KOREA INSTITUTE OF PUBLIC FINANCE
336, Sicheong-daero, Sejong-si, Korea
TeL: 82-44-414-2114 Fax: 82-44-414-2179
URL: www.kipf.re.kr

Research Paper 15-02

Reformation of the Tariff System for Effective Implementation of Free Trade Agreements(FTAs)

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December 2015 | Jaeho Cheung
Sangwha Shin

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Introduction

Korea has been pushing ahead with a strategy to simultaneously ratify free trade agreements(FTAs). Starting with an FTA with Chile in 2004, Korea has put eleven FTAs into effect. Mega-economic blocs, including the European Union, the United States, and China are also taking part in FTAs with Korea. Moreover, Korea is in the process of FTA negotiation with a series of other nations.

While negotiating with the partner state, it is important to make efforts to ratify agreements that are favorable to Korea. However, after the FTA takes effect, it is more important to effectively utilize the implemented FTA.

To effectively utilize an FTA, we need to scope out the characteristics of the FTA system. First, ratification with the partner state does not mean that the advantages of the FTA are automatically implemented. This is because an FTA provides special favors to only an FTA partner. To receive special favors, an FTA partner needs the certification of origin to prove that products are made within the partner country. Moreover, the partner needs to consign products directly from itself to prevent the certification of origin from changing, or abide the direct consignment principle. Thus, systematic support is required since certification of origin and the direct consignment principle are crucial parts of the implementation of a new system like an FTA. Accordingly, this paper will discuss specifically methods to reorganize certification of origin and the direct consignment principle, which are the most pivotal elements of FTA implementation and are where the most systematic support is required to meet potential problems.

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Characteristics and Problems of Carrying Out FTA System

Korea agreed to apply preferential tariffs with 49 nations through the eleven FTAs that have been implemented. The first one implemented was the Republic of Korea-Chile (ROK -Chile) FTA, which started with negotiations in 1999 and took effect in April 2004, and the latest was the ROK-Canada FTA, which took effect in January 2015.[1)]

1 Application Conditions for FTA

Korea has continuously expanded FTA negotiations. In return, market participants have been subjected to new trade conditions that did not previously exist. One of the most prominent characteristics of the FTA system is the difference between tariff rate by type of imported goods and tariff rate by origin.

Under the new trade environment, market participants gain the opportunity to pursue advantages of preferential tariffs through the FTA, but

1) *FTA Power, KOREA* [in Korean], accessed: September 26, 2015, www.fta.go.kr/main

they are also under a new regulation that needs to be met. To begin with, they need to fulfill item requirements. Preferential tariffs are applied only to specific goods that are explicitly agreed on, and the rate differs from one agreement to the other. Even the rate with the same partner nation could differ by year. Thus, which goods qualify for a preferential tariff, and the rate of the tariff, could differ by both the origin of the goods and the year of production.[2)]

Secondly, market participants need to comply with rules of origin (ROO). It is crucial to clearly verify whether goods that go through customs are produced in the partner nation because preferential tariffs are exclusive among FTA participant nations. Exporters or importers have to submit a certification of origin in a written form, and they have the responsibility to store and manage the certification for a certain period. This issue is discussed in more detail later on.

Finally, to receive the preferential tariff under an FTA, the direct consignment principle should not be violated. Under this principle, the preferential tariff does not apply if the trade items are transported via a third nation, or even between two nations.

In the case of item standards, the application of standards is clear in accordance with the definition of the item . However, due to diverse factors, it is difficult to satisfy the standards of ROO and the direct consignment principle. Accordingly, this paper will assess ROO and the direct consignment principle in detail.

A. Rules of Origin (ROO)

Rules of origin encompass diverse functions. Especially, the trade barrier function accelerates a stakeholder's trade while having a crucial role in trade agreements like FTAs that exclude non-partner nations. Since providing an additional benefit to goods that are produced within specified partner nations is the core concept of an FTA, the method for defining their goods is highly

2) Contents regarding the application conditions for preferential tariff has been rewritten based on the understanding of contents from Korea Customs and Trade Development Institute Portal.

important.[3)]

ROO consist of several factors. To begin with, there is a standard for deciding the origin of a product. Moreover, there is a standard for documentation that proves the origin, and there are specifications regarding the method of indicating origin. Finally, a customs authority's confirmation procedure for origin indication is part of the ROO.[4)]

The standard for deciding origin greatly differs by FTA-related nation because it is affected by the domestic law of both the importing nation and its FTA partner nation. According to Choi and Lee (2011,pp.52-54), ROO could be divided chiefly into the NAFTA model, which is used in the United States, and the PANEURO model, which is mainly used in the European region. The differences between the NAFTA model and the PANEURO model lie in their specific application method rather than their fundamental decision standard. The models are largely distinguished by the way of reflecting standards such as the wholly obtained rule (WOR), change in tariff classification (CTC) criterion, value-added criterion, and specific manufacturing (or processing operation) criterion.

WOR is a general standard for acknowledging a nation as the origin when a product is completely produced within the nation. The CTC criterion determines whether to acknowledge a certain manufacturing nation as the origin when major factors of production are imported. The value-added criterion uses the value-added ratio between end-product goods and imported intermediate goods for deciding the origin. Finally, the specific manufacturing criterion may be applied to decide that the place of origin is a nation where the item undergoes a special manufacturing process. ROO are complicated by the combination of diverse criteria because there are various additional ones.

B. Direct Consignment Principle

Another prerequisite for FTA preferential tariffs is direct consignment.

3) Ko(2007) pp.21–44.

4) Chae(2011) pp.12.

According to Cheung et al. (2013), the direct consignment rule is defined as disregard of the origin if the goods are not directly consigned between the two FTA parties, even if the goods had a preferred origin. To put it simply, preferred goods of two FTA parties should not be consigned via a third nation if it is not an exceptional case. Direct consignment could be judged as a decision to exclude non-partner nations in a bilateral or multilateral agreement that provides exclusive preferential tariffs. For example, to apply preferential tariffs in the Korea-United States (ROK-US) FTA, goods that are manufactured in Korea should be consigned directly to the United States; if final goods are sent to China for further processing, they are no longer eligible for a preferential tariff. This is an example of an unexpected result that could occur if the direct consignment principle is not followed. In this case, a Chinese company could benefit from the ROK-US preferential tariff and accelerate its exports to the United States.

Unlike the Korea-European Union (ROK-EU) FTA, which explicitly implements direct consignment, the ROK-US FTA does not have explicit articles that refer to it. However, the ROK-US FTA provides in article 6.13, "TRANSIT AND TRANSSHIPMENT," that a party is not considered the nation of origin if the product "undergoes subsequent production or any other operation outside the territories of the Parties, other than unloading, reloading, or any other operation necessary to preserve the good in good condition or to transport the good to the territory of a Party" or "does not remain under the control of customs authorities in the territory of a non-Party."

2 Problems of FTA Implementation

Various criteria for preferential tariffs that we dealt with above are greatly different in accordance with the type of industry and manufacturing nation. This is one of the traits of an exclusive bilateral agreement. Importers who actually apply for preferential tariffs have the additional administrational burden to perceive where the goods are from and what kind of preferential tariff rate to impose, because the preferential tariff rate and the goods to which it applies are different in different FTAs.

This additional burden is inevitable when a nation is making a bilateral agreement with various national blocs. However, some conditions for preferential tariff application are extremely difficult to apply in practice or have the possibility to raise national conflicts. Thus, alleviation of the conditions at an administrative level is required.

In this section, we will discuss implementation of ROO, which is the most prominent among the problems that occur in implementing preferential FTA benefits, and of the direct consignment rule.

A. Corresponding Problems to ROO Application

ROO, the chief prerequisite for preferential tariff application, are standards for deciding whether a product is produced in the FTA partner nation. Specific criteria for ROO are thoroughly dealt in each FTA because preferential tariff is applied only if the goods are produced within the partner nation. In this point of view, ROO are essential for the establishment of exclusivity of an FTA.

ROO are especially important because, as trade structure has transformed radically, it is now uncommon for goods to be produced solely within one nation. For example, the iPhone, which is produced by Foxconn in China, has a different place of origin for all of its parts, such as flash memory, DRAM, Bluetooth module, camera, display, etc. Some parts are delivered from the United States, but most parts are imported from nations like Korea, Taiwan, China, and Italy to make one complete iPhone. Thus, it is reasonable to question whether to treat China as the place of origin for the iPhone, and the guidelines to answering the question are the ROO.[5)]

However, satisfying ROO might not be a simple task. This is because of the corresponding procedural costs. For a company that produced a complete product with intermediate goods that are bought from various nations to enjoy

5) The Economist. 2011. "Slicing an Apple," August.
http://www.economist.com/blogs/dailychart/2011/08/apple-and-samsungs-symbiotic-relationship.(Accessed: 2015.08.22)

the privilege of an FTA preferential tariff, the product should be verified as eligible for the preferential tariff, while ROO for the product should be confirmed and the documentation of proof should be ready.

This means that producers face a trade-off as an FTA is implemented: they must consider the benefit of the preferential tariff vis-à-vis the cost of verifying origin. Thus, it is more likely for corporations to use general customs clearance rather than the FTA if the benefit of the preferential tariff is not big enough or if the verification of origin becomes more difficult.

The perception that utilization of an FTA could be hindered due to the ROO, or that the ROO could act as trade barrier, is based on two facts. To begin with, FTA utilization rate of a certain product could decline because the ROO are overly complicated and difficult to satisfy in practice. Additionally, it is possible to lower FTA utilization rate by excessively complicating the inspection and supervision processes that determine whether or not the ROO are satisfied.

In the former case, it is difficult to resolve the problem before amending FTA articles because the standards are already set among the FTA parties. However, the latter case could be relieved to a certain level with effort by tax authorities from both parties. For example, simplifying documentation and verification of origin certification will work as a factor that lowers additional cost for satisfying the ROO, and this could lead to higher utilization of an FTA.

Cases and analyses on the problems of FTA utilization in regard to ROO will be specifically dealt in Section III.

B. Problems of Implementing Direct Consignment

It is traditional for trade logistics flow to be consigned from the originating nation to the consuming nation. For example, if cars produced in Korea are exported to Europe, the final goods (cars ready to drive) will be consigned from a Korean harbor to a European harbor so they can be sent to consumers. However, recent global trade logistics flow consigns manufactured goods from the producer nation to the place where consumers are expected, or a nearby place, and thence the goods are consigned to the consuming nation,

rather than directly consigning from the origin. For example, there are demands for European cars in various Asian nations, including Korea. In return, European nations consign their cars to logistics depots in Singapore and Hong Kong, regardless of orders, and deliver them to Korea or Japan if they receive an order in the middle of consignment. There is also a strategy to rapidly consign goods (cars) to consumers by speculating on expected national consumption.

However, this consignment strategy might not correspond with the direct consignment principle. The strictest FTA direct consignment principle requires nation B to consign goods to nation A when nation B receives an order from nation A. As mentioned above, the strict direct consignment principle does not correspond with this case because the goods are sent to a third nation, not nation B, prior to the order. Thus the FTA with nation A is inapplicable. Moreover, the problem becomes even more complicated if only some of the goods are consigned to nation A or if the goods are combined with goods that were already in the third nation. Since separate consignment has different criteria according to each FTA, there are FTAs that allow separate consignment, but there are also FTAs that do not. To strictly manage illegal practices like origin laundering with a separate consignment, customs authorities need to incur administrative costs; accordingly, they may not allow separate consignment.

It is time to consider whether to apply the direct consignment principle because consumers benefit if we systematically accept a progressive logistics system such as the process described above for the iPhone . However, to apply the direct consignment principle in such a case, an additional condition is required: it must be determined whether the goods remained under the control of the third nation's customs office when they were in the third nation. In other words, various additional administrative costs are generated. This is necessary because acceptance of a developed logistics system should not be the case that abuses the ROO.

There are additional problems related to direct consignment. In the case of Switzerland, cargoes are transported to Korea from neighboring nations like Germany because Switzerland does not have a domestic harbor. However, a problem occurs when the headquarters is in Switzerland and is designated as the owner or exporter of the cargo in the bill of lading (B/L) while the goods are exported from a German manufacturing company. This is because

Switzerland and Korea signed the Korea—European Free Trade Association (ROK-EFTA) FTA while Germany signed the ROK-EU FTA with Korea, and thus the export is governed by the latter FTA.

Moreover, there are issues regarding the direct consignment principle with many companies that import fiber from China to Korea. It is common for textile importers to apply for a preferred tax rate under the Asia-Pacific Trade Agreement (APTA) when they import clothing from China via Hong Kong. To apply for APTA, the goods should be directly consigned from China to Korea, but they may pass through Hong Kong under customs control. There are many recent cases, however, where companies failed to receive the preferred tax rate due to lack of documentation proving that the goods were under the control of a customs office while they were transported via Hong Kong, or the customs office collected a tariff from the import declaration, which already invoked the preferred tax rate.[6)]

Correspondingly, there are many cases of clashes with the direct consignment principle due to practical reasons of companies' and customs authorities' efforts to block the illegal abuse of preferred tax rates.

6) As an example, a company that imports clothing from China via Hong Kong requested the preferred rate under APTA. The request was denied because of lack of evidence of direct consignment between China and Hong Kong. Review of legality 2013–59 [in Korean], Korea Customs Service Law Information, accessed Oct. 26, 2015, http://www.customs.go.kr/kcshome/law/precedent/PrecedentUserDetail.do?layoutMenuNo=20225&class1=1&currentPageNo=1&searchCondition=evtNm&searchKeyword=APTA&startDate1=&endDate1=&startDate2=&endDate2=&deccNo=617

Ⅲ

Rules or Origin and Utilization of FTA

As mentioned in the previous section, one of the most important factors in applying FTA preferential tariffs is satisfaction of ROO. The ROO are guides for deciding whether goods are produced by FTA parties, because preferential tariffs are applied only if the FTA party is the nation of origin. Problems of applying ROO are affected by the extreme complexity of the rules.

1 Severity Index of ROO

A. Criteria for Determining Origin

Criteria for determining origin that are explicitly named in an FTA are different from one agreement to another. However, they can be largely organized into WOR, CTC criterion, value-added criterion, specific manufacturing criterion, and others.

1) Wholly Obtained Rule (WOR)

Although ROO are slightly different in each agreement, they can be generally divided into WOR and substantial transformation criteria. WOR is the

most basic criterion of ROO. It recognizes a nation as the origin when the product is completely produced in that nation. Typical WOR-applied goods are domestically produced agricultural goods, mineral goods, or fish catches.

In the case of manufactured goods, typically many intermediate goods are required for producing one complete good. In this sense, it is difficult to satisfy the genuine meaning of WOR. In the case of the iPhone, which is manufactured by Foxconn in China, intermediate goods from Korea like liquid-crystal displays, semiconductors, and batteries are used. Accordingly, WOR is inadequate to distinguish the origin of the end product. Substantial transformation criteria (CTC or value-added criterion) are adapted to decide origins of these goods.

2) Substantial Transformation Criteria – CTC Criterion

One of the substantial transformation criteria is the CTC criterion. It is based on the Harmonized Commodity Description and Coding System (HS) of the World Customs Organization (WCO). The HS codes are six-digit international article numbers that designate identical products as defined by the WCO. The first two units (digits) of the number refer to the chapter of the good in the HS, the second two units designate the heading, and the last two units designate the subheading.

Using the CTC criterion, when an HS code changes, that could be the basis of a change in origin. The criterion can be applied at the level of the HS chapter (first two units), heading (first four units), or subheading (all six units), depending on which level is viewed as a standard for change in origin. If all six units are used to determine the origin of a certain good, it could be assessed that origin determination has a relatively generous stance. On the other hand, if a chapter-based (two-unit) criterion is used, it is difficult to acknowledge the change in origin between intermediate goods and final goods because the two goods need to be different in a high-level two-unit HS code.

For example,

- 1006.30 is the HS code for milled rice
- 10.06 is the Rice heading
- 10 is the Cereals chapter.

If the growing, reaping, and milling are all done in China, China is the nation of origin; but if the milling site changes to, say, Japan, and the CTC criterion is applied to all six units (i.e., down to the subheading level), Japan is now the nation of origin. If, however, the criterion is applied only at the level of the first two or first four units, China remains the nation of origin.

Origin determination through CTC criterion is widely used in FTAs since it is relatively objective. However, specific terms of application differ among the FTAs that Korea has implemented. Thus, even if the goods are identical, there are many cases where the origin determination criterion is different.

Although the CTC criterion could be viewed as an objective system in the sense that all nations share one article number for determining origin, there are also limitations based on recent trade trends. It is difficult to determine practical change in origin with only the four-digit criterion when various goods have HS codes that are identical at the four-unit level.

3) Substantial Transformation Criteria – Value-Added Criterion

The aforementioned CTC criterion presents a large difficulty in reflecting practical trade structure despite its objectivity. In essence, trade seeks concentration in goods that have comparative advantage. Thus, concentration and specialization of production accelerate as trade structure advances. Accordingly, intra-industry trade is continuously increasing, along with international trade.

Intra-industry trade is defined as a phenomenon where goods from a single industry are being imported and exported between two nations. For example, intermediate goods used for production in the automobile industry are concentrated in a few industries. According to the Bank of Korea's 2012 Inter-Industry Relation Table (medium classification level), 32 percent of the gross input of the automobile industry has been verified to be intermediate goods that are produced in the industry, and 10 percent of the intermediate goods are found to be imported from foreign markets. If origin is determined only with the CTC criterion, determination of practical origin becomes difficult: the origin of intermediate goods is not acknowledged as Korea even if the goods were produced in Korea.

〈Table III-1〉 **Input Ratio of Automobile Industry's Intermediate Goods and Import Ratio**

(unit: 1 million won)

Industry Medium Classification (A)	Input (B)	Ratio (B/C)	Import (D)	Import Ratio of Intermediate Goods (D/B)
Plastic Goods	8,712,103	0.05	507,260	0.058
Rubber Goods	3,198,325	0.02	654,897	0.205
Primary Steel Goods	3,226,358	0.02	268,687	0.083
Processed Steel Goods	4,227,215	0.02	1,313,302	0.311
Steel Goods	9,321,088	0.05	1,110,995	0.119
Electrical Equipment	5,421,851	0.03	1,389,516	0.256
Automobiles	56,454,247	0.32	5,824,878	0.103
Gross Input (C)	176,635,122			

Source: "Medium classification level of 2012 Inter-Industry Relation Table" and "Import transaction table," *Economic Statistics System* (2013), ecos.bok.or.kr.

Due to these limitations, the value-added criterion is widely used in parallel with the CTC criterion. The value-added criterion acknowledges a nation as the origin when the ratio of value added, which is generated through national production (processing), to gross value of national production, is above a certain level. To precisely calculate value-added ratio, we need to calculate exact costs of intermediate goods and production, factory price, domestic shipping expenses, etc. Thus, when it comes to practical application, this criterion is extremely complicated compared to the two aforementioned criteria.

The FTAs largely use two methods of value-added criterion: a regional value contents method and an import contents method. In the case of NAFTA, the regional value contents method is used as a standard, while PANEURO uses the import contents method. Specific calculation formulas are described in the table below.

