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An Assessment of the China-Korea Free Trade Agreement: Implementation Outcome and Influencing Factors

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Abstract

China-Korea Free Trade Agreement tops the list of trade volume covered by 14 FTAs China has signed with its signatory counterparts. In principle, 100 days of China-Korea Free Trade Agreement (ChKFTA) into effect as of December 20, 2015, through two stages of tariff reduction and/or elimination, can result in substantial benefits for Chinese imports and/or exports firms. The paper is a pilot questionnaire study assessing the enforcement outcome of ChKFTA, based on the responding firms' perceived observations and views of the impact of ChKFTA on their trading activities in the first quarter of 2016, and the role of related rule of origin (RoO). Such an inquiry of the relationship between rule of origin and trade in goods aims at yielding evidence for decision-making on how to optimize the outcome of ChKFTA and China's increasing number of FTAs as well.

Keywords: *preferential tariff, trade in goods, assessment, questionnaire study*

1. Introduction

The post-1992 establishment of state relationship has witnessed huge growth between the People's Republic of China ("China") and the Republic of Korea ("Korea") in the fields of trade and investment, especially China as Korea's largest trading partner since 2011 in the consecutive years, and Korea as China's second largest trading partner in 2015. Such a growing tendency partly depends on an increasing drop in customs duty, inclusive of most-favored nation ("MFN") tariff rate and preferential tariff rate under the Asia-Pacific Trade Agreement ("APTA").

On June 1, 2015, the China-Korea Free Trade Agreement (ChKFTA) was signed. Pursuant to China's and Korea's Schedule of Tariff Commitments under ChKFTA, up to 90% of items imported from Korea and up to 92% of items imported from China shall be allowed for preferential rate; over 20 years the longest phase-out period, trade in goods between China and Korea will move towards an era of zero tariff. In theory, ChKFTA can enhance import and export. On the one hand, it helps lower import cost, thereby pushing upwards import volumes from Korea to China in items of machinery equipment, chemicals, and electronics, for example. On the other hand, it increases profitability for exports from China to Korea in items of textiles, iron and steel, machinery equipment, for example. However, in practice, traders are constrained in use of FTA, due to a number of factors. These factors, ranging from familiarity with FTA, awareness and capability of using FTA, rule of origin (RoO) strictness, trade-off of growing cost against tariff reduction, support system, among others, can reduce the expected result of ChKFTA preferential rate. Especially in the case, a margin of preference needs to be large enough to attract traders to switch from MFN and APTA preferences already available over decades.

Considering China's recent and active pursuit of FTAs, an assessment of the impact of China's FTAs is of utmost importance for policy-makers and Chinese traders as well at present and for the future. On these considerations, this paper aims at assessing the effects of ChKFTA, based on the responding firms' perceived observations and views of the impact of ChKFTA on their trade in goods in the first quarter of 2016, and the role of related rule of origin ("RoO"). Such an inquiry of the relationship between rule of origin and trade in goods aims at yielding evidence for decision making in how to optimize the outcome of ChKFTA and China's increasing number of FTAs as well.

The rest of this paper is organized as follows. The next section argues that RoO, a crucial element of each FTA, is among the key factors affecting the utilization of FTA preferences and reviews the survey findings of Chinese traders' use of FTAs. Section 3 introduces the questionnaire-based firm survey and firm dataset. Section 4 reports the descriptive analysis of firm's ChKFTA use. Section 5 concludes this paper.

2. Studies on the Use of China's Free Trade Agreements: A Perspective of RoO in International Trade

In the context of China's FTAs growing in numbers, recent literature on the use of FTAs show a new focus on assessing the use of FTAs by firm and their policy implications. In pursuit of enhancing mutual trade in goods between members, policy-makers design FTAs. Despite the impact of FTAs on trade flow between members theoretically and empirically argued for and confirmed *a priori* and *a posteriori*, the utilization of tariff preferences by traders is low. In order to use FTA, traders need to meet incompatible RoOs across FTAs and across different types, among which, for example, "change in tariff

classification criterion" and "value added content criterion" are major ones. To do that, the users may need to present their bill of materials for qualifying that their imports are "originating ones" from signatory members, change their procurement sources from the optimal pattern of procurement, or raise the share of local inputs in total inputs. In other words, the use of FTA preferences involves extra cost, covering procurement adjustment, changed bill of materials, for example, on top of the cost of complex origin administration. The expected "gain" for traders is not automatic, but in a high marginal savings on their tariff payment relative to marginal costs. Theoretically, RoO is a strong factor affecting the use of each FTA, and partly responsible for low utilization of FTA preferences (Inama, 2009).

Under the auspice of Asian Development Bank ("ADB"), Zhang *et al.* (2010) conducted an interview survey on a total of 232 firms attempting to examine the impact of China's six FTAs on their business activities. This pilot study shows an extremely low utilization rate, affected by lack of FTA-related information, which tops a list of key reasons, which is also true of 595 sampled firms in Southeast Asia (Wignaraja, 2014). One more significant finding is that only 19 out of 232 responding firms see RoO as a barrier to FTA implementation, and the reasons behind as given suggest an ambivalent and ambiguous interpretation of RoO. What is more, their preferred types of RoO indicate their lack of awareness of the importance of RoO. These findings may partly explain for low utilization of CAFTA at 16.3% firms "have used" and at 19.0% firms "plan to use" (N=436 sampled firms), based on a questionnaire administered covering six provinces in 2009 (Shen and Wang, 2011).

Besides RoO, there are a number of other impediments to successful implementation of FTAs. Li and Duan (2015) suggests that seaside location, long establishment, easy-to-meet RoO items, processing mode

of trade are among facilitators for higher utilization rate, based on a firm survey of six provinces in China. Hua and Wang (2014) reports a level of CAFTA, CEPA and ECFA utilization, much lower against NAFTA utilization by Mexican firms, due to not only common affecting factors but also mode of production in East Asia. These findings contribute in factors typical of China in addition to the general list, for example, establishment, ownership, size (proxied by employment), cognition of FTA.

In light of findings by ADB and JETRO, and informed by Hamanaka (2013)'s identification of six methodological problems in literature measuring the use of FTAs in East Asia, the present study aims at assessing the use of ChKFTA, a specific FTA, for policy implications, from a perspective of RoO in international trade in goods, by a firm survey.

