〈 훈련결과보고서 요약서 〉

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훈련기관	University of Georgia 보고서 매수 101학				101매		
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내용요약	비교 분석) I. 도입 많은 나라들은 세계무역기구(WTO) 체제에서 자유무역을 확대하기 위해 자유무역협정(FTA)을 체결하여 활용하고 있다. 2022년말 기준 전 세계적으로 358개의 FTA가 체결되어 있다. 우리나라는 2004년 칠레와의 FTA가 처음으로 발효된 이후 21개의 FTA가 발효되었다. 2022년 2월에는 아세안 10개국과 호주, 뉴질랜드, 중국, 일본, 우리나라로 이루어진 RCEP(역내포괄적 경제 동반자 협정)이 발효되었고, 한국-이스라엘 FTA와 한국-캄보디아 FTA가 2022년 12월에 발효되었다. 또한 2023년 1월에는 한국-인도네시아 FTA가 발효되었다.					TA)을 체결하여 적으로 358개의 004년 칠레와의 FTA가 발효되 구과 호주, 뉴질 러진 RCEP(역내 없고, 한국-이스 2022년 12월에 한국-인도네시아	

1994년 발효된 NAFTA 미국, 캐나다, 멕시코간 FTA로 2018년 재협상이 타결되어 2020년부터 USMACA로 발효되고 있다. 한국-미국 FTA는 2007년 체결되어 2012년부터 발효되고 있다. 2021년 바이든 정부가 출범한 이후 2022년 5월부터 한국, 미국, 일본, 호주, 뉴질랜드, 싱가포르, 태국, 베트남, 브루나이, 말레이시아, 필리핀, 인도네시아, 인도, 피지로 구성되어 전세계 GDP의 40%를 차지하고 있는 IPEF(인도 태평양 경제 프레임워크)가 출범하고 2023년 11월 공급 망(필라2), 청정경제(필라3), 공정경제(필라4)가 타결되었다.

FTA에서 원산지는 자유무역협정의 특혜관세를 적용받기 위한 필수 요건으로 자유무역을 촉진하기 위해매우 중요한 요소이나, 복잡한 원산지 기준과 절차로인해 스파게티 볼 효과 (Bhagwati and Krueger, 1995)가 발생하여 자유무역을 저해하는 요소로도 작용한다. 특히, FTA 원산지 절차는 FTA마다 다르게 규정되어 있어 복잡하고 이로 인해 스파케티볼 효과의주요 원인으로 작용한다. 따라서, 수출입 기업, 당국이FTA 원산지 절차 규정을 이행하는데 필요로 하는시간과 비용을 엄격성으로 정의하고 이 엄격성 지수를 도출하는 것이 필요하다. 이 엄격성 지수를 도출하는 것이 필요하다. 이 엄격성 지수를 활용하여 FTA별로 객관적으로 비교 분석이 가능하다.특히,이 보고서는 한국과 미국의 FTA 원산지 절차규정의 엄격성 지수를 도출하고,이를 비교분석하여바람직한 협상방안을 도출하는 것이다.

Ⅱ. 문헌연구

지금까지 원산지 기준에 대해서는 Estevadeordal (2000) 개발한 엄격성 지수를 활용하여 자유무역협정별 국가별 활발한 비교 분석이 이루어져 왔다, 그러나 원산지 절차 규정에 대해서는 그 복잡성을 객관적으로 비교할 수 있는 도구가 개발되지 않아 이에 대한 연구가 거의 없는 실정이다. 다만, 국제관세기구(WCO)에서 원산지 증명서 발급 유형과 최신 경향을 분석한 자료가 있고, 개별 연구자들이 특정 FTA의 원산지 절차 규정에 대해 분석한 자료들이 존재한다.

FTA 원산지 절차 규정의 엄격성 지수를 도출하기 위해서 Bibbie (2016), Berman과 Wang (2018)의 지수도출 방법을 참고하였다. 또한 FTA 원산지 절차 규정의 엄격성 지수를 도출하기 위한 각 지표의가중치를 확인하기 위해서 Satty (1980)의 계층화 분석법(AHP)를 활용하였다.

Ⅲ. 연구 주제 및 방법

이 연구는 수출자, 생산자, 수입자, 기관 등이 자유 무역협정의 원산지 절차 규정을 이행하기 위해 소요 되는 시간과 비용의 정도인 원산지 절차 규정의 엄격성 지수를 도출하는 것이다. 대한민국에서 2022년 2월 발효 중인 18개 자유무역협정을 대상으로 원산지 절차 규정을 분석하였다. 분석 결과, 18개 FTA에 공통적으로 규정된 절차를 확인하였고, 이 중 원산지 증명방법, 특혜관세 신청시 원산지증명서 제출 또는 보관 여부, 사후 특혜관세 신청, 원산지 증명서 면제, 검증방법, 자료보관 등 6개 절차 규정을 이 연구의 대상을 선정하였다.

이 보고서의 연구 방법은 FTA 원산지 절차 규정 6개에 대해 그 내용의 공통점과 차이점을 비교 분석한 후 이를 유형화하고, 이를 엄격성 지수 도출을위한 지표를 활용하였다. 그 후, 포커스 그룹과 설문조사를 통해 Osgood (1592)의 의미분별 척도(Semantic Differential Scale)를 활용하여 7개의척도로 6개 원산지 절차 규정 내용의 엄격성 정도를측정하였다. 또한, Satty (1980)의 계층화 분석법(AHP)를 활용하여 FTA 원산지 절차 규정의 엄격성지수를 도출하기 위한 각 지표의 가중치를 확인하였다. 설문조사로 확인된 각 규정 내용의 엄격성정도와 각 지표의 가중치를 활용하여 한국과 미국의FTA 원산지 절차의 엄격성지수를 도출하고 비교 분석하였다.

IV. 지표 비교 연구

우리나라의 18개 FTA에 공통으로 규정된 6개의 원산지 절차 규정의 세부내용을 비교 분석하여 공통점과 차이점을 확인하였다.

엄격성 지수를 도출하기 위해 각 규정 내용을 유형화 하였다. 예를 들어, 원산지 검증 방법의 경우 4개 유형으로 구분하였다. 첫 번째는 서면 또는 직접 검증 방식이고, 두 번째는 수출 당국에 의한 간접 검증 방식, 세 번째는 서면 또는 간접 검증 후 직접 검증 방식이다. 마지막으로 서면 검증, 간접 검증, 직접 검증을 선택할 수 있는 방식이다. 이렇게 유형화 된 원산지 절차 규정 내용은 설문조사를 통해 엄격 성 정도를 확인하였다.

V. 설문조사 및 결과 분석

관세 행정 및 FTA 협상 업무에 20년 이상 종사한 전문가 6명을 대상으로 포커스 그룹을 만들어 인터 뷰를 진행하였다. 이를 통해 엄격성 지수 도출을 위한 방법을 자문받아 설문조사 문항 및 방법을 확정하였다.

포커스 그룹이 추천한 공공기관 종사자 15명과 민간 기업 종사자 15명으로 하여 총 전문가 30명을 구성하였다. 동 전문가 30명을 대상으로 설문조사를 진행하여 전문가들이 생각하는 각 원산지 절차 규정내용의 엄격성 정도를 1(가장 엄격하지 않음)에서 7(가장 엄격함) 사이에서 측정하였다. 설문조사로결과 각 6개 지표의 각 규정에 대한 엄격성 정도를확인하였다. 예를 들어 원산지 증명방법의 경우기관발급이 5.67로 가장 엄격성이 높게 측정되었고, 그 다음으로 인증수출자 발급이 4.23, 수출자 또는생산자 발급이 3으로 측정되었다. 수출자, 생산자, 또는 수입자 발급인 경우 2.57로 엄격성 지수가 가장

낮은 것으로 측정되었다.

또한, Saaty (1982)가 고안한 계층화 분석법(AHP)으로 각 원산지 절차 규정이 전체에서 차지하는 가중치를 확인하고 이에 대한 일관성을 검증하였다. 6개 원산지 절차 규정의 가중치를 확인한 결과, 원산지 증명 방법이 0.28으로 가장 높은 것으로 확인되었다. 그다음은 사후 특혜관세 신청 제도로 그 가중치는 0.21이다. 특혜관세 신청시 원산지 증명서 등 제출여부와 원산지 검증의 가중치는 0.18로 동일하다. 자료 보관 요건의 가중치는 0.08이고, 원산지 증명서면제 제도의 가중치는 0.07로 가장 낮은 것으로나타났다.

추가로 전문가 30명 대상으로 6개 원산지 절차 규정에 대한 바람직한 협상 방안에 대한 의견을 설문 조사를 활용하여 취합하였다. 각 원산지 절차 규정에 대해 전문가들이 생각하는 바람직한 협상 방안과 그 이유를 확인하였다. 예를 들어, 원산지 증명 방법은 인증수출자에 의한 원산지 발급방법을 가장 선호하였는데, 그 이유는 인증수출자는 인증 절차를 통해 원산지 증명서의 신뢰도를 높이고, 자율 증명 방법으로 효율적인 FTA 이행이 가능하다는 의견이다.

설문조사 결과인 각 원산지 절차 내용의 엄격성 정도와 각 규정의 가중치를 이용하여 대한민국의 18개 자유무역협정 원산지 절차 규정의 엄격성 지수를 도출하고 이를 비교 분석하였다. 그 결과, 18개 자유무역협정의 엄격성 지수 평균은 3.95인 것으로 나타났다. 대한민국-아세안 자유무역협정의 엄격성 지수가 5.45로 가장 높고, 대한민국-튀르키예와 대한민국-미국 자유무역협정의 엄격성 지수가각각 3.41, 3.42로 가장 낮은 것으로 나타났다. 이를통해, 대한민국은 아시아 국가들과의 자유무역협정의 엄격성 지수가 높은 것으로 나타났는데, 이는 이들국가들과의 자유무역협정에서 원산지 기관증명방법을 도입하였고, 원산지 증명서 면제 기준 금액이다른 자유무역협정보다 낮으며, 방문 검증을 도입하고있기 때문인 것으로 확인되었다.

동 엄격성 지수를 미국의 자유무역협정과 비교하기 위해 양국이 공통으로 자유무역협정을 체결한 국가나 지역을 비교 대상으로 선정하여 미국의 8개 자유무역 협정을 분석하였다. 같은 방법으로 미국 자유무역협정 원산지 절차 6개 규정의 내용을 유형화하였고, 설문 조사 결과 전문가가 확인한 각 내용별 엄격성 정도를 대입하여 미국의 엄격성 지수를 도출하였다. 분석 결과. 미국-싱가포르와 미국-호주 자유무역협정의 엄격성 정도는 4.28로 가장 높은 것으로 나타났다. 미국-중미, 미국-페루, 미국-콜롬비아 자유무역협정의 엄격성 지수가 3.39로 가장 낮게 나타났다. 미국 8개 자유무역협정 원산지 절차 규정의 엄격성 지수 평균은 3.64으로 대한민국의 8개 자유무역협정의 엄격성 지수의 평균인 3.77보다 낮은 것으로 나타났다. 그 이유는 미국의 자유무역협정에서 수입자도 원산지 증명서를 자율적으로 발급할 수 있고, 원산지 증명서 면제 금액이 최대 미화 1.500달러까지 규정되어 있으나, 대한민국의 자유무역협정은 원산지 증명서 증명 방법이 기관증명, 수출자 또는 생산자의 의한 자율 증명 등 그 방법이 다양하고, 원산지 증명서 면제 금액이 최대 미화 1,000달러로 규정되었기 때문 이다.

VI. 결론

이 연구는 전문가 대상 설문조사로 측정된 원산지 규정 내용별 엄격성 정도와 원산지 절차 규정의 가중치를 활용하여 국가별 또는 자유무역협정별 원산지 절차의 엄격성 지수를 도출함으로써 국가별 자유무역협정별로 객관적으로 원산지 절차 규정을 비교할 수 있게 되었다는데 그 의의가 있다.

이 연구에서 확인된 원산지 절차 핵심 6개 규정의 가중치를 활용하여 향후 자유무역협정 협상 및 이행 업무에서 각 원산지 절차 규정의 중요도에 따라 우선 순위를 정하여 대응할 수 있다. 따라서, 중요도가 높은 원산지 증명방식, 사후특혜관세 신청, 원산지 증명서 검증 방법은 다른 원산지 절차 규정보다 우선 하여 협상 대응방안을 마련하여야 한다.

또한, 자유무역협정별, 국가별로 원산지 절차 규정의 엄격성 지수를 객관적으로 비교하여 자유무역협정 이행 또는 신규 협상에서 동 지수를 활용하여 개선 방안을 마련하고 대응할 수 있다. 예를 들면, 상대 국이 사후 특혜관세 신청 제도를 도입하지 않으려고 하는 경우 다른 많은 FTA 적용 사례들을 소개하면서 FTA 활용 효과 등의 장점을 부각시켜 동 제도 도입을 설득할 수 있다.

마지막으로 국가별, FTA별 원산지 절차 규정의 엄격성을 객관적으로 비교 분석하여 새로운 협상 전략을 마련할 수 있다. 예를 들어, FTA 협상에서 원산지 증명방식을 기관발급 또는 인증수출자 발급 방식으로 합의하는 경우 검증 방법은 수출당국에 의한 간접 검증 방법을 도입하는 방안을 마련하여 원산지 절차 규정의 엄격성 지수의 균형을 도모할 수 있다.

향후 이 연구를 바탕으로 원산지 절차 규정의 엄격성 지수를 지속 발전시키고, 향후 체결하는 자유 무역협정에도 이를 적용하여 원산지 절차 규정의 엄격성 지수를 객관적으로 비교 분석하는 연구가 필요할 것으로 보인다. 미국 新정부 출범에 따른 국제 통상정책 변화 연구 (FTA 원산지 절차 엄격성 지수 도출 및 한미 FTA 비교 분석)

2024. 2.

기획재정부 김 동 현

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국외훈련 개요

- 1. **훈련국가**: 미국 (서울대 1+1 과정)
- 2. 훈련기관명: 조지아 대학교(University of Georgia)
- 3. 훈련과정: MPA (Master of Public Administration)
- 4. 훈련분야: 국제통상
- 5. **훈련과제**: 미국 新정부 출범에 따른 국제 통상정책 변화 연구 (관세정책 중심으로)
- 6. 훈련기간: 2022. 8. 15. ~ 2023. 8. 14. (12개월)

훈련기관 개요

○ **기관명**: 조지아 대학교 (University of Georgia)

○ 대학교 소개

- 1785년에 설립된 미국 최초의 주립대학교
- 미국내 공립 대학 중 큰 규모와 오래된 역사를 자랑
- 2024년 US News 대학 순위에서 47위, 공립대학 중 20위로 선정
- 주립 종합대학교로 17개 단과대에서 다양한 학위 과정 운영, 석사 과정의 경우 130개 분야에서 34개 운영

○ MPA 석사 과정

- 미국에서 MPA 기준 행정학 분야 3위
- 학생들이 전문적인 공공 행정 서비스의 공급자가 될 수 있도록 훈련 하는데 중점
- 커리큘럼은 필수코스와 선택과목으로 이루어져 있고, 필수코스는 행정학과 민주주의(Public Administration and Democracy), 인 사행정론(Public Personnel Administration), 재무행정론(Public Financial Administration), 정책분석의 경제학적 기초(Economic Foundation of Policy Analysis), 공공관리론(Public Management) 및 공공행정에서의 데이터 분석((Data Applications in Public Administration), 조사방법론(Research Methods in Public Administration)으로 구성
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Chapter I. Introduction

1. Background

The results of the Uruguay Round (UR) and the launch of the World Trade Organization (WTO) have significantly eased trade barriers between countries. The WTO Doha Round, which is the latest round of trade negotiations among WTO members, was launched in 2001. Although there were some progressive results, such as the Agreement on Trade Facilitation of the Bali Package in 2013, there has been no further progression under the WTO regime (WTO, 2023).

