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# The Australia-Korea Economic Relationship and Prospects for an FTA

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# **The Australia-Korea Economic Relationship and Prospects for an FTA**

by

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## **Abstract**

*Since the 1960s, trade opportunities based on complementary economies have driven the Australia-Korea economic relationship. Australia exported raw materials, principally minerals and energy, which Korea processed and subsequently sold on domestic and international markets. In return, Australia purchased increasing volumes of Korean manufactures, initially textiles, clothing and footwear and later automobiles. With the onset of the financial and economic crisis in Korea during 1997-98, trade and investment opportunities were severely constrained. However, in the wake of the crisis, and the rapid recovery of the Korean economy underpinned by corporate and financial sector reforms, trade and investment opportunities in traditional areas have re-emerged as well as in new areas. Australia's rapid economic growth has also increased demand for the sorts of consumer products produced by Korea. It is, therefore, opportune to consider the benefits, and obstacles, to the establishment of an Australia-Korea Free Trade Agreement.*

*The paper analyses trends in Australia's trade and investment with Korea. New areas for trade are also highlighted as well as prospects for an FTA between the two countries. In doing so it: reviews the Australia-Korea bilateral trade relationship; reviews the nature and extent of foreign direct investment between Australia and Korea; reviews trade and investment prospects and opportunities between the two countries; analyses the prospects for a Korea-Australia Free Trade Agreement (KAFTA); reviews the potential economic effects from a KAFTA; and identifies key policy implications.*

## 1. Introduction

Since the 1960s trade opportunities based on complementary economies, arising primarily from differences in resource endowments, has provided the basis for the pattern and growth of Australia-Korea bilateral trade. Australia exported agricultural products and raw materials, principally minerals and energy, which Korea processed and sold on domestic and international markets. In return, Australia purchased increasing volumes of Korean manufactures, initially textiles, clothing and footwear and later automobiles, electrical equipment, telecommunications equipment and office machines. The expansion in bilateral trade between the two countries was most apparent from the mid 1970s. Total bilateral trade increased from only A\$<sup>1</sup>6.6 million in 1965-66 to A\$176 million in 1975 and to A\$13.8 billion in 2000. Growth over the period 1975 to 2000 equated to an annual growth rate of 19.1 per cent (Kwon (2001b)).

This rapid growth in bilateral trade can be linked to two important developments in Korea. First, the diversification of resource imports arising from the oil crisis of 1973, and, second, the heavy and chemical industries drive during the period of the 1970s (Kwon (2001b)). By 1994, Korea had overtaken the US as Australia's second largest export market after Japan.

Although the financial and economic crisis of 1997-98 resulted in a decline in Australian exports to Korea, by 7 per cent in 1997 and 10 per cent in 1998, imports from Korea remained strong and growing by 28 per cent and 41 per cent in 1997 and 1998 respectively. In 1998 Korea was still Australia's third largest export market and fourth largest trading partner. In the same year Australia was Korea's fourth largest import source and fifth largest trading partner (Australian Department of Foreign Affairs and Trade (1999b)).

During the period of Korea's financial and economic crisis the Australian government focused upon maintaining trade flows, in particular by expanding export credit facilities when commercial suppliers withdrew. This contributed to an expansion in Australia's share of the Korean import market from 3.7 per cent in 1990 to just under 5 per cent in 1998, when Korea's demand for imported manufactured goods declined faster than its demand for raw materials and essential foodstuffs (Australian Department of Foreign Affairs and Trade (1999b)). In the wake of the financial crisis economic reforms and market liberalisation in Korea have presented new trade opportunities, particularly in manufacturing and services due to corporate and financial restructuring (Harvie and Lee (2003), Harvie, Lee and Oh (2004), Kwon (2001a)). More contentiously the Australian government has also been pressing for greater market access for agricultural products (Australian Department of Foreign Affairs and Trade (1999b)).

Over the longer term, however, internal and external pressures are pushing both these economies to focus upon knowledge and skill intensive economic activities as the basis of their comparative advantages, and this is likely to have profound implications for the existing structure of bilateral trade which is currently based on complementary economies (Kwon (2001b)). Australia and Korea will wish to focus more upon

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<sup>1</sup> A\$ stands for Australian dollars.

knowledge intensive exports. This will require Australia to diversify its economic relationship with Korea and to demonstrate its capability as an advanced economic society with cutting edge technological capacity capable of meeting the needs of Korea. As Korea moves from heavy goods manufacturing to knowledge intensive activities it will require less imports of raw materials from Australia (Kwon (2001b)).

In this context the paper analyses trends in Australia's trade and investment with Korea. New areas for trade are also highlighted as well as prospects for an FTA between the two countries. In doing so it proceeds as follows. Section 2 reviews the Australia-Korea bilateral trade relationship. Section 3 reviews the nature and extent of foreign direct investment between Australia and Korea. Section 4 reviews trade and investment prospects and opportunities between the two countries. Section 5 analyses the prospects for a Korea-Australia Free Trade Agreement (KAFTA). Section 6 reviews the potential economic effects from a KAFTA. Finally, in section 7, a summary of the major points from this paper is presented as well as policy implications.

## **2. Australia-Korea bilateral trade**

In 1994, Korea overtook the US as Australia's second largest export market. While this ranking slipped during the economic crisis of 1997-98, Korea still remained Australia's third largest export market after Japan and the US, and fourth largest trading partner. Bilateral trade grew from A\$6.6 million in 1965-66 to A\$10.3 billion in 1998 (see Table 1). Over the past 30 years, Australia's exports to Korea have grown at an annual average rate of around 25 per cent per year, one of the fastest growth rates recorded amongst Australia's top 16 export markets (Australian Department of Foreign Affairs and Trade (1999b)). Imports from Korea have also grown strongly, although the trade balance, both merchandise and services, remains in Australia's favour (see Figure 1 and Tables 2 and 3).

**Table 1 Australia's Trade with Korea 1993-98, A\$ million**

Trade A\$ million	1993	1994	1995	1996	1997	1998
Exports	4,359	4,709	6,062	7,305	6,761	6,099
Exports minus gold	3,893	3,974	4,612	4,423	4,910	4,841
Imports	1,866	1,766	2,257	2,325	2,966	4,175
Imports minus gold	1,866	1,766	2,255	2,323	2,806	3,038
Balance of trade	2,494	2,941	3,805	4,980	3,794	1,924
Balance of trade minus gold	2,028	2,208	2,357	2,100	2,104	1,803
Growth rate (%)						
Exports	19.1	8.0	28.8	20.5	-7.4	-9.8
Export growth excluding gold	17.9	2.1	16.1	-4.1	11.0	-1.4
Imports	22.8	-5.3	27.8	3.0	27.6	40.8
Import growth excluding gold	22.8	-5.3	27.7	3.0	20.8	8.3

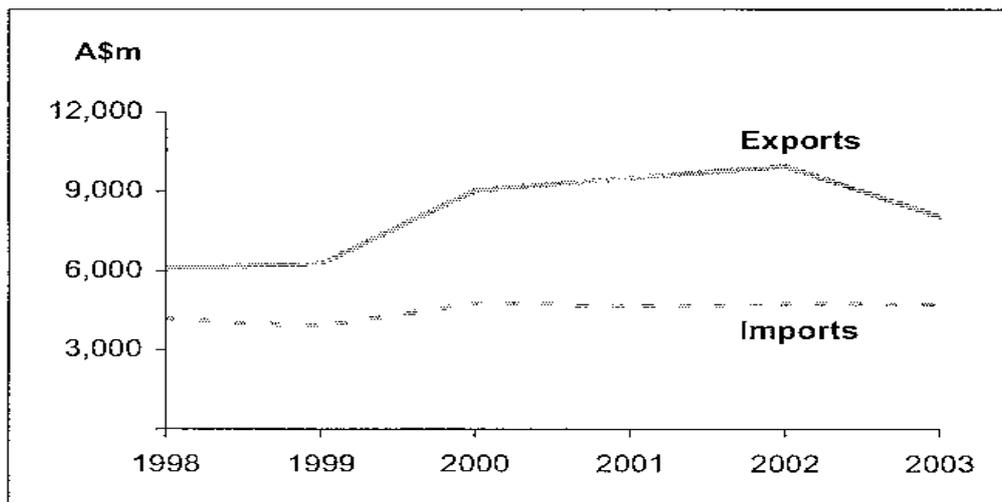
*Source:* Australian Department of Foreign Affairs and Trade

### *Australian exports to Korea*

Throughout the 1990s Australia's exports to Korea grew steadily, but dropped in 1997 with the onset of the financial crisis and then dropped sharply again in early 1998 as Korea entered into a severe economic recession. However, Australia's exports of essential raw materials and basic foodstuffs suffered less than most other countries' exports. In US dollar terms total Korean imports fell 35 per cent in 1998, while Australia's Korean exports were down 22 per cent. Around 75 per cent of this fall was due to declining gold prices. Excluding the gold trade Australia's exports fell only 14 per cent in terms of US dollars, a good performance given the size of Korea's import contraction. The smaller drop in 1998 bilateral trade relative to other suppliers highlighted the strong complementarities of the two economies, implying demand for Australian exports, particularly raw materials and intermediate inputs, would remain strong over the medium to long terms (Kwon (1998)).

**Figure 1**

**Australia's trade with Korea**



Source: Australian Department of Foreign Affairs and Trade

**Table 2 Australian merchandise trade with Korea, 2003**

		Total share (%)	Rank	Growth (yoy)
Exports to Korea (A\$ million)	8,084	7.5	5 <sup>th</sup>	-19.0%
Imports from Korea (A\$ million)	4,737	3.6	7 <sup>th</sup>	-0.6%
Total trade (exports + imports) (A\$ million)	12,821	5.4	6 <sup>th</sup>	-13.1%
Merchandise trade surplus with Korea (A\$ million)	3,347			

Source: Australian Bureau of Statistics

**Table 3 Australian trade in services with Korea, 2003**

		Total share
Exports of services to Korea (A\$ million)	870	2.7%
Imports of services from Korea (A\$ million)	432	1.3%
Services trade surplus with Korea (A\$ million)	438	

Source: Australian Bureau of Statistics

Table 4 indicates that Australia's major export items to Korea are coal, crude petroleum, non-monetary gold, iron ore and aluminium. The further inclusion of wool, wood, zinc ore, steel, wheat, sugar and beef account for 75 per cent of Australia's exports to Korea. Hence commodities dominate Australia's exports to

Korea, the demand for which are strongly influenced by the performance of the Korean economy and global commodity prices. Coal is the most dominant single item, contributing around 13 per cent of merchandise exports, then crude petroleum (11 per cent), non monetary gold (10 per cent), iron ore (9 per cent) and aluminium (6 per cent). These five items alone contributed around 50 per cent of merchandise exports. The export of food and live animals accounted for only around 7 per cent of total merchandise exports, while the export of manufactured goods contributed only 16 per cent.

### *Commodities*

In the late 1990s Australia provided around 50 per cent of Korea's coking and thermal coal requirements, due to its superior quality to that from China and lower transport costs to that from the more distant USA, Canada, South Africa and South America. The demand for coal from Australia is closely linked to the performance of the Korean economy and in particular the production of steel and electricity. Future demand for Australian coal will be influenced by Korea's decision regarding the diversification of supply. Demand for iron ore will also be influenced by the future performance of the economy, particularly in relation to steel production. By the late 1990s, Australia's market share for iron ore in Korea was around 47 per cent. Maintaining this share during the period of economic recovery in Korea presented significant opportunities for expanded iron ore exports. Australia is also an important supplier of non-ferrous metals to Korea, principally zinc and copper. Zinc and copper are used extensively in the construction and automobiles sectors; thus Korean imports of these metals are tied closely to the expected growth rates for these sectors. With the recovery of the Korean economy the construction and fabrication sector experienced stronger growth particularly in infrastructure and housing.

**Table 4 Major Australian exports to Korea, 2003 (A\$ million)**

Coal	1,074
Crude petroleum	919
Non-monetary gold	797
Iron ore	729
Aluminium	506

*Source:* Australian Department of Foreign Affairs and Trade

While demand for raw materials and intermediate inputs should remain strong over the medium to long term, the Korean market for commodities is likely to become increasingly competitive as foreign investment and privatisation reforms increase the competitiveness of Korean industry; Australia will not be able to take the market for granted.

While Koreans remain sensitive about agricultural food imports the market is opening slowly to foreign competition, and imports comprise over 40 per cent of total food consumed. Australia is a major supplier of meat, grains, sugar, dairy products and

wool. Australia's share of this market fell after 1996 mainly driven by falling beef exports. This was due to falling demand in the wake of the financial crisis. However, under the WTO Agreement on Agriculture, Korea agreed to liberalise its beef market, moving from a quota system to a tariff only regime by 2001. Prospects remain good for Australian beef over the medium to long term when full liberalisation takes place. But agriculture and farm production remains a sensitive issue as discussed in more detail below<sup>2</sup>.

During the 1970s and 1980s Korea developed a substantial wool textile sector, with Australia supplying 50 to 60 per cent of Korea's wool requirements. However, in the 1990s extensive restructuring of the Korean wool textile industry saw production move offshore as demand in the US and Japanese markets weakened and high labour costs reduced the viability of domestic production. Since 1995, Australia's wool exports to Korea have declined steadily. Bankruptcies and excessive wool stocks threaten the Korean industry and the market has remained depressed.

Korea is also an important export market for sugar and wheat. Australia's share of Korea's sugar market has increased to over 50 per cent. Wheat exports have remained volatile, reflecting drought induced supply problems in Australia more than market access problems. By the late 1990s Australia supplied around 20 per cent of Korea's total wheat import market.

### *Manufactures*

Australia's manufactured exports to Korea, valued at around A\$1.5 billion in 2003, comprises both simply transformed manufactures, notably aluminium, and elaborately transformed manufactures, dominated by car engines. The economic crisis of 1998 severely impacted upon Korea's imports of aluminium, although imports from Australia were less severely affected and consequently increased market share. With economic recovery and subsequent public works spending on infrastructures, demand for aluminium recovered. Demand for Australian exports of aluminium was also affected because of reform of the corporate sector in Korea. In the medium term, as excess manufacturing capacity is overcome, housing spending recovers, and the construction sector has recovered its growth, aluminium demand will also increase. Over the longer term the prospects for Australian aluminium will depend upon it meeting the challenge of increased competition, particularly from Russia and South Africa.

Before the economic crisis in Korea, Australia's share of elaborately transformed manufactured imports grew 20 per cent per year from a relatively low base, reaching A\$825 million in 1997. Car engines and parts grew strongest. However, with the onset of the crisis in Korea engine exports halved to just A\$157 million as the Korean domestic market for medium sized cars shrunk and export markets remained weak. Rationalisation of the Korean car industry under the government's 'Big Deal' top five chaebol subsidiary swaps policy, and the improved relative competitiveness of domestically made parts through won depreciation have made short to medium term prospects uncertain.

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<sup>2</sup> See sections 5, 6 and 7 of this paper.

## *Services*

Korea is an important market for Australian service exports, particularly educational and tourism services, but Korea's economic crisis seriously affected both (Australian Department of Foreign Affairs and Trade (2003)). In 1997-98 Australian service exports to Korea were valued at \$702 million, a 36 per cent drop on service exports of A\$1,098 million in 1996-97. Service imports from Australia were principally freight and shipping.

In 1997, Australia was the third major destination for Koreans studying abroad after the USA and Japan, and Korea was the largest source of overseas students studying in Australia. Almost 20,000 students undertook some form of study at Australian institutions, with some 12,000 attending English language courses. In 1997, Korean students paid approximately A\$350 million to Australian educational suppliers and probably a similar amount to live in Australia. In 1998, however, the economic crisis reduced students applying for visas by nearly 30 per cent (Australian Department of Immigration and Multicultural Affairs (1998)) and the total number of Korean students studying in Australia fell by nearly 40 per cent in 1998. The market has recovered, particularly at the postgraduate level, as Koreans value education, and, until recently, a depreciation of the Australian dollar maintained Australia's competitiveness. Australia will need to maintain its reputation in Korea as a provider of high quality education and, if necessary, adjust programs to retain market share to meet the opportunities from the recovering market.

Until 1998, Korea was Australia's sixth largest source of in-bound tourists and Australia's fastest growing tourism market. In 1997, 233,000 Korean tourists visited Australia, a remarkable increase from the 9,000 visitors in 1990. However, in 1998, arrivals from Korea fell by a massive 72 per cent, to just 66,000. The Australian Tourism Forecasting Council expected arrivals from Korea to recover over the medium to longer term, with visitor numbers returning to their 1997 peak by 2006 (Australian Tourism Forecasting Council, 1998). By 2003 tourist figures had returned to around 207,300.

### ***Australian imports from Korea***

Korea is, currently, Australia's seventh largest source of imports (after the USA, Japan, China, Germany, UK and New Zealand). Until 1998 manufactures comprised 80 to 90 per cent of Australia's Korean imports, falling to 65 per cent in the crisis year of 1998. By 2003, 74 per cent of merchandise imports were manufactured goods, chemicals 5 per cent, gold 18 per cent and non manufactures 3 per cent. Cars, computers, telecommunications equipment, household electrical and electronic appliances remain the most important Korean exports to Australia (see Table 5). Korea is now second only to Japan as an exporter of passenger vehicles to Australia. This illustrates the potential for market penetration of high quality and competitively priced Korean manufactures. Imports of textiles, clothing and footwear have lost market share to other suppliers, principally China, although they still comprised around 6 per cent of Korean exports to Australia.

From a Korean perspective, Australia remains an important trading partner. It represents the country's eleventh principal export destination and sixth most

important source of imports (see Tables 6 and 7). Given the obvious complementarities between them, both in terms of their economic and trading structures, there are good prospects for an expansion of inter-industry trade.

**Table 5 Major Australian imports from Korea, 2003 (A\$ million)**

Telecommunications equipment	965
Passenger motor vehicles	502
Televisions	298
Computers	264
Non-monetary gold	197

*Source:* Australian Department of Foreign Affairs and Trade

### **3. Foreign direct investment between Australia and Korea**

Australia-Korea bilateral investment flows have not matched the level of trade (Bishop (2001)). By the late 1990s Korea was only Australia's eighteenth largest overseas investment destination and Korean companies were the sixteenth largest investor in Australia. Australia gives high priority to encouraging increased Korean investment in Australia, particularly in manufacturing, tourism and resources. This policy produced some results, with direct and portfolio investment increasing to around A\$1.5 billion before the financial and economic crisis of 1997-98. The bulk of this was portfolio investment, rather than longer term FDI.

#### *Australian FDI in Korea*

Australia's cumulative FDI in Korea is small. Korean data suggest that by the end of the 1990s Australian cumulative investment stood at US\$38 million, while Australian data suggested that the figure was A\$94 million. Such investment is principally in the manufacturing and service sectors, although the transport, chemicals and electrical and electronics sectors have also been recipients. Australian FDI into the Korean service sector has diversified with consulting, market research, travel agencies and advertising growing in recent years. In the past, Korean emigrants to Australia also undertook some hotel and trading company investments. Australia's Korean FDI increased with the opening of the service sector, particularly financial services, in the wake of the financial crisis. Investments in consulting and market research have also continued to grow as the Korean market recovered from the crisis.

**Table 6 Korea's principal export destinations, % of total exports 2003**

1	China	18.1%
2	United States	17.7%
3	Japan	8.9%
4	Hong Kong	7.6%
5	Taiwan	3.6%
11	Australia	1.7%

Source: IMF

**Table 7 Korea's principal import sources, % of total imports 2003**

1	Japan	20.3%
2	United States	13.9%
3	China	12.3%
4	Saudi Arabia	5.2%
5	Germany	3.8%
6	Australia	3.3%

Source: IMF

A survey conducted by Lee (1998) using 24 Australian and other foreign companies operating in Korea suggested that most of those surveyed were satisfied with their investment. Of managers surveyed, 75 per cent indicated that their companies were either very or reasonably satisfied with profitability, while 25 per cent were disappointed. The major factors leading these companies to initially invest in Korea were its large domestic market and expected economic growth in new markets (see Table 8). Another important motive for investing in Korea was to develop a local presence as part of the company's overall globalisation strategy.

Two thirds of surveyed companies considered the major impediments to conducting doing business in Korea were: foreign exchange risk; difficulty in dealing with the bureaucracy; and problems in obtaining information from government and regulatory bodies. Other major impediments included *chaebol* dominance of the domestic market, Korea's strong nationalism, Korean business culture and corruption. Despite these negatives, 75 per cent of surveyed companies would encourage other Australian companies to invest in Korea.

**Table 8 Survey of why Australian companies wish to invest in Korea**

Description of motives behind the initial decision to invest	Major reason (number of responses)	Per cent
Already a major market and local presence important	16	66
Part of company's globalisation strategy	9	38
Explore a new market	4	16
Establish a beachhead for market expansion	3	12
Approached by Korea partner	1	4
Produce products for export to third market	0	0
Increase productivity by using low cost labour	0	0
Acquire local technology	0	0

Note: Companies were given the opportunity to provide more than one motive behind their initial decision to invest in Korea. Thus, responses add to more than 24 and percentages to more than 100.

Source: Lee (1998)

### *Korean FDI in Australia*

Korean data indicates that Korean FDI in Australia grew strongly from a low base of about US\$52 million in 1996 to US\$100 million by the end of the 1990s. While such FDI was diversified into many sectors it was mainly aimed at securing a stable supply of energy and natural resources (Kwon and Oh (2001)). Half of it was concentrated in coal mining, then forestry and fishery (see Figure 2).

Most mining investment is in production sharing joint ventures, but a few wholly owned subsidiaries also operate. Many large Korean corporations in mining-related business, including Samsung, SK, POSCO and KEPCO, have invested in Australia, producing coal for their parent companies in Korea.

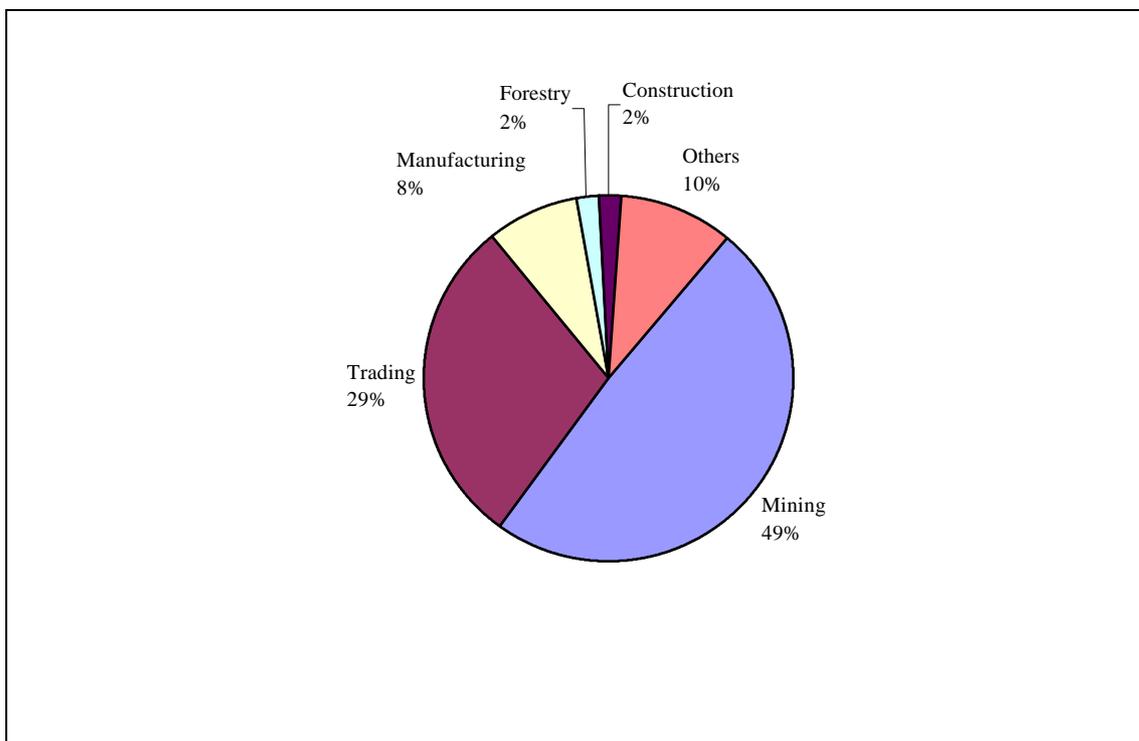
Korea's major general trading companies have also established wholly owned subsidiaries or representative offices in Australia. They import Korean merchandise such as chemical products, steel products, heavy machinery and semiconductors into Australia, and export goods including coal, iron ore, gold, non-ferrous metals and wool from Australia. Other trading companies, mostly *chaebol* subsidiaries, import Korean cars, household white goods and home electronics for wholesale or retail distribution in Australia.

Although investment in the Australian manufacturing sector is still small, it is expanding and diversifying into new products with some major investments in wool and leather processing and chemical products. Other sectors include construction and real estate investments. While these are relatively new areas for Korean overseas direct investment, such investment is expected to increase substantially in the future (Australian Department of Foreign Affairs and Trade (1999b)).

#### **4. Trade and investment prospects and opportunities**

From an Australian perspective, Korea's period of economic reform in the wake of the financial crisis has created many new export and investment opportunities, as trade is liberalised and FDI in Korea expands. In addition, improved financial and corporate sector accountability, transparency and the improving regulatory environment make it easier for Australian firms to do business. Market opportunities for Australian firms are opening in technology dependent sectors, such as automotive components, finance and banking, but also in bulk commodity sectors. Since the crisis, with a view to cutting costs, Korean importers have reviewed supply arrangements with traditional suppliers in the USA and Europe. As competition in the Korean marketplace has increased, price and quality rather than traditional relationships will increasingly determine input sourcing. This presents a good opportunity for Australian companies.

**Figure 2 Sectoral distribution of Korean FDI in Australia (cumulative, 1968-98, per cent)**



Note: Based on actual investments

Source: Korean Ministry of Finance and Economy (1998)

The following sectors provide excellent trade opportunities for Australian exporters in the post crisis recovery of the Korean economy:

- Industrial raw materials (energy, raw materials and intermediate inputs). Australian companies meet many Korean import needs for raw materials and basic foodstuffs. Australia's traditional trade in energy resources with Korea, worth A\$6 billion, is set to grow as Korea's demand for energy rises. Coal is a critical requirement for Korean industry and LNG is the next strategic fuel for Korea's economic growth. In both energy resources, Australia is a major world player and has the capacity and experience to be a reliable supplier to meet South Korean energy needs. South Korea's National Energy Plan, which sets out the country's energy policies and requirements until 2011, projects an increase in demand for LNG of 4.8 per cent annually. Australia is in a good position to be able to meet Korea's energy demands well into the future. In January 2003, Australia won a contract to supply South Korea with more than 3 million tons of LNG over seven years. The contract, worth about A\$1 billion, is indicative of the confidence Korea has in Australia's long record as a reliable, stable and competitive supplier of South Korea's energy needs.
- Processed food and beverages. As the Korean economy continues its economic growth demand for beef, especially with full liberalisation, will rise, as with dairy products, wine and beer, seafoods and other western foods. Since August 2002, Australia has successfully exported approximately 3,900 live

cattle to Korea in 5 consignments between August 2002 and December 2003. The cattle are prepared in accordance with South Korean import conditions and are being released to local farmers following the mandatory post arrival quarantine period.