3. Questionnaire and Enterprise Dataset

The present questionnaire study, a preliminary part of follow-up quarterly and annual assessment, aims at collecting information from firms on issues such as characteristics of firms, knowledge and major sources of accessing preferential FTA provisions (e.g. RoO), FTA preference use, evaluation of RoO, impediments to FTA preference use, and sources of institutional support for firms. A descriptive analysis of feedback by responding firms helps capture the impact of ChKFTA on their trade in goods, provide actual evidence for the relationship between the FTA implementation and traders' importing and exporting activities.

The authorized bodies of China Council of Promoting International Trade (CCPIT, 中國貿易促進委員會) across 31 administrative provinces arranged for traders, by random sampling selection criterion, to complete the questionnaire during April 11-15, uploaded on a free-of-

charge third-party online survey platform. We collected sampled firms at a grand total of 2612, with a breakdown of Class A at a subtotal of 1428 and Class B at a subtotal of 1184. Class A are firms having transactions with Korea since January 1, 2015, and Class B are other export firms. Such a sampling design aims at facilitating an examination of the impact of ChKFTA on two different type of firms by a comparison. In assessing the impact of ChKFTA implementation over the first quarter of 2016, the paper is based on their respective observations and opinions. The survey data are of high quality due to computer programming, and are friendly to a programmed subset of data, for targeted analysis purposes, which can be seen at varied set of data in numbers. Additionally, the data are up-to-date and of current policy interests.

In order to facilitate analysis, products are grouped into 23 broad categories on the basis of HS two digits, and adjusted into proper ones with reference to National Bureau of Statistics of the People's Republic of China. For example, HS 61-62 are in section XIII other than XII (see Appendix).

Followed is a short description of the attributes of the responding firms. Class A firms and Class B firms are compared in the following lines. Class A has a relatively longer history of establishment than Class B, suggestive of a larger size, more experience in and sensitiveness to change in domestic and foreign markets. Both are mostly in the eastern coastal region, with Class A mostly in the provinces of Shandong and Jiangsu and Class B mostly in Guangdong province. By employment and sales volume, Class A is indicative of a larger size than Class B. In terms of items, Class A has a heavy concentration of sections VII and XVIII (nearly at 40%), against of less than of 5% each of the remaining sections; Class B has a top concentration in section XVIII, followed by sections of XIII and VII. In terms of ownership, both panels are dominated by privately-owned ones (up to 70%); however, it is worthy

of note that there are fewer of privately-owned ones in Class A than in Class B, and slightly more of foreign investors or joint ventures in Class A than in Class B. The above comparison gives force to the reliability and accuracy of dataset, not only close to the profile of players of Chinese foreign trade, but also of CCPIT's clients, an overwhelming majority of small and medium-sized enterprises (SMEs), mostly private-owned ones.

4. Descriptive Analysis of Dataset

We move to an understanding of sampled firms' knowledge about and use of ChKFTA (4.1), the ChKFTA implementation' impact on firms' trading in goods (4.2), and the role of RoO under ChKFTA (4.3). To accomplish this objective, we choose Class A (N=1421) for a focus analysis. The assumption is that unlike Class B, firms in Class A have trading relationship with Korea since January 1, 2015, and are more responsive to ChKFTA in trading activities. For the sake of collecting high-quality feedback, questions on the questionnaire are set as multiple choices along a continuum of magnitude ranging from the lowest extreme to the highest extreme. This is also a facilitating factor for respondents' support in completing the online questions with ease and efficiency.

4.1. Sampled Firms' Knowing about and Using ChKFTA

4.1.1. Firms' knowledge about ChKFTA and their major sources of information

This section analyzes firm's feedback to the following two questions: 1) how much do firms know about ChKFTA? and 2) what are firms' sources for learning about ChKFTA?

Figure 1 Knowledge about China-Korea FTA (N=1421)

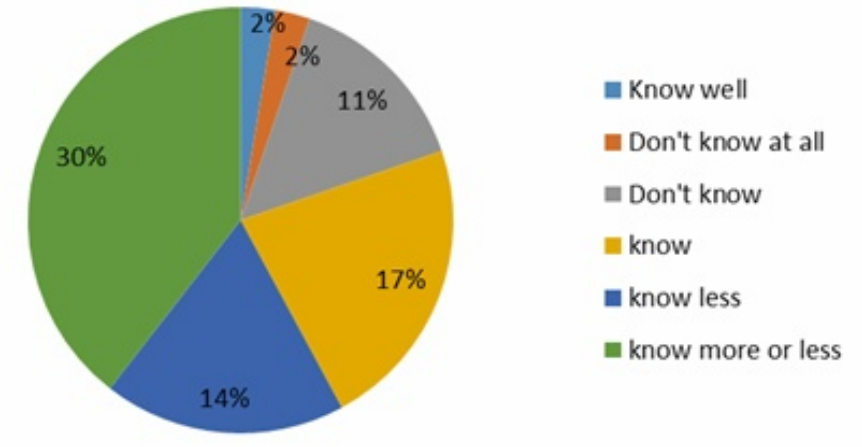


Figure 2 Sources for ChKFTA-related information (N=2154)

As can be seen in Figure 1, only 2% of firms reported "know about ChKFTA fairly well", 17% "know something", and 24% "know a little". In contrast, firms who responded with "don't know", plus a "neutral attitude" stand" amount to 57%. In other words, the majority of sampled

firms have a low level of knowledge about ChKFTA. Possible explanations include, for example, the respondent's low knowledge, or lack of relevant sources, or an indifference towards ChKFTA.

As for sources of FTA knowledge, questions are designed with multiple choices. 1421 firms in total have given 2154 replies. The survey results are presented in Figure 2. "Government sector website" is the most important source, nearly half the replies (46%); followed is "Media website, specialty publications" (23%). This means an active role by firms. To put it another way, firms are highly concerned with the signature and enforcement of ChKFTA. We can conclude that firms have some expectation from using the FTA preference. The third major source is "training by competent authorities" (18%), an important piece of evidence for a fairly-good-performance training, relative to a 100-day-implementation period. There is barely little supporting evidence for the role of "commercial service organization" in spreading the news of ChKFTA. Despite calls for its role (Zhang *et al.*, 2010), it takes time for commercial services to join in for FTA-specific service.

4.1.2. Firms' use of ChKFTA

Figure 3 Firm's Use of ChKFTA Tariff

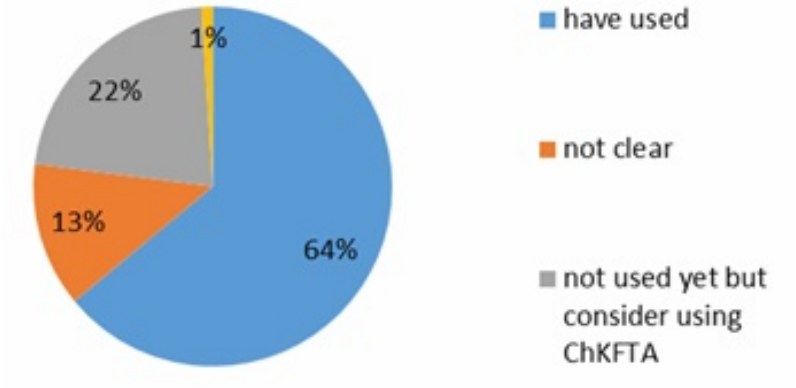


Figure 3 shows that 65% of respondents (N=1421) reported "have used ChKFTA", and 22% "not used yet but consider using ChKFTA". These two groups represent 87% of sampled firms. This high percentage of "use and plan to use" firms over sampled firms generally agrees with the ChKFTA utilization rate by importing and exporting firms in the following section. We can conclude that in the future above 86% firms in Class A would use ChKFTA, which is quite promising.

Only 1% of firms responded answering "not used yet, and will not consider using in the future". This might be explained by no attractive enough margin of preference (i.e. for example, the difference between MFN rate and FTA rate is rather small), or a small trade volume. When it comes to the reasons given by 9 firms, 3 out of 9 expressed about lack of relevant information sources, 4 out of 9 said that FTA preference is not applicable, and the remaining 2 firms reported about no need for a small trade volume.

4.1.3. ChKFTA and impact on sampled firms' trading activities

Figure 4 Firm's Use of FTA for Importing

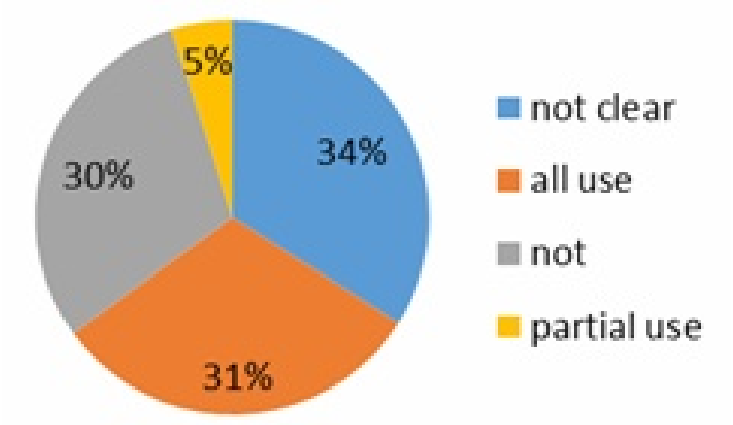
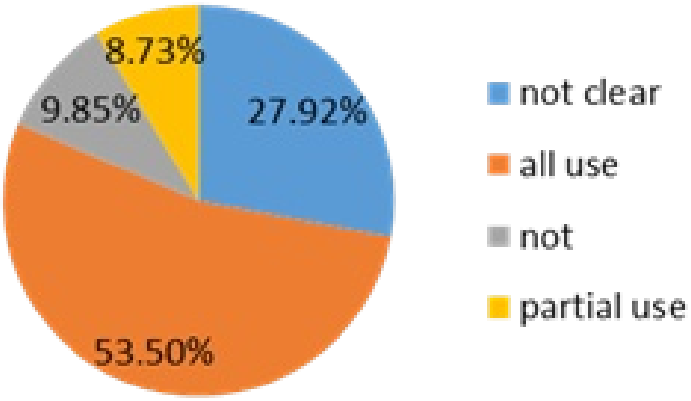


Figure 5 Firm's Use of FTA for Exporting



Among sampled firms using FTA preference for importing (N=105), only under Section VII (chemical products, pharmaceuticals and cosmetics), there are above 10 firms. When utilization rate (UR) equals the ratio of FTA tariff rate-adjusted import value to total import value of the product section, then UR is 96.98%. However, because of a small sample size, it cannot be inferred that the import UR for Section VII is above 95%. To obtain a more convincing and sound UR, one more survey is in need for collecting information from import firms. In the same vein of logic, we focus on the case of export firms (see Table 1).

Among them, section VII stands out. Despite the largest number of firms (151), the UR is only 2%. An obvious reason is that one chemical company's export value in the first quarter of 2016 hit a record of 20 billion US dollars in total, but did not use FTA preference. This is a huge drain on UR for section VII. This is also true of section XXII, whose UR is pulled down (at 6% only). Suppose that such extreme cases were put aside, UR of ChKFTA would be somewhat satisfactory. It is common

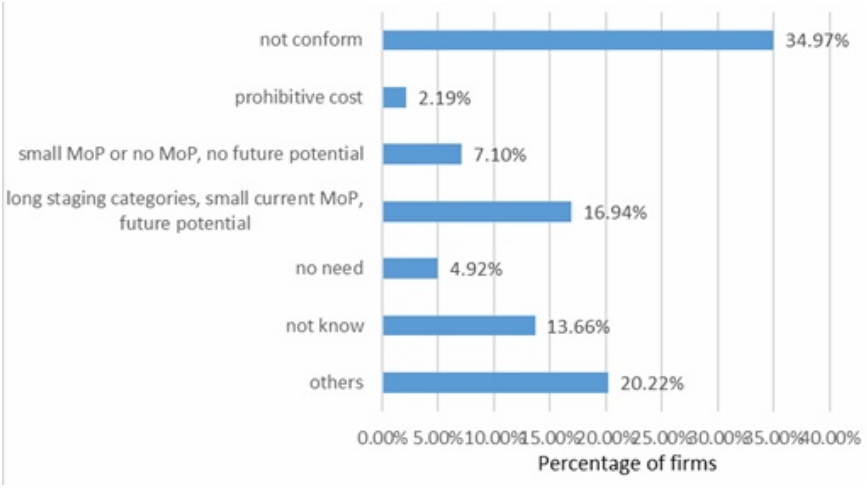
Table 1 The 2016 Q_1's Exports to Korea Using ChKFTA Preference (unit: ten thousand US dollars)