As the WTO did not function properly due to the complex interests of member states, regional trade agreements centered on specific regions, such as the Comprehensive and Progressive Pacific Economic Partnership (CPTPP) Regional Comprehensive Economic Partnership (RCEP), have been concluded and expanded. Regional trade agreements (RTAs) are not consistent with the ideology of the WTO-a multilateral free trade system. However, the WTO has also recognized legitimate exceptions if certain conditions are met. This recognition stems from the acknowledgment that free trade agreements (FTAs) play significant roles in developing and supplementing the multilateral free trade system by expanding trade volumes. Article 24 of the General Agreement on Tariffs and Trade (GATT) under the WTO allows Preferential Trade Agreements (PTAs) to be established as an exception if certain strict conditions are met. The first condition is that duties and other trade barriers should be removed or reduced substantially all the trade in the group to maximize Trade Creation (TC). The second condition is that, when trading with group members, there will not be any more restrictive duties and other regulations for non-members than before the group was set up, thereby minimizing Trade Diversion (TD). These criteria are outlined in paragraph 8 of Article 24 as the first criterion and in paragraph 3 of the same article as the second criterion.

< Table 1. Article XXIV of the General Agreement on Tariffs and Trade (GATT 1947) >

Article XXIV of the General Agreement on Tariffs and Trade (GATT 1947)

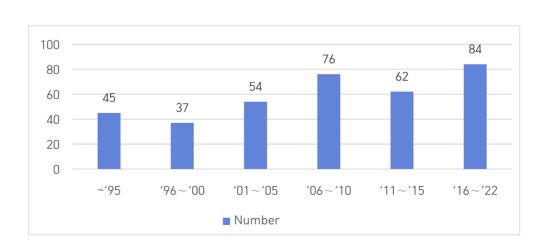
Territorial Application — Frontier Traffic — Customs Unions and Free-trade Areas

- 3. The provisions of this Agreement shall not be construed to prevent:
- (a) Advantages accorded by any contracting party to adjacent countries in order to facilitate frontier traffic;
- (b) Advantages accorded to the trade with the Free Territory of Trieste by countries contiguous to that territory, provided that such advantages are not in conflict with the Treaties of Peace arising out of the Second World War.
- 8. For the purposes of this Agreement:
- (a) A customs union shall be understood to mean the substitution of a single customs territory for two or more customs territories, so that

- (i) duties and other restrictive regulations of commerce (except, where necessary, those permitted under Articles XI, XII, XIII, XIV, XV and XX) are eliminated with respect to substantially all the trade between the constituent territories of the union or at least with respect to substantially all the trade in products originating in such territories, and,
- (ii) subject to the provisions of paragraph 9, substantially the same duties and other regulations of commerce are applied by each of the members of the union to the trade of territories not included in the union;
- (b) A free-trade area shall be understood to mean a group of two or more customs territories in which the duties and other restrictive regulations of commerce (except, where necessary, those permitted under Articles XI, XII, XIII, XIV, XV and XX) are eliminated on substantially all the trade between the constituent territories in products originating in such territories.

(Source: WTO | legal texts - Marrakesh Agreement)

To promote free trade, many countries have signed and implemented RTAs either regionally or bilaterally under the WTO system. According to the WTO RTA database, there were only 82 cases of RTAs before 2000. However, after 2000, the number of RTAs increased sharply, reaching 358 in 2022.



< Figure 1. World RTA >

RTA	~'95	'96 ~ '00	'01 ~'0 5	'06~'10	'11 <i>~</i> '15	′16 <i>~</i> ′22
Number	45	37	54	76	62	84
Total	45	82	136	212	274	358

(Source: World Trade Organization RTA)

Starting with the entry into force of the FTA with Chile on April 1, 2004, as of September 2023, Korea has 21 FTAs that have entered into force. Recently, Korea entered into force the RCEP, which consists of ASEAN's 10 countries. Australia. Zealand. China. and Japan in February 2022. Furthermore. Korea-Israel and Korea-Cambodia FTAs 2022. entered into force in December Lastly, Korea-Indonesia FTA entered into force in January 2023. Furthermore, Korea is still negotiating new FTAs with Mercosur and Uzbekistan.

The country of origin refers to the country in which the goods are substantially produced, manufactured. processed and is used to establish the nationality of the goods. Therefore, the country of origin acts as a crucial factor in determining the tariff rate, the price and image of the product, and the consumer's selection of the product. To meet the country of origin criteria, goods should satisfy requirements such as changes in tariff classification or the value-added criterion. Simultaneously. procedural regulations, including the issuance of a certificate of origin and compliance with origin verification requirements, must be adhered to. In FTAs, the chapter outlining rules of origin, as a necessary requirement for preferential tariff rates, exists as a distinct section. This chapter encompasses both origin criteria and origin procedures.

However. the number of FTAs has as increased significantly, various rules of origin and origin procedures have made it difficult for importers and exporters to access preferential tariff rates. This negative effect of FTAs is referred to as the 'Spaghetti Bowl' effect. The term was coined in 1995 by Bhagwati and Krueger (1995). According to Bhagwati and Krueger, too many FTAs would allow countries to adopt discriminatory trade policies and decrease the economic benefits from free trade. Origin rules and procedures are the main sources of this negative effect. Until now, many studies have been conducted on the criteria for determining the country of origin. On the other hand, there are few studies on the rules of origin procedures. The FTA rules of origin procedure have both regulatory elements for identifying an origin and business-friendly elements to utilize FTAs. However, in the case of Korean FTAs, the rules are complicated. The FTAs have various methods for the issuance of proofs of origin (POs) or certificates of origin (COs), such as issuance by authorized bodies, self-issuance by approved exporters, and self-issuance by exporters or producers. Therefore, a comparative study on the rules of origin procedure is needed to analyze Korea's FTAs, which have introduced various rules of origin procedures. Moreover, a tool is needed to objectively compare and analyze the origin procedures of the FTAs.

2. US' Trade Policies

According to the WTO RTA Database, the U.S. has entered into force 14 FTAs as of 2022. In 1985, the U.S. first implemented the FTA with Israel. The North American Free Trade Agreement (NAFTA), which originally entered into force in 1994. updated to was become U.S.-Mexico-Canada Agreement (USMCA) in 2018 and entered into force in 2020. The U.S.-Singapore FTA entered into force in 2004. The U.S.-Korea FTA was signed in 2007 and implemented in 2012. The U.S. has other FTAs, such as U.S.-Bahrain. U.S.-CAFTA/DR. U.S.-Chile. U.S.-Jordan. U.S.-Morocco. U.S.-Oman. U.S.-Peru. U.S.-Australia. U.S.-Colombia, U.S.-Panama (USTR, 2023). Table 2 (U.S. FTAs Entered into Force) shows the 14 FTAs of the U.S. and the dates of entry into force for each FTA.

< Table 2. U.S. FTAs Entered into Force >

	FTA	Date of Entry into force
1	United States – Israel	19-Aug-85
2	United States – Jordan	17-Dec-01
3	United States – Chile	01-Jan-04

4	United States – Singapore	01-Jan-04			
5	United States – Australia	01-Jan-05			
6	United States – Morocco 01-Jan-06				
	Dominican Republic - Central America -				
7	United States Free Trade Agreement	01-Mar-06			
	(CAFTA-DR)				
8	United States – Bahrain	01-Aug-06			
9	United States – Oman 01-Jan-09				
10	United States – Peru 01-Feb-09				
11	Korea, Republic of - United States	15-Mar-12			
12	United States – Colombia 15-May-12				
13	United States – Panama 31-Oct-12				
14	United States-Mexico-Canada Agreement	01-Jul-20			
(2	(USMCA)	01-341-20			

(Source: WTO | Regional trade agreements)

Regarding USMCA, U.S. trade of goods and services with Canada and Mexico totaled approximately \$1.8 trillion in 2022. Exports were \$789.7 billion and imports were \$974.3 billion. goods exports of U.S. to Canada and Mexico in 2022 were \$680.8 billion and accounted for 33.0 percent of overall U.S. exports in 2022 (USTR, 2023). The United States-Israel Free Trade Agreement (FTA) is the United States' first FTA and entered into force in 1985. It continues to contribute the foundation for expanding trade and investment between two countries by minimizing barriers and fostering regulatory transparency. Since 1985, when the United States-Israel FTA came into force, U.S. exports to Israel have risen by 456 percent (USTR 2023).

The Korea-U.S. FTA entered into force in 2012. U.S. goods and services trade with Korea totaled approximately \$168.6 billion in 2019. Exports were \$80.5 billion and imports were \$88.1 billion. The trade deficit of the U.S. goods and services with South Korea was \$7.6 billion in 2019. Korea is U.S.' 6th largest goods trading partner with \$134.0 billion in total goods trade during 2019. Goods imports totaled \$77.5 billion and goods exports totaled \$56.5 billion. The deficit of the U.S. goods trade with Korea was \$20.9 billion in 2019 (USTR 2023). Korea was the United States' 7th largest goods export market in 2019. U.S. goods exports to Korea in 2019 were \$56.5 billion, up 0.4% (\$229 million) from 2018 and up 97.6% from 2009. U.S. exports to Korea are up 30.1% from 2011 (pre-FTA). U.S. exports to Korea account for 3% of overall U.S. exports in 2019. Exports of agricultural products of the U.S. to Korea totaled \$7.6 billion in 2019, U.S. 5th largest agricultural export market. The U.S.' leading export categories include beef and beef products (\$1.8 billion), pork and pork products (\$593 million), prepared food (\$509 million), fresh fruit (\$405 million), and soybeans (\$396 million). Korea was the United States' 6th largest supplier of goods imports in 2019. The imported goods from Korea totaled \$77.5 billion in 2019, up 4.3% (\$3.2 billion) from 2018, and up 97.5% from 2009. U.S. imports from Korea are up 36.7% from 2011 (pre-FTA). The imported goods from Korea account for 3.1% of overall U.S. imports in 2019. The top import categories (2-digit HS) in 2019 were vehicles (\$21 billion), machinery (\$15 billion), electrical machinery (\$14 billion), mineral fuels (\$4.2 billion), and plastics (\$2.9 billion) (USTR 2023).

United States saw the inauguration of the Biden administration in 2021, with President Biden's vision aimed at fostering economic growth from the grassroots and the middle class. Committed to reclaiming a leading role on the U.S. the Trade global stage, Representative strengthened existing alliances and built new relationships in regions, emphasizing the nation's dedication multilateral institutions (USTR 2023).

In 2022, the USTR translated the Biden administration's vision action into by initiating and negotiating groundbreaking trade agreements with U.S. partners. One such initiative is the 'Indo-Pacific Economic Framework for Prosperity,' where the USTR and the U.S. Department of Commerce are engaged in innovative trade negotiations with 14 countries, including South Korea, the United States. Japan, Australia, New Zealand, Singapore, Thailand, Vietnam, Brunei, Malaysia, the Philippines, Indonesia, India, and Fiji. Together with the United States, these nations represent 40% of the global GDP. The global trade environment shifted its focus from 'efficiency' to 'resilience' in response to the pandemic, highlighting the increased importance cooperation for enhancing supply chain resilience. Consequently, a new economic and trade cooperation body May 23, 2022, with launched on а focus was

strengthening collaboration in the Asia-Pacific region, particularly in areas such as supply chains, climate change, and digital technologies. In November 2023, during the 7th round of negotiations, the 'FilA2 Supply Chain Agreement' was signed, and the 'FilA3 Clean Economy' and 'FilA4 Fair Economy' agreements were successfully concluded (USTR 2023).

3. Research Purpose and Questions

This study aims to create a restrictiveness index of rules of origin procedures of FTAs that have already taken effect in Korea. Subsequently, this index will enable a more objective comparison and analysis of the rules of origin procedures. Rules of origin serve as the primary cause of the Spaghetti Bowl Effect, a negative consequence of multiple FTAs within nation. However, there currently exists no representing the degree of complexity or restrictiveness of origin procedures in FTAs. Therefore, addressing the need for a more objective comparison and analysis of these procedures is a crucial issue. This is resolved constructing a new index that indicates which FTAs are more restrictive in terms of costs and time for both companies and authorities to implement the origin procedures within the FTAs.

Before creating an index, it is necessary to analyze the

procedures outlined in the original articles of the FTAs, comparing their similarities and differences. After grouping some articles with similar contents, confirmation of each indicator for the new index is required. Subsequently, the degree of restrictiveness for each indicator should be identified. Following this, the weight of each indicator needs to be confirmed to construct the new index. With these weights, it is possible to respond to future FTA negotiations based on the importance of each regulation in the origin procedures.

Moreover, correlations among the articles can be identified through this analysis, enabling the development of desirable measures for future FTA negotiations. Specifically, this study differences the and commonalities in the compares procedures of each origin, analyzes the correlations between the regulations, and identifies the reasons for the necessity of each regulation. Through this, it is possible to establish desirable negotiation strategies for the future. Lastly, this study can objectively compare the indexes with those of other countries, such as the U.S.

Research Question: How can a new restrictiveness index of the origin procedures in Korea's FTAs be constructed to objectively compare each FTA?

Chapter II. Literature Review

1. Origin Criteria and its Restrictiveness Index

The 'restrictiveness index,' which indicates the degree of restrictiveness of rules of origin, was first devised by Estevadeordal (2000) and subsequently supplemented and expanded upon in the study by Suominen & Estevadeordal (2004). According to Estevadeordal (2000), the restrictiveness of rules of origin is converted into an index ranging from 1 to 7. The higher the index, the stricter the rules of origin. which tend to incur higher costs for producers. In the case of a change in tariff classification, a change of Chapter (CC) is stricter than a change of Heading (CTH), and a change of Heading (CTH) is stricter than a change of sub-heading (CTSH). Additionally, it can be asserted that the rules of origin become stricter when the regional value-added criteria and specific process criteria are combined with a change in Following tariff classification. Estevadeordal's subsequent studies related to the restrictiveness of rules of origin were actively conducted. Using this index, many researchers analyzed the impact of the restrictiveness of rules of origin on trade.

Using the restrictiveness index of rules of origin, Korea's FTAs and industry-specific restrictiveness index were compared and analyzed with those of other countries to propose a trade facilitation plan (Go, 2008). In addition, the

restrictiveness of Korean agriculture was indexed and compared with the liberalization of goods in FTAs (Jeong, 2010). Moreover, Kim et al. (2008) comprehensively analyzed the general criteria of rules of origin and product-specific rules of origin for the Korea-Chile FTA, Korea-Singapore FTA, Korea-US FTA, etc. The researchers analyzed the correlation between origin regulations on the implementation and utilization of FTAs using the restrictiveness index.

Furthermore, the restrictiveness index was derived and analyzed for 6 digits of the Harmonized System (HS) code, encompassing 15 item groups for 15 Free Trade Agreements (FTAs) in Korea. Based on this analysis, and considering the status and characteristics of each country, period, and item, rules of origin were presented (Kwon & Na, 2016). As a result of this research, FTAs with the EU and Türkiye showed the highest rigidity, while FTAs with New Zealand, Peru, and India exhibited the lowest. Additionally, except for FTA European countries. the with the degree restrictiveness tended to ease over time. The indexes were high for primary products, processed foods. clothing/fabric/materials, while they were low for general machinery, electrical machinery, and chemical products. Consequently, sensitive items with high tariff rates and weak competitiveness were strictly regulated, whereas facilitating trade were set more flexibly.

2. Origin Procedures

According to the World Customs Organization (WCO, 2020), the issuance of certification by competent authorities in relation to the rules of origin procedure is evolving into autonomous certification various types of methods. Autonomous certification, a crucial concept in simplifying origin-related procedures, is categorized into an approved exporter system, a registered exporter system, exporter self-certification, and importer self-certification. It has been observed that recently concluded regional FTAs self-certification by exporters or importers over a certificate system managed by the competent authorities of exporting countries.

The issuance of certification by competent authorities is still relatively more prevalent in FTAs in Asia than self-certification by exporters or importers. However, self-certification is expected to expand when RCEP takes effect in the future. Therefore, it is necessary to examine the international trend of FTA origin certification methods and derive implications (Kim & Chung, 2021).

Kwon (2018) revealed that, in the context of verifying the origin for preferential tariff treatment under the Korea-EFTA and the Korea-EU FTA, most cases involving goods imported by Korean importers were attributed to issues with origin declarations. These issues, as highlighted by Kwon (2018),

included inconsistencies in the declarations, such as disparities between issuers and signatories.

According to Lee (2016), certificates of origin are issued by exporters, producers, or authorities in accordance with regulations in FTAs. In general, concerning the liberalization of tariffs, which is the purpose of the FTA, a fast, convenient, and low-cost self-certification method is more desirable than a certificate of origin issued by authorities. However, in the case of self-issuance by exporters or producers, customs authorities frequently verify the origin of imported goods (Lee, 2016).

3. Constructing Index and Scaling Method

Babbie (2016) explains that an index refers to a composite measure that summarizes several specific observations and represents more general dimensions. Constructing an index involves five steps: 1. Selecting possible items, 2. examining their empirical relationships, 3. scoring the index, 4. Handling missing data, and 5. Validating the index. First, selected items should make sense (Face validity). Items should represent only one dimension of a concept (Uni-dimensionality). To examine the empirical relationships among items, partially related indicators are valid, and an item should not be predicted by two or three other items. Next, determining the desirable range is necessary for

obtaining index scores, and items should be weighted equally unless there are compelling reasons for differential weighting. If there are a few cases with missing data, researchers may choose to either exclude them or treat missing data as one of the available responses.

According to Berman and Wang (2018), an index variable is a variable that combines the values of other variables into a single score or indicator, such as a consumer price index and an anti-corruption index. Index variables are also commonly used to empirically measure abstract concepts and multifaceted. encompassing phenomena. The construction of index variables follows a simple logic: the values of the measurement variables are simply summed. Individual components should have the same ranges or scales to create an appropriate index. Although index measures are easy to create, attention is also needed for their validation. One argument is that the measures are reasonable, common-sense ways of measuring the concept (Face validity). Another argument is that index variables should encompass the range of aspects of the concept and its dimensions (Content validity). Comparison with external sources is sometimes called criterion (or external) validity. Comparison against internal sources is called construct (or internal) validity. Regarding index variables, the variables used to measure a concept should be strongly associated with each other. The correlation of measurement variables is termed internal reliability. Analysts are not expected to use all these approaches, but they should employ some strategies to justify their measures (Berman and Wang, 2018).

Osgood's Semantic Differential Scale is a scaling method designed to identify the perceived meanings of concepts. This method is suitable for measuring subjective and multidimensional interpretations of the cognitive meaning of concepts (Osgood, 1957).

4. AHP method

The Analytic Hierarchy Process (AHP), developed by Saaty (1980), is a decision-making method used to gauge the evaluator's knowledge, experience, or intuition by assessing the pairwise comparison of factors that constitute the decision hierarchy. The decision-making process using AHP generally involves a total of four steps. First, interrelated decision-making factors are divided into hierarchies to create a decision-making framework. Second, data are pairwise collected through comparisons between decision-making factors. Saaty (2008) employs a scale of 9 levels of relative importance for pairwise comparisons to establish the weights, and when a hierarchy comprises n factors, a total of n(n-1)/2 comparisons must be conducted. Third, the consistency of the data is verified. Finally, priorities are determined based on the relative weights of decision-making factors.

< Table 3. Summary of Saaty's 9-points scale >

Imp	ortance of Criterion	Definition	
1	Equal importance	Two activities contribute equally to each objective	
3	Slight importance	Experience and judgment slightly favor one activity over another	
5	Strong importance	Experience and judgment strongly favor one activity over another	
7	Demonstrated importance	Activity is strongly favored, and its dominance is demonstrated in practice	
9	Absolute importance	The evidence favoring one activity over another is of the highest possible order of affirmation	
2, 4, 6, 8	Intermediate values between the two adjacent judgments		

(Source: Saaty 2008)

AHP is utilized as a decision-making tool in various fields due to its simplicity, ease of application, and universality (Keun-Tae Cho et al., 2003). When verifying the consistency of result data, if the consistency ratio is less than 10%, the data is considered logically consistent. If the consistency ratio exceeds 10%, the results need to be reviewed due to a lack of consistency. The degree of consistency can be calculated with a Consistency Index (CI) and a Consistency Ratio (CR) as follows (Vargas 1982; Keun-Tae Cho et al., 2003).

CI =
$$(\lambda \max -n)/(n-1)\lambda \max -n)/(n-1)$$

CR = $(\text{CI/RI})\times 100\%$ *RI: Random Index

< Table 4. Random Index >

N	1	2	3	4	5	6	7	8	9	10
RI	0	0	0.58	0.90	1.12	1.24	1.32	1.41	1.45	1.49

(Source: Saaty 1980)

Chapter III. Research Subjects and Methods

1. Research Subjects

The research question of this study asks restrictiveness index of the origin procedures of Korean FTAs can be created to objectively compare each FTA. To construct the new index, the subjects of this study are the regulations of origin procedures in 18 FTAs that have entered into force in Korea as of February 2022. The origin procedures of the 18 Korean FTAs in Table 5 (Research Subject) should be analyzed to create the index and compare the restrictiveness of the FTAs' origin procedures. After the indicators for the new independent variable should be classified by the content that will be measured by experts to identify the extent of restrictiveness. The dependent variable is а new restrictiveness index of origin procedures, which will be drawn from the indicators.

< Table 5. Research Subject (FTA Origin Procedures) >

FTA	Date in Effect	Origin Procedures
V Cl. 11 -	2004 4 1	CHAPTER 5 CUSTOMS
Korea-Chile	2004.4.1	PROCEDURES
V C:	2006.2.2	CHAPTER 5 CUSTOMS
Korea-Singapore	2006.3.2	PROCEDURES
V PPTA	2007 0 1	Annex I Rules of Origin and
Korea-EFTA	2006.9.1	Customs Procedures
Korea-ASEAN	2007.6.1	APPENDIX 1 OPERATIONAL
Korea-EFTA Korea-ASEAN	2006.9.1	Customs Procedures

		CERTIFICATION PROCEDURES
		FOR THE RULES OF ORIGIN CHAPTER FOUR ORIGIN
Korea-India	2010.1.1	
		PROCEDURES PROTOCOL CONCERNING THE
		DEFINITION OF 'ORIGINATING
Korea-EU	2011.7.1	PRODUCTS' AND METHODS OF
		ADMINISTRATIVE
		COOPERATION
Korea-Peru	2011.8.1	CHAPTER FOUR ORIGIN
Troica i ciu	2011.0.1	PROCEDURES
***	2012.3.15	CHAPTER SIX RULES OF
Korea-US	Revised 2019.1.1	ORIGIN AND ORIGIN
		PROCEDURES PROTOCOL ON RULES OF
Korea- Türkiye	2013.5.1	ORIGIN AND ORIGIN
Korea- Turkiye	2013.3.1	
Korea-Australia	2014.12.12	PROCEDURES CHAPTER 3 RULES OF ORIGIN
		AND ORIGIN PROCEDURES
	2015.1.1	CHAPTER FOUR ORIGIN
Korea-Canada		PROCEDURES AND TRADE
		FACILITATION
	2015.12.20	CHAPTER 3 RULES OF ORIGIN
Korea-China		AND ORIGIN IMPLEMENTATION
17		PROCEDURES
Korea-New	2015.12.20	CHAPTER 3 RULES OF ORIGIN
Zealand		AND ORIGIN PROCEDURES CHAPTER 3 RULES OF ORIGIN
Korea-Vietnam	2015.12.20	AND ORIGIN PROCEDURES
		CHAPTER THREE RULES OF
Korea-Colombia	2016.7.15	ORIGIN AND ORIGIN
		PROCEDURES
Korea-Central	2021.3.1	CHAPTER 3 RULES OF ORIGIN
America	2021.3.1	AND ORIGIN PROCEDURES
	2021.1.1	PROTOCOL concerning the
Korea-UK		definition of 'originating products'
210100 012		and methods of administrative
DCED	2022 2 1	cooperation
RCEP	2022.2.1	CHAPTER 3 RULES OF ORIGIN

(Written by the author using the sources from FTA Portal

Korea)

2. Indicators for New Index

To qualify for preferential benefits under a FTA, the product must, as an essential condition, originate in the FTA country. In other words, the goods must meet the origin criteria stipulated in the FTA. Additionally, the product should adhere to the origin procedures, including the method of issuing a PO or CO, claims for preferential tariff treatment, and the verification procedures outlined in the FTAs.

The procedures for determining the origin of goods in each FTA in Korea vary, encompassing methods of issuing PO or CO, claiming preferential tariff treatment, conducting origin verification, and more. After a comprehensive review of the origin procedures outlined in the 18 currently effective FTAs in Korea via the FTA Portal Korea (2023), this study identifies seven common regulations stipulated across these agreements. These include methods for issuing POs or COs, claiming preferential requirements for tariff treatment, preferential tariff post-importation treatment. verification methods, waiver procedures for proof of origin, record-keeping requirements, and definitions.

< Table 6. Main regulations of origin procedures in Korean FTAs >

	Regulation	Main Contents
1	Methods of issuing Proof of Origin (Certificate of Origin)	Classified into issuance by authorized bodies, self-issuance of authorized exporters, and self-issuance of exporters, producers, or importers
2	Requirements for Claims of Preferential Tariff Treatment	Regulation on how to apply for preferential tariff treatment and to submit the documents at the time of import customs clearance
3	_	Regulation on whether to allow retroactive application of preferential tariffs after import customs clearance and procedures for the application
4		Exemption from submission of a proof of origin (or a CO) for goods less than a certain amount
5	Origin Verification	Regulation on the subjects, methods, procedures of origin verification
6	Record Keeping Requirements	Regulation on the keeping period for documents related to the determination of origin
7	Definitions	Defining key terms in the rules of origin procedures

(Written by the author after reviewing each regulation of origin procedures in Korean FTAs)

The origin procedures that companies should observe to benefit from FTAs vary from one FTA to another. For example, in the case of methods for issuing a PO or CO, the content of each FTA differs, including issuance by authorized bodies, self-issuance by authorized exporters, and self-issuance by exporters, producers, or importers. In this regard, the procedures that companies should follow differ based on the issuance methods. Therefore, key regulations of the origin procedures should be reviewed as indicators for deriving a restrictiveness index.

Similarly, requirements for claims of preferential tariff treatment, post-importation preferential tariff treatment. verification methods. waiver PO. origin of and record-keeping requirements have different content from FTA to FTA in Korea. However, in the case of the definition provision, it is natural and necessary for all FTA regulations to stipulate the terms used in the agreements. Therefore, it is excluded from the indicators used to derive the index. Thus, six indicators are selected to create the restrictiveness index of the FTA origin procedures, as noted in Table 7 (Final Indicators for the Index).

< Table 7. Final Indicators for the Index >

- 1. The methods of issuing Origin of Proof (Certificate of Origin)
- 2. Claims for Preferential Tariff Treatment

- 3. Post-Importation Preferential Tariff Treatment
- 4. Waiver of a Proof of Origin or Certificate of Origin
- 5. Origin Verification
- 6. Record Keeping Requirements

(Written by the author as indicators for the index)

3. Research Methods

Analyzing and comparing the main articles of origin procedures of the Korean FTAs are needed to find similarities and differences in each article through a comparative study. The differences are subject to identifying extent of each indicator's restrictiveness.

The meaning of restrictiveness in origin procedures can vary in terms of its conceptualization. According to Oxford 'restrictive' means imposing limitations Languages, restrictions on someone's activities or freedom. According to Estevadeordal (2000), the restrictiveness of rules of origin is converted into an index of 1 to 7. The higher the index, the stricter the rules of origin, which tend to cost producers more. In this regard, the restrictiveness of the FTA rules of origin procedures in this study is defined as the total time relevant cost required by all parties, including authorities, exporters, producers, importers, etc., to comply with the rules of origin procedures in the FTA.

Then, Osgood's semantic differential scale (1952), treated as an ordinal measurement, will be employed to assess the restrictiveness of the content of all six dependent variables using a 7-point scale ranging from least restrictive to most restrictive.

Focus group interviews and surveys will be conducted with an expert group comprising government servants, employees of exporting or importing companies, and trade experts. The aim of this survey is to gauge the level of restrictiveness for each indicator and to assign weights to each indicator for the new index. The results of the scaling measurement can be utilized to identify correlations among indicators, enhancing the effectiveness of future FTA negotiations through more desirable measures.

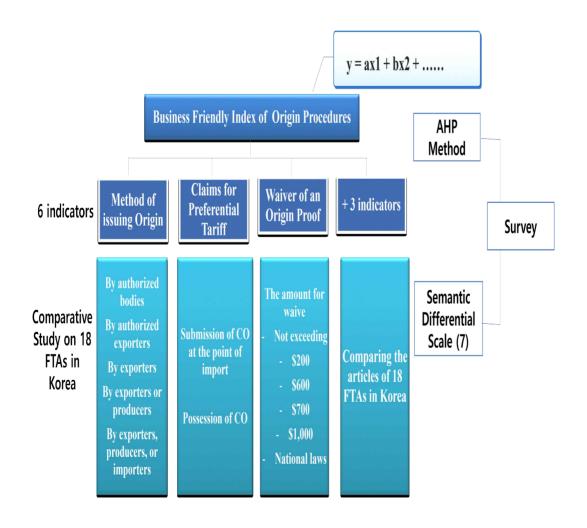
The new restrictiveness index of origin procedures will be created in accordance with the method suggested by Babbie (2016) and Berman and Wang (2018). The weight of each indicator can be confirmed by the Analytic Hierarchy Process (AHP) method invented by Saaty (1982). Then, the consistency of the AHP result data will be verified. If the consistency ratio is less than 10%, the data are considered logically consistent. If the consistency ratio exceeds 10%, the results need to be reviewed due to a lack of consistency.

After identifying the weight of each indicator by employing the formula below, the index of origin procedures in each FTA will be analyzed to objectively compare the extent of restrictiveness of each FTA. Additionally, this index will be applied to other FTAs of foreign countries, such as the U.S., for comparison with Korea.

- Creating the index: restrictiveness index of FTA origin procedures

$$y = \alpha x_1 + \beta x_2 y = \alpha x_1 + \beta x_2 + \cdots$$

< Figure 2. Research Design >



Chapter IV. Comparative Study of Each Indicator

To prepare basic data for the degree of restrictiveness of six indicators, this research analyzes how each indicator is stipulated in the 18 FTAs in Korea to compare the similarities and differences. After comparing and analyzing the commonalities and differences of each indicator, the restrictiveness of each indicator can be objectively measured using Osgood's semantic differential scales, ranging from the least restrictive to the most restrictive, by experts.

1. The Methods of Issuance

The proof of origin (PO) or certificate of origin (CO) is an essential document for applying preferential tariff treatment under FTAs, and all FTAs stipulate how to issue a PO or CO. The methods can be divided into two types: issuance by authorized bodies and self-issuance. Issuance by authorized bodies means that a CO should be issued by bodies authorized by the government in accordance with the FTA rules or its domestic laws and regulations. The method of self-issuance is divided into four types: self-issuance by self-issuance authorized exporters, by exporters, self-issuance by exporters or producers, and self-issuance by exporters, producers, or importers.

Issuance by authorized bodies is a method in which

state-designated authoritative institutions, such as customs offices and chambers of commerce in the case of Korea, can issue COs when they receive applications from exporters or producers. Among Korea's concluded FTAs, five FTAs, including Korea-Singapore, Korea-ASEAN, Korea-India, Korea-China, and Korea-Vietnam, have introduced and operated this method.

Self-issuance by authorized exporters is a method in which only companies that meet appropriate conditions in the respective laws and regulations of the exporting party can issue POs autonomously. In the case of Korea's FTAs, the Korea-EU FTA and the Korea-UK FTA adopt the method of self-issuance by authorized exporters. Article 17 (APPROVED EXPORTER) of the Protocol concerning the definition of 'originating products' and methods of administrative cooperation in the Korea-EU FTA stipulates the self-issuance by authorized exporters.