- Automotive components. Over the longer term the automotive sector presents many mutually beneficial trade opportunities. Despite Korea's considerable automotive manufacturing capacity, its component sector is relatively weak technologically. The development of an independent automotive technological capacity remains a high priority and Korean firms are seeking strategic technological alliances with other countries, including Australia (Austrade, 1999).
- Information technology and other high technology products and services. Australian suppliers of software applications for the banking and financial services sector could face significant opportunities. Korea's reform and modernisation of its banking system has required a major upgrade of its information technology infrastructure. Australian companies are well placed to take advantage of emerging financial sector IT opportunities, particularly where Australian IT firms have developed leading edge technology in market segments. However, Australia needs to market aggressively these advantages to attract Korean customers who may not be aware that Australia is a major source of financial and professional services. A study commissioned by the Australia-Korea Foundation in 2001, *Australia-Korea: Strengthened Economic Partnership*, showed that there are emerging new fields for strengthening the economic relationship, particularly in public infrastructure development, IT broadband access and technology-based services. South Korea has the highest rate of broadband uptake in the world, with approximately sixty per cent of households using the technology. However while South Korea leads the world in terms of infrastructure roll-out, Australia's expertise in the development of broadband applications would be of great benefit to Korea in its effort to stimulate market demand in industry sectors. In May 2003, a Broadband Summit was held in Australia bringing together industry leaders from both countries to explore collaboration in information technology and broadband applications.
- Building materials. Opportunities exist in detached residential housing, building materials, project management services, building and urban development services, waste management services and the supply of kit homes.
- Environmental services. Australian environmental engineering companies have experience in industrial waste-water treatment in Korea. Water supply and other urban infrastructure projects with strong environmental components are likely to form part of employment creation and macroeconomic stimulus public works projects. In the medium to long term, Korea is likely to increase funding for environmental improvement projects.
- Medical equipment and biotechnology. Since the economic crisis traditional supply channels have forced Korean hospitals to re-assess their purchasing decisions. US products are now more expensive, so alternatives need to be sought. Australian suppliers need to cultivate relationships with purchasing departments of hospitals, distributors and agents, and demonstrate the quality and capacity of Australian products (Austrade, 1999).

- Distribution. In the wake of the financial crisis a new distribution environment is appearing in Korea. Australian exporters have opportunities to supply new multinational retailers by stressing Australian goods as being high quality and value for money products.
- Tourism and education. Tourism and education remain important elements of the bilateral services trade. The South Korean student market is Australia's third largest, and more than 207,300 South Korean tourists visited Australia in 2003.

From Korea's perspective the Australian market has many potential trade and investment opportunities. Australia has, for a number of years, been one of the fastest growing OECD economies. Rising incomes and wealth have created a market with considerable opportunities for Korea companies, particularly in terms of telecommunications equipment, passenger motor vehicles, televisions and computers. Australians have a reputation for being willing to try new high tech products that enter the market. Being able to compete in the Australian market on an equal footing with more expensive Japanese and US products is therefore crucial for Korean companies. The prospect of a free trade agreement between Australia and the US could put Korean companies at a competitive disadvantage.

## **5. Prospects for a Korea-Australia FTA**

As discussed, there are many potential opportunities for expanding trade and investment flows between the two economies for mutual benefit. The numerous obvious complementarities between these economies, and their relatively small contribution to each other's total imports, suggests that they are potentially ideal partners for a free trade agreement. This section explores the prospects for the establishment of a Korea-Australia Free Trade Agreement (KAFTA) and the prospective obstacles to its attainment.

### *Key factors behind a successful FTA*

When Australian Prime Minister John Howard visited Korea in May 2000, he proposed to the then Korean President Kim Dae-jung that the two countries form a free trade agreement to further expand bilateral trade and investment ties (Korean Herald, 20 May 2000). The success of a bilateral free trade agreement depends on the economic size, economic systems, willingness and commitment of the countries involved, existing trade barriers, and complementarities and competition between the two economies (Kwon (2001)). The Australian and Korean economies are of comparable size and hence the benefits of an FTA should not be skewed to either one of these economies. Both economies should also be compatible for an FTA as they have engaged in extensive reform of their economies involving deregulation and liberalisation, and both have pursued outward-looking economic policies. Both countries have also been strong supporters of the multilateral trading system and its objectives. However, tariff and non-tariff barriers remain high between the two countries.

Bilateral trade between Australia and Korea accounts for a small portion of their respective world trade. Bilateral trade between the two countries accounted for about

2.8 per cent of Korea's total trade during the period of the 1990s. During the same decade the amount of bilateral trade with Korea accounted for about 5.5 per cent of Australia's world trade. Both Korea and Australia depend heavily on the rest of the world, and hence they should organise a non-discriminatory, open free trade agreement.

#### *Korean motivations and concerns from a KAFTA*

A number of potential benefits arising from the establishment of a KAFTA can be identified for Korea. First, it would enable Korea to overcome Australian tariff and non-tariff barriers that have been problematic for some Korean exports, and secure their access to the Australian market. Although the average tariff rate for Australia is 5 per cent, major exported goods from Korea face higher tariff rates. For example, Australia has tariff rates of 20 per cent for automobiles and parts, and 20-30 per cent tariff rates for textiles, clothing and footwear (Cheong (1999)). Australia has increased its use of trade remedy laws such as anti-dumping and countervailing duties to restrict foreign imports, and there is no guarantee that it would not expand their use more often on Korean goods (Kwon (2001)).

Second, a KAFTA would enable Korean firms secure access to Australia's abundant natural resources and agricultural products. Given the current structure of its economy, Korea is heavily dependent on foreign mineral and energy resources. It would, therefore, be interested in securing access to Australian mineral resources not only through freer trade but also through investment opportunities. In addition, some agricultural products such as cotton, wool and sugar are used as intermediate goods for Korea's manufacturing sector. A KAFTA would also secure Korean access to these inputs.

Finally, a KAFTA could encourage Australian FDI. As noted previously, two-way FDI has remained at low levels. Australian investment in Korea accounts for a very small proportion of Australian global FDI. One important reason for this is the fact that there are few areas in which Australian firms have a comparative advantage in Korea. A KAFTA, however, would open up the Korean services sector and provide significant advantage for Australian companies, providing them with an incentive to invest in the Korean services sector.

The key area of concern for Korea, and the major obstacle to the establishment of a KAFTA, is Korea's agricultural sector<sup>3</sup>. A KAFTA will require significant improvements in efficiency and major restructuring of the agricultural sector. Most Australian agricultural exports to Korea, with the exception of items such as beef and live animals, complement Korean agriculture in the sense that some are not produced in Korea, while others (fruit, beverages and horticultural products) are produced in different seasons. Nevertheless, potentially adverse effects arising from a KAFTA would produce considerable resistance to it from the politically strong agricultural sector in Korea. In 2000 Korea imported US\$8.1 billion of agricultural products compared to production of US\$20 billion by the domestic agriculture sector. Agricultural imports from Australia amounted to US\$706 million, thereby accounting for 8.7 per cent of total agricultural exports in 2000, and making it the third largest

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<sup>3</sup> The author is grateful to an anonymous referee in emphasising this point.

source of agriculture imports after China (with a market share of 21 per cent) and the US (with a market share of 19.5 per cent) in 2000. From a Korean perspective this large share of imports from Australia indicates the concern that Korea would have from opening up its agriculture sector through a KAFTA. In addition, once it is open to Australia, it would be difficult to restrict agricultural imports from other countries. Under the rules of the WTO the establishment of an FTA means that members of the FTA cannot raise barriers to trade against non-members, and should be open for additional membership. Under these conditions Korea would have to confront serious difficulties with regard to the agricultural sector from the establishment of an FTA with Australia. This difficulty goes a substantial way in explaining why neither Australia nor Korea have been pushing hard for a KAFTA.