Industry (code)	Export value by ChKFTA	Total Export Value	UR	Firms (number)
XIII	55,510.68	56,345.18	99%	57
VIII	1,710.55	1,779.24	96%	60
IV	2,432.02	2,719.72	89%	21
XVI	11,081.44	12,797.20	87%	32
XII	999.74	1,617.22	62%	46
XVIII	8,762.02	16,329.91	54%	108
XVII	924.71	2,713.10	34%	21
XIV	972.9	3,622.29	27%	29
XXII	883.64	18,118.86	5%	33
VII	37,473.14	2,039,134.23	2%	151
Others	6,711.61	14,940.66	45%	77
Total	127,462.42	2,170,117.61	6%	635

Notes: (1) This number of firms (N=635) is greater than the total number of firms (613) for "full use" and "partial use" of FTA, as some firms export more than one products.

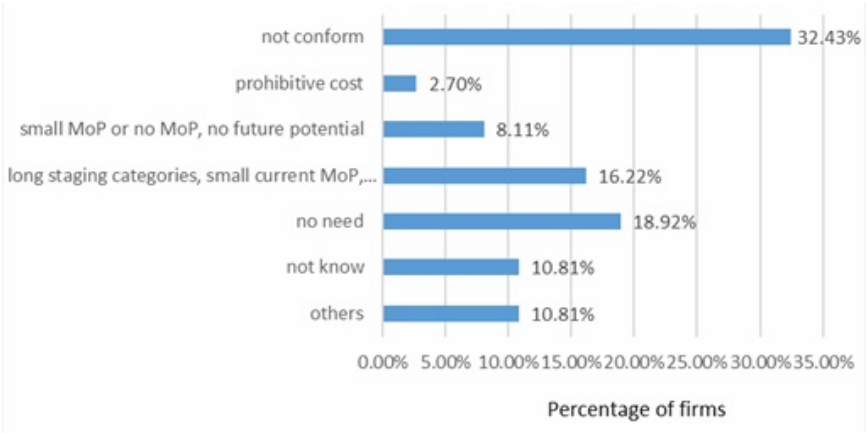
(2) Across categories, there is a wide difference in terms of related firms. When the number of firms is below 20, a rather small size of sample will cause statistical bias, thereby resulting in a UR which is not representative of the corresponding category. To improve the robustness of statistical result, we treat such instances with care and place them under the heading of "others (please specify)".

Figure 6 Reasons for "Not Use FTA" by Export Firms



Note: N=183.

Figure 7 Reasons for "Not Use FTA" by Import Firms



Note: N=37.

that when samples are not large enough, the statistical result could be impacted by few abnormal cases. This is one possible source of questionnaire bias.

As for the reasons for "not use FTA", the feedback from the surveyed firms is shown in Figure 6 and Figure 7. 169 export firms have given 183 replies (see Figure 6), and 37 import firms have supplied answers (see Figure 7). Most of the firms, both importing and exporting, agree that RoO under the Agreement is to some extent an impediment to the use of preferential tariff. Almost none of them regard "prohibitive cost of using FTA" as a constraint on use FTA. Firms perceive "not applicable" as a prime constraining factor (34.97% of export firms; 32.43% of import firms). The third major impediment is "long staging categories, small margin of current tax reduction, but future potential" (16.94% of export firms and 16.22% of import firms respectively). The second major factor is not the same for import and export firms. For export firms, the second major impediment is "others"" mainly because of small export value, 20.22% of firms" whereas for import firms, the second major one is no need (e.g. entrepôt trade, 18.92% of firms). It is worthy of note that "not know how to" receives a not small frequency from export firms (13.66%).

4.2. ChKFTA Implementation and Its Impact on Firms' Imports and Exports

After deleting no valid samples, we pin down 985 export firms and 105 import firms as our subset-data for a focused analysis. Among the 985 export firms, 913 firms export to Korea a single product, and the remaining 72 export a number of products. Among 105 import firms, only two firms import a single product, and the others import more than one product. Afterwards, we calculate the year-on-year growth rate by

using import and export value in 2015 and in the first quarter of 2016, which these sampled firms provide.

4.2.1. Change in import and export value

The majority of firms export more products in Section VII (207 firms) and Section XVII (181 firms). These two groups of firms represent 40% of the total (N=985). This phenomenon is easy to notice from Table 2. We can project the average growth rate by the sampled firms over the first quarter with reference to that of Section VII. The contribution by Section VII to the total export value is above 90%.

When it comes to year-on-year growth rate of exports, the top five sections in the first quarter of 2016 have different performances. Only section XIII sees a relatively large magnitude of increase (20.37%), and sections XVIII and XIV see a small increase (3.48% and 3.28% respectively). In contrast, there is a considerable drop (-20.04% and -18.49%) for sections XIII and XVI, a marked fall (-7.53% and -7.03% respectively) for sections XII and XXII. In addition, there is a slight drop (-2.44%) for section XII.

A comparison between base rate (year of 2012) and tariff rate under the Agreement is presented in Table 3. There is a substantial tariff reduction in section XIII. 77% of tariff lines in this section, subject to a tariff rate of 13% on the high side before the Agreement, shall enjoy respective tariff concession of "staging categories" of varying extent. For example, footwear goods are subject to "zero" tariff rate effective as of 20 December, 2015; clothes shall be subject to "staging category" of "10" following the Agreement enforcement. This case is true of most of products in tariff lines in sections XVIII and XIV (each at a base rate of above 8%), half of which each is subject to zero tariff rate effective from the Agreement enforcement. That is to say, the level of tariff rate for these two sections is cut about in halves. At the same time, products

