JETRO

2007 JETRO WHITE PAPER

ON

"INTERNATIONAL TRADE AND FOREIGN DIRECT INVESTMENT"

Increasing Utilization of Asian FTAs and Growth Strategies for Japanese Companies

Japan External Trade Organization（JETRO）

Preface

In 2006, the world economy recorded its third successive year of high economic growth, at around 5%. China and India, in particular, maintained their high levels of growth, and their rate of contribution to the world economy was approximately 40%. The favorable world economic situation stimulated increased trade and investment. The growth in trade was propelled by skyrocketing prices for primary products such as crude oil and metal, while increased activity in the area of cross-border M&As against a background of increased corporate profits and low interest rates was a factor stimulating growth in investment.

In recent years, the expansion of the middle income bracket and increased consumption in emerging economies such as the BRICs has seen the development of a middle income market in these countries. In the U.S. and other countries, the trend towards reduction in the prices of consumer goods such as digital home electronics is accelerating. The U.S. is seeing the development of business models responding to this reduction in prices, using overseas outsourcing for the production of semiconductors and other goods in addition to home electronics. In the field of automotive manufacturing as well, modularization is reducing costs in Europe and the U.S. This White Paper attempts to seek new business models for Japan in response to these trends in the emerging economies, Europe and the U.S. Viable options include the strategic use of overseas outsourcing, the formation of alliances with businesses in the emerging economies and the recruitment of local employees. It will also be important to be proactive in conducting PR programs overseas regarding the value of integrated type products.

At the same time, the stimulation of trade by means of FTAs and EPAs in the Asia-Pacific region will be essential for the smooth overseas expansion of businesses targeting the middle income market. The rate of utilization of FTA schemes in the Asia-Pacific region is increasing annually. Test calculations for Asia-Pacific FTAs, including an ASEAN+6 FTA, indicate that the greatest benefits will result from FTAs and EPAs that eliminate tariffs and reduce non-tariff measures (NTMs). The creation of mechanisms to enable the reduction of overall service link costs (the cost of connecting different bases, including tariffs, NTMs and transportation costs) will therefore be essential to pushing ahead with FTAs and EPAs.

Part 1 of this White Paper provides a general overview. Chapter I considers the status of the global economy, trade and direct investment and the direction of the new round of WTO negotiations, while Chapter II discusses Asian FTAs that have started in full scale and Japan’s strategies for growth. Chapter III examines the development of global

business models by Japanese companies and associated issues, and supplements this discussion with consideration of trends in the middle income bracket of the emerging economies such as BRICs and marketing strategies targeting this stratum.
Trade and direct investment statistics for Japan and the world are continuously updated on the JETRO Website (www.jetro.go.jp), and may be consulted in association with this text. (Details can be found on the last page of this White Paper).

Contents

Explanatory Notes

1. Abbreviations of publications and publishing organizations

(1) IFS: International Financial Statistics (IMF)

(2) DOTS: Direction of Trade Statistics (IMF)

(3) WEO (D): World Economic Outlook (Database) (IMF)

2. Figures

As follows, unless otherwise indicated.

(1)In text, figures and tables, “year” indicates the period January-December, and “fiscal year” indicates the period April-March.

(2)In tables, figures for “foreign currency reserves” and “outstanding outward debt” are year-end figures.

(3)Figures for “rate of growth” are year-on-year figures.

(4)In figures and tables, “-“ indicates lack of results, “0” indicates figures of less than a unit, and “n.a.” indicates that figures are unclear or unavailable.

(5)Because figures are rounded, there may be discrepancies in total.

3. Country and region classifications

As follows, unless otherwise indicated.

(1)ASEAN (Association of Southeast Asian Nations): Indonesia, Singapore, Thailand, Philippines, Malaysia, Brunei, Vietnam, Laos, Myanmar, Cambodia

(2)ASAN 4: Indonesia, Thailand, Philippines, Malaysia

(3)Asian NIES: South Korea, Taiwan, Hong Kong, Singapore

(4)Hong Kong and Taiwan are treated as independent economies

(5)The accession of Romania and Bulgaria in early 2007 brought the number of EU countries to 27; however, this White Paper mainly considers 2006 trends, and “EU” therefore as a rule refers to the EU25.

EU25: The EU15, plus 10 new member countries

EU15: Austria, Belgium, Denmark, Germany, Greece, Finland, France, Ireland, Italy, Luxembourg, Portugal, Spain, Sweden, Netherlands, Britain

10 new EU member countries: 10 countries which acceded in May 2004 (Cyprus, Czechoslovakia, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia)

(6) NAFTA (North American Free Trade Agreement): U.S., Canada, Mexico

(7) BRICs: Brazil, Russia, India, China

4. Base point in time

As a rule, the base point in time is at the end of July 2007 for the General Overview, and the end of June 2007 for the studies by country and region.

5. Trade statistics

World trade figures in the General Overview are as a rule based on the World Trade Atlas, while figures in the studies by country and region are in general based on locally published trade statistics. Variations in the methods used by some countries and regions to convert figures to dollars, etc., may result in discrepancies between figures in the General Overview and figures in the studies by country and region.

I. Status of the World Economy, Trade and Direct Investment

1. The World Economy: Status and Issues

(1) The world economy records its highest growth since the 1980 in 2006

In 2006, the world recorded a real GDP growth rate of 5.4% (IMF, purchasing power parity [PPP] basis[1]), the highest figure recorded in the period for which statistics are available, from the 1980 onwards. The world economy has maintained high growth at a rate of around 5% for three consecutive years since 2004. