Policy Briefs
IN INTERNATIONAL ECONOMICS

INSTITUTE FOR INTERNATIONAL ECONOMICS

NUMBER PB06-4 JUNE 2006

Negotiating the Korea–United States Free Trade Agreement

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Five years ago the Institute published *Free Trade between Korea and the United States?* by Inbom Choi and Jeffrey J. Schott, which analyzed the potential benefits and costs of pursuing a bilateral free trade agreement (FTA). At the time, neither government had vetted the idea in bilateral consultations, though some business groups in each country—and some members of the US Congress—had voiced support for deepening US-Korea economic ties through an FTA.

The 2001 study became the grist for numerous academic conferences and proved instructive for trade officials engaged in exploratory trade talks starting in late 2004. After extensive bilateral consultations, US Trade Representative (USTR) Robert Portman and Korean Trade Minister Kim Hyun-chong announced on February 2, 2006, their intention to start FTA negotiations with a targeted completion date before US trade promotion authority expires in June 2007.

A Korea-US FTA would be an important component of each country's multitrack trade strategy. Both countries give priority to the Doha Round of multilateral trade negotiations in the World Trade Organization (WTO) but have complemented those efforts with a growing number of bilateral and regional trade pacts. The US experience with FTAs goes back two decades; the Korean initiatives are more recent but increasingly active.

The US FTA policy is broad ranging and involves initiatives in the Western Hemisphere, East Asia and Oceania, Middle East and North Africa, and southern Africa (Schott 2004). The roster of current and prospective US FTA partners is reported in table 1. These 31 countries account for almost 44 percent of total US merchandise trade and more than half of US exports. The list is headed by the North American Free Trade Agreement (NAFTA) members, Canada and Mexico, which together account for 30 percent of total US trade. Korea ranks third in terms of the value of bilateral trade, with almost $70 billion in two-way trade flows in 2005—or more than twice the value of US trade with partners in other FTAs like the Central American Free Trade Agreement–Dominican Republic (CAFTA-DR) or the Andean-3 (Colombia, Ecuador, and Peru).

Korea was one of the last major trading nations to pursue FTAs. Like Japan, it engaged exclusively in GATT and WTO trade negotiations until the breakdown of the WTO ministerial meeting in Seattle in December 1999. The resulting cloud over multilateral trade talks precipitated a sea change in Japanese policies toward FTAs, which in turn led Korean policymakers to adopt a more diversified negotiating strategy. Korea has, of course, been tempted in the past to engage in bilateral talks, at least with the United States. Since the conclusion of negotiations of the Canada-US FTA in late 1987, and the subsequent expansion of the free trade regime to Mexico in 1993, Korea has at times considered the possibility of seeking accession to NAFTA or negotiating a NAFTA-like bilateral FTA with the United States. For a variety of reasons, however, such proposals were not considered politically viable on either side of the Pacific. When asked why at an Institute conference in May 2004, then USTR Robert Zoellick answered, "They're not ready to talk about agriculture."

Today, Korea has concluded FTAs with Singapore, Chile, the European Free Trade Association, and nine of the ten members of the Association of South East Asian Nations (ASEAN). These pacts have involved small amounts of trade but have not been without controversy—especially the Chilean deal, which sparked a hot debate in the Korean National Assembly over grapes and the broader issue of agricultural reform. Those talks were pursued at least in part to prepare for more ambitious ventures with its major trading partners, the United States and Japan (and prospectively China as part of a Northeast Asian FTA). The Korean roster of FTA partners is set out in table 2. Together, current and prospective partners represent 41 percent of Korea's total trade—almost 65 percent of that total is trade with the United States and Japan.

This policy brief examines the economic and political interests that have prompted both countries to undertake free trade talks, the potential gains from liberalization, and key issues that need to be addressed in the negotiations. The results are consistent with the positive assessment of a Korea-US FTA in our earlier work (Choi and Schott 2001) but highlight the new challenges that have risen in the past five years due to heightened security concerns and the growing role of China in Asia-Pacific trade.

US AND KOREAN OBJECTIVES IN AN FTA

Why did Korea decide to pursue FTA negotiations with the United States? In the past, Korean interest derived mainly from concerns about trade diversion generated by regional agreements among North American countries and from the desire for special treatment under trade remedy statutes and dispute settlement systems comparable to that accorded to the NAFTA signatories. Such "me, too" regionalism is still evident in Korean declarations. However, current Korean interests transcend these "defensive" goals and cover a broad range of economic and political objectives.

On the economic front, the Korea-US FTA is seen as critical to Korea's future for two related reasons: First, the Korean economy will have to undergo a substantial transformation to address the competitive challenges of China and India and to counter the adverse demographic trends facing Korean society over the next generation. Korean officials extol the catalytic effect that adherence to the disciplines of a "gold standard" FTA with the United States could have on the competitiveness of the Korean economy. They hope that FTA disciplines will yield a more open and competitive domestic market, promote inflows of foreign direct investment (FDI) that prompt innovation in Korean industry, and spur "knock-on improvements for corporate governance, the accounting system and government bureaucracy."[1] In addition, the Korean government has earmarked 119 trillion won (currently about $125 billion) for investment in agriculture and income support for farmers over a 10-year period, which it hopes will spur productivity growth and help manage adjustment pressures in the farm sector.

Second, Korean officials recognize that they face a large challenge in achieving their goal of becoming the economic and financial "hub" of Northeast Asia. To do so, they must have not only a more competitive economy but also open, duty-free access to the world's largest market and largest trader with East Asian countries. An FTA with the United States would help in both respects by "locking in" domestic reform and by securing better access to the US market than their East Asian competitors.

On the political front, Korean officials hope that there will be positive spillover effects from an FTA on the broader bilateral relationship. In part, they expect that the FTA will produce a better climate for pursuing North-South trade and investment on the Korean peninsula. To that end, they regard the Kaesong industrial complex as a practical manifestation of that development and want its output covered by the FTA regime (as it is in other FTAs that Korea has negotiated).

For the United States, an FTA with Korea would be the largest bilateral trade deal since NAFTA, yielding substantial export gains while also advancing important US foreign policy objectives in East Asia. Of course, this was true when FTA talks were initially vetted years ago. What has changed?

First, Korea has agreed to include agriculture in the pact. In addition, Korea took steps in January 2006 to reinstate imports of certain types of US beef (see below) and to mitigate long-standing problems with regard to screen quotas by cutting in half the number of days on which movie theaters must show domestic films.[2] From the US perspective, these actions removed important impediments to launching the FTA talks. Recall that one of the US selection criteria for new FTA partners is that the partner country demonstrate (1) its commitment to pursue further liberalization of long-standing restrictions to trade and investment in the domestic economy and (2) its willingness to work together with US officials to achieve a successful conclusion to the Doha Round of WTO negotiations (see Schott 2004, chapter 13). Liberalization of restrictions on farm trade and screen quotas should make it easier for Korea to contribute constructively to the develop-

1. See "Seoul Hopes Bilateral Trade Deal with US Will Be Catalyst for Change," *Financial Times*, April 11, 2006, 4.

2. Korea still maintains other barriers against foreign programming transmitted via networks, cable, and satellite, which need to be addressed in the FTA talks.

ment of comprehensive agreements in these areas in the ongoing Doha Round of multilateral trade negotiations.

Second, tensions with North Korea have flared anew, and US–South Korean relations have been strained over US military redeployment and differences over how to respond to North Korean provocations. An FTA would deepen the already strong commercial ties between the two countries and reinforce their political commitment to work cooperatively to deal with the security challenges on the Korean peninsula—as they have been doing in Iraq.

Third, US exports to Korea, despite growing sharply in the past few years, recovered only in 2005 to the 2000 level. The US share of Korean imports dropped from 18.2 percent in 2000 to 11.7 percent in 2005 (see table 3). While part of the loss in US market share is due to competition from other countries (the value of Korean imports increased sharply from China, Japan, and the European Union over this period), specific US products and services face significant barriers to entry to the Korean market. Indeed, USTR Portman noted in February 2006 that the United States was interested in FTA talks: "Because there is enormous opportunity for American exports, and…front and center is agriculture."[3] US officials also see prospective export gains in manufactured goods as well as insurance, entertainment, and other services. Indeed, the largest US export gains may come in services, especially in financial and knowledge-based sectors where US firms are particularly competitive but face barriers in the Korean market, which have limited US export growth. While their share has declined somewhat since 2000, US firms still account for almost 40 percent of Korean imports of commercial services—more than twice the share of Japan and China combined (OECD 2005).[4]

A Korea-US FTA would be an important component of each country's multitrack trade strategy.

Fourth, the Korean trade initiative has attracted support in Congress from members of both parties and is regarded as a vehicle to rebuild the protrade coalition that had fractured over the past decade (see Destler 2005). To be sure, maintaining bipartisan support will require the pact to address sensitive problems, including auto and beef trade as well as labor issues. The latter may prove particularly fractious if the pact applies to the Kaesong industrial complex, since labor disciplines would require cooperation by North Korean authorities on international standards, which they have not been willing to follow. We discuss the challenges presented by the Kaesong initiative in more detail below.

In sum, an FTA with Korea seems to fit well with the criteria that the George W. Bush administration has developed to select FTA partners (see Schott 2004, chapter 13). It furthers US export interests at a time of record current account deficits, promotes cooperation on multilateral trade negotiations and on regional security challenges, spurs Korea to accelerate the pace of its own economic reforms (which in turn will benefit US trade and investment), and presents an opportunity to restore bipartisan support for US trade initiatives.

OVERVIEW OF BILATERAL TRADE AND INVESTMENT

The United States and Korea already have an extensive trade relationship: Bilateral merchandise trade was about $70 billion in 2005 (table 4), and bilateral services trade totaled $14 billion in 2004 (table 7). Only US trade with the European Union, Canada and Mexico, China, and Japan are greater. In 2005 the United States ran a bilateral merchandise trade deficit with Korea of $17 billion.

Over the past five years, US-Korean two-way trade has grown by almost 25 percent, recovering from its sharp decline in 2001–02. Since then, however, growth in bilateral trade has lagged that of Korean trade with China and the European Union. As a consequence, China has replaced the United States as Korea's leading trading partner and now accounts for 18 percent of total Korean trade; Japan, the United States, and the European Union each had a 13 percent share in 2005.

The bulk of US-Korea trade is in manufactures. Agriculture accounts for only 3.5 percent of total two-way trade, down from 5 percent in 2003 due to the sharp drop in US beef exports (see below).

Nearly half of the bilateral trade is now in electronics (HS 85) and autos (HS 87). Total bilateral trade in electronics currently exceeds that of any other sector, reaching nearly $20 billion in 2005. The US trade deficit in electronics, which topped $7 billion, constituted more than 40 percent of the overall deficit with Korea (see table 5). The United States and Korea engage in extensive intraindustry trade in memory chips and microprocessors. Electronics imports from Korea consist primarily of two items: cellular phones (43 percent of all electronics imports) and semiconductors (19 percent). Roughly

3. See USTR Robert Portman's address to the Agricultural Outlook Forum, Arlington, VA, February 16, 2006.

4. In these service sectors, the main competitors are European firms, which have increased their share of Korean imports of business services in recent years and which may prod the European Commission to engage in FTA talks with Korea to keep pace with US initiatives.

two-thirds of American electronics exports to Korea consist of semiconductors. Trade in autos broadly defined (HS 87) accounts for about 16 percent of bilateral trade; Korean car exports to the United States have topped $10 billion annually for the past two years, an increase of almost 52 percent since 2001 (see table 6).

Trade in Services

Two-way trade in services approached $14 billion in 2004 (table 7). The United States ran a $4 billion bilateral trade surplus in services, with exports to Korea exceeding $9 billion and imports from Korea nearing $5 billion. Almost half of the increase in US service revenues since 2002 was generated by royalties and licensing fees, underscoring US strength in new economy sectors noted above.

Korea has taken significant steps to liberalize its service sectors, but American firms continue to express dissatisfaction with the transparency of Korea's regulatory regime in general and Korea's treatment of foreign providers of financial services in particular. Nonetheless, although the government still retains significant ownership stakes in major Korean banks, privatizations and relaxed foreign ownership restrictions have led to sizeable inflows of foreign capital to help revitalize the sector. In 2004 Citigroup purchased a minority share of KorAm Bank for $2.7 billion from the Carlyle Group and JP Morgan;[5] the Korean government also sold its stake in Hana Bank (21 percent ownership sold in 2004; USTR 2005, 383). Soon after FTA negotiations were announced in February 2006, the Ministry of Finance and Economy proposed legislation that would propel a broad series of financial reforms and enable financial institutions to offer a wider range of services, including brokerage, asset management, and investment banking.[6]

Korea has the second largest insurance market in Asia—$58.7 billion paid in premiums during the fiscal year ending March 31, 2005 (USTR 2006, 409). While the 1997–98 financial crisis spurred some reform in the Korean insurance sector, American firms still face disadvantages in the Korean market. US complaints often revolve around Korea Post, the country's fourth largest insurer. This government-run corporation is not regulated by the Korean Financial Supervisory Service but is guided instead by the Ministry of Information and Communications, which imposes different and less stringent regulatory requirements on Korea Post than on private firms operating in the Korean market. Nonetheless, recent developments in Korea have demonstrated a willingness to pursue reforms in financial services, including legislation passed in April 2003 that facilitated the provision of insurance services by foreign companies.

Foreign Direct Investment

The United States traditionally is the largest provider of Korea's inward FDI; in 2004 US firms invested $4.7 billion in Korea (table 8). Americans channeled more than 40 percent of their Korean manufacturing investments into the computer and electronics industries.[7] US investments constituted a 37 percent share of all inward FDI in Korea, compared with 18 percent from Japan, 10 percent from the Netherlands, and 9 percent from China (table 8). Not surprisingly, Chinese FDI in Korea has grown dramatically from a small base over the past decade (table 8; OECD 2004, 219).

American and Korean automakers recently began investing in each other's markets. In 2001 General Motors bought a controlling share in Daewoo Motors, the third largest Korean manufacturer. Daewoo accounted for roughly 13 percent of domestic vehicle production in 2003 (Ward's Communications 2004). Korean production in the US market began on May 20, 2005, with the opening of Hyundai's $1.1 billion plant in Alabama. This production facility is designed to employ more than 2,000 people and produce more than 300,000 cars at full capacity.[8] Production by Hyundai Motor Manufacturing Alabama is expected to reach 275,000 vehicles in 2006.[9] In March 2006 Kia announced it would invest $1.2 billion in a new plant in Georgia. The company expects to open the plant in 2008, employ 2,500 workers, and produce 300,000 cars per year by 2009.[10]

5. See "Citigroup Wins KorAm Bank," *Financial Times*, February 23, 2004, 27. The Bank of America and the Samsung Group each held almost 17 percent of KorAm's equity before 2000, when the Carlyle-JP Morgan consortium acquired an 18 percent stake for about $435 million.

6. See "Korea to Allow Investment Banks in 2008," *Korea.net News*, February 19, 2006.

7. Data are from US Department of Commerce, Bureau of Economic Analysis, www.bea.gov.

8. See "Hyundai Moves into US," *Financial Times*, May 23, 2005; and Hyundai Motor Co. press release, "Hyundai Celebrates Grand Opening of Its First US Plant," May 20, 2005, available at http://worldwide.hyundai-motor.com.

9. See "Hyundai-Kia Strives to Globalize Production System," *Korea Herald,* March 29, 2006.

10. See "Two Asian Automakers Plan Ventures in 2 States Left by U.S. Carmakers, *New York Times*, March 14, 2006, 1.

Bilateral Disputes in the WTO

Since the WTO entered into force in January 1995, the United States and Korea have filed 13 cases involving bilateral trade problems. Six of the seven US cases against Korea have involved problems with nontariff agricultural protectionism, and the United States has usually been successful in generating favorable outcomes (either by mutual agreement or by WTO panel ruling). The seventh US case against Korea involved procurement problems associated with the construction of the Incheon airport, and the WTO panel ruled that the matter fell beyond Korea's obligations in the WTO government procurement agreement. All six of the Korean cases against the United States at the WTO have involved safeguards, antidumping, or countervailing duties, and the panels generally supported Korea's position.

Recently, WTO litigation has concluded a decade long bilateral dispute over semiconductors, a sector with more than $5 billion in two-way trade during 2005. Table 9 outlines major developments in the WTO cases involving semiconductor trade. Korea first challenged the United States in the WTO in 1997, alleging that antidumping duties on Korean semiconductors were illegal. In 1999 the dispute settlement panel sided with Korea. Unhappy with delays in revoking the antidumping order, Korea again petitioned the WTO in April 2000; subsequent consultations led to a negotiated solution in October 2000. In October 2003 the US Department of Commerce found that the Korean government provided illegal subsidies to Hynix Semiconductor by pressuring banks to grant overly favorable financing to the company and levied a 44 percent countervailing duty on Korean semiconductors. Korea challenged this finding in the WTO and received a partially favorable ruling from the dispute settlement panel. On appeal, however, the panel decision was reversed in June 2005 and the countervailing duty order against Korea validated.

A GENERAL EQUILIBRIUM ANALYSIS OF A KOREA-US FTA

What gains can each country expect to achieve from a successful negotiation, and how would those gains be distributed within each economy? One widely used tool that economists deploy for such calculations is an applied general equilibrium (AGE) model. Unlike approaches that examine different sectors in isolation, AGE models use equations and detailed data to take account of key intra and international relationships among producers and consumers. This allows such models to provide better estimates of how trade reforms would affect production, consumption, trade, prices, employment, and overall welfare in each region. While limited by data constraints and simplifying assumptions built into the model's equations, such analyses do provide conservative estimates of overall welfare gains and interesting insights regarding prospective economic adjustments in each country. The actual experience of FTAs often exceeds the modest projections from AGE models (DeRosa and Gilbert 2005).

Numerous studies of a potential Korea-US FTA have been conducted in both countries over the past two decades. Overall, the analyses indicate that there are large gains for each country but that an FTA would require adjustments, including in agriculture. These studies either omit or only sparsely cover services trade, suggesting that additional welfare gains would be generated by services trade and investment reforms.

The first joint Korea-US study of a potential FTA was Choi and Schott (2001). We found that the net welfare gains from an FTA would range from 0.02 to 0.13 percent of GDP for the United States and from 0.4 to 2.4 percent of GDP for Korea. For the United States, most of the gains derive from export expansion into the Korean market as trade barriers decline. For Korea, the largest gains come from using Korean resources more efficiently and replacing inefficient domestic production with imports. Importantly, potential gains of a Korea-US FTA would be more than halved for both economies if agricultural trade were excluded. The Korea Institute for International Economic Policy conducted a similar study but using a more recent version of the AGE model and a 2001 database (Lee and Lee 2005). It reported that Korea's welfare gains would range from 0.42 to 2.27 percent of GDP—very similar to Choi and Schott (2001), though the scenarios tested were somewhat different.

Potential gains of a Korea-US FTA would be more than halved for both economies if agricultural trade were excluded.

For this policy brief we have updated the earlier Institute calculations using a multisector, global AGE model to simulate the broad economic effects of a Korea-US FTA. The model for this study has 22 sectors,[11] five factors of production (unskilled labor, skilled labor, capital, land, and natural resources), and four regions (Korea, the United States, Japan, and the rest of the world). The economic structure is standard:[12] perfect competition, constant returns to scale, and

11. Tables 12, 13, and 14, discussed below, show the list of sectors.

12. The basic structure of the model is the same as the one used in Bradford and Lawrence (2004) and Bradford, Grieco, and Hufbauer (2005).

fully employed factors that can move freely across sectors[13] but not across international boundaries. The model also assumes, as is standard, that within each region the amounts of the four factors besides capital are fixed. We make two assumptions concerning the capital stock in each region; each assumption leads to different simulation results. Assumption one is that the amount of capital is fixed, as with the other four factors. This assumption gives what one might call medium-run results—the economic effects after factors have adjusted across sectors. Assumption two is that the capital stock is allowed to increase through investment after trade opening. This assumption gives what one might call long-run results—the economic effects after both factor movement and capital stock growth.

The model uses the most recent version of the state-of-the-art Global Trade Analysis Project (GTAP) database: GTAP6. Constructing such datasets is a huge undertaking, so that the data have a lag of a few years. The GTAP6 data, released in 2005, are from 2001.

We run two scenarios to paint a broad-brushed picture of the potential effects of a Korea-US FTA: complete free trade between Korea and the United States and complete free trade in everything except rice.[14] The first scenario enables us to see the overall economic stakes involved in this endeavor. The second allows us to account for the fact that Korea is unlikely to fully open its rice market. The differences between the two will provide an estimate of how much is taken off the table by excluding rice. For each scenario, we compute a medium-run and long-run result, as described above. The adjustment path is not explicitly modeled. The simulations simply report the prediction for the new equilibrium after all adjustment has occurred.

Table 10 shows the overall welfare results, in billions of US dollars and as a percentage of GDP. The table reports the change in equivalent variation[15] for each region. These numbers do not take account of the adjustment costs that many would have to bear as they move from one sector to another.

Overall, Korea stands to benefit substantially from an FTA with the United States. In the medium term, such an initiative would produce $20 billion in net gains (or almost 2.6 percent of GDP) if rice were excluded. The extra payoff to opening rice would be $7 billion or an additional 1 percent of GDP. Looking at the longer term, the potential gains are even larger: $41 billion without rice (5.2 percent of GDP) and an extra $10 billion or 1.4 percent of GDP if it is included. Such large efficiency gains from opening the Korean rice market validate efforts to compensate rice farmers through income supports and other adjustment assistance as the Korean government has recently proposed. Presumably the gains from Korea opening to more competitive rice producers, such as Thailand, would be even larger.[16]

The US effects are much smaller, for three main reasons: First, the US economy is 15 times bigger than the Korean economy, so trade with Korea has a much smaller impact on the US economy. Second, the United States has lower initial barriers, so that it does not reap as much in the way of internal efficiency gains. Third, the model does not have detailed data on trade in services or on barriers to trade and investment in services and thus probably grossly underestimates the welfare gains from services trade liberalization.

Interestingly, the model reports that—although the dollar amounts are small—the United States would in fact gain more from the FTA if rice were excluded. This surprising result stems from the fact that the United States subsidizes rice, along with other agricultural goods. Under the model's constraining assumptions, opening the large and lucrative Korean rice market only to US exporters would cause many US resources to shift to this sector, which because of the large subsidies (which are held constant in percentage terms) would actually hurt the US economy.

As a practical matter, however, we are unlikely to see what the scenario assumes: that Korea would completely and quickly open its rice market to the United States and that US subsidies to rice would stay fixed. We are more likely to see gradual opening of the Korean rice market, and, over that time, US subsidies to rice could well shrink due to US budgetary pressures and WTO reform commitments.

This model can provide a rough indication of the distributional effects of the FTA. Table 11 shows the changes in real factor prices under the various scenarios for the FTA partners. (The factor price impacts in the other regions are tiny.) Land and natural resources are heavily protected in Korea, and current owners of those assets would suffer large losses from an FTA with the United States. Overall, the model indicates significant gains for Korean capital and labor but, again, it

13. Land and natural resources are restricted to the agriculture and other primary products sectors.

14. For this scenario, we keep in place the barriers in paddy and processed rice.

15. Equivalent variation (EV) is the amount of money one would need to give the region (without any change in policy) to make it just as well off as it would be after the trade opening. A negative value for EV means that the region is hurt by the opening and that one would need to take money away to put the region at the same welfare level as it would be after the trade opening.

16. We also used the model to estimate effects of the bilateral FTA on the rest of the world and found cumulative losses of $4 billion to $5 billion in the medium-term scenario and $7 billion to $9 billion in the long-run scenario. In other words, FTA preferences will generate trade diversion, especially affecting products protected by relatively high most-favored-nation tariffs.

takes no account of the adjustment costs that workers in contracting sectors would have to bear. In the United States, the returns to land and natural resources would increase significantly as a result of gaining preferential access to Korean markets, especially in agriculture. Even without rice, opening in other agricultural markets would account for most of the gains to land and natural resources in the United States.

Korean welfare gains derive primarily from allocative efficiency effects, related to reforms of Korea's own restrictions. US welfare gains come from increased export opportunities in the Korean market.

Table 12 provides a more nuanced look at adjustment and distribution of gains and losses. Examining the hypothetical situation in which rice is fully liberalized, we see that the Korean rice industry would contract dramatically. By the same token, the US rice sector would explode, expanding more than seven times (from a very small base) in order to serve the Korean market. The model predicts that Korean output of wheat, fruits and vegetables, meat, dairy, processed rice, and other food products would expand with the FTA. Wheat and fruits and vegetables expand in large part because land in the model is constrained to remain in agriculture (one of the first four sectors) so that the collapse of the rice market frees up land for these sectors. As a practical matter, major opening in agricultural and primary products probably would cause land to shift over time into manufacturing and services, so that output in these agriculture sectors would not expand as much or would shrink. In addition, wheat gets a boost from having low initial tariffs: Across-the-board trade opening tends to favor sectors with below-average tariffs. See table 13 for the initial tariff rates in the model.

The meat sectors also show large percentage gains, but, like wheat, these sectors are quite small, which exaggerates the percentage changes. Along with wheat and fruits and vegetables, meat and dairy have initial protection levels below those of the much larger rice and other primary products sectors, so that the FTA tends to shift resources toward meat and dairy. In manufacturing, the model shows lower-technology sectors in Korea—textiles, apparel, leather, metals, and other manufacturing (including toys)—expanding and higher-technology sectors contracting. This result, as well, is likely to be counteracted by other forces outside the model: In recent years, Korea has faced price pressures in lower-technology manufacturing from China and other countries, which would prevent the kind of expansions that the model predicts based on 2001 data.

The impacts on the United States are much smaller, as expected. The model predicts reductions in the US wheat and fruits and vegetables sectors because, within the model, these sectors lose resources to the surging paddy rice sector and to the other primary products sector, which, like paddy rice, expands because its initial barriers in Korea are quite high. The lower initial barriers, however, in wheat and fruits and vegetables (table 13) may indicate that the dataset has not captured the full extent of nontariff barriers in these sectors. It is quite likely that, if Korea fully opened those sectors, including eliminating nontariff barriers, US output in these sectors would increase with an FTA. A similar dynamic may apply to the two meat sectors: Actual Korean barriers, including nontariff barriers , may be higher than the dataset show, in which case an FTA would lead to expansion of US meat production, instead of the small losses predicted. If Korean rice is opened, processed rice in the United States shrinks because of the diversion of paddy rice to Korea. Processed rice, though, along with paddy rice, wheat, and vegetables and fruits, make up tiny shares of the US economy. Overall, the model predicts that an FTA would have very small impacts on US manufacturing and services.

The medium- and long-term scenarios tell very similar stories concerning the differential effect of the FTA across sectors. The major difference between the two is that overall output is higher in the longer term, so that when there are noticeable sectoral differences between the two scenarios, expansions are larger and contractions smaller.

Overall, an FTA would induce large shifts in the composition of Korean employment across sectors. Note, however, that trade opening does not have a significant impact on total employment; rather, trade opening causes sectoral shifts in employment that make the economy more efficient and richer.

Table 14 presents estimates of the number of Korean jobs that would be gained or lost on net in the individual sectors in the medium-term scenario. If rice trade were fully liberalized, almost all Korean rice workers would lose their jobs. Major job losses would also occur in the other primary products sectors and in vegetables and fruits. In manufacturing, other machinery and equipment, electronic equipment, and other transport would see significant job losses, while lower-technology sectors would see substantial gains. Under the other scenario in which rice is excluded, the job losses in that sector would be reduced from over 200,000 to about 27,000. Even though rice itself would continue to be protected from global competition, expansions in other sectors would nevertheless

pull workers out of rice. Again, as a practical matter, we would expect some market opening for rice, perhaps via a tariff-rate quota, so the income and employment effects would be within the range of the two scenarios.

KEY ISSUES IN THE FTA NEGOTIATIONS

The two countries have set themselves an ambitious task to conclude negotiations before US trade promotion authority expires in June 2007. The task is doable, though difficult. Because of what was learned in the "prenegotiating" sessions in 2005, trade officials will be in a better position to resolve many of the core trade and investment problems, including politically sensitive liberalization of peak US tariffs in manufactures and agriculture and Korean regulatory reform in financial and entertainment services. However, there remain several difficult and sensitive items that will command the priority attention of both US and Korean officials. Most involve Korean reforms, underscoring the broad modeling results reported earlier that Korean welfare gains derive primarily from allocative efficiency effects—related to reforms of Korea's own restrictions—while US welfare gains come from increased export opportunities in the Korean market. Notwithstanding, both sides also benefit from reform of remaining US restrictions on trade in goods and services.

Key issues for the United States include autos, beef, and pharmaceutical pricing and reimbursement issues. Those for Korea include resolution of steel antidumping problems, access to the US visa waiver program, and coverage of production in the Kaesong industrial complex. Most can be addressed in the FTA itself; some will require bilateral initiatives pursued in parallel with the trade talks.

Automobile Trade

Formal efforts to resolve bilateral trade frictions over automobiles have spanned more than a decade. With the rapid growth in Korean auto exports to the US market in recent years, the disparity in access to the two markets has provoked more heated concerns that will inevitably echo at the FTA negotiating table.

In 1995, under pressure from a US Super 301 investigation, Korea signed a memorandum of understanding (MoU) with the United States in which it agreed to substantially reduce its annual vehicle and special excise taxes, streamline standards requirements, correct residual tensions from anti-import campaigns, and eliminate advertising restrictions for foreign automakers.

In 1998 the United States again used threats from a Super 301 investigation to convince Korea to undertake additional commitments in a second MoU. Korea agreed to further reduce the annual vehicle and the special excise taxes, eliminate the education and rural development taxes, and lower the bound tariff on vehicles from 80 to 8 percent. Korea also promised to continue streamlining standards requirements and to institute a self-certification system by 2002 in order to allow US manufacturers to certify their own products for sale in Korea, to create a secure finance system for the purchase of vehicles, and to step up efforts to counteract the effects of previous anti-import campaigns (see comparison of the MoUs in table 15).

In 2001 the two countries created the Automotive Standards Experts Working Group to facilitate implementation of the MoUs. Bringing together experts from both the government and automotive sectors, the group has addressed concerns regarding self-certification procedures, environmental testing, tire pressure monitoring systems, and radio frequencies for remote keyless entry (USTR 2005, 2006). Before announcing FTA talks in early 2006, Korea agreed to postpone implementing an emissions standard that would require all foreign cars to be customized for sale in Korea.[17] Korea also extended the grace periods for foreign vehicles to comply with emissions and average fuel economy targets, through 2008 and 2009 respectively (USTR 2006).

Key issues for the United States include autos, beef, and pharmaceutical pricing and reimbursement issues.

Despite the MoUs, US auto exporters have not increased shipments to the Korean market, selling only 4,251 vehicles there in 2005.[18] To be sure, the fact that the MoU pledges to improve market access does not guarantee an increase in sales: Producers have to offer competitive products. A large segment of the Korean market is taken by small-engine vehicles, not the mainstay of major US producers, and Korean companies have taken advantage of their protected domestic market to become more competitive over time (particularly in the low end of the vehicle market)—witness the rapid growth in Korean auto exports since 1997. In 2005 Korea exported about 2.6 million autos or 70 percent of the 3.7 million units produced that year.

17. See "U.S., Korea Launch FTA Talks, Will Seek To Reach Agreement by End of This Year," *International Trade Reporter,* February 9, 2006.

18. In that year, total Korean auto imports were about 31,000; domestic sales by Korean producers were 1.1 million units. Data are from the Korean Automobile Manufacturers Association (www.kama.or.kr) and Korean Automobile Importers and Distributors Association (www.kaida.co.kr).

That said, the low import penetration of larger vehicles is still notable. The explanation is at least partly due to Korean tax and regulatory policies, the residual effects of prior anti-import campaigns, and technical standards.

Taxes

In addition to the 8 percent tariff on passenger auto imports—more than triple the US rate—the Korean government assesses more than 10 taxes on top of the tariff, creating a cascading effect that exaggerates taxes on imports, especially cars with larger engines, since the duties accumulate from a higher base on imported autos (cif + tariff + other previously imposed taxes) than on Korean models. Such a tax structure hits imports of larger engines (over 2000cc) both because of the higher tax base and because the tax rates themselves are higher (see table 16). Even if the tariffs disappear on bilateral trade under an FTA, foreign automakers fear that the structure of domestic taxes will continue to depress demand in the Korean market for large-engine cars relative to small cars.

Anti-Import Bias

Government-sanctioned anti-import campaigns during the 1990s fostered the public perception in Korea that purchasing imported automobiles is unpatriotic. The "buy Korean" mentality was shaped not only by protectionist statements from high-level Korean government officials but also by media campaigns portraying imported automobiles as unnecessary luxury items. Demand for imported autos was also hampered by limits on advertising and by targeted tax audits of foreign car owners. While such practices have long since been terminated,[19] their effects have lingered on Korean consumer preferences (Noland 1996, 13).

Standards

Technical standards can sometimes impose nontariff barriers to trade, particularly if used to substantially raise production costs for imported vehicles. For this reason, US officials pushed for corecognition of automotive standards in the 1998 MoU, and Korea agreed to take steps in that direction. However, the US auto industry has expressed dissatisfaction with the speed of Korea's compliance and continues to nudge Korea to universally adopt either the US or EU standards on items such as diesel emission, tail pipe emissions, steering systems, and tinted glass.[20]

Beef Trade

During 2003 US beef exports to Korea totaled nearly $800 million, making it the third largest foreign market for American beef.[21] At the end of that year, however, Korea banned imports of American beef after officials confirmed the first US case of bovine spongiform encephalopathy (BSE) or "mad cow" disease. In January 2006 Korea partially lifted the ban, allowing imports of US beef from cattle less than 30 months of age and promising to remove remaining health and safety related restrictions by the end of March. However, in March 2006, another US case of BSE caused a delay in the lifting of the ban.

The current BSE-related ban is the latest iteration of bilateral beef trade problems over the past almost two decades. As highlighted in table 17, attempts to resolve beef issues have resulted in numerous Section 301 investigations, bilateral agreements, and WTO dispute settlement proceedings. These initiatives targeted issues such as low market access quotas, discriminatory shelf-life restrictions, and domestic producer subsidies in Korea.

Round #1: 1988–93. In 1988 the USTR began a Section 301 investigation into Korea's beef import quotas and subsequently took the case to GATT dispute resolution. During the proceedings, Korea claimed its quantitative restrictions on beef imports were justified under the balance of payments exception to the GATT, but the panel disagreed. To facilitate implementation of the dispute panel's recommendations, the United States and Korea signed two bilateral agreements, one in 1990 and another in 1993. In addition to outlining a schedule for gradual increases of Korean quotas on imports of beef, the two parties agreed on a simultaneous buy/sell system that would directly link foreign suppliers with Korean retailers and distributors of beef.

Round #2: 1994–95. Despite the two bilateral agreements, US beef exporters complained that their products were being excluded from the Korean market due to excessively short shelf-life restrictions combined with onerous standards test-

19. Indeed, as a symbolic show of penance, the Korean government sponsored events in the late 1990s showcasing imported cars and purchased a number of American autos for use by the national police (KEI 2003).

20. See "Michigan Governor, Senators Seek Auto Concessions In Korea FTA," *Inside US Trade*, February 17, 2006.

21. See US Department of Agriculture press release 0004-06, "Johanns and USTR Portman Welcome Progress to Reopen Korean Market to U.S. Beef," January 13, 2006, www.usda.gov.

ing. The USTR initiated another Section 301 investigation under the new WTO procedures. Korea subsequently agreed to curb customs delays and revise shelf-life restrictions (USITC 1996).

Round #3: 1997–2001. In 1997 and 1998, Korea did not fill its minimum access quota for beef, prompting the United States to again bring suit at the WTO in 1999. The WTO appellate body condemned Korea for failing to meet its beef quota, citing as causes the rules governing wholesale distribution, excessive domestic support, discrimination against grass-fed cattle, and other measures. In January 2001 Korea replaced its tariff rate quota on beef with a 40 percent tariff (WTO 2004).

Pharmaceuticals

Recent problems regarding Korean pricing and reimbursement policies for pharmaceuticals will also likely be given priority in the FTA negotiations since they allegedly pose significant access barriers for, or undercut the profitability of, US products in the $4 billion Korean pharmaceutical market—among the top 15 markets worldwide (CRS 2006). In addition, as in their other FTA initiatives, US officials will seek to augment WTO obligations with regard to pharmaceutical patents.

The pricing problems can be summarized as follows: Korea has a nationalized healthcare system, which, like the US system, poses large fiscal challenges. The Korean government has responded to the mounting deficits in its healthcare programs by enacting cost containment measures that reportedly discriminate against imports by systematically undervaluing pharmaceuticals and skewing demand toward domestically produced generic drugs. As a result, per capita spending on pharmaceuticals in Korea averages $115 annually, less than half the OECD average (AMCHAM Korea 2004). Pricing policy complaints advanced by US pharmaceutical firms revolve around three main issues:

- **A-7 pricing**. Per its agreement with the American government, Korea prices "innovative" pharmaceuticals according to their average price in a representative pool of seven advanced markets. However, the Korean Health Insurance Review Agency (HIRA) has rejected nearly two-thirds of the applications for medicines to be recognized as "innovative" and priced at A-7 levels. As a result, reimbursement for some imported pharmaceuticals is significantly reduced, and some drugs have not been offered in the Korean market (USTR 2006, 415).
- **Actual transaction pricing (ATP)**. ATP was introduced in 2004 to increase transparency in pricing drugs and to curb the ability of hospitals to profit by demanding discounted prices from pharmaceutical companies while billing the government for full price reimbursement. American firms initially praised the implementation of ATP but have since been concerned about lapses in its enforcement.
- **Triennial repricing**. As announced in 2003, all drugs eligible for reimbursement under the nationalized insurance scheme are subject to repricing every three years. American pharmaceutical firms have complained that this program is used solely to justify price decreases.

The two countries have met regularly to discuss these pharmaceutical issues since the 2002 creation of the Pharmaceuticals Working Group, which includes representatives from the government and pharmaceutical companies in each country. In 2005 USTR Portman noted that the possibility for FTA negotiations hinged partially upon progress in pharmaceutical issues. Korea addressed this concern in October 2005, promising not to introduce any new drug pricing measures in the near future, to hear appeals for disputes over drug reimbursement decisions, and to provide written justifications for pricing decisions. The two countries agreed to establish a special working group on pharmaceuticals as part of the formal FTA negotiating structure.

However, on May 3, 2006, the Korean Ministry of Health and Welfare announced a new drug approval policy for HIRA. Possibly by September 2006, HIRA will institute a so-called positive list approach that will allow it to exclude new pharmaceuticals from the list of products approved for reimbursement under the national insurance program. Among other criteria, cost effectiveness will figure prominently in HIRA's decisions to approve new drugs. This change in policy is intended to help HIRA reduce pharmaceutical costs from more than 29 percent of national insurance payments to less than 24 percent by 2011. The new approval process will not affect the 22,000-plus drugs that HIRA has already approved.[22]

Trade Remedy Laws and Competition Policy

The United States has never included obligations on subsidies or unfair trade statutes in any of its free trade pacts.[23] Only NAFTA contains provisions specifically focused on antidumping and countervailing duties, and those are limited to dispute settlement (see Hufbauer and Schott 2005, chapter 4).

22. See "USTR, Industry Push Korea on New Reimbursement Program," *Inside US Trade*, May 26, 2006; and Korea Ministry of Health and Welfare press release, May 3, 2006 (in Korean).

23. This section draws heavily on a written contribution from Edward M. Graham.

Nonetheless, Korean officials are concerned about the incidence of US antidumping and countervailing duties against Korean imports and have contested several of these cases in the WTO (as noted earlier). As of February 2006, the United States maintained 24 antidumping and countervailing duty measures against Korea. All but six of these orders are against iron and steel products (see table 18).

Korea faces additional hurdles to exporting steel when the United States imposes safeguards, as it did in both February 2000 (line pipe) and March 2002 (numerous steel products). In each case, Korea won its case at the WTO and forced the United States to revoke the safeguards. However, these successes came only after significant drops in steel export revenues. The volume of Korean steel exports to the United States in 2002 fell 16 percent from the 2001 level (and about 40 percent from its peak in 1998).

While the economics textbook argues that antidumping is inappropriate for an integrated market, the US political bible commands that "thou shall not touch antidumping laws" in FTAs. In any event, Korea doesn't have a pervasive antidumping problem in the US market; it has a steel trade problem, which is lessening over time. FTA negotiators will find more fertile ground in addressing the specific issue rather than mounting a frontal attack against dumping statutes.

Key issues for Korea include resolution of steel antidumping problems, access to the US visa waiver program, and coverage of production in the Kaesong industrial complex.

Originally, antidumping laws were introduced to counter predatory pricing practices and strengthen competitive markets. Considerable literature suggests that antidumping measures are administered in a way so as effectively to reduce competition, and such reduction reduces the benefits associated with any FTA (Lindsay and Ikenson 2002, Finger and Zlate 2003). While antidumping measures likely will be excluded from the negotiating agenda, there might be other opportunities for an effective competition policy to be included in a Korea-US FTA.

For example, restrictive or monopolistic arrangements for distribution of imports are one type of behind-the-border anticompetitive practice that inhibits realization of gains from trade. These arrangements can serve to "soften" the impact of competition from imports to domestic competing firms while at the same time generating rents for importers, at the expense of consumers. The arrangements can be private, e.g., import or export cartels, or arrangements where the distribution of imports is under the exclusive control of private parties that have some interest in restricting the volume of imports. But, also, the arrangements can be public or at least facilitated by public policy (where less-than-fair-value trade laws, as already discussed, stand out as an example). At the very least, FTA negotiators should explore whether such arrangements exist or are likely to be created—perhaps in both countries via involvement of competition agencies (the Federal Trade Commission and/or the Antitrust Division of the Justice Department in the United States and the Korean Fair Trade Commission). Unfortunately, this involvement might prove difficult, because competition agencies generally avoid getting involved in international trade discussions, even if the overlap between competition and trade policy issues is substantial.

Another area in which investigation is needed is whether there are unduly high entry barriers that would inhibit either imports or, perhaps more importantly, FDI in sectors that might be subject to more competition under an FTA except for the existence of these entry barriers. Identification and reduction of unduly high entry barriers likely will bear the most fruit in the services sectors, where in many instances trade in the relevant services requires in the "importing" nation a commercial presence of the seller of services, via FDI. Thus, in practical terms, the creation of more competition, and realization of the benefits thereof, really comes down to a review of whether there are undue barriers to FDI, including via mergers and acquisitions. It is clear that neither the United States nor Korea is closed to this investment, because a substantial amount of FDI has in fact entered both nations in recent years. Nonetheless, a review of whether there remain unduly restrictive barriers to FDI should remain a priority, because reduction or removal of such barriers, where they exist, has the potential to create substantial gain.

US Visa Waiver Program

The US visa waiver program was set up 20 years ago to facilitate tourism and redirect US consular resources to countries where tighter screening of applicants is needed. Eligible nationals from selected countries can travel to the United States for tourism or business for up to 90 days without a visa. To participate in the program, a country must inter alia offer reciprocal privileges to US citizens, issue machine-readable passports with biometric data, and have a rejection rate for B-1/B-2 (nonimmigrant) visas of less than 3 percent. The program currently covers 27 countries, mostly European but also members of the Asia Pacific Economic Cooperation (APEC) forum, such as Japan, Australia, Singapore, Brunei, and New Zealand. Since the terrorist attacks of September 11, 2001, border controls

have become more stringent, and since then there have been no additions to the list of eligible countries. In fact, Argentina (in 2002) and Uruguay (in 2003) subsequently were removed from the program; Korea has never been eligible due in part to its nonimmigrant visa rejection rate.

Currently, US visas are processed only at the consular office of the US embassy in Seoul. In 2004, about 360,000 South Koreans applied for a nonimmigrant visa (Hwang 2005). Access to the visa waiver program is a priority for business groups in both countries.

From a business perspective, exemption from visa requirements is part of the trade facilitation agenda and should be included in FTA obligations. Since the Chile-US FTA, however, Congress has insisted that no immigration matter, including visas, be included in trade pacts. For that reason, the visa waiver issue will not be part of the FTA but likely will be discussed on a parallel track.

What should be done? Officials should focus first on how to make it easier for Koreans to get visas and then on meeting the qualifications for the waiver program. Increasing the number of US consular offices in Korea that handle visas, accelerating the introduction of biometric data in new Korean passports, and educating individual applicants and tour operators on visa requirements (to cut down on rejections due to clerical errors) are practical steps that could be taken while FTA talks are under way. Since the Korean visa rejection rate is just above the maximum permitted for the waiver program, this could remove a key obstacle to Korea's inclusion in the program.

Kaesong Industrial Complex

The Kaesong industrial complex is the centerpiece of North-South economic cooperation under the peace and prosperity policy of South Korean President Roh Moo-hyun.[24] At present roughly a dozen South Korean firms operate in the industrial park, employing approximately 6,000 North Koreans producing labor-intensive manufactures. (To date North and South Korea have not opened the zone to third-country firms.) Seoul envisions firms in the industrial park ultimately employing more than 700,000 North Korean workers producing heavy chemical and engineering products. At the start, however, the establishment of production in the zone has been complicated by restrictions on the transfer of potential military-use telecommunications and capital equipment under the multilateral Wassenaar Arrangement (in which both the United States and South Korea participate), though these considerations do not appear to be a significant constraint on the incumbent firms' operations at this time.

South Korea has requested duty-free treatment for products produced in Kaesong in other FTA negotiations. Products produced in the zone are granted duty-free treatment in South Korea's agreement with Singapore and receive duty-free treatment subject to a rule that 60 percent of the content is South Korean in South Korea's agreement with the European Free Trade Association.

In the case of the Korea-US FTA, however, the situation is a bit more complicated. The United States maintains an extensive set of economic sanctions against North Korea dating back to 1950.[25] North Korea is among the few countries to which the United States does not grant normal trade relations status, and North Korean exports are subject to the so-called column 2 tariff rates established by the infamous Smoot-Hawley Tariff Act of 1930. These tariffs tend to be highest on the sorts of labor-intensive products currently manufactured at Kaesong, so duty-free treatment could be critical to successfully exporting to the United States from the zone.

Realistically, the volume of exports emanating from Kaesong will likely remain trivial for some time. Nonetheless, the South Korean side may well insist on its inclusion. From the standpoint of rapidly and successfully concluding an FTA between the United States and South Korea, however, a request for duty-free treatment for Kaesong-produced goods is a high-cost, low-payoff addition to the negotiating agenda—and one that could put the entire initiative in jeopardy.

If Kaesong is included in the negotiation, it also will create a thorny issue with respect to labor standards, and the AFL-CIO has already indicated that it will press this point. The issues are two-fold.

Substantively, North Korea does not meet internationally recognized core labor standards; rights to associate, organize, and bargain collectively are absent entirely in autocratic North Korea, nor does the regime allow international monitoring of labor conditions. At Kaesong, workers are not hired directly—instead they are hired through a North Korean government agency, which reputedly retains a large share of the $57.50 per month paid to the government labor broker on behalf of the worker by the South Korean employer to cover social security payments as well as transportation and other in-kind benefits.[26] Moreover, according to South Korean government

24. This section draws primarily from a draft by Marcus Noland and his recent congressional testimony, North Korea: Illicit Activity Funding the Regime, Hearing of the US Senate Subcommittee on Federal Financial Management, Government Information, and International Security, April 25, 2006.

25. The United States has never entered into an FTA with a country that is the target of US economic sanctions.

26. This figure is for a 48-hour workweek. The South Korean government

sources, while South Korean firms pay in hard currency, North Korea pays the workers in North Korean won converted at the wildly overvalued official exchange rate. Evaluated at the more realistic black-market rate, and even with overtime pay, North Korean workers net less than $3 per month. That said, while conditions in Kaesong may be exploitative, they may well be considerably better than those existing elsewhere in North Korea.

Procedurally, while the FTA will presumably include a labor standards chapter, South Korea has no way to enforce such commitments in Kaesong, where North Korea is sovereign. One possible solution, already denounced by the South Korean Ministry of Unification, would be to involve a third party such as the International Labor Organization (ILO) to monitor conditions in the zone and certify compliance with agreed standards. Such an approach was applied in the Cambodian textiles case and has been floated by Jay Lefkowitz, President Bush's special assistant for North Korean human rights. But this solution would require the cooperation of the North Korean government, which is not a member of the ILO, has a track record of noncooperation in other spheres of international engagement and to date has restricted access to the zone of third-party observers. Indeed, if South Korea were to request inclusion of the Kaesong zone in the negotiations, the United States conceivably could demand national treatment for US investments within the zone, a request to which the North Korean government would never accede even if the South Korean government would.

A request for duty-free treatment for Kaesong-produced goods is a high-cost, low-payoff addition to the negotiating agenda—and one that could put the entire initiative in jeopardy.

Moreover, these labor concerns add to the considerable list of US problems with North Korea, including North Korean state involvement in counterfeiting US currency, nuclear proliferation, drug trafficking, and other illegal, illicit, or objectionable behavior that already pose serious political impediments to an extraterritorial extension of the FTA to products from Kaesong. If the labor issues are not adequately addressed in the negotiations, the Kaesong issue could well damage prospects for concluding the FTA and doom the ratification process in the US Congress. Labor problems in Central America, which almost scuttled CAFTA-DR, pale compared with the abuses of the North Korean regime. If these practices are ignored in an FTA, congressional scrutiny will create a firestorm of opposition to the trade pact with Korea—and justifiably so.

reports that, with overtime, the actual workweek averages 55 hours, and workers on average receive $67 in gross pay before deductions. See Marcus Noland's testimony, North Korea: Illicit Activity Funding the Regime, Hearing of the US Senate Subcommittee on Federal Financial Management, Government Information, and International Security, April 25, 2006.

IMPLICATIONS FOR THIRD COUNTRIES AND THE WORLD TRADING SYSTEM

"Competitive liberalization" is thriving in East Asia; the wave of new Korean FTA initiatives reflects this broader regional trend. China has taken the lead; its trade talks with ASEAN and India have prompted Japan and Korea to emulate the Chinese initiatives. These efforts are creating bare-bones FTAs, replete with exceptions and with coverage limited to border trade barriers for goods. Within a decade, however, one should not rule out a nascent East Asian trading arrangement involving the "10+4" nations—ASEAN-10 plus China, India, Japan, and Korea. To some extent, the US-Korea trade talks (as well as US initiatives with ASEAN members) are a preemptive US response to the new regional initiatives among East Asian countries.

Those pacts create both opportunities and challenges for US and Korean trade policy. To the extent that the regional initiatives promote economic growth, they can provide benefits that reach beyond the borders of the partner countries. To the extent that they involve discrimination against nonmember countries (even if the pacts are consistent with WTO obligations), they may adversely affect the trade and investment interests in other countries outside the region.

Progress on the US-Korea pact could also provoke a revival in the stalled talks between Japan and Korea. Japan sells Korea, and Korea sells Japan, many of the same products that US firms export to both countries, so Japanese firms would face trade and investment diversion from two of its most important markets (Schott and Goodrich 2004). At the same time, the Japanese government could overcome long-standing inhibitions and pursue FTA talks with the United States. As with Korea, the idea of an FTA has been vetted for a long time but shelved due to domestic resistance to agricultural and regulatory reforms. Like Korea, Japan has a broad economic and foreign policy agenda that could be served by a closer partnership with the United States, especially at a time when the global trade talks face an uncertain outcome (see below)

and when competition from China is moving up the value-added chain.

Progress on the US-Korea front will also spur new EU initiatives in the region. European exports to East Asia have revived in the past two years but risk being sideswiped by the new preferences accorded by bilateral and regional trade deals to which Europe is not a party. As in other regions, EU officials have emulated US initiatives in Southeast Asia with their own version of the US Enterprise for ASEAN Initiative and visited Seoul in May 2006 to prepare for EU-Korea bilateral trade talks.

The big question mark is whether the competitive liberalization spirit will spawn a trilateral deal between China, Korea, and Japan. Such a pact is currently under study in a trilateral working group. Whether this effort will pave the road to FTA negotiations remains to be seen. We are skeptical, since such studies often are commissioned simply to defer decisions on politically sensitive matters. But a Northeast Asian FTA would link three powerful manufacturing economies with substantial financial resources and all but ensure the eventual expansion to the "10 + 3" East Asian free trade zone, since each Northeast Asian country is conducting parallel negotiations with ASEAN members.

Will this lead to the fulfillment of the original APEC vision of free trade and investment in the region by 2020, agreed at Bogor, Indonesia in 1994? The APEC Business Advisory Council advocated a renewed look at a Free Trade Area of the Asia-Pacific in their report to APEC leaders in Santiago in November 2004. Not surprisingly, the official reaction was muted. No US (or Japanese) politician wants to talk about free trade with China—even as a long-term proposition. But events may propel reconsideration in the coming years as FTAs and WTO liberalization work in tandem to push trade liberalization across the Asia-Pacific region.

What impact will the FTA talks have on the WTO and the current Doha Round? US FTAs with Korea (and Malaysia and possibly others) are being advanced as complements to efforts to complete the Doha Round and as part of the response to the spurt of FTA activity in East Asia by China and other countries. At the same time, these pacts provide a fallback strategy in the event the WTO talks falter or produce insufficient liberalization.

If the WTO negotiators overcome obstacles that to date have forestalled progress, then the FTA initiatives could have a largely positive impact on the Doha Round. The reasoning is straightforward. Any prospective deal in the Doha Round will be possible only if the major trading nations, including Korea and Japan, agree to significantly reduce their farm trade barriers—not free trade but reforms that actually make a difference and open new trading opportunities. The FTA should make it easier for Korea to undertake multilateral (albeit incremental) obligations in the Doha Round because the FTA will spur long-run adjustments in agricultural production and incomes policy. Indeed, Korea (and potentially Japan) could well be "paid twice"—in terms of the mercantilist logic of trade negotiations—for their farm-sector reforms through both FTA and WTO "concessions" from key trading partners.

If the Doha Round falters, the pursuit of bilateral FTAs and regional trading arrangements will undoubtedly accelerate in East Asia. US officials will redirect attention from Geneva to FTAs in East Asia, expand already growing trade arrangements in South Asia and possibly launch new trade talks with Japan. European proposals similar to those being advanced by the United States will likely be launched with East and South Asian countries.

CONCLUSION

If the United States wants an FTA with Korea, it will have to put long-standing US barriers to Korean exports on the negotiating table and resolve vexing problems regarding access to the US visa waiver program. But to get the US Congress to accept such reforms, US negotiators will have to receive commitments to significant Korean reforms in areas of US export interest, including agriculture. Note that an FTA does not require free trade in agriculture, but a deal must include substantial new trade opportunities for US farmers to pass the political test in Washington and the legal test in the WTO.

Such a deal, of course, will pose a stiff political challenge for Korean officials. However, Korea will be under pressure *in any event* to reform its farm policies—either in the context of a final deal in the Doha Round or in response to Chinese initiatives in the region, which include agriculture and which Korea will need to match. Absent the Doha Round rationale, securing political support for Korean farm reforms will be more tenuous. However, changing demographics suggest that Korea could deflect at least some of the domestic opposition to farm reforms by switching from trade protection to income support for Korean farmers. In fact, the Korean government did commit more than $1 billion for agricultural adjustment programs subsequent to the passage of the Korea-Chile FTA; since then, it has budgeted more than $120 billion over ten years to facilitate the further restructuring of Korea's agricultural economy. In the context of the Korea-US FTA, a combination of "decoupled" support for Korean farmers and substantial, albeit incomplete, reform of import barriers could

provide a big boost to Korea's economy. Such reforms could be phased in over time to mitigate the economic adjustment pressures and to help manage the political fallout.

Perhaps an even greater challenge will be balancing the political and economic objectives of each side. As noted earlier, besides "traditional" interests in deepening bilateral trade and investment, both countries see the FTA as a vehicle to advance important foreign policy objectives, particularly the strengthening of cooperation on security issues in Northeast Asia. Getting the two sides on a common page regarding policies toward North Korea will be contentious and require skillful management. From a US perspective, it is hard to see how the FTA could grant advantages to North Korean production while that country obstructs the six-party talks on security issues and engages in abusive labor practices and counterfeiting of US currency; ignoring these problems risks jeopardizing the entire initiative. From a Korean perspective, a policy of constructive engagement with North Korea is understandable, even though at present the economic implications of the specific Kaesong initiative are minor.

Given North Korean intransigence, we suspect that the prudent course would be to exclude North Korean–produced goods and services from the FTA until compliance with the pact's rights and obligations can be adequately monitored and enforced. But it also makes sense to support the South Korean vision for Korean unification by setting out procedures in the FTA itself for updating the pact if and when the reunification process advances.

REFERENCES

AMCHAM Korea (American Chamber of Commerce in Korea). 2004. *Improving Korea's Business Climate 2004*. Seoul. Available at www.amchamkorea.org/publications.

Bradford, Scott C. and Robert Z. Lawrence. 2004. *Has Globalization Gone Far Enough? The Costs of Fragmented Markets*. Washington: Institute for International Economics.

Bradford, Scott C., Paul L. E. Grieco, and Gary Clyde Hufbauer. 2005. The Payoff to America from Global Integration. In *The United States and the World Economy: Foreign Economic Policy for the Next Decade*, C. Fred Bergsten and the Institute for International Economics. Washington: Institute for International Economics.

Choi, Inbom, and Jeffrey J. Schott. 2001. *Free Trade between Korea and the United States?* Policy Analyses in International Economics 62. Washington: Institute for International Economics (April).

CRS (Congressional Research Service). 2006. *South Korea-U.S. Economic Relations: Cooperation, Friction, and Prospects for a Free Trade Agreement.* CRS Report RL30566 (updated February 9, 2006): 17. Washington.

