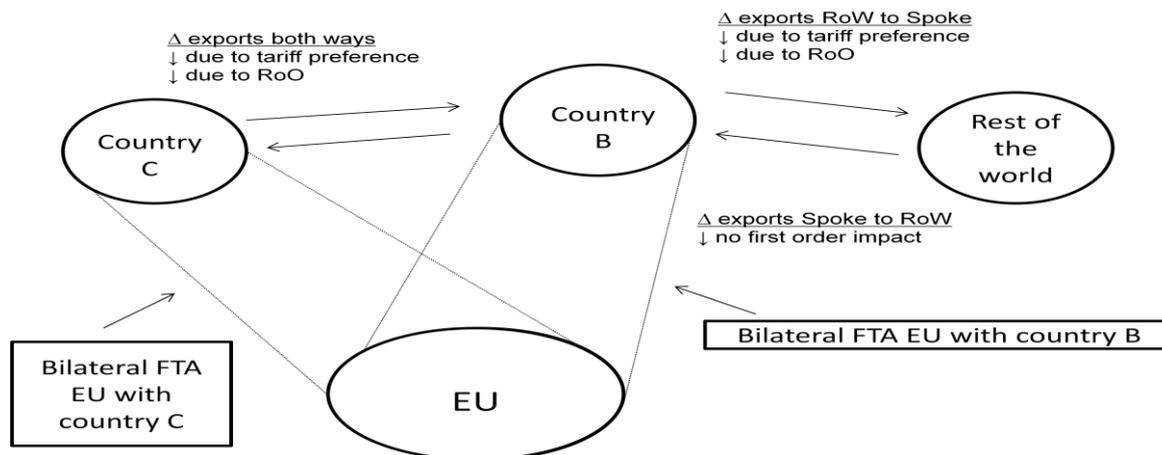
Let us now assume that RoO are lenient, then α will be below α_0 resulting in $C^B = R^B(\alpha)$. In this case, the PTA will lead to lower tariffs in A for the good produced in country B. More restrictive RoO, between α and α_2 , costs of exporting to country A would exceed the world costs but would still be below the cost of imports from outside the PTA, i.e. below the $R^B(\alpha)$ threshold for production in B. RoO over α_2 will make imports from B more expensive than imports from outside the PTA. Country A will experience a fall in prices, and increased welfare, as long as α is lower or equal α_0 . Consumer surplus (shown by EDCF) in this case be larger than the loss of tariff revenue (EFGD). As α approaches α_2 consumer surplus gets lower and lower and eventually welfare will decrease to a point below the initial level when the PTA was formed.

The effects can be summarized as follows; as RoO gets more stringent, the production costs increase and will eventually overtake the consumer surplus gain stemming from the PTA. This inclines that in the long run, engaging in a PTA can make a country worse off than not being a part of a PTA.

4.3 HUB – AND – SPOKE ANALYSIS

So far only the countries directly involved in the PTA have been considered, but RoO also affects the third country outside the PTA. The lower tariffs enjoyed by the PTA members will lead to less import from the third nation, so-called supply switching. This effect is further enhanced by the establishment of RoO. Firms from the importing countries may be required to switch to a supplier within the PTA to comply with the RoO. The extent of the supply-switching effect is also determined by market structure, the level of the importers' tariff and how "sufficiently" worked is defined. Third country effects can be further explained by the hub-and-spoke system where the members of the PTA constitute the hub and the third nation the spoke. Figure 6 shows the supply switching effect.

Figure 6: Supply-switching among the hub and spokes



Source: Augier et al (2005) p.579

B and C represents the spoke countries while EU the hub. The spokes have a bilateral trade agreement with the EU and the effects from this agreement are shown by the arrows. Trade between the spokes goes down as a result of both the bilateral agreement with the EU and the supply-switching effect from the RoO. The same effect is seen in trade between spokes and third nation, here represented by the rest of the world.³⁴

4.4 CAN ROO BE USED TO PROMOTE ECONOMIC DEVELOPMENT?

The last part of chapter three will deal with the question of RoO can be used to promote economic development. One of the most common purposes of RoO is to ensure that a part of the production process takes place within the specific country. RoO can in this case act as protection and understudy to the producers, for example through promotion of regional raw materials. Producers of these raw materials would thus gain from increased demand for local inputs.³⁵

³⁴ Augier et al (2005) p.578-580

³⁵ Erasmus, Flatters & Kirk (2003) p.266-67

RoO can also have an effect on trade and investments in a certain region. Regional cumulation rules allow countries to use inputs from a specific region without risking the possibility of not obtaining origin for the traded good. This can act as stimulation for investments within the region; to promote south-south trade and the transfer of technology. Through these processes regional cumulation and RoO can have a positive effect on economic development. There is however a risk that these desired developmental effects can be offset by overcomplicated RoO.³⁶

³⁶ Ratna (2008) p.70-71

5 ROO IN PREFERENTIAL TRADE AGREEMENTS

Thailand trades their tuna products under a number of preferential trade agreements. Two of the most important markets are the EU and Japan. In this chapter the trading arrangements these two major tuna importers have with Thailand will be reviewed, with special attention the RoO in these agreements.

5.1 TRADING WITH THE EU

Thailand's trade with the EU have for a long time been conducted under the GSP scheme. For tuna products the GSP has a tariff rate between 20 and 24 % minus 3.5 %. Canned tuna has a 24 % original tariff rate, if the origin criterion is met, 3.5 % is deducted leaving the actual tariff at 20.5%. In the beginning of 2000 Thailand turned to the WTO where they claimed that the duty free access enjoyed by the ACP countries caused a loss of market opportunities and distorted competition. After three rounds of consolidations the dispute went into mediation in 2002 and in December the same year the mediator advised the EU to agree a TRQ with Thailand. A TRQ is a system where a certain amount of a specific product can be traded for a lower tariff rate. In the tuna case a quota of 25,000 tons at a 12 % tariff rate was agreed. Thailand received 52 % or 13,000 tons of the quota while the rest went to other countries in the same region.³⁷ Within the TRQ agreement tuna products could originate in any country in the world, allowing Thailand to source inputs from anywhere without risking the origin of the product.³⁸ The initial TRQ ended in 2005 but got extended to 2008. It expired 30th of June 2008 and has not been extended again since. Tuna products from Thailand therefore went back to the Most Favoured Nation (MFN) tariff of 20-24% prior to the TRQ.³⁹

³⁷ Xuto (2005)

³⁸ European Council (2003)

³⁹ EU Commission (2009)

5.1.1 EU GSP Rules of Origin

To obtain origin under the EU GSP scheme, goods have to confer with wholly obtainable criterion. In the tuna case, this means that tuna must be landed within the Exclusive Economic Zone (EEZ) of the country. Every country with a coastline has an EEZ, in Thailand's case the EEZ is overlapping with several of its neighbouring countries making it smaller in comparison to other fishing nations.⁴⁰ In order to obtain origin when not fishing in the EEZ, one of the following conditions has to be fulfilled:

- Fishing vessels and factory ships is registered or recorded in a beneficiary country or in a EU member state
- Sail under the flag of a beneficiary country or an EU member state.
- Vessels or factory ships belong to a company that has its head office in the beneficiary country or in an EU member state along with the majority of the board being from either the beneficiary state or an EU member.
- 75% of the crew is from the beneficiary country or an EU member state.⁴¹

Satisfying one of the above stated criteria along with the sufficient working or processing requirement makes the good qualify for origin and the reduced tariff under the PTA.

