

Do Rules of Origin Rule Free Trade?

The role of rules of origin
in preference utilisation

2024



Foreword


The number of Regional Trade Agreements (RTAs) around the globe has increased dramatically from 82 in 2000 to 360 in 2023, and 44 per cent of all EU trade is through trade agreements. What is perhaps less discussed is that in order to benefit from the tariff reductions offered by an RTA, a proof of origin is required. These rules of origin can act as a hidden protection of economic interests, while also being essential to prevent free riding of preferential tariffs.

Even though rules of origin play a key role in RTAs, the literature on how preference utilisation is linked to rules of origin requirements is scarce. A comprehensive analysis requires both transaction data and information on the specific rule (or rules) of origin for each transaction. This report includes both types of data.

The report analyses three EU trade agreements (EU-South Korea, EU-Canada and EU-Japan agreement) and examines the different impact of rules of origin on preference utilisation. A key finding is that the results vary across agreements. With heterogeneity in mind, we propose two main solutions to mitigate the burden of rules of origin; remove tariffs on goods with low MFN tariffs and work on new and innovative ways to harmonise rules of origin across agreements.

This work has been conducted by Patrik Tingvall, Nils Norell, Roger Bandick and Christopher Wingård. Our intern Alexander Jegendal did a lot of the heavy lifting in preparing the data on rules of origin. A special mention should also go to Emma Wallfelt and Jonas Kasteng at the National Board of Trade Sweden for their invaluable feedback during the process. Ari Kokko at the Copenhagen School of Economics has also contributed greatly with his expertise.

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Summary

Rules of origin play a central role in the decision of whether or not to utilise the preferences offered by an RTA. Rules of origin are not the only factor affecting preference utilisation; the transaction value, type of goods and a firm's experience also matter. The National Board of Trade Sweden has previously looked at these factors in relation to preference utilisation and now the turn has come to the rules of origin. How big a role do rules of origin play in this context? This has been a very difficult question to answer due to limitations in the available data. Until now.

Using transaction data from the Swedish Customs, we have analysed three free trade agreements – the EU-Japan Economic Partnership Agreement, the EU-Canada Comprehensive Economic and Trade Agreement and the EU-Korea Free Trade Agreement – to try and establish the impact of rules of origin on the use of these agreements. At the start of the process, we thought we would be able to identify rules of origin that were either easy or difficult to comply with, but we were unable to. There is a pattern of heterogeneity across the agreements. One rule that is associated with low preference utilisation in one agreement can be associated with high preference utilisation in another. This variation is probably because all trade agreements are negotiated based on the unique set of economic and political circumstances between the parties in question. Variation is in other words not a bug; it is a feature.

Other notable results include the fact that 95 per cent of transactions take place under four specific origin criteria and that having a choice between two alternative rules of origin does not automatically lead to a higher preference utilisation. The last point is particularly surprising since the whole purpose of increasing flexibility and choice for producers would be to improve utilisation.

One of the objectives of this work was to be able to identify rules of origin that seemed to have an association with low preference utilisation across the three agreements. Policy measures could then be focused on these rules to improve the use of our trade agreements. Even though this was not possible, we still have a few policy recommendations that could potentially improve the situation.

- **Continue to strive for harmonisation**
 - Take inspiration from the Pan-Euro-Med (PEM) model.
 - Work multilaterally on common drafting principles.
 - Find multilateral solutions to e-certificates to avoid fragmentation.
- **Waive rules of origin or remove low-level tariffs**
- **Balance the trade-policy burden through rules of origin**
 - Requirements related to traceability and origin are in fashion but there needs to be a balance. Can the rules of origin in our RTAs be tweaked in such a way as to reduce trade costs? We think so.
- **Continue to improve tools and guidance for all stakeholders**
 - Online tools to help stakeholders utilise RTAs are important, and the development of these tools needs to continue.
 - Guidance and information about RTAs and how to use them are essential for all stakeholders; there is a continuous need to devote resources to this purpose.

Table of contents

Foreword	2
Summary	3
Table of contents	4
1 Introduction	5
2 Rules of origin	7
2.1 The effects of rules of origin	8
2.2 To utilise or not to utilise?	9
3 Literature review	10
3.1 Rules of origin	10
3.2 Preference utilisation	11
3.3 Preference utilisation and rules of origin.....	11
4 Data and agreements	13
4.1 Data.....	13
4.2 The agreements	13
5 Descriptive statistics	15
5.1 Defining rules of origin, and rule overlap.....	15
5.2 Preference utilisation	15
5.3 The distribution of trade across rules, and rule overlap	17
6 Results	20
6.1 The four main rules of origin	20
6.2 The inclusion of rules with options	21
7 Conclusions	24
8 Policy recommendations	25
Final word	27
References	28
Appendix	31
Method	31
Sammanfattning på svenska Summary in Swedish	35

1 Introduction

All regional trade agreements (RTAs) have rules of origin. Rules of origin are the same for all parties to the agreement and dictate the amount of work a product requires to qualify as “originating” in the context of an RTA. Only products with originating status can enjoy the lower tariffs on offer. Rules of origin are basically the gatekeeper that either grants access to the preferential market access or shuts the door on outsiders trying to free-ride on the lower tariffs. However, this system comes at a price.

RTAs take a lot of time and resources to negotiate and implement. Rules of origin are always left until the end of negotiations, partly because negotiators need to have a clear picture of the market access conditions, but also because rules of origin are among the most difficult parts of an RTA to negotiate. Rules of origin not only set product-specific criteria that have to be fulfilled for a product to qualify as originating; they also contain articles on how to prove and control the origin status of a product. The level of detail is significant and can sometimes be overwhelming for stakeholders.

Finding the right balance in this context is no easy task. If the rules of origin are too strict, the RTA will not be utilised to its full potential. On the other hand, if the rules are too lenient, the trade agreement is open to free riders. And since all negotiations are a unique combination of priorities, every RTA turns out with a unique set of rules of origin.

This per-agreement variation, together with the costs of complying with product-specific criteria and the administrative cost of proving the origin of goods, put a price on the utilisation of RTAs. Is this price worth paying in relation to the tariff benefits on offer? That is the core question faced by economic operators. Companies also have different capabilities to deal with these costs. It has been argued that this burden can be particularly challenging for small and medium-sized enterprises (SMEs) that lack the resources and expertise to navigate the complexities of rules of origin (Kasteng et al. 2021; Krishna et al., 2021; Kommerskollegium 2022).

For the EU, around one third of eligible imports miss the opportunity to benefit from the tariff preferences offered by RTAs, and the complexity of rules of origin may be a key reason for this (BDI, 2022). Despite the large values at stake, little is known about how and which rules of origin are considered easy or difficult to comply with.

To analyse the impact of rules of origin and their effect on preference use, this report uses a unique set of transaction-level data covering Swedish importers’ use of the EU’s preferential trade agreements with Canada, Japan and Korea. Specifically, we have mapped which type of rule of origin applies to each transaction in the three agreements analysed. The aim is to see whether it is easy or difficult to comply with a specific type of origin criterion.

Several studies have examined the relationship between rules of origin and preference usage. For example, studies have found that complexity and lack of transparency can create uncertainty and increase compliance costs for companies. When rules of origin are overly restrictive or cumbersome, they may choose to forgo preferential treatment and opt for non-originating inputs or suppliers from outside the preferential trade area instead. This strategic sourcing behaviour, known as *trade diversion*, can undermine the intended benefits of trade agreements and reduce preference utilisation rates (BDI 2022, Wignaraja 2014; Nilsson and Dotter 2012; LaNasa 1996; Kniahin and De Melo 2022; Kommerskollegium 2019; Izam2003).

Trying to estimate the costs associated with rules of origin is not new; some have used a restrictiveness index based on types of rules of origin, while others have estimated the fixed costs associated with rules of origin. Despite the extensive literature on rules of origin, little is known about the types of rules that are more or less difficult to comply with. It is this knowledge gap that this report seeks to fill.

While the appetite for new RTAs has waned recently, origin as a concept has, somewhat contradictively, become more important. A new stream of trade policy measures, mainly associated with different aspects of sustainability, require operators to have extensive knowledge of both the origin of materials and the way goods are produced. This is not an easy task. In light of this, it becomes important to identify where and how trade costs can be reduced and gains from trade can be found. Better knowledge of how rules of origin interact with preference utilisation could potentially improve the utilisation of our trade agreements.

