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Korea-U.S. FTA: Prospects and Analysis

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Executive Summary

In the 1990s, regional trade agreements (RTAs) have become widespread and increasingly became a threat to non-member countries. Despite the GATT/WTO Article 24 and its provision for the overall trade barriers in any new regional or bilateral trade agreement to be no higher than the preexisting ones, the trade diversion effects of regionalism are having an increasingly negative effect on the trade of non-member countries. A realistic Korean policy response to the spread of RTAs would be the establishment of free trade agreements (FTAs) with major trading partners. This paper analyzes the potential effects of a Korea-U.S. FTA, as this would become the most significant trade agreement, which Korea might enter into.

Not only would a Korea-U.S. FTA allow both countries to benefit from the preferentially favorable measures, but it would likely reduce the amount of trade disputes involving Korea. The United States is the most important trading partner for Korea, and yet, it also is the greatest source of trade friction. Although a Korea-U.S. FTA could not eliminate every trade friction between the two countries, such a liberalization effort would likely reduce the frequency and gravity of the trade disputes.

In this paper, we have performed simulations to cover five different scenarios of tariff reduction. In each of the scenarios, we have found that the welfare of Korea and the United States would both increase, with Korea receiving a relatively greater share of the welfare benefits. Korea's greater reliance on the trade with the United States and comparatively higher existing tariffs may explain its greater potential

benefits. An FTA between the two countries would improve Korea's welfare by 0.73 to 1.73 percent, and that of the United States by 0.07 percent at the most. In addition to the simulations covering an exclusive FTA with the United States, we also have performed a simulation, measuring the effects of Korea's joining the NAFTA. Due to the larger market size, trading with the NAFTA would result in a 0.54 percent increase in Korea's welfare gains, which is higher than that expected from Korea's signing an FTA exclusively with the United States. The simulations also demonstrated that the United States would optimally benefit from an FTA with Korea, if it would have a clause, eliminating all of the agricultural tariffs. In effect, this would promote liberalization for this very sensitive sector.

In this paper, we have focused on the effects of tariff reduction. A more comprehensive analysis – particularly, the one which considers the effects of preferential rules of origin – yet remains undone. And while economic considerations should be the logical starting point, political benefits and burdens of signing an FTA, which this paper only briefly addresses, also require further study.

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Ⅰ. Introduction

The number of regional trade agreements (RTAs), which are registered with the GATT/WTO under GATT Article 24, has reached 163 as of February 1999. In particular, these regional trade agreements have shown astonishing growth and expansion in the 1990s. Among the agreements, the most influential ones are the European Union (EU) and the North American Free Trade Agreement (NAFTA). Following the induction of the EFTA countries such as Austria, Sweden, and Finland in 1995, the European Union is now deliberating on the admission of a few Eastern European countries.

Aiming to create a single market, the EU has also unified monetary policies mainly through the launching of the Economic and Monetary Union (EMU) early this year. Meanwhile, the NAFTA member countries have been evaluating the possibility of admitting Chile into the NAFTA. And in December 1994, the United States had initiated formal discussions of the Free Trade Area of Americas (FTAA), the purpose of which is to link both North and South American continents under one trade regime. Negotiations have been targeted for

* This working paper is an enhanced critical version of the analyses presented in the paper to the *Panel of Korean Economic Analysis*. This authors appreciate insightful comments provided by the participants of the panel.

completion by 2005.

Such regional trade agreements are destined to be a reality, affecting the world trade for a significant period of time to come. The GATT Article 24 has a provision for the RTAs, and they number in the 100s. Despite this trend, Korea has openly responded negatively toward the RTAs while advocating the advantages of the APEC's open regionalism. While a group of scholars in support of multilateralism share Korea's view, the majority of the WTO member countries have not sympathized much with Korea's position.[1] Currently, Korea and Japan are the only countries among the WTO member countries, which have not concluded any regional trade agreement.

As a matter of fact, Korea finds itself outside of the increasingly influential regional trade agreements, although it is involved in a disproportionate number of the trade disputes. Since the 1995 inception of the WTO, Korea has been involved in twelve cases of trade disputes, which have been brought before the WTO's dispute settlement procedure. Of those cases, Korea has attended ten cases as the respondent and two as the complainant, out of a total of 163 WTO suits. Much of Korea's trade friction is with the United States, as the U.S. has charged Korea of unfair trading practice six times and Korea has charged the U.S. twice. Trade frictions between the U.S. and Korea has also been commonplace outside of the WTO dispute mechanism, and often has involved Korea's key industries, including iron and steel, semiconductor, communications, agricultural, and computer software.

Despite the growing reasons to enter into either regional or bilateral trade agreements, the Korean government appears to have no intention

1) The critics of regionalism frequently label its manifestations as preferential trade agreements instead of free trade agreements. See Bergsten (1997, p. 547).

of doing so, fearing that expansion of the market liberalization would devastate the domestic industries' weak bases. The Korean government's unconditional opposition to the RTAs – which fails to even consider the advantages and widespread international enthusiasm for the RTAs – seems unjustified. In response to the situation, we hope that this paper would promote a wide interest in the field-oriented research and lively discussions regarding the wisdom and prospects of Korea's entrance into a regional or a bilateral agreement. This paper focuses on the potential effects of a Korea-U.S. Free Trade Agreement (FTA), since it might be the most important trade agreement Korea would enter into.

A Free Trade Agreement is a Regional Trade Agreement, which promotes intra-regional trade and liberalization of the investment among the member countries, and yet allows the member countries to maintain their trade policies autonomous. An FTA with the United States would accomplish four principal objectives for Korea. First of all, like the Canada-U.S. FTA (CUSFTA), Korean exports to the United States would increase as the agreement would likely reduce trade friction. Korea's main exporting goods – such as semiconductors, steel, and iron – are currently suffering losses due to the U.S. anti-dumping measures and other import restraints. Second, a Korea-U.S. FTA would maximize the economic gains of Korea's ongoing liberalization of trade and investment. Third, such an FTA would promote the development of domestic industry, as it would foster strategic alliances between the Korean and U.S. companies, further boosting investment flows from the United States. Fourth, the bilateral diplomatic and security alliances would be strengthened.

The paper is organized as follows. Chapter Ⅱ explains various aspects of an FTA, including the definition, characteristics, present conditions, and the political-economic effects. Chapter Ⅲ describes the

Computable General Equilibrium (CGE) model and data for the simulation. Chapter Ⅳ analyzes the potential economic effects of a Korea-U.S. FTA with the application of the CGE model. The economic impact of a Korea-U.S. FTA, Korea-Japan FTA, and a scenario, where Korea joins the NAFTA, will be analyzed and compared against each other. Furthermore, the economic impact of various forms of a Korea-U.S. FTA will be analyzed. Finally, Chapter Ⅴ discusses the limitations of the current research and other matters for the consideration of a Korea-U.S. FTA.

Ⅱ. Background for a Free Trade Agreement

1. Definition and Characteristics of an FTA

According to Balassa (1969), an FTA is a form of the regional economic integration and refers to the elimination of the regional trade barriers and investment restrictions, which exist among the member countries. However, an FTA is also an arrangement, which allows the member countries to maintain their own external tariffs, of which the NAFTA, Canada–U.S., and Israel–U.S. FTAs are primary examples. Thus, while the tariffs among the member countries are significantly reduced and aligned, the tariffs each member country imposes on non–member countries are not necessarily affected.[2)]

Once a regional economic integration initiates, it frequently evolves over time in scope and geographical area. Customs Unions (the member countries impose common tariff rates on non–member countries) may evolve into Common Markets (free movement of production factors between the member countries) and ultimately, Single Markets (fiscal and monetary policy alignment). However, the United States has only entered into an FTA. And while the FTAs are recognized as only the primary stage of the regional economic integration, the FTAs, which the United States has entered into, allow for partial factor movement, and include more stringent international rules concerning the labor rights and the environmental protection.[3)]

2) See Ju and Krishina (1996).

3) Baldwin (1997) refers to FTA as an example of shallow regional integration, while the EU's single market programme and the Maastricht Treaty are archetypal deep regional integration agreements.

However, there has been no serious and elaborate analysis of the economic effects, which result from the various forms of regional economic integration.

As one type of regional economic integration, the RTAs have a tendency to spread once enacted.[4] According to Baldwin (1997), idiosyncratic incidents of regionalism trigger a multiplier effect that knocks down bilateral import barriers like a row of dominos. That is, forming a preferential trade area, or deepening an existing one, usually results in trade and investment diversion. Such a diversion generates new forces of political economy in non-participating countries – what Lawrence (1996) calls, *pressures for inclusion*. Thus, a single incidence of regionalism may trigger several rounds of membership requests from the countries, which were previously content in lying outside of an FTA. If a free trade arrangement were open to expansion, then regionalism would spread like a wild fire. This is best exemplified in the expansion of the European Union.

As pointed out earlier, an FTA allows member countries to maintain their own external tariffs, unlike the Customs Unions, where the members set a common external tariff. Rules of origin (ROOs), therefore, assume a function unnecessary under the Customs Unions. The ROOs were established because, without them, imports of any particular commodity would enter into a country with the lowest duty on the item in question, and then would be exported to other countries within an FTA framework. This is called *trade deflection*. In this case, a country with the lowest tariff would collect all of the tariff revenues

4) There are many explanations for this phenomenon. See Anderson and Blackhurst (1993), Whalley (1996), Lawrence (1996) and Bergsten (1996), for instance.

for the particular item. If there were no ROOs, then competitions for tariff revenues would likely result in a race to the bottom in the setting of tariffs by the FTA member countries.

Thus, FTAs rely on ROOs to block the motivation for trade deflection.[5] Over time, the ROOs may result in the member countries' purchase of less efficiently made goods, rather than more efficiently made goods, from the FTA member producers; however, they purchase highly levied goods from outside. In particular, foreign subsidiaries, which are established within FTAs, end up using intermediate goods within an FTA, rather than importing them from outside. In this sense, unlike the Common Market, an FTA is likely to result in an additional distortion of resource allocation due to the ROOs.[6]

Considering the case of NAFTA, establishing subsidiaries within the NAFTA is clearly advantageous for non-members because they can evade tariffs. The foreign companies, which establish their subsidiaries in Mexico to gain access to the U.S. market, are further prone to purchase the intermediate inputs from Mexico instead of importing them from their home country because of the ROOs. Thus, for Mexico, the NAFTA partially protects its industries and induces

5) Rules of origin are no more than domestic content requirements under the Customs Unions. On the other hand, rules of origin are criticized for generating trade diversion without trade creation. Nevertheless, members can reap the benefits through its discrimination toward non-members.

6) Krishna and Krueger (1995) emphasized that producers are more likely to use intermediate inputs produced in the regional trading block, rather than importing from cheaper sources. Thus, foreign exporters who lost the export opportunity will find an incentive to invest in the regional trading block. These induced investment effects should be considered as another source of distortion.

investment at the same time. Therefore, Krueger (1995) has evaluated the combined effect of an FTA with the ROOs as an export protection. In other words, ROOs do not generate trade creation but only trade diversion.

As Customs Unions entail common trade policies toward non-members, such alliances are prone to develop into a Common Market and possibly a Single Market. However, FTAs require less of a surrender of economic sovereignty, as external trade policy remains the dominion for each individual member country. Thus, integration under an FTA tends to present a less political burden than that under Customs Unions.

2. Current Influence of FTAs

As mentioned in the introduction, the number of RTAs registered with the GATT/WTO is 163 as of February 1999, while the growth in number and scope being particularly high in this decade. According to Bergsten (1997), more than 61 percent of the world trade in 1994 was under the influence of the RTAs. The recent wave of regionalism can be summarized as follows.

European integration has a long history, but the most recent wave was sparked by the Single Market Programme, EC92. In 1985, Jacques Delors took office as President of the European Commission, willing to expand the European integration through the completion of the internal market. Lord Cockfield's *1985 White Paper* was the first step, in which he recommended changes, which eventually were implemented by the 1986 Single European Act. In the same year, Spain and Portugal acceded to the European Union after eight years of negotiations. Additional expansion took place in 1995 as the EFTA

countries of Austria, Sweden, and Finland joined the EU. The European Union has currently been deliberating on the admission of the Central and Eastern European countries.[7] Furthermore, aiming for a Single Market, the EU has unified monetary policy through the launching of the European Monetary Union in 1999.

As for the continental Americas, the NAFTA member countries are currently discussing the admission of Chile. Meanwhile, North and South Americas are discussing the establishment of an FTAA, which would tie the entire North and South American continents into one. Such discussions have continued despite the increasingly negative sentiments toward any further formation of the FTAs in the United States. Chile, Brazil, Argentina, Uruguay and Paraguay have all formally and informally approached the United States with requests for FTAs of some type. However, the NAFTA's enlargement has been delayed by the reluctant U.S. Congress. Instead, the United States has initiated the FTAA, aiming to conclude the negotiations by 2005.

On the other hand, efforts of Asia–Pacific regionalism are spearheaded by the APEC, which differs from most of the existing FTAs in that it does not offer the member countries any preferential trade treatment. Offering a preferential treatment would be unrealistic as for now, since GATT Article 24 would then require the APEC member countries to adopt a common plan to achieve zero–tariff intra–bloc trade on virtually all of the goods within a fairly short period. Many of the APEC countries – Malaysia and China, for example – are unprepared to change their state–led development plans for the

7) All ten applied for EU membership and have been assured of eventual admission. Those ten nations are Poland, Hungary, Czech, Slovakia, Bulgaria, Romania, Estonia, Latvia, Lithuania, and Slovenia.

sake of free trade. Moreover, they fear domination by the U.S. and/or Japan. Consequently, the APEC relies entirely on unilateral, MFN-based liberalization (so-called, *open regionalism*) principles, and has targeted free trade only for a very long term.

As the Chronology in Appendix I would indicate, regional trade arrangements have been a central feature in the development and evolution of the post-war trading system rather than an exception. Indeed, despite the presence of multilateral rules and disciplines in the world trading system, most of the GATT/WTO contracting parties are also members of at least one regional trade arrangement. The exceptions are Korea, Japan, and Hong Kong.

Table 1. Number of Preferential Trade Agreements Registered with GATT/WTO

1948–1954	1955–1959	1960–1964	1965–1969	1970–1974	1975–1979	1980–1984	1985–1989	1990–1994	1995–1996	1997–1998
2	3	12	9	21	19	6	5	33	35	17

Source: The WTO Secretariat (1998)

3. Economic Effects of FTAs

The economic effects of FTAs could generally be categorized into influence on trade and influence on investment, while the effects vary according to the coverage. The effects of trade and investment liberalization will be first examined, followed by a discussion of the negative aspects of an FTA.

A. Trade Liberalization Effects

The effects of trade liberalization in an FTA share common characteristics with those evidenced in traditional analysis of Customs Unions, which utilizes the concepts of trade creation and trade diversion developed in the classic work of Viner (1950) and Meade (1953). Once an FTA is made, not only intra-regional tariffs would be abolished, but member countries would also benefit from trade creation as they could then freely export to other FTA partners, thereby gaining comparative advantages from within the region. FTA members would also benefit from trade diversion, as lower tariff rates within an FTA would result in a trade being diverted from producers outside of an FTA to less efficient ones inside. Overall, an FTA is justified on the premise that the trade creation effect is larger than the effect of trade diversion.

An additional benefit of FTAs for member countries is that, the resulting trade creation increases the efficiency of resource allocation. This effect is derived from an FTA, fostering market expansion, wherein scale economies can operate in the long-term and market competition is promoted. However, taking into account the loss that non-members will suffer due to trade diversion, GATT Article 24 provides that RTAs cannot impose higher common external tariffs than those which the members imposed previously.

According to Perroni and Whalley (1994), the most striking feature of recent regionalism is that, seemingly small countries with little negotiating power have initiated and successfully concluded trade negotiations with larger countries. This has been, in large part, due to the primary interest of the smaller countries being security of access to the larger markets. Thus, the larger countries have had substantially

more negotiating power than the smaller countries, and have been able to extract side payments in the form of trade and non–trade concessions as compensation for granting insurance of market access to the smaller countries.

Demonstrating such dynamics are the negotiations leading to the signing of the Canada–U.S. FTA. According to its report to the U.S. Congress, USTR (1981), U.S. trade officials found the 1965 Canada–US Auto Pact very beneficial to the interests of the United States, and that, 'further opportunities to rationalize industries through free trade should be explored.' At the same time, Ronald Reagan had espoused North American free trade during his 1980 Presidential campaign. Although the United States had begun to promote a Canada–U.S. FTA in the 1970s as the Tokyo Round had been under progress, Canada had maintained a lukewarm stance, keeping the U.S. desires for a bilateral FTA at bay until the mid–1980s. According to Baldwin (1997), an FTA had long been the *bête noire* of Canadian politics, pitting commercial export interests against Canadian fears of economic and cultural domination by its gigantic neighbor. A major factor in Canada's conversion to an embracing of an FTA was the rise of U.S. protectionism in the 1980s. Indeed, dealing with countervailing duties and other remedies for the perceived unfair trade practices by the United States were a central concern for the Canadians in the CUSFTA talks. The Canada–U.S. FTA talks had formally begun in September 1985 upon the Canadian Prime Minister Mulroney's public proposal, and the Canada–U.S. FTA had been formally concluded in 1989. Under the agreement, all items were to be traded duty–free between the two countries by the end of 1998.

Apparent in the outcome of the Canada–U.S. FTA negotiations were the relatively greater concessions made by the Canadian side. Prior to

the FTA talks, tariffs were so low that, except for apparel, petrochemical and a few other sectors, the bilateral tariff elimination meant little.[8] In the apparel sector, a side agreement of the pact had established quotas, which restrained entries into the U.S. market for the Canadian apparel producers at pre-agreement levels. In transportation, the restrictive Jones Act in the U.S. was preserved. In the energy sector, differential domestic/foreign pricing in Canada was outlawed and a security of supply provision was granted for the U.S. purchases of energy products. In the area of investment, the Canadian screening procedures were relaxed. Further, significant changes were made in patent protection, including the patents affecting foreign pharmaceuticals.[9] All of these outcomes demonstrate Canada's greater willingness to show flexibility in exchange for insured access to the U.S. market.

As for the NAFTA, it appears that Mexico acquiesced even more than Canada did, as its pre-NAFTA tariff levels were much higher. However, lower tariff rates and liberalization of the economy in general were the goals for Mexican government's attempt to modernize its economy. After experiencing a debt crisis in the early 1980s, Mexico recognized a need to liberalize its closed economic structure. Joining the GATT in 1986, Mexico had accelerated its import liberalization measures, cutting tariff rates from 100 to 20 percent, and adopted bold measures to build a liberal investment regime in 1989. The process culminated with Mexican President Salinas' proposal for an FTA with

8) According to Whalley (1993), before the Agreement went into force, the average tariff on Canadian exports to the U.S. was approximately 1 percent, and nearly 80 percent of Canadian trade with the U.S. was already duty free.