Table 2 The Export Value to Korea in 2015 Q_1 and 2016 Q_1 and Growth Rate

Sections (code)	2015 Q_1	2016 Q_1	Growth rate	Firm (number)
VII	2,205,153.64	2,039,134.23	-7.53%	207
VIII	2,225.09	1,779.24	-20.04%	86
XII	1,657.75	1,617.22	-2.44%	78
XIII	46,809.71	56,345.18	20.37%	83
XIV	3,507.12	3,622.29	3.28%	65
XVI	15,699.75	12,797.20	-18.49%	70
XVIII	15,780.14	16,329.91	3.48%	181
XXII	19,488.54	18,118.86	-7.03%	55
Others	17,761.73	20,373.48	14.70%	191
Total	2,328,083.47	2,170,117.61	-6.79%	1016

under tariff lines in section VIII (plastics and rubber products) subject to an immediate zero rate, is only represented by about one third, and the remaining are to be subject to "staging categories" of "5" through "15". It suggests that there shall be substantial margin of preferences in future, but the margin of preference is not attractive enough in the recent few years. Section XVI (ferrous metals and articles of base metal) are highly represented by iron and steel products. About 60% of tariff lines under this section are subject to an immediate tariff elimination. The margin of preference is obvious. Anyway, their export value has shrunk sharply. One possible reason is that in the first quarter of 2016 domestic steel prices have jumped high, pushing up quotes in their exports, and offsetting tariff reduction-induced price advantage, thereby lowering their international market competitiveness. Overall, over 100 days' of

Table 3 Year-on-Year Growth Rate of Exports in 2016 Q_1 and Schedule of Tariff Commitments

Section (code)	Export Year-on-Year Growth Rate	Base rate (%) (year 2012)	Tariff commitments under the Agreement
VII	-7.53%	53% items at 6.5, 28% items at 5.5, 7% items at 8	approx. 52% items down at zero when in force, 21% items at zero in 5-10 years, a mere 1% or so items at zero in 15-20 years
VIII	-20.04%	60% items at 6.5; 29% items at 8	36% of items down at zero when in force, 40% in staging category “5”, 16% in category “10”, and another 8% in category “15”
XII	-2.44%	51% items at 4, 30% items at 10, and 9% at 13	36% items down at zero when in force , 18% in staging category “5”, 31% in category “10”, 10% in category “15”
XIII	20.37%	77% items at 13, the remaining at a flat 8	only 16% items down at zero when in force, about 70% in staging category “10”, 7% in category “15”
XIV	3.28%	about 93% items at 8	54% items down at zero when in force, 22% in staging category “5”, 7% in category “10”, 14% in category “15”
XVI	-18.49%	about 80% items at 8, 9% items at 3, 5% items at 5	60% items down at zero when in force, 13% in staging category “5”, 16% in category “10”, 9% in category “15”
XVIII	3.48%	about 94% items at 8	48% items down at zero when in force, 10% in staging category “5”, 28% in category “10”, 14% in category “15”
XXII	-7.03%	about 98% items at 8	60% items down at zero when in force, 30% in staging category “10”

ChKFTA implementation, exports to Korea by sampled firms have fallen by a quarter-on-quarter 6.79% and are not optimistic. What is worse, the respective magnitude of decrease is wider than China's shrinking export growth rate (-4.2%).

Table 4 Comparison of Year-On-Year Growth on Import and Export Value and of Korea in the First Quarter of 2015 and 2016

Section (code)	2015 Q_1	2016 Q_1	Growth rate	Firm (number)
VII	1,535.84	2,571.93	67.46%	20
VIII	2,226.35	2,670.47	19.95%	10
XII	74.72	48.75	-34.77%	28
XVIII	236.80	127.00	-46.37%	19
Others	7726.44	6751.58	-13%	28
Total	11,800.15	12,169.72	3.13%	105

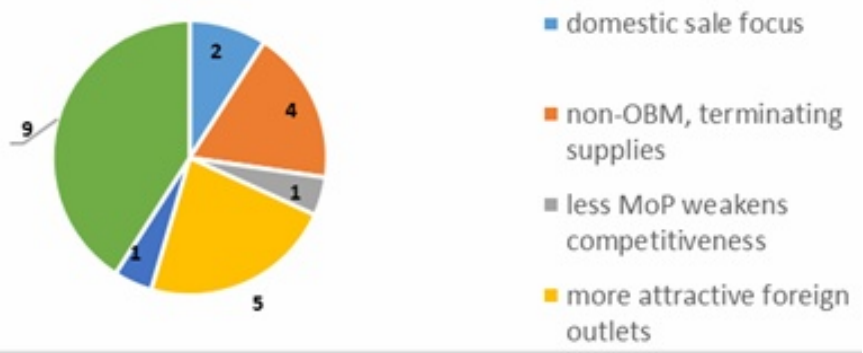
4.2.2. Export and import discontinuation or entrants by product category

Let us move on to examine a subset of 20 valid samples (N=20) out of 22 firms for their discontinuing exports. Their exports' category distribution and reasons for discontinuing exporting are plotted in Figure 8 and Figure 9 respectively.

As can be seen, exports having been discontinued mostly fall into sections XVIII, XIII, XXII, and VII in a decreasing order but most of the sampled firms do not blame the Agreement for the discontinuation, except for one. Only one firms gave "not applicable" as the reason. Nine firms chose "others", further explaining that since the Agreement

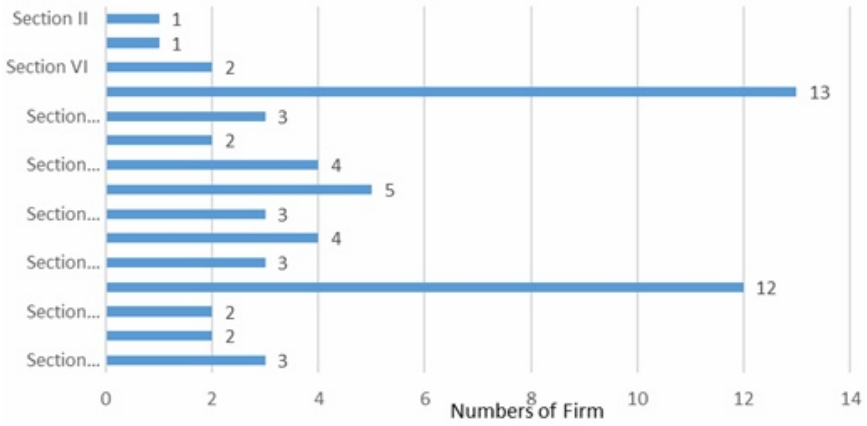
Figure 8 Discontinuing Export by Product Section and by Number of Firms

Figure 9 Reasons for Discontinuing Export



enforcement, they did not have orders. The discontinuation is not necessarily linked with its implementation. Possible explanations might include a high frequency of products or items that a relatively high percentage of sampled firms deal in, and the size of samples being too small for their representativeness.