The analysis is structured as follows: Chapter 2 presents the concept of rules of origin, its effects and connection to preference utilisation. Chapter 3 contains the literature review. Data and descriptive statistics can be found in Chapters 4 and 5, respectively. The results, summary and policy recommendations follow thereafter. Information about our method and the logit estimates are in the Appendix.

2 Rules of origin

Has your product significantly changed – and can you prove it? These are the questions that every producer must be able to answer (from the importer) if its goods are to qualify for preferential treatment. If you grow and export potatoes, the answers are probably simple. But what about more advanced products such as cars, for example?

Each type of product has its own identification number according to the Harmonised System (HS), and from this, each product can be assigned its own origin criteria (according to the EU model of product-specific rules). The criteria vary, but they all have the same purpose: to define what constitutes a substantial transformation.

Not only do criteria of origin vary depending on the product; they also vary from one RTA to another. All trade agreements are negotiated based on the economic and political conditions of the countries involved. Thus, it is only natural that each new RTA will end up with a unique set of rules of origin. In other words, exporters may face different rules of origin depending on the destination of their exports, regardless of whether they are selling potatoes or cars.

Rules of origin may come across like endless complexity and variation and, in many ways, they are. It has been estimated that there are around 54,000 different rules of origin across 370 RTAs, using the ITC Rules of Origin Facilitator tool. These rules differ in their design and wording, but not necessarily in their substance. However, it is not uncommon for differences in substance to also occur, creating issues for companies that utilise multiple RTAs. This complexity is one of the key problems with rules of origin.

There are, however, some commonly accepted principles (see Box 1) when it comes to determining origin. The same type of product often has the same origin criteria. For example, potatoes must be grown in their country of origin. This is called *wholly obtained criteria* and is common for agricultural products. Cars could in theory also have wholly obtained criteria, but the range of materials and inputs required to produce a car would make such a rule impossible to meet. Thus, more advanced products often have a rule of origin based on added value, a change in the HS classification code or a special technical requirement to define a substantial transformation.

Box 1

Wholly obtained: taken from the ground or the sea in a specific country or region.

Value added: a certain percentage of value added in the country of origin or, alternatively, a maximum percentage of non-originating materials allowed.

Change of tariff classification: non-originating materials used in the production must change HS code to become originating.

Special technical requirement: a unique origin criterion assigned to a product based on the specific production process, for example, a chemical reaction.

Any of these methods can be used in combination. This sometimes requires the producer to fulfil several criteria, while at other times it allows it to choose between different options.



The second aspect of rules of origin is proof. It does not matter whether a product has undergone a substantial transformation if the customs authority is not able to verify it. Like origin criteria, there are distinct ways of proving origin and this is reflected in RTAs in which the conditions can vary. Countries prefer different methods depending on tradition, trust and technical ability. Many countries use self-certification based on a specific declaration or registration number, while other countries prefer old-fashioned paper certificates with signature and stamp. Some countries are now moving towards digital solutions. Both importers and exporters may be responsible for proving the origin of goods, depending on the terms of the RTA. Different countries also use various methods to challenge and control the origin of a product.

In addition to the product-specific rules of origin and the rules on proof and verification of origin, there are several general conditions that affect a company's ability to obtain the originating status of its goods. These conditions apply to all products. Some of them lay down requirements that must be met, such as the list of minimum operations. Other conditions can make it easier to obtain origin, such as cumulation or tolerance rules. These general conditions can of course vary from one RTA to another.

2.1 The effects of rules of origin

Rules of origin adds costs to international transactions. These costs come from different sources. They can stem from the administrative aspects of the rules, the efforts required to gather and interpret information, and from the limited sourcing options that rules of origin entail. Much of the costs are in the initial phase when an exporter is exploring the requirements to utilise an RTA. As an exporter gains more experience, this initial learning cost decreases. However, there are also costs associated with every transaction since all consignments needs a proof of origin. In many ways a company's size and experience dictate its ability to manage such costs; the number of transactions, for example, is key to a company's ability to effectively utilise an RTA.¹

1. Kommerskollegium (2022).

These costs need to be weighed against the tariff benefits on offer, which lead to the decision of whether or not to utilise an RTA. If a rule of origin is too costly, an RTA will not be used, and the tariff savings will be lost. The economic potential of an RTA in this scenario is left unrealised.

Rules of origin not only govern preferential access for goods, but the rules can also influence investment and supply networks. To comply with a certain rule of origin, a company might have to switch suppliers or even production location.² A good example of this are the rules of origin for cars in the United States-Mexico-Canada Agreement (USMCA). The NAFTA rules of origin were already strict but, in line with changing American policy priorities, the threshold for obtaining origin was raised even further. The purpose was to force producers to source and build within the USMCA area. Further conditions regarding the origins of the aluminium and steel used, as well as car workers, were also added. This shows how rules of origin can be a powerful trade policy tool.

2.2 To utilise or not to utilise?

Applying for preferential treatment can seem like a simple choice. If the upside (tariff reduction) trumps the downside (cost of compliance), an RTA will be utilised. But behind this seemingly binary decision, several factors are in play. As discussed above, the costs associated with compliance can be divided into different categories. Some of these costs are fixed while others are variable and occur with every transaction.

Numerous studies have attempted to estimate the costs associated with rules of origin, ranging from an index to percentages, to dollars and cents.³ This is no easy task. This is mainly because of the lack of data, at both the transaction level and the firm level. Another reason is the sheer variety of rules of origin across RTAs, including different methods to prove origin. Then there are the different contexts in which producers and traders are active, such as producing with different techniques and materials. The same type of rule of origin can be more or less costly for a producer depending on its context.

The decision to use an RTA is also a learning process. Importers who use RTAs on a continuous basis learn how to manage the origin procedures, resulting in a higher preference utilisation rate.⁴ The use of the RTA is also linked to the savings that can be made. It is now well established that high transaction values and large duty savings are associated with a high tariff preference utilisation rate. However, a somewhat counter-intuitive finding of recent studies is that while transaction values are an important determinant of preference use, the preference margin (the difference between the MFN tariff and the preferential tariff) is less important.⁵

2. Bombarda and Gamberoni (2019).

3. Kniahin and De Melo. (2022). A Primer on Rules of Origin as Non-Tariff Barriers.

4. [Learning by using Free Trade Agreements \(kommerskollegium.se\)](https://www.kommerskollegium.se/learning-by-using-free-trade-agreements)

5. [Who Uses the EU's Free Trade Agreements? \(kommerskollegium.se\)](https://www.kommerskollegium.se/who-uses-the-eus-free-trade-agreements)

3 Literature review

3.1 Rules of origin

Much of the theoretical literature on rules of origin dates back to Grossman (1981), who studied the consequences of local content rules. Another early contribution was by Falvey and Reed (1998), who showed how rules of origin can distort allocative efficiency.

Moving to the political economy of rules of origin, Krueger (1999) showed how rules of origin can be imposed for protectionist reasons and be a source of economic inefficiency in RTAs. Similarly, Celik et al. (2020) showed how the design of rules of origin could negatively affect the distribution of gains from an RTA. In the same vein, Maggi et al. (2022) discussed how the stringency of rules of origin could be used as a substitute for tariffs.

More recently, Chung and Perroni (2021) showed how stricter rules of origin lead to higher prices for intermediate goods, and Head et al. (2022) derived a Laffer curve for rules of origin, in which an inverted U-shaped relationship was derived between the strictness of rules of origin and local sourcing. Turning to the EU, Crivelli et al. (2021) showed how some product-specific rules of origin were too strict to be useful for some firms. Hence, there are many strands of research analysing various allocation inefficiencies associated with rules of origin.

The relationship between rules of origin and trade flows has been studied by, for example, Cadot et al. (2006), Cherkashin et al. (2015). Conconi et al. (2018) analysed the NAFTA agreement and found that rules of origin induce trade diversion, relocation and increased sourcing from outside to inside NAFTA.

An RTA is never fully utilised and research has examined the (under)use of RTAs. Although the results of these studies point to various reasons for the under-utilisation, rules of origin are often cited as a key factor in the low use of RTAs (Harris and Staples 2009; Izam 2003; James 2006; Messerlin and Zarrouk 2000).