9) See Whalley (1993), Hufbauer et al. (1994), and Destler (1995) for more details on the Canada-U.S. FTA process.

the United States in June 1990. Mexico's objectives were to improve and lock in access to the U.S. market and to further domestic economic reforms through attracting foreign direct investment.[10] The Bush administration had immediately agreed to hold bilateral talks. However, U.S. motives had little to do with trade liberalization, but instead saw the creation of a trade pact with Mexico as an opportunity to foster stability in its southern neighbor by supporting pro-market reforms and boosting economic growth.

The initiative to turn the U.S.-Mexico talks into the NAFTA came from Canada, which had feared the possible trade diversion effects of the U.S.-Mexico FTA. After promising not to hinder the U.S.-Mexico accord, Canada's request was accepted in February 1991. As Canada joined the talks in June 1991, Mexico's negotiating power had increased relative to that under bilateral negotiations with the United States, minimizing the amount of concessions Mexico would have had to make. However, since it maintained higher tariffs than the United States and Canada did, Mexico had to reduce tariffs unilaterally and signed side agreements concerning the protection of environmental standards and labor rights.[11]

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10) A regional trade treaty can make more secure domestic policy reforms. That is, by binding the country to the masthead of an international trade treaty, any future reversal of domestic policy reform becomes more difficult to implement.

11) Republicans were overwhelmingly positive about the NAFTA negotiations; Democrats were divided but leaning against. Thus, although three party talks finished in December 1992, the Clinton administration resumed negotiations to supplement the original version of NAFTA with side agreements regarding protection of labor rights and environmental standards. The Clinton administration finally won the approval from the

From the viewpoint of small countries wishing to join an FTA, Perroni and Whally (1994) analyzed how the order of joining an FTA would influence the economic welfare. The Canada–U.S. FTA was bilaterally concluded before the NAFTA. This caused Canada to pay a considerable compensation to the United States. Mexico, which had later joined the two in creating the NAFTA, paid a relatively smaller premium than Canada. This is because Canada had stood to benefit more than the United States in signing an FTA; thus, the side payment, requested by the United States for a first entry by Canada, was equally large. If Canada had known that a three–way trade agreement with the two North American neighbors were imminent, it could have had waited until the NAFTA was formed, and paid less compensation to the United States. Thus, if Mexico had concluded a bilateral U.S.–Mexico FTA, instead of the three–way NAFTA agreement, it would have had to promise more compensation to the U.S. From the U.S. standpoint, a bilateral FTA with Mexico, rather than through the NAFTA, would have had extracted greater concessions. Furthermore, Mexico had not been asked to make an excessive compensation to the United States because the Mexican economy was comparatively smaller than that of Canada, and thus the impact of an FTA on the U.S. was less. This implies that regional economic integration serves as an insurance rather than a more conventional trade liberalization.

B. Investment Liberation Effects[12)]

In order to identify and assess some of the theoretical linkages

Congress in November 1993, and the NAFTA took effect in January 1994.

12) This section is heavily drawn from Blomstrom and Kokko (1997).

between FTAs and foreign direct investment (FDI), we need to distinguish the factors of FTAs – those of which promote, and those of which inhibit trade. On the one hand, since an FTA entails trade liberalization, it often lessens the need to utilize FDI as a method of gaining access to a country's market. Manufacturers are now able to produce goods in their own country and then export freely to other economies within a FTA framework. On the other hand, the establishment of an FTA can promote FDI as it allows the setting up of facilities in targeted markets of firm-specific intangible assets, which cannot be traded efficiently in arm's length transactions. If investment regimes are devised to strengthen the national treatment and protection of investors' rights, and if previously closed sectors are more widely opened, the more investment-friendly environment will induce increased investment inflows. In particular, the internationally-oriented firms, which possess some firm-specific intangible assets, such as technological and marketing expertise, will exert their competitive edge in the more investment-friendly environment.

According to Blomstrom and Kokko (1997), these two characteristics of FDI under FTAs lead to partly contradictory predictions regarding the effects of regional economic integration, particularly for the intra-regional investment flows. Regarding tariff-jumping FDI, we would primarily expect reductions of such investment flows, as trade liberalization makes exporting from the home country relatively more attractive than FDI as a way to serve the regional market. However, regional integration would not create incentives to reduce investment or repatriate capital for the projects, which were primarily undertaken to internalize the exploitation of intangible assets.

In fact, reduction of the regional trade barriers could instead stimulate overall FDI flows among the relevant trading partners by

enabling multinational corporations (MNCs) to operate more efficiently across international borders. Hence, overall effects on the intra-regional FDI flows are subject to the partially offsetting factors, and the net impact on any specific FTA or individual member country would tend to be determined by the structure of, and motives for the existing investment regime. A reasonable generalization, however, is that countries with low initial trade restrictions are more likely to benefit from increased intra-regional FDI flows as trade barriers are reduced, since they are unlikely to have been a significant host of import-substituting FDI.

Turning to intra-regional FDI flows, both the tariff-jumping and internalization motives predict increased investment flows into the FTA. The inflows of FDI from non-members into the region could obviously increase, if the average level of protection increases as a result of the establishment of an FTA, or if such establishment raises fears of increased protectionist measures by FTA members. However, the surge of inward FDI would probably not be evenly distributed, but rather be concentrated in those areas with greatest advantage in terms of location.

Meanwhile, the potential effects of FTAs on outflows of FDI from the integrating region are rarely discussed in most of the theoretical literatures due to the assumption of static trade barriers in the rest of the world. However, some changes in outward FDI by countries establishing an FTA are possible even when trade policies in the rest of the world remain unchanged. For instance, firms can strengthen their competitiveness by capitalizing on opportunities of economies of scale and joint ownership of intangible assets. Thus, FDI motivated by internalization would increase.

Looking at the effects of the establishment of an FTA on FDI flows,

the case of Canada, following the establishment of CUSFTA, can provide insight. The essence of the Canada–U.S. FTA was the phased bilateral elimination of tariffs. However, a number of provisions, which reduced discrimination against bilateral FDI, including the extension of rights of establishment and national treatment, were also included. Furthermore, the thrust of the investment provisions of the Canada–U.S. FTA was clearly to expand the legal scope for bilateral FDI. In particular, the inclusion of a relatively robust dispute settlement procedure reduced the risks of either government's acting in a discriminatory manner toward investors from the other country. However, there remain areas, where investment could have been encouraged further, and overall, there was less improvement in investment liberalization as in trade liberalization.

Table 2 presents an overview of the Canadian FDI patterns between 1986 and 1995. Bilateral inward and outward direct investment refers to the U.S. direct investment inflows to Canada and the Canadian direct investment outflows to the U.S., respectively. Also included are Canada's other inward and outward direct investment flows to countries other than the United States. While there are substantial changes in FDI flows for the individual years, the overall magnitude of bilateral FDI was relatively stable over the period 1988–1992. Substantial increase in the nominal value of inward direct investment from the United States had emerged in 1993, and continued through 1995, while the nominal value of outward direct investment to the United States had increased in 1994 and 1995. However, this increase merely returned investment levels to those during the mid–1980s. It is unlikely that these increases in investment flows are directly related to the establishment of CUSFTA, since the increases had emerged in 1993, well after the implementation of CUSFTA, and coincided with

a general boom in the outward FDI flows from the United States at the time. A substantial decline in the value of the Canadian dollar had begun in 1992, and it was likely a significant factor behind the increased U.S. investment in Canada. Overall, the CUSFTA has had relatively little influence on the direct investment patterns between the two countries.

Table 2. Inward and Outward Foreign Direct Investment for Canada

(In USD million)

Year	United States		Rest of the World	
	Inflow	Outflow	Inflow	Outflow
1983	29	1686	2438	1558
1984	3196	3290	2960	1563
1985	–191	3144	1965	2130
1986	–743	3362	4607	1502
1987	6028	7278	4632	4044
1988	2052	2963	5899	1775
1989	2091	3510	3850	1918
1990	3246	2800	5917	2722
1991	1961	1925	1187	4553
1992	2719	1315	2673	3144
1993	5308	968	1117	6522
1994	7279	2456	960	4070
1995	10229	3570	5122	2996

Source: Statistics Canada, *Canada's Balance of International Payments*, Ottawa: Ministry of Industry, various issues

Inward direct investment for Canada by countries other than the United States exhibits no consistent pattern over the period 1983–1995, although the largest inflows occurred between 1988 and 1990, which was the period immediately following the implementation of the CUSFTA. However, there is an interesting pattern in the development of the Canadian outward direct investment in countries other than the United States. Until 1990, the Canadian outward FDI had primarily targeted the United States, but the early 1990s saw a significant

decrease in the relative importance of the United States as a destination for the Canadian outward direct investment. The decreasing share of outward FDI destined for the United States is mirrored by an increasing share going to EU member countries other than the United Kingdom, and an even more dramatically increased share going to regions other than the EU, United States, and Japan. The profitable opportunities encouraging a redirection of the Canadian direct investment outflows presumably had nothing to do with the CUSFTA. However, the CUSFTA may have played an important role as it guaranteed access to the U.S. market, which freed FDI resources that could be utilized to establish the Canadian presence in other international markets.

In contrast to the inconclusive effect of the CUSFTA, the NAFTA seemed to have a significant impact on the inflows of FDI into Mexico. According to Baldwin and Seghezza (1998), FTA membership makes a small developing country a safer place to invest. The argument is that FTAs involve deeper-than-MFN commitments to the contracting countries, and hence, improve the policy credibility of developing countries. In addition to the trade and investment liberalization measures already introduced in the CUSFTA, the NAFTA included major advances in areas, such as government procurement (where coverage was extended to the services and construction sectors), intellectual property, investors' rights (introducing binding investor-state arbitration), as well as more stringent rules of origin.[13] The coincidence of locked-in policy reforms, the distinct Mexican advantage of abundant cheap labor in such proximity to the open U.S. and Canadian markets, were very likely to promote FDI inflows into Mexico.[14] As shown in Table 3, the inflows of FDI have risen

13) See Hufbauer and Schott (1993) for details.

significantly since the late 1980s, from less than USD 3 billion to nearly USD 8 billion in 1994.

Table 3. Foreign Direct Investment Flows into Mexico

(In USD million)

Year	1989	1990	1991	1992	1993	1994
Amount	2,785	2,549	4,742	4,393	4,389	7,978

Source: The IMF, *International Financial Statistics* (various issues)

The U.S. investment in Mexico had increased from USD 2.5 billion in 1993 to USD 3.7 billion in 1994, and then had decreased to USD 3 billion in 1995 and USD 2.7 billion in 1996. Despite its currency crisis in 1994, Mexico has effectively induced investment from its neighboring country, the United States. Of the total inflow of FDI into Mexico, the U.S. share was 71.5 percent in 1993 and decreased to 49.9 percent in 1994, but then increased again to 62.4 percent in 1995 and 65.9 percent in 1996, respectively. Accounting for the sharp decline of the U.S. share in 1994 was the increase of FDI coming from outside of the NAFTA in response to the country's improving economic and institutional environment, including its direct access to the U.S. market. Also crowding out the dominance of the U.S. investment were non-NAFTA firms attempting to lessen the effects of the trade diversion

14) In the case of poor countries joining the EU, the membership locks in well-defined property rights and codifies competition policy and state-aids policy. When Ireland, Greece, Portugal and Spain joined the EU, they granted the European Court jurisdiction over their laws affecting the Single Market. Moreover, the Single European Act locks in capital markets and rights of establishment, so membership assures investors that they can put in and take out money. See Baldwin and Seghezza (1998).

mentioned above. To the extent that Mexico has become a relatively more important supplier to the U.S. market through trade creation or trade diversion, foreign multinationals are likely to respond by increasing their production capacity in Mexico.[15]

When it comes to the effects of FDI in Mexico, there is some evidence that multinational corporations have played an important role in opening up the country to foreign trade, as they have converted a number of import-substituting industries into exporters. The rapid expansion of the *maquiladoras*, where foreign firms play the important role, has also intensified the trade liberalization process. However, the main contribution of the presence of foreign firms comes from technology transfer and technology spillover effects. The Mexican economy seems to have reached a level of development and skills, where local firms are able to absorb some of the new technology, which is utilized by locally based multinationals.

The experience of Mexico suggests that North-South integration may be greatly beneficial for the southern partners, and illustrates some of the prerequisites for achieving these beneficial effects. First, Mexico's membership in the NAFTA coincided with other reforms, which liberalized the institutional framework of the country. Hence, the regional integration contributed to very significant and positive policy changes. Second, Mexico possesses strong geographic advantages with respect to its proximity to the U.S. and Canadian markets, and this effect is favorably compounded with increasingly market- oriented

15) In particular, investors from outside the region were treated as almost equal as members by the Mexican investment laws. Thus, they perceived Mexico as a much more attractive investment location than before.

economic policies and abundance of cheap labor. Consequently, regional integration is directly related to the significant increases in the inflows of FDI, in particular from countries outside of the NAFTA.

C. Negative Effects of FTAs

Despite many positive effects of the establishment of an FTA, negative side effects must also be acknowledged. First, the remaining high tariffs, which are imposed on non-member countries, can partially offset the benefits of trade liberalization. The trade diversion effects would aggravate consumer welfare in the region and ultimately result in resource misallocation in both the regional and global sense. Second, following the formation of an FTA, the changes in comparative advantage will force a reallocation of factors, such as capital and labor. If the factor movements are not smooth across industries, severe adjustment costs can arise. Of course, the adjustment process reflects a transition to a more efficient industrial structural realignment on a regional basis. However, those industrial sectors, which stand to suffer from the formation of an FTA, will resist.

In the process of implementing an FTA, it is widely acknowledged that the economic benefits are not equally distributed to all sectors. As a result, some groups strongly support an FTA, while other groups equally oppose. For instance, while trade creation effects are beneficial to exporters, the reaction of those previously relying on local markets is mixed. Local producers in import-substituting sectors stand to suffer under trade liberalization. Meanwhile, trade diversion effects increase the opportunities for other local producers. Yet, those same producers, who benefit from trade diversion under a limited FTA, will oppose any expansion of the FTA, which includes threatening of new

producers. Hence, it is likely that an FTA has tendency to strengthen regionalism while hindering multilateralism.[16]

Grossman and Helpman (1995) also pointed out that, if some sensitive sectors can be excluded from an FTA, the prospects for an agreement would improve. Politicians will attempt to exclude the sectors, whose inclusion imposes the greatest political burden. The areas, which are likely to be avoided, are the ones that would bring fierce opposition from major industrial interests and pending areas of trade liberalization, which would cause average voters the greatest anxiety. Thus, by excluding some of the most sensitive sectors from an FTA, a government may be able to diffuse potential opposition.

16) Krugman (1991) called attention to the possibility that multilateralism could be hindered rather than supplemented by regionalism such as an FTA, because of the fact that an incentive to establish more discriminatory trade barriers towards non-members exists in an FTA. The U.S. Council of Economic Advisors (1995) considers various discussions on whether the regional integration is supplementary or conflicting with multilateralism in its annual report, yet it emphasized the fact that an FTA, which the US has taken on, fundamentally promotes multilateralism. Levy (1997), however, show that bilateral FTA can undermine political support for further multilateral trade liberalization. If a bilateral trade agreement offers disproportionately large gains to key agents in a country, then they would like to block a multilateral agreement unless free trade results in more gains.

Ⅲ. Econometric Model, Data, and Parameter

1. Description of Model

Several factors make the general equilibrium framework most appropriate for analyzing the economic effects of major policy changes, such as the implementation of an FTA. As the reduced trade barriers, created by the formation of a new FTA in the Asia-Pacific region, generate more competition between the firms of member countries, this would likely induce producers to lower their prices, allowing the general equilibrium models to portray the economic effects, occurring from enhanced competition. Also, the model will provide a more accurate estimation of these variables than the triangular calculations of partial equilibrium analysis. Furthermore, the general equilibrium approach allows factor prices to vary. Thus, the relative changes in the intermediate inputs and primary input prices would presumably affect the ratios of a firm's material components and the amount of value-added to the primary production factors in each equilibrium. Partial equilibrium analyses assume constant factor prices during the experiments, thus limiting accuracy as prices change with the changes in the economic environment (such as when an FTA is implemented).

The CGE models have been used extensively to capture the essential features of economic activities. A CGE model is a simplified computer representation of one or more economies. Each model considers economic activities by the consumers, producers, and the government. The CGE model provides a framework, through which different and diverse policies can be examined. Once the basic model has been specified and applied with actual data, various policies can be studied

with minor modifications. The model used here is a static, Walrasian general equilibrium model, which endogenously determines quantities and prices by using a descendant of the Johansen (1960) simulation approach. A detailed description of the CGE model is provided in Cheong (1995).

A. Market Clearing Conditions

We begin with a description of the market clearing conditions. First, the market clearing conditions for labor and capital in each region are

$$\overline{l_r} = \sum_j l_r^j, \text{ and} \tag{1}$$

$$\overline{k_r} = \sum_j k_r^j, \tag{2}$$

where $\overline{l_r}(\overline{k_r})$ represents the total supply of labor (capital) in region r. $l_r^j(k_r^j)$ is the labor (capital) employed for production sector j in region r. Equations (1) and (2) imply that the entire supply of endowment factors should be employed in the production sector, in order to clear the factor markets.

For each region in the model, the domestically-produced commodity, q_r^i, should be equal to the sum of the domestic use and region r's sales of that commodity, so that

$$q_r^i = d_{cr}^i + \sum_j d_{zr}^{ji} + \sum_s x_{sr}^i, \tag{3}$$

where x_{sr}^i is region s's export of commodity i to region r. The first part of the right hand side of the equation represents the private households' final consumption demand for that good, and the middle

portion represents the intermediate inputs across all production sectors. The last part represents the total export amount of that commodity. As shown in equation (4), imports of good i in region r can be decomposed into final consumption and intermediate inputs.

$$m_r^i = m_{cr}^i + \sum_j m_{zr}^{ji} \tag{4}$$

The model will divide regional output into that for domestic use and that intended for export, maintaining equation (3) for clearing output market. The market for imports will be cleared via equation (4).

B. Consumers

If goods of the same category were truly homogeneous, each country would specialize in the production of a small number of goods, and cross-hauling of the same good would not be observed in the real trade data. In order to portray the real world's lack of homogeneity more accurately, many employ the Armington assumption to explain product differentiation. Armington (1969) suggests that products are differentiated by country of origin. Most perfectly competitive CGE models use the Armington assumption, as do a number of other models that have been used in the related literatures.

The model accounts for multiple country activity, where each region has one representative consumer, whose welfare level represents the welfare level of the region, and a Cobb-Douglas formulation is specified for the top nest. Economic agents divide their composite commodity consumption into domestically produced goods and imports at the middle nest after assessing welfare maximization. Then,

the sources of imports are identified by the bottom nest of the utility function. The households' utility level will depend on the level of composite good consumption. At the second stage, the composite commodity will be divided into domestic good and composite import consumption. Mathematical Cobb–Douglas utility function is defined for the consumption of all final composite commodities (imported or domestic) and regional saving, while assuming constant shares. The Cobb–Douglas utility function is indicated as follows:

$$u_r = \sum_i \delta_r^i * c_r^i \text{ where } \sum_i \delta_r^i = 1. \tag{5}$$

δ_r^i is the share of total expenditure on the composite commodity i of national income in region r. u_r is the percentage change in regional utility in region r, and c_r^i is the percentage change in demand for the consumption of composite good i (which will be described later). In other words, regional utility is determined by the weighted average of the consumption of composite commodities. With this specification of the utility index, any income change is reflected in the regional utility, since the regional households spend a portion of any income change on composite consumption goods and save the remainder.