Figure 10 Export Entrants by Section and by Number of Firms



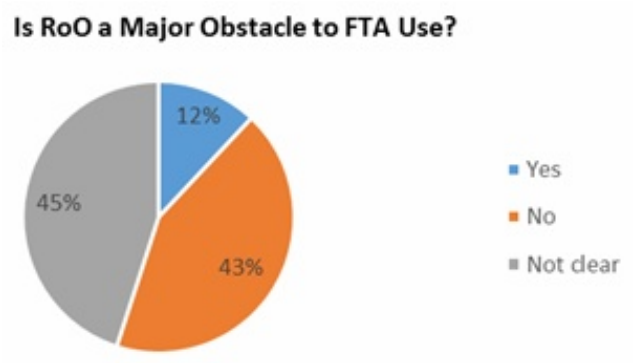
As in Figure 10, new entrants in section VII (chemical products, medicine and cosmetics) have the largest number of firms (13 firms). Followed is section VIII (machinery, electronic and electrical appliances and parts) by 12 firms. Interestingly, with reference to Korea's schedule of tariff commitments, new entrants do not fall into sections that shall enjoy a large margin of FTA preference. For instance, the sampled firms with new entrants in section XIII out-number those in section XXII (See Figure 10); with reference to Table 2, 60% dutiable goods in section XXII shall have a zero tariff effective as of December 20, 2015, and in a sharp contrast, only 16% dutiable goods in section XIII have a staging phase "0", i.e. effective as of December 20, 2015.

The above examination leads us to the conclusion that over a 100-day-FTA implementation period, most firms have not yet managed to adjust their product business strategy. The "gains" as ChKFTA could have allowed for take time for traders to harvest in the future.

4.3. The Role of RoO under the Agreement

4.3.1. Firms' evaluation of RoO

Figure 11 Firms' Perception of RoO as Constraint to the Use of ChKFTA (N=1421)



To collect information of high quality about firms' perception about types of RoO in their trading activities, questions are set as multiple choices. We have a total of 2074 replies. For the sake of statistical result's representativeness, we refine our samples. Firstly, we pin down on products that are dealt in by above 30 firms. Secondly, in calculating percentage, we excluded replies of "unclear". As a result, in our sub-dataset are 1428 samples of actual use, and 1276 samples of preferred use (see Table 5).

As Figure 12 shows, in practice, firms use "wholly obtained" ("WO"), "change in tariff" ("CTC"), "processes", and finally "regional value-added content" ("RCV") in an order of decreasing frequency. Figure 13 demonstrates that in some sectors, WO is more preferred than in actual use; but in other sectors, two groups have a close percentile. It is worthy of note that for most sections, firms preferred to use more of RCV rather than CTC or processes. One possible explanation might be a

Table 5 Actual Use vs Preferred Use of Sector-Specific Origin by Number of Firms

Section Code	Actual use	Preferred use
IV	34	36
VII	309	286
VIII	94	79
X	37	27
XII	129	113
XIII	147	131
XIV	94	86
XVI	73	66
XVII	44	39
XVIII	277	252
XIX	53	44
XX	38	42
XXII	99	75

relatively low frequency of actual RCV use. This could be associated with currently a low percentage of RCV applicable to items, or a rather restrictive origin provision. It follows that firms demonstrate a relatively strong expectation for RCV restrictiveness to decrease or relax. As for Section X, firms demonstrate a conspicuous preference for CTC. Such a preference is actually satisfied by the Agreement where CTC or CTH is applicable to section X.

Figure 12 Percentile of Actual Use of Types of RoOs (N=1428) by Product Section

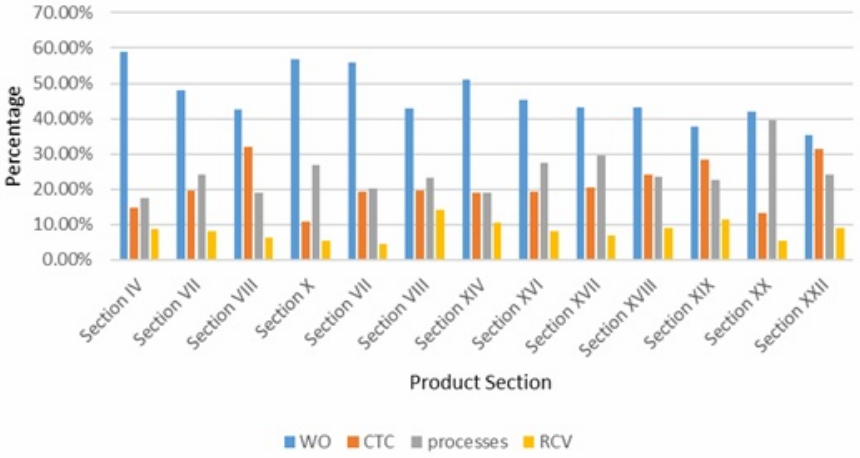
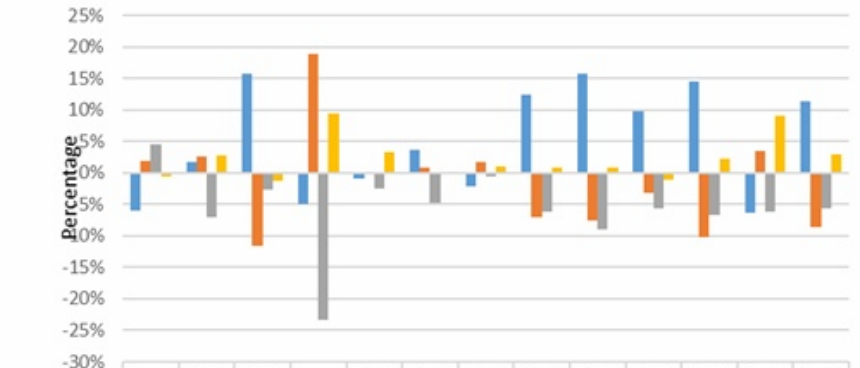