Although rules of origin lead to an under-utilisation of RTAs, this finding has also contributed to an increased interest in them. Brenton and Manchin (2003), Francois, Hoekman and Manchin (2006) and Bureau, Chakir and Gallezot (2007) have studied the use of the Generalised System of Preference (GSP) and identified the administrative burden of the rules of origin as the main obstacle for LDCs to fully benefit from the preference they receive. This problem has been formulated by Brenton and Manchin (2003) as *what matters is not just the level of border barriers, but the rules that govern the way they are administered*.

Estevadeordal et al. (2007) highlight that rules of origin restrict trade in an RTA and that the divergent rules in an RTA lead to asymmetric effects across products in a given RTA. LaNasa III (1993) argues that rules of origin can be used as a mechanism to protect domestic industries and to encourage the relocation of industries.

In addition to the complexity of rules of origin, Kawai and Wignaraja (2009), Athukorala and Kohpaiboon (2011) and Hayakawa et al. (2012) point at the lack of information on RTAs and small preference margins as other reasons for not using RTAs.

3.2 Preference utilisation

The concepts of rules of origin and preference utilisation have been two subjects of research and debate in the academic literature for several decades. One of the main areas of research has focused on the determinants of preference utilisation, leaving rules of origin aside.

Studies on the level and determinants of preference utilisation are being discussed in Kommerskollegium (2021). Thus, our purpose is not to provide a comprehensive review of this literature, but rather to highlight some of the main themes that have been discussed in previous contributions.

Looking at the level of preference utilisation, Nilsson (2015) found overall preference utilisation for EU exports to be around 75 per cent, but with differences across country pairs and products. Along these lines, Kasteng and Inama (2018) found that from 2009 to 2013, preference utilisation was around 70 per cent for EU exports and as high as 90 per cent for EU imports. Their overall conclusion was that tariff preferences were fairly well utilised by EU importers.

Looking at the *drivers of preference utilisation*, several studies, including Bureau et al. (2007), Hayakawa et al. (2013), Hayakawa et al. (2014), Keck and Lendle (2012) and Nilsson (2015), identified a positive correlation between the size of the preference margin and preference utilisation. However, Lukaszuk and Legge (2019) detected a negative correlation and Kommerskollegium (2019) and Kasteng et al. (2021) found little to no significant impact of the preference margin on preference utilisation. Other studies include Lukaszuk and Legge (2019), who found a positive impact of potential duty savings and trade values on preference utilisation, while Wignaraja (2014) and Hayakawa (2013) analysed the role of firm size. Takahashi and Urata (2010) found evidence of an advantage for large firms in preference utilisation. However, neither Wignaraja (2014) nor Kasteng et al. (2021) found any significant advantage for large firms in preference utilisation.

Among the studies cited above, and to the best of our knowledge, Albert and Nilsson (2016), Kasteng et al. (2021) and Krishna et al. (2021) are the few available studies that are based on transaction-level data. Krishna et al. (2021) analyse learning over time from an exporter-cost perspective.

3.3 Preference utilisation and rules of origin

As noted above, it can be difficult to comply with rules of origin, and the costs of compliance have been examined, for example, by (Anson et al., 2003; Anson et al., 2005; Carrère & De Melo 2004; Estevadeordal et al. 2007). Anson et al. (2003) suggested that the cost of complying with rules of origin is 6 per cent of export value, which is higher than the average preferential margin. Similarly, Carrère et al. (2004) found that the border price of Mexican apparel products increased by 12 per cent to compensate for the cost of complying with NAFTA rules of origin. Izam (2003), Brenton and Imagawa (2005) and Estevadeordal et al. (2007) concluded that the procedures to obtain a proof of origin required expensive accounting and inventory systems, something which not all companies have access to.

Anson et al. (2005) estimated that the administrative costs of rules of origin were around 6 per cent of the import value, while Albert and Nilsson (2016) estimated that the fixed cost of utilising tariff preferences fell within the range of EUR 20 to EUR 260.



Furthermore, it has been observed that strict origin requirements can reduce the trade-creating effect of trade liberalisation (Chase, 2008; Conconi et al., 2018; Felbermayr et al., 2019). However, in different firm surveys, Decoster (2021) and Kasteng and Almufti (2021) found that around 70 per cent of Belgian exporters and around 80–90 per cent of Swedish exporters did not consider rules of origin cumbersome.

From a quantitative point of view, the cost and restrictiveness associated with rules of origin is a relatively uncharted field. One of the first attempts to quantify the cost and restrictiveness was by Estevadeordal (2000), who created a synthetic “Restrictiveness index” (R-index). By constructing a categorial variable ranging from 1 (least) to 7 (most restrictive), based on two basic assumptions, the author could indicate the extent to which a given rule of origin was demanding or not.

In short, although the evidence from the studies points to various reasons for the under-utilisation of RTAs, rules of origin are most often cited as the main reason for this outcome. This negative association has triggered research on rules of origin. Despite this research, little is known about what rules are considered easy to comply with and what rules are not. This report aims to fill this knowledge gap.

4 Data and agreements

4.1 Data

The data used in this report are based on transactions from Swedish firms importing originating goods from Canada from 2017 to 2021 (18,985 transactions), Japan from 2019 to 2021 (47,671 transactions) and Korea from 2008 to 2018 (312,033 transactions). The information available for each import transaction includes:

- firm name and identification number of the importer,
- firm name of the exporting company,
- import value,
- TARIC tariff codes at the 10-digit level,
- mode of import (direct imports vs. customs warehousing),
- customs duties, and
- date of the import transaction.

Since each import transaction might be part of a consignment (customs ID) that may contain multiple products, a single firm could record more than one transaction per day from the same exporter. Thus, the data lack a conventional panel structure in which each transaction can be identified using a time (day) and ID (exporter-importer pair) marker, which complicates the econometric use of panel data methods. The transaction-level data were obtained from the Swedish Customs.

The firm-level data are only available for Swedish limited liability firms and are not as recent as the daily updated transaction-level data. Imports attributed to Swedish limited liability firms cover 89 per cent of the total value of imports in the transaction-level dataset. The firm-level variables are firm name and identification number, net turnover, number of employees, net profit and group affiliation. The firm-level data were obtained from Upplýsningscentralen (UC), a Swedish credit reference agency.

4.2 The agreements

The free trade agreements with Canada (Ceta), Japan and Korea are three of the EU's largest, deepest and most important trade agreements.

The Korea agreement has been provisionally applied since 2011 and signalled a new type of agreement, a more modern one. It was also the EU's first agreement with an Asian country. If the Korea agreement signalled the first step towards an expansion of scope and ambition of EU global trade policy, Ceta accelerated the pace when it entered into force in 2017. The trade agreement with Japan then followed in 2019 and is the largest bilateral trade agreement the EU has concluded.

There are both similarities and important differences between these agreements. The rules of origin in each agreement are dictated by economic priorities, politics, production capabilities and the relative negotiating strength of the countries involved. The EU-Korea agreement was the first deep agreement that the EU signed with an Asian partner and has formed the basis for all EU negotiations since.

There is a fair level of consistency in the general conditions across the three agreements. The list of minimal operations is the same, the tolerance rule is set to 10 per cent and

there are only minor differences in the definition of wholly obtained products. However, the cumulation provisions have evolved and have become more flexible in the agreements with Japan and Canada compared to Korea.⁶ There are also minor differences on duty drawback and accounting segregation. The biggest difference is the direct transport requirement in the Korea agreement. This is a serious impediment for companies that try to use the agreement and has been replaced with a non-alteration rule in the Canada and Japan agreements. The non-alteration rule allows for the splitting of consignments in third countries.

All agreements are based on self-certification. In the Korea agreement, declarations of origin by approved exporters is the method of choice. In Ceta, the Registered Exporter System (REX) was introduced by the EU. The development took another step in the negotiations with Japan in which both a statement on origin based on REX and something called “importers’ knowledge” are accepted as proofs of origin. This was a compromise between the EU tradition of viewing the exporter as the responsible party for the proof of origin and the Japanese tradition of the importer being the responsible party.

The most significant differences between the origin protocols in RTAs tend to be found among the product-specific rules. In the Korea agreement, these rules are quite similar to those in the 2011 GSP, not least in terms of drafting and structure. But in Ceta things changed. The level of detail increased and new elements such as *Free-On Board (FOB) price* and *Regional Value Content* were introduced alongside the EU versions (ex-works price and value-added rules) as a compromise. The product-specific rules changed again in the Japan agreement, in which a new drafting style based on acronyms was used. FOB was used again alongside ex-works, but with different percentages for value rules to include the inherent differences between ex-works and FOB.

