
External Implications of a Korea-US FTA

The United States and Korea are, respectively, the largest and the seventh largest trading economies in the world (with Japan, the European Union, Canada, China, and Hong Kong in between). An FTA between the United States and Korea would have a sizable impact and implications for other countries, especially those in the Asia Pacific, trading heavily with the United States, Korea, or both. With the formation of an FTA, partner countries' exports to each other's markets would increase partially at the expense of reduced imports from third countries that do not enjoy the duty-free benefits of FTA partners. This trade diversion effect would be a major concern for countries that are competing with the United States and Korea and would see their exports to US and Korean markets reduced. Our gravity model analysis (tables 4.2 and 4.4) showed a strong possibility of trade diversion in the case of a Korea-US FTA (indicated by the negative coefficient estimates of the Korea-US openness dummy variable).

Who Would Suffer from Trade Diversion?

In order to identify which countries would suffer the most trade diversion in the US and Korean markets from a Korea-US FTA, we first need to identify the major exporters to those countries. In the Korean market, Japan and China are the second and third largest exporters, after the United States. In the US market, Canada, Japan, Mexico, the European Union, and China are the major exporters, followed by Korea. Therefore, these countries could lose exports due to the trade diversion effects of a

Korea-US FTA. But if these countries export different items to US and Korean markets than the United States and Korea export to each other, they would not be much affected. For example, if China mainly exports light manufactured goods to Korea and the United States exports mainly heavy or high-tech industrial products to Korea, then China is not likely to suffer from trade diversion in the Korean market from a Korea-US FTA.

The next step, then, is to examine the composition of exports of the two countries' leading trading partners. The important thing is not the market share of one country's total exports to an FTA partner country but the similarity in the structure of export commodities in comparison to that of the other FTA partner country. To that end, we identified those countries with a similar export structure to Korean exports in the US market and those with a similar export structure to US exports in the Korean market. The closer the similarity in export structure, the greater the possibility of trade diversion. For this purpose, we constructed an export similarity index (ESI). The ESI between two countries is defined as the sum (over different products) of smaller values of the two countries' shares of a particular product in their total exports to the host market.¹ The ESI values are between zero and one. A higher value for a particular country indicates that the country's exports to an FTA partner country's market are highly similar to a competing FTA country's exports to that market; a smaller value indicates less similarity. For example, if Japan has a higher ESI than China when measured against Korea in the US market, it indicates that Japan's export structure in the US market is more similar to that of Korea than that of China.

Table 5.1 shows ESI measures in the Korean market. It indicates that Japan has the export structure most similar to that of the United States in the Korean market. Germany is a distant second, followed by Canada and China tied at an even more distant third position. In the US market (table 5.2), Taiwan has the most similar export structure to Korea's. Japan and Mexico are a very close second and third. This analysis of ESI indicates that if a Korea-US FTA is formed, Japan and Germany would be the most likely to suffer from trade diversion in the Korean market, and Taiwan, Japan, and Mexico would be most likely to suffer from trade diversion in the US market. Overall, Japan and Taiwan would be most affected, particularly Japan because it exports so much to both the United States and Korea.

The ESI measurement is a useful tool to analyze the overall structure of exports in one market. But it cannot tell us how the exports compete in a particular sector or industry. The export expansion impact of an FTA would be higher in those sectors in which the partner countries of the

1. Although by definition the ESI values become smaller as more disaggregated data are used, this should not cause problems in making relative comparisons.

Table 5.1 Export similarity to US exports in the Korean market,^a 1995-97

| Country | 1995 | 1996 | 1997 |
|-------------|------|------|------|
| Australia | 0.29 | 0.26 | 0.23 |
| Canada | 0.43 | 0.45 | 0.42 |
| Chile | 0.33 | 0.30 | 0.31 |
| China | 0.36 | 0.41 | 0.42 |
| Germany | 0.56 | 0.56 | 0.54 |
| Japan | 0.63 | 0.63 | 0.64 |
| Mexico | 0.37 | 0.41 | 0.29 |
| New Zealand | 0.26 | 0.25 | 0.25 |

a. Index is calculated based on SITC two-digit industry classification.

Source: Authors' calculations. Statistics Canada, World Trade Analyzer, CD-ROM version (1980-97).