〈Table III-2〉 **Calculating Methods of Value-Added Ratio.**

Scoring Criteria		Scoring Formula
Regional Value Contents	Build-down Method	$RVC^{*}=\frac{Price-Value of Non-originating Materials(VNM)^{*}}{Adjusted Value(AV)}\times 100$
	Build-up Method	$RVC^{*}=\frac{Value of originating Materials(VOM)^{*}}{Adjusted Value(AV)}\times 100$
	Net Cost Method	$RVC^{*}=\frac{NC-VNM^{*}}{NC^{*}}\times 100$
MC(iMport Contents)		$MC^{*}=\frac{VNM^{*}}{EXW^{*}}\times 100$

*RVC: Ratio of value added in %
*AV: Trading value of goods that are adjusted with free on board (FOB) value
*VNM: The value of non-originating materials used by the producer to produce goods
*VOM: The value of originating materials used by the producer to produce goods
*NC (net cost): Total cost minus costs of sales promotion, marketing, after service (A/S), royalties, shipping and packing, and non-allowable interest costs
*MC: Ratio of value of VNM in %
*EXW (ex-work price): The value after exempting all domestic tax which is returned from EXW of goods
Source: Choi& Lee (2011), pp.132-133.

The convenience of applying the value-added criterion depends on how well we can calculate numerators and denominators of the formulas above. As aforementioned, this task is not easy since diverse types of costs comprise numerators and denominators. Moreover, ROO may be differentiated, depending on each partner nation, when importing identical goods from different nations; this is because the standard for the task could be different from one agreement to the other.

4) Specific Manufacturing Criterion

Using the specific manufacturing criterion, a nation that produces or processes an extremely pivotal quality of a product is viewed as the place of origin. This criterion is limited to goods that are produced in specific industries where processing steps are clearly distinguished.

5) Other Supplementary Criteria

The four criteria described above are independently and complexly applied to diverse FTA regulations. However, there are other supplementary criteria to use for benefits when determining origin, even when we cannot satisfy all four criteria. These exceptional criteria include standards based on the de minimis rule, accumulation rule, intermediate good, fungible good, indirect material and set, etc.

2 Severity of ROO and Utilization of ROK-US FTA

It is possible to think intuitively that FTA utilization decreases as ROO become more stringent. However, finding the correlation between these two variables requires thorough analysis. First of all, we need to find an index to calculate the severity of ROO; and severity of the ROO of a particular FTA should be converted into an index. Considering the fact that most ROO are determined at the six-unit HS level, more than 5,000 goods should be verified one by one. This is extremely time-consuming.

Moreover, actual import data by item, which is categorized into FTA eligible/non-eligible, is required. Although trade data of diverse nations is open to the public and has been used, it is uncommon to publicly open trade data on a specific item by sorting it into FTA types. Trade data on importation from a specific nation is accessible because domestic institutions are statistically analyzing it. However, data on Korea's exportation to trade partners is hard to collect because FTA applications on exported goods are not managed by tax authorities.

Considering these difficulties, we will mainly analyze the case of the ROK-US FTA, which is one of many implemented FTAs. We analyze the ROK-US FTA using three years' data, accumulated since it took effect.

A. Level of Severity on ROK-US FTA's Origin

The ROO are used multifariously in each FTA. The ROO of an FTA

combine various criteria and set the standard by each item. To calculate severity index of each item, there should be a standard for evaluating each combination of criteria.

The idea that ROO could act as a trade barrier can be found in studies like Estevadeordal (2000), Estevadeordal and Suominen (2004), Estevadeordal and Suominen (2008), Carrere and de Melo (2006), and Estevadeordal, Harris, and Suominen (2008). The ROO have different standards for the six-unit HS code and the four-unit HS code. Accordingly, these studies converted the severity of an item's origin into an index in order to compare different standards.

The severity index is known to be first tried in Estevadeordal (2000). That study selected the CTC criterion, out of many ROO, as the basis and combined the value-added criterion, specific manufacturing criterion, and more to calculate the severity index, which has the range of 1 to 7. The table below indicates the severity index of ROO that was used in Estevadeordal (2000). Change of item (CI) stands for change in product level that is higher than the six-unit HS code. Change of tariff subheading (CTSH) refers to change in the six-unit HS code, change of tariff heading (CTH) refers to change in the four-unit HS code, and change of chapter (CC) refers to change in the two-unit HS code. In addition, regional value content (RVC) refers to the value-added criterion, and Tech refers to the specific manufacturing criterion.

The severity index in Estevadeordal (2000) converted CTC criteria that are over six units, six units, four units, and two units of the HS code into 1, 2, 4, 6 points respectively and added 1 point if the value-added criterion or specific manufacturing criterion was combined. Change in the two-unit HS code is a very strict method (6 points) in the sense that only intermediate goods, which are categorized as HS item classification, will be recognized as the origin. This will be even stricter if the specific manufacturing criterion is added. On the other hand, if is easier to satisfy ROO if a specific item is different, even if the goods are extremely similar.

If a preferential trading arrangement sets more severe standards for ROO than the results of empirical researches based on severity indexes of ROO, gross trading is hindered (Estevadeordal and Suominen 2008). In the case of NAFTA, strict ROO hinders the incentive to apply for the preferential tariff (Carrere and de Melo 2006).

〈Table III-3〉 **Severity Index of ROO.**

Criteria	Severity Index
$y^* \leq CI$	1
$CI < y^* \leq CTSH$	2
$CTSH < y^* \leq CTSH+RVC$	3
$CTSH+RVC < y^* \leq CTH$	4
$CTH < y^* \leq CTH+RVC$	5
$CTH+RVC < y^* \leq CC$	6
$CC < y^*$ CC+Tech	7

Source: Estevadeordal (2000), p.13.

The present study used the aforementioned standard of Estevadeordal (2000) as the basic standard and put the severity index of the ROK-US FTA's ROO into numbers by each item. The ROO are specified in the annex on origins and the annex on textiles in the ROK-US FTA. That agreement specifies not only the basic classification of Estevadeordal (2000), which includes CTC, value-added, and specific manufacturing criteria, but also various other ROO.

The ROK-US FTA mainly uses three types of CTC criterion as ROO: CTSH (six units), CTH (four units), and CC (two units). There is no criterion for goods that are above six units. Moreover, additional criteria like RVC, RM, and Tech are used and there are cases where HS codes are exempted from application on certain goods (ECTC) or where HS codes are written (as "*") in phrases like "might be changed from a specific HS code."

〈Table III-4〉 **ROO of ROK-US FTA**

Standard	Total
CC	828
CC or CTH*/CTSH*+RVC	1
CC or CTH*+RVC	25
CC or CTH+RVC	27
CC or CTSH*	41
CC or CTSH*+ECTC+RVC+RM	1
CC or CTSH*+RVC	43
CC or CTSH+RVC	14
CC or RVC	11
CC+ECTC	427
CC+ECTC or CTH*+RVC	1
CC+ECTC+RM	287
CC+ECTC+RM or CC/CTSH*/CTH*+RM or CTSH+ECTC or CC+ECTC or CC	3
CC+ECTC+RM or CTSH*	3
CC+RM	5
CC+TECH	4
CTH	1,876
CTH or CTH+ECTC or CTSH+RVC	6
CTH or CTH+RVC	5
CTH or CTSH*+RVC	67
CTH or CTSH+ECTC	8
CTH or CTSH+RVC	81
CTH or RVC	22
CTH+ECTC	433
CTH+ECTC or CTH*+RVC	24
CTH+ECTC or CTH*+TECH	4

〈Table III-4〉 **Continued**

Standard	Total
CTH+ECTC or CTH+RVC	2
CTH+ECTC or CTSH*	14
CTH+ECTC or CTSH*+RVC	15
CTH+ECTC or CTSH+RVC	2
CTH+ECTC+RVC or CTSH	32
CTH+RVC	49
CTH+RVC or CTSH*+RVC	8
CTSH	695
CTSH or RVC	59
CTSH* or CTSH or RVC	1
CTSH*+RM	2
CTSH*+RVC	1
CTSH+ECTC	67
CTSH+ECTC or CTH*/CTSH*+RVC	1
CTSH+ECTC or CTSH or RVC	14
CTSH+ECTC or CTSH*+RVC	15
CTSH+RVC	3
RVC	31
Total	5,258

Source: ROK–US FTA (2012): Annex 6A, "Specific Rules of Origin," and Annex 4A, "Specific Rules of Origin for Textile and Apparel Goods."

The table above shows the six-unit HS code categories of ROO. As one characteristic, most of the 5,258 six-unit HS codes are concentrated in the CC, CTH, and CTSH criteria: 1,876 items are classified as CTH or change in a four-unit HS code, 828 items are classified as CC or change in a two-unit HS code, and finally 695 items are classified as CTSH or change in a six-unit HS code.

Another characteristic is that CC criterion, the CTH criterion, and their subcriteria comprise approximately 83 percent of the total. This is 10 percent higher than other FTAs that use PANEURO standards of ROO, which were researched in Estevadeordal and Suominen (2004), and 11 percent lower than NAFTA standards. This implies that the ROO of the ROK-US FTA are stricter than PANEURO standards but a bit laxer than NAFTA.