Overall, the development of rules of origin has evolved in a more flexible direction in terms of both the actual origin criteria and the number of options that companies have. This is probably a reflection of how production and trade have evolved over time. Canada, Japan and Korea are all strong negotiation partners, which has led to more compromises than in other EU free trade agreements. In some areas, this has led to more choice, for example, between using importers’ knowledge or statement of origin. In general, more options are a good thing, but to incorporate these, some clarity has been sacrificed and it has become more difficult to read and interpret the rules.

6. Full cumulation compared to bilateral cumulation.

5 Descriptive statistics

5.1 Defining rules of origin, and rule overlap

To organise the different rules of origin, we divided them into four main groups and ten sub-groups, in which the sub-groups allow the firms to choose between more than one condition to prove origin. Specifically, the four main rules are:

1. wholly obtained (WO)
2. value added (VA)
3. change of tariff classification (CTC) and
4. special technical requirement (STR).⁷

The four main rules are then divided into ten sub-groups in which the firms can choose between two or more core rules to comply with the rules of origin, as shown in Table 1.

Table 1. Categorisation of rules of origin.

The four core rules	Ten sub-groups		
(VA) = Value Added	(VA) or (CTC)	(VA) or (STR)	(VA) or (CTC) or (STR)
(WO) = Wholly Obtained	(WO) or (VA)	(WO) or (STR)	(WO) or (VA) or (STR)
(CTC) = Change of Tariff Classification	(WO) or (CTC)		(WO) or (VA) or (CTC)
(STR) = Special Technical Requirement	(CTC) or (STR)		(WO) or (VA) or (CTC) or (STR)

5.2 Preference utilisation

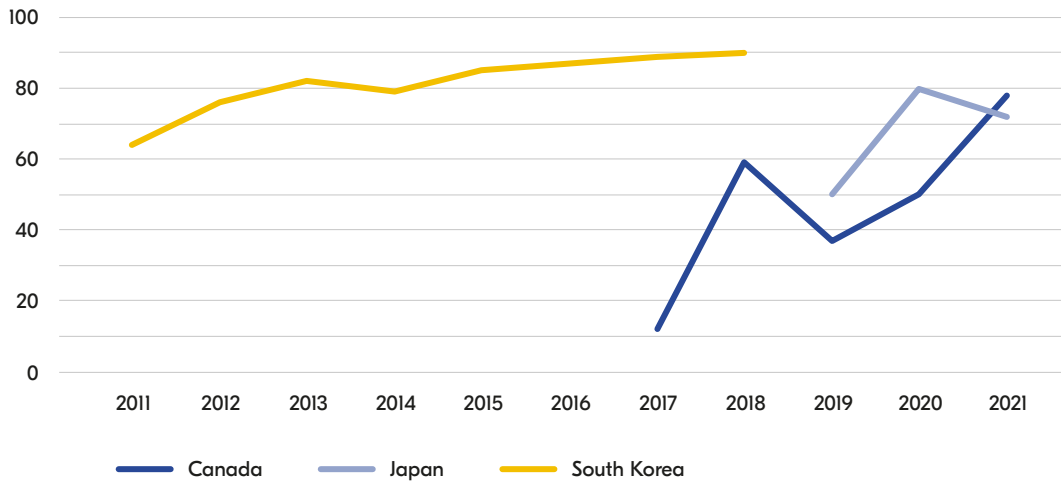
A common theme is that the preference utilisation rate for a firm starts out at a relatively low level during the first year of imports and then increases over time.

We also note that the preference utilisation rate varies across rules and agreements.

The average preference utilisation rate for a firm goes from zero (no preference utilisation) to one (100 per cent preference utilisation) and shows the value share of preference-eligible imports that takes place under preferences. The use of preferences can vary and Figure 1 illustrates how utilisation rates evolve from the first year of the three agreements studied in this report.

7. There are a few cases in which more than one rule must be fulfilled to prove origin. However, these cases are very few and have been excluded from the analysis.

Figure 1. Preference utilisation over time and agreement.



Source: Swedish customs, own calculations.

As seen in Figure 1, the preference utilisation rate varies across agreements and time. Three years into the agreement, the preference utilisation rate for Swedish importers was 37 per cent in the Canada agreement, as high as 82 per cent in the South Korea agreement, with Japan in the middle with a preference utilisation rate of 72 per cent.

A common theme seen in Figure 1 is that the preference utilisation rate starts out at a relatively low level for the first year and then increases over time. This supports the findings of the National Board of Trade (2022), which detected a learning process in which it takes three to five years for the preference utilisation rate to level out.

A second source of variation in preference use is across rules (and agreements). Table 2 shows the preference utilisation rate across rules for the three agreements studied. As can be seen in Table 2, the PUR does not only vary between rules. A striking feature of Table 2 is that a rule with a relatively high preference utilisation rate in one agreement



can have a relatively low preference utilisation rate in another, for example, the value-added rule has a remarkably high utilisation rate in the Japan agreement with a PUR of 98 per cent, while the PUR for the same rule drops to 21 per cent in the Canada agreement, placing the VA rule second to last in the Canada agreement. This aspect of how the PUR for a given rule can vary across agreements is an issue that we will return to in the econometric analysis below.

Table 2. Average preference utilisation rate (PUR) by rule and agreement.

Rule	Japan	Canada	South Korea
Wholly obtained (WO)	51	84	66
Value-added rule (VA)	98	21	48
Change of tariff classification (CTC)	72	44	82
Special technical requirement (STR)	46	16	67
WO or CTC	76		
WO or VA or CTC	37		
VA or CTC	63	34	87
VA or STR	86	17	
VA or CTC or STR	55	69	
CTC or STR	90	87	

Note: Calculations based on all available post-agreement years.

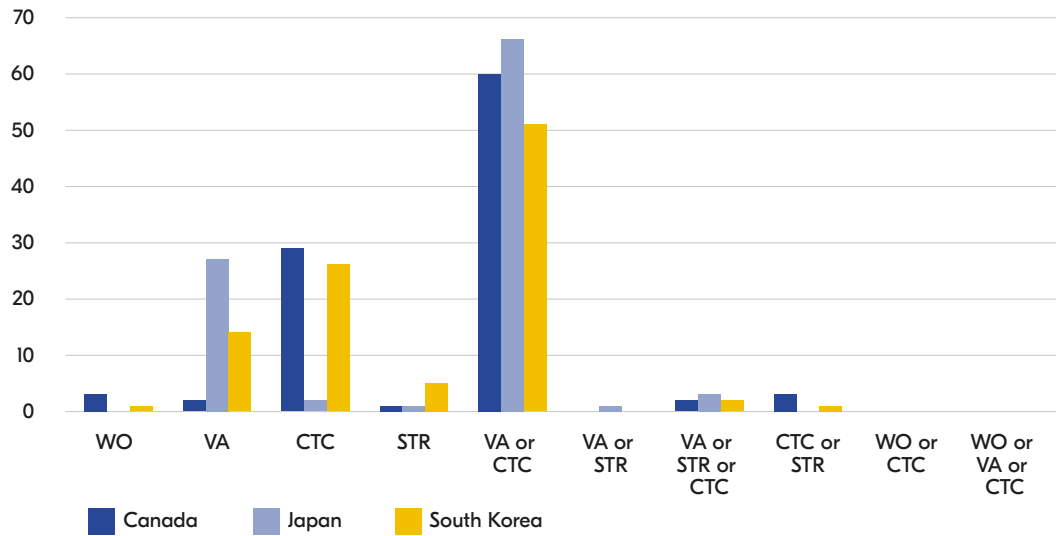
5.3 The distribution of trade across rules, and rule overlap

The four most used rules or combination of rules account for 98 per cent of the transactions and 96 per cent of the transaction value.