Table 5.2 Export similarity to Korean exports in the US market,^a 1995-98

| Country | 1995 | 1996 | 1997 | 1998 |
|--------------------------------|------|------|------|------|
| Australia | 0.25 | 0.28 | 0.32 | 0.31 |
| Brazil | 0.28 | 0.29 | 0.31 | 0.36 |
| Canada | 0.32 | 0.36 | 0.38 | 0.39 |
| Chile | 0.10 | 0.08 | 0.08 | 0.09 |
| China | 0.51 | 0.48 | 0.49 | 0.54 |
| European Union-15 ^b | 0.48 | 0.51 | 0.50 | 0.50 |
| Hong Kong | 0.49 | 0.49 | 0.49 | 0.47 |
| Japan | 0.61 | 0.62 | 0.62 | 0.63 |
| Mexico | 0.55 | 0.55 | 0.58 | 0.62 |
| New Zealand | 0.18 | 0.20 | 0.21 | 0.20 |
| Taiwan | 0.71 | 0.73 | 0.73 | 0.71 |

a. Index is calculated based on SITC two-digit industry classification.

b. European Union includes Austria, Belgium, United Kingdom, Sweden, Spain, Portugal, the Netherlands, Luxembourg, Italy, Ireland, Greece, Germany, France, Finland, and Denmark.

Source: Authors' calculations. US International Trade Commission Web site, <http://www.usitc.gov>.

FTA have more comparative advantage. For this sectoral analysis, the revealed comparative advantages (RCAs) of major competing countries in an FTA partner country market are measured. Table 5.3 shows the RCAs of the United States and its major competing countries in the Korean market for those sectors in which the United States enjoys its greatest RCA in the Korean market. Each country would be more affected by trade diversion in those sectors with higher RCAs, since those are the sectors in which they export the most to the Korean market.

Table 5.3 Selected countries' revealed comparative advantage in exports to Korean market, 1997