Other methods of self-issuance are divided into three categories: self-issuance by exporters, self-issuance by exporters or producers, and self-issuance by exporters, producers, or importers. The Korea-Chile FTA, Korea-EFTA, and Korea-Turkiye FTA adopted self-issuance by exporters as the method for issuing a PO or CO. The Korea-US FTA is the only case in which self-issuance by exporters. producers, or importers was adopted. In addition, six other FTAs, including Korea-Peru and Korea-Australia, adopt the method of self-issuance by exporters or producers. The method of self-issuance by exporters, producers, or importers is stipulated in Article 6.15 (CLAIMS FOR PREFERENTIAL TARIFF TREATMENT) in the Korea-US FTA.

In the case of RCEP, which took effect on February 1, 2022, bv authorized bodies. self-issuance issuance authorized exporters, and self-issuance by exporters producers are stipulated. It is specified that issuance by authorized bodies and self-issuance by authorized exporters shall be introduced immediately upon entry into force, and self-issuance by exporters or producers shall he implemented within a certain period after entry into force, as documented in Article 3.16 (Proof of Origin) of RCEP.

In summary, when analyzing the method of issuing a PO or CO in Korea's 18 FTAs, as shown in Table 8 (Methods of Issuance of a PO or CO in Korean FTAs) below, there are five FTAs with the method of issuance by authorized bodies. two FTAs with the method of self-issuance by authorized exporters, three FTAs with the method of self-issuance by exporters, six FTAs with the method of self-issuance by exporters or producers, and the Korea-U.S. FTA with the method of self-issuance by exporters, producers. or importers. RCEP includes three methods of issuance by authorized bodies. self-issuance by exporters, and self-issuance by exporters or producers. Therefore, there are six types of methods for issuing a PO or CO.

< Table 8. Methods of Issuance of a PO or CO in Korean FTAs >

Issues has		Self-issuance			
Issuance by authorized bodies	By authorized exporters	By exporters	By exporters or producers	By exporters, producers, or importers	
Korea-Singapor e Korea-ASEAN Korea-India Korea-China Korea-Vietnam	Korea-EU Korea-UK	Korea-Chil e, Korea-EFT A Korea-Türk iye	Korea-Peru Korea-Colombia Korea-Australia Korea-Canada Korea-New Zealand Korea-Central America	Korea-US	

RCEP: Including 3 methods of issuance by authorized bodies, self-issuance by authorized exporters, and self-issuance by exporters or producers

(Written by the author after reviewing the texts of origin procedures in Korean FTAs)

2. Claims for Preferential Tariff Treatment

To qualify for preferential tariff treatment under an FTA, importers shall, at the time of import declaration, apply for the application of preferential tariff treatment according to the customs clearance procedures of the importing country, and they shall have a PO or CO for the imported goods.

Korea's FTA agreements can be categorized into two regulations that require importers to submit a PO or CO and related supporting documents to customs in order to receive preferential tariff rates and allow importers to possess a PO or CO and related supporting documents to qualify for preferential tariff rates.

For the Korea-Singapore FTA and Korea-ASEAN FTA, importers are required to submit a CO and related supporting documents to a customs authority when applying for preferential tariff treatment. Similarly, under the Korea-China FTA, importers are obligated to submit a CO and related supporting documents to a customs authority when applying for preferential tariff rates. However, it specifies the use of the Electronic Origin Data Exchange System (EODES) for the exchange of origin documentation between countries, allowing importers to omit the submission of a CO and other documents when utilizing this system.

In the other 15 FTAs in Korea, importers are required to possess a PO or CO and supporting documents when applying for preferential tariff rates. However, if requested by the importing country, importers should submit the PO or CO and related supporting documents to the customs authorities. Article 6.19 (OBLIGATIONS RELATING TO IMPORTATIONS) in the Korea-US FTA and Article 3.17 (CLAIMS FOR PREFERENTIAL TARIFF TREATMENT) in the Korea-Vietnam FTA outline the regulations for possessing a

PO or CO and related supporting documents.

To summarize, requirements for claims for preferential tariff treatment can be categorized into two types based on whether importers shall submit a PO or CO and related supporting documents to customs authorities when applying for preferential tariff treatment or can simply possess a PO or CO and supporting documents, as shown in Table 9 (Requirements for Claims for Preferential Tariff Treatment) below.

<Table 9. Requirements for Claims of Preferential Tariff
Treatment>

Submission of CO and Related Documents	Possession of CO and Related Documents
Korea-ASEAN Korea-Singapore Korea-China	15 FTAs including Korea-US, Korea-Vietnam, etc

(Written by the author after reviewing the texts of origin procedures in Korean FTAs)

3. Post-Importation Preferential Tariff Treatment

Claims for post-importation preferential tariff treatment is a system where, within a certain period after customs clearance, importers can apply for preferential tariff rates if they did not apply for them when they imported goods, even though the imported goods qualify for preferential tariff treatment.

Upon analyzing the agreement texts of Korea's 18 FTAs, it is observed that the Korea-ASEAN FTA stands out as the that did not introduce a post-importation only one preferential tariff treatment system. In contrast. Korea-China FTA, Korea-Singapore FTA, and Korea-EFTA FTA explicitly state that claims for post-importation preferential tariff treatment are only possible if importers express their intention to apply for such treatment at the time of import declaration. This is a specified condition. The regulations governing conditional claims for post-importation preferential tariff treatment can be found in Article 3.18 Preferential (Post-Importation Tariff Treatment) Korea-China FTA. Article 5.3 (Claims for Preferential Treatment) of the Korea-Singapore FTA, and Article 17 (Importation Requirements) of Annex I (Rules of Origin and Customs Procedures) in the Korea-EFTA FTA.

In addition, 14 other FTAs in Korea, including the Korea-US FTA, have regulations that allow importers to claim post-importation preferential tariff treatment within a certain period, even if they did not express their intention to apply for preferential tariff treatment at the time of import declaration. Importers can claim post-importation preferential tariff treatment within one year after import

under the Korea-US FTA, as specified in Article 6.19 (OBLIGATIONS RELATING TO IMPORTATIONS).

FTAs' Korea's As result. system of claims post-importation preferential tariff treatment is categorized shown in Table three types. as 10 (Claims Post-Importation Preferential Tariff Treatment in Korea) below. The Korea-ASEAN FTA does not introduce a system of claims for post-importation preferential tariff treatment, while the Korea-Singapore, Korea-China, and Korea-EFTA FTAs conditionally specify that claims for post-importation preferential tariff treatment are possible only if importers express their intention to apply for preferential tariff rates at the time of customs clearance. In the remaining 14 FTAs in Korea, a system of claims for post-importation preferential tariff treatment is introduced, and there are no conditions requiring importers to express their intention at the time of customs clearance.

< Table 10. Claims for Post-Importation Preferential Tariff

Treatment in Korea >

Not Introduced	Conditionally Introduced	Introduced
	Korea-Singapore	Other 14 FTAs
Korea-ASEAN	Korea-China	including KOR-US FTA
	Kor-EFTA	metading ROR OS 1111

(Written by the author after reviewing the texts of origin procedures in Korean FTAs)

4. Waiver of a Proof of Origin or Certificate of Origin

Waiver of a PO or CO is a system aimed at simplifying customs procedures by exempting the requirement of a PO or CO for small-value goods. When the customs value of imported goods is below a certain amount of value, a PO or CO is not required. However, the exemption is not applicable if the goods are split or divided to avoid the requirement of the PO or CO. The specific threshold amount for the exemption of a PO or CO varies from one FTA to another, depending on the specific regulations stipulated in the FTAs.

In the Korea-India FTA, the threshold amount for the exemption of a PO or CO is not explicitly stated in the agreement. Instead, it specifies that, according to national laws and regulations, the requirement for a PO or CO is exempted for small-value goods and personal belongings of travelers.

However, most of Korea's FTAs specify the threshold amount for the waiver of a PO or CO in the agreements. The threshold amount for the exemption of a PO or CO is set at \$ 200 U.S. dollars (USD) in the Korea-ASEAN FTA and the RCEP. In the Korea-Vietnam FTA, the threshold amount is \$ 600 USD, and in the Korea-China FTA, it is set at \$ 700 USD.

The Korea-Chile, Korea-Singapore, Korea-Peru, Korea-US,

and Korea-Canada FTAs exempt the requirement of a PO or CO for goods not exceeding \$ 1,000 USD. The Korea-US FTA, as specified in article 6.16 (WAIVER OF CERTIFICATION OR OTHER INFORMATION), has a regulation regarding this waiver of certification.

The Korea-EFTA, Korea-EU, and Korea-Australia FTAs have different threshold amounts for the waiver of a CO based on different currencies. For instance, in the Korea-EU FTA, Korea's threshold amount is \$ 1,000 USD, whereas the EU has distinct threshold amounts. For small packages, the EU's threshold is 500 euros, and for traveler's personal luggage, the threshold is 1,200 euros.

To summarize, Korea's 18 FTAs specify various threshold amounts for the exemption of a PO or CO, ranging from \$ 200 to \$ 1,000 USD. In the Korea-India FTA, a waiver of a CO is implemented according to national laws and regulations. Especially, in the Korea-EU, Korea-EFTA, and Korea-Australia FTAs, the threshold amounts and currency denominations for a waiver of a PO or CO differ between the two respective countries.

< Table 11. Amount for Waiver of a PO or CO in Korea >

	Not	Not	Not	Not	Different
National					amount
Laws	Exceeding	Exceeding	Exceeding	Exceeding	between the
	USD 200	USD 600	USD 700	USD 1,000	two Parties

					Korea-EU,
	Korea-ASE			Korea-Chile	Korea-EFTA,
				Korea-Singa	Kor-UK,
	AN,			pore	Kor-Turkiye
	RCEP (Or			Korea-Peru	(KOR: USD
	the amount				1000, The
	in			Korea-US	Other Party:
	accordance	Korea-Viet	Korea-Chi na	Korea-Canad	500 Euros for
Kor-India	with the			a	private and
				Kor-	1,200 Euros
	laws and			Colombia	for traveler's
	regulations			Korea-New	goods)
	of the				Korea-Australi
	importing			Zealand	a
	Party)			Korea-Centra	(KOR: USD
	l arty)			1 America	1000, AU:
(TAT. 1)					AUD 1000)

(Written by the author after reviewing the texts of origin procedures in Korean FTAs)

5. Verification Methods of Origin

The verification of the origin of goods is done to ensure that the goods receiving preferential tariff treatment under a FTA are indeed originating from the FTA-contracting countries. There are three methods of origin verification: written verification, indirect verification conducted by the exporting nation, and visit verification conducted by the importing nation.

Written verification enables customs authorities to deny preferential tariff benefits if exporters or producers fail to comply with requests for document submission within a specified period. Indirect verification involves the importing country's customs authorities requesting the exporting country's authorities to verify the origin based on provided reasons, a PO or CO, and necessary documents. The exporting country then informs the importing country's customs authorities about the results, including whether the goods meet the origin criteria.

Visit verification is conducted by the importing country's authorities, who notify the exporting country about the planned verification of exporters or producers. The importing country's authorities visit the exporting country to conduct direct origin verification. After completing visit verification, the importing country's authorities inform the verified exporters or producers of the results, including their eligibility for preferential tariff treatment.

The Korea-Chile, Korea-Singapore, Korea-Canada, and Korea-New Zealand FTAs employ both written and visit verification methods. The Korea-US FTA has regulations for both written and visit verifications. However, for Textile or Apparel Goods, the Korea-US FTA, under Article 4.3 (Customs Cooperation for Textile or Apparel Goods), specifies that indirect verification is conducted by the exporting country's authorities upon request from the importing country's authorities, and visit verification is not carried out.

Indirect verification refers to the confirmation of the origin

of goods by the competent authorities of the exporting country upon the request of the importing country. Korea adopts indirect verification in its FTAs with EFTA, the EU, Türkiye, and the UK. FTAs between Korea and ASEAN. Korea and India. Korea and China. Korea and Vietnam, as well as RCEP the sequential allowance stipulate for direct verification after initially conducting written or indirect verification. Korea-Peru, Korea-Colombia, Korea-Australia. and Korea-Central America FTAs all have written, indirect, or visit verification in their agreements regardless of the order in which they are applied.

Korea's FTA rules for origin verification can be categorized into four types, as shown in Table 12 (Verification Methods of POs or COs in Korea) below: (a) written or visit verification by the importing Party, (b) indirect verification by the exporting Party, (c) visit verification after written and indirect verification, and (d) written, indirect, or visit verification.

< Table 12. Verification Methods of POs or COs in Korea >

Written or visit verification by importing Party	Indirect verification by the exporting Party	Visit verification after written and indirect verification	Written, indirect, or visit verification
Korea-Chile Korea-Singapore			
Korea-Canada Korea - New Zealand Korea - US (Indirect verification for Textile or Apparel Goods)	Korea-EFTA Korea-EU Korea-Türkiye Korea-UK	Korea-ASEAN Korea-India Korea-China Korea-Vietnam RCEP	Korea-Peru, Korea-Colombia, Korea-Australia, Korea-Central America

(Written by the author after reviewing the texts of origin procedures in Korean FTAs)

6. Record Keeping Requirements

Record keeping requirements are regulations that mandate exporters, producers, and importers to retain POs or COs, as well as origin-related documents, for a specified period. This is intended to ensure that relevant documents are available for origin verification and to prevent any misuse of FTA benefits. Korea's 18 FTAs stipulate the record keeping period for exporters, producers, and importers, either by

specifying a certain period or in accordance with domestic legislation.

For the Korea-US. Korea-India. and Korea-Peru FTAs. all three parties, including exporters, producers, and importers, are required to keep these documents for a minimum of 5 years. The Korea-Australia FTA stipulates that exporters. producers, and importers shall retain these documents for a period of 5 years. Korea-EFTA, Korea-Türkiye, Korea-EU, Korea-UK. Korea-Vietnam. and Korea-Central America FTAs stipulate that exporters or producers shall retain records for a period of 5 years. Importers, on the other hand, are required to retain records for the duration specified by domestic laws and regulations. Specifically. the Korea-Vietnam FTA mandates that exporters and producers keep records for a minimum of 5 years in accordance with domestic laws and regulations.

The Korea-Chile, Korea-Singapore, Korea-Colombia, Korea-Canada, and Korea-New Zealand FTAs stipulate that exporters, producers, and importers shall maintain records for a period of five years or for a duration specified by domestic laws and regulations.

Korea-ASEAN and Korea-China FTAs stipulate that exporters or manufacturers shall retain relevant documents for a period of three years, while importers are required to comply with domestic laws and regulations. Specifically, the Korea-ASEAN FTA mandates that exporters or

manufacturers keep records for a minimum of three years in accordance with domestic laws and regulations. RCEP specifies that exporters, producers, and importers shall retain relevant documentation for a minimum period of three years or longer in accordance with domestic laws and regulations.

The record-keeping periods for Korea's FTAs can be categorized into five types based on the retention period and applicability to domestic laws and regulations, as shown in Table 13 (Record Keeping Requirements in Korea) below. Although not currently adopted in Korea's existing FTAs, one may also consider a regulation requiring all involved parties, including exporters, producers, and importers, to retain documentation for more than three years.

< Table 13. Record Keeping Requirements(Period) in Korea >

Exporters or producers (more than 3 years), importers (domestic laws)	More than 3 years or the period in accordance with domestic laws	Exporters, producers, or Importers (More than 5 years)	Exporters or producers (more than 5 years), importers (domestic laws)	More than 5 years or the period in accordance with domestic laws
Korea-China	Korea-ASEA N RCEP	Korea-US Korea-India Korea-Peru Korea-Austral	Korea-EFTA Korea-Türkiye Korea-EU Korea-UK Korea-Vietnam	Korea-Chile Korea-Singap ore Korea-Colom bia

			Korea-Central America	Korea-Canada Korea-New Zealand
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(Written by the author after reviewing the texts of origin procedures in Korean FTAs)

Chapter V. Survey and Analysis

1. Focus Group Interview and Survey

1) Focus Group Interview

To discuss the method of deriving the restrictiveness index of the rules of origin procedures in FTAs, a focus group was formed with 6 experts in the field of FTAs and customs administration. Interviews were conducted with these six experts, as outlined in Table 14 (Focus Group Expert's Profile). The experts possess over 20 years of experience in customs administration and FTA negotiations, as well as implementation tasks, working in the Ministry of Economy and Finance (MOEF), the Korea Customs Service (KCS), and the Tax Tribunal.

< Table 14. Focus Group Expert's Profile >

Name	Job	Working period (year)
Do o	Ministry of Economy and Finance	23
Tae O O	Ministry of Economy and Finance	23
Sang O O	Ministry of Economy and Finance	23
Sung O O	Ministry of Economy and Finance	22
Hae O	Tax Tribunal	22
Jong O	Korea Customs Service	26

Through interviews, experts in focus groups reviewed the accuracy of each content within the six key regulations of Korean FTA origin procedures in Part IV (Comparative Study of Each Indicator). Additionally, they evaluated the methodology used to derive the restrictiveness index for these regulations.

Since the restrictiveness of the rules of origin procedures in this study is defined as the time and cost required by exporters, producers, importers, and authorities to comply with these regulations, the experts pointed out that it is practically impossible to verify the actual costs and time required for each origin procedure. Therefore, it was suggested that conducting a survey among experts with extensive experience in FTA tasks to assess the perceived restrictiveness level of each regulation would be the most desirable approach.

To assess the degree of restrictiveness in the regulations of origin procedures, it was unanimously agreed that a pool of experts with sufficient experience in FTA tasks is crucial as a survey target. Each expert recommended several colleagues as survey targets. Furthermore, there were also opinions suggesting that it would be advisable to include an equal number of experts from both the public and private sectors to objectively measure the degree of restrictiveness of origin procedures. This would also ensure that the total

number of survey targets exceeds 30.

Regarding the survey content, experts suggest that although it is not currently specified in the Korea FTA, it is necessary to assess the level of restrictiveness by incorporating content that may be included in future FTAs into the survey questionnaire. Therefore, it is essential to include \$1,500 USD, which is stipulated in the US FTA as the amount for waivers of a PO or CO, in the questionnaire. Furthermore, while record-keeping for more than three years by all importers is not currently exporters, producers, and stipulated in Korea's FTA, it may be included in future FTAs. Consequently. this record-keeping period for exporters, producers, and importers was included in the questionnaire to measure the degree of restrictiveness.

There was also a suggestion that, in order to grasp the qualitative aspect of origin procedures, it would be meaningful to understand the desirable rules of origin procedures according to experts and the reasons behind them. To identify the weight of the rules of origin procedures through pairwise comparisons of each indicator, it was proposed to include a pairwise comparison example in the questionnaire. This would enable the survey subjects to accurately comprehend the pairwise comparison method and its significance.

2) Survey Sample

In order to create and compare the restrictiveness index of the FTA origin procedures, a sample of 30 well-versed in FTA origin procedure-related tasks was selected based on their experience in export-import customs clearance and FTA operations. In the public sector, a survey was conducted with 15 government employees responsible for FTA origin negotiations or implementation tasks in the MOEF, KCS, and the Tax Tribunal. In the private sector, a sample of 15 individuals with experience in export-import FTA affairs, including customs customs clearance and brokers, staff of export-import companies, and chambers of chosen. The commerce. was sample consists individuals from the public sector and 15 individuals from the private sector, as shown in Table 15 (Survey Sample) below. The survey was conducted with this sample from October 11, 2023, to October 20, 2023, over a period of 10 days.

< Table 15. Survey Sample >

	Experts	Remark
	Ministry of Economy and	Responsible for FTA-related
Public	Finance 6, Korea Customs	negotiations, implementation,
	Service 7, Tax Tribunal 2	and adjudication
	Customs broker 11,	
Private	export-import company staff 3,	Responsible for international
Private	and Chamber of Commerce	trade and FTA
	staff 1	

3) Survey Questions and Methods

Osgood's semantic differential scale (1952), used as measurement. is employed to assess restrictiveness of origin procedures through 7 scales ranging from 1 (least restrictive) to 7 (most restrictive). For instance, the issuance methods of a PO or CO can be categorized as follows: a) issuance by authorized bodies, b) issuance by an authorized exporter, c) issuance by an exporter, d) issuance by an exporter or producer, and e) issuance by an exporter, producer, or importer, as detailed in Table 8 (Methods of Issuance of a PO or CO in Korean FTAs). Experts assessed the level of restrictiveness for each issuance method. representing the time and cost required by all stakeholders. including authorities, producers, exporters, importers, etc., on a scale from 1 (least restrictive) to 7 (most restrictive). Using the same method, experts measured the perceived level of restrictiveness for the contents of the other five rules of origin procedures.

Furthermore, this survey investigated experts' opinions on the desirability of regulating the six origin procedures for analyzing qualitative aspects and the reasons behind such regulation. The survey involved a relative comparison of the importance of the six core regulations within the FTA origin procedures. The AHP, developed by Saaty (1980), was employed for this purpose in the third part of the survey.

Experts were requested to provide 15 paired comparisons for each of the six core regulations, assigning a relative importance rating on a scale from 1 (equal importance) to 9 (absolute importance).

2. Survey Results and Data Analysis

1) Sample

The sample of experts who participated in the survey consisted of a total of 30 individuals. In the public sector, 15 government employees took part in the survey, including 6 from the MOEF, 7 from the KCS, and 2 from the Tax Tribunal. In the private sector, 15 individuals participated. 12 customs brokers. 3 comprising employees export-import companies, and 1 employee of a chamber of commerce. Among the 15 individuals from the public sector, majority have worked in the fields of customs administration, export-import, and FTA for over 20 years but less than 30 years, with 12 individuals falling into this category. There were 2 individuals with work experience of over 10 years but less than 20 years, and 1 individual with over 30 years of experience. In the private sector, 7 individuals have work experience in relevant fields for over 20 years but less than 30 years, 5 individuals have over 30 years of experience, 1 individual has over 10 years but less than 20 years of experience, and 2 individuals have less than 10 years of experience (Figure 3: Working Period of the Sample).

Public Sector

Private Sector

Private Sector

Private Sector

Public Sector more than 30 yeara

20 ~ 30 years

10 ~ 20 years

Public Sector more than 30 yeara

20 ~ 30 years

10 ~ 20 years

< Figure 3. Working Period of Sample >

2) Scaling of Restrictiveness for Each Indicator

Through this survey, experts measured the restrictiveness levels of the six prescribed origin procedures. The assessment considered factors such as time and cost, involving all stakeholders, including authorities, producers, exporters, and importers. Each expert rated the

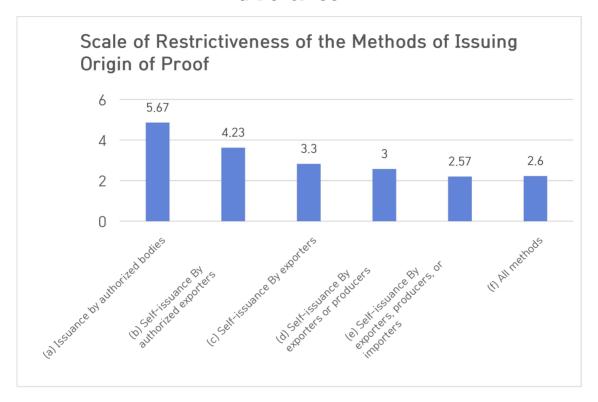
restrictiveness level on a scale from 1 (least restrictive) to 7 (most restrictive). The arithmetic average of these ratings determined the restrictiveness level for each method.

Regarding the measurement of restrictiveness levels for the issuance of a PO or CO, the results are as follows in Figure 4 (Scale of Restrictiveness for the Methods of Issuing a PO or CO):

- (a) Issuance by authorized bodies is the most restrictive, with a score of 5.67.
 - (b) Self-issuance by authorized exporters is at 4.23.
- (c) Self-issuance by the exporter is at 3.3.
- (d) Self-issuance by the exporter or producer is measured at 3.
- (e) Self-issuance by the exporter, producer, or importer is the least restrictive at 2.57.
- (f) All issuance methods being equally possible are measured at 2.6, falling between (d) self-issuance by the exporter or producer and (e) self-issuance by the exporter, producer, or importer.

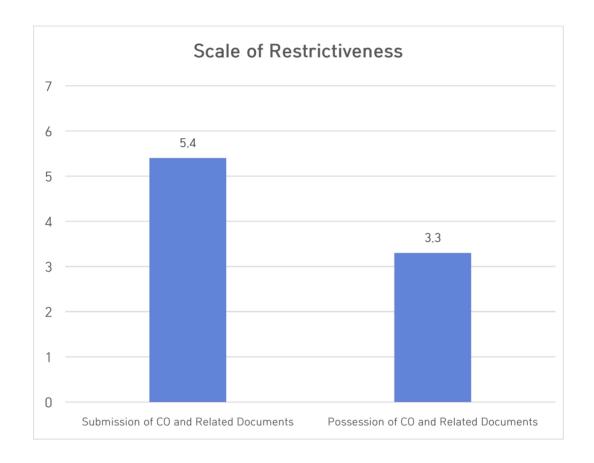
This result indicates that implementing (a) issuance by authorized bodies can incur the highest time and cost, while (e) self-issuance by the exporter, producer, or importer can result in the least time and cost to be implemented.

< Figure 4. Scale of Restrictiveness for the Methods of Issuing a PO or CO >



The level of restrictiveness regarding the submission or possession of a PO or CO and supporting documents when applying for preferential tariff treatment has been determined using the same arithmetic average, as evaluated by experts. As shown in Figure 5 (Scale of Restrictiveness of Requirements for Claims for Preferential Tariff Treatment), the restrictiveness of the submission of a PO or CO, and supporting documents, was measured at 5.4. When applying for preferential tariffs, it was found that the possession of a PO or CO and supporting documents has a restrictiveness level of 3.3. This means that it takes less time and cost to possess them than to submit a PO or CO and supporting documents.

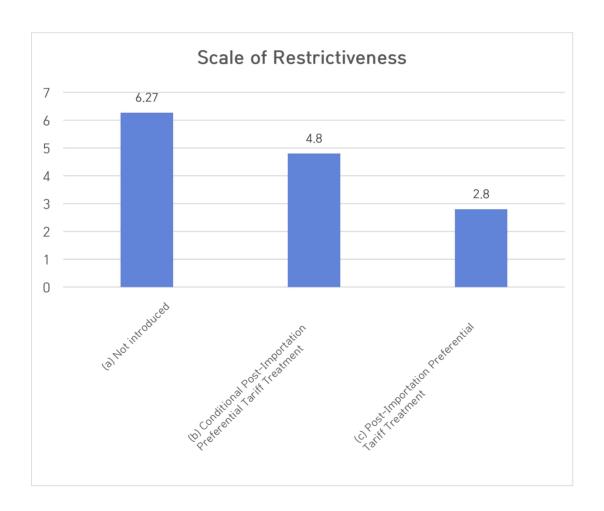
< Figure 5. Scale of Restrictiveness of Requirements for Claims for Preferential Tariff Treatment >



The system of post-importation preferential tariffs treatment can be categorized into three types: (a) non-introduction, (b) conditional introduction (requiring declaration of intention at import clearance), and (c) unconditional introduction. Figure 6 (Scale of Restrictiveness of Post-Importation Preferential Tariff Treatment) illustrates the restrictiveness measured by experts. The non-introduction of the system (a) ranks highest at 6.27, while the conditional introduction (b) is measured at 4.8. The introduction of the system without

conditions (c) is found to be the least restrictive at 2.8. Consequently, the introduction of the system without conditions (c) is observed to be the most time and cost-effective option.

< Figure 6. Scale of Restrictiveness of Post-Importation Preferential Tariff Treatment >

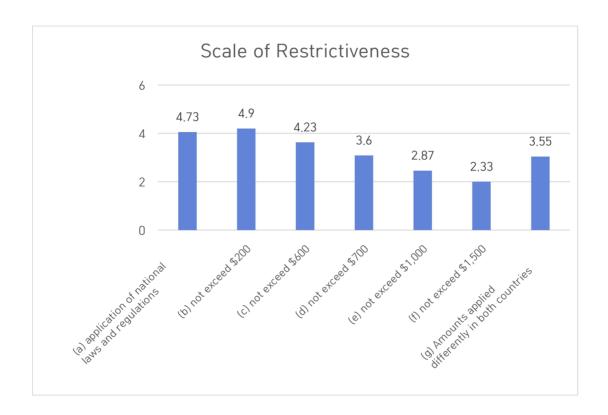


The criteria for the exemption of a PO or CO can be classified as follows: (a) application of national laws and regulations, (b) not exceeding USD 200, (c) not exceeding USD 600, (d) not exceeding USD 700, (e) not exceeding USD

1,000, (f) not exceeding USD 1,500, and (g) amounts applied differently in both countries. In the case of (g), where amounts are applied differently in both countries, the survey assumes that Korea has a limit of not exceeding USD 1,000, while the partner country has a limit in its own currency.

Examining the restrictiveness of the threshold amounts for the waiver of a PO or CO, experts measured that the degree of restrictiveness for (b) not exceeding USD 200 is the highest at 4.9, as shown in Figure 7 (Scale of Restrictiveness the Amount for Waiver of PO or CO). а restrictiveness for (c) not exceeding USD 600 is 4.23, and for (a) the application of national laws and regulations, it is 4.73, indicating a level between (b) not exceeding USD 200 and (c) not exceeding USD 600. The restrictiveness for (d) not exceeding USD 700 is 3.6, for (e) not exceeding USD 1,000, it is 2.87, and for (f) not exceeding USD 1,500, it is 2.33. the lowest measured restrictiveness. The restrictiveness for (g) amounts applied differently in both countries is 3.55, similar to the one for (d) not exceeding USD 700. This indicates that even if Korea's threshold amount for the exemption of a PO or CO is (d) not exceeding USD 1,000, if the partner country sets a different threshold in its currency, the restrictiveness level increases similarly to (d) not exceeding USD 700.

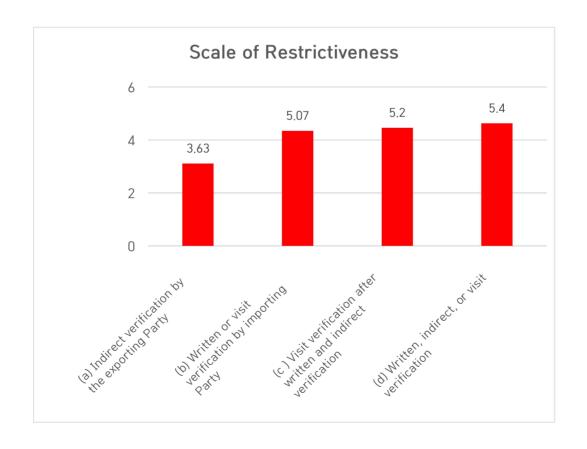
< Figure 7. Scale of Restrictiveness of the Amount for Waiver of a PO or CO >



The method of origin verification stipulated in Korea's FTAs can be categorized as per Table 12 (Verification Methods of POs or COs in Korea). These methods include (a) indirect verification by the exporting party, (b) written or visit verification by the importing party, (c) visit verification after written and indirect verification, and (d) written, indirect, or visit verification.

The restrictiveness of each verification method, as assessed by experts, is measured and confirmed in Figure 8 (Scale of Restrictiveness of Each Verification Method). Notably, (a) indirect verification by the exporting party exhibits the lowest restrictiveness at 3.63. The restrictiveness of (b) written or visit verification by the importing party is measured at 5.07, (c) visit verification after written and indirect verification at 5.2, and (d) written, indirect, or visit verification has the highest restrictiveness at 5.4. visit verification indicates that shows the highest restrictiveness. In cases where written, indirect, and visit verifications all possible. the restrictiveness are observed to be the highest, suggesting that the verification process for exporters, producers, importers, institutions, and other stakeholders is the most time-consuming and costly.