As pointed out above, with our set-up, it is possible to construct 14 combinations of rules of origin, though not all combinations are used in our data. Figures 2 and 3 provide information on the share of transactions and the transaction value for each agreement that takes place within each rule. This allows for a comparison to be made between the relative weight of each rule. A relevant question is whether there is one or more rules that represent a large share of the transactions or the transaction value. If we aim to revise the rules to increase preference utilisation, a good place to start is by looking at the rules that represent a large share of transactions or transaction value.⁸

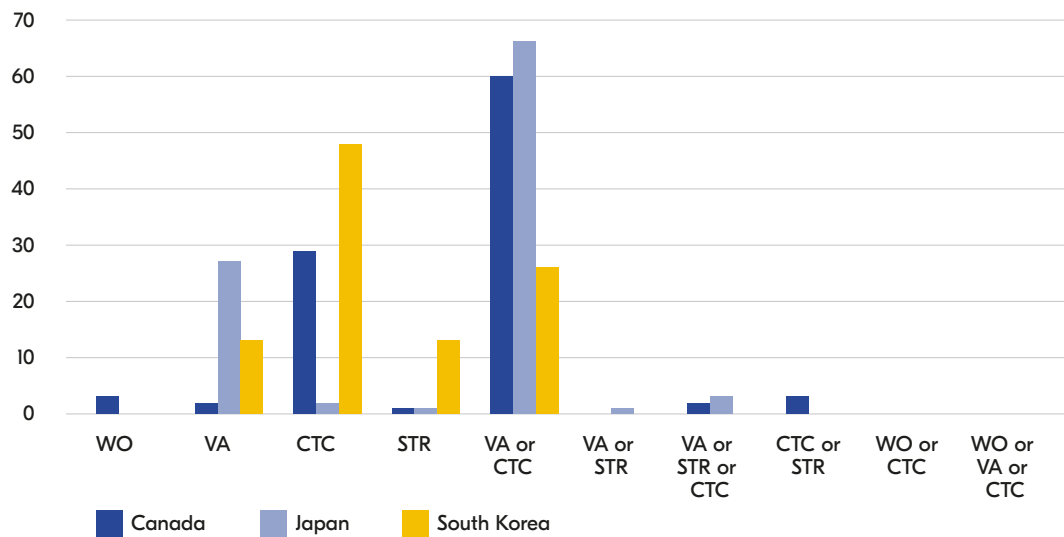
8. As seen in Figures 2 and 3, not all combinations are applied, suggesting that not all possible goods are imported.

Figure 2. Share of number of transactions, by rule and agreement, per cent.



Note: Calculations based on all available post-agreement years.
(WO) = Wholly Obtained, (VA) = Value Added, (CTC) = Change of Tariff Classification,
(STR) = Special Technical Requirement.
Source: Swedish Customs, own calculations.

Figure 3. Share of transaction value, by rule and agreement, per cent.



Note: Calculations based on all available post-agreement years.
(WO) = Wholly Obtained, (VA) = Value Added, (CTC) = Change of Tariff Classification,
(STR) = Special Technical Requirement.
Source: Swedish Customs, own calculations.

5.3.1 Key observations from Figures 2 and 3

1. Majority of transactions are concentrated to a few rules.

- The “(VA) or (CTC)” combination alone accounts for on average 59 per cent of the transactions and 51 per cent of the import value.
- The top four rules or combination of rules account for 98 per cent of the transactions and 96 per cent of the transaction value.

2. Cross-country differences in rules used

- Some rules that are intensively used in one agreement can be of minor importance in another. This may be due to the differences in the composition of imports across partner countries. As an example, 13 per cent of imports from South Korea use the special technical requirement rule, while the value share represented by this rule is only one per cent for imports from Canada and Japan.

Using the rules defined above, we conclude the descriptive analysis by looking at the set of products (on the HS-6 level) traded in all three agreements and examine the rule similarity across these. Specifically, for each product, we analyse the extent to which the same rule is applied across the agreements. A simple similarity analysis shows that 1,257 products (on the HS-6 level) are traded in all three agreements. Among these, the following similarities were found:

- **Japan-South Korea.**

Between Japan and South Korea, the same rule was found for 58 per cent of the products traded in all three agreements.

- **Japan-Canada.**

Between Japan and Canada, the same rule was found for 42 per cent of the products traded in all three agreements.

- **Canada-Korea.**

Between Canada and South Korea, the same rule was found in 65 per cent of the products traded in all three agreements.

- **Canada-Korea-Japan.**

Across all three agreements, the same rule was found for 35 per cent of the products.

The first thing to note is that 65 per cent of the products do not have the same rules of origin across the three agreements, i.e. either one agreement deviates from the other two, or for the same product there are different rules for all three agreements. Given that a lot of companies trade with multiple countries and cover several RTAs, this finding suggests that even if they only trade one good, the number of rules of origin to keep track of can be significant. If you add to this the fact that many firms trade in several different products, it is easy to see the burden of managing the rules of origin.

6 Results

Below we discuss the results of the statistical analysis of how different rules of origin are associated with the use of preferences. To facilitate the interpretation of the results, we present a “difficulty ranking” of each rule. The ranking is based on the logit estimates and Rank ‘1’ indicates that a rule is considered the easiest to comply with and higher ranks are associated with lower preference utilisation. The full estimates are presented in the regression tables in the Appendix.

A rule that is associated with low preference utilisation in one agreement can be associated with a high degree of preference utilisation in another.

6.1 The four main rules of origin

We start by focusing on transactions using only the four main requirements: value added, wholly obtained, change of tariff classification and special technical requirement (VA, WO, CTC, STR). Cases in which a rule can be used in tandem with another rule have been excluded in Table 2 (we will return to rule combinations below).⁹ Table 3 summarises the results from an unconditional logit regression that summarises the association between the four main rules and preference utilisation. A logit model means that the dependent variable is either zero (0) (preferences were not used in the transaction) or one (1) (indicating that the preference was used).

It is important to note that the table does not rank difficulty *across* the agreements, only *within* the respective agreements. 1 indicates the ‘easiest’ rule associated with the highest preference utilisation rate; conversely, 4 indicates the most difficult rule. The full set of results from the estimates are presented in the Appendix.

Table 3. Difficulty ranking, (1–4) of the four base rules.

Difficulty ranking 1–4 (1 =easy, 4 = difficult)	South Korea	Canada	Japan
Wholly obtained	2	1***	3**
Value added	4	4	2
Change of tariff classification	3	2**	4***
Special technical requirement	1***	3*	1

Note: Based on logit Model 2, Tables 4–6, using no other control variables.
*, **, *** indicates whether the rule is significantly different from the value-added rule (the base rule).

From Table 3, three observations are made. First, for import transactions originating from Korea and Canada, the value-added rule had the lowest probability of utilising the tariff preferences. However, for import transactions from Japan, the value-added rule seems to be associated with the second highest probability of utilising the tariff preferences.

Second, the special technical requirement is associated with the highest degree of preference utilisation in the Korea and Japan agreements but is ranked as the second lowest preference utilisation in the Canada agreement.

⁹ For the results, see Model 1, Tables 6–8, Appendix.



Third, in Tables 4–6 in the Appendix we note that these results change somewhat when we control for other variables that influence preference utilisation, such as transaction value, preference margin and firm characteristics. In line with Kommerskollegium (2019, 2022), this shows that variables other than rules of origin and, particularly transaction characteristics, are important determinants that explain the use of tariff preferences.

To sum up, it is difficult to identify a clear pattern. No specific rule behaves the same across all three agreements. A rule that is associated with low preference utilisation in one agreement can be associated with a high degree of preference utilisation in another. This heterogeneity could be due to the economic and political priorities during the negotiation of the agreement. Another explanation may be that the composition of goods varies within the same rule across agreements; or, of course, a combination of both.

6.2 The inclusion of rules with options

The addition of alternative conditions to choose from does not automatically mean that the degree of preference use will be high.