| SITC category | Australia Canada Chile China Germany Japan Mexico New Zealand United States | | | | | | | | | |
|--|---|-------|------|------|------|------|------|-------|------|--|
| | 2.42 | 7.27 | — | 0.01 | 1.38 | 0.00 | — | 5.30 | 1.55 | |
| 00-Live animals chiefly for food | 3.70 | 3.12 | 0.00 | 0.56 | 0.00 | 0.00 | 0.23 | 6.49 | 1.98 | |
| 01-Meat and meat preparations | 0.18 | 4.16 | 0.00 | 3.62 | 0.03 | 0.00 | — | 0.00 | 1.86 | |
| 04-Cereals and cereal preparations | 0.29 | 0.51 | 3.58 | 3.30 | 0.05 | 0.02 | 1.19 | 2.54 | 1.42 | |
| 05-Vegetables and fruit | 0.75 | 0.18 | 0.09 | 1.32 | 0.40 | 0.47 | 0.03 | 1.34 | 1.91 | |
| 09-Misc. edible products and preparations | — | 0.00 | — | 0.47 | 0.13 | 0.46 | — | — | 1.37 | |
| 12-Tobacco and tobacco manufactures | 0.07 | 1.50 | — | 0.00 | 0.23 | 0.03 | 0.00 | 13.08 | 2.71 | |
| 21-Hides, skins and furskins | 0.52 | 0.36 | — | 0.63 | 0.00 | 0.00 | 0.00 | — | 3.55 | |
| 22-Oil seeds and oleaginous fruit | 0.02 | 12.66 | 4.23 | 0.01 | 0.05 | 0.09 | 0.00 | 2.91 | 1.75 | |
| 25-Pulp and waste paper | 5.42 | 0.57 | 0.00 | 1.21 | 0.09 | 0.48 | 6.86 | 1.75 | 1.51 | |
| 26-Textile fibers (except wool tops) | 5.27 | 3.26 | 4.41 | 0.19 | 0.60 | 0.40 | 0.64 | 0.10 | 1.09 | |
| 28-Metalliferous ores and metal scrap | 4.51 | 4.79 | 0.00 | 0.02 | 0.00 | 0.93 | 1.37 | 2.24 | 1.46 | |
| 41-Animal oils and fats | 0.12 | 5.31 | 0.18 | 1.41 | 0.85 | 1.09 | 0.50 | 0.09 | 1.28 | |
| 52-Inorganic chemicals | 0.00 | 9.80 | 0.00 | 0.25 | 0.07 | 0.04 | — | — | 2.24 | |
| 56-Fertilizers, manufactured | 0.06 | 0.18 | 0.00 | 0.12 | 2.08 | 1.82 | 0.40 | 0.01 | 1.16 | |
| 58-Artificial resins, plastic, cellulose esters | 0.07 | 3.73 | 0.65 | 0.19 | 1.16 | 0.81 | 0.38 | 0.39 | 1.57 | |
| 64-Paper, paperboard, paper pulp | 2.12 | 0.32 | — | 0.37 | 1.80 | 0.97 | 0.24 | 0.04 | 1.26 | |
| 71-Power-generating machinery and equipment | 0.06 | 0.17 | 0.00 | 0.06 | 2.14 | 1.73 | 0.02 | 0.03 | 1.08 | |
| 72-Machinery, specialized | 0.17 | 0.24 | — | 0.46 | 0.15 | 0.65 | 0.02 | 0.00 | 1.67 | |
| 75-Office machines and ADP | 0.01 | 0.80 | 0.00 | 0.49 | 0.39 | 0.85 | 0.01 | 0.15 | 1.50 | |
| 76-Telecom, sound-recording apparatus | 0.02 | 0.17 | 0.00 | 0.39 | 0.66 | 1.47 | 0.23 | 0.01 | 1.14 | |
| 77-Electrical machinery, apparatus & appliances | 0.38 | 2.69 | 0.00 | 1.14 | 4.21 | 0.81 | 0.86 | 0.01 | 1.15 | |
| 78-Road vehicles | 0.03 | 0.25 | 0.00 | 0.08 | 0.22 | 0.12 | 0.00 | 0.29 | 3.22 | |
| 79-Other transport equipment | 0.13 | 0.11 | — | 1.57 | 2.16 | 0.44 | 0.00 | 0.24 | 1.04 | |
| 81-Sanitary, plumbing, heating and lighting fixtures | 0.08 | 0.32 | 0.00 | 0.08 | 1.81 | 1.64 | 0.05 | 0.06 | 1.35 | |
| 87-Professional, scientific instruments | 0.14 | 0.20 | 0.00 | 1.35 | 0.78 | 0.88 | 0.51 | 0.05 | 1.32 | |
| 89-Misc. manufactured articles, n.e.s. | 0.00 | 0.00 | — | 0.00 | 0.05 | 0.00 | — | 0.00 | 3.67 | |
| 95-Armoured fighting vehicles, arms of war | — | — | — | — | — | — | — | — | — | |

— = not available

n.e.s. = not elsewhere specified

SITC = Standard international trade classification.

Source: Authors' calculation based on the World Trade Analyzer database.

The results of our RCA analysis indicate that Japan would probably experience a fall in exports, mostly in the chemical and machinery sectors, with the exception of power-generating and office machines; Germany in chemicals and general industrial machines; and Canada, China, Australia, and New Zealand in agricultural, food, and raw materials exports. In the US market, as shown in table 5.4, Taiwan would probably suffer from trade diversion mostly in textile fibers and in office and electrical machinery; Japan in rubber products and office and telecommunications machines; Mexico in textile fibers, telecommunications, and electrical machinery; the European Union in steel products; China in textile fabrics and luggage; Canada in plastic and rubber products; and Australia and New Zealand in textiles, fibers, and steel products. Thus different countries would feel different trade diversion effects in different sectors.

Interestingly, Korean benefits under an FTA with the United States would offset Korean disadvantages in the US market resulting from other US trade pacts. Noland (1996) examined the reverse case of NAFTA's trade diversion impact on Korean exports. He estimated that NAFTA could result in export diversion losses to Korea in the US market on the order of 1 to 3 percent of Korea's global exports. The study also found that the most affected industry would be textiles and apparel. In that regard, a US-Korea pact would to some extent offset those losses for Korea.

The preceding discussion of trade diversion is, of course, based on the short-run direct impact of a US-Korea FTA. In the long run, trade diversion would depend on investment, income, and other effects. Nonetheless, the simulation results of the GTAP model generally confirm the expected trade diversion, even in the long run. For example, the simulation results show that Korea increases imports from the United States but imports less from all other regions (see appendix table B.14). However, the pattern is not so clear in the case of US imports. Expansion of US income tends to result in increases in imports from Japan and in some cases ASEAN countries, Australia, and New Zealand (see appendix B for further details, especially table B.15).