5.1.1.1 Cumulation in the EU GSP

Cumulation is a powerful tool that countries can use to easier obtain origin for their products. Cumulation allows a country to source inputs from other specific countries

⁴⁰ Panjarat (2008) p.3

⁴¹ EU Commission (1993) p.21

outside the PTA, without losing the prospect of obtaining origin for the good. In the EU GSP a few different forms of cumulation exist.

- *Bilateral cumulation.* Thailand can use raw material sourced from any EU member state.
- *Diagonal cumulation.* Thailand may also use inputs from Switzerland and Norway even though these countries are not members of the EU. The geographical position of these two countries allows them to be counted among their EU neighbors.
- *Regional cumulation.* Thailand is also allowed to use inputs from countries who are members in the ASEAN⁴², except for Burma.⁴³

5.1.2 Future outlook Thailand-EU trade relations

The RoO in the EU GSP was recently revised and a new set of rules is implemented since January 2011. The reason behind the change was to improve market access for developing countries. The EU has recognized that the previous RoO was too strict and costly for developing countries to comply with and thus undermining the overall objective with the GSP scheme.⁴⁴

For Thailand the new rules do not offer any significant change from the previous scheme. The 75 % nationality rule for crew members have been taken away, but the remaining rules are still in place.⁴⁵ The cumulation rules have been extended slightly.

⁴² ASEAN member countries: Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam.

⁴³ Praweenanusorn (2008) p.8

⁴⁴ EU Commission (2010) *Official Journal of the European Union L 307 Legislation*. p.1

⁴⁵ HMSC (2010) p.1

Most of the new additions do not affect tuna products though. One change that does is that countries in group 1, where Thailand is a member, can under special circumstances be allowed to source materials from group 3. This group includes countries like India, Pakistan, Maldives and Sri Lanka.⁴⁶

Talks of an EU-ASEAN FTA have been conducted over several rounds since 2007, but negotiations made little progress and are now at a standstill. Instead the EU has started to engage in bilateral talks with individual ASEAN members. Thailand has started to make preparations for negotiations by carrying out internal consultations and impact assessments from a potential trade agreement with the EU.⁴⁷

5.2 TRADING WITH JAPAN

Japan and Thailand finalized the JTEPA in 2007. The framework for the agreement was signed in 2005 but the political climate in Thailand prolonged the finalization until 2007. Over the next ten years the overall target is to completely eliminate tariffs for 90 % of the goods traded between the two countries.⁴⁸

For agricultural products, the target is the same as the overall objective; to abolish tariffs over a ten year period, with certain exceptions being made. Tuna is a very important commodity for both countries and in recognition to this fact tariffs regarding tuna products are being eliminated over a five year period instead of ten.⁴⁹ The actual tariff rates for Japanese export of fresh fillets Skipjack, Yellowfin and

⁴⁶ EU Commission (2010) *Official Journal of the European Union L 307 Legislation*. p.11-13

⁴⁷ EU Commission (2010) *Mid-Term review of strategy 2007-2013 and Multiannual Indicative Programme 2011-2013 Thailand*. p.6

⁴⁸ The Japan Times (2007)

⁴⁹ MOFA (2005)

Bluefin started at 4.17% the first year of the JTEPA. Albacore, Bigeye and Southern Bluefin started out at a zero rate tariff level. All frozen versions of the same species where duty free from the implementation of the JTEPA.⁵⁰ Thailand on the other hand was from the start of the JTEPA allowed to export canned tuna at a 5.3 % tariff rate which in the sixth year of the agreement was to be abolished all together.⁵¹

5.2.1 JTEPA RoO

The wholly obtainable rule which is present in the EU GSP is also baseline in the JTEPA, meaning that the tuna must be landed in the domestic EEZ. If caught elsewhere the same conditions regarding ownership, crew or flag as in the EU GSP applies.⁵² When using materials sourced from outside the country, for example from countries registered with the Indian Ocean Tuna Commission (IOTC)⁵³, the production process must include a change of tariff heading. Canned tuna for example includes a change of tariff classification from HS chapter 3 to HS chapter 16, the product therefore gains Thai origin and can be exported with a reduced tariff to Japan.⁵⁴

5.2.1.1 Cumulation in JTEPA

Fish landed by vessels which are registered to the IOTC, can be used as inputs provided that the production process includes a change of tariff classification. This is a form of extended regional cumulation. Applied to the canned tuna industry in

⁵⁰MFA (2005) p.294-295

⁵¹ MFA (2005) p.160

⁵² MFA (2005) p.21

⁵³ IOTC Members: Australia, Belize, China, Comoros, Eritrea, European Union, France, Guinea, India, Indonesia, Iran, Japan, Kenya, Korea, Madagascar, Malaysia, Mauritius, Oman, Pakistan, Philippines, Seychelles, Sierra Leone, Sri Lanka, Sudan, Tanzania, Thailand, United Kingdom & Vanuatu.

⁵⁴ Japan Customs (2010) p.3

Thailand, this means raw material landed by for example Pakistan or Vanuatu can be used as inputs in canned tuna production. Bilateral cumulation between Japan and Thailand is also applicable.⁵⁵

5.3 EU GSP AND JTEPA – HOW DO THEY DIFFER?

In order to analyse the impact of RoO a comparison between the two trading schemes must be made. The trading arrangements Thailand has with the EU and Japan differs greatly in some areas and is very similar in others. For example, the EU GSP agreement is multilateral while the JTEPA is bilateral, the GSP has also been in place since the seventies while the JTEPA is only a few years old (prior to the JTEPA, Thai-Japanese trade was conducted under Japan GSP).

Going more into the details of the respective agreements, there is a large gap between the tariff levels in the two PTAs. The EU GSP system applies a MFN-tariff of 24 % for canned tuna where the equivalent tariff in the JTEPA is much lower, only 5.3%. The rate applies from the introduction of the JTEPA with the goal of reaching a duty free level after six years. If origin can be met in the EU GSP, 3.5% is deducted leaving the rate at 20.5%. The reason for the high tariff in the EU GSP is that the tuna industry is considered a sensitive sector and as a major producer and exporter, Thailand competes directly with European producers, mainly in Spain. The ACP countries for example does not reach the same export volumes and are therefore considered to be less of a threat to the European tuna industry, which is why they are offered duty free access to the European market.⁵⁶

⁵⁵ JMCTI (2007) p.4

⁵⁶ EU Commission (2009)

Albeit the actual tariff-levels matters little when the RoO criterion cannot be met. Here both PTAs are very similar. In order to obtain origin the wholly obtainable criterion has to be satisfied. Since Thailand lack a large domestic fishing fleet, sourcing large quantities of raw material is nearly impossible making the industry dependant on imported raw materials. If tuna is landed outside the EEZ the same conditions regarding ownership, crew and registration has to be fulfilled in both PTAs. Though EU has offered a slight relaxation of the rule that 75 % of the crew has to be of a certain nationality, from January 1st only 50 % is required. Both Japan and EU also includes the sufficiently worked or process requirement when using materials sourced outside the beneficiary country. Judging from the basic design of the RoO in both PTAs, it is hard to brand one more strict or lenient then the other.

The major difference instead lies in the cumulation rules. EU GSP offers both bilateral, diagonal and regional cumulation. Diagonal cumulation includes Norway, Switzerland and from January 1st, Turkey. However goods from the Harmonized System 1-24 are excluded leaving tuna products out. Question marks also have to be raised on the bilateral cumulation. The upside is that it is an effective way to obtain origin for its tuna products and export to a reduced tariff for one of its largest markets. The downside is that sourcing inputs from the EU is likely to be more expensive than using materials from other countries, due to for example higher transportation- and labor costs. Considering that the tariff reduction in the EU GSP is a mere 3.5 %, it is far from certain that the upside of bilateral cumulation outweighs the downside. The bilateral cumulation with Japan works the same way as its EU equivalent. It is likely that importing from Japan is relatively more expensive than importing from alternative sources but since the tariff is much lower compared to the EU, chances are that the benefits of a significantly lower tariff offsets the negatives of more expensive inputs. The regional cumulation offers a better and less expensive alternative to obtain origin. In the EU GSP Thailand are allowed to source inputs from ASEAN countries. Both Indonesia and Philippines are members and important tuna providers to the Thai industry. The new rules that apply from January 1st 2011 also allow for extended

cumulation from group three which includes, among others, the Maldives which is a relatively large exporter of tuna to Thailand. Still, in comparison to the JTEPA regional cumulation rules, EU GSP comes up short. The JTEPA allows Thailand to source inputs from IOTC members which are a larger group of countries than the EU GSP offers. All members of the IOTC are also fishing for tuna which is not the case with all the ASEAN members. Put differently, the pool of resources offered for cumulation by the JTEPA is far greater than the EU GSP.

In summary it is clear that the JTEPA offers better conditions than the EU GSP. In terms of the actual tariff for tuna products the difference is substantial. If looking only at the design of the RoO in the respective PTA, a comparison shows hardly any disparities at first. But when the cumulation rules are considered, the picture becomes a different one. The fact that Thailand is allowed to use inputs from IOTC members in the JTEPA is very beneficial compared to the regional cumulation in the EU GSP. The difference between the EU GSP and the JTEPA can serve as a small scale example of the spaghetti-bowl described in chapter 4.1. The two PTAs was agreed upon at different times and they have different tariff levels for the same good. The wholly obtainable criterion is used in both PTAs but the cumulation rules vary. Economic theory predicts that these differences lead to increased transaction costs for Thailand which in the end can limit the benefits of the trade agreements.

6 THE IMPACT OF ROO

This chapter will focus on the potential impact of RoO in the Thai tuna industry. The analysis will focus on the questions laid out in chapter 1:1. First Thailand's export of tuna products will be viewed, followed by the imports. The discussion on the differences between the EU GSP and the JTEPA in chapter 5.3 will be used here as the foundation for the discussion on whether the RoO influences Thailand's export and import of tuna products. Concluding the chapter is a review of the latest data on utilization rates of the EU GSP and JTEPA and a discussion on the potential influence of RoO on these rates.

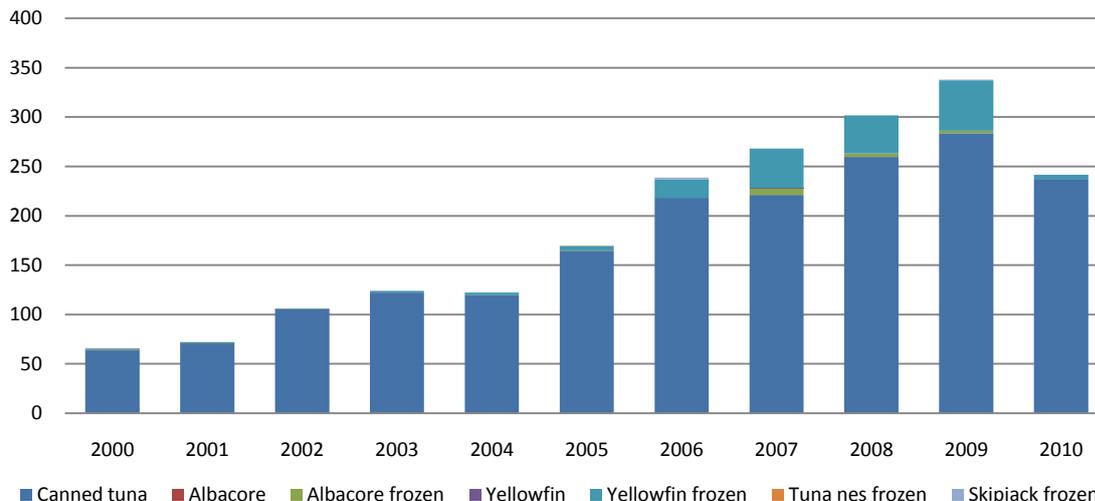
6.1 EXPORTS

In this section data describing the Thai tuna trade with EU and Japan will be revised. Overall development, volume and composition of trade are the main points for discussion.

6.1.1 EU

Figure 7 shows the total EU import of Thai tuna products over the last decade. Since year 2000, the EU has imported more and more each year up until 2010. Between 2000 and 2001 the rise was merely 6.5 million USD, but since 2002 the growth has been rapid. Except for 2004 where a small decline was registered. The composition of Thai exports to the EU is very homogeneous. It is only between 2006 and 2009 that another product (frozen Yellowfin tuna) than canned tuna made a significant contribution to the Thai tuna exports to the EU. In general the variety of tuna products imported by the EU is low. This is partly because Thailand lacks a large domestic fishing fleet. There are not enough tuna landings to both support the canning industry and at the same time export at a large scale.

Figure 7: Thailand tuna exports to EU27 in mUSD 2000-2007



Source: COMTRADE

The TRQ that was present between 2002 and 2008 is likely to have contributed to the rapid growth. The agreement let Thailand export a yearly quota of 13 000 tonnes to a significantly reduced tariff. In 2002 13 000 tonnes represented 26 % of the total net weight imported by the EU. Even though the quotas share of total exports has declined gradually since 2002, the TRQ agreement helped Thailand to increase its exports to the EU, possibly acting as a stepping stone to further growth of canned tuna exports. It is the canning industry which has been the engine behind the growth of exports. In ten years the amount of canned tuna imported by the EU from Thailand has more than doubled, from 31 700 tonnes to 64 500 tonnes. The recent drop in exports to the EU is due to a combination of factors. Prices of Skipjack and Yellowfin are rising due to lower landings in the Pacific region and with lower prices on raw material, the price on the end-product rises which in turn affects demand. Higher fuel prices have also had a negative impact.⁵⁷ The financial crisis has hit the tuna industry hard overall, but not the Thai exports to the EU. Demand rose as a result of the crisis with tuna being

⁵⁷ Atuna (2011)

viewed as an affordable source of protein. This is reflected by the rise in exports in 2009.⁵⁸ 2010 represented a major loss of exports for Thailand. Lately Thailand has been increasing its exports to the USA while many competitors have chosen to focus on the European market. It is likely that this has cost Thailand market shares. From January 1st the new IUU rules have been implemented which is expected to have a negative effect for many exporters, including Thailand.⁵⁹