DeRosa, Dean A., and John P. Gilbert. 2005. *Predicting Trade Expansion under FTAs and Multilateral Agreements.* Working Paper 05-13. Washington: Institute for International Economics.

Destler, I. M. 2005. *American Trade Politics*, 4th ed. Washington: Institute for International Economics.

Finger, J. Michael, and Andrei Zlate. 2003. WTO Rules that Allow New Trade Restrictions: The Public Interest is a Bastard Child. Paper prepared for the UN Millennium Task Force on Trade.

Hufbauer, Gary Clyde, and Jeffrey J. Schott. 2005. *NAFTA Revisited: Achievements and Challenges.* Washington: Institute for International Economics.

Hwang, Balbina Y. 2005. *Including South Korea in the U.S. Visa Waiver Program*. Heritage Foundation Backgrounder 1872. Washington: Heritage Foundation (July).

KEI (Korea Economic Institute of America). 2003. *Korea's Economy 2003.* Washington.

Lee, Junkyu, and Hongshik Lee. 2005. *Feasibility and Economic Effects of a Korea-U.S. FTA*. Korea Institute for International Economic Policy, NRCS Joint Research Series on FTA Issues. Seoul: Korea Institute for International Economic Policy (December).

Lindsey, Brink, and Dan Ikenson. 2002. *Antidumping 101: The Devilish Details of "Unfair" Trade Law*. Cato Institute Trade Policy Analysis 20. Washington: Cato Institute.

Noland, Marcus. 1996. *The Future of US-Korea Economic Relations.* Working Paper 96-08. Washington: Institute for International Economics.

OECD (Organization for Economic Cooperation and Development). 2004. *International Direct Investment Statistics Yearbook: 1992–2003*. Paris.

OECD (Organization for Economic Cooperation and Development). 2005. Statistics on International Trade in Services, Detailed Tables by Partner Country, 2000–2003. Paris.

Schott, Jeffrey J., ed. 2004. *Free Trade Agreements: US Strategies and Priorities*. Washington: Institute for International Economics.

Schott, Jeffrey J., and Ben Goodrich. 2004. Reflections on Economic Integration in Northeast Asia. In *Strengthening Economic Cooperation in Northeast Asia*, ed. Yoon Hung Kim and Chang Jae Lee. Seoul: Korea Institute for International Economic Policy.

USITC (US International Trade Commission). 1996. *The Year in Trade: Operation of the Trade Agreements Program During 1995*. USITC Publication 2971: 61–64. Washington.

USTR (US Trade Representative). 2005. *National Trade Estimate Report on Foreign Trade Barriers*. Washington.

USTR (US Trade Representative). 2006. *National Trade Estimate Report on Foreign Trade Barriers*. Washington.

Ward's Communications. 2004. *World Motor Vehicle Data 2004*. Available at www.wardsauto.com.

WTO (World Trade Organization). 2004. *Trade Policy Review: Korea*. Geneva.

Table 1 Bilateral FTA partners of the United States as of June 2006 (billions of dollars)

		US merchandise trade, 2005				
Country/region	**2005 GDP**	**US exports to[a]**	**US imports from[b]**	**Trade balance**	**Total trade**	**FTA status[c]**
Canada	1,130.2	183.2	287.5	–104.3	470.8	A
Mexico	768.4	101.7	169.2	–67.5	270.9	A
Korea	793.1	26.2	43.2	–16.9	69.4	C
Malaysia	130.8	9.5	33.7	–24.2	43.2	C
Singapore	117.9	18.7	15.1	3.6	33.8	A
Thailand	168.8	6.6	19.8	–13.2	26.4	C
CAFTA-5[d]	77.3	11.5	13.4	–1.9	24.9	A/B
Israel	123.5	6.5	16.9	–10.4	23.4	A
Australia	708.0	14.6	7.4	7.3	22.0	A
Indonesia	276.0	3.0	11.9	–8.9	14.9	D
Colombia	122.3	5.0	8.8	–3.8	13.7	C
Chile	114.0	4.7	6.7	–2.1	11.4	A
SACU-5[e, f]	258.3	3.8	6.8	–2.9	10.6	C
United Arab Emirates	133.8	7.9	1.4	6.5	9.3	C
Dominican Republic	29.2	4.4	4.6	–0.3	9.0	B
Ecuador[f]	33.1	1.7	5.9	–4.1	7.6	C
Peru	78.6	2.0	5.1	–3.1	7.2	B
Egypt	93.0	3.1	2.1	1.1	5.2	D
Panama	15.2	2.0	0.3	1.7	2.3	C
Jordan	12.9	0.6	1.3	–0.7	1.9	A
Oman	30.3	0.6	0.5	0.1	1.0	B
Morocco	52.0	0.5	0.5	0.0	1.0	A
Bahrain	12.9	0.3	0.4	–0.1	0.7	B
Subtotal (FTA partners)	5,279.5	418.1	662.3	–244.2	1,080.4	
United States (world trade totals)	12,485.7	804.0	1,662.4	–858.4	2,466.4	

a. US domestic exports.

b. US imports for consumption.

c. A = in effect; B = signed; C = under negotiation; D = under consideration

d. CAFTA-5: Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua.

e. SACU-5: Botswana, Lesotho, Namibia, South Africa, and Swaziland.

f. Suspended in April 2006.

Sources: GDP: IMF's *World Economic Outlook* database, September 2005; trade data: USITC Dataweb.

Table 2 Bilateral FTA partners of Korea as of June 2006 (billions of dollars)

		Korean merchandise trade, 2005				
Country/region	**2005 GDP**	**Korean exports to**	**Korean imports from**	**Trade balance**	**Total trade**	**FTA status[a]**
Japan	4,571.3	24.0	48.4	–24.4	72.4	C
United States	12,485.7	41.5	30.8	10.7	72.3	C
ASEAN-10[b]	861.9	27.4	26.1	1.4	53.5	B
Singapore	117.9	7.4	5.3	2.1	12.7	A
India	775.4	4.6	2.1	2.5	6.7	D
Canada	1,130.2	3.4	2.6	0.8	6.0	C
Mexico	768.4	3.8	0.5	3.3	4.2	D[c]
Chile	114.0	1.2	2.3	–1.1	3.4	A
EFTA-4[d]	679.4	1.1	1.8	–0.7	2.9	A (July 2006)
New Zealand	108.5	0.7	0.9	–0.2	1.6	D[e]
Subtotal[f] (FTA partners)	21,612.8	115.1	120.7	–5.6	235.8	
Korea (world trade totals)	793.1	284.4	261.2	23.2	545.7	

a. A = in effect; B = signed; C = under negotiation; D = under consideration

b. ASEAN-10: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam. All signed except Thailand.

c. Korea and Mexico have begun talks on a strategic economic complementary agreement, which is similar to a trade and investment framework agreement–plus and is seen as a precursor to an FTA.

d. EFTA-4: Iceland, Liechtenstein, Norway, and Switzerland. Due to data unavailability, figures for EFTA-4 do not include the contribution from Liechtenstein.

e. No date has been set for the start of formal Korea–New Zealand negotiations.

f. Due to its inclusion in ASEAN-10, Singapore is counted twice in these subtotals.

Sources: GDP: IMF's *World Economic Outlook* database, September 2005; trade data: UN Comtrade database.

Table 3 Korea: Major trading partners (billions of dollars, percent share of world total in parentheses)

Country	2000	2001	2002	2003	2004	2005
Korean exports to						
United States	37.6	31.2	32.8	34.2	42.9	41.3
	(21.8)	(20.7)	(20.2)	(17.6)	(16.9)	(14.5)
Japan	20.5	16.5	15.1	17.3	21.7	24.0
	(11.9)	(11.0)	(9.3)	(8.9)	(8.6)	(8.4)
China, excluding Hong Kong	18.5	18.2	23.8	35.1	49.8	61.9
	(10.7)	(12.1)	(14.6)	(18.1)	(19.6)	(21.8)
European Union	23.4	19.6	21.7	24.9	37.8	43.7
	(13.6)	(13.0)	(13.4)	(12.8)	(14.9)	(15.4)
Subtotal	*100.0*	*85.5*	*93.4*	*111.5*	*152.2*	*170.9*
	(58.0)	*(56.8)*	*(57.5)*	*(57.5)*	*(60.0)*	*(60.1)*
World total	*172.3*	*150.4*	*162.5*	*193.8*	*253.8*	*284.4*
Korean imports from						
United States	29.2	22.4	23.0	24.8	28.8	30.6
	(18.2)	(15.9)	(15.1)	(13.9)	(12.8)	(11.7)
Japan	31.8	26.6	29.9	36.3	46.1	48.4
	(19.8)	(18.9)	(19.7)	(20.3)	(20.5)	(18.5)
China, excluding Hong Kong	12.8	13.3	17.4	21.9	29.6	38.7
	(8.0)	(9.4)	(11.4)	(12.2)	(13.2)	(14.8)
European Union	15.8	14.9	17.1	19.4	24.2	27.3
	(9.8)	(10.6)	(11.2)	(10.9)	(10.8)	(10.5)
Subtotal	*89.6*	*77.2*	*87.4*	*102.4*	*128.7*	*145.0*
	(55.8)	*(54.7)*	*(57.5)*	*(57.3)*	*(57.3)*	*(55.5)*
World total	*160.5*	*141.1*	*152.1*	*178.8*	*224.5*	*261.2*

Note: Exports are free on board (fob) basis and imports are cost, insurance, freight (cif) basis.

Source: Korea Ministry of Finance and Economy, *Major Economic Indicators*, February 17, 2006.

Table 4 US-Korea merchandise trade, 2001–05

HS product	2001		2002		2003		2004		2005	
	Millions of dollars	Percent of total[a]	Millions of dollars	Percent of total[a]	Millions of dollars	Percent of total[a]	Millions of dollars	Percent of total[a]	Millions of dollars	Percent of total[a]
US exports[b] to Korea										
Total merchandise[c]	20,899	100	21,151	100	22,525	100	24,995	100	26,210	100
Total agriculture[d], *of which*:	2,264	11	2,449	12	2,722	12	2,280	9	2,091	8
Cereals (Ch. 10)	463	2	296	1	283	1	797	3	429	2
Fish (Ch. 3)	310	1	308	1	381	2	338	1	389	1
Oilseeds & fruits (Ch. 12)	297	1	338	2	397	2	389	2	320	1
Beef (Ch. 2)	484	2	749	4	915	4	74	0	191	1
Total manufactures[e], *of which*:	18,635	89	18,702	88	19,803	88	22,715	91	24,120	92
Electronics (Ch. 85)	4,677	22	5,030	24	5,847	26	5,960	24	6,265	24
Nuclear reactors and machinery (Ch. 84)	3,477	17	3,344	16	3,199	14	3,698	15	4,355	17
Precision equipment (Ch. 90)	1,191	6	1,095	5	1,290	6	1,812	7	2,088	8
Organic chemicals (Ch. 29)	833	4	1,034	5	1,544	7	2,374	9	1,976	8
Aircraft (Ch. 88)	2,621	13	2,307	11	1,809	8	1,747	7	1,893	7
Plastics (Ch. 39)	524	3	632	3	627	3	720	3	867	3
Automobiles (Ch. 87)	396	2	428	2	402	2	532	2	649	2
US imports[f] from Korea										
Total merchandise	34,917	100	35,284	100	36,929	100	45,064	100	43,155	100
Total agriculture	224	1	248	1	260	1	290	1	325	1
Total manufactures, *of which*:	34,693	99	35,036	99	36,669	99	44,774	99	42,830	99
Electronics (Ch. 85)	11,514	33	11,769	33	13,241	36	16,926	38	13,332	31
Automobiles (Ch. 87)	6,819	20	7,429	21	8,598	23	10,874	24	10,335	24
Nuclear reactors and machinery (Ch. 84)	6,523	19	6,588	19	5,686	15	6,331	14	6,712	16
Mineral fuels and oils (Ch. 27)	463	1	272	1	281	1	549	1	1,109	3
Articles of iron or steel (Ch. 73)	667	2	644	2	632	2	825	2	1,069	2

HS = Harmonized System

a. Share of total merchandise export, import trade.

b. Domestic exports.

c. HS Ch. 1–99.

d. HS Ch. 1–24.

e. HS Ch. 25–99.

f. Imports for consumption.

