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Economic Review

South Korea's Export Competitiveness: ~ Critical to Overcoming the Global Crisis and Issues Going Forward ~

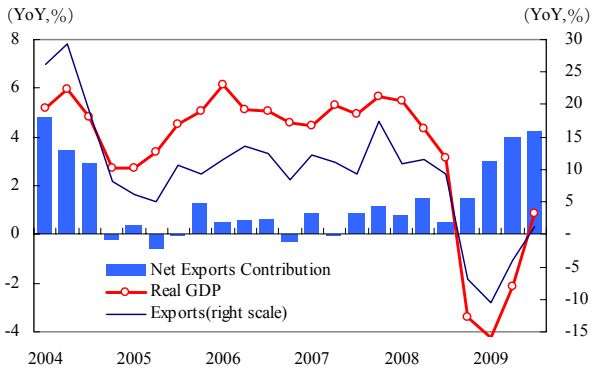
The global financial crisis pushed South Korea's economy into negative growth from the fourth quarter of 2008. But from Q1 2009, the economy started to grow again on an on-quarter basis, and achieved slight positive growth even for the full year. One reason for South Korea's early economic recovery relative to other countries has been the government's support of domestic demand with its biggest-ever economic stimulus package. But another factor has been the recovery in exports as export competiveness improved because of the won's plunge.

This report addresses the impact of the won's exchange rate on South Korean exports and analyzes industrial competitiveness. It further explores issues related to the sustainability of South Korea's export expansion.

1. Exports and the Won's Exchange Rate

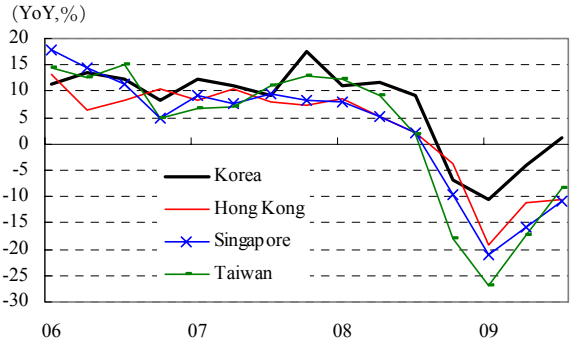
Exports account for 46% of South Korea's GDP (2008 estimate) and control the direction of the nation's economy. From the end of 2008 through early 2009, South Korean exports plunged as the world's economies deteriorated in the wake of the global financial crisis. But the drop was relatively slight compared to the other NIEs (South Korea, Taiwan, Hong Kong, and Singapore), and by Q3 2009, exports had recovered over year-earlier levels (Figures 1, 2). Exports to Asia (primarily China)—which account for 50% of all South Korea's exports—drove the recovery. By product, the recovery in electronics and electronic equipment—which account for 30% of all exports—and chemical products was particularly striking. It appears that the effects of economic stimulus measures in a number of countries, primarily China, triggered demand and supported the recovery in South Korean exports.