< Figure 8. Scale of Restrictiveness of Each Verification</p>
Method >

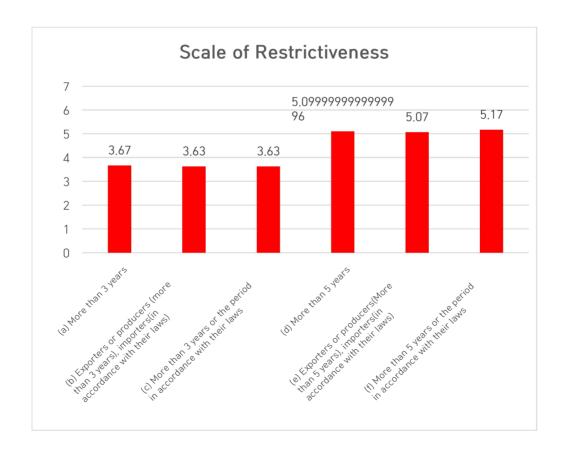


The record-keeping period for origin documentation should be maintained for a specified duration by exporters, producers, and importers. This duration may either exceed a specified period in accordance with rules in FTAs or domestic regulations. Therefore, the regulations regarding the record-keeping period for origin documentation can be categorized into six groups based on the applicable record-keeping periods for exporters, producers, importers, and the application of domestic laws.

The first category involves (a) all exporters, producers, and importers preserving Purchase Orders (POs) or Certificates of Origin (COs) supporting documents for over 3 years. The second category requires (b) exporters and producers to keep the documents for over 3 years, while importers follow the duration specified by domestic laws. The third category entails (c) all exporters, producers, and importers preserving documents for over 3 years or in accordance with their domestic laws. The fourth category involves (d) all exporters, producers, and importers retaining origin documentation for over 5 years. The fifth category requires (e) exporters and producers to maintain documents for over 5 years, while importers follow the duration specified by domestic laws. Finally, the sixth category entails (f) all exporters, producers, and importers preserving documents for over 5 years or in accordance with their domestic laws.

According to Figure 9 (Scale of Restrictiveness of Record-Keeping Requirements), the restrictiveness of each document-keeping category, as assessed by experts, shows similarities with scores of 3.67, 3.63, and 3.63 for categories (a), (b), and (c), respectively. Additionally, the restrictiveness of the other methods, as assessed by experts, is similar with scores of 5.1, 5.07, and 5.17 for categories (d), (e), and (f), respectively. Through this survey, restrictiveness increases when the document retention period is extended from 3 to 5 years, resulting in higher time and cost implications for implementing the procedures.

< Figure 9. Scale of Restrictiveness of Record Keeping Requirements >



3) AHP Analysis and Validation

This study employed the AHP, developed by Saaty (1980), to validate the weights of the six main rules of origin procedures. During the survey, experts evaluated the pairwise comparisons of the six indicators. Given the six indicators in this research, 15 comparisons were conducted using the nine-point scale outlined in Table 3 (Summary of Saaty's 9-points). Subsequently, the relative importance values measured by experts were geometrically averaged to create Table 16 (Pair-wise Comparison Matrix).

Table 16 (Pair-wise Comparison Matrix) illustrates the relative importance of the six origin procedure regulations. For instance, the methods of issuing a PO or CO are found to be 2.05 times more important than the Requirements for Claims for Preferential Tariff Treatment. Additionally, they are deemed 3.39 times more important than the Amount for Waiver of a PO or CO and 2.85 times more important than Record Keeping Requirements (Period).

< Table 16. Pair-wise Comparison Matrix >

	Methods of issuing a PO or CO	Requiremen ts for Claims for Preferential Tariff Treatment	Post-Import ation Preferential Tariff Treatment	Amount for Waiver of a PO or CO	Verification Methods of Origin	Record Keeping Requiremen ts(Period)
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Methods of						
issuing a PO	1.00	2.05	1.51	3.39	1.46	2.85
or CO						
Requirements						
for Claims						
for	0.49	1.00	1.02	2.70	1.08	2.02
Preferential	0.49	1.00	1.02	2.70	1.08	2.02
Tariff						
Treatment						
Post-Importat						
ion						
Preferential	0.66	0.98	1.00	4.01	1.27	2.39
Tariff						
Treatment						
Amount for						
Waiver of a	0.30	0.37	0.25	1.00	0.48	1.09
PO or CO						
Verification						
Methods of	0.69	0.93	0.79	2.07	1.00	3.00
Origin						
Record-Keepi						
ng	0.35	0.50	0.42	0.91	0.33	1.00
Requirements				4.5		
(Period)						
Sum	3.48	5.83	4.98	14.08	5.62	12.35

A normalized pair-wise matrix is calculated after dividing all the values of the columns in Table 16 (Pair-wise Comparison Matrix) by the sum of the columns in the same Table 16. Subsequently, the weights are calculated as the arithmetic means of all the elements in the rows of Table 17 (Normalized Pair-wise Matrix). Table 17 illustrates the weights that each origin procedure regulation holds in the overall set of origin procedure regulations. For instance, the weight of the methods of issuing a PO or CO is revealed to be 0.28, the highest among them. Following that, the weight of post-importation preferential tariff treatment is 0.21. The

weights for the requirements for claims for preferential tariff treatment and the verification methods of POs or COs are both 0.18. The weight for record-keeping requirements (period) is 0.08, and the weight for the amount for the waiver of a PO or CO is the lowest at 0.07.

< Table 17. Normalized Pair-wise Comparison Matrix >

	Method s of issuing a PO or CO	Claims for Preferen tial Tariff Treatme nt	Post-Im portatio n Preferen tial Tariff Treatme nt	Amount for Waiver of a PO or CO	Verifica tion Method s	Record Keeping	Criteria Weights (mean)
Methods of issuing a PO or CO	0.29	0.35	0.30	0.24	0.26	0.23	0.28
Claims for Preferential Tariff Treatment	0.14	0.17	0.20	0.19	0.19	0.16	0.18
Post-Importat ion Preferential Tariff Treatment	0.19	0.17	0.20	0.28	0.23	0.19	0.21
Amount for Waiver of a PO or CO	0.08	0.06	0.05	0.07	0.09	0.09	0.07
Verification Methods	0.20	0.16	0.16	0.15	0.18	0.24	0.18
Record Keeping	0.10	0.08	0.08	0.06	0.06	0.08	0.08
Sum	1	1	1	1	1	1	1

To verify the consistency of the weights, several steps are followed according to Vargas (1982) and Cho et al. (2003). First, the values in a column of Table 16 (Pair-wise Comparison Matrix) are multiplied by the corresponding criterion weight, resulting in weighted values. The weighted sum value for each indicator is then calculated by summing the weighted values in that row. Second, the weighted sum values are divided by their respective weights, and the arithmetic mean of these calculated values is denoted as λ -max. In this research, the calculated λ -max is 6.08, as shown in Table 18 (Weighted Sum Values and λ -max).

< Table 18. Weighted Sum Values and >

	Weighted Sum Value (a)	Criteria Weights (b)	a/b
Methods of issuing a PO or CO	1.70	0.28	6.09
Claims for Preferential Tariff Treatment	1.08	0.18	6.10
Post-Importation Preferential Tariff Treatment	1.28	0.21	6.10
Amount for Waiver of a PO or CO	0.45	0.07	6.06
Verification Methods	1.09	0.18	6.06
Record Keeping	0.48	0.08	6.07
		$\lambda_{ m max}$	6.08

Consistency Index (CI) and Consistency Ratio (CR) are calculated as follows (Vargas 1982: Cho et al. 2003).

$$CI = (\lambda \max -n)/(n-1)\lambda \max -n)/(n-1)$$

$$CR = (CI/RI) \times 100\%$$
 *RI: Random Index

In this study, with six indicators, the CI is calculated as 0.016, as shown in the following calculation, and the RI is 1.24 from Table 4 (Random Index).

$$CI = (6.08-6)/(6-1) = 0.016$$

As a result, the CR is determined to be 1.3%, calculated as follows. Since the CR is less than 10%, the data is considered logically consistent (Vargas 1982: Cho et al. 2003).

$$CR = (0.016/1.24) \times 100\% = 1.3\%$$

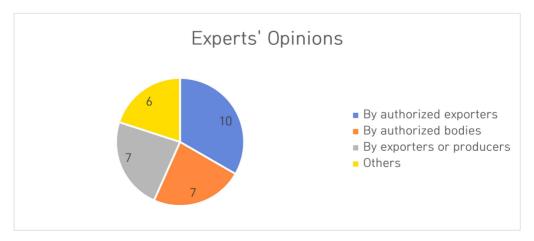
4) Experts' Opinions

The survey includes questions on desirable regulations for the six origin procedures, aiming to complement the qualitative aspects of this study.

Regarding the methods of issuing a PO or CO, the preferred regulation, according to the experts, is self-issuance by authorized exporters, as indicated in Figure 10 (Experts' Opinions on the Methods for Issuing a PO or CO). Following this, self-issuance by exporters or producers, and issuance by authorized bodies are the next preferred options. Ten experts chose self-issuance by authorized

exporters, stating that companies authorized by customs offices pose lower risks of origin errors and enable autonomous issuance, thereby ensuring the reliability of issuing POs or COs and guaranteeing the efficiency of origin-related tasks. Seven experts each chose self-issuance by exporters or producers and issuance by authorized bodies. Experts who favor self-issuance by exporters or producers stated that it allows companies to autonomously issue POs or COs, promoting the utilization of FTA. Additionally, some experts mentioned that Korea well-established risk management systems and high levels of regulatory compliance among companies, making it feasible to grant autonomy to businesses. The preference for issuance by authorized bodies is attributed to the ability to secure the trustworthiness of COs and reduce the risk of retroactive penalties associated with origin verification. Some additional opinions suggested a combination of issuance by authorized bodies and self-issuance by authorized exporters or the adoption of all three aforementioned methods.

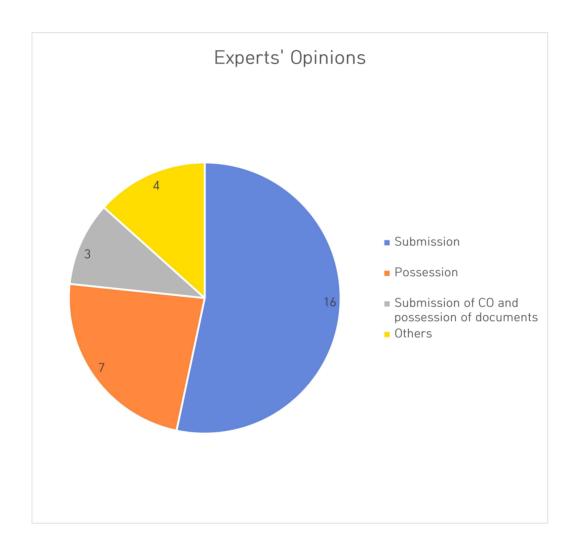
< Figure 10. Expert's Opinions on the Methods for Issuing of a PO or CO >



As for the requirements for claims for preferential tariff treatment, experts' opinions on the submission or possession of a PO or CO and supporting documents to a customs authority are presented in Figure 11 (Expert's Opinions on Submission or Possession of a PO or CO and Related Documents). Sixteen experts stated that it is advisable for importers to possess a PO or CO along with supporting documents. The rationale behind this recommendation is that documents having these can prevent unnecessary administrative burdens and delays in customs procedures, thereby contributing to the smooth facilitation of trade. Additionally, if necessary, a customs authority can request the submission of a PO or CO and related documents, enabling thorough verification of the origin.

On the other hand, seven experts prefer submitting a PO or CO along with supporting documents to a customs authority. The rationale behind this preference is that if the importer possesses the documents without submitting them, it may lead to difficulties in origin verification and administrative uncertainties. Additionally, there is a concern that this practice could be exploited to falsely apply for preferential tariff treatment. Three experts suggested a compromise, recommending that a PO or CO be submitted to a customs authority when applying for preferential tariffs, while allowing supporting documents to be retained by the importer. Other opinions include the suggestion that implementing differential management based on a company's level of risk management is desirable.

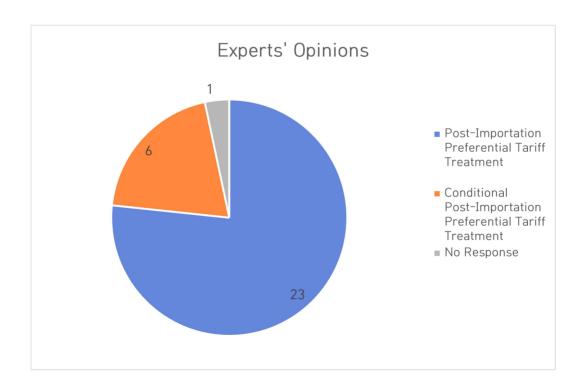
< Figure 11. Expert's Opinions on Submission or Possession of a PO or CO and Related Documents >



The opinions of experts on post-importation preferential tariff treatment are shown in Figure 12 (Experts' Opinions on Post-Importation Preferential Tariff Treatment). All experts, except for one non-responsive individual, stated that the post-importation preferential tariff treatment system should

be introduced. Among them, 23 experts believed that a system without the condition, where the intention to apply for preferential tariffs at the time of import clearance is declared, should be implemented. The reason for this is that if imported goods are products of the country of origin, the system facilitates the utilization of FTAs while supporting the rights of importers. On the other hand, 6 experts expressed it is desirable to allow the application post-importation preferential tariff treatment only if the intention to apply for preferential tariffs at the time of import clearance is declared. Experts stated that this system can prevent indiscriminate post-importation preferential tariff applications and enhance legal stability.

< Figure 12. Experts' Opinions on Post-Importation Preferential Tariff Treatment >



The opinions of experts on the amount for the waiver of a PO or CO were diverse, as confirmed by Figure 13 (Experts' Opinions on the Amount for Waiver of a PO or CO). Eight experts suggested that determining the amount based on the economic and administrative levels of the counterpart country in an FTA is desirable. They recommended a mutually beneficial approach of specifying the same waiver amount for a PO or CO, considering the specific situations of each country. The rationale behind this recommendation is the variation in economic and administrative capabilities among nations, emphasizing the need to set the amount based on the situation of the counterpart country while mutually applying the same amount for mutual benefit. Additionally, six experts proposed setting the threshold amount for exempting a PO or CO at \$1,000 USD. They argued that, given the prevalent practice in most FTAs in Korea, where \$1,000 USD is the standard for the exemption of a PO or CO, aligning with this \$1,000 USD would reduce unnecessary procedures across various FTAs.

Four experts suggested determining a PO or CO waiver threshold based on domestic regulations, referencing regulations such as customs exemptions for small-valued goods in their respective countries. Another four experts recommended a uniform standard across all FTAs, but they did not specify an amount. Other opinions included advocating for setting a high amount to alleviate the burden on importers, proposing different threshold amounts from

those of counterpart countries, and suggesting an exemption amount not exceeding \$800 USD.

< Figure 13. Experts' Opinions on the Amount for Waiver of a PO or CO >



opinions of experts on verification methods are presented in Figure 14 (Experts' Opinions on Verification Methods). The majority, consisting of 11 experts, preferred indirect verification by the exporting Party. The reason for the indirect verification is that it allows for the verification of origin based on trust in the administrative authority of the exporting country, while preventing the consumption of time and administrative resources associated with visit verification. Following this. eight experts chose visit verification after written and indirect verification. They noted that this approach allows for systematic and efficient verification as it is conducted sequentially. Next, seven

experts recommended written or visit verification by the importing Party, and two experts recommended written, indirect, or visit verification. These experts highlighted the importance of the importing country's customs authorities flexibly choosing the necessary verification method and emphasized the need for accurate verification through visit verification.