6.1.2 Japan

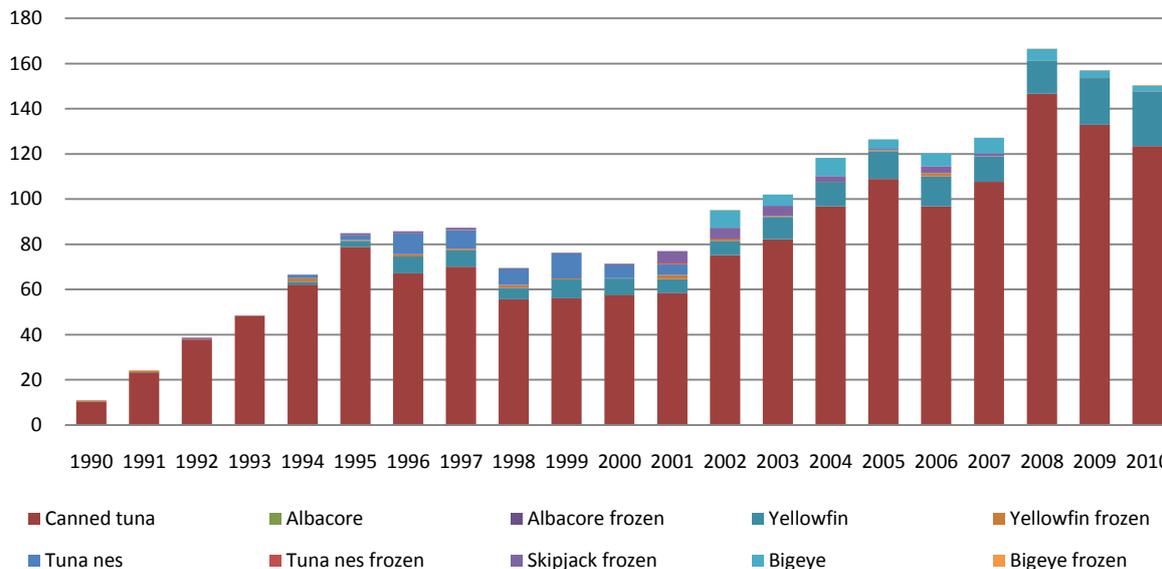
The growth of tuna exports to Japan has also been rapid. The rise of export has been fairly consistent throughout the 20 years showed in figure. The late nineties saw a decline of Thai tuna exports to Japan, as has the last two years in the figure. From 1994 to 1999 the landings of tuna was ever-increasing resulting in an oversupply of raw material for the canning industry. In combination with a low general demand for the product this led to the drop in exports shown in the figure below.⁶⁰ Perhaps the most notable fact is the jump in exports between 2007 and 2008. A probable cause here is the signing of the JTEPA. The JTEPA brought reduced tariff for over 90 % of Thailand export goods to Japan. 2008 still represent the best-ever year for Thai exports to Japan. The last two years has seen a decline and it is likely that the same reasons mentioned for the decline in exports to the EU is behind the drop, i.e. the financial crisis, higher prices on fuel and raw material.

⁵⁸ Panorama Acuicola (2009)

⁵⁹ FAO Globefish (2009)

⁶⁰ AgriBDC (2002) p.1

Figure 8: Thailand tuna exports to Japan in mUSD 1990-2010



Source: COMTRADE

Japanese imports of Thai tuna products differ slightly from the EU in terms of composition. Thailand exports a higher percentage of other tuna products than canned tuna to Japan, even though canned tuna still by far is the most important export commodity. This stems from a difference in demand patterns in Japan compared to the EU. Japan is the traditional market for Sashimi, fresh tuna steak, and even though this culture has spread to other parts of the world, it is still Japan which offers the largest market for Sashimi products. Tuna species with a high fat content are the preferred choice by Sashimi consumers, primarily Bluefin. Bigeye, Yellowfin and Albacore are also valued species.⁶¹

⁶¹ FAO (2010) p.63

6.1.3 Differences in the trading pattern and the influence of RoO

The development of Thailand's export to both the EU and Japan has been similar. Since data from the years prior to 2000 for EU27 is not available, a comparison between the two markets is not possible for those years. However from 2000 to present day the development show the same pattern of continuous growth up until 2008. In 2009 Thai exports to the EU still rose while they dropped to Japan. Differences in demand are the most likely reason. In terms of volume, EU exports exceed Japan exports by approximately 100 million USD in 2010. In the beginning of 2000 the roles were the opposite, Japan was a larger market for Thai tuna export but since 2002 EU exports has surpassed Japan. The constitution of Thai tuna exports differs somewhat between the two markets. Canned tuna is by far the most important commodity; in 2010 it represented 98 % of all tuna export to the EU and 82 % to Japan. Frozen yellowfin is the second most exported good to the EU which is probably related to the fact that EU has a large canning industry of their own. In its trade with Japan, fresh Yellowfin is the second most important commodity behind the canned tuna. Yellowfin is popular on the Sashimi market and therefore imported in large quantities. It is doubtful that the RoO affects the composition of trade in this case. The fact that canned tuna is so dominant in the Thai tuna trade leaves little room for other products to be exported. More likely it is differences in demand between the two markets that explain the variation in the composition of trade.

The most significant difference between Thailand's exports to the EU and Japan is the volume of trade. Can RoO explain this difference? In chapter 5 it was established that the JTEPA offers more lenient RoO than the EU GSP. Using these findings as a starting point for the discussion the first question has to be the following; if the EU GSP scheme can be considered stricter than the JTEPA, how come exports to the EU has out-grown Japanese equivalents during the last decade? Part of the answer lays in the fact that prior to the JTEPA; Thailand was part of the Japanese GSP which does not differ greatly from the EU version. RoO can in other words not be judged to have influenced differences in the volume of exports in the first half of the decade. The

framework for the JTEPA was agreed upon in 2005 and implemented in 2007. By comparing export data for the years prior to the agreement and after its establishment, an evaluation on the effects of RoO can be made. Table 1 presents export data for canned tuna to EU, Japan and a world total. The table also show EU and Japans share of the world total and to make a comparison between EU and Japan, Japans share of the EU export is present in the figure.

Table 1: Thailand canned tuna exports in mUSD with EU and Japan share of world total

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
EU	64	71	105	122	120	165	218	221	260	284	237
Japan	58	58	75	82	97	109	97	108	147	133	124
World	511	656	688	831	899	1 130	1 297	1 390	1 940	1 684	1 879
EU share World	12%	11%	15%	15%	13%	15%	17%	16%	13%	17%	13%
Japan share World	11%	9%	11%	10%	11%	10%	7%	8%	8%	8%	7%
Japan share EU	90%	83%	71%	67%	81%	66%	44%	49%	57%	47%	52%

Source: COMTRADE

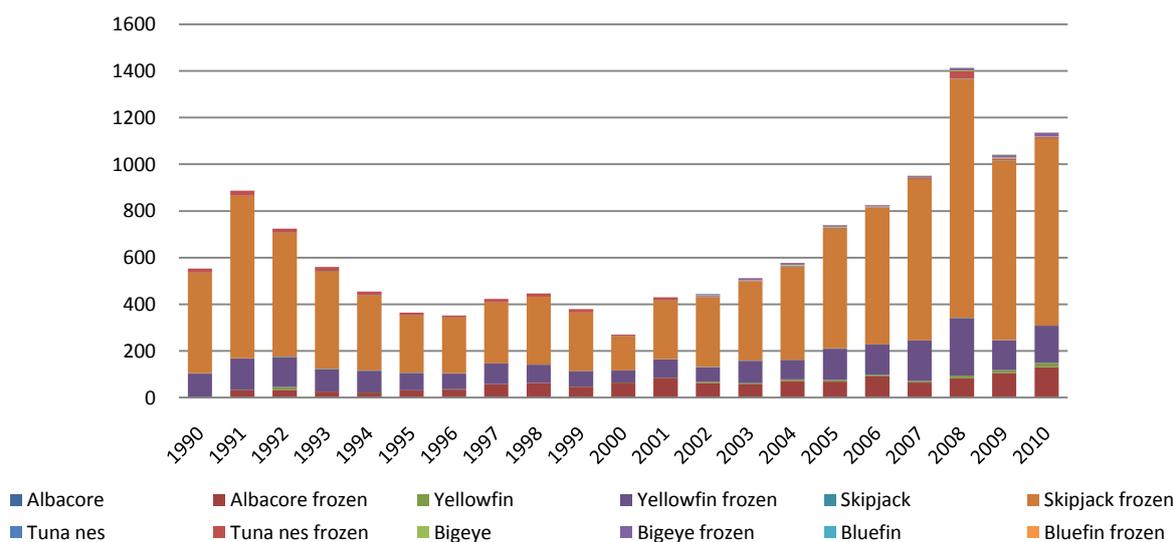
When compared to the beginning of the decade Japans share of both EU exports and Thailand's total exports has declined significantly. Although exports of canned tuna to Japan has grown, it has not developed at the same pace as either exports to the EU nor the world total. 2006 represents a turning point for canned tuna exports to Japan. Since then exports to Japan has increased both in mUSD and in relation to EU exports, while at the same time not losing any more ground compared to the world total. It is likely that the JTEPA plays a part in the development. The more liberal trade regime has meant an increase in Thai tuna exports to Japan, question is whether less strict RoO is behind it or not? Since the JTEPA has only been active for four years it is hard to draw any general conclusions on the effects of RoO in this matter. It is clear though that Thailand's exports of canned tuna to Japan has increased relative to the EU exports and thus making it hard to rule out that the more liberal RoO in the JTEPA has had a positive effect on the development.