Figure 1: Real GDP Growth and Exports



Source: Compiled by BTMU Economic Research Office based on BOK materials

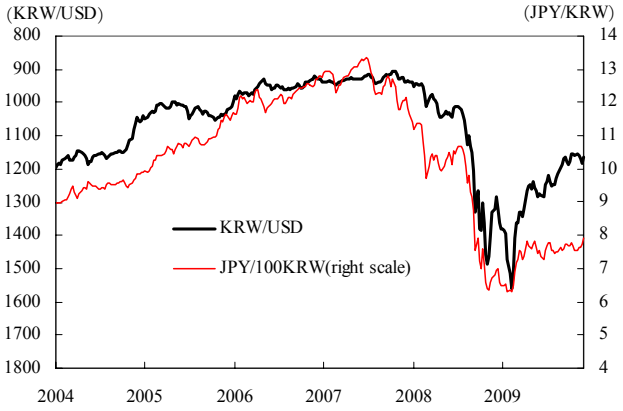
Figure 2: Real Exports



Source: Compiled by BTMU Economic Research Office from CEIC data

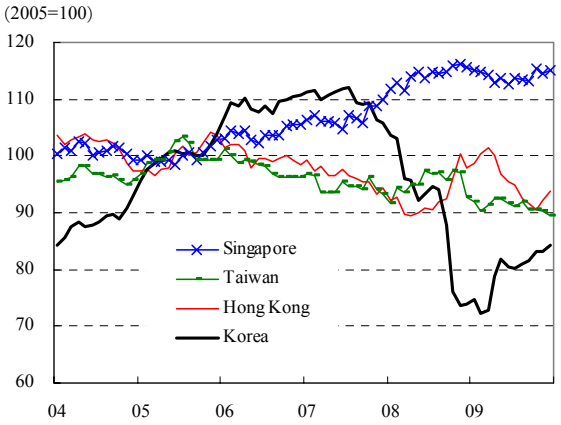
South Korea's weak currency was one reason its exports have performed better than other NIEs'. The won plunged from September 2008 when the global financial crisis erupted, at one point hitting the KRW/USD1,500 level. This was the won's weakest level in 10 years (Figure 3). The won's real effective exchange rate weighted average against a basket of 15 currencies shows that its rate of decline was striking even among the NIEs (Figure 4). The won is now strengthening, but the November real effective rate level of 84.1 points is still approximately 20 points weaker than at the beginning of 2008.

Figure 3: KRW Exchange Rate



Source: Compiled by BTMU Economic Research Office based on Bloomberg data

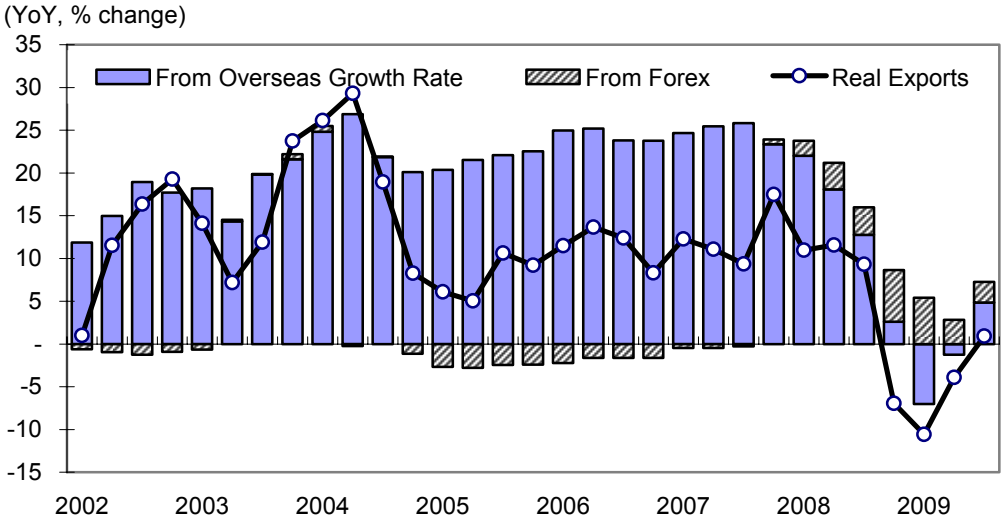
Figure 4: The Real Effective Exchange Rate



Source: Compiled by BTMU Economic Research Office based on BIS data

We estimated the impact of the weak won on exports. Assuming that a one percent drop in the real effective rate results in a 0.2% increase in real exports, real exports were pushed up by approximately 6% from Q4 2008 to Q1 2009, when the won's real effective rate fell by approximately 30% (Figure 5).

Figure 5: Real Export Factor Analysis



Note: Estimation method= -7.89＋5.64 × (major export region GDP)－0.20× (real effective exchange rate)
(-2.2) (5.5) (-1.5)
Figure inside parentheses is t value. Applied to all figures. Estimation period is 2002-Q3 2009. Adj-R2:0.58.
Sources: Compiled by BTMU Economic Research Office from CEIC, BIS materials