Figure 13 Change in Percentile of Preferred Use against Actual Use of Types of RoOs (N=1276) by Product Section



	Section IV	Section VII	Section VIII	Section X	Section VII	Section VIII	Section XIV	Section XVI	Section XVII	Section XVIII	Section XIX	Section XX	Section XXII
WO	-6%	2%	16%	-5%	-1%	4%	-2%	12%	16%	10%	15%	-6%	11%
CTC	2%	3%	-12%	19%	0%	1%	2%	-7%	-8%	-3%	-10%	4%	-9%
processes	5%	-7%	-3%	-23%	-2%	-5%	-1%	-6%	-9%	-6%	-7%	-6%	-6%
RCV	0%	3%	-1%	9%	3%	0%	1%	1%	1%	-1%	2%	9%	3%

4.3.2. Firms' perceptions and views about obstacles in c/o application

Figure 14 Impediments in C/O Application (N=1396)

As can be seen in Figure 14, the impediments involved in the certificate of origin (c/o) application to firms include "inadequate authorized bodies and service agencies", "rather cumbersome registration", "broker membership, a must before c/o application" in order of seriousness. Overall, only 8% of firms reported "no trouble"; 92% of firms complained about difficulty of varied types and varying degree. For a trouble-free 48-hour customs entry, there is room to improve for efforts in promoting more convenient c/o application at a low cost.

5. Concluding Remarks

This paper examines traders' knowledge about and use of ChKFTA in the first quarter of 2016 and the impact of its implementation on their trade in goods by a questionnaire-based firm survey. It provides evidence for a better understanding of how ChKFTA implementation has influenced trading activities and future efforts in improving its utilization rate.

It concludes in two important findings. Firstly, the utilization of tariff reduction is far from satisfactory. One plausible reason is that over a short period of 100-day-long implementation, most of firms have not come to familiarize themselves with the FTA preference. Another sound reason is that many items fall into staging categories of "5", "10", "15", and "20" for mutual benefit considerations, but in the distant years. It follows that an overwhelming majority of sampled firms have not yet altered corporate strategies and planning accordingly for exporting and importing when new products and exit ones are concerned. Surprisingly, preferential tariff is quite under-utilized on sections of VII, XXII, XIV and XVII with reference to their export value. These sections should be shortlisted as targets for enhancing utilization rate. In contrast with 62% of export firms in their use of preferential tariff, importing firms fall far behind, with 35% reporting "use FTA preference" plus "plan to use". This finding could be associated with an overwhelming majority of exporting firms in the dataset. Nevertheless, importing firms should also be shortlisted as targets in future efforts towards enhancing utilization rate.

Secondly, as is expected, their cognition of concepts both FTA and RoO is better than that of sampled firms in Zhang *et al.* (2010), but with room for urgent improvement. Despite RoOs, a crucial element of each FTA, and an informed constraint, nearly half of the sampled firms do not understand types of RoOs as potential impediments to use of preferential rate. What is more, their shortage of knowledge in origin provisions, and another shortage of authorized bodies and service desks top the list of constraints in their expanding dutiable exports to the Korean market. This points to an agenda for competent authorities and industrial associations to extend more related service to traders.

This paper also finds its contribution and value in a number of aspects, including the dataset being largely representative of Chinese

traders' knowledge and use of FTAs, providing a window on the status quo of the use of China's FTAs. To our best knowledge, our study, though at a preliminary stage, is a pioneer project in China, aiming at tracking down and assessing a specific FTA implementation outcome at intervals, quarterly and annually, for example, with a current focus on tariff reduction and RoO in international trade.[1]

Notes

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1. In forthcoming reports on an annual assessment, we will administer an updated version of the current questionnaire for a larger sample size of higher quality, and conduct a triangulation test of findings, for instance, from adopting Hamanaka (2013)'s distinction of usage rate and utilization rate for a thick analysis of import and export statistics.

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Appendix

Matching Table of 23 Sections and Chapters 01-98 in HS Two Digits

Goods in HS CODE	CODES DESCRIPTION
SECTION I	ANIMAL PRODUCTS (HS CODEs 01-05)
HS 01	Live animals
HS 02	Meat and edible meat offal
HS 03	Fish other aquatic invertebrates
HS 04	Dairy produce; birds eggs; natural honey
HS 05	Products of animal origin, not elsewhere specified or included
SECTION II	VEAGETABLE PRODUCTS(06-14)
HS 06	Live trees and other plants;
HS 07	Edible vegetables and certain roots and tubers
HS 08	Edible fruit and nuts;
HS 09	Coffee, tea and spices
HS 10	Cereals
HS 11	Products of the milling industry;
HS 12	Oil seeds, nuts and oleaginous fruits; medicinal plants;
HS 13	Lac; gums ,resins
HS 14	Vegetable plaiting materials;
SECTION III	ANIMAL OR VEGETABLE FATS AND OILS AND THEIR CLEAVAGE PRODUCTS; (15)
HS 15	Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes
SECTION IV	PREPARED FOODSTUFFS; BEVERAGES
HS 16	Preparations of meat or other aquatic invertebrates
HS 17	Sugars and sugar confectionery
HS 18	Cocoa and cocoa preparations

HS 19	Preparations of cereals, pastry cooks' products
HS 20	Preparations of vegetables, fruit, nuts
HS 21	Miscellaneous edible preparations
HS 22	Beverages, spirits and vinegar
HS 23	Residues and waste from the food industries; prepared animal fodder
SECTION V	TOBACCO AND MANUFACTURED TOBACCO SUBSTITUTES
HS 24	Tobacco and manufactured tobacco substitutes
SECTION VI	MINERAL PRODUCTS
HS 25	Salt; sulphur; earths and stone; plastering materials, lime and cement
HS 26	Ores, slag and ash
HS 27	Mineral fuels, mineral oils and products of their distillation;
SECTION VII	PRODUCTS OF THE CHEMICAL, MEDICINES OR COSMETICS
HS 28	Inorganic chemicals; organic or inorganic compounds of precious metals or of rare-earth metals
HS 29	Organic chemicals
HS 30	Pharmaceutical products
HS 31	Fertilizers
HS 32	Tanning or dyeing extracts
HS 33	Essential oils and resinoids; perfumery, cosmetic or toilet preparations
HS 34	Soap,washing preparations, lubricating preparations;
HS 35	Albuminoidal substances;
HS 36	Explosives; certain combustible preparations
HS 37	Photographic or cinematographic goods
HS 38	Miscellaneous chemical products
SECTION VIII	PLASTICS AND ARTICLES THEREOF; RUBBER AND ARTICLES THEREOF
HS 39	Plastics and articles thereof
HS 40	Rubber and articles thereof