6.2 IMPORTS

By studying Thai import data and relating variations in the data to differences in the design of RoO, the effects of the RoO can be evaluated. Looking back at chapter three and four certain predictions can be made. With bilateral and regional cumulation allowed in both the EU GSP and the JTEPA, studying data from sources which confer to origin is one way to analyze the effects of RoO. Economic theory also predicts that less stringent RoO could have a supply-switching effect leading to imports from low-cost producers. The long term development and the composition of the trade will be reviewed in order to look for support for this theory.

Before going into detail from where Thailand imports its tuna products, aggregated import data will be presented. As mentioned in previous chapters, the fact that Thailand does not have a large fishing fleet makes them dependant on imports of raw material to supply their canning industry. Figure 9 show the composition of Thai tuna imports over the last 20 years.

Figure 9: Total imports of tuna products in mUSD 1990-2010



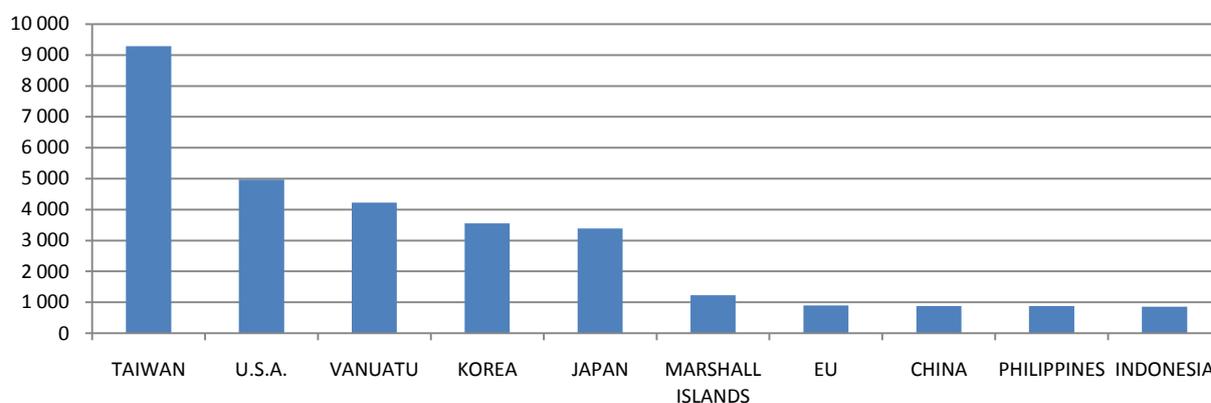
Source: COMTRADE

In 2010 imports amounted to 1135 million USD all species considered, which is the second highest notation in the figure. The tuna imports declined during most of the years in the 1990s and reached its lowest point in 2000. Since then the rise has been steady. That the most commonly used input for the canning industry, frozen skipjack tuna, makes up the largest individual share of Thai imports is hardly surprising. The share of frozen skipjack of total imports has ranged between 55 % and 79 % between 1990 and 2010. Yellowfin, which is also commonly used by the canning industry, is the second most common species with 15-20 % of all imports. The overall composition of imports is very consistent over the years.

6.2.1 Where does Thailand's import come from?

Where the previous part dealt with imports on an aggregated basis, this section will go more into detail of the source of imports. According to economic theory, RoO can affect the choice of importer. In order to comply with RoO a producer would prefer to use raw material from a PTA partner. Figure 10 shows the 10 largest import partners in 2010. Taiwan is far ahead of the rest with imports amounting to more than 9 billion Baht. USA, Vanuatu, Korea and Japan all have a share between 3 and 5 billion Baht. The remaining countries all have exports to Thailand equaling a value between 0.86 and 1.3 billion Baht.

Figure 10: Thailand tuna imports in mBaht sorted by contributor 2010

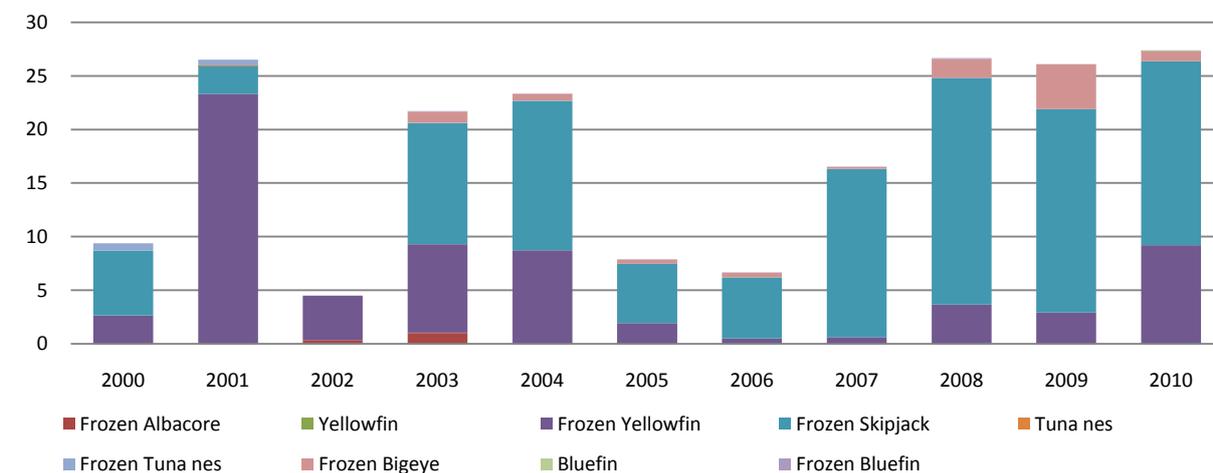


Source: Department of Fisheries, Thailand

Except the USA and EU, all countries in the top ten lie relatively close to Thailand, geographically speaking. Importing from countries in the geographical proximity reduces transportation costs which can be one explanation why these countries are overrepresented. The majority of Thailand’s import partners are Asian countries. Asia is the region that catches the largest amounts of tuna every year, close to 60 %, and having a steady supply in close proximity is probably why Thailand chooses Asian partners.⁶²

Figure 11 shows Thailand’s import of tuna products from the EU27. The composition of imports reflects the European demand for Thai tuna products very well. 98 % of the export to the EU in 2010 consisted of canned tuna. Frozen skipjack and Yellowfin are again the most common imported goods. Frozen Bigeye is the only other product to make a slight contribution to the overall imports, the rest only represent a minor share.