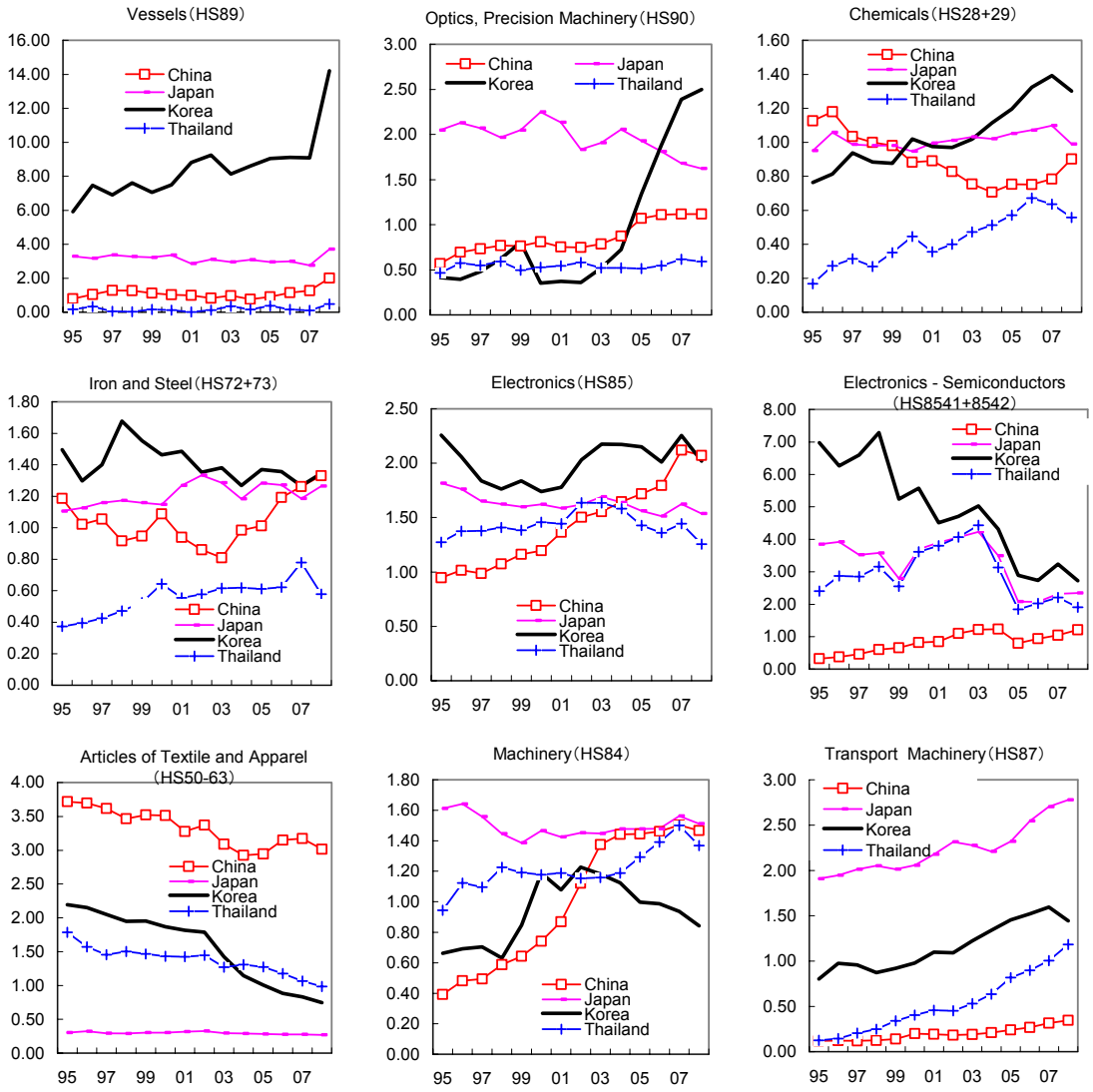
2. Industry-Specific Export Competiveness and Industrial Policy

(1) Analyzing Export Competiveness

We next look at export competitiveness on a real basis, meaning exports not affected by foreign exchange fluctuations. Here we compare four countries: South Korea, Japan, China, and Thailand, which, among the ASEAN nations, has a concentration of electronics and automobile industries.

The Revealed Comparative Advantage Index (RCA) offers an analysis of export competitiveness by industry (Figure 6) and shows that South Korea enjoys overwhelming competitiveness in shipbuilding. Competiveness has improved quickly in recent years in the optical and precision machinery industry, which includes liquid crystal display panels. Though relative superiority has been waning in some sectors—like chemicals, iron and steel, and electronics including electronic parts—as China has made gains, South Korea still remains highly competitive in these areas. On the other hand, South Korea is less competitive in general machinery and textiles and textile products, losing competitiveness in recent years.