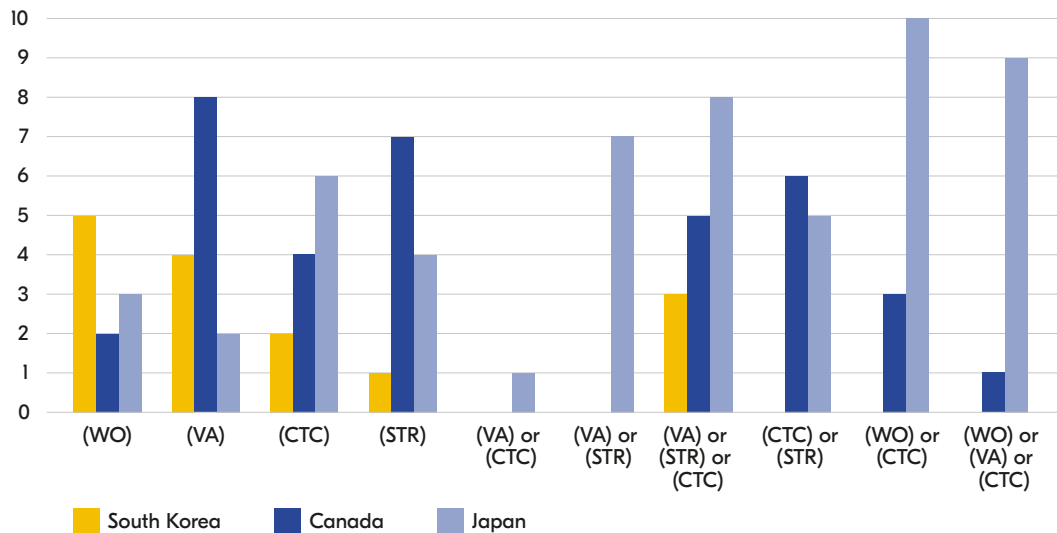
As noted above, in many cases firms can choose from several criteria to obtain origin. We therefore proceed by adding these rule combinations to the analysis. Each combination of rules is treated as a specific rule, or rule alternative. Hence, we now proceed to the main analysis, considering each possible combination of rules. Specifically, we include the four main origin requirements together with all available “or” requirements for which we have a (econometrically) sufficient number of transactions.¹⁰

Figure 4 expands the ranking from Table 3 to include ten types of rules of origin instead of four. Rank 1 is associated with the highest preference utilisation and rank 10 the lowest. The ranking is based on the results of the preferred model (Model 5, Tables 4–6 in the Appendix). We rank the alternative rule combinations from “easiest” to comply with (rank 1) to “most difficult” to comply with (rank 10). If a ranking is missing

10. Rules with less than 50 transactions have been excluded from the econometric analysis.

(a 0 ranking) from a specific rule of origin, it is because there are less than 50 available transactions on which to base the estimate. For example, there are only five ranked rules of origin in the Korea agreement, indicating that there are fewer types of rules of origin in this agreement compared to the other two agreements.

Figure 4. Ranking of rules of origin (1–10), by agreement. Based on the observations used in the preferred model



Note: Ranking derived from full-specification logit regressions, Model 5, in Tables 4–6 in the Appendix. The ranking is from the rules associated with the highest degree of preference utilisation (rank 1) to the lowest preference utilisation (rank 10). (WO) – wholly obtained (VA) – value added. (STR) – special technical requirement. (CTC) – change of tariff heading.

6.2.1 Key observations from the main results depicted in Figure 4

- **The number of rules varies across agreements**

The first thing to note from Figure 4 is that the number of applicable rules varies across agreements. For example, the results in Figure 4 suggest that in addition to the four main rules of origin, the Korea free trade agreement has only one additional ‘or’ combination, Ceta has four additional combinations, and the Japan agreement has six additional combinations, making a total of five, eight and ten types of rules of origin, respectively. This is not surprising since the Korea agreement, while still a modern free trade agreement, is significantly older than the other two. In a sense, the Korea agreement was the beginning for the deep and comprehensive RTAs that EU continued to negotiate from that point, an agenda that had matured and evolved further in Ceta and the Japan agreement. This process included a more pronounced global value chain perspective and perhaps required more compromise and flexibility than before, reflected in a greater variety of rules of origin.

- **The results vary across agreements**

A given rule may be associated with low preference use in one agreement and high preference use in another. This could be because that different products share the same rule of origin, and that the composition of traded goods varies between agreements. If this hypothesis is correct, a rule may be easy to comply with for one product, but difficult for another. We also note that there is variation in the level of stringency of rules of origin within rules.



- **More options cannot be equated with higher preference utilisation**

The addition of alternative conditions to choose from does not automatically mean that the degree of preference use will be high. This is somewhat counter-intuitive. So, what could be the explanation? Maybe “less is more”, meaning that more options become hard to interpret and more difficult to use for operators. Perhaps the rules are too strict, even though they include more options. Then again, it might not be about the origin criteria at all; instead, it could be connected to other factors such as transaction value or firm characteristics. Regardless, this is an area that needs to be looked at since the intended effect (assuming that introducing more options is meant to facilitate preference use) is not achieved.
- **Multiple transactions do not mean high preference utilisation**

Multiple transactions within a certain rule of origin do not mean a high degree of preference utilisation. The simple correlation between the ranking of a rule and the number of transactions shown is close to zero (0.066), suggesting that the ranking of a rule is virtually unrelated to the number of transactions made under that rule. For example, in the Japan agreement, the “(VA) or (CTC)” rule accounts for approximately two thirds of transactions, but is ranked eighth in terms of its association with preference use. Thus, to the extent that there is a process of “learning to use preferences”, this learning is not related to the number of transactions made under a particular rule, but rather to the number of transactions made by a firm. Along these lines, Kommerskollegium (2022) showed that learning to use the preferences offered by a free trade agreement takes place at the firm-transaction level.
- **Transactions clustered to a few rules**

95 per cent of transactions takes place under four different rules of origin. It should be noted that within the same type of rules, the composition of goods that are traded can differ across agreements. So, one good can be associated with a value-added criteria in one agreement and a change of tariff classification criteria in another. Given the concentration of transactions under a limited number of rules, and the difficulties to pinpoint a generally “difficult” rule of origin, efforts to improve preference utilisation should focus on the most commonly used rules of origin.

7 Conclusions

The main purpose of this analysis was to see whether certain rules of origin are associated with high or low preference use across RTAs. We found no such pattern. In other words, it was not possible to associate either high or low preference use with any particular rule of origin. Instead, the analysis revealed a high degree of heterogeneity across agreements.

One explanation of why the results vary across agreements could be that each RTA is negotiated based on a unique set of conditions and economic priorities. In other words, heterogeneity is a feature, not a bug. Not even a strong negotiator like the EU can completely dictate rules of origin; instead, compromises are made and with compromises comes heterogeneity in the rules.

This heterogeneity means that the substance can vary within a given rule of origin. For example, a value-added rule can have different percentage thresholds between products and across agreements. Using the finest possible grid, it has been estimated that there are around 54,000 variations in rules of origin in the spaghetti bowl of international preferential trade agreements.¹¹ Most of these variations are due to the drafting of rules of origin; in terms of substance, the variation is not as great. Our grouping is rather broad and there may be some heterogeneity in our 16 rules of origin. With this said, intra-rule heterogeneity may explain why it was difficult to associate a particular rule with a high or low preference utilisation rate. It should also be noted in this context that the differences in methods of proving origin between the three agreements have not been considered here. The impact of methods of proving origin on preference utilisation is generally unclear.

One interesting finding was that around 95 per cent of transactions took place under as little as four rules of origin. Hence, only a few types of rules of origin dominate preferential Swedish imports in the three agreements analysed in this report.

Lastly, further attention should be given to the fact that multiple options in a rule of origin are not associated with a higher degree of preference utilisation, which really should be the case.

11. Kniahin D., and De Melo, J. (2022).

8 Policy recommendations

Based on the summary above, we hereby propose a few ways to reduce the burden of rules of origin and improve preference utilisation. No priority has been set among the policy recommendations.

Recommendation 1. Continue to strive for harmonisation

Harmonisation is the natural answer to complexity, but there is neither the appetite nor the scope for harmonisation of the rules of origin across RTAs. However, there are still options. The Pan-Euro-Med (PEM) system of cumulation is one such example. In the PEM, around 60 RTAs in Europe and around the Mediterranean are connected to a single rules of origin protocol, which both harmonises the rules of origin and enables diagonal cumulation. The PEM offers a model for increased harmonisation and deeper economic integration that can be expanded. More countries should be actively encouraged to join.

The mega-regional free trade agreements such as AfCFTA, CPTPP and RCEP also offer harmonisation due to the sheer number of countries connected via these RTAs. It should be noted though that the actual rules of origin in these agreements, including the PEM, tend to be quite complex.

New ways to harmonise the rules of origin should also be explored. Instead of negotiating an entirely new origin protocol like in the PEM, could RTAs be connected to a greater degree via extended cumulation? This principle is used today, but only sparingly. It could be a way to further deepen economic integration among countries that are already connected via RTAs.

The multilateral angle should not be forgotten either, even though there is currently no real multilateral process for harmonisation ongoing.¹² The Bali Ministerial Conference in 2013 adopted guidelines on rules of origin for least developed countries (LDCs), but there has been little else of substance. Something that could possibly be negotiated on a multilateral level is the drafting of rules of origin, together with standardised texts and templates for proofs of origin. This would bring increased clarity to all stakeholders, especially those who use or implement several different RTAs.