Figure 11: Thailand tuna imports from EU27 in mUSD sorted by product 2000-2010



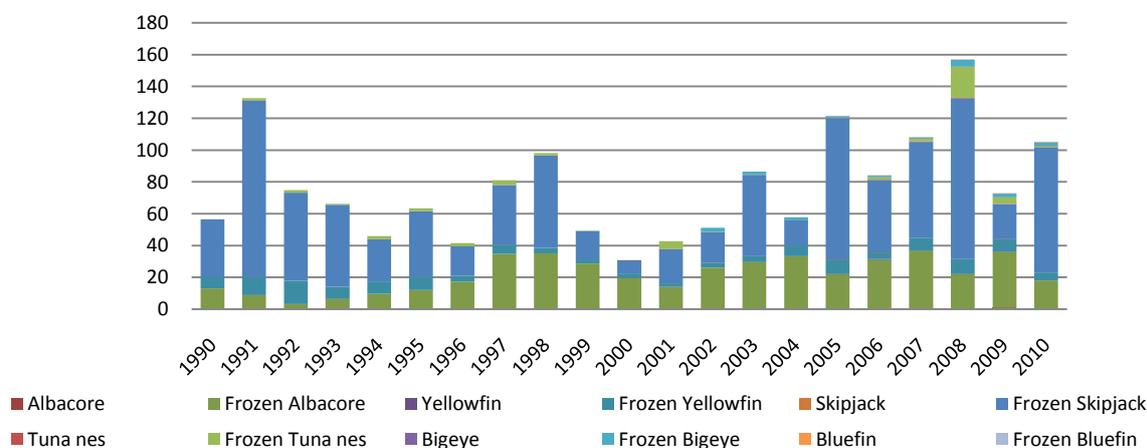
Source: COMTRADE

⁶² Atuna (2003)

Over the ten years which EU27 trade data is available, the volume of Thai imports has been varying and it is hard to establish an overall trend. In 2001 imports reached the same level as in 2010, amounting to more than 25 million USD. Between those years the sum of imports has been varying, sinking as low as 4.5 million USD in 2002. An interesting aspect is the fact that the level of imports declined from 2001 with the introduction of the TRQ agreement. RoO was not present in the TRQ meaning that Thailand could choose to source inputs from an origin of their choice and still export to the EU at a reduced tariff, provided that the quota was unfulfilled. It is therefore possible that Thailand choose to switch their import of inputs to a different source as a result of the TRQ. 2008 signalled the end of the TRQ and immediately the imports rose indicating that the agreement had an effect on imports.

Thailand's imports from Japan show a slightly different composition than imports from the EU. Frozen Skipjack still represents the majority. However frozen Albacore has a significantly larger share than in EU imports. Albacore is also used by the canning industry but not to the same extent as Skipjack or Yellowfin. It should also be noted that the size of imports from Japan is around four times as large as the EU equivalent.

Figure 12: Thailand tuna imports from Japan in mUSD sorted by product 1990-2010

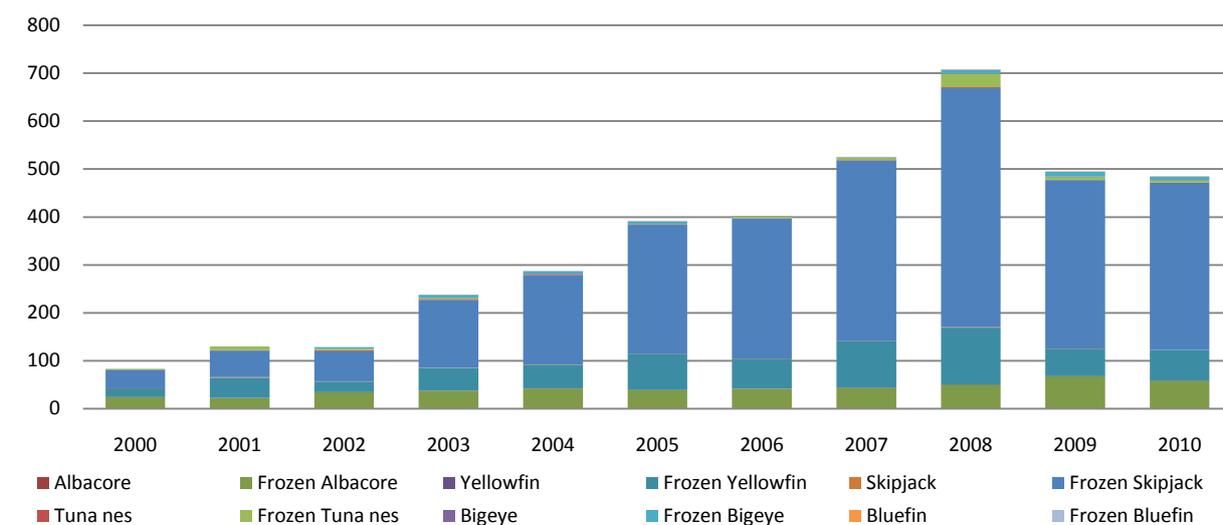


Source: COMTRADE

The development of the Thailand-Japan tuna trade is varying. 1991 represents the second largest aggregated sum of imports across the last 20 years, only second to the record level of 2008. In between those two years the volume of trade has been changing. Since 2005 it looks as if Thai imports have stabilized on a slightly higher level than previous years. This coincides with the JTEPA agreement. The framework was established in 2005 and the agreement itself came into force in 2007. Thai tuna exports, shown in figure 9, have increased significantly since the JTEPA agreement and it is likely that the increase in imports is in response to this. The lower tariffs on tuna products in combination with the bilateral cumulation rules are a possible reason behind the increased imports of raw material to the Thai tuna industry.

To further analyze whether RoO has had an effect on imports of inputs it is relevant to look at import data from IOTC members. In the JTEPA scheme, raw material sourced from IOTC members can be considered originating. The data presented in figure 13 is an aggregation of Thai imports from each member of the IOTC, sorted by product and year.

Figure 13: Thailand tuna imports from IOTC members' in mUSD sorted by product, 2000-2010



Source: COMTRADE

The composition of imports is the same as imports from the EU and Japan. Frozen Skipjack and Yellowfin are the two most common goods. Frozen Albacore also has a share, albeit a small one. According to figure 10 above, six countries out of the ten largest suppliers of raw material in 2010 are IOTC members. Between 2000 and 2002 aggregated imports was around the 100 million USD mark. In the next three years imports nearly doubled. The establishment of the JTEPA framework in 2005 looks to have had little to no impact on Thailand's import from Japan. However in 2007 imports go from 400 million to over 500 and in 2008 to 700 million USD, signalling that the actual implementation of the JTEPA had an effect on imports. The drop in demand due to the financial crisis resulted in lower imports in 2009 and 2010 but the overall level is still higher than in the years prior to the JTEPA. With this in mind it is first of all safe to say that the JTEPA has had a positive effect on Thai imports from IOTC members.

6.2.2 Does RoO influence Thailand's tuna imports?

To sum up the chapter so far a few conclusions regarding Thailand's tuna imports can be drawn. First most of the imports come from countries in close proximity to Thailand. Second, the most important export markets are all represented among the top ten importers. Third and last that imports from EU and Japan have been varying but still grown over the last decade. These facts are important to keep in mind when analysing if RoO has an impact on the tuna imports.