Figure 6: The RCA Index and Industrial Competitiveness



Note: RCA Index = [Total export value of Good i from Country A ÷ Country A total export value ÷ (Good i world export value ÷ World total export value)] x 100]
An RCA Index value of 1+ indicates that industry is relatively superior.
Source: Compiled by BTMU Economic Research Office from UN materials

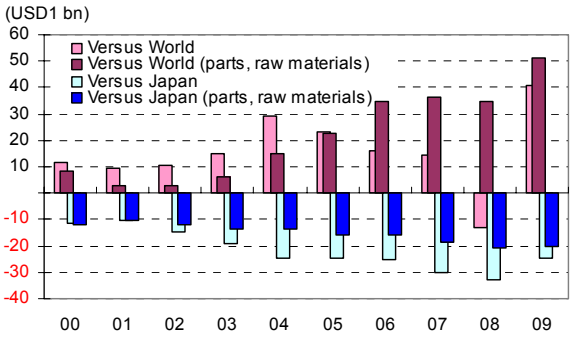
(2) Industrial Policy

South Korean Government industrial policy has resulted in certain industries becoming highly export-competitive. Since the 1970's, the South Korean Government has developed export-oriented industries and worked to more effectively distribute resources and funding. It has aggressively introduced preferential policy finance and tax policies for export industries expected to grow, including iron and steel, automobiles, shipbuilding, electronics, and chemicals. Since the 1990's, the government has worked to bolster industrial competitiveness by raising technological levels as markets were liberalized and regulations eased. It offered indirect support measures in growth sectors, including tax incentives for R&D and capital expenditures, as well as industrial infrastructure facilities. Bolstered industries included high-tech industries like semiconductors and computer equipment in the 1990's and next-generation growth industries from 2000 onward. In 2003, ten industries—including displays, intelligent robots, cars of the future, and next-generation semi-conductors—were pinpointed as industries expected to support economic growth for the next five to ten years. A total of KRW2 trillion was budgeted to develop 40 products and 153 technologies. The government also planned to improve the investment tax credit scheme in order to stimulate R&D spending by large companies, which accounts for more than 60% of all R&D spending.

Thus, industries given preferred status under the government's industrial policies grew quickly, while supporting industries—producers of capital and interim goods—lagged. The electronics industry demonstrates that though South Korean goods enjoy high export competitiveness at the final goods stage, it still depends on advanced countries for imports of goods necessary for their production, including capital goods, parts, and materials. Imports account for approximately 40% (as of 2007) of capital goods and interim goods for re-export. In particular, South Korea depends on Japan for most of the core equipment imports for main export goods like semiconductors and displays. Despite an overall trade surplus, South Korea has a chronic deficit against Japan (Figure 7).

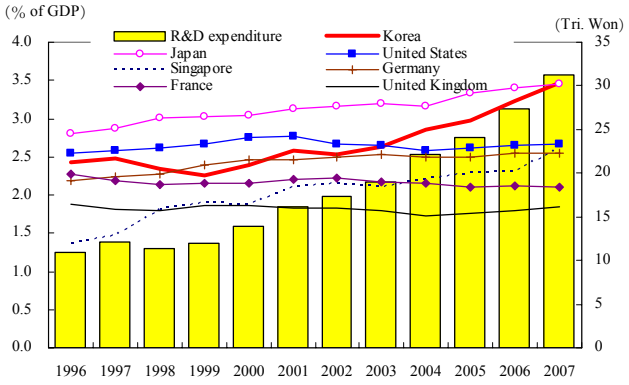
South Korea's technological trade deficit is partly rooted in the quality of R&D. South Korean R&D spending reached KRW31 trillion in 2007 (3.5% of GDP), surpassing levels in Japan, Europe, and the US (Figure 8). However, only 25% of R&D spending is directed toward developing new technologies, while approximately half of R&D spending is used for applied research for development of new products. Competitiveness is being improved based upon the technologies of other, advanced countries.

Figure 7: The Trade Balance



Note: *Versus Japan* parts, raw materials balance 2009 is Jan-Nov aggregate .
Source: Compiled by BTMU Economic Research Office from Korean Traders' Association and other materials.