#### *Australian motivations and concerns from a KAFTA*

The establishment of a KAFTA would be of interest to Australia for a number of reasons. First, it would secure access to the Korean market for its traditional export products and provide opportunities for the expansion of other goods and services exports. After the financial crisis Korea engaged in an import liberalisation policy, but despite this Korean tariffs have remained relatively high. The average tariff rate on Australian goods was 9.1 per cent as of 1998, although its average tariff rate declined to 8.3 per cent by 2004 under its commitment to the WTO. While tariffs on imports of mineral products have been low, 3.6 per cent in 1998, Korean tariffs on agricultural and food products, which are of primary importance to Australia, ranged from 11.3 per cent on fats and oils to 19.8 per cent on prepared food. Korea continues to use adjustment duties to limit disruptions to domestic markets from imports, and the rates of these adjustment duties can be higher or lower than those shown in the tariff schedule. Korea still imposes non-tariff barriers, particularly on commodities that are of interest to Australia. For example quarantine restrictions and customs related impediments, particularly for horticulture, animal and dairy products.

Second, Korea could be used as a base by Australian firms to break into markets in Northeast Asia and other East Asian countries (Australian Department of Foreign Affairs and Trade (1999a)). The possible establishment of ASEAN+3 (China, Japan and Korea), with Australia excluded, and Korea's movement towards the establishment of free trade agreements with a number of countries, would make a KAFTA a useful means for Australia to achieve closer economic relations with other East Asian countries that might otherwise be unattainable.

Third, Australia would be concerned with the potential for trade diversion of products in which Australia has a comparative advantage should Korea negotiate other successful FTAs. For example, an FTA with the US could displace Australia agricultural and mineral products by US equivalents in the Korean market. Should a Korea-Japan free trade agreement eventuate Australia would also be in danger of losing to Japan the Korean market for its manufactured goods such as automobile engines.

Fourth, the Korean services market offers considerable potential for Australia, since the country has a comparative advantage in such services. Korea's services sector has been liberalising as a result of Korea's Uruguay Round negotiations in 1994 and accession to the OECD in 1996. Additional liberalisation of its services sector took

place after the 1997 financial crisis as a way of increasing efficiency and attracting more FDI. As a result, with the exception of a few wholly restricted and partially restricted categories related to national security, culture and primary producers' special position, most services businesses, including transport, communications, finance, insurance and business services, are now open to FDI and competition. A KAFTA would facilitate the expansion of Australian services to Korea in a number of these areas.

## **6. Review of the economic effects from a KAFTA**

The net gains from an FTA depend on whether the agreement generates trade creation effects that improve welfare, or generates trade diversion effects that lower welfare. Trade creation occurs when member country X imports from member country Y a product that was sourced locally in country X before the establishment of the FTA. This would occur if the protection structure in country X before the FTA raised the price of imports above the domestic production price, making it previously cheaper to source the product locally. Welfare will increase since country X now imports the good from a lower cost source. On the other hand, trade diversion occurs when the FTA causes member country X to import a product from member country Y that it previously had imported from a lower cost non-member country. The FTA causes the country to import from a higher cost supplier, thus decreasing welfare. The more divergent the patterns of comparative advantage across member are, the greater is the presumption that there exists room for trade creation with the formation of an FTA. Alternatively, similar patterns of comparative advantage across member countries implies that there is a greater possibility of trade diversion.

### *Studies on the benefit of a KAFTA*

In the literature, apart from the studies by Cheong (1999) and Kim and Cheong (1996), no quantitative assessments have been conducted measuring the impact of an FTA between Australia and Korea. According to the study conducted by Kim and Cheong (1996) a KAFTA would have increased Korean and Australian GDP in 1992 by 0.76 per cent and 0.72 per cent, respectively, through the elimination of tariffs between the two countries. However, Korea's total exports to Australia amounted to only US\$1.1 billion in 1992, or about 0.3 per cent of Korea's GDP. Consequently, the relatively tiny share of exports to Australia suggests that the extent of the benefit estimated by Kim and Cheong (1996) is questionable. According to Cheong (1999), based upon the quantitative results obtained in the Kim and Cheong (1996) study, in 1992 Australian exports to Korea would have increased by US\$3.4 billion, or 109.7 per cent of Australia's total exports to Korea valued at US\$3.1 billion in that year, and Korea's exports to Australia would have increased by US\$1.6 billion, or 145.5 per cent of Korea's total exports to Australia of US\$1.1 billion in that year. These estimates of the impact of a KAFTA on bilateral trade appear to be unrealistically large (see Kwon (2001)).

While the study of Kim and Cheong (1996) produced highly aggregated estimates of KAFTA's economic effects, Kwon (2001) adopted a sectoral level approach to identify if significant trade creation effects exist between Korea and Australia. In doing so he uses the concept of revealed comparative advantage (RCA) (see Balassa

(1965)). RCA calculations are used to analyse trade complementarity and competition between two countries, which, in this case, can be applied to identify possible effects of a KAFTA for both Australia and Korea. While the RCA technique does not provide a complete analysis of bilateral trade creation and trade diversion, it does provide a relatively disaggregated look at sectors that are likely to generate significant impacts under a KAFTA.

Using the RCA technique two indices can be calculated. First, the revealed comparative advantage of exports (RCAX) is represented by a country's commodity composition of exports relative to the commodity composition of world exports.

The RCAX index is defined as:

$$RCAX_{kj} = (X_{kj}/X_{kt}) (X_{wj}/X_{wt}) = (X_{kj}/X_{wj}) (X_{kt}/X_{wt})$$

Where:

$X_{kj}$  represents the value of country k's exports of commodity j

$X_{kt}$  represents the value of country k's total exports

$X_{wj}$  represents the value of world exports of commodity j

$X_{wt}$  represents the value of total world exports of all commodities.

If the index exceeds unity then the country has a revealed comparative advantage in commodity j. Similarly, if the index has a value less than unity then this implies that the country does not have a revealed comparative advantage in commodity j.

A revealed comparative advantage of imports (RCAM) index, representing a country's import composition relative to the world total, can be defined as:

$$RCAM_{kj} = (M_{kj}/M_{kt}) (M_{wj}/M_{wt}) = (M_{kj}/M_{wj}) (M_{kt}/M_{wt})$$

Where:

$M_{kj}$  represents the value of country k's imports of commodity j

$M_{kt}$  represents the value of country k's total imports

$M_{wj}$  represents the value of world imports of commodity j

$M_{wt}$  represents the value of total world imports of all commodities

An RCAM value of greater than unity implies that country k has a revealed comparative advantage in its importation of commodity j, or a revealed comparative disadvantage in commodity j. Where the RCAM value is less than unity, the country would be said to not have a revealed comparative advantage in importing that product.

Kwon (2001) then uses RCA to determine whether bilateral trade between Australia and Korea is complementary or competing on a cross sectional basis. He then uses these results to assess whether a KAFTA is likely to lead to bilateral trade creation.