Sources: USITC Dataweb; Bureau of Economic Analysis, *Survey of Current Business* (October 2005).

Table 5 US-Korea electronics trade, 2001–05

HS product	2001		2002		2003		2004		2005	
	Millions of dollars	Percent of total[a]	Millions of dollars	Percent of total[a]	Millions of dollars	Percent of total[a]	Millions of dollars	Percent of total[a]	Millions of dollars	Percent of total[a]
US electronics exports[b] to Korea										
Total electronics (Ch. 85), *of which*:	4,677	100	5,030	100	5,847	100	5,960	100	6,265	100
Digital circuits (854221)	0	0	2,406	48	3,297	56	2,868	48	3,224	51
Other circuits (854229)	0	0	503	10	430	7	766	13	533	9
US electronics imports[c] from Korea										
Total electronics (Ch. 85), *of which*:	11,514	100	11,769	100	13,241	100	16,926	100	13,332	100
Cellular phones (8525209070)	4,043	35	4,157	35	5,500	42	7,968	47	5,778	43
Digital circuits (854221)	0	0	2,939	25	2,782	21	3,183	19	2,481	19

a. Share of total electronics export, import trade (Ch. 85).

b. Domestic exports.

c. Imports for consumption.

Source: USITC Dataweb.

Table 6 US-Korea automobile trade, 2001–05

HS product	2001		2002		2003		2004		2005	
	Millions of dollars	Percent of total[a]	Millions of dollars	Percent of total[a]	Millions of dollars	Percent of total[a]	Millions of dollars	Percent of total[a]	Millions of dollars	Percent of total[a]
US automobile exports[b] to Korea										
Total automobiles (Ch. 87), *of which:*	396	100	428	100	402	100	532	100	649	100
Parts (870899)	151	38	95	22	102	25	232	44	209	32
Airbags, door assemblies, body stampings (870829)	24	6	30	7	39	10	68	13	103	16
Gear boxes (870840)	59	15	68	16	33	8	18	3	79	12
Cars of cylinder capacity between 1500 to 3000cc (870323)	20	5	46	11	36	9	23	4	49	8
Tanks (871000)	65	16	72	17	76	19	68	13	38	6
Cars of cylinder capacity in excess of 3000cc (870324)	7	2	33	8	32	8	15	3	28	4
US automobile imports[c] from Korea										
Total automobiles (Ch. 87), *of which*:	6,819	100	7,429	100	8,598	100	10,874	100	10,334	100
Cars of cylinder capacity between 1500 and 3000cc (870323)	5,051	74	4,831	65	5,418	63	7,094	65	6,138	59
Cars of cylinder capacity in excess of 3000cc (870324)	334	5	1,238	17	1,718	20	2,457	23	2,747	27
Parts (870899)	123	2	185	2	205	2	332	3	582	6
Cars of cylinder capacity between 1000 and 1500cc (870322)	981	14	774	10	775	9	482	4	83	1

a. Share of total automobile export, import trade (Ch. 87).

b. Domestic exports.

c. Imports for consumption.

Source: USITC Dataweb.

Table 7 US-Korea services trade, 2002–04

Category	2002		2003		2004	
	Millions of dollars	Percent of total[a]	Millions of dollars	Percent of total[a]	Millions of dollars	Percent of total[a]
US exports to Korea						
Total private services	8,025	100	8,304	100	9,113	100
Transportation	4,251	53	4,376	53	4,694	52
Travel	2,175	27	2,151	26	2,218	24
Passenger fares	13	0	48	1	64	1
Other transportation	2,063	26	2,177	26	2,412	26
Royalties and license fees	1,194	15	1,316	16	1,657	18
Other private services	2,580	32	2,612	31	2,762	30
Education	904	11	993	12	1,071	12
Financial services	260	3	263	3	295	3
Insurance	43	1	49	1	69	1
Telecommunications	114	1	113	1	112	1
Business, professional, and technical services	797	10	794	10	838	9
Miscellaneous services	462	6	400	5	377	4
US imports from Korea						
Total private services	4,435	100	4,373	100	4,826	100
Transportation	3,873	87	3,908	89	4,348	90
Travel	888	20	709	16	904	19
Passenger fares	1,110	25	1,051	24	1,108	23
Other transportation	1,875	42	2,148	49	2,336	48
Royalties and license fees	71	2	54	1	30	1
Other private services	491	11	411	9	448	9
Education	3	0	3	0	15	0
Financial services	74	2	83	2	97	2
Insurance	7	0	8	0	11	0
Telecommunications	61	1	85	2	71	1
Business, professional, and technical services	156	4	104	2	116	2
Miscellaneous services	190	4	128	3	138	3

a. Share of total private services export, import trade.

Source: Bureau of Economic Analysis, *Survey of Current Business* (October 2005).

Table 8 Korea: Inward FDI flows by country, 2001–04

	2001		2002		2003		2004	
Region/country	**Millions of dollars**	**Percent of total**	**Millions of dollars**	**Percent of total**	**Millions of dollars**	**Percent of total**	**Millions of dollars**	**Percent of total**
Americas, *of which:*	5,564	49	4,860	53	1,842	28	5,198	41
United States	3,885	34	4,501	49	1,240	19	4,717	37
Asia, *of which:*	2,363	21	2,269	25	1,486	23	4,293	34
Japan	776	7	1,404	15	541	8	2,258	18
China	70	1	249	3	50	1	1,165	9
European Union, *of which:*	3,064	27	1,680	18	3,062	47	3,009	24
Netherlands	1,245	11	451	5	161	2	1,309	10
Rest of world	301	3	293	3	78	1	285	2
Total	11,292	100	9,103	100	6,468	100	12,785	100

FDI = foreign direct investment

Source: Korea Ministry of Commerce, Industry, and Energy, http://english.mocie.go.kr/.

Table 9 US-Korea semiconductor disputes

Year	Event
WTO: Round 1	
1997	US Department of Commerce decides not to revoke an antidumping duty on Korean dynamic random access memory chips (DRAMS).
	Korea requests consultations at the WTO.
1999	WTO Dispute Settlement Body (DSB) sides with Korea, finding the United States in violation of the Anti-Dumping Agreement.
2000	Korea petitions WTO to reassemble the 1999 DSB, claiming that in its attempt to comply with the board's ruling, the United States again violated the Anti-Dumping Agreement.
	The United States and Korea notify the WTO of a mutually satisfactory solution to the matter, which includes the United States revoking its antidumping duty on Korean DRAMS.
WTO: Round 2	
2003	US Department of Commerce levies 44 percent countervailing duty on Korean DRAMS, citing a Korean government subsidy to Hynix Semiconductor, the recipient of credit from banks allegedly pressured into such lending by the Korean government.
	Korea requests consultations at the WTO.
2005	WTO DSB sides with the United States on the issue of injury on all but one claim.
	WTO DSB sides with Korea on the issue of subsidy, noting that the Department of Commerce produced insufficient evidence to demonstrate a government subsidy to Hynix.
	The United States appeals the DSB decision regarding the Department of Commerce's determination of subsidy.
	Appellate DSB reverses earlier decision regarding Department of Commerce's subsidy determination and sides with the United States, allowing the countervailing duty against Hynix to remain in effect.

Sources: WTO, www.wto.org; US State Department, usinfo.state.gov.

Table 10 Overall welfare results (change in equivalent variation)

		Medium run: Capital stock fixed		Long run: Capital grows	
Country		**Rice excluded**	**Pure FTA**	**Rice excluded**	**Pure FTA**
Korea	Billions of dollars	20.220	27.582	40.887	51.799
	Percent of GDP	2.58	3.51	5.21	6.60
United States	Billions of dollars	6.325	0.766	13.693	8.835
	Percent of GDP	0.05	0.01	0.10	0.07
Japan	Billions of dollars	0.478	1.676	0.702	1.962
	Percent of GDP	0.01	0.03	0.01	0.04
Rest of the world	Billions of dollars	–5.512	–4.153	–9.390	–7.483
	Percent of GDP	–0.02	–0.02	–0.04	–0.03

Table 11 Change in real factor prices (percent)

	Medium run: Capital stock fixed		Long run: Capital grows	
Factor of production	**Rice excluded**	**Pure FTA**	**Rice excluded**	**Pure FTA**
Korea				
Unskilled labor	11.4	11.4	16.8	16.2
Skilled labor	12.8	13.1	17.0	17.9
Capital	11.9	12.4	7.0	6.7
Land	–11.4	–45.3	–5.1	–40.9
Natural resources	–74.0	–57.8	–73.6	–57.1
United States				
Unskilled labor	0.0	0.1	0.0	0.1
Skilled labor	–0.1	–0.1	0.0	0.0
Capital	0.0	0.0	–0.1	–0.1
Land	5.8	12.7	6.3	13.6
Natural resources	8.7	8.7	9.2	9.3

Table 12 Change in output (percent)

	Share of output		Medium term				Long term			
			Rice excluded		Pure FTA		Rice excluded		Pure FTA	
Category	Korea	United States	Korea	United States	Korea	United States	Korea	United States	Korea	United States
Paddy rice	0.0078	0.0001	–0.7	–3.1	–98.5	641.8	1.9	–3.0	–98.7	673.3
Wheat	0.0013	0.0004	21.7	–6.1	57.1	–12.0	24.4	–5.9	62.9	–14.1
Vegetables and fruits	0.0091	0.0015	10.3	–0.9	34.5	–2.8	13.5	–0.9	39.5	–2.8
Other primary products	0.0149	0.0168	–75.4	6.5	–52.1	5.5	–76.0	6.9	–52.7	5.9
Beef	0.0020	0.0048	110.4	–0.6	110.1	–0.8	120.9	–0.6	121.9	–0.8
Other meat	0.0044	0.0039	95.3	–0.7	95.6	–1.0	105.2	–0.7	106.5	–1.0
Dairy	0.0032	0.0047	23.9	–0.1	22.7	–0.2	32.5	0.0	32.3	–0.1
Processed rice	0.0067	0.0001	8.2	0.0	363.1	–21.1	12.0	0.1	386.0	–20.9
Other food products	0.0283	0.0280	19.3	0.3	24.6	0.1	26.0	0.4	32.5	0.3
Textiles	0.0236	0.0081	12.4	–1.4	13.8	–1.4	16.7	–1.3	18.9	–1.4
Wearing apparel	0.0082	0.0061	27.6	–0.8	28.9	–1.0	30.1	–0.7	31.8	–0.8
Leather products	0.0042	0.0009	62.1	–1.3	64.6	–1.5	61.5	–1.2	64.2	–1.4
Chemical, rubber, and plastic products	0.0669	0.0399	–0.4	–0.4	0.5	–0.4	4.5	-0.4	6.1	–0.4
Iron, steel, and nonferrous metals	0.0426	0.0141	8.9	–0.9	9.9	–1.0	15.3	–0.9	17.4	–1.1
Motor vehicles	0.0444	0.0260	–3.2	–0.3	–2.6	–0.4	–0.8	–0.4	0.0	–0.4
Other transport	0.0128	0.0108	–15.5	–0.5	–14.1	–0.7	–13.4	–0.6	–11.5	–0.7
Electronic equipment	0.0715	0.0196	–15.7	–0.5	–15.2	–0.7	–10.4	–0.7	–9.5	–0.9
Other machinery and equipment	0.0773	0.0439	–13.6	–0.5	–12.8	–0.5	–8.7	–0.5	–7.2	–0.6
Other manufactured goods	0.0800	0.0694	34.3	–0.7	35.6	–0.7	39.3	–0.7	41.4	–0.7
Trade and transport services	0.1142	0.1741	0.6	0.0	1.9	0.0	5.9	0.0	8.0	0.0
Business services	0.1282	0.2133	–2.4	0.0	–2.4	0.0	2.4	0.0	3.1	0.0
Other services	0.2485	0.3137	0.7	0.0	0.7	0.0	4.3	0.1	4.8	0.1