EU and Japan are both very important export markets and importing raw material from these countries can be a way to obtain origin for the tuna products through bilateral cumulation. Judging from the latest trade data it appears like RoO has an impact on the choice of importer for the Thai tuna industry. Figure 11 describes Thailand's imports from the EU. It is the development during the years of the TRQ agreement (2003-2008) that offers a sign that RoO affects imports. From 2003 to 2008 imports from the EU decreased indicating that Thailand choose to switch to a different

supplier. When the TRQ ended in 2008 imports went back to levels prior to the agreement. From economic theory we know that RoO can have a supply-switching effect and judging from figure 11 it appears there is support for the theory in this case. During the TRQ Thailand demanded more inputs from outside the EU GSP in order to reach a more favourable input mix and cut production costs. When the TRQ ended demand for the PTA made input increased.

Figure 12 show that Thailand has increased its tuna imports since the JTEPA. The growth per se does not have to be related to RoO but it is likely that the lower tariff offered in the JTEPA compared to the previous GSP scheme provides an incentive for the increase. Put differently; the more beneficial tariff offsets the costs when switching to a more expensive supplier.

Sourcing tuna from neighbours is a natural choice for Thailand. Many of the countries close to Thailand have among the world's largest tuna fleets. Importing from partners in the proximity can also reduce transportation costs. This is the reason why the cumulation rules in the JTEPA are so beneficial for Thailand's. By allowing for extended cumulation among IOTC members, the Thai tuna industry can source inputs from large tuna-fishing nations without having to compromise the possibility of obtaining origin for its products. Korea, China, Vanuatu, Indonesia and Philippines are all IOTC members and amid the ten largest Thai import partners. Indonesia and Philippines are also members of ASEAN to which the EU GSP extends cumulation. That several of Thailand's most important import partners are covered by cumulation is an indication that RoO influence import of raw material. Further proof towards this conclusion is that imports from IOTC members have increased since the JTEPA.

Extended cumulation can have other benefits as well. In economic theory, trade creation and trade diversion are part of the Vinerian analysis. Suppliers in the PTA benefit from reduced tariffs while countries outside the PTA loose due to higher prices relative the PTA members. Stringent RoO can aggravate this effect. Figure 11 and 12

show increased imports from EU and Japan so it appears like there is support for the theory in this case. However since overall tuna exports also have increased, it is hard to isolate which effect that drives the higher imports. Since the EU GSP is nearly 40 years old it is likely that the increased imports from EU is a result from higher overall production and exports. The JTEPA was only implemented in 2007 which makes it more probable that increased imports from Japan happen at the expense of third country imports. A dilemma referred to in section 4.3, the hub and spoke analysis. It is also probable that Japanese imports are more expensive compared to goods from neighbouring developing countries leading to economic inefficiencies. Extended cumulation rules can help offsetting these inefficiencies. The JTEPA allows Thailand to source tuna from IOTC members. Many countries in the IOTC are developing and can thus offer less expensive inputs than Japan reducing the risk of trade diversion.

The increasing imports from countries in the proximity to Thailand support the view that RoO can promote south-south trade. It also shows that the JTEPA is more beneficial than the EU GSP when it comes to promoting south-south trade in this case. The IOTC simply offers more alternatives for the Thai tuna industry than ASEAN does. If the trend with increasing imports continues, it can have a positive impact on development among the beneficiaries.

6.3 UTILIZATION RATES

The utilization rate is a way to measure how successful a PTA is to improve market access for a partner country. In other words, how good an exporting country is to utilize the lower tariff rates offered within a PTA. As previously mentioned countries, around the world today are involved in several different PTAs at the same time with many different partners. Not all PTAs have the same conditions which makes certain

PTAs more beneficial than others. Some export will consequently take place under adverse conditions creating what is called a “second-best” best regime and some goods will be exported outside the PTA under a MFN tariff.⁶³ There are different reasons why. One cause is RoO. RoO increases costs for producers and if the benefits offered by the PTA does not offset the increased administrative costs needed to comply with the PTA, then countries choose to export outside the PTA altogether. Hence it follows that underutilization of a PTA with a large preference margin can be a sign that a barrier towards trade exists and one such barrier is the RoO.⁶⁴

Tuna products are traditionally exposed to stricter RoO than for example manufactures. The RoO under the EU GSP have proved to be the very strict leading to the assumption that utilization rates for Thai tuna products exported to the EU are low. Table 2 show the utilization rates for the four different versions of canned tuna that EU imports from Thailand. Data for 2010 is not yet available.

⁶³ Candau et al. (2004) p.2

⁶⁴ Candau et al. (2004) p.10

Table 2: Utilization rates for canned tuna in the EU GSP 2006-2009

Year	Product code	HS description	Util. rate
2006	16041411	TUNA, WHOLE OR IN PIECES, IN VEG OIL (EXCL. MINCED)	7,1%
	16041416	TUNA LOINS, PREP. OR PRES. (EXCL. SUCH PRODUCTS IN VEG OIL)	6,0%
	16041418	TUNA, PREP. OR PRES. (EXCL. MINCED, LOINS & SUCH PRODS IN VEG OIL)	8,2%
	16042070	PREP. OR PRES. TUNA (EXCL. WHOLE OR IN PIECES)	3,6%
2007	16041411	TUNA, WHOLE OR IN PIECES, IN VEG OIL (EXCL. MINCED)	17,7%
	16041416	TUNA LOINS, PREP. OR PRES. (EXCL. SUCH PRODUCTS IN VEG OIL)	6,1%
	16041418	TUNA, PREP. OR PRES. (EXCL. MINCED, LOINS & SUCH PRODS IN VEG OIL)	16,2%
	16042070	PREP. OR PRES. TUNA (EXCL. WHOLE OR IN PIECES)	12,5%
2008	16041411	TUNA, WHOLE OR IN PIECES, IN VEG OIL (EXCL. MINCED)	31,0%
	16041416	TUNA LOINS, PREP. OR PRES. (EXCL. SUCH PRODUCTS IN VEG OIL)	0,1%
	16041418	TUNA, PREP. OR PRES. (EXCL. MINCED, LOINS & SUCH PRODS IN VEG OIL)	21,0%
	16042070	PREP. OR PRES. TUNA (EXCL. WHOLE OR IN PIECES)	16,8%
2009	16041411	TUNA, WHOLE OR IN PIECES, IN VEG OIL (EXCL. MINCED)	22,2%
	16041416	TUNA LOINS, PREP. OR PRES. (EXCL. SUCH PRODUCTS IN VEG OIL)	0,1%
	16041418	TUNA, PREP. OR PRES. (EXCL. MINCED, LOINS & SUCH PRODS IN VEG OIL)	13,3%
	16042070	PREP. OR PRES. TUNA (EXCL. WHOLE OR IN PIECES)	13,4%

Source: EU Commission

Product 16041411 is by far the largest of the four canned tuna versions, often more than twice as large as the second product 16041418. As seen, the assumption that a product group with very strict RoO often has low utilization rates rings true in this case. In 2006 no group has a higher utilization rate of the EU GSP scheme than 8.2 %. The rates have improved since then, but overall must they still be considered low.

To put the utilization rates of Thai canned tuna into perspective it is useful to compare them with the overall utilization rates of the EU GSP scheme. In table 3 the utilization rate for all imports by the EU in a specific year is shown. The rate has been fairly stable between 50 and 60 % with an average of 56.8% over 13 years.