SECTION IX	LEATHER AND ARTICLES THEREOF;
HS 41	Raw hides and skins (other than fur skins) and leather
HS 42	Articles of leather;
HS 43	Fur skins and artificial fur; manufactures thereof
SECTION X	WOOD AND ARTICLES OF WOOD OR OF OTHER PLAITING MATERIALS;
HS 44	Wood and articles of wood; wood charcoal
HS 45	Cork and articles of cork
HS 46	Manufactures of straw or of other plaiting materials;
SECTION XI	PULP OF WOOD,PAPER AND ARTICLES THEREOF
HS 47	Pulp of wood or of other fibrous cellulosic material;
HS 48	Paper and paperboard
HS 49	Printed books, kraft paper and other products of printing industry ;
SECTION XII	TEXTILES AND TEXTILE ARTICLES (50-63)
HS 50	Silk
HS 51	Wool, fine or coarse animal hair;
HS 52	Cotton
HS 53	Other vegetable textile fibres;
HS 54	Man-made filaments" strip and the like of manmade textile materials
HS 55	Man-made staple fibres
HS 56	Wadding, felt and nonwovens;
HS 57	Carpets and other floor coverings
HS 58	Special woven fabrics;
HS 59	Impregnated, coated, covered or laminated textile fabrics; t
HS 60	Knitted or crocheted fabrics
HS 61	Articles of apparel, knitted or crocheted
HS 62	Articles of apparel, not knitted or crocheted
HS 63	Other made up textile articles;

SECTION XIII	FOOTWEAR, HEADGEAR, UNBRELLAS, SUN UMBRELLAS, WALKING-STICKS, SEAT-STICKS, WHIPS, RIDING-CROPS AND PARTS THEREOF; PREPARED FEATHERS AND ARTICLES MADE THEREWITH; ARTIFICIAL FLOWERS; ARTICLES OF HUMAN HAIR
HS 64	Footwear, gaiters and the like; parts of such articles
HS 65	Headgear and parts thereof
HS 66	Umbrellas, sun umbrellas, walking-sticks, seat-sticks, whips, riding-crops and parts thereof
HS 67	Prepared feathers & down & articles made of feathers or of down; artificial flowers; articles of human hair
SECTION XIV	ARTICLES OF STONE, PLASTER, CEMENT, ASBESTOS, MICA OR SIMILAR MATERIALS; CERAMIC PRODUCTS; GLASS AND GLASSWARE
HS 68	Articles of stone, plaster, cement, asbestos, mica or similar materials
HS 69	Ceramic products
HS 70	Glass and glassware
SECTION XV	NATURAL OR CULTURED PEARLS, PRECIOUS OR SEMI-PRECIOUS STONES, PRECIOUS METALS, METALS CLAD WITH PRECIOUS METAL AND ARTICLES THEREOF; IMITATION JEWELLERY; COIN
HS 71	Natural or cultured pearls ,precious or semi-precious stones, precious metals; metals clad with precious metal and articles thereof, imitation jewellery; coin
SECTION XVI	FERROUS METALS AND ARTICLES OF BASE METAL
HS 72	Iron and steel
HS 73	Articles of iron or steel

SECTION XVII	OTHER NONFERROUS METALS OR OTHER BASE METALS AND ARTICLES THEREOF
HS 74	Copper and articles thereof
HS 75	Nickel and articles thereof
HS 76	Aluminium and articles thereof
HS 78	Lead and articles thereof
HS 79	Zinc and articles thereof
HS 80	Tin and articles thereof
HS 81	Other base metals; cements; articles thereof
HS 82	Tools of base metal
HS 83	Miscellaneous articles of base metal
SECTION XVIII	MACHINERY AND MECHANICAL APPLIANCES; ELECTRICAL EQUIPMENT; PARTS THEREOF; SOUND RECORDERS AND REPRODUCES, TELEVISION IMAGE AND SOUND RECORDERS AND REPRODUCERS, AND PARTS AND ACCESSORIES OF SUCH ARTICLES
HS 84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof
HS 85	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles
SECTION XIX	VEHICLES, AIRCRAFT, VESSELS AND ASSOCIATED TRANSPORT EQUIPMENT
HS 86	Railway or tramway locomotives, rolling-stock and parts thereof; railway of tramway track fixtures and fittings and parts thereof; mechanical (including electro-mechanical) traffic signalling
HS 87	Vehicles other than railway or tramway rolling-stock, and parts and accessories thereof
HS 88	Aircraft, spacecraft, and parts thereof
HS 89	Ships, boats and floating structures

SECTION XX	OPTICAL, PHOTOGRAPHIC, CINEMATOGRAPHIC MEASURING, CHECKING, PRECISION MEDICAL OR SURGICAL INSTRUMENTS AND APPARATUS; CLOCKS AND WATCHES; MUSICAL INSTRUMENTS; PARTS AND ACCESSORIES THEREOF
HS 90	Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; parts and accessories thereof
HS 91	Clocks and watches and parts thereof
HS 92	Musical instruments; parts and accessories of such articles
SECTION XXI	ARMS AND AMMUNITION; PARTS AND ACCESSORIES THEREOF
HS 93	Arms and ammunition; parts and accessories thereof
SECTION XXII	MISCELLANEOUS MANUFACTURED ARTICLES
HS 94	Furniture; bedding, mattresses, mattresses supports, cushions and similar stuffed furnishings; lamps and lighting fittings, not elsewhere specified or included; illuminated signs, illuminated name-plates and the like, prefabricated buildings
HS 95	Toys, games and sports requisites; parts and accessories thereof
HS 96	Miscellaneous manufactured articles
SECTION XXIII	WORKS OF ART, COLLECTORS' PIECES AND ANTIQUES OR OTHER UNCLASSIFIED GOODS
HS 97	Works of art, collectors' pieces & antique
HS 98	Donated goods, charity supplies, military items and goods unclassified

Norms, Institutions and Realpolitik*: History and Evolution*