Implications for Japan and Other Bilateral FTAs

As mentioned above, Japan would likely suffer larger welfare losses than other countries from trade diversion generated by a Korea-US FTA. Thus, if such an FTA were formed, there would be strong pressure on Japan to negotiate FTAs with the United States or Korea. Indeed, if the United States and Korea merely announce their intention to explore an FTA, it could be bigger news in Tokyo than in Washington. Interestingly, Hisamitsu Arai, former vice minister for international affairs at the Japanese Ministry of International Trade and Industry, recently argued that the

Table 5.4 Selected countries' revealed comparative advantage in exports to US market, 1997

| SITC category | European Union | | | | | | | | | | New Zealand | | | |
|---|----------------|--------|--------|-------|-------|-----------|-------|-------|--------|--------|-------------|--------|--|--|
| | Australia | Brazil | Canada | Chile | China | Hong Kong | Japan | Korea | Mexico | Taiwan | Zealand | Taiwan | | |
| 03-Fish, crustaceans, mollusks | 1.18 | 0.71 | 0.80 | 12.74 | 0.78 | 0.07 | 0.09 | 0.19 | 0.38 | 0.72 | 9.14 | 0.59 | | |
| 26-Textile fibers (except wool tops) | 20.00 | 0.06 | 0.40 | 0.10 | 0.53 | 0.96 | 0.02 | 0.33 | 3.52 | 1.93 | 16.67 | 1.29 | | |
| 58-Artificial resins, plastic, cellulose esters | 0.06 | 0.60 | 1.85 | 0.01 | 0.17 | 1.12 | 0.02 | 0.30 | 1.19 | 0.53 | 0.14 | 0.65 | | |
| 61-Leather, leather manufactures | 2.67 | 3.81 | 0.18 | 0.06 | 1.06 | 1.28 | 1.04 | 0.01 | 0.28 | 0.94 | 2.15 | 0.50 | | |
| 62-Rubber manufactures | 0.34 | 2.24 | 1.39 | 0.77 | 0.72 | 0.80 | 0.10 | 1.41 | 1.46 | 0.42 | 0.42 | 1.10 | | |
| 65-Textile yarn, fabrics | 0.49 | 1.13 | 0.52 | 0.16 | 1.95 | 0.93 | 0.71 | 0.29 | 2.22 | 0.94 | 0.52 | 1.40 | | |
| 67-Iron and steel | 1.55 | 5.40 | 0.75 | 0.19 | 0.50 | 1.25 | 0.01 | 0.71 | 1.34 | 0.76 | 1.48 | 0.36 | | |
| 75-Office machines and ADP | 0.59 | 0.09 | 0.27 | 0.02 | 0.79 | 0.45 | 0.65 | 1.41 | 1.96 | 0.54 | 0.08 | 3.30 | | |
| 76-Telecom, sound recording apparatus | 0.25 | 0.60 | 0.34 | 0.00 | 1.42 | 0.35 | 1.70 | 1.23 | 0.91 | 1.97 | 0.13 | 0.95 | | |
| 77-Electrical machinery, apparatus & appliances | 0.19 | 0.17 | 0.35 | 0.02 | 0.71 | 0.59 | 0.97 | 1.11 | 2.85 | 1.61 | 0.25 | 1.75 | | |
| 83-Travel goods, handbags | 0.05 | 0.07 | 0.05 | 0.01 | 3.86 | 0.50 | 7.19 | 0.01 | 1.48 | 0.41 | 0.07 | 1.10 | | |
| 97-Gold, nonmonetary | 0.59 | 9.56 | 2.70 | 11.77 | na | 0.08 | 0.00 | 0.01 | 0.26 | 0.41 | — | 0.01 | | |

Source: Authors' calculations based on the World Trade Analyzer database (CD-ROM version), 1997.

time has come for the United States and Japan to consider having a free economic zone (“US-Japan Trade Friction,” *Asia21*, November 1999, 58). Nevertheless, Japan would probably pursue an FTA first with Korea, as this would be easier to negotiate than one with the United States, because Korea and Japan share similar industrial structures and weak agricultural sectors, as well as geographical proximity.