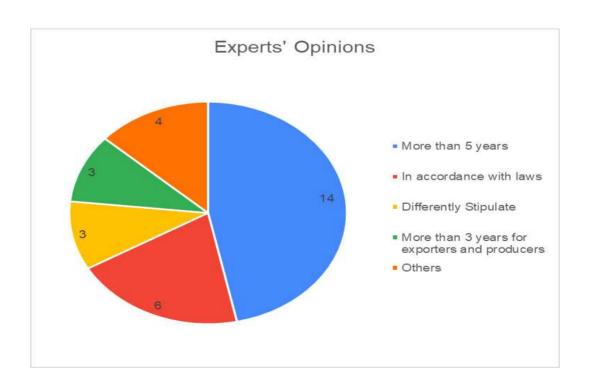
In other opinions, it was suggested that for issuance by authorized bodies and self-issuance by authorized exporters, indirect verification should be adopted. However, for self-issuance by exporters and producers, verification should extend to on-site visits. This implies that verification methods should be regulated differently based on the methods of issuing a PO or CO.

< Figure 14. Experts' Opinions on Verification Methods >



The opinions of experts on the retention period of POs or COs and related supporting documents are presented in Figure 15 (Experts' Opinions on Record Keeping Period). Fourteen experts suggested that exporters, producers, and importers should retain these documents for at least 5 years. The reason for this recommendation is that a 5-year period aligns with Korea's laws and regulations and is deemed sufficient for accurate post-verification. Six experts emphasized that the retention period should be determined according to the statutory periods in each country. Three experts suggested establishing mutually beneficial retention periods with trading partners, while another three experts proposed a minimum retention period of 3 years for exporters and producers.

< Figure 15. Experts' Opinions on Record Keeping Period >



3. Constructing and Comparing the Index

1) Creating the index of Korea's FTA

Starting with the entry into force of the FTA with Chile on April 1, 2004, as of September 2023, Korea has 21 FTAs that were entered into force. This research focuses on the rules of origin procedures in 18 FTAs that have entered into force in Korea as of February 2022. In Chapter IV (Comparative Study of Each Indicator), the primary six origin procedures of the 18 Korean FTAs were analyzed and categorized. Each FTA in Korea has its six main rules of origin procedures. Following this analysis, Table 19 (Contents of Six Main Rules of Origin Procedures in Korea) was created.

Table 19 shows which FTA has what content of rules of origin procedures. For example, the Korea-Chile FTA allows for self-issuance of a Certificate of Origin (CO) by exporters. Importers in the Korea-Chile FTA can possess COs and related documents, allowing them to claim post-importation preferential tariff treatment without a precondition, such as declaring their intent to apply the preferential tariff to the customs authority upon importation.

The threshold for waiving a CO in the Korea-Chile FTA is \$1,000 USD or less. The method of verification of origin in the Korea-Chile FTA includes written or visit verification by the importing party. Exporters, producers, and importers are

required to keep records of COs and relevant documents for more than 5 years or the period specified by domestic laws.

< Table 19. Contents of Six Main Rules of Origin Procedures in Korea >

FTA	Methods of issuing a PO or CO	Claims for Preferential Tariff Treatment	Post-Impo rtation Preferentia 1 Tariff Treatment	Amount for Waiver of a PO or CO	Verificatio n Methods	Record Keeping
Korea-Chi le	Self-issuan ce by Exporters	Possession of CO and Related Documents	Introduced	Less than USD 1,000	Written or visit verificatio n by importing Party	More than 5 years or the period in accordance with domestic laws
Korea-Sin gapore	Issuance by Authorized Bodies	Submission of CO and Related Documents	Condition ally Introduced	Less than USD 1,000	Written or visit verificatio n by importing Party	More than 5 years or the period in accordance with domestic laws
Korea-EF TA	Self-issuan ce by Exporters	Possession of CO and Related Documents	Condition ally Introduced	Different amount between the two Parties	Indirect verificatio n by the exporting Party	Exporters or producers (more than 5 years), importers (domestic laws)
Korea-AS EAN	Issuance by Authorized Bodies	Submission of CO and Related Documents	Not Introduced	Less than USD 200	Visit verificatio n after written and	More than 3 years or the period in accordance with

					indirect verificatio n Visit	domestic laws
Korea-Ind ia	Issuance by Authorized Bodies	Possession of CO and Related Documents	Introduced	National Laws	verificatio n after written and indirect verificatio n	Exporters, producers, or Importers (More than 5 years)
Korea-EU	Self-issuan ce by Authorized Exporters	Possession of CO and Related Documents	Introduced	Different amount between the two Parties	Indirect verificatio n by the exporting Party	Exporters or producers (more than 5 years), importers (domestic laws)
Korea-Per u	Self-issuan ce by Exporters or Producers	Possession of CO and Related Documents	Introduced	Less than USD 1,000	Written, indirect, or visit verificatio n	Exporters, producers, or Importers (More than 5 years)
Korea-US	Self-issuan ce by Exporters, Producers, or Importers	Possession of CO and Related Documents	Introduced	Less than USD 1,000	Written or visit verificatio n by importing Party	Exporters, producers, or Importers (More than 5 years)
Korea-Tür kiye	Self-issuan ce by Exporters	Possession of CO and Related Documents	Introduced	Different amount between the two Parties	Indirect verificatio n by the exporting Party	Exporters or producers (more than 5 years), importers (domestic laws)
Korea-Au stralia	Self-issuan ce by Exporters	Possession of CO and	Introduced	Different amount between	Written, indirect, or visit	Exporters, producers, or Importers

	or	Related		the two	verificatio	(More than
	Producers	Documents		Parties	n	5 years)
Korea-Ca nada	Self-issuan ce by Exporters or Producers	Possession of CO and Related Documents	Introduced	Less than USD 1,000	Written or visit verificatio n by importing Party	More than 5 years or the period in accordance with domestic laws
Korea-Chi na	Issuance by Authorized Bodies	Submission of CO and Related Documents	Condition ally Introduced	Less than USD 700	Visit verificatio n after written and indirect verificatio n	Exporters or producers (more than 3 years), importers (domestic laws)
Korea-Ne w Zealand	Self-issuan ce by Exporters or Producers	Possession of CO and Related Documents	Introduced	Less than USD 1,000	Written or visit verificatio n by importing Party	More than 5 years or the period in accordance with domestic laws
Korea-Vie tnam	Issuance by Authorized Bodies	Possession of CO and Related Documents	Introduced	Less than USD 600	Visit verificatio n after written and indirect verificatio n	Exporters or producers (more than 5 years), importers (domestic laws)
Korea-Col ombia	Self-issuan ce by Exporters or Producers	Possession of CO and Related Documents	Introduced	Less than USD 1,000	Written, indirect, or visit verificatio n	More than 5 years or the period in accordance with domestic laws

Korea-Ce n t r a l America		Possession of CO and Related Documents	Introduced	Less than USD 1,000	Written, indirect, or visit verification	Exporters or producers (more than 5 years), importers (domestic laws)
Korea-UK	Self-issuan ce by Authorized Exporters	Possession of CO and Related Documents	Introduced	Different amount between the two Parties	Indirect verificatio n by the exporting Party	Exporters or producers (more than 5 years), importers (domestic laws)
RCEP	All kinds of Issuance	Possession of CO and Related Documents	Introduced	Less than USD 200	Visit verificatio n after written and indirect verificatio n	More than 3 years or the period in accordance with domestic laws

(Written by the author after reviewing the texts of origin procedures in the Korean FTAs)

The content of the main rules of origin procedures for 18 FTAs in Korea was evaluated based on their degree of restrictiveness, as confirmed through a survey conducted by 30 experts. Table 20 (Restrictiveness Degree of the Main Rules of Origin Procedures in Korea) illustrates the restrictiveness of each rule on a scale from 1 (least restrictive) to 7 (most restrictive). For instance, the self-issuance of a PO or CO by exporters in the Korea-Chile FTA is assigned a value of 3.3 scale on restrictiveness and the amount \$ 1,000 USD or less

than \$ 1,000 USD for waiver of a CO in the Korea-Chile FTA is assigned a value of 2.87 on the restrictiveness scale.

< Table 20. Restrictiveness Degree of the main rules of origin procedures in Korea >

FTA	Methods of issuing a PO or CO	Claims for Preferenti al Tariff Treatment	Post-Impo rtation Preferenti al Tariff Treatment	Amount for Waiver of a PO or CO	Verificati on Methods	Record Keeping
Korea-Chile	3.3	3.3	2.8	2.87	5.07	5.17
Korea-Singa pore	5.67	5.4	4.8	2.87	5.07	5.17
Korea-EFTA	3.3	3.3	4.8	3.55	3.63	5.07
Korea-ASE AN	5.67	5.4	6.27	4.9	5.2	3.63
Korea-India	5.67	3.3	2.8	4.73	5.2	5.1
Korea-EU	4.23	3.3	2.8	3.55	3.63	5.07
Korea-Peru	3	3.3	2.8	2.87	5.4	5.1
Korea-US	2.57	3.3	2.8	2.87	5.07	5.1
Korea-Türki ye	3.3	3.3	2.8	3.55	3.63	5.07
Korea-Austr alia	3	3.3	2.8	3.55	5.4	5.1
Korea-Canad	3	3.3	2.8	2.87	5.07	5.17
Korea-China	5.67	5.4	4.8	3.6	5.2	3.63
Korea-New Zealand	3	3.3	2.8	2.87	5.07	5.17
Korea-Vietn am	5.67	3.3	2.8	4.23	5.2	5.07
Korea-Colo mbia	3	3.3	2.8	2.87	5.4	5.17

Korea-Centr al America	3	3.3	2.8	2.87	5.4	5.07
Korea-UK	4.23	3.3	2.8	3.55	3.63	5.07
RCEP	2.6	3.3	2.8	4.9	5.2	3.63

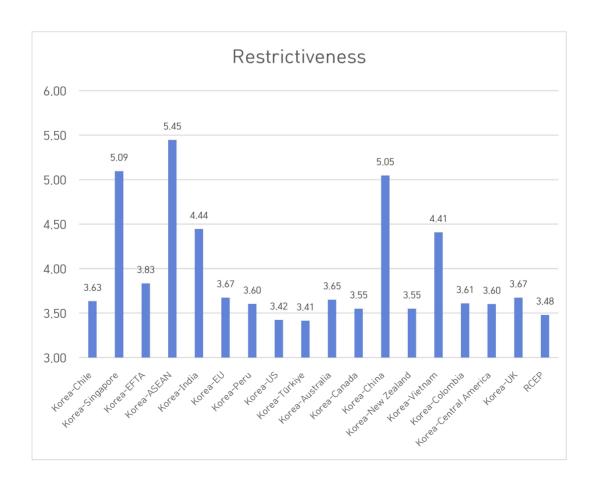
To calculate the restrictiveness index for each FTA, the values of the rule restrictiveness are multiplied by the corresponding weights in Table 21 (Criteria Weights of the main rules of origin procedures). These weights were confirmed through a survey conducted with 30 experts.

< Table 21. Criteria Weights of the main rules of origin procedures >

	Methods	Claims	Post-Imp	Amount		
	of	for	ortation	for	Verificati	D 1
	issuing a	Preferenti	Preferenti	Waiver	on	Record
	PO or	al Tariff	al Tariff	of a PO	Methods	Keeping
	СО	Treatment	Treatment	or CO		
Criteria Weights	0.28	0.18	0.21	0.07	0.18	0.08

Figure 16 (Restrictiveness Degree of Origin Procedures in Korea) illustrates the degree of restrictiveness for the origin procedures of 18 FTAs in Korea after calculation. Korea-ASEAN FTA shows the highest degree of restrictiveness at 5.45. Following closely the are FTA Korea-Singapore and Korea-China FTA. with restrictiveness degrees of 5.09 and 5.05, respectively. restrictiveness degrees for the Korea-India FTA and Korea-Vietnam FTA are 4.44 and 4.41, respectively. The restrictiveness indices for the remaining 13 FTAs in Korea are all below 4. Notably, the Korea-Turkiye FTA and Korea-US FTA exhibit the lowest restrictiveness degrees at 3.41 and 3.42, respectively. The average restrictiveness index for the origin procedures of the 18 Korean FTAs is 3.95. FTAs concluded with Asian countries tend to have higher restrictiveness indices compared to other FTAs, employing regulations such as issuance by authorized bodies, lower amounts for the waiver of a PO or CO, and visit verification.

< Figure 16. Restrictiveness Degree of Origin Procedures in Korea >



2) Analyzing the Restrictiveness Index of the U.S. FTAs

Among the countries that have signed FTAs with the U.S., the same nations or regions that signed FTAs with Korea are Israel, Chile, Singapore, Australia, Central America, Peru, Korea-US, Colombia, and Canada (USMCA), totaling 9 entities. Among them, an analysis of the origin procedures of the U.S. FTAs was conducted for the 8 entities that overlap with the 18 FTAs in Korea. The content of origin procedures for the 8 U.S. FTAs is specified in each FTA's chapter.

<Table 22. Chapters of Origin Procedures in the U.S. FTAs>

	FTA	Origin Procedures
1	United States - Chile	Chapter Four Rules of Origin and Origin Procedure
2	United States - Singapore	CHAPTER 3 : RULES OF ORIGIN
3	United States - Australia	CHAPTER FIVE RULES OF ORIGIN
4	Dominican Republic - Central America - United States Free Trade Agreement (CAFTA-DR)	Chapter Four Rules of Origin and Origin Procedures
5	United States - Peru	Chapter Four Rules of Origin and Origin Procedures
6	Korea, Republic of -	CHAPTER SIX RULES OF ORIGIN

	United States	AND ORIGIN PROCEDURES		
7	United States - Colombia	Chapter Four Rules of Origin and Origin Procedures		
8	United States-Mexico-Canada Agreement (USMCA)	CHAPTER 5 ORIGIN PROCEDURES		

(Source: WTO | Regional trade agreements)

Upon reviewing the provisions of the U.S.-Chile FTA. exporters, producers. and importers issue COautonomously. COs and related supporting documents are to be held by importers and submitted upon request by customs authorities. In cases where preferential tariffs were not applied during importation, there is a provision for post-importation preferential tariffs treatment. Exporters, producers, and importers are required to retain COs and related documents for a period of five years. As there are no specific exemption criteria amounts stipulated in the U.S.-Chile FTA for a CO, it appears to be in accordance with domestic legislation.

The rules of origin procedures in the U.S.-Singapore FTA and U.S.-Australia FTA share similar main content. Both agreements specify that an importer should apply for preferential tariff treatment based on the knowledge and information in the importer's possession, demonstrating that the goods qualify as originating. Additionally, if customs authorities request, the importer is obligated to submit

relevant origin evidence. The criteria for exemption from a CO are not explicitly outlined, indicating adherence to domestic laws. Furthermore, there is no regulation for the application of post-importation preferential tariff treatments. Importantly, the retention of origin-related documents is mandated, with importers required to keep them for up to 5 years. The verification methods for origin include both written and visit verification.

The content of the three FTAs-CAFTA-DR. US-Peru. and US-Colombia—includes similar provisions regarding rules of origin procedures. All three FTAs stipulate that exporters, producers, and importers are permitted to issue a CO. Furthermore, they specify that importers should possess the COs when applying for preferential tariff treatment and are submit them required to upon government Additionally, the three FTAs allow for the application of post-importation preferential tariff treatment and exempt a CO for goods valued at not exceeding \$1,500 USD. Concerning record-keeping requirements, exporters. producers, and importers are obligated to retain COs and documents for a minimum of 5 The years. verification methods for determining origin include both written and visit verification.

The USMCA and the Korea-US FTA have similar provisions regarding the rules of origin procedures. Exporters, producers, or importers can issue a CO. Additionally,

importers should possess the CO during customs clearance, and the FTAs stipulate that a copy of the CO should be submitted upon request by the customs authorities of the importing country. Both FTAs apply to imported goods valued at USD 1,000 or less in terms of exemption from a CO. The data retention period requires exporters, producers, and importers to keep COs and related supporting documents for over 5 years. Origin verification involves written verification and visit verification by the importing authorities.

As analyzed above, the origin procedures of the eight U.S. FTAs were examined. The content of each origin procedure regulation was classified by FTA and organized as presented in Table 23 (Origin Procedures of US FTAs). The origin procedure regulations the US-Singapore for and US-Australia are identical. Similarly, the FTAs origin regulations for CAFTA-DR. US-Peru. procedure and US-Colombia FTAs are the same, and the origin procedure regulations for the Korea-US and USMCA FTAs consistently specified.

< Table 23. Origin Procedures of US FTAs >

FTA	Methods of issuing CO	Claims for Preferentia 1 Tariff Treatment	Post-Impor tation Preferentia 1 Tariff Treatment	Amount for Waiver of CO	Verificatio n Methods	Record Keeping
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US – Chile	Self-issuanc e by Exporters, Producers, or Importers	Possession of CO and Related Documents	Introduced	None (in accordance with its laws and regulations) None (in	In accordance with its laws and regulations Written or visit	Exporters, producers, or Importers (More than 5 years)
US – Singapo re	Self-issuanc e by Importers	of CO and Related Documents	Not Introduced	accordance with its laws and regulations)	verification by importing Party	Importers (More than 5 years)
US – Australi a	Self-issuanc e by Importers	Possession of CO and Related Documents	Not Introduced	None (in accordance with its laws and regulations)	Written or visit verification by importing Party	Importers (More than 5 years)
CAFTA -DR	e by Exporters, Producers, or Importers	Possession of CO and Related Documents	Introduced	Not exceed USD 1,500	Written or visit verification by importing Party	Exporters, producers, or Importers (More than 5 years)
US – Peru	Self-issuanc e by Exporters, Producers, or Importers	Possession of CO and Related Documents	Introduced	Not exceed USD 1,500	Written or visit verification by importing Party	Exporters, producers, or Importers (More than 5 years)
Korea -US	Self-issuanc e by Exporters, Producers, or Importers	Possession of CO and Related Documents	Introduced	Not exceed USD 1,000	Written or visit verification by importing Party	Exporters, producers, or Importers (More than 5 years)
US – Colomb ia	e by Exporters, Producers, or Importers	Possession of CO and Related Documents	Introduced	Not exceed USD 1,500	Written or visit verification by importing Party	Exporters, producers, or Importers (More than 5 years)
USMC	Self-issuanc e by	Possession of CO and	Introduced	Not exceed USD 1,000	Written or visit	Exporters, producers,

	A	Exporters,			verification	or	ĺ
		Producers,	Related		by	Importers	İ
		or	Documents		importing	(More than	
		Importers			Party	5 years)	ĺ
	/TAT *	1 11	- 1	C 1	 .1		

(Written by the author after reviewing the texts of origin procedures in the U.S. FTAs)

The content of the main rules of origin procedures of eight FTAs in the U.S. are translated into their restrictiveness degrees confirmed through the survey by 30 experts. The US-Singapore and US-Australia FTAs specify that importers should apply for preferential tariffs based on the knowledge and information in the importer's possession, demonstrating that the goods qualify. Although there is no exact restrictive scale matched for this regulation, this study utilized a restrictiveness scale of 2.57. This choice was made because this regulation is similar to self-issuance by exporters, producers, and importers, given that importers can issue a Similarly, although there is no exact match to a restrictiveness scale for the requirement in the US-Singapore and US-Australia FTAs that importers retain data for at least 5 years, a restrictiveness scale of 5.1 has been applied. This reflects scale the record-keeping by exporters, producers, and importers for more than 5 years, aligning with the same period.

In the US-Chile FTA, the method of origin verification is specified to follow national laws. While there is no precise restrictiveness scale for this, considering the consistent adoption of written and visit verification in other US FTAs, a

restrictive scale of 5.07 for written and visit verification was used.

Table 24 (Restrictiveness Degree of the main rules of origin procedures in the U.S.) displays the restrictiveness scale of each rule, ranging from 1 (least restrictive) to 7 (most restrictive). Across the eight US FTAs, the issuance of a CO by exporters, producers, and importers has a restrictiveness scale of 2.57. Additionally, for preferential tariff treatment in the eight US FTAs, importers should possess origin-related documents, resulting in a consistent restrictiveness scale of 3.3. Verification methods are consistently written and involve visit verification, with a restrictiveness scale of 5.07. The 5 record-keeping period is set at vears. with restrictiveness scale of 5.1 across all eight US FTAs. However, the post-importation preferential tariff treatment varies depending on whether each FTA has introduced this system. If not introduced, the restrictiveness scale is 6.27, and if introduced, it is 2.8. The amount of waiver for a CO varies based on domestic regulations, with restrictiveness scales of 4.73, 2.87, and 2.33 for goods valued not exceeding \$1,000 USD, goods valued not exceeding \$1,500 USD, respectively.

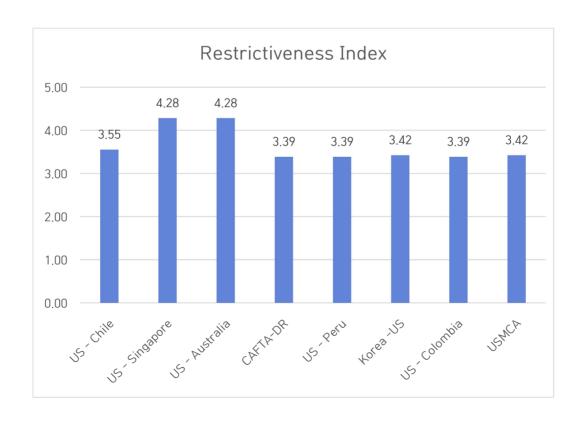
< Table 24. Restrictiveness Degree of the main rules of origin procedures in the U.S. >

FTA	Methods of issuing a PO or CO	Claims for Preferenti al Tariff Treatment	Post-Impo rtation Preferenti al Tariff Treatment	Amount for Waiver of a PO or CO	Verificatio n Methods	Record Keeping
US - Chile	2.57	3.3	2.8	4.73	5.07	5.1
US - Singapore	2.57	3.3	6.27	4.73	5.07	5.1
US - Australia	2.57	3.3	6.27	4.73	5.07	5.1
CAFTA-D R	2.57	3.3	2.8	2.33	5.07	5.1
US - Peru	2.57	3.3	2.8	2.33	5.07	5.1
Korea -US	2.57	3.3	2.8	2.87	5.07	5.1
US - Colombia	2.57	3.3	2.8	2.33	5.07	5.1
USMCA	2.57	3.3	2.8	2.87	5.07	5.1

To calculate the restrictiveness scale for each FTA in the U.S., the restrictiveness values in each content of the six origin procedures in the U.S. were multiplied by the corresponding weights specified in Table 21 (Criteria Weights of the main rules of origin procedures), as confirmed through the survey conducted by 30 experts. Consequently, Figure 17 (Restrictiveness Degree of Origin Procedures in the U.S.) illustrates the restrictiveness scale for the origin

procedures of eight FTAs in the U.S. The restrictiveness level of origin procedures for the U.S.-Singapore and U.S.-Australia FTAs is the highest at 4.28. This is attributed to the absence of a system for applying post-importation preferential tariff treatment and the regulation that the amount of exemption from a CO is determined according to domestic laws. Following is the U.S.-Chile FTA, with a restrictiveness level of 3.55. The restrictiveness levels for the Korea-U.S. and USMCA FTAs are the same at 3.42, while CAFTA-DR, U.S.-Peru, and U.S.-Colombia FTAs exhibit the restrictiveness levels 3.39. The lowest at average restrictiveness level for the origin procedures of the eight U.S. FTAs is 3.64.

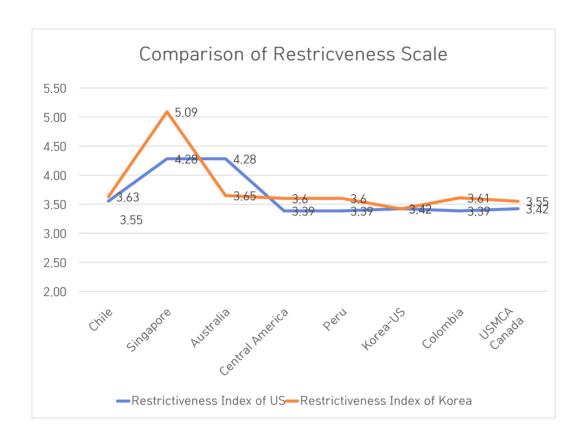
< Figure 17. Restrictiveness Degree of Origin Procedures in the U.S. >



3) Comparison of the Restrictiveness Index of Korea with the U.S.

This research analyzed a comparison between Korea and the U.S. concerning the restrictiveness of origin procedures based on FTAs involving eight common nations or regions the two countries. According to between Figure (Comparison of the Restrictiveness Index of Korea with the U.S.), the overall restrictiveness level of Korea appears to be higher than that of the U.S. The average restrictiveness index for the U.S. is 3.64, whereas for Korea, it is 3.77. This is attributed to the fact that the U.S. allows importers to issue COs, and the U.S. has a higher waiver amount for a CO, up to a maximum of \$1,500, compared to the \$1,000 USD limit in Korea. However, it is noted that in the case of Australia, the restrictiveness level of the Korea-Australia FTA is 3.65. which is lower than the level of US-Australia FTA, which is 4.28. This difference is explained by the absence of a post-importation preferential tariff treatment system and the exemption amount for a CO observed in accordance with domestic regulations in the US-Australia FTA. On the other hand, the Korea-Australia FTA has introduced a post-importation preferential tariff treatment system and specified the exemption amount for a CO as \$1,000 in Korean currency and AUD 1,000, making the restrictiveness level lower for Korea.

< Figure 18. Comparison of the Restrictiveness Index of Korea with the U.S. >



Chapter VI. Conclusion and Policy Implication

1. Conclusion

This study created the restrictiveness index for rules of origin procedures, measuring the time and cost incurred by exporters, producers, importers, institutions, and other stakeholders to comply with FTA rules of origin procedures. Additionally, the study used this index to objectively compare and analyze the contents of rules of origin procedures, deriving the restrictiveness levels for 18 FTAs in Korea and 8 FTAs in the U.S.

This research selected six core regulations commonly stipulated in the origin procedures of Korea's FTAs as the subjects of analysis. Targeting the 18 FTAs in effect in Korea as of February 2022, the study categorized and compared commonalities and differences in the content of origin procedure regulations. A survey was conducted with 30 experts to measure the restrictiveness of each origin procedure regulation on a scale of 1 (least restrictive) to 7 (most restrictive). Additionally, the AHP method developed by Saaty (1982) was used to determine the weights of each origin procedure regulation in the overall rules and validate consistency.

The weight confirmation results showed that the method of issuing a PO or CO had the highest weight at 0.28. Following

this, the weight for post-importation preferential tariff treatment was 0.21. The weights for requirements for claims for preferential tariff treatment and verification methods of POs or COs were the same at 0.18. The weight for record-keeping requirements (period) was 0.08, and the weight for the amount for the waiver of a PO or CO was the lowest at 0.07.

The restrictiveness indices of origin procedures for 18 FTAs derived and compared, utilizing Korea were restrictiveness level of each origin procedure and the weights of respective regulations. Consequently, the average restrictiveness index of origin procedures for the 18 Korean FTAs was determined to be 3.95. Figure 15 (Restrictiveness Degree of Origin Procedures in Korea) indicates that the restrictiveness index of the Korea-ASEAN FTA is the highest at 5.45, followed by the Korea-Singapore FTA and the Korea-China FTA, with restrictiveness indices of 5.09 and The restrictiveness indices 5.04. respectively. Korea-Türkiye and the Korea-U.S. FTAs are the lowest at 3.41 and 3.42, respectively. Through this analysis, it is revealed that Korea exhibits a relatively high restrictiveness index in FTAs with Asian countries. This can be attributed to the introduction of the method of issuing a CO by authorized bodies in FTAs with these countries, lower thresholds for the waiver of a CO compared to other FTAs, and the implementation of visit verification.

In order to compare the restrictiveness index of the origin procedures in Korean FTAs with those of U.S. FTAs. countries or parties that commonly entered into force with both Korea and the U.S. as the targets for comparison and analysis were chosen. Therefore, eight U.S. FTAs were comparative analysis. selected for the The core regulations of the origin procedures in the U.S. FTAs were compared and analyzed, and the content was categorized. The restrictiveness index of the eight U.S. FTAs was derived by substituting the degree of restrictiveness confirmed by experts for each content. The analysis results showed that the restrictiveness level of the origin procedures in the US-Singapore and US-Australia FTAs was the highest at 4.28. This is because these FTAs regulate the exemption amount of origin certificates according to domestic laws and not introduce a post-importation preferential tariff treatment system. The restrictiveness level of CAFTA-DR, US-Peru, and US-Colombia FTAs was the lowest at 3.39. The average index of the origin procedures in the eight U.S. FTAs was 3.64, which is lower than the average index of 3.77 for the eight FTAs of Korea. This is confirmed by the fact that U.S. FTAs allow importers to issue COs and stipulate an exemption amount for COs up to a maximum of \$1.500, whereas Korean FTAs have various methods of issuance for a PO or CO, including issuance by authorized bodies or self-issuance by exporters or producers. The exemption amount for a PO or CO is up to a maximum of \$1,000 in U.S. dollars.

2. Policy Implication

This study is meaningful in that it derived a restrictiveness index for the origin procedures of FTAs to objectively compare the rules of origin procedures in FTAs. It utilized measured levels of restrictiveness for each content of origin regulations through the survey targeting 30 experts and the weights of origin procedure regulations.

Furthermore, in the process and results of deriving the restrictiveness index of origin procedures, several policy implications can be identified. Firstly, this study confirmed the weights of each of the six key regulations in the origin procedures. As a result, it is possible to respond to future FTA negotiations based on the importance of each regulation in the origin procedures. For example, in future FTAs, establishing priorities in negotiating origin procedures should involve giving precedence to regulations with high weights. Setting negotiation priorities and developing strategies for regulations with high weights, such as the methods of issuing a PO or CO, post-importation preferential tariff treatment, verification methods of POs or requirements for claims for preferential tariff treatment, be considered in FTA negotiations. should Therefore. relatively lower-weighted regulations, such as record-keeping requirements (period) and the amount for waiver of a PO or CO, can be addressed in FTA negotiations in a secondary manner.

The second point is that, by objectively comparing the restrictiveness index of origin procedures for each existing FTA, it is possible to analyze differences and devise improvement measures in the existing FTA compliance negotiations. For instance, in negotiations of FTAs that have not introduced the post-importation preferential tariff treatment system, it is possible to respond by emphasizing that introducing this system, as in many other FTAs, can facilitate the FTA and significantly reduce the level of restrictiveness. Additionally, in cases where FTAs have low criteria for the amount for exemption of a PO or CO, there is also the option to consider raising it to \$1,000 USD.

The implication is to objectively compare third restrictiveness index of rules of origin procedures in FTAs and by country, and to develop negotiation strategies in new FTA talks based on the counterparty's negotiation strategy. For instance, in new FTA negotiations, if the two countries agree on the origin issuance method by authorized bodies or authorized self-issuance by exporters, the indirect verification method can be considered to balance the level of restrictiveness. Similarly, if origin verification includes visit verification by the importing party, self-issuance methods by exporters or producers can be considered to balance the restrictiveness level of the entire rules of origin procedures.

However, despite the significance and policy implications mentioned above, this study also has several limitations. The analysis in this study focused solely on six core provisions among the FTA origin procedures, making it challenging to accurately assess the overall restrictiveness of the entire set of origin procedure regulations. Additionally, since the study surveyed 30 experts in a single round to measure the restrictiveness of each aspect of the origin procedures, there is a limitation associated with potential variations in results if the sample of experts is expanded or if there are changes survey frequency, timing, in and other factors. Therefore, it is necessary to expand the pool of experts based on this study in the future and develop the index through in-depth analysis. Furthermore, it is anticipated that future research could compare the restrictiveness indices of origin procedure regulations in FTAs concluded in the future, including those with other countries.

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