Table 3: Overall utilization rate in the EU GSP 1997-2009

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Utilization rate EU GSP	55%	51%	49%	57%	61%	64%	52%	57%	60%	52%	59%	62%	60%

Source: EU commission

The difference between the overall GSP utilization rates and those for Thai canned tuna is significant and serves as further proof for the assumption that products exposed to strict RoO, have lower utilization rates. Statistics available from Thailand's trade agreements with Japan show the same pattern. Comprehensive data for the JTEPA is harder to come by, mostly because the JTEPA was recently implemented. In 2008 the overall utilization rates for the JTEPA was very close the EU GSP, 55.9%. For processed food, the category which canned tuna belong to, the rate was 65.8%. However it should be noted that the food category in the JTEPA only has 78.3% coverage.⁶⁵ Certain sensitive products are in other words left out in the JTEPA, if those products were to be included, the average utilization rate would probably go down. Sensitive products are often exposed to strict RoO and rigorous health and sanitary standards, something that has been shown to lower the utilization rate in a PTA. In the JTEPA case there has been complains towards the overly restrictive RoO regarding canned tuna.⁶⁶ One can therefore assume that the utilization rate of canned tuna in the JTEPA is lower than both the average (65.8%) in the processed food category and the overall utilization rate (55.9%).

6.3.1 Underutilization and RoO

Does the rate for canned tuna differ between the EU GSP and the JTEPA? There are reasons to believe it does. The average rate for the JTEPA is higher than the EU GSP. If the rates are higher on average, there is a good chance that the rates for canned tuna products are also higher. The fact that the JTEPA has only been active for a few years compared to the EU GSP can also help to answer the question. Utilization rates are often lower in the beginning of a PTA and increasing with time. This is due to exporters getting accustomed to the routines of the new PTA, learning the

⁶⁵ Tangkitvanich et al. (2009) p.18-20

⁶⁶ Tangkitvanich & Rattanakhamfu (2011) p.5

administrational procedures for example.⁶⁷ Considering this further strengthens the assumption that Thailand utilizes the JTEPA at a higher rate than the EU GSP.

Can the difference in utilization rates be related to the RoO in the respective trade regime? Economic theory predicts that RoO raises production and administration costs. Higher costs in turn affect the utilization rate. Stringent RoO therefore hinders full utilization in a PTA and vice versa. It has previously been established that the JTEPA offers more lenient RoO than the EU GSP. The more liberal RoO in the JTEPA further indicates that Thailand has a higher utilization rate in the JTEPA than in the EU GSP. It also offers a lead to the question on the impact of RoO on trade. The majority of Thailand's export of canned tuna to the EU does not qualify for reduced tariffs under the GSP. The wholly obtainable criterion is hard for Thailand to comply with and the relatively strict cumulation rules do not offer many alternative sources for originating raw material. If Thailand manages to comply with the RoO, the actual tariff reduction in the EU GSP is only 3.5 %. This might lead to a situation where it is more beneficial for Thailand to export under a MFN tariff rather than GSP. To sum it all up; the probability of higher utilization rates under the JTEPA, in combination with the stricter RoO in the EU GSP, matches the predictions made from economic theory, namely that the RoO increases production and administration costs which affects the utilization rates.

⁶⁷Kohpaiboon (2010) p.12

7 CONCLUSIONS

Thailand's tuna industry has grown rapidly the last ten years. Tuna manufacturers have become more vertically integrated, cutting costs and increasing capacity. Today Thailand is the world's largest producer of canned tuna. PTAs have an important role in promoting trade. Increased trade fosters economic development but there is also a risk with the number of PTAs growing. Administration and transaction costs can increase due to different standards in overlapping trade agreements. These different standards often relate to RoO and the general lack of harmonization regarding the rules. This study has compared the PTAs that Thailand has agreed with two of its main export markets, the EU and Japan, focusing especially on RoO. It has been established that the EU GSP scheme and the JTEPA differ in many ways, not least in terms of RoO. The tariff levels vary greatly and the extended cumulation offered by the JTEPA is more beneficial than the EU GSP equivalent, allowing Thailand to import important raw material from more sources. With these differences in mind a thorough analysis on the impact of RoO on the trading pattern was conducted.

Canned tuna is the dominating product in the Thai tuna industry. 98 % of Thailand's tuna exports to EU in 2010 were canned tuna, 82 % in the Japanese case. The slight difference in composition could not be related to RoO in this case. Instead variations in demand were found to be the likely reason. Exports to EU have overtaken Japan since the beginning of 2000 but with the implementation of the JTEPA the gap has been closing. The JTEPA offers both a lower tariff for tuna products and more favorable RoO which explains the growth in Japanese exports.

Thailand's small domestic fishing fleet makes the dependant on imported inputs for the tuna industry. EU GSP and JTEPA both use the wholly obtainable criterion for products to comply with origin. So the more raw materials Thailand could source domestically, the less problem to qualify for origin they would have. Since this is not an option for the Thai tuna industry, the importance of where Thailand imports its

products from increases. Imports from EU and Japan have grown and due to bilateral cumulation these imports qualify as originating. It is likely that the increase is linked to RoO due to bilateral cumulation. The developments under the TRQ agreement further strengthen this conclusion. Between 2003 and 2008 imports from EU dropped, presumably on behalf of cheaper imports from a third country. This confirms the economic theory of supply-switching because immediately after the TRQ ended, imports from EU grew again. The EU GSP RoO limits Thailand's options to choose the cheapest and most effective source of inputs which leads to distortions. The more liberal RoO in the JTEPA does not create the same economic inefficiencies.

Thailand also shows a preference towards using inputs from neighboring countries. Many of Thailand's major import partners are members of the IOTC which the JTEPA offers extended cumulation from. Since the implementation of the JTEPA imports from IOTC countries have increased which signals that RoO has an impact on the choice of importer for Thailand. Two of Thailand's ten major import partners are also members of ASEAN which the EU GSP allows cumulation from. The extended cumulation has led to increased tuna trade among countries in Thailand's proximity. This confirms economic theory that RoO can lead to more south-south trade and in the long run have a positive impact on development.

The low utilization rates for canned tuna under the EU GSP are yet another sign of the impact of RoO. The fact that Thailand prefers to export their canned tuna at MFN tariff indicates overcomplicated and costly RoO in the EU GSP. Even though comprehensive data on utilization rates is missing in this study, there are strong reasons to believe the utilization rates for canned tuna are higher in the JTEPA than in the EU GSP. It is therefore highly probable that the more lenient JTEPA RoO lead to higher utilization rates compared to the EU GSP.

The Thai tuna industry faces several challenges for the future. The declining stock of certain tuna species affects prices of raw material and the fuel prices are constantly fluctuating. Volatile prices have a negative impact on demand for tuna products. There are also uncertainties surrounding the implementation of the new IUU regulation. But perhaps the most pressing issue is to reach a more favorable trade climate with two of its most important markets, USA and EU. Many South American and ACP countries enjoy duty free access for their tuna products and Thailand risk loose market shares as a result. The reluctance of the US to renew their GSP program and the strict conditions of the EU GSP imposes high costs on the Thai tuna industry. Reaching new agreements with the US and the EU is therefore imperative. The decision by Thai tuna companies to establish in PNG can be seen as an attempt to tackle some of the challenges mentioned above. PNG is one of the largest sources of inputs for the Thai canning industry and establishing on site would mean less transportation costs while at the same time making good use of the more liberal RoO and the duty free access to the EU.

The room to draw any universal conclusions from this case study is limited. The high tariffs and strict RoO present in the EU GSP are evident in comparison to the JTEPA. The growth in Thailand's trade with Japan since the implementation signals that the more liberal conditions in the JTEPA has an effect on both imports and exports. Perhaps the most evident conclusion from the study is the important role of cumulation in making the RoO more liberal. Without the extended cumulation in the JTEPA, the conditions would not be as favorable compared to the EU GSP. The slightly more generous cumulation offered in the revision of the GSP, which applies from January 1st 2011, is further recognition to the case. Considering that cumulation can promote south-south trade and economic development, it would be advisable to increase the attention to the role of extended cumulation, both in present trade agreements and when attempting to reform the RoO.

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