〈Table III-5〉 **Distribution of ROO by FTA**

Criteria	EU–South Africa	EU–Mexico	EU–Chile	NAFTA
NC	0.39	0.39	0.39	0.54
NC+ECTC	2.39	2.04	2.39	
NC+TECH	1.39	1.39	1.39	
NC+ECTC+TECH	0.00	0.00	0.00	
NC+RVC	11.46	10.91	11.90	
NC+ECTC+RVC	1.57	1.57	1.57	
NC+RVC+TECH	0.08	0.20	0.20	
NC+WHOLLY OBTAINED CHAPTER	7.62	7.62	7.62	
NC+WHOLLY OBTAINED HEADING	0.70	0.70	0.70	
Subtotal	25.60	24.82	26.16	0.54
CH+ECTC				0.02
CH+ECTC+RVC				0.02
Subtotal	0.00	0.00	0.00	0.04
CTSH	0.20	0.20	0.20	1.29
CTSH+ECTC	0.00	0.00	0.00	2.52
CTSH+TECH	1.90	1.90	1.78	0.04
CTSH+ECTC+TECH	0.00	0.00	0.00	0.40
CTSH+RVC	0.27	0.27	0.27	
CTSH+ECTC+RVC	0.00	0.00	0.00	0.10
CTSH+RVC+TECH	0.00	0.00	0.00	
CTSH+ECTC+RVC+TECH	0.00	0.00	0.00	

〈Table III-5〉 **Continued**

Criteria	EU–South Africa	EU–Mexico	EU–Chile	NAFTA
Subtotal	2.37	2.37	2.25	4.35
CTH	32.99	32.99	32.86	17.09
CTH+ECTC	4.60	5.13	4.56	19.18
CTH+TECH	0.00	0.00	0.00	0.02
CTH+ECTC+TECH	6.66	6.66	6.66	0.14
CTH+RVC	13.01	12.68	12.78	3.54
CTH+ECTC+RVC	0.37	0.86	0.37	0.58
CTH+RVC+TECH	0.00	0.00	0.00	0.10
CTH+ECTC+RVC+TECH	0.02	0.02	0.02	
Subtotal	57.65	58.34	57.25	40.65
CC	2.16	2.16	2.16	30.95
CC+ECTC	1.02	1.02	1.02	17.71
CC+TECH	0.04	0.04	0.04	0.02
CC+ECTC+TECH	11.02	11.25	11.02	5.76
CC+RVC	0.00	0.00	0.00	
CC+ECTC+RVC	0.00	0.00	0.00	
CC+RVC+TECH	0.00	0.00	0.00	
CC+ECTC+RVC+TECH	0.00	0.00	0.00	
Subtotal	14.24	14.47	14.24	54.44
Total	100	100	100	100

*CC = Change of Chapter; *CTH = Change of Tariff Heading
*CTSH = Change of Tariff Sub–Heading; *ECTC = Exception to Change of Tariff Classification
*RVC = Regional Value Content; *TECH = Technical Requirement
*CI = Change of Item; *NC = No Change in Tariff Classification Required
Source: Estevadeordal and Suominen (2004): 16, Table 3, STRUCTURE OF ROO IN SELECTED FTAS.

The ROO of the ROK-US FTA are highly specific and complicated. Accordingly, it is difficult to calculate the severity index of the ROO by item only using the standards of Estevadeordal (2000). Thus, additional standards like those of Kim et al. (2008) are used to calculate severity index.

To begin with, the Estevadeordal (2000) standard is applied to CTSH (six units), CTH (four units), and CC (two units) to convert them into 2, 4, and 6 points respectively. Moreover, the severity index is raised if additional criteria on raw material rate like RVC, RM, and TECH, rather than the CTC criterion, are added to the index. If there is a HS code that is exempted from application (ECTC) or with a description like "might be changed from a specific HS code" (indicated as "*"), the degree is classified in relation to the importance of exempted category or designated category. We use the average value of each index if categories that are indexed with these standards are complexly connected. Although these severity indexes cannot be perfectly objective because of partial subjective intervention of the researcher, this does not hinder the objectivity as a whole since various standards are based on the CTC criterion, which is known to be highly objective.

〈Table III-6〉 **Severity Index of ROK-US FTA.**

Severity Index	ROO
2	CTSH; CTSH+ECTC
2 ~ 4	CTSH*+RM; CTH or CTSH+ECTC
	CTSH+ECTC or CTSH or RVC; CTSH* or CTSH or RVC
	CTSH or RVC
	CTH+ECTC+RVC or CTSH; CTSH+ECTC or CTSH*+RVC
4	CTH; CTH+ECTC
	CC+ECTC+RM or CC/CTSH*/CTH*+RM or CTSH+ECTC or CC+ECTC or CC
	CTH or CTSH+RVC; CTH or RVC
	CTH or CTH+RVC; CTH+ECTC or CTSH*
	CTH+ECTC or CTSH+RVC; CTSH+RVC; CTSH*+RVC
	CTH or CTH+ECTC or CTSH+RVC; CTSH+ECTC or CTH*/CTSH*+RVC

〈Table III-6〉 **Continued**

Severity Index	ROO
4 ~ 5	CTH or CTSH*+RVC; CTH+ECTC or CTH*+TECH
	CTH+ECTC or CTH+RVC; RVC; CTH+RVC; CTH+RVC or CTSH*+RVC
	CTH+ECTC or CTH*+RVC; CTH+ECTC or CTSH*+RVC
	CC or RVC; CC or CTSH+RVC
	CC or CTH*/CTSH*+RVC; CC or CTSH*+RVC
	CC or CTH+RVC; CC or CTH*+RVC; CC+ECTC or CTH*+RVC
6	CC; CC+ECTC
	CC or CTSH*+ECTC+RVC+RM; CC or CTSH*
6 이상	CC+RM; CC+TECH
	CC+ECTC+RM; CC+ECTC+RM or CTSH*

Source: ROK–US FTA (2012), Annex 6A and Annex 4A.

B. Analysis Materials

We use import data by ten HS digits and customs payment data for imports from the United States. Also, the data was used from 2012 to 2014, which was after the ratification of the ROK-US FTA and determined eligibility for the preferential tariff to a certain good by utilizing tariff rate code by import item. Tariff rate by item is calculated using the ratio of customs payment over actual imports.[7] Respective industrial categories for ten HS units are adapted using the classification method of the Bank of Korea's 2010 Inter-Industry Relation Table.

Data on Korea's exports to the United States used import data by ten HS units from 2012 to 2014, which were published by the US International

7) There are tariff codes on each item, and we use the data on tariff rate, which is applied in these codes, to build an archive. However, it turns out that calculated tariff rate and data on tariff rate for corresponding code do not match. In this case, we view the tariff rate code to be incorrect, rather than customs payment data, and apply unilaterally calculated tariff rate data to each item.

Trade Commission. As with the data above, the application status of ROK-US FTA can be verified by item, and we exclude categories we cannot consider as direct trade, such as items refunded to the United States. Both sets of data include not only ad valorem tariffs but also specific tariffs. However, specific tariffs are excluded to apply the estimated equation.

C. Estimation

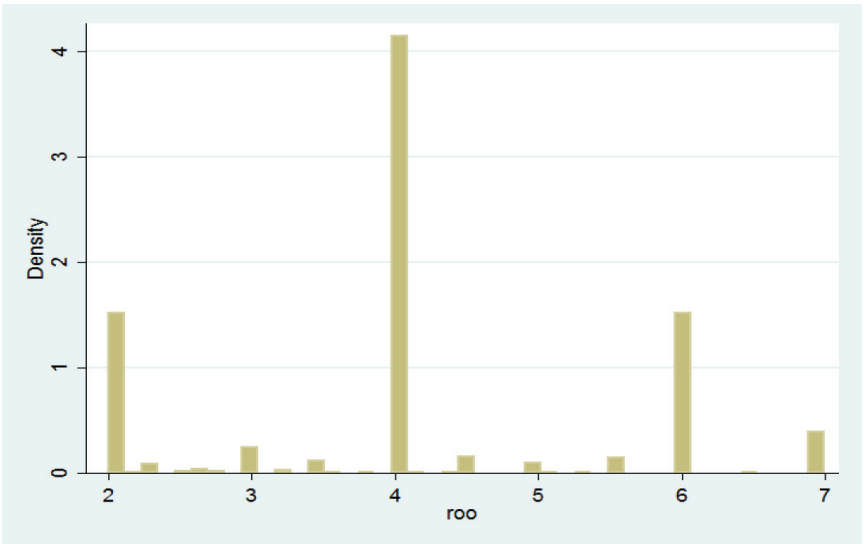
The basic idea of the estimation is as follows. To begin with, for the products eligible for the ROK-US FTA preferential tariff, the gap between the ordinary tariff (FTA not applied) and the preferential tariff is considered to be the major variable that affects the FTA usage rate. This is because willingness to request the preferential tariff rate while spending additional cost to satisfy the ROO will decrease if the difference between the rates narrows . In other words, the larger the gap between the two, the more likely it is that importers will want to apply for the preferential tariff even if it means bearing additional costs.

Next, the higher the index of severity on the ROO, the more likely it is that importers will be reluctant to apply for the preferential tariff even with the same gap in tax rate. If the ROO are so severe that satisfying such rules has higher pertinent costs than economic profits, the application ratio for the FTA preferential tariff can decrease on certain products even though the rate of the preferential tariff is lower than the ordinary tariff rate. That is to say, the relation between the coverage rate of the FTA preferential tariff on certain goods and the difference in tariff rate (ordinary tariff rate minus preferential tariff rate) is influenced by the severity of the ROO.

To verify this hypothesis, HS six-unit products were enumerated and put in order according to the severity of the ROO. Using this set order, HS six-unit items were divided into three groups for analysis. Where the symbol g is a group index, the $g = 1$ group indicates the lowest group of severity index and $g = 3$ indicates the highest.