Another possible avenue for multilateral cooperation could be the introduction of digital proofs of origin. Some countries have already started to introduce such systems, and to avoid fragmentation and further complexity, steps should be taken at the multilateral level to harmonise them. Coordination and best-practices sharing between countries that are in the process of introducing digital proofs should be the bare minimum in this regard.

Recommendation 2. Waive rules of origin or remove low-level tariffs on an MFN level

The purpose of rules of origin is to stop third countries from round-tripping and avoiding paying tariffs. However, it has been shown that round-tripping is a costly process¹³ and with low MFN tariffs, the cost of round-tripping quickly exceeds the potential duty savings.

12. The negotiations on harmonisation of non-preferential rules of origin are at a standstill with no solution in sight

13. Felbermayr, G., Teti, F., & Yalcin, E. (2019)

This should be considered in relation to the cost of compliance and the tariff reduction offered in RTAs. If the risk of round-tripping is low, there is a good argument that rules of origin are not needed for goods with very low tariffs (in the 1–3 per cent range, for example), and could be waived. This is not a new idea; the Australian Productivity Commission wrote about it in 2004, but it is still relevant.

Another option, and probably an even better one, would be to remove low-level tariffs on an MFN basis.¹⁴ This would make rules of origin redundant and reduce the trade costs for all stakeholders involved.

Recommendation 3. Balance the trade policy burden through rules of origin

Preferential rules of origin are deeply connected to market access, but a product's origin matters in many other contexts, too. In fact, origin and traceability have become increasingly important in world trade, and trade policy, due diligence in supply chains, forestry and forced labour provisions are a few examples.

While the necessity and design of these new trade policy measures have been thoroughly analysed, the cumulative burden it places on different stakeholders has not. There is an overall tendency to continuously add new trade policy measures, without removing or reducing already existing ones. There is a risk that this could overburden stakeholders. In this context, one way to balance the trade policy burden could be via the rules of origin (for example, through waiving rules of origin for low-level tariffs). This would allow market access and economic integration with trusted partners to be improved, while other measures would reduce market access (by blocking non-sustainably produced goods, for example).

Recommendation 4. Continue to improve tools and guidance for all stakeholders

The high degree of heterogeneity in the rules of origin is a problem for all stakeholders involved in preferential trade. Since it is difficult to reduce this complexity in terms of substance, there needs to be an increased focus on other methods of facilitating the use of RTAs.

There has recently been some great examples of tools and initiatives designed to help companies navigate the world of rules of origin. The Rules of Origin Self-Assessment Tool (ROSA) in the EU Access2Markets website is one such example, and the ITC/WCO/WTO Rules of Origin Facilitator is another. These types of tools should be expanded to include more agreements and further help operators trying to calculate the origin of their goods.

Guidance documents are important to both the economic operators and officials responsible for implementing the rules and should be in place when an agreement is ready to use. Also, there is a continuous need to promote RTAs, their benefits and how to access them. This information should mainly be aimed at producers and exporters, but should also include customs officials, customs agents and freight forwarders who have an important role to play in facilitating preferential trade.

14. Productivity Commission (2004)

Final word

To ensure that the rules of origin remain fit for purpose, more research is needed, and to conduct further research we need more and better data. The last couple of years have seen an improvement in this regard. For example, it is now more common to publicly share data on the utilisation of RTAs, which has deepened our common knowledge of how companies use preferences.

To the best of our knowledge, this is the first study to use detailed transaction data combined with the rule of origin that is applied to each transaction. One potential way forward of understanding what it is that determines preference utilisation would be for countries in RTAs to formalise the sharing and analysis of utilisation data. RTAs need constant maintenance if they are to work for all stakeholders and maximise their potential, including what drives a company's usage and where there is room for improvement. This also includes how general provisions such as cumulation and tolerance rules are used.

As with every analysis, a number of follow-up questions and areas to further explore have emerged during the process. These are outside the scope of this study but could serve as inspiration for future work. One area to focus on to better understand the impact of the rules of origin would be to separate the companies that use all three of the agreements analysed here to see what products these companies trade and which rules of origin they face. Is it possible to identify the impact of a certain rule of origin on the utilisation under such a scenario? Another aspect of future research would be to look more closely at the trade costs associated with different proofs of origin and to make a finer grid of rules of origin.



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Appendix

Method

We want to examine the relationship between the different rules of origin and preference utilisation. When the outcome variable is zero or one (in this case whether preferences are used or not in a specific transaction), the logit model is useful. The estimated model takes the following form:

$$\ln\left(\frac{P_{ijkt}}{1-P_{ijkt}}\right) = \mathbf{R}_{rt}\beta_R + \mathbf{X}_{ijkt}\beta + Y_t + \mu_k + \varepsilon_{ijkt} \quad (i)$$

P_{ijkt} is the probability that the tariff preference is being utilised in import transaction i , performed by firm j , using rule r , in product group k , at time t . \mathbf{R}_{rt} is the set of rules of origin available for the firms, and \mathbf{X}_{ijkt} is a set of control variables that affect the firms' decisions to utilise the tariff preference, (see Appendix). Y_t and μ_k are time product group and fixed effects respectively, and ε_{ijkt} is the error term.¹⁵

In the analysis of preference utilisation, there is a strand of research that explores the threshold values for preference utilisation by applying a knot/threshold analysis (Keck and Lendle, 2012 and Albert and Nilsson, 2016).¹⁶ However, we do not aim to estimate threshold values. One reason for not focusing on a knot analysis are the findings from Kasteng et al. (2021), who used transaction-level data to show that the empirical distribution of preference utilisation reflects a continuous increase in the import transaction value, rather than a well-defined cut-off point.

The regression results are presented as odds ratios, suggesting that an estimated coefficient greater than one indicates an increased probability of utilising the tariff preferences (a positive relation) and a value less than one indicates a reduced probability of utilising the tariff preferences. Standard errors are clustered at the firm level.

Throughout the analysis, the estimation, the value-added rule (va) is used as a reference. Hence, the results indicate whether a specific rule is associated with greater or lesser use of the preference, relative to the value added rule.

15. As a technical note, the structure of the data set, in which several firm-level transactions may take place in one day, does not allow for a traditional panel (ID time) identification. Hence, the data are not naturally aligned with a panel data set-up.

16. A threshold analysis is justified when the utilisation of tariff preferences is in the form of a fixed cost, which, in turn, due to scale effects, suggests an advantage for large firms in preference utilisation.

Table 4. Logit estimates, South Korea.

Rule/variable	(1) Four main rules in all combinations	(2) Four main rules only	(3) Four main rules only	(4) All rules	(5) All rules	(6) All rules RE-est
Wholly obtained (WO)	0.67 (0.49)	1.89 (1.26)	0.75 (0.61)	1.83 (1.18)	0.48 (0.44)	0.86 (0.35)
Value added (VA)	0.37** (0.17)					
Change of tariff (CTC)	0.60 (0.23)	1.64 (0.54)	1.93*** (0.49)	1.64 (0.52)	2.54** (1.00)	2.80*** (0.08)
Special rule (STR)	2.45* (1.30)	4.34** (2.96)	3.04** (1.54)	6.69*** (2.83)	5.71** (4.51)	7.40*** (0.29)
(VA) or (CTC)				2.73** (1.26)	2.04* (0.78)	2.06*** (0.04)
<i>ln</i> (sales)			0.89 (0.07)		1.10 (0.10)	1.01 (0.01)
<i>ln</i> (productivity)			1.32* (0.20)		1.42** (0.25)	1.48*** (0.01)
Preference margin			1.05 (0.09)		1.19** (0.08)	1.17*** (0.01)
<i>ln</i> (transaction value)			1.25*** (0.09)		1.30*** (0.06)	1.39*** (0.01)
Observations	312.033	95.986	95.986	312.033	312.033	312.033

Note: Logit estimates, standard errors clustered at the firm level.
 *, **, *** indicates significance at the 10, 5, 1 per cent level, respectively.

Table 5. Logit estimates, Canada.