In fact, Korea and Japan are now studying the possibility of creating an FTA between them. This idea was initiated in late 1998 by Japanese Ambassador to Korea Kazuo Ogura, who proposed feasibility studies of a Korea-Japan FTA. More recently, Japanese Prime Minister Keizo Obuchi suggested in a speech in Korea in March 1999 that a Korea-Japan FTA, if created, could play a pivotal role in creating a Northeast Asian FTA.² In that speech, Prime Minister Obuchi envisioned Korea and Japan together taking a leading role in developing such an FTA, which could counter other regional trading arrangements such as the European Union. The current negotiation of a bilateral investment treaty between Korea and Japan, which is expected to be concluded in 2001, could act as a stepping stone to a future Korea-Japan FTA.

Several private and government think tanks in both countries have jointly produced studies of a Korea-Japan FTA (KIEP 2000, IDE 2000a). These studies indicate that Korea and Japan could expect an expansion of bilateral trade through the abolition of tariff and nontariff barriers, but Korea’s trade deficit with Japan could worsen. These studies show that the short-run static effect of a Korea-Japan FTA would not yield substantial welfare gains in either country. However, the two economies could expect greater gains due to the long-run dynamic effects of expanded investment and enhanced productivity.³

Taiwan is another country that might be pressured to form an FTA in the case of a Korea-US FTA. However, Taiwan is more likely to pursue an FTA only with the United States, since it trades heavily with the United States but not much with Korea.⁴

A Korea-US FTA would not have much effect on the progress of ongoing FTA negotiations between Korea and Chile or the new free trade talks between Chile and the United States. Chile does not compete with the

2. In a speech at Korea University during a summit in March 1999, Obuchi outlined his vision of future Asian economic integration.

3. IDE (2000a) estimates that the real national income of Japan would remain unchanged while that of Korea would increase by 0.3 percent as a result of a Korea-Japan FTA. Taking into account long-run dynamic effects, real national income would increase by 10.5 percent for Japan and 9.1 percent for Korea. KIEP (2000) estimates that in the short run real GDP of Korea would actually decline slightly by 0.07 percent but that Japanese GDP would increase marginally by 0.04 percent as a result of a Korea-Japan FTA.

4. Park and Yoo (1989) discuss the reverse situation, the significant impact of US-Taiwan and US-Japan FTAs on Korea.

United States in the Korean market nor with Korea in the US market. However, the ongoing Korea-Chile and US-Chile FTA talks and their outcomes could have some effect on a future Korea-US FTA in at least two respects.

First, the conclusion of the Korea-Chile FTA is being delayed by differences over agricultural and fishery issues, particularly grapes. Although the amount of grape imports from Chile is expected to be small, Korean grape growers oppose an FTA with Chile. Since any agricultural issue is very sensitive in Korea, the Korean government is taking its time in resolving this matter. This case provides a good test for Korea in terms of its ability to handle the issue of agricultural market opening. In the case of a Korea-US FTA, Korea would face much greater pressure to further open up its agricultural market. If Korea handles this issue wisely and successfully completes the FTA negotiation with Chile, then it would send a positive signal to the proponents of a Korea-US FTA. But if Korea cannot overcome this challenge and fails to achieve an FTA with Chile over the agricultural issue, then it would send the message that achieving a Korea-US FTA would be extremely difficult.

Second, US-Chile negotiators agreed to consider provisions in the pact regarding labor and the environment. Differences surfaced at the outset over whether the obligations of the US-Jordan FTA in those areas provide a model for US-Chile talks, but these issues will likely be addressed in some form. This is virgin territory for Korean negotiators and likely to raise the political profile of the talks in both countries.

There are many other ongoing discussions of bilateral FTAs in the Asia Pacific. Although these ongoing discussions should not have much of a direct and immediate effect on each other, they are likely to have some spillover effects on potential Korea-US talks and other regional initiatives. As some of those FTA discussions progress into negotiation stages, other FTA talks would be accelerated, since no country would like to be left out of the trend toward bilateral FTAs. This could create a rush of initiatives by many countries to pursue FTAs with the United States, because most of the countries export more to the United States than to each other. Simply put, a country would be at a disadvantage if it did not form an FTA with the United States when its competitors did.⁵

Regional and Global Implications

If a Korea-US FTA were realized, in addition to Japan and Taiwan, many other economies in the APEC forum, such as China, Mexico, Australia,

5. Park and Yoo (1989) discuss this issue of the center country, mainly the United States, benefiting most from a star-shaped network of bilateral FTA arrangements, in which the United States maintains multiple independent FTAs with each of its trading partners.