The severity indexes existing between 2 and 7, assorted into just three groups, come from the distribution of severity indexes. The figure below shows the distribution of severity indexes of HS six-unit codes that belong to the

[Figure III-1] **Severity Index Distribution**



material used for analysis. It is noticeable from this that more than 40 percent of all the goods are concentrated in index 4 and, similarly, a large number of products also belong to indexes 2 and 6. This comes from relying on the three-times-changed standard of the ROO's basic form of CC, CTH, CTSH, and, as a result, the grouping of severity indexes was also done with criteria of 2, 4, and 6.

Based on the material of this calculated group of items, this research verifies the estimated equation by using the ordinary least squares (OLS) method:

$$\frac{FTA_{i,t}}{Total\ Import_{i,t}} = D_{id} + D_t + \sum_{g=1}^{3} \beta_I I^g + \sum_{g=1}^{3} \beta_1^g (tgap_{i,t} \bullet I^g) + \epsilon_{i,t}$$

The $\frac{FTA_{i,t}}{Total\ Import_{i,t}}$ in this equation means the amount of imports via FTA from the entire importation of an i item of t year, and $tgap_{i,t}$ is the difference of tariff rate (ordinary tariff rate minus FTA preferential tariff rate)

of an i item of t year. I^g is an indicator function that will have the value of 1 if an i item belongs to the g group, or 0 if it does not. The estimated equation also includes industrial dummy D_{id} and annual dummy D_t of the hierarchical classification of the 2010 Inter-Industry Relation Table.

The major interest of this research is in the size and sign of β_I^g. The higher the benefits are of applying the FTA, the higher is the portion of FTA customs that can be expected, and thus the sign of β_I^g can be predicted to show positive (+) in all groups. Moreover, since the influence of profit ($tgap_{i,t}$) that stems from applying for FTA on the customs rate of FTA will diminish if the ROO is complicated, the value of β_I^g is predicted to be smaller in group 3 compared to group 1. If the disadvantage from the high severity rate of the ROO is substantial, the level of influence of $tgap_{i,t}$ on $\frac{FTA_{i,t}}{Total\ Import_{i,t}}$ will be very low, and if the number shows to be extreme, then it can be anticipated that the value of β_I^g in a group with a high severity index is not a statistically considered value.

D. Results

This part verifies the aforementioned estimated equation by using the ROK-US FTA data. The estimated equation was verified by utilizing each material of Korea's import performance and of the International Trade Commission's import performance.

Just as expected, the influence of the additional benefits gained by application of the FTA preferential tariff is shown to have a positive value in all the groups. When looking at the first three lines, the result of the crossing point between $tgap$ items and each group's indicator function is marked, and it is conjectured that the value of the coefficient in all groups has a very beneficial quantity of value statistically. Through this, we can confirm that when the difference between the FTA preferential tariff and the ordinary tariff rate is larger, the rate of customs via FTA preferential tariff rises in all groups.

〈Table III-7〉 **Estimated Result (Korea)**

	Coefficient	Standard deviation	t	P 〉 t
$tgap \cdot I^1$	4.483	0.126	35.59	0.000
$tgap \cdot I^2$	2.480	0.101	24.63	0.000
$tgap \cdot I^3$	1.400	0.088	15.90	0.000
I^2	0.137	0.009	15.81	0.000
I^3	0.187	0.010	18.57	0.000
D_{2013}	0.097	0.005	18.64	0.000
D_{2014}	0.097	0.005	18.49	0.000
Adj R^2	0.169			
Num obs	24,666			

Source: the authors.

Moving on, this table shows that the influence of $tgap$ on the usage rate of the FTA is different in each group, based on the severity index of the ROO. Looking at the dummy that indicates y-intercepts in each group, it can be seen that the third group (I^3) is largest by size but does not show significant difference among the three groups. However, it can be noticed that the difference of FTA usage rate affected by a consistent change of is large in each group.

Compared to the 4.483 value of the coefficient in first group (I^1), the third group (I^3) has the value of 1.400, showing a tremendous difference in number. It can be said that this result shows how severity of ROO actually has a significant influence on the amount of imports via the FTA. The goods with severe ROO show a lower portion of amount of imports than the less severe ones, even at the same $tgap$ level.

〈Table III-8〉 **Statistics of Major Variables (Korea)**

	Average	Standard deviation	Minimum value	Maximum value
$\frac{FTA_{i,t}}{Total\ Import_{i,t}}$	0.3364	0.3670	0	0.9999
$tgap$ (group1)	0.0323	0.0350	0	0.13
$tgap$ (group2)	0.0432	0.0318	0	0.36
$tgap$ (group3)	0.0578	0.0513	0	0.45

Source: the author.

The meaning of the coefficient in each group is as follows: The β_I^g value of 4.483 in group 1 means an increase of approximately 4.483 percent in $\frac{FTA_{i,t}}{Total\ Import_{i,t}}$ when $tgap$ is increased by 1 percent. Likewise, it is analyzed that the dependent variable increases approximately 2.5 percent in group 2 and 1.4 percent in group 3 when $tgap$ rises by 1 percent. In other words, it reacts more vividly toward consistent change of $tgap$ under the items with the least severe origin standard. The reaction degree of group 1 is 1.8 times that of group 2 and approximately 3.2 times that of group 3. Thus it can be known that the level of severity of origin standard actually affects the FTA usage rate.

By equally applying the abovementioned verification to the data of the US International Trade Commission, the Korean exporters' ROK-US FTA usage rate was analyzed. The result of analysis was indeed shown to have a similar direction with Korea's import performance data. In case of section and cross term of each group's indicator function, which are the main interests, the presupposed sign of coefficient in all groups shows positive (+). However, when looking at the significance of presupposed coefficient, all groups except group 1 are assumed to be insignificant in the area of 10 percent. This proves that $tgap$ greatly increases $\frac{FTA_{i,t}}{Total\ Import_{i,t}}$ for goods whose ROO is least severe

and, in other groups, $tgap$ does not function very well as an inducement effect.

The size of coefficient in each group was also analyzed to be affected by the standard of origin, just as it was shown in Korea's import performance material. In the case of group 3 with a drastically severe standard of origin, its β_I^g value is analyzed to be quite low compared to group 1 and group 2. For group 1, $\frac{FTA_{i,t}}{Total\ Import_{i,t}}$ is analyzed to show an increase of roughly 0.38 percent when $tgap$ increases by 1 percent, and this number in the other two groups shows a decreasing trend compared to group 1. Group 1's value of coefficient is 0.3763, and this is 1.6 times that of group 2 and 2.6 times that of group 3. The difference in result value between using US International Trade Commission materials and using Korea's import performance data is due to the size of each coefficient. Compared to Korea's import performance data, the reaction degree of FTA usage rate regarding $tgap$ is analyzed to be considerably low in the case of exports from Korea to the United States.

〈Table III-9〉 **Estimated Result (United States)**

	Coefficient	Standard Error	t	P 〉 t
$tgap \bullet I^1$	0.3763	0.174	2.17	0.030
$tgap \bullet I^2$	0.2326	0.145	1.61	0.108
$tgap \bullet I^3$	0.1427	0.089	1.59	0.112
I^2	0.0025	0.014	0.17	0.862
I^3	0.0643	0.016	4.03	0.000
D_{2013}	0.1788	0.008	22.22	0.000
D_{2014}	0.1727	0.008	21.59	0.000
Adj R^2	0.0812			
Num obs	11,565			

Source: the author.

〈Table III-10〉 **Statistics of Major Variables (United States)**

	Average	Standard deviation	Minimum value	Maximum value
$\frac{FTA_{i,t}}{Total\ Import_{i,t}}$	0.5859	0.3671	0	1
$tgap$ (Group 1)	0.0414	0.0505	0	0.48
$tgap$ (Group 2)	0.0414	0.0355	0	0.3
$tgap$ (Group 3)	0.0809	0.0624	0	0.32

Source: the author.

Peculiarly, it was found that, when excluding materials whose ordinary tariff level exceeds 15 percent, the reaction degree of FTA usage rate fairly increases. The United States imposes a very high level of ordinary tariff on certain items, and textile and leather goods, which are two of Korea's major exports of to the United States, are included in the list. Hence the reaction degree of FTA usage rate toward $tgap$ is shown to be generally low for goods with high ordinary tariff, such as textile and leather products. This means that the difference of reaction degree displayed from Korea's import performance data and that of the United States can be contributed to the United States' ordinary tax rate structure itself. However, deliberate analysis afterward is considered to be necessary.

Although the absolute size of the coefficient value is rather low compared to Korea's import performance data, the impact of ROO is shown to be the same, just like the information for Korea's import data. That is to say, ROO decrease the level of $tgap$ influence on FTA usage rate when it comes to severely regulated goods.

This result greatly differs from the research result of Kim et al. (2008). In that study, the researchers used other FTAs instead of the ROK-US FTA and analyzed the correlation between severity of ROO and FTA usage rate, and the conclusion was drawn that no such correlation existed. However, this result is similar to two other results: the suggestion of Estevadeordal and

Suominen (2008) that total trading quantity decreases in a preferential trading agreement that adopts severe ROO; and the study of Carrere and de Melo (2006), which showed that severity of ROO greatly lowers the motivation to apply for preferential tariff application in the case of NAFTA.

3 Reinforcement of origin verification

The ideal result that was analyzed on the basis of the ROK-US FTA pointedly shows the fact that the ROO are actually decreasing FTA customs incentives. Along with this phenomenon, origin verification itself is recently becoming more stringent, and this is expected to bring further negative impact on FTA usage rate.

Since the origin standard is regulated in a complicated manner in terms of agreements and goods, difficulties exist for those who want to sign up for a preferential tariff as well as for those governmental personnel in charge of the matter. Also, the procedure of issuing a certificate of origin that was organized in ideal, and the procedure of origin verification, show the inevitability of an increasing demand for origin verification with limitation of practically verifying the origin with multiple trades.