Figure 8: R&D Expenditures Around the World



Source: Compiled by BTMU Economic Research Office based on UNESCO materials

3. The Global Competitiveness of South Korean Industries

Because South Korean technology has been inferior to advanced countries', South Korean companies have pursued greater market share through competitive prices. Companies concentrate management resources and invest huge sums in capital spending and offer fewer varieties of goods in large quantities. South Korean exporters were able to increase sales during the recent global crisis not only because of improved price competitiveness as the won weakened, but also because they

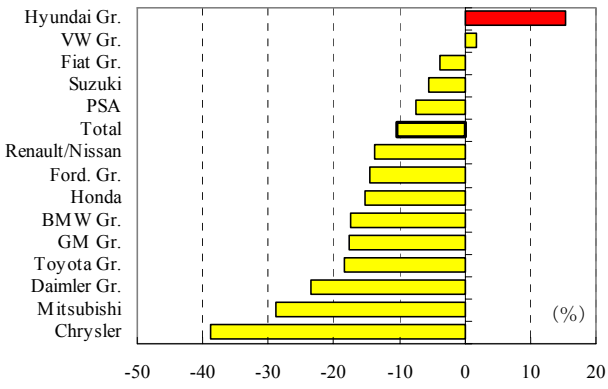
were able to offer products and services that met market demand as the consumption market shrank suddenly.

At the end of 2008, automaker Hyundai introduced a sales campaign promising to forgive the remaining car payment debt of US buyers who had lost their jobs upon return of the car. While new vehicle sales plummeted among other carmakers in 2009, Hyundai car sales rose over year-earlier levels, especially among compact cars. Hyundai car sales logged a double-digit +15.3% YoY increase around the world from January through September (Figure 9). The company's vehicles are gaining greater appreciation as high-quality, and US auto survey company JD Power ranked the Elantra as the best compact car in its 2009 Initial Quality Study.

Further, Samsung Electronics has boosted production and sales of LED TVs, which use light-emitting diodes as a light source, beating Japanese manufacturers by offering a wide-ranging product lineup and attractive prices. The company has expanded market share with aggressive sales campaigns, and 2009 whole-year sales are expected to hit KRW136.5 trillion (USD116.8 billion). Samsung is expected to become the biggest maker of IT and household electronics-related products in the world, bettering rivals Siemens from Germany and Hewlett-Packard in the US.

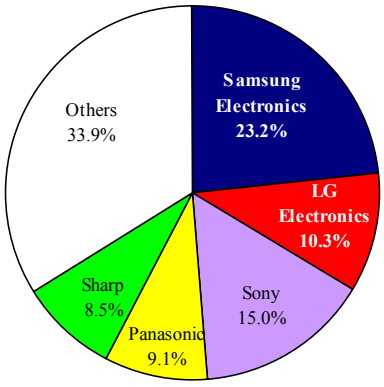
South Korean semiconductor manufacturers are specialists in DRAM and NAND flash memory (which allow large amounts of data to be saved and erased and do not erase data even if the power is cut), and have expanded market shares by introducing large-scale production. Though they are affected by changes in the silicon cycle, which reflect semiconductor supply and demand, South Korean semiconductor manufacturers continued with steady capital investments even during the downturn. This allowed them to develop new products and capture greater market share. Even in the recent global financial crisis, as Japanese and Taiwanese companies slashed capital spending as business slumped, South Korean semiconductor makers invested in advanced technology equipment, enabling them to cut their manufacturing costs and maintain export competitiveness.

Figure 9: New Car Sales Around the World



Note: Figures are growth rate of cumulative sales as of September 2009.
Source: Compiled by BTMU Economic Research Office from various releases

Figure 10: Flat-Screen TV Global Market Shares (2008)

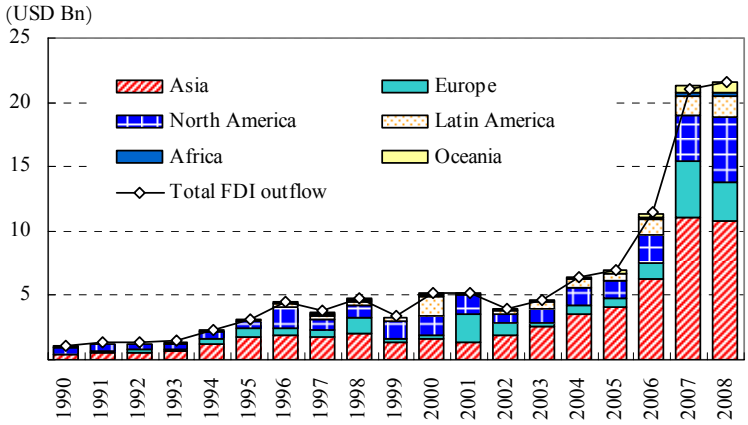


Source: Compiled by BTMU Economic Research Office based on DisplaySearch materials