RCAX and RCAM indices are calculated for all products at the three digit SITC level for the years 1995 and 1998 for both Australia and Korea. Calculations of RCAX and RCAM presented are limited to those products for which values of exports and

imports are reported for Australia, Korea and the World. The following case results are presented:

Case 1 Complementarities between Australian exports ( $RCAX_{aus} > 1$ ) and Korean imports ( $RCAM_{kor} > 1$ )

Case 2 Complementarities between Korean exports ( $RCAX_{kor} > 1$ ) and Australian imports ( $RCAM_{aus} > 1$ )

Case 3 Product categories where Australian ( $RCAX_{aus} > 1$ ) and Korea exports ( $RCAX_{kor} > 1$ ) compete

Case 4 Sectors in which Australia has a comparative advantage in both exports ( $RCAX_{aus} > 1$ ) and imports ( $RCAM_{aus} > 1$ )

Case 5 Sectors in which Korea has a comparative advantage in both exports ( $RCAX_{kor} > 1$ ) and imports ( $RCAM_{kor} > 1$ )

The results for Case 1 are presented in Table 9. This shows the product categories in which Australia's export specialisation ( $RCAX_{aus}$  larger than unity) match Korea's import specialisation ( $RCAM_{kor}$  larger than unity). Seventeen product categories, representing 39.2 per cent of Australia's total exports in 1998, are complementary with Korean imports. Major sectors of complementarity of Australian exports, which account for a significant share (more than 1 per cent) of total Australian exports, include, not surprisingly, raw agricultural products (wheat and cotton), and mineral products (iron ore, base metal ores, coal and petroleum products).

The results for Case 2 are presented in Table 10. This shows the product categories in which Korea's export specialisation ( $RCAX_{kor}$  larger than unity) match Australia's import specialisation ( $RCAM_{aus}$  larger than unity). Major sectors of complementarity of Korean exports, which account for a significant share (more than 1 per cent) of total Korea exports, include some chemical products (polymerisation products), some basic manufactures (rubber tyres, man made fibre fabric), and machines and transportation equipment (automatic data equipment, telecommunications equipment, household equipment, transistors, passenger motor vehicles and ships and boats etc.). For the case of Korea, 37.3 per cent of its total exports are complementary with Australian imports.

The results for Case 3 are shown in Table 11, which shows the extent of competition between Australian and Korean exports in world markets. These are the product categories in which both Australia and Korea have  $RCAX$  indices higher than unity. These reflect intra-industry trade, where Australia and Korea export the same products in significant quantities to the world market, including each other's markets. There are only a few product categories in which Australia and Korea are competing in world markets. They are petroleum products, leather, iron and steel in primary forms, copper products, and ships and boats, representing 12.2 per cent and 4.7 per cent respectively, of Korean and Australian total exports in 1998. This finding indicates that the two economies are in competition with each other in the world market only for a very limited number of products.

Case 4 results are shown in Table 12. This shows the extent of domestic intra industry trade within an economy. This type of domestic intra industry trade is reflected in a country exporting a product as well as importing that same product in significant quantities. Significant intra industry specialisation will yield high RCAX and RCAM indices for the same product categories of a country. There are only three product categories in which Australia has RCAX and RCAM both larger than unity. They are copper products, ships and boats and photo cinema supplies. Exports of these products amounted to 2.4 per cent of total Australian exports in 1998. This reflects the simple industrial and trade structures of the Australian economy, which exports mainly agricultural and mineral products and imports mainly manufactured products.

Case 5 results are shown in Table 13. This indicates that Korea has more extensive domestic intra industry trade. RCAX and RCMX are larger than unity for 17 product categories. These are refined petroleum products, some chemical products, some basic manufactures, and some machinery and transport equipment, representing 40.2 per cent of total Korean exports in 1998. This indicates that Korean industrial and trade structures are more diversified than in the Australian economy, suggesting that in the non traditional trading industries Korea may be more likely to take advantage of trade liberalisation from a KAFTA as compared to Australia.

**Table 9 Case 1 Complementarity between Australian Exports and Korean Imports**

SITC	Commodity	Australian Exports (RCAXaus > 1)		Korean Imports (RCAMkor > 1)		Share of Aus. total exports (%)
		1995	1998	1995	1998	
041	Wheat etc. unmilled	7.176	14.590	0.990	2.383	3.95
081	Animal feedstuff	1.404	1.506	0.947	1.281	0.59
211	Hides, skins, (excluding furskins), raw	5.626	6.507	6.010	7.008	0.57
222	Oil seeds for 'soft' fixed vegetable oils	0.591	1.748	1.362	1.723	0.46
263	Cotton	4.308	9.106	2.513	2.829	1.76
281	Iron ore & concentrates	24.831	24.157	2.635	3.825	4.48
287	Ores and concentrates of base metal, nes	14.878	19.260	1.536	2.989	6.54
288	Non ferrous scrap metal, nes	1.669	1.500	1.607	1.287	0.22
322	Coal lignite and peat	26.448	30.651	3.467	5.816	11.04
334	Petroleum products, refined	1.054	1.036	1.624	0.170	1.78
533	Pigments, paints etc.	1.421	1.342	0.999	1.047	0.54
611	Leather	2.157	1.930	1.400	1.215	0.51
672	Iron, steel primary forms	1.958	1.929	3.065	1.278	0.88
682	Copper	1.857	1.238	1.896	2.694	0.65
684	Aluminium	4.307	4.719	1.719	1.680	3.82
793	Ships and boats etc.	0.738	1.229	3.623	1.241	0.95
882	Photo, cinema supplies	1.389	1.424	1.195	1.513	0.45

*Source:* Kwon (2001) based on calculations from the UN International Trade Statistics Yearbook (1999).

**Table 10 Case 2 Complementarity between Korean Exports and Australian Imports**

SITC	Commodity	Korean Exports (RCAXkor > 1)		Australian Imports (RCAMaus > 1)		Share of Korean total exports (%)
		1995	1998	1995	1998	
513	Carboxylic acids etc.	1.625	1.884	0.953	na	0.53
582	Plates, sheets, film, foil and strip, of plastics	1.758	1.694	1.082	0.006	0.91
583	Polymerisation etc. products	na	2.095	0.742	na	2.79
625	Rubber tyres, inner tubes etc.	na	2.483	1.863	na	1.17
653	Woven man made fibre fabrics	7.999	6.477	0.937	1.016	3.49
658	Textile articles nes	1.224	0.830	1.389	0.964	0.23
678	Wire of iron or steel	1.023	1.112	1.094	0.556	0.56
682	Copper	0.499	1.705	0.529	1.155	0.90
723	Civil engineering equipment etc.	1.136	0.941	2.656	0.860	0.49
724	Textile, leather machinery	1.242	1.018	0.777	2.637	0.38
752	Automatic data processing equipment	1.274	1.158	1.553	0.119	3.43
761	Television receivers	3.416	1.949	1.172	0.392	0.86
762	Radio broadcast receivers	1.626	0.569	1.088	10.634	0.18
763	Sound recorders, phonographs	3.429	2.108	1.132	1.178	0.80
764	Telecommunications equipment nes	1.438	1.251	1.335	0.197	3.44
775	Household type equipment nes	2.035	1.972	1.312	0.699	1.30
778	Electrical machinery nes	2.846	0.619	1.220	0.209	0.90
781	Passenger motor vehicles	1.242	1.248	1.168	0.120	6.50
793	Ships and boats etc.	6.050	7.869	2.736	0.453	6.06
831	Travel goods and handbags	1.874	0.998	1.308	1.093	0.27
845	Textile fabric apparel	1.508	1.238	0.609	2.685	0.97
898	Musical instruments	1.876	1.256	1.893	1.201	0.73
899	Other manufactured goods	1.371	0.967	1.317	2.678	0.36

*Source:* Kwon (2001) based on calculations from the UN International Trade Statistics Yearbook (1999).