The table below clearly shows such a trend. The number of FTA verification requests from partner nations was 515 from 222 companies in 2012, and it rose to 2,886 from 297 companies in 2014, showing a trend of exponential increase. Korea is also having a very large increase of origin verification requests toward FTA partner nations. It is calculated that 293 requests from 26 companies in 2008 have increased to 3,323 from 492 companies in 2014.

To specifically look into the situations of the industries in which FTA partner nations asked for a certificate of origin issued from Korea, first of all, the proportions of electrical/electronics, petroleum goods, machines, petroleum chemicals, and car components were the highest, in that order. It can be confirmed that such industries focus their verifications of certificate of origin on Korea's primary export goods.

〈Table III-11〉 **Requests for Origin Verification**

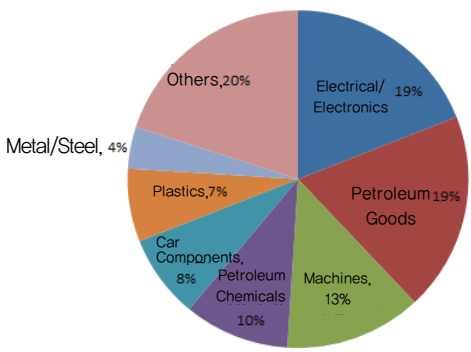
(unit: number of requests)

		2008	2009	2010	2011	2012	2013	2014	합계
Import Verification (request from Korea)	Number of Businesses	26	39	35	37	75	251	492	955
	Number of C/O	293	226	714	576	1,532	1,923	3,323	8,587
Export Verification (request from partner nations)	Number of Businesses	7	7	6	84	222	291	297	914
	Number of C/O	23	41	22	122	515	2,512	2,886	6,121

Source: Tariff Yearbook (2015)

[Figure III-2] **Proportion of Export Verifications by Industry.**

(Unit: % in criteria of companies with verification completion)



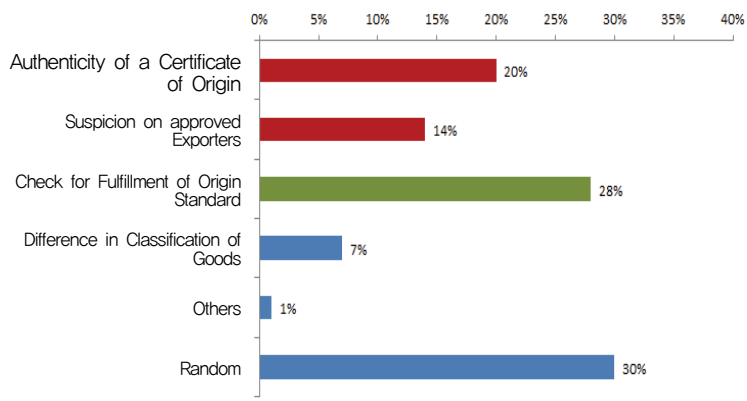
Source: Korea Customs Service (Origin Verification Seminar for Taxtile Exporters, p. 7., (2015.04.30)

The reasons for the FTA partner nations' requests for origin verification from Korea can be divided mainly into practical requisites and dissatisfaction with nominal requisites. Regarding dissatisfaction with nominal requisites, verification is sought in cases of documentary mistakes on proof of origin, such as verifying authenticity or checking for verification code. Regarding practical requisites, requests are made to identify third-party nations' falsified marks on goods, and to ensure that the origin standard is practically satisfied.

When viewing the reasons for such origin verification requests, the figure below shows that the nominal requisite has many more cases than the practical ones: 34 percent in total versus 28 percent. Thus it can be confirmed that fulfilling the nominal requisite first is more important. However, asking for verification without reasons, with no relevance to requisites, also reaches about 30 percent in proportion.

[Figure III-3] **Proportion of Reasons for Export Verification Requests**

(Unit: % in criteria of businesses with completed verification)



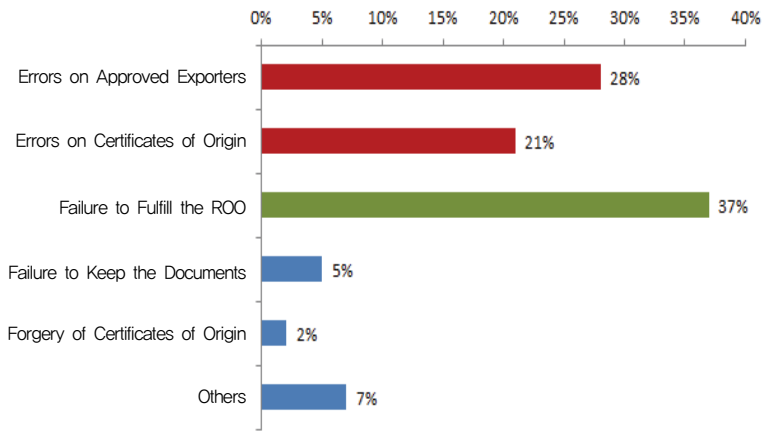
Source: Korea Customs Service, Origin Verification Seminar for Taxtile Exporters, p. 7., (2015.04.30)

When looking at cases of violations of export verification, the cases of not fulfilling nominal requisites were higher than cases of failure to satisfy a practical origin standard. Actually, the cases of violation of origin standard take

37 percent of the total, but the violations of nominal requisites take 49 percent, which is half the percentage of the overall violation cases. In other words, even after fulfilling the practical origin standard, the phenomenon is happening of not receiving preferential tariff benefits due to the procedural problems in nominal requisites. It can be more convenient in a company's viewpoint to fulfill nominal requisites than practical ones, and this presents the need of more meticulous attention to satisfy the nominal requisites.

[Figure III-4] **Proportion of ROO Violation Cases of Export**

(unit: % in criteria of businesses with completed verification)



Source: Korea Customs Service, Origin Verification Seminar for Textile Exporters, p. 7., (2015.04.30)

4 Case of conflicts pertinent to origin verification

Such incremental requests for origin verification mean extra investigation on goods that were provided with benefits of preferential tariff, and this leads to cancellation of such benefits while having the tariff imposed once again. Looking at the cases of disputes between domestic import companies and tariff authorities on the interpretation of ROO, it is clear that ROO actually do incur

problems in the usage of an FTA in diverse ways. These problems can be put into the following categories. To begin with, strife arises from exporters and importers who do not accurately understand the process of origin verification and relevant regulations. The conflicts that stem from issuing documents of origin evidence from the wrong agency, or from having insufficient documents, can be understood to occur due to import and export businesses not having full knowledge of relevant regulations. Since the origin standard differs in each FTA, and the methods of issuing a certificate of origin and the verification procedure are also different, errors in understanding such regulations inevitably exist for importers and exporters.

Next, there are certain situations in which an existing origin verification standard itself can be a factor to stimulate disputes. To shed light on this by example, consider those agreements that use an automatic issuing system; should any damage be done to an importer due to the exporter faking a certificate of origin, the damage goes straight to the importer. Conflicts like these lead importers to request the preferential tariff only when the certificate of origin is issued by a sufficiently trustworthy exporter, and thus this can work as a factor that significantly suppresses the usage of FTAs with automatic issuing systems. Another example would be disputes about reply deadlines on origin verification requests. This is because even if goods are eligible for the preferential tariff, any damage done by a late response to a verification request from the partner nation's tariff authority will go to the importing businesses. When considering the fact that the partner nation's tariff authority exists outside the influence of importers, cases like this indeed create a huge disadvantage. Particularly during the trend of incremental increases in origin verification requests on a partner nation, the administrative workload on each nation's tariff authority can be overwhelming. Thus the probability of increasing conflicts exists.

Conflict cases like these naturally present two major countermeasures. First of all, there will have to be constant provision of information and training opportunities on the current ROO to importers and exporters. The damage caused to import and export businesses from not understanding the ROO, due to their complicated nature, is understandable; however, the ultimate responsibility of the businesses is also undeniable. Hence conflicts of this kind can be reduced

by augmenting the level of understanding about the FTA by importers and exporters, as well as tariff authorities, and establishing proper policies would be an adequate step.

Secondly, efforts to improve the system will be needed for conflicts caused by contradictions in origin verification. With regard to reply deadlines on origin verification, long-term efforts to improve regulations will be crucial; and in the short term, having a flexible response to adopting these regulations is desirable. If it is difficult to give a response within a set period of origin verification (perhaps due to a court fight with the partner nation, as in Switzerland's Gold Bar case), policy measures, such as extending the response deadline, will be needed. Furthermore, when a partner nation's tariff authority fails to give an answer within the deadline, excluding the applicant from the preferential tariff is unavoidable, but exempting the applicant from additional tax related to the partner's failure can be considered.

Chung Jae-Wan (2012) asserts a need to protect the rights and interests of taxpayers because the burden on taxpayers who are importers is increasing due to FTA preferential tariff law. In particular, he asserts that taxation may be imposed because of overdue responses, but should be re-characterized as a mistaken payment once the response regarding the matter is received.

In conclusion, the complexity of current verification system under ROO is creating various kinds of conflicts that lead to deterioration in the usage of FTAs. In the short term, the problem is expected to ease up with flexible interpretation of the verification process and promotion of a clear understanding of current regulations. Moreover, persistent endeavors to better the content of FTAs that contain contradicting elements are also considered necessary.