Composite price index (p_r^{ci}) is calculated by averaging prices for the imported final consumption goods and domestically produced goods, weighted with expenditure shares.

$$P_r^{ci} = \Theta_r^{ci} * p_{cr}^{mi} + (1 - \Theta_r^{ci}) * p_{cr}^{di} \tag{6}$$

In equation (6), Θ_r^{ci} represents consumer expenditure share on imported goods, while $(1-\Theta_r^{ci})$ represents domestically produced goods. p_{cr}^{mi} (p_{cr}^{di}) stands for prices of imported goods (domestically produced

goods).

Equation (7) and (8) define consumer's demand for domestically produced goods (d^i_{cr}) and imported goods (m^i_{cr}) in functions of composite demand for consumption goods, prices, and price elasticity of substitution (σ^i_c).

$$d^i_{cr} = c^i_r + \sigma^i_c * \{p^{ci}_r - p^{di}_{cr}\} \tag{7}$$

$$m^i_{cr} = c^i_r + \sigma^i_c * \{p^{ci}_r - p^{mi}_{cr}\} \tag{8}$$

C. Producers

This paper uses a simple structure of production by assuming perfectly competitive technology. Therefore, the perfectly competitive firms operate with constant-returns-to-scale technologies in their production process, where producers' prices are equal to the marginal costs of production. All firms use primary production factors and intermediate goods as their production inputs. Firms employ labor and capital as primary production factors. In addition to labor and capital, land is one of the primary production factors in the production of agricultural products. Both labor and capital are assumed to be perfectly mobile within the region, but immobile between regions.

The goods and services can be used as final consumption and intermediate goods. Primary production factors will be aggregated into value added, once again using a C.E.S. equation. In addition, the top of the production structure combines value added and the composite intermediate goods by using a fixed-coefficient (Leontief) technology. In other words, the percentage rates for output should be equal to those of value added and composite intermediate goods. VA^i_r is the

demand for value added by the production sector i in region r, and z_r^{ji} is the conditional demand by the production sector i in region r for intermediate good j.

$$q_r^j = LEONTIEF \quad \overline{q_r^i},\ z_r^{1i},\ z_r^{2i},\ z_r^{3i},\ ,\ ,\ , \tag{9}$$

As in equation 6 for consumers, firms calculate composite price index. Subscript z denotes intermediate production inputs, and superscript j implies production sector j.

$$p_r^{ji} = \Theta_r^{ji} * p_{zr}^{mji} + (1 - \Theta_r^{ji}) * p_{zr}^{dji} \tag{10}$$

Demand for intermediate inputs of domestically produced goods and imports will be functions of composite demand for consumption goods, prices, and price elasticity of substitution.

$$d_{zr}^{ji} = z_r^{ji} + \sigma_f^i * \left\{ p_r^{ji} - p_{zr}^{dji} \right\} \tag{11}$$

$$m_{zr}^{ji} = z_r^{ji} + \sigma_f^i * \left\{ p_r^{ji} - p_{zr}^{mji} \right\} \tag{12}$$

where p_r^{ji} is firm j's price index for composite intermediate good i in region r. $p_{zr}^{dji}(p_{zr}^{mji})$ is the price, which firm j in region r pays for domestically produced (imported) intermediate good i. σ is the firm's elasticity of substitution between the domestically produced intermediate and the imported intermediate. Note that the elasticity is assumed to be equal across all regions for the same intermediate input.

This paper uses a simple regional investment function, which is compatible to the static CGE model. Household decision determines the share of saving from regional income. In this model, regional

saving will be realized by purchasing capital goods produced during a period, based on the expectation of the future rate of return to capital.[17] The model is simulated in a simple static setting because of technical difficulty in performing simulations with a dynamic CGE model with multi-sectors and multi-regions. The model can be simulated with two alternative specifications of the regional investment function. The first specification is that the regional shares of global capital stock, which is the sum of regional capital stock, are assumed to remain constant during the simulation, in order to simplify the regional capital formation and investment of each region. The other specification is that regional investment will be adjusted, such that the regional rates of returns on capital are equal across all regions. The results of the simulation performed on the first specification of the regional investment function are reported.

D. Price and Policy Variables

Most policy changes will be performed with the policy variables of imports and exports, and thus, it is necessary to specify how these policy variables are related to the price variables. The price of import, p^i_{rs}, is the sum of *c.i.f.* price, p^{ci}_{rs}, and import tariff, t^i_{rs}, and the price of export (*f.o.b.* price); p^{fi}_{rs}, is the domestic market price, p^{mi}_r, minus the export subsidy, s^i_{rs}, as defined as follows.

$$p^i_{rs} = p^{ci}_{rs} + t^i_{rs}, \text{ and} \tag{13}$$

17) Because the model in this paper assumes static general equilibrium, this paper adopts this specification for saving. For full specification of saving, dynamic modeling will be required.

$$p_{rs}^{fi} = p_r^{mi} - s_{rs}^i, \tag{14}$$

where the variables are percentage changes, and the subscript *rs* stands for trade flows from country *r* to country *s*. s_{rs}^i represents the export tax, if it is negative. Data for regional imports and exports are available with the clarifications of sources and destinations, upon which equations (8) and (9) are based. But generally, it is not easy to collect import and export data for consumers and producers with the sources for each commodity. Thus, import prices with sources will be aggregated into composite import price index, $\overline{p_r^i}$.

$$\overline{p_r^i} = \sum_s \zeta_{sr}^i * p_{sr}^i, \tag{15}$$

where ζ_{sr}^i is region *r*'s share of import *i* by source (from region *s*).

The import price in equation (13) will be channeled into the consumer price, p_{cr}^{mi}, (equation (8)) and the producer price, p_{zr}^{mji}, (equation (12)), through the two equations,

$$p_{cr}^{mi} = \overline{p_r^i} + t_{cr}^{mi}, \text{ and} \tag{16}$$

$$p_{zr}^{mji} = \overline{p_r^i} + t_{zr}^{mji}, \tag{17}$$

where t_{cr}^{mi} (t_{zr}^{mji}) is the tax on imported good *i*, imposed on consumer (producer) in region *r*. Import tariff cuts will reduce the import price in equation 8. A reduced import price will be reflected in the composite import price, via equation (13). In equations (16) and (17), consumers and producers will face lower import prices, and they will demand more imports, for which the channels are equations (8) and (12).

2. Parameters and Aggregation of Data

Table 4 shows the classification of regions and industrial sectors. The classification of industrial sectors is based on the similarities of production requirements in intermediate goods and primary production factors.

Table 4. Classification of Regions and Production Sectors

Production Sector	Region
(1) Agriculture (AGR)	(1) Australia–New Zealand (ANZ)
(2) Other Primary Sectors (OFS)	(2) ASEAN (ASN)
(3) Processed Foods (OFD)	(3) China–Hong Kong (CHK)
(4) Beverage and Tobacco (BT)	(4) Canada (CND)
(5) Resource Based Industry (RSC)	(5) EU (EU)
(6) Textiles and Clothing (CLO)	(6) Japan (JPN)
(7) Chemical and Plastic (CRP)	(7) Korea (KOR)
(8) Paper; Lumber, and Pulp (PPL)	(8) Other APEC Countries (OAP)
(9) Light Manufacturing (LMF)	(9) USA (USA)
(10) Fabricated Metal Products (FMP)	(10) Mexico (MXC)
(11) Other Manufacturing (OMF)	(11) Rest of the World (ROW)
(12) Machinery and Equipment (ME)	
(13) Vehicle (TNP)	
(14) Services (SVC)	

As shown in Table 4, the data for world production, consumption, trade, and others are aggregated into 11 regions, with each region divided into 14 production sectors. Production sectors consist of two primary sectors (AGR, OFS), 11 manufacturing sectors (PFD, BT, RSC, CLO, CRP, PPL, LMF, FMP, OMF, ME, TNP) and one service sector. Of 11 regions, Korea, Japan, U.S., Canada, and Mexico are isolated as a separate region for the analysis of FTAs for Korea and the United

States, Korea and Japan, and Korea and the NAFTA. Hong Kong is included as part of China.

In addition to a system of equations and database, the CGE model needs a set of parameters, specifying characteristics of economic agents, such as consumers and producers. This section presents two sets of elasticity of substitution, as given in Table 5. The first set of elasticities is a set of parameters for the Armington assumption between domestically produced goods and imports (σ_d), and the second is for imports from different sources (σ_m).

Table 5. Elasticities of Substitution – Assumed Values

	σ_d	σ_m
(1) AGR	2.20	4.40
(2) OFS	2.79	5.52
(3) PFD	2.20	4.40
(4) BT	3.10	6.20
(5) RSC	2.80	5.60
(6) CLO	3.31	6.98
(7) CRP	1.90	3.80
(8) PPL	2.14	4.47
(9) LMF	2.80	5.60
(10) FMP	2.80	5.60
(11) OMF	2.16	4.75
(12) ME	2.80	5.60
(13) TNP	5.20	10.40
(14) SVC	1.94	3.81

Elasticities can be calculated using a time-series data of the relevant variables. However, it is not easy to find data, which are consistent with the CGE model. Thus, rather than trying to estimate those parameters, this paper takes elasticities from Hertel (1997), who

calculated elasticities for CGE models using the aggregation facility of the GTAP. One thing to note is that these parameters are commonly applied to all countries in this study. If the information about these parameters for each country is available and reliable, different parameters can be specified for different countries to reflect each country's economic characteristics.