Table 13 Initial tariff rates in the model (ad valorem percent)

Category	Korea	United States
Paddy rice	1,000.0	9.9
Wheat	2.2	0.0
Vegetables and fruits	52.5	0.7
Other primary products	145.8	0.9
Beef	38.0	0.4
Other meat	24.8	2.4
Dairy	39.6	16.8
Processed rice	1,000.0	7.5
Other food products	21.8	4.3
Textiles	8.3	11.0
Wearing apparel	12.4	15.1
Leather products	4.6	11.1
Chemical, rubber, and plastic products	6.7	3.0
Iron, steel, and nonferrous metals	3.0	1.4
Motor vehicles	7.9	2.4
Other transport	0.9	0.1
Electronic equipment	0.6	0.2
Other machinery and equipment	5.5	1.5
Other manufactured goods	6.8	2.5
Trade and transport services	0.0	0.0
Business services	0.0	0.0
Other services	0.0	0.0

Table 14 Number of Korean jobs gained or lost in the medium-term scenario

Category	Initial employment	Rice excluded	Pure FTA
Paddy rice	215,880	–27,633	–213,721
Wheat	21,000	1,491	1,323
Vegetables and fruits	219,960	–6,819	–20,016
Other primary products	177,360	–144,548	–116,703
Beef	4,080	4,500	4,561
Other meat	15,240	14,463	14,783
Dairy	22,800	5,404	5,381
Processed rice	2,160	173	7,938
Other food products	141,840	26,950	36,027
Textiles	236,160	28,812	34,243
Wearing apparel	103,680	28,719	30,586
Leather products	56,280	34,837	36,695
Chemical, rubber, and plastic products	407,640	–2,446	4,892
Iron, steel, and nonferrous metals	216,960	18,442	22,998
Motor vehicles	344,400	–11,021	–6,544
Other transport	152,280	–23,756	–20,710
Electronic equipment	319,800	–51,488	–46,691
Other machinery and equipment	666,720	–91,341	–80,673
Other manufactured goods	639,000	217,899	233,235
Trade and transport services	2,024,040	10,120	50,601
Business services	2,145,120	–53,628	–34,322
Other services	3,867,360	23,204	54,143
Total net change		2,335	–1,975

Table 15 US-Korea memoranda of understanding (MoU) on automobiles

Topic	1995 MoU	1998 MoU
General provisions	Market access increase sought for foreign passenger vehicles in Korea.	Market access increase sought for foreign passenger vehicles in Korea.
	Korea barred from taking any new measures that adversely affect market access for foreign passenger vehicles.	Korea barred from taking any new measures that adversely affect market access for foreign passenger vehicles.
Tariff and taxes	Special consumption tax reduced from 25 to 20 percent for autos over 2000cc.	Bound tariff rate on autos reduced from 80 to 8 percent.
	Annual vehicle tax reduced from 410 to 310 won/cc for autos between 2500cc and 3000cc and from 630 to 370 won/cc for autos larger than 3000cc.	Annual vehicle tax reduced to 220 won/cc for autos larger than 2000cc.
		Subway bond rate equalized for foreign and domestic autos.
		Education tax eliminated.
		Rural development tax eliminated.
		Special consumption tax will continue decreasing through July 2005.
Standards and certification	Safety compliance test threshold raised from 100 to 500 units annually per model.	Safety compliance test threshold raised from 1,000 units annually to 2,500 units by January 2001.
	Corecognition granted for 33 US standards inspections.	Corecognition granted for 41 US/EC standards inspections.
	Basic vehicle type approval process streamlined.	Basic vehicle type approval process streamlined.
	US/EC headlamp standard adopted.	US/EC headlamp standard adopted.
	ISO pass-by noise standard adopted.	ISO pass-by noise standard adopted.
	Self-completion test permitted by approved foreign manufacturers.	Self-completion test permitted by approved foreign manufacturers.
	Six standards tests eliminated: acceleration test, climbing steep hill test, maximum speed test, minimum turning radius test, maximium stable inclination angle test, and 20,000 km durability test.	Durability test eliminated.
		One of two exhaust pipe inclination requirements eliminated.
		US Environmental Protection Agency permitted to conduct streamlined environmental inspections, supervised by Korean Ministry of Environment.
		Self-certification system adopted for foreign automakers to verify safety requirements.
		"Global agreement" on international recognition of standards, signed by the United States, European Union and Japan, is adopted.
Financing	Foreign entities permitted to establish or acquire passenger vehicle financing operations.	Secure finance system created for the purchase of foreign motor vehicles (with effective foreclosure procedures and a government database of vehicle registration).

(table continues next page)

Table 15 *(continued)*

Topic	1995 MoU	1998 MoU
Perceptions of imports	The Korea Automobile Importers and Distributors Association informed that the government policy is not to discourage purchase of foreign vehicles.	Discriminatory practices against buyers of foreign autos, such as tax audits, are eliminated.
		Public outreach, discussion, education, and other activities to improve public perceptions of imports are planned.
Advertising	Television access restrictions on foreign manufacturers eliminated.	

Note: This is not an exhaustive list of provisions.

Table 16 Automobile taxes in Korea

		Engine displacement 2000cc and below		Engine displacement over 2000cc	
Line	**Item**	**Action**	**Cost**	**Action**	**Cost**
1	**CIF value**		**100.00**		**100.00**
2	Tariff	8 percent of 1	8.00	8 percent of 1	8.00
3	Special consumption tax	5 percent of 1+ 2	5.40	10 percent of 1+ 2	10.80
4	Education tax	30 percent of 3	1.62	30 percent of 3	3.24
5	**Index price** [a]	**1+ 2 + 3 + 4**	**115.02**	**1+ 2 + 3 + 4**	**122.04**
6	Value added tax	10 percent of 5	11.50	10 percent of 5	12.20
7	**Retail price**	**5 + 6**	**126.52**	**5 + 6**	**134.24**
8	Acquisition tax	2 percent of 5	2.30	2 percent of 5	2.44
9	Registration tax	5 percent of 5	5.75	5 percent of 5	6.10
10	Subway bond	12 percent of 5	13.80	20 percent of 5	24.41
11	**Total cost of car on road**		**148.38**		**167.19**

a. Because it varies with each importer, profit margin has not been included in index price. Were the margin known and included, the disparity in total cost would be magnified.

Source: Korea Automobile Importers and Distributors Association (KAIDA), www.kaida.co.kr/eng/infor/info_tax.jsp (accessed March 28, 2006).

Table 17 US-Korea beef and BSE issues

Year/period	Event
Beef	
1988	USTR initiates section 301 investigation into Korea's rules for beef imports.[a]
1989	GATT trade dispute panel concludes that Korea's quantitative restrictions on beef imports, which had been imposed under the balance of payments exception, are inconsistent with GATT obligations.[b]
1990	US-Korea bilateral beef agreement[b] (to implement recommendations of GATT panel) • Quotas gradually increase. • Simultaneous buy/sell framework designed.
1993	US-Korea bilateral beef agreement[c] • Quotas gradually increase. • Simultaneous buy/sell framework refined.
1994	The United States initiates section 301 investigation into Korea's rules for beef imports.[d]
1995	The United States requests consultations at the WTO with Korea for beef shelf-life restrictions.[e]
	US-Korea bilateral beef agreement[d] • Shelf-life restrictions phased out. • Beef manufacturers allowed to set their own "use by" dates.
1998	Korea significantly increases producer support to beef industry.[f]
1999	The United States and Australia request consultations with Korea at the WTO for beef issues.[f]
2000	WTO appellate panel condemns Korea for beef policy (wholesale distribution rules, excessive domestic support, discrimination against grass-fed cattle imports, etc.)[e]
2001	Korea imposes tariffication for beef imports (roughly 40 percent duty).[g]
BSE Saga	
January 1–December 22, 2003	Korea imports $815 million of US beef and beef products, making it the third largest market for US beef exports.[h]
December 23, 2003	Korea bans imports of US beef, citing one positive case of BSE detected in the state of Washington, the first ever in the United States.[i]
January 2006	Korea agrees to reopen its market to imports of US beef from cattle less than 30 months of age.
	This accord does not affect the majority of traditional US beef exports to Korea, such as beef with bones, which constituted more than half of US exports to Korea prior to the 2003 ban.[j]
March 2006	The United States confirms BSE in one cow from Alabama.[k]

Sources:
a. *New York Times*, June 14,1988.
b. USTR, *1993 National Trade Estimate Report on Foreign Trade Barriers*, 173.
c. USTR, *1997 National Trade Estimate Report on Foreign Trade Barriers*, 235.
d. USITC, *The Year in Trade 1995*, 62–63.
e. World Trade Organization, www.wto.org.
f. USITC, *The Year in Trade 1999*, 74–75.
g. WTO (2004, 88–89).
h. USDA news release, "Johanns and USTR Portman Welcome Progress to Reopen Korean Market to US Beef," January 13, 2006.
i. *Washington Post*, December 24, 2003, A1.
j. *Inside US Trade*, January 20, 2006, 11.
k. USDA news release, "Statement by USDA Chief Veterinary Officer John Clifford (DVM) Regarding Positive BSE Test Results," March 13, 2006.

Table 18 US antidumping and countervailing duty cases against Korea
(as of February 16, 2006)

Product	Industry	Date ordered
US antidumping orders		
Top-of-the-stove stainless steel cooking ware	Miscellaneous	January 1987
Polyethylene terephthalate (PET) film	Chemicals	June 1991
Circular welded nonalloy steel pipe	Iron/steel	November 1992
Welded ASTM A-312 stainless steel pipe	Iron/steel	December 1992
Stainless steel butt-weld pipe fittings	Iron/steel	February 1993
Corrosion-resistant carbon steel flat product	Iron/steel	August 1993
Oil country tubular goods	Iron/steel	August 1995
Stainless steel wire rod	Iron/steel	September 1998
Stainless steel plate in coils	Iron/steel	May 1999
Stainless steel sheet & strip	Iron/steel	July 1999
Carbon steel plate	Iron/steel	February 2000
Polyester staple fiber	Miscellaneous	May 2000
Structural steel beams	Iron/steel	August 2000
Stainless steel angle	Iron/steel	May 2001
Steel concrete reinforcing bar	Iron/steel	September 2001
Stainless steel bar	Iron/steel	March 2002
Polyvinyl alcohol	Chemicals	October 2003
Prestressed concrete steel wire strand	Iron/steel	January 2004
US countervailing duties		
Top-of-the-stove stainless steel cooking ware	Miscellaneous	January 1987
Corrosion-resistant carbon steel flat product	Iron/steel	August 1993
Stainless steel sheet and strip	Iron/steel	August 1999
Carbon steel plate	Iron/steel	February 2000
Structural steel beams	Iron/steel	August 2000
Dynamic random access memory chips	Semiconductors	August 2003

Summary	
Total US orders in effect	330
Total US orders against Korea	24
Korean share of total orders (percent)	7.3
Korean share of US goods imports, 2005 (percent)	2.6

Source: US International Trade Commission, www.usitc.gov.