Ⅳ

System related to FTA Direct Consignment

Direct consignment is a principle of applying the FTA preferential tariff rate to import goods only when they directly depart from an exporter to an importer without passing through other countries. The purpose of the principle is to prevent businesses from taking advantage of the preferential tariff when the origin of goods has been altered due to mixture with other goods during transportation. Hence, even if import goods succeed in satisfying origin requisites, they do not get the FTA preferential tariff rate when they fail to fulfill the direct consignment principle.[8)]

There are exceptions: even if the goods passed through a third-party nation during transportation, the direct consignment principle is still acknowledged if certain conditions are met. The exceptions differ in different FTAs. There are diverse opinions when it comes to setting the range of such an exception. This section discusses this issue.

8) Cheung et al. (2013): 7-8.

1 Discussion on the range of application of direct consignment principle

A. International discussion

1) Revised Kyoto Convention

A case that is being internationally discussed regarding the principle of direct consignment is mentioned as a subject of recommendation in a special annex on "Origin" to the Revised Kyoto Convention. To be specific, the special annex acknowledges an exception to the direct consignment principle when a landlocked country that does not have a port due to its geographic situation inevitably has to ship via another country's port, or when a country is under control of a third-party nation's customs (for instance, in a bonded area). See the excerpt in the table below.[9)]

〈Table IV-1〉 **ROO Related to Customs Law**

Specific Annex K Chapter 1 Rules of origin
Direct transport rule 12. Recommended Practice Where provisions requiring the direct transport of goods from the country of origin are laid down, derogations therefrom should be allowed, in particular for geographical reasons (for example, in the case of landlocked countries) and in the case of goods which remain under Customs control in third countries (for example, in the case of goods displayed at fairs or exhibitions or placed in Customs warehouses).

Source: WCO, *World Customs Organization* website, http://www.wcoomd.org/en/topics/facilitation/instrument-and-tools/conventions/pf_revised_kyoto_conv/ kyoto_new/spank.aspx (access date: 2015.08.21).

9) Revised Kyoto Convention, Special Annex K, "Origin," Art. 12; on *World Customs Organization* website, http://www.wcoomd.org/en/topics/facilitation/instrument-and-tools/conventions/pf_revised_kyoto_ conv/ kyoto_new/spank.aspx (access date: 2015.08.21).

2) WCO

The WCO, in discussing direct consignment, suggests that the rule is satisfied when goods that departed from an export nation are the same when they arrive at an importing nation. The meaning of this rule is that goods should not change or be mixed with products that are not qualified for the FTA preferential tariff during transportation if they are to receive the benefits of such tariff system.

B. International system and its characteristics[10)]

The phenomenon whereby each continent has a different preferential trade agreement regarding transportation can be explained when geographic perspectives are taken into account. In case of Europe, where there are members and nonmembers of the EU, there is a need for separate regulation on direct transportation. On the other hand, the United States and others do not have such complex internal relations, such that exceptions for indirect transportation through primary non-contractors are not that difficult.

The WCO on its home page explains the characteristics and differences of regulations regarding ROO via a comparative research report on each continent. According to the WCO's Comparative Study on Preferential ROO, the direct consignment clause is a regulation demanding that the goods loaded to transport to an importer be the same as the goods departing from the exporter, and further states that the regulation is for purpose of anti-circumvention and preventing goods from being mixed with those that are not eligible to receive benefits of a preferential tariff.

Direct consignment can be termed to apply strictly to exporters and importers only for direct transportation; yet certain origin models acknowledge indirect transportation or transportation via a third-party nation as direct

10) The part on Direct Consignment Principle has been rewritten by the author, based on Korea Institute of Public Finance,『Investigating Direct Consignment Principle on Major Country' s FTA』, Tarriff Research 13-01, 2013.9, p7-21 and WCO http://www.wcoomd.org/en/topics/origin/instrument-and-tools/comparative-study-on-preferential-rules-of-origin/specific-topics/study-topics/tsp.aspx?p=1 (Accessed: 2015.08.21)

transportation in consideration of geographic factors or emergency situations.

Direct consignment differs greatly in different countries. It can be mainly divided by continent into the Europe-Mediterranean (European), NAFTA, and ASEAN models. The European model applies stringent ROO compared to the other two continents. The NAFTA and ASEAN models do not make such strict demands for direct consignment.

The European model dictates that goods departing from an exporter must be directly sent to an importer; however, a third-party nation's transshipment and stopovers, if supervised by the office of customs administration, can be eligible for preferential tariff. The same is true of movements of goods from region to region within a free trade zone. The NAFTA and ASEAN models, in contrast, only require tacit supervision by the office of customs administration over transportation via a third-party nation's stopover. The majority of the origin preferential clauses under these models consider transportation to be direct when the importation of goods from importers is done within the zone of a regional trade agreement. However, exceptions exist in special occasions.

1) European Model[11)]

In the European origin model (see the following figure and table), Article 13 of the EURO-MED Origin Protocols demands direct transportation of an origin nation's manufactured goods between contract agents; however, it also approves of transportation with stopovers in the European-Mediterranean territories and other regions.

Except for transportation through non-treaty nations, transportation via a third-party nation can be considered direct transportation if under the stringent supervision of a tariff authority; e.g., operations on the goods must be limited to maintaining the quality of the goods and processing to transport the goods to contracting parties . In addition, the European model demands evidence in the form of single transport documents that contain approval of transshipment

11) See EURO-MED Origin Protocols, art. 13; transcript on *World Customs Organization* website, http://www.wcoomd.org/en/topics/origin/instrument-and-tools/comparative-study-on-preferential-rules-of-origin/specific-agreements/agreement-topics/tsp-eur.aspx (access date: 2015.08.24)

from the other nation, namely a genuine (not forged) certificate, or other types of evidence.

Generally, transportation within the EU territory can be divided into: (a) direct transport among neighboring countries; (b) indirect transport between two countries within the area; (c) transport between two countries within the area that involves stopovers. The former two cases have a low probability of origin error because transportation is done within the area; however, when there is a stopover from a nation outside the area, the transportation document of transshipment should be submitted to the import nation's tariff authority, and also, evidence must be presented demonstrating that certain operations of reshipping cargo or maintaining the quality of goods were done under the nation's tariff authority.

[Figure IV-1] **Case of Direct Transportation**

Source: *World Customs Organization* website, http://www.wcoomd.org/en/topics/origin/instrument-and-tools/comparative-study-on-preferential-rules-of-origin/specific-agreements/agreement-topics/tsp-eur.aspx (access date: 2015.08.24)

〈Table IV-2〉 **European Regulation on Origin of Direct Consignment**

European Model for "Direct Transport"(Article 12 Principle of territoriality)
1. Except as provided for in Article 2(1) (c), Articles 3 and 4 and paragraph 3 of this Article, the conditions for acquiring originating status set out in Title II must be fulfilled without interruption in the Contracting Parties. 2. Except as provided for in Articles 3 and 4, where originating goods exported from an EFTA State or Morocco to another country return, they must be considered as non-originating, unless it can be demonstrated to the satisfaction of the customs authorities that: (a) the returning goods are the same as those exported; and (b) they have not undergone any operation beyond that necessary to preserve them in good condition while in that country or while being exported. ..... Derogation of the "Principle of territoriality" ..... Article13 Direct transport 1. The preferential treatment provided for under the Agreement applies only to products, satisfying the requirements of this Protocol, which are transported directly between the Parties or through the territories of the other countries and territories referred to in Articles 3 and 4 with which cumulation is applicable. However, products constituting one single consignment may be transported through other territories with, should the occasion arise, trans-shipment or temporary warehousing in such territories, provided that they remain under the surveillance of the customs authorities in the country of transit or warehousing and do not undergo operations other than unloading, reloading or any operation designed to preserve them in good condition. Originating products may be transported by pipeline across territory other than that of he Parties. …. Evidence that the conditions set out in paragraph 1 have been fulfilled …

Source: *World Customs Organization* website, http://www.wcoomd.org/en/topics/origin/instrument-and-tools/comparative-study-on-preferential-rules-of-origin/specific-topics/study-topics/tsp.aspx (access date: 2015.08.24)

2) NAFTA Model[12)]

In the case of NAFTA, Article 411, "Transshipment" (see the following table), limits allowable activities outside the scope of the contracting parties to cargo activity, reshipment, maintenance of quality of goods, and the process of transportation to a contracting party.

It is required that the origin requisite should be implemented within the domain of a contracting party, and this is similar to Europe's territoriality principle. Unlike the European model, NAFTA stipulates regulation of the direct consignment principle, and the difference lies in the fact that it does not require direct transportation under stringent supervision of a tariff authority.

Article 411 stipulates that origin qualification will be lost when goods that went through production that satisfied the origin requisite of Article 401 were subject to processes outside the origin nation other than cargo activity, reshipment, and maintenance of the quality of the goods. However, this is not a prohibition of transportation that went through other nations. Article 411 itself is a "territory requirement" that practically limits production and processes to

〈Table IV-3〉 **NAFTA Regulation on Direct Consignment of Origin**

NAFTA Model for "Trans-shipment" (Article 411 Transshipment)
A good shall not be considered to be an originating good by reason of having undergone production that satisfies the requirements of Article 401 if, subsequent to that production, the good undergoes further production or any other operation outside the territories of the Parties, other than unloading, reloading or any other operation necessary to preserve it in good condition or to transport the good to the territory of a Party.

Source: *World Customs Organization* website, http://www.wcoomd.org/en/topics/origin/instrument-and-tools/comparative-study-on-preferential-rules-of-origin/specific-topics/study-topics/tsp.aspx (access date: 2015.08.24)

12) See North American Free Trade Agreement (NAFTA), art. 411; transcript on *World Customs Organization* website, http://www.wcoomd.org/en/topics/origin/instrument-and-tools/comparative-study-on-preferential-rules-of-origin/specific-agreements/agreement-topics/tsp-nafta.aspx(access date: 2015.08.21).

those designed not to compromise the within-the-nation origin requisite for the goods.

3) ASEAN Model[13)]

The ASEAN origin model designates direct transportation under ROO between member nations as a principle under Article 32 (see following table). However, even when certain freight is transported from a third-party nation or a non-member country, it is regulated as a direct transportation under several conditions:

a) When a transit entry is for relevant geographic or transportation-related reasons, it can be justified.
b) Cargo should not enter into or be traded with consumption areas of the transshipment nation.
c) Processes other than shipment or maintenance of condition of goods in cargo during the transportation are forbidden.

Transportation that passes through a country outside the area must abide by Rule 21 of Annex 8. The following documentary evidence should be submitted: (a) bill of landing; (b) certificate of origin issued by the tariff authority of an exporting nation; (c) industrial invoice on goods; (d) documents to satisfy conditions of Article 21, clause (2)(b).

13) See ASEAN Origin Protocols, art. 32; transcript on *World Customs Organization* website, http://www.wcoomd.org/en/topics/origin/instrument-and-tools/comparative-study-on-preferential-rules-of-origin/specific-agreements/agreement-topics/tsp-atiga-e.aspx (access date: 2015.08.21.)

〈Table IV-4〉 **ASEAN Regulation on Direct Consignment of Origin**

ASEAN Model for "Direct Consignment" (Article 32 Direct Consignment)
1. Preferential tariff treatment shall be applied to goods satisfying the requirements of this Chapter and which are consigned directly between the territories of the exporting Member State and the importing Member State.
2. The following shall be considered as consigned directly from the exporting Member State to the importing Member State: (a) goods transported from an exporting Member State to the importing Member State; or (b) goods transported through one or more Member States, other than the exporting Member State and the importing Member State, or through a non-Member State, provided that: (i) the transit entry is justified for geographical reason or by consideration related exclusively to transport requirements; (ii) the goods have not entered into trade or consumption there; and (iii) the goods have not undergone any operation there other than unloading and reloading or any other operation to preserve them in good condition.

Source: WCO, http://www.wcoomd.org/en/topics/origin/instrument-and-tools/comparative-study-on-preferential-rules-of-origin/specific-topics/study-topics/tsp.aspx (access date: 2015.08.21)

2 Cases of disputes from applying principle of direct consignment

When looking at Korea's dispute cases regarding direct transportation, the majority of them are due to not abiding by the basic regulations. This sort of problem was mentioned before in regard to section of origin disputes, and there needs to be a clear understanding of the regulations, preparation of relevant documents, and persistent promotion and education regarding this issue. However, many businesses that import clothes via China and Hong Kong are clearly posed with the difficulty of proving direct transportation. Especially when the ROK-China FTA goes into effect, this kind of situation is very likely to get worse. Therefore, the tariff authority of Korea needs to establish systematic bases in advance with China and Hong Kong, after discussion, that enable businesses to prove direct transportation.

There were many cases of violations by the United States on basic factors of direct consignment when it comes to applying preferential tariff with developing nations. For instance: goods were not stored under customs control; passages in the documents were arbitrarily altered according to the final destination; the relations between producers and importers were unclear; or necessary documents were incomplete. In addition, there were violations of the direct consignment principle in the form of additional manufacturing during transportation. In the circumstances of the United States, application of the preferential tariff failed more often because of their failure to abide by the basic rule of direct consignment than because of severe control of direct consignment by the US custom houses.

Korea has an ambiguous environment for applying the direct consignment principle, so the preferential tariff should not be applied, as in the case of the United States, when the basic rule of direct consignment is violated. Otherwise, systemic improvement is the first recourse to consider.

Comprehensive interpretation of the direct consignment principle leads us to the non-alteration/non-manipulation rule. Since direct consignment may be applied in a limited manner, this rule aims to provide the preferential tariff rate when exported and imported goods from a contracting party are the same, just as in the case of direct consignment. It is possible that severe application of the direct consignment principle can increase distribution cost as a distribution system develops; however, in the current situation where transportation via third-party nations occurs for non-transportation reasons other than tariff (such as corporate tax), applying this principle is deemed to entail the probability of causing taxation problems. Hence it does not seem to be the right time yet for implementation of this system.

V

Summary and conclusion

With the commencement of the FTA with Chile in 2004, Korea set in motion its multiple simultaneous FTA policy. Before this event, Korea focused more on the multiple commerce policy based on the WTO rather than a bilateral commerce policy, and took a rather passive stance even when other nations began to push for FTAs from the late 1990s. Nevertheless, after signing the ROK-Chile FTA, Korea pushed forward with a multiple simultaneous FTA policy and ended up having contracts with economic behemoths such as the United States, the EU, and China.

The present research discussed the problem of origin as a focus because it is the most important factor in implementing FTA policy. Since the policy of an FTA is to grant preferential tariff rates only to contracting parties, an application of origin, which specifies whether goods indeed came from such parties, plays the most important part in implementation of an FTA. Along with this, direct consignment, which works as evidence that such origin itself has not changed, was discussed.

The problem of origin works a burden on importers, exporters, tariff authorities, and others in the process of carrying out an FTA. As seen above, there are diverse origin standards with criteria differing by FTA and category of goods, and the FTA preferential tariff will only be applied when such criteria are fulfilled. With the presence of these complicated origin standards, requests

for origin verification between FTA contracting parties are exponentially increasing.

As understood in this research, the number of partner nations' requests to Korea for origin verification rose greatly, from 23 in 2008 to 2,886 in 2014. Such requests focused on Korea's major export categories, such as electrical/electronics, machines, textile items, and petroleum chemicals. Following this trend, the number of Korea's requests on partner nations for origin verification also increased sharply, from 293 in 2008 to 3,323 in 2014.

As complicated as origin standards are, the incremental increase in the number of requests clearly works a burden on importers and exporters. This research analyzed how severity of ROO affected the FTA usage rate, analyzing the past three years' worth of export and import data from the ROK-US FTA. The conclusion of the analysis showed that, the larger the difference is between FTA preferential tariff rate and ordinary tariff rate, the more often the FTA system tends to be used. Also, bringing severity of ROO into the analysis, it was shown that, as expected, more severe ROO correlate with a lower FTA usage rate. Previous researches that did not use the ROK-US FTA data had concluded that the relation between severity of ROO and FTA usage rate was unclear. However, the present research, in contrast to the previous studies, has practically demonstrated that severe ROO has a negative impact on FTA usage rate. In other words, this research was the first one with the basis of ROK-US FTA data which found out that the ROO has a negative influence on the FTA usage rate with huge economies in FTA. As demand rises for more severe ROO and further reinforcement of the origin verification process, FTA usage rate is likely to be hit with more harmful impact.

After analysis of dispute cases related to origin, this research shows that ROO causes problems to FTA usage in diverse ways. First of all, there are disputes stemming from not understanding the process of origin verification and the relevant regulations. In this case, there needs to be persistent provision of information and educational opportunities regarding current ROO. Despite the occurrence of disputes due to complexity of ROO, an increased level of understanding of FTA requirements by tariff authorities, importers, and exporters is expected to be sufficient to reduce the disputes. Regarding reasons for origin verification, 34 percent were initiated for documentary processes such as a

nominal requisites check, and this figure is higher than practical requisite fulfillment of the ROO, which accounts for 28 percent. In addition, according to the export investigation, cases of violation of the origin standard amounted to 38 percent, whereas cases of violation of nominal requisites were 49 percent or half of the entire percentage. This means that nominal requisite unfulfillment occurs more often than unfulfillment of the practical origin standard. In other words, there is a high occurrence of situations of not receiving preferential tariff benefits even after meeting the practical origin standard, due to nominal and procedural problems. It is more convenient for businesses to satisfy a nominal requisite of a certificate of origin than a practical one, and this presents the need to pay closer attention to fulfilling nominal requisites.

Next, standard of origin verification itself sometimes causes disputes. For example, in an FTA that uses an automatic issuing system of certificates of origin, the damage from an exporter who falsifies a certificate of origin goes directly to the importer. There are also disputes in terms of responses to verification requests. In this respect, there should be long-term efforts of improving regulations relevant to response deadlines, and in the short term, flexibility in responses when applying this regulation is considered a good step.

In a nutshell, the complexity of current regulations on origin verification gives birth to problems in various forms; and in this situation, there are elements that can deteriorate FTA usage rate. In the short term, flexible interpretation of the process of verification and a clear understanding of current regulations are expected to ease the problem, and also there should be consistent efforts to resolve contradictions in the contents of FTAs.

Disputes over direct transportation seem to be less complicated than problems of origin. As it in the section on origin dispute cases, not following the basic rules, such as incompletely filling out documents, was spotted as the main cause of disputes . Typical causes were that goods were not stored under custom control, shipping paths were arbitrarily diverted depending on the final destination, relations between producers and importers were unclear, or documents were incomplete. Instances of such disputes in the United States were more about failure to abide by the basic rules of direct consignment than about severe enforcement of the direct consignment principle by the customhouse.

Korea has an ambiguous environment for applying the direct consignment principle, an example of which is the case of Chinese shipments through Hong Kong. Furthermore, in a new distribution system, there are often equivocal guidelines on how to apply the direct consignment principle to goods that depart without having a clear point of origin . Just as in the case of the United States, Korea should not apply the preferential tariff when the basic rule of direct consignment is violated. However, since the Korea—China (ROK-China) FTA is on the verge of commencement, systematic improvement via local investigation should be considered for the cases where goods pass through China and Hong Kong, since the reason for the importer's action is reduction of distribution cost.

Through systematic support of FTA principles, as suggested herein, it is my hope that the ROK-China FTA creates more benefits than expectations when it is signed.

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