Furthermore, it is noteworthy that South Korean companies have focused on demand from newly-emerging countries, which were relatively less adversely affected by the financial crisis. South Korean companies are already very concerned about limitations of the domestic market, which is faced with low childbirth and aging trends. They have been aggressively targeting newly-emerging markets, which are expected to grow and in which there are few Japanese rivals, to capture market share. Foreign direct investment by South Korean companies has surged since 2006, hitting a record high of approximately USD21.6 billion in 2008 (Figure 11). While South Korean companies still lag behind their Japanese counterparts in US and European markets, they have accelerated their inroads into the BRIC countries (including India and China), Vietnam, and Central Asia. About half of the

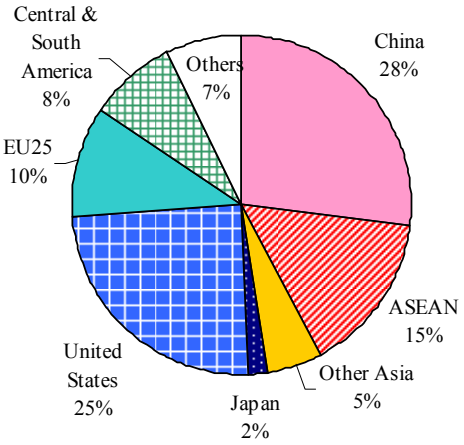
countries into which South Korean companies are moving are Asian countries (Figure 12). Further, South Korean companies appear to have been focusing on building and improving their brand images in local markets by sponsoring sporting and cultural events and through social action activities. These efforts appear to help the companies expand their market share.

Figure 11: South Korean FDI Outflows



Source: Compiled by BTMU Economic Research Office from CEIC data

Figure 12: South Korean FDI Outstanding by Target Country/Region, 2006



Source: Compiled by BTMU Economic Research Office based on OECD materials

4. Toward Sustainable Export Expansion: Developing Target Industries

Though the won's weakness boosted price competitiveness and supported South Korean exports during the recent global crisis, past public-private efforts to improve industrial competitiveness as well as the ability of South Korean companies to provide export products and services meeting market demand may offer valuable lessons for the Japanese Government and companies. Further, following the 1997-98 Asian crisis, as the government led efforts to restructure the industrial sector—primarily *chaebol* companies—more efficient management conditions were created by pinpointing and consolidating businesses. Also, the top-down decision-making style characteristic of *chaebol* allows for speedier changes. Both factors were advantageous during the recent crisis, when difficult management decisions were called for.

However, going forward, China and other newly-emerging countries are expected to catch up to South Korea, and it will not be facile to maintain export competitiveness with a growth model based on advanced country technology. In order to maintain competitiveness over the medium- to long-term and cut its trade deficit with Japan, South Korea will have to strengthen its production base by developing its support industries. Further, developing support industries is expected to help expand domestic demand by improving profitability and employment at SME's, which comprise 99.9% of all companies and employ 88.4% of workers in South Korea. Though profits at some large companies have recently started to improve, profits and employment have been slower to recover at domestic SME's as parts are procured from overseas and production is shifted offshore. In fact, the South Korean Government, in an effort to cut the trade deficit with Japan by improving the competitiveness of the equipment and parts and materials industries, released a strategy to develop new growth-driven industries in September and a comprehensive strategy to improve competitiveness of parts and materials in November. Eight leading technology fields are targeted for development, including the semiconductor, display, and LED, which is regarded as the next-generation light source. The goal is to reduce the amount of imports in the targeted fields by half of current levels by 2018, and by supporting the development of 10 main materials (including nanoglass, titanium material, high-polymer electrolyte materials), to raise the technology level of core materials, now at only 60% of advanced country levels (as of 2008), to around 90%.

For South Korea, Japan is not merely a competitor; it should not be forgotten that the two countries have a close complementary relationship. Negotiations over the Japan-South Korea Free Trade Agreement are expected to be restarted; the FTA would help raise the competitiveness of South Korean companies by cutting costs of materials procurement and complementing technology. The FTA is expected to tighten the two countries' complementary relationship further and can probably be expected to be implemented at an early date.

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