The central column of Table 5 shows the Armington elasticities. Parameters for the Armington assumption are 2.3–3.3 for most sectors, except the transportation sector, where the parameter is assumed to be 5.2. Overall, the elasticities for imports are twice the elasticities for the Armington parameters. The CGE modeler performs sensitivity tests by studying the robustness of the model with respect to parameters.

Ⅳ. Economic Effects of a Korea–U.S. FTA: Empirical Results

1. Economic Effects of a Korea–U.S. FTA, Korea–Japan FTA, and Korea's Entrance into the NAFTA: A Comparison

The main purpose of this paper is to analyze the economic effects of an FTA between Korea and the United States, but it would also be helpful to make a comparison of such effects with those of an FTA between Korea and its second largest trading partner, Japan. Further, when discussions of a Korea–U.S. FTA gain momentum, they are likely to lead to the possibility of Korea's entering into the NAFTA. Therefore, we also have aimed to analyze the potential economic effects of Korea's entrance into the NAFTA.

Table 6. Effects of Various FTA Scenarios for Korea

(In USD billion, %)

	Korea–U.S. FTA		Korea–Japan FTA		Korea–NAFTA	
	Korea	US	Korea	Japan	Korea	US
Welfare Index (%)	1.73	0.07	−0.28	0.14	2.27	0.09
Equivalent Variation	4.8	3.7	−0.1	4.4	6.3	4.6
Real Income (%)	1.47	−0.02	0.15	−0.01	1.82	−0.01
Price Index (%)	−3.11	0.37	0.81	0.35	−3.26	0.54

Table 6 summarizes the potential economic effects of FTAs between Korea and the United States, Korea and Japan, and Korea's entrance into the NAFTA. Among the three types of FTAs, both an FTA between Korea and the United States and Korea's entrance into the NAFTA would likely improve the welfare of Korea. However, according to the

simulation, an FTA between Korea and Japan would have a negative effect on Korea's overall welfare level.[18] Nonetheless, the simulation here omits the effect of rules of origin,[19] which would almost certainly be included in an FTA between Korea and Japan. If the rules of origin were considered, then the prospective welfare gains for Korea would be higher.[20] In all of the three cases, Korea's level of the real income would rise. If Korea concludes an FTA with the United States and joins the NAFTA, then the real income of Korea would surge by 1.47 percent and 1.82 percent, respectively. On the other hand, Korea's income would increase by only 0.15 percent if it were to conclude an FTA with Japan.

Generally, the CGE model calculates the representative consumers' income of each region in light of a policy change, and divides this income into consumption and savings for the maximization of consumer utility in each simulation. Consumer utility is repeatedly computed based on the savings and the amount of goods and services consumed until the welfare of the consumers is maximized. Accordingly, the consumer welfare index determines whether policy change

18) One explanation can be Korea's worsening terms of trade that would occur if Korea and Japan were to remove tariffs completely on bilateral trade. It is estimated that Korea's terms of trade would improve by 0.21 percent under an FTA between Korea and the U.S. but deteriorate by 0.71 percent under an FTA between Korea and Japan.

19) Most current trade models omit the effect of rules of origin as inclusive computation is extremely difficult in the multi-country modelling work.

20) Rules of origin invariably increase trade creation effects, and thus minimize the welfare loss by trade deflection. This effect would be significant under a Korea-Japan FTA, as Japan's average tariff rates are substantially lower than Korea's.

is beneficial or not. The results demonstrate the feasibility of an FTA between Korea and the United States.[21] Further, Korea's entrance into the NAFTA is expected to bring higher welfare improvement than an FTA with the United States

2. Economic Effects of Five Versions of an FTA between Korea and the United States

Article 24 of the GATT/WTO has a provision for certain exceptions to the principle of MFN, including the regional trade agreements. According to the WTO, countries may conclude bilateral or regional agreements by eliminating "duties and other regulations of commerce " on "substantially all trade" among themselves. Yet, as the FTA between the United States and Israel excluded the agricultural sector, the phrase of "substantially all trade" in the GATT Article 24 has been interpreted to allow for some latitude in the structure of trade agreements. Regional and bilateral trade agreements are typically excluded from a few politically sensitive sectors, and are allowed to specify a prolonged liberalization plan for some others as well. For instance, the AFTA, a trade bloc of East Asian countries, imposes 0 to 5 percent tariff rates within the bloc rather than a complete elimination of the tariffs. Here we have a set of analyzed effects of the following five trade liberalization scenarios:

- Comprehensive Liberalization:
  (1) 50% tariff reduction
  (2) 100% tariff reduction

21) This conclusion is based on the simulation results of tariff removal only.

- Liberalization in all sectors (excluding the agricultural sector):
  (3) 50% tariff reduction
  (4) 100% tariff reduction
- Comprehensive Liberalization (with special treatment of the agricultural sector):
  (5) 50% tariff reduction for agricultural sector, and 100% for other sectors

Table 7. Economic Effects of a Korea-U.S. FTA

(In USD billion, %)

	Comprehensive Liberalization				FTA (excluding agriculture)				Agriculture 50%, Other Sectors 100%	
	50%		100%		50%		100%			
	Korea	US	Korea	US	Korea	US	Korea	US	Korea	US
Welfare Index(%)	1.05	0.03	1.73	0.07	0.73	0.02	1.19	0.05	1.51	0.06
Equivalent Variation	2.9	1.5	4.8	3.7	2.0	1.2	3.3	2.7	4.2	3.0
Real Income(%)	0.78	-0.00	1.47.	-0.02	0.46	0.00	0.78	-0.00	1.10	-0.01
Price Index(%)	-0.61	0.13	-3.11	0.37	0.39	0.09	0.22	0.26	-0.07	0.29

In each of the five scenarios, welfare of both Korea and the United States would improve, with the greater share of total welfare benefits going to Korea. For example, in the case of a comprehensive liberalization, Korea would gain USD 2.9-4.8 billion in welfare, while the United States is expected to improve its welfare by USD 1.5-3.7 billion. Korea's greater reliance on the U.S. exports and imports, per capita, and Korea's relatively high tariffs explain its greater potential benefits. Table 7 shows that an FTA with the United States would

boost the welfare of Korea by 0.73 to 1.73 percent, while an FTA with Korea would boost the welfare of the United States by 0.07 percent at the most. If we calculate this welfare improvement in terms of the U.S. dollars, Korea would enjoy USD 4.8 billion annually under an FTA, which guarantees complete elimination of the existing tariffs in all industries. Further, Korea's welfare benefits would decrease to USD 2.9 billion, if 50 percent of the tariffs were lowered.

The U.S. interest in an FTA would likely consist of the liberalization of agriculture sector as well as industrial products. The U.S. welfare can be expected to improve by 0.03 to 0.07 percent, if a Korea–U.S. FTA would include tariff reductions in all of the industries. However, if agriculture is excluded, the U.S. welfare gains are expected to increase by only 0.02 to 0.05 percent. Meanwhile, the real income of the United States would remain approximately at the same level, or decrease slightly in all of the five scenarios for the trade liberalization between Korea and the United States.

Ⅴ. Conclusion

In general, the CGE model demonstrates the positive effects of a Korea–U.S. FTA. This paper is based on the 1995 data, and if given more recent data on trade and production, higher income benefits could result from the higher trading volume at present. We have analyzed solely the effects of tariff reduction, however, a more comprehensive analysis is necessary regarding the issues as follows: incorporation of the effects of preferential rules of origin, reduction of the trade friction and investment liberalization with member countries, inducement of the foreign direct investment from non-member countries which attempt to have access to the FTAs, and diplomatic and security aspects supplementary to the economic models. While unexplored with the economic model in this paper, a Korea-Japan FTA, incorporating the rules of origin, would likely improve Korea's welfare.

Thus far, we have examined economic implications of a Korea–U.S. FTA with a global database of the eleven production sectors. However, a model, which reflects industrial characteristics, is necessary for a full-scale study. Furthermore, while economic considerations would take precedence, political benefits and burdens and adjustment costs of signing an FTA should be considered as well. In particular, it is necessary to assess political impact and adjustment costs for liberalizing the agricultural and service sectors, since they would be most seriously affected once Korea signs an FTA. Also necessary is the assessment of industry-specific effects on the major industries, such as automobile, semiconductor, steel, shipbuilding, and chemical. We will report on the results of the assessment in a separate paper

towards the end of the year. The FTA scenarios, which incorporate analysis of all of the above, must be devised thereafter. Furthermore, strategies and policies necessary for concluding FTAs with the United States, NAFTA, or Japan would have to be developed at the completion of our comprehensive analysis of Korea's FTA, with the results siding with Korea's interests.

When Korea decides to move forward, its first step of strategy would have to be to create a climate, which is propitious for the formation of an FTA. Given the widespread opinion in Korea, which generally has emphasized the negative aspects of trade liberalization, it would be crucial to educate the public about the benefits of an FTA. Adjustment costs would necessarily imply that certain groups of workers and industrial leaders would suffer by an FTA, concluded between Korea and any other economy of larger size. However, such fears are likely to be far-fetched and unfounded. Thus, in order to preempt such a reaction, Korea must take a long-term approach to any potentially important FTA, by which liberalization would come in a gradual fashion over a period of at least ten years. In this very sense, Korea's pursuit of an FTA with Chile appears prudent.[22] The trade volume between the two countries is less than one percent of Korea's total trade volume, and thus a Korea-Chile FTA will not incur any substantial amount of the cost for structural adjustment. Such a painless FTA could improve the dreadful impressions of free trade for the Koreans, creating a better environment for Korea to pursue larger

22) It was announced that, at this point, Korea explores to establish an FTA with Chile, with potential FTAs with the United States, Japan, and China to be decided later. Refer to Cheong(1999) for detailed discussions of the Korea-Chile FTA.

regional blocs, which promise greater benefits.