**Table 11 Case 3 Product categories in which Australian and Korean exports compete**

SITC	Commodity	Australian Exports (RCAXaus > 1)		Korean Exports (RCAXkor > 1)		Share of Aus. total exports (%)	Share of Korean total exports (%)
		1995	1998	1995	1998	1998	1998
334	Petroleum products, refined	1.054	1.036	1.009	1.921	1.78	3.29
611	Leather	2.157	1.930	4.053	3.326	0.51	0.88
672	Iron and steel primary forms	1.958	1.929	1.746	2.420	0.88	1.11
682	Copper	1.857	1.238	0.499	1.705	0.65	0.90
793	Ships and boats etc.	0.738	1.229	6.050	7.869	0.95	6.06

Source: Kwon (2001) based on calculations from the UN International Trade Statistics Yearbook (1999).

**Table 12 Case 4 Sectors in which Australia has a comparative advantage in both exports and imports**

SITC	Commodity	Australian Exports (RCAXaus > 1)		Australian Imports (RCAMaus > 1)		Share of Aus. total exports (%)
		1995	1998	1995	1998	1998
682	Copper	1.857	1.238	0.529	1.115	0.65
793	Ships and boats etc.	0.738	1.229	0.529	1.115	0.65
882	Photo, cinema supplies	1.389	1.424	1.771	1.090	0.45

Source: Kwon (2001) based on calculations from the UN International Trade Statistics Yearbook

**Table 13 Case 5 Sectors in which Korea has a comparative advantage in both Exports and Imports**

SITC	Commodity	Korean Exports (RCAXkor > 1)		Korean Imports (RCAMkor > 1)		Share of Korean total exports (%)
		1995	1998	1995	1998	
334	Petroleum products, refined	1.009	1.921	1.624	0.170	3.29
511	Hydrocarbons nes, derivatives	2.312	3.489	3.109	3.109	0.98
513	Carboxylic acids etc.	1.625	1.884	0.953		0.53
582	Plates, sheets, film, foil and strip, of plastics	1.758	1.694	1.202	1.260	0.91
611	Leather	4.053	3.326	1.400	1.215	0.88
651	Textile yarn	1.584	4.053	1.866	1.775	1.176
653	Woven man made fibre fabrics	7.999	6.477	0.937	1.016	3.49
654	Other woven textile fabrics	1.621	1.404	1.841	1.617	0.25
672	Iron, steel primary forms	1.746	2.420	3.065	1.278	1.11
673	Flat rolled products of iron or non-alloy steel	0.845	1.709	1.278	0.593	0.77
674	Iron, steel universal plate sheet	1.875	2.860	1.050	0.829	2.74
682	Copper	0.499	1.705	1.896	2.694	0.90
724	Textile, leather machinery	1.242	1.018	1.775	0.763	0.38
776	Transistors, valves etc.	4.295	40.720	2.051	3.824	14.674
778	Electrical machinery nes	2.846	0.619	0.797	1.030	0.90
793	Ships and boats etc.	6.050	7.869	3.623	1.241	6.06
871	Optical instruments	1.256	4.658	2.140	2.999	1.13

*Source:* Kwon (2001) based on calculations from the UN International Trade Statistics Yearbook (1999).

## 7. Summary and policy implications of a KAFTA

The Australian and Korean economies are highly complementary for numerous products, and are in direct competition for only a limited number of products. For Australia, 39.2 per cent of its exports are complementary with Korea, and only 4.7 per cent of its exports are in competition with Korea. In the case of Korea, 37.3 per cent of its exports are complementary with Australia, while 12.2 per cent of them are in competition with Australia. Hence, based on the current economic and trading structures of each economy, there are large potential opportunities for inter-industry trade creation from the formation of a KAFTA. However, as both economies face

changing structures towards knowledge based economies there could be even further inter industry opportunities for expanded trade in the future. In the new knowledge based economies of Korea and Australia the former is likely to specialise in knowledge based manufacturing activities, while Australia is likely to specialise in knowledge based service activities.

Despite apparently high levels of complementarity and low levels of competition between the two economies, a KAFTA should not be considered as a substitute for multilateral trade liberalisation by the two countries. Bilateral trade between the two accounts for only a small proportion of their respective world trade, indicating that both are heavily dependent upon the rest of the world. Therefore, both should continue to pursue a multilateral trade liberalisation agenda within the context of the WTO. The low extent of competition is also not necessarily desirable in conjunction with the formation of a KAFTA, as it may indicate few opportunities for intra-industry trade creation. The existing industrial and trade structures of the two economies has contributed to underdeveloped intra-industry trade between them, particularly in the manufacturing and high technology areas, suggesting that the establishment of a KAFTA would have limited potential for intra-industry trade expansion. In particular, the Australian industrial structure is not sufficiently diversified to take full advantage of opportunities arising in the knowledge-based sectors. However, such trade could become more important in the future as restructuring moves these economies towards their objective of becoming more knowledge based.

Another benefit from the establishment of a KAFTA is an increase in inflows of FDI. Since both economies are relatively small a KAFTA is unlikely to attract significant amounts of FDI to establish production bases within them. However, with both Australia and Korea attempting to establish other regional free trade agreements with neighbouring countries, a KAFTA region could become part of a larger regional trade bloc. This could attract FDI into the region to develop raw materials in Australia or to develop a foothold in a broad Northeast Asian economic region.

Another advantage of a KAFTA for both countries is that it could provide a useful experiment about the benefits arising from the formation of an FTA. As the economies are similar in size and their bilateral trade accounts for a small proportion of their respective world trade, disruption from the formation of a KAFTA on their respective economies may not be high. Since the objective of a KAFTA is to reduce trade and investment barriers between the two countries, it sets out a schedule for lowering trade barriers that might not otherwise occur and thereby facilitate the formation of other regional trade agreements. For Korea, in particular, the formation of KAFTA will help to improve its international competitiveness and facilitate domestic structural reforms, which is likely to make Korea more attractive to foreign investment.

Despite all the potential gains from the establishment of a KAFTA a major stumbling block remains - the Korean agricultural sector (Kwon (2001b)). The sector faces serious structural problems. Suitable land for cultivation is insufficient to meet the production needs of domestic agricultural demand, and the shortage of land in comparison with the agricultural population has resulted in small-scale farming that has been the main cause of low agricultural productivity and low incomes for farm

households. Low farm income has in turn accelerated the migration of young farmers to urban areas. The remaining ageing farmers are reluctant to mechanise agriculture and to introduce innovations, thereby further slowing productivity and income growth. These structural problems have contributed to the continual decline of the sector, to only 4.6 per cent of GDP and 10.9 per cent of total employment in 2000. Despite this decline in the economic importance of the sector, it still exerts considerable political and cultural influence. As a result the government has attempted to maintain the viability of the agricultural sector and the rural communities that it supports, as well as alleviating and preventing further social problems in urban areas arising from internal migration. Finally, Korean agriculture is characterised not only by small-scale farms but also by rice oriented farming systems. As the staple food in Korea rice remains the dominant crop in terms of production, land use and government support. Livestock products, fruits and vegetables are, however, growing in importance. Secure provision of staples, in particular rice, from domestic sources is regarded as important for national security. Under these circumstances it is difficult to envisage that Korea will agree to a KAFTA at the present time, and this goes some way to explaining why discussions relating to a FTA between the two countries is not currently on the agenda of either.

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