New Zealand, and Canada, would be affected by trade diversion in some sectors. Therefore, a Korea-US FTA would have significant implications for APEC. As noted above, the bandwagon effect could stimulate other countries to form bilateral FTAs in the region, especially with the United States. In particular, if Japan and Taiwan initiated FTA talks with Korea and the United States, it would create a strong momentum for a series of bilateral FTAs in the region and could revive progress toward a regional FTA in APEC. A Korea-US FTA thus could accelerate the APEC process toward free and open trade and investment in the region by the Bogor target dates of 2010 and 2020.

Another way station to such a result could be the ongoing "P-5" movement within APEC. If this idea flies, then it will leave only the Northeast Asian economies (i.e., Korea, Japan, China, Hong Kong, and Taiwan) without any form of regional FTA arrangement. This might set them to look into the possibility of having a Northeast Asian FTA (NEAFTA). A Korea-US pact could be the foundation of such an accord, mitigating major trade diversion problems and easing Korean political concerns about a bilateral deal with Japan. But such an initiative would challenge nascent efforts to link Northeast Asia with the ASEAN region. Studies of closer trade ties between these regions already have been endorsed by Chinese Premier Zhu Rongji and Korean President Kim Dae-jung during the ASEAN+3 summit meeting in Singapore in late November 2000 (*International Trade Reporter*, 30 November 2000, 18-19).

In the wake of the recent Asian financial crisis, many Asian countries began to realize the need to form a regional economic institution. An Asian Monetary Fund has already been proposed and recently an idea of forming some type of FTA among East Asian countries has been suggested by some Asian leaders. As a practical matter, however, there are serious economic and political barriers to the creation of an Asian regional institution.⁶ At first, it seems that huge disparities in the level of economic development would make it more difficult for Asian countries to form some type of regional trade arrangement than to create some type of regional financial institution. At the same time, however, the very sensitive political chemistry between China and Japan and the negative view of the United States would significantly hinder the creation of any type of Asian financial institution.⁷

6. For more detailed discussion on this issue, see Bergsten (2000).

7. For example, former US Treasury Secretary Lawrence Summers recently remarked on this issue at a seminar hosted by the Institute for International Economics in Washington in January 2000. He argued that an Asian FTA would be welcomed since it can contribute to the move toward freer and greater world trade, but an Asian financial institution such as an Asian Monetary Fund would not be welcomed since the center of global financial stability should lie with a multilateral financial institution such as the IMF.

Finally, what impact could a Korea-US FTA have—either alone or as part of a growing network of pacts in the Asia Pacific—on the multilateral trading system? Over the past 50 years, FTAs generally have reinforced multilateral initiatives and have not dissuaded countries from pursuing global trade reforms. Indeed, the most important examples to date—the creation of the European Common Market and the formation of free trade pacts in North America—all served as catalysts for the conclusion of GATT trade rounds. In most cases, regional trade preferences have been diluted by ongoing multilateral reforms and thus have not led to substantial trade diversion (with a few notable sectoral exceptions such as clothing).

However, the pursuit of FTAs by Korea and Japan, which had previously maintained steadfast devotion to multilateralism, is cause for some concern. Rather than promoting bilateral FTAs as building blocks for multilateral accords, they seem to be considering such pacts as defensive strategies in the event that multilateral liberalization stalls. To be sure, both countries continue to push for new WTO negotiations, albeit with substantial foot-dragging on agricultural talks. But their increasing efforts to develop bilateral free trade pacts also can be interpreted as a sign that these countries no longer expect, at least in the near term, to see major initiatives out of the WTO. The failure of the WTO ministerial in Seattle in December 1999 and the continuing harping over the WTO agenda seem to reinforce such a pessimistic prognosis. In other words, regional pacts may not be impeding the multilateral process; rather the breakdown of consensus in the global forum may be inciting a reappraisal and resurgence of regionalism in East Asia.