As Table 6 describes, joining the NAFTA would benefit Korea more than an FTA with the United States would because the NAFTA essentially has a larger market than the United States. However, for the preliminary strategic purposes, Korea would have to maneuver towards signing an FTA with the United States. Subsequently, this would draw the interests from Canada and Mexico, driving them to invite Korea into the NAFTA as a consequence of their anxiety over possible trade diversion effects, caused by a Korea–U.S. FTA. Such enlargement would be relatively easy since most of the related issues will be resolved through prior FTA negotiations between Korea and the United States.

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Appendix I

Chronology of the Growth of Regionalism in the Post-War Trading System

1947 • GATT agreed to by 23 countries, and Article XXIV allows for the formation of customs unions and free trade areas under certain conditions.

1957 • Treaty of Rome establishes the European Economic Community; a customs union established between Belgium, Luxembourg, France, the Netherlands, Germany, and Italy. Treaty went into effect beginning January 1, 1958.

1959 • Stockholm Convention establishes the European Free Trade Association (EFTA) in effect July 1, 1960. Members include Austria, Denmark, Norway, Portugal, Sweden, Switzerland, and the United Kingdom.

1960 • Montevideo Treaty establishes the Latin American Free Trade Association (LAFTA), comprised of Brazil, Chile, Peru, Uruguay, Argentina, Mexico, and Paraguay.

• Central American Common Market (CACM) formed; includes Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua.

1963 • Yaound Convention between the EEC and former French, Belgian and Italian colonies in Africa, gives these countries preferential access to the E.C. and sets up the European Development Fund.

1965 • Canada and the U.S. sign Automobile Products Trade Agreement (Auto Pact).

1969 • Yaound Convention extended.

1973 • European Community enlarged to include Britain, Ireland and Denmark.

1975 • Yaound Convention superceded by Lom Convention, and extends preferential arrangements to include former colonies of Britain and is widened to include countries in the Caribbean and Pacific.

1977 • ASEAN formed. Includes Indonesia, Malaysia, Philippines, Singapore, and Thailand.

1981 • Greece joins the European Community.

1983 • Australia and New Zealand form Closer Economic Relation-ship to provide for a free trade agreement.

1984 • U.S. implements Caribbean Basin Economic Recovery Act to extend duty-free treatment to 21 beneficiary countries in the Region for 12 years.

1985 • U.S.-Israel Free Trade Area Agreement went into effect. Over a 10-year period, all tariffs between the two countries to be eliminated.

1986 • Portugal and Spain join the European Community. Single European Act signed to provide for a full European integration in 1992.

1989 • Canada-U.S. Free Trade Agreement goes effective. Under the agreement, by 1998, all items should be traded duty-free between the two countries.

1990 • E.C. and EFTA discuss a European Economic Area to provide for freer movement of goods, services, capital, and people between the two associations.

• U.S. announces 'Enterprise for the Americas' Initiative to explore a hemispheric-wide free-trade zone between the countries of North, Central and South America.

1991
- U.S., Mexico, and Canada enter discussions of a North American free trade area, leading eventually to the signing of NAFTA.
- Andean Pact members (Bolivia, Colombia, Ecuador, Peru, and Venezuela) sign an accord to implement a free-trade zone by the end of 1995.
- Treaty of Asuncion signed between Brazil, Argentina, Uruguay, and Paraguay to form Mercosur (the South American Common Market). Aimed to create a duty-free common market by the end of 1994.
- Chile and Mexico sign Free Trade Accord. All non-tariff barriers to be eliminated. Common tariff of 10 percent to apply to 95 percent of trade as of January 1992. Tariffs to be entirely eliminated within 4 years.
- Turkey and EFTA sign a free trade agreement to go into force January 1992. EFTA to eliminate duties on the imports of industrial goods (excluding textiles) and processed farm products.
- EC and EFTA finalize EEA to go into effect in 1993.
- ASEAN Free Trade Agreement (AFTA) formed. Group agrees to a 15-year time period, in which to create a single ASEAN Market.
- EFTA signs trade co-operation accords with Bulgaria, Romania, and three Baltic states.
- E.C. signs association accords with Poland, Hungary, and Czechoslovakia. Agreements, which mandate free trade within 10 years.

1992
- El Salvador, Guatemala and Honduras agree to form a free-trade zone. The countries agree to allow unrestricted move-

ment of most goods and capital, and work towards establishing uniform tariffs on imports.

- NAFTA (US–Mexico–Canada) negotiations concluded. Agreement provides for the elimination of tariffs in stages over a period of no more than 15 years, and in 10 years in some cases, including a phase–out of tariffs on textiles and apparel. Side agreements later negotiated on labor and environment. The agreement goes into effect January 1, 1994.
- Implementation of EEA (due to go into effect January 1, 1993) delayed when Switzerland votes against joining.
- Poland, Hungary, Slovakia, and the Czech Republic establish a regional trade zone. Aim is to gradually eliminate tariffs over next 17 years and become more compatible with the EC and EFTA.

1993
- Hungary and EFTA conclude a free trade agreement. Extends free trade to a large range of goods, including processed agricultural goods, industrial goods, and fish products.
- Bulgaria and EFTA conclude free trade agreement. Extends free trade in industrial goods, processed farm goods, and fish products.
- Chile and Venezuela sign a free trade agreement. Import tariffs expected to be eliminated on 90 percent of products by 1997.
- Chile and Bolivia sign a bilateral agreement to reduce tariffs.
- South Asian Preferential Trading Agreement established with the aim of forming a common market between Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka.
- Nicaragua, Honduras, El Salvador and Guatemala reach an agreement to liberalize trade. Barriers to trade in textiles, shoes and leather goods will be reduced.

- Group of Three (Mexico, Venezuela and Colombia) sign a free trade agreement to go into effect June 1994. Agreement covers market access, rules of origin, investment, government procurement, and intellectual property
- Chile and Colombia a free trade agreement. Most non-tariff barriers eliminated and tariffs reduced.
- Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica and Panama sign an agreement towards freer trade and increased integration.
- Turkey and the European Community negotiate a timetable leading to a customs union between Turkey and the E.C. by 1995.

1994
- EEA comes into effect, creating a free trade area between the European Union (Community) and the EFTA countries of Austria, Finland, Norway.
- Sweden, Finland, Austria and Norway negotiate full membership in the European Union.
- Mexico and Costa Rica conclude a free trade agreement to go into effect January 1995. Tariffs and most non-tariff barriers to be eliminated. Provisions cover national treatment for investment, intellectual property rights, labor mobility, and a dispute settlement mechanism.
- Andean Pact members agree to a common external tariff to go into effect January 1995.
- Colombia and Caricom conclude a free trade agreement to go into effect January 1995. Colombia to gradually reduce tariffs on Caricom products over three-year period.
- Mercosur members reach a compromise agreement on the establishment of a customs union. Unified tariff structure to

become effective January 1995.

- APEC members agree to accelerate the liberalization of trade and investment measures within the group. Members will begin liberalizing tariff and other barriers in 2000, with developed country members completely opening their markets by 2010, while developing countries will have 2020 to complete market opening. APEC consists of: Australia, Brunei, Darus-salam, Canada, Chile, Hong Kong, Indonesia, Japan, Malaysia, Mexico, new Zealand, Papua New Guinea, Peoples Republic of China, Philippines, Singapore, S. Korea, Taiwan, Thailand and the U.S.
- Chile formally invited to begin negotiations to join NAFTA. At the Summit of the Americas held in Miami (December 9–11) the 34 countries located in North Central, South America and the Caribbean Jointly agree to negotiate a Free Trade Area of the Americas by 2005.

1995

- The European Union and Turkey agreed to a customs union accord. Tariffs will be eliminated and a common tariff established on products from outside the customs union. Some EU agriculture restrictions will still apply to Turkish exports. The customs union goes into effect January 1, 1996.
- Chile began negotiating with the members of NAFTA: Mexico, Canada, and the U.S. negotiations are expected to be completed by the end of 1995.
- Estonia, Lithuania, and Latvia sign association agreements with the European Union. The agreements provide trade and cooperation deals and opens the possibility for future EU membership.
- Vietnam joins the Association of Southeast Asian nations

(ASEAN) while being provided longer implementation periods to fulfill ASEAN liberalization timetables.

Source: Hamilton and Whalley (1996)

Appendix II

1. Tariff Rates of Korea and the United States

Korea instituted a tariff rate schedule in 1949 for the first time. Since then, sixteen partial and major amendments have been made through 1997. The system has been revised in line with the changes of the Korean government policy toward trade. In the 1960s and 1970s, the government maintained a tariff escalation system, which imposes low tariff rates on imported raw materials and high tariff rates on the imports of final products, in order to cultivate and support both the exporting industries and import substituting industries. However, since the 1980s, a neutral tariff rate system has been implemented with the goal of enhancing resource allocation efficiency. As such an approach redirects economic policy from the one dominated by government initiative to the one led by private initiative, the influence of the market

A-1. Korea's Tariff Rates by Sector

(1997)

Sector	Imports(Share)	Tariff rates
Machinery	194(13.4)	
General machinery	135(9.3)	8%
Precision machinery	59(4.1)	8%
Crude oil	178(12.3)	5%
Semiconductor	129(8.9)	8%
Iron & Steel products	71(4.9)	1-8%
Petrochemicals	44(3.0)	0-8%
Computer	35(2.4)	8%
Jewelry	68(4.7)	0-8%

Source: Korea International Trade Association (1997), *Trade Yearbook*;
Korean Institute of Customs (1997), *Tariff Schedules*

function has increased. The previous tariff rate system, which imposed entirely different tariff rates by industry, was replaced with a uniform tariff rate system, which levies the same tariff rate of eight percent on the most of industrial products.