Rule/variable	(1) Four main rules in all combinations	(2) Four main rules only	(3) Four main rules only	(4) All rules	(5) All rules	(6) All rules RE-est
Wholly obtained (WO)	17.10*** (7.43)	76.70*** (57.50)	68.70*** (55.10)	60.90*** (46.40)	64.50*** (54.30)	76.90*** (25.50)
Value added (VA)	0.29** (0.16)					
Change of tariff (CTC)	1.09 (0.20)	3.82** (2.32)	6.96** (5.25)	3.80** (2.25)	8.85*** (6.89)	7.78*** (2.18)
Special rule (STR)	0.74 (0.29)	3.34* (2.28)	5.17* (4.46)	2.59* (1.43)	5.13** (4.00)	3.50*** (1.00)
(VA) or (CTC)				3.09** (1.78)	6.50** (5.03)	5.81*** (1.63)
(VA) or (STR)				3.25 (3.39)	5.93 (7.00)	4.94*** (1.76)
(VA) or (CTC) or (STR)				5.15** (4.17)	8.89** (7.88)	9.02*** (2.50)
(CTC) or (STR)				51.70*** (48.00)	61.70*** (58.20)	52.90*** (16.70)
<i>ln</i> (sales)			0.97 (0.06)		0.91 (0.05)	0.88*** (0.01)
<i>ln</i> (productivity)			1.16 (0.20)		1.28* (0.17)	1.20*** (0.04)
Preference margin			1.06 (0.04)		1.03 (0.03)	1.05*** (0.01)
<i>ln</i> (transaction value)			1.19*** (0.06)		1.30*** (0.06)	1.33*** (0.01)
Observations	18.985	7.090	7.090	18.985	18.985	18.985

Note: Logit estimates, standard errors clustered at the firm level.
 *, **, ***, indicates significance at the 10, 5, 1 per cent level, respectively.

Table 6. Logit estimates, Japan.

Rule/variable	(1) Four main rules in all combinations	(2) Four main rules only	(3) Four main rules only	(4) All rules	(5) All rules	(6) All rules RE-est
Wholly obtained (WO)	4.18*** (1.85)	0.43** (0.18)	0.98 (0.42)	0.51 (0.22)	0.94 (0.44)	0.81 (0.20)
Value added (VA)	8.27*** (3.52)					
Change of tariff (CTC)	1.25 (0.39)	0.13*** (0.07)	0.45*** (0.13)	0.15*** (0.08)	0.46** (0.16)	0.42*** (0.06)
Special rule (STR)	3.80*** (1.31)	1.54 (0.65)	1.19 (0.61)	0.46** (0.16)	0.54 (0.21)	0.48*** (0.10)
(WO) or (CTC)				0.76 (0.30)	1.13 (0.47)	0.84 (0.25)
(WO) or (VA) or (CTC)				0.23*** (0.08)	0.29*** (0.12)	0.22*** (0.06)
(VA) or (CTC)				0.12*** (0.05)	0.24*** (0.08)	0.22*** (0.03)
(VA) or (STR)				0.50* (0.19)	0.51 (0.23)	0.46*** (0.11)
(VA) or (CTC) or (STR)				0.12*** (0.06)	0.13*** (0.06)	0.13*** (0.05)
(CTC) or (STR)				0.23**	0.24*	0.19***
<i>ln</i> (sales)			1.11 (0.11)		1.12 (0.09)	1.08*** (0.01)
<i>ln</i> (productivity)			0.85 (0.16)		0.64** (0.12)	0.59*** (0.02)
Preference margin			1.18*** (0.04)		1.10** (0.05)	1.11*** (0.01)
<i>ln</i> (transaction value)			1.74*** (0.12)		1.58*** (0.12)	1.62*** (0.01)
Observations	47.617	4.237	4.237	47.617	47.617	47.617

Note: Logit estimates, standard errors clustered at the firm level.
 *, **, ***, indicates significance at the 10, 5, 1 per cent level, respectively.

Sammanfattning på svenska

Summary in Swedish

Ursprungsregler spelar en central roll för företagens förmåga att använda de tullpreferenser som frihandelsavtal erbjuder. Men fler faktorer än ursprungsreglerna är viktiga, exempelvis storleken på transaktionen i fråga, vilken typ av varor som handlas och vilken erfarenhet av att utnyttja frihandelsavtal som de inblandade företagen har. Kommerskollegium har tidigare analyserat dessa faktorerers förhållande till preferensutnyttjande och nu har turen kommit till själva ursprungsreglerna. Hur stor roll spelar ursprungsreglerna i sammanhanget? Det har hittills varit svårt att besvara den frågan då det saknats rätt typ av data. Tills nu.

Med hjälp av transaktionsdata från Tullverket har vi analyserat tre frihandelsavtal – *the EU-Japan Economic Partnership Agreement, the EU-Canada Comprehensive Economic and Trade Agreement and the EU-Korea Free Trade Agreement* – för att försöka avgöra vilken inverkan ursprungsreglerna har på företagens förmåga att utnyttja avtalen. I början av arbetet var vi övertygade om att vi skulle kunna koppla samman specifika ursprungsregler med ett högt eller lågt utnyttjande av avtalen, att hitta ett mönster och kunna säga vilka ursprungsregler som är enkla eller svåra att använda alltså. En omöjlig uppgift visade det sig. Istället visade analysen på en heterogenitet mellan frihandelsavtalen. Med andra ord kan en ursprungsregel kopplas samman med ett högt utnyttjande i ett avtal, men ett lågt nyttjande i ett annat. Den här variationen beror sannolikt på att varje frihandelsavtalsförhandling är unik. En förhandling baseras på unika ekonomiska och politiska förutsättningar mellan parterna ifråga. Så mönstret vi fann var alltså *variation*.

Andra noterbara resultat från analysen är att 95 procent av alla transaktioner sker under fyra specifika ursprungsregler och att ha ett val mellan alternativa ursprungsregler inte automatiskt avspeglar sig i ett högre preferensutnyttjande. Just detta faktum är särskilt förvånande då hela syftet med att öka valmöjligheten rimligen borde vara att göra det enklare för företag att utnyttja frihandelsavtalen.

Ett av målen med det här arbetet har varit att identifiera ursprungsregler som går att associera med antingen ett högt eller lågt preferensutnyttjande. Policyrekommendationer kunde därefter tas fram på bas av detta med det långsiktiga målet att förbättra utnyttjandet av våra frihandelsavtal. Även om resultatet inte blev det förväntade, har vi fortfarande ett par policyrekommendationer som vi tror skulle leda till förbättringar.

Rekommendation I. Fortsätt sträva efter harmonisering

- Inspireras av Pan-Euro-Med (PEM)-modellen för att harmonisera ursprungsregler
- Arbeta multilateralt för att etablera gemensamma skrivningar och formuleringar
- Hitta multilaterala lösningar kring utvecklingen av digitala ursprungsintyg för att undvika fragmentisering

Rekommendation 2. Ta bort låg-värdes tullar (1–3 procent) alternativt avstå från ursprungsregler för dessa produkter

Rekommendation 3. Balansera ökad regelbörda med hjälp av ursprungsregler

- Kraven på spårbarhet har ökat i och med introduktionen nya typer av handelspolitiska åtgärder. Är det möjligt att inom ramen för våra frihandelsavtal erbjuda lättnader för att balansera den ökande regelbördan?

Rekommendation 4. Fortsätt att utveckla verktyg och vägledningar för att stötta alla de som hanterar ursprungsregler

- Onlineverktyg kan vara till stor hjälp vid hanteringen av ursprungsregler och det är viktigt att fortsätta utveckla dessa
- Vägledningar och informationsmaterial om frihandelsavtal och hur företag kan utnyttja dem är centralt och resurser behöver fortsatt avsättas för detta syfte

The National Board of Trade Sweden is the government agency for international trade, the EU internal market and trade policy. Our mission is to facilitate free and open trade with transparent rules as well as free movement in the EU internal market.

Our goal is a well-functioning internal market, an external EU trade policy based on free trade and an open and strong multilateral trading system.

We provide the Swedish Government with analyses, reports and policy recommendations. We also participate in international meetings and negotiations.

The National Board of Trade, via SOLVIT, helps businesses and citizens encountering obstacles to free movement. We also host several networks with business organisations and authorities which aim to facilitate trade.

As an expert agency in trade policy issues, we also provide assistance to developing countries through trade-related development cooperation. One example is Open Trade Gate Sweden, a one-stop information centre assisting exporters from developing countries in their trade with Sweden and the EU.

Our analyses and reports aim to increase the knowledge on the importance of trade for the international economy and for global sustainable development. Publications issued by the National Board of Trade only reflect the views of the Board.

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