If we compare the tariff levels of the United States and Korea for 1997, the Korean tariff level is both comparatively and absolutely higher, except for agricultural products, fibers and textiles. The United States imposes no tariffs on direct electronic circuits and electronic components related to the sub-miniature assembling circuits. This category takes up the largest portion of electronic components exported by Korea. The United States imposes tariff rates of between zero and three percent on other electric and electronic products.

The United States also levies very low tariff rates on most manufactured goods. The United States imposes a tariff rate of 2.5 percent on 1000-3000cc autos, the most widely traded cars internationally. The United States imposes a relatively low tariff rate of 4.8 percent on polyester synthetic staple fiber, of which Korea's exports are on a decreasing trend, being replaced by a trend of rising fiber exports by China, ASEAN, and South America. However, the United States applies high tariff rates of 16.6 percent on textiles, and rates ranging from 16.3 percent to 34.1 percent on clothing.

Korea levies an effective tariff rate of 8 percent on the imports of most manufactured goods, including most general machinery, precision machinery, and electric and electronic products. However, the country's tariff rates vary widely on the imported agricultural products. For example, 5 percent tariffs are imposed on corn, which comprises the largest portion of the U.S. agricultural exports to Korea. However, Korea levies high tariff rates, which range between 20 and 30 percent, on most other agricultural and livestock products. Furthermore, these

tariff rates are applied on imports up to a stated limit. However, high tariff rates, as much as over 200 percent, are levied on the import quantities, which exceed a stated limit.

2. Trade between Korea and the United States

Korea's major trading partners are the United States, Japan, and China, and thus the United States and Japan seem to be the most desirable candidates, with which Korea could enter into an FTA. The

A-2. Korea's Trade and Investment Relations with Major Trading Partners

	Countries	Trade Volume	Exports	Imports	FDI	GDP	Per Capita GDP
	Region₩Unit	USD billion	USD billion	USD billion	USD billion	USD billion	USD
1	US	51.7	21.6	30.1	6.9	7,746	30,136
2	Japan	42.7	14.8	27.9	0.5	5,378	33,214
3	China	23.7	13.6	10.1	5.6	835	769
4	Hong Kong	12.6	11.7	0.9	0.8	155	26,530
5	Germany	10.6	4.8	5.8	0.6	2,505	25,692
6	Singapore	8.2	5.8	2.4	0.2	98	35,288
7	Saudi	8.2	1.0	7.2	0.1	142	7,334
8	Australia	8.1	2.2	5.9	0.6	374	20,809
9	Indonesia	7.6	3.5	4.1	2.2	228	854
10	Malaysia	7.6	4.3	3.3	0.6	102	4,803
11	UK	7.3	4.0	3.3	1.3	1,178	21,839
12	Canada	4.1	1.5	2.6	0.8	612	20,514
13	Italy	3.6	1.2	2.4	0.1	1,109	19,887
14	Thailand	3.5	2.2	1.3	0.5	178	2,328
15	Philippines	3.3	2.6	0.7	0.5	80	1,108
	World	280.8	136.1	1,446	298.9	28,786	6,197

Source: The Ministry of Finance and Economy, *Trend of Korea's FDI and Technology Inducement*, January 1998;
DRI, *World Economic Outlook*, 1st Quarter, 1998.

Korea-U.S. trade was USD 51.7 billion in amount in 1997, accounting for 18.5 percent of Korea's total trade. The United States is both the largest exporter and importer to Korea. Furthermore, the Korean enterprises had invested USD 6.9 billion out of a total USD 29.9 billion for the overseas investment (1997) in the United States.

Korea's leading exports include electric and electronic products (49.6 percent of total exports in 1997), automobiles (10.5 percent), and textile goods (8.5 percent). After the outbreak of the Asian financial crisis in late 1997, Korea's level of exports to the United States reacted widely by product. In 1998, the exports of steel products, general machinery, home appliances, and textiles showed a drastic increase, compared against the corresponding period of last year. Meanwhile, exports of automobiles, fabrics, and footwear post levels off the previous year.

A-3. Korea's Exports to the U.S. by Product

(In USD million, %)

	1993	1994	1995	1996	1997	1998	Growth Rates
Machinery (M.)							
Electronic parts	3,382	5,726	8,987	7,577	6,574	5,943	-9.6
Industrial appliances	2,221	2,261	2,821	2,933	3,246	3,252	0.2
Home appliances	1,653	1,743	1,570	1,184	926	1,093	18.4
Transportation M.	1,030	1,813	1,805	2,045	2,281	2,068	-9.4
General M.	699	794	895	719	716	1,105	54.4
Iron & Steel Products	530	704	725	719	815	1,447	77.6
Textiles	2,751	2,489	2,053	1,703	1,838	2,220	20.8
Fabrics	485	472	498	579	731	671	-8.1
Plastic Products	336	344	378	359	333	320	-4.0
Footwear	954	646	474	328	211	174	-17.5
Subtotal	14,005	16,992	20,197	18,146	17,671	18,293	4.0
Total Amount	18,138	20,553	24,131	21,670	21,625	22,805	5.5

Source: Korea International Trade Association, KOTIS

The U.S. main exports to Korea in 1998 were electric and electronic

products (37 percent of total imports), machinery products, including general machinery and precision machinery (13.6 percent), and agricultural products (13 percent). This shows that another large portion involves intra-industry trade while much of the Korea-U.S. trade is complementary. In 1998, the U.S. exports to Korea have dropped drastically due to a decrease of investment in production equipment and a decrease in demand for imports in the aftermath of the financial crisis. The most recent downturn in the U.S. exports to Korea is expected to improve somewhat as Korea is continuing to recover from the financial crisis. Overall, however, the decreasing rate of U.S. exports to Korea will likely continue until Korea returns to the positive economic growth and becomes more sound financially.

A-4. U.S. Exports to Korea by Product

(In USD million, %)

	1993	1994	1995	1996	1997	1998	Growth Rate
Electronic Products							
Electronic parts	1,797	2,681	3,601	4,101	5,551	5,975	7.6
Industrial products	1,600	2,556	3,218	3,861	3,472	1,583	-54.4
Machinery							
General machinery	2,589	3,122	4,821	4,174	3,129	1,803	-42.4
Precision machinery	763	906	1,123	2,434	1,975	978	-50.5
Aircraft	1,329	1,527	2,205	2,376	1,546	730	-52.8
Pharmaceuticals	502	614	843	1,037	1,036	642	-38.0
Organic Chemicals	1,224	1,396	1,891	1,817	1,777	986	-44.5
Iron & Steel Products	712	711	1,092	913	830	446	-46.3
Paper and Wood	633	724	1,111	966	766	535	-30.2
Agricultural Products	2,257	2,641	4,369	4,714	3,620	2,657	-26.6
Subtotal	13,046	16,878	24,272	26,393	23,702	16,335	-31.0
Total Amount	17,928	21,579	30,404	33,305	30,122	20,403	-32.3

Source: Korea International Trade Association, KOTIS

國文要約

WTO를 중심으로 한 세계경제의 통합추세에도 불구하고 배타적 지역무역협정의 체결은 꾸준한 증가세를 보이고 있다. 그동안 우리나라를 포함한 지역무역협정에 참가하고 있지 않은 국가들은 지역무역협정의 부정적인 영향을 최소화시키기 위해 노력해왔으나, 지역무역협정은 사실상 다자체제내에서 용인되고 있다. 이에 우리정부도 지역무역협정의 순기능을 적극적으로 활용하기 위해 주요 교역국과 자유무역협정(FTA)을 체결하겠다는 입장을 밝힌 바 있다.

본 연구는 우리나라의 가장 중요한 교역상대국인 미국과의 FTA 체결의 경제적 효과를 분석하였다. 다양한 형태의 FTA 시나리오를 가정하여 한미 FTA의 경제적 효과를 분석한 결과, 한국은 동 FTA로 상당한 경제적 실익을 기대할 수 있을 것으로 나타났다. 즉, 양국간 FTA가 체결되는 경우 한국은 0.73~1.73%의 후생증진 효과(금액으로 환산하면 20~48억달러)를 기대할 수 있을 것으로 나타난 반면, 미국은 최고 0.07%의 후생증진(37억달러)을 기대할 수 있을 것으로 보인다. 한국이 이와 같이 상대적으로 높은 이익을 향유할 수 있는 이유는 한국의 총수출대비 대미 수출의존율이 높다는 점과 미국보다 상대적으로 높은 무역장벽의 제거로 얻는 자원배분의 효율성 향상(efficiency gains)에 기인하는 것으로 볼 수 있다. 한편 미국은 농업을 자유화대상에 포함시킬 것인가 여부에 높은 관심을 보일 것으로 나타났다.

한미 FTA가 장기적으로는 높은 후생증가를 가져다 줄 것으로 예상되더라도, 우리나라는 동 FTA에 신중하게 접근할 필요가 있다. 우선 미국에 대한 경제적 의존도가 높은 만큼 양국간 FTA 체결은 강도 높은 산업간 및 산업내 구조조정이 뒤따를 수 밖에 없어, 이로 인한 단기적 비용이 적지 않을 것으로 보인다. 따라서 양국간 FTA 논의에는 농업, 서비스 등 취약산업에 대한 체계적인 경제적 효과 분석이 요구된다. 뿐만 아니라 정치외교 및 사회적 영향에 대한 심도 있는 연구가 선행되어야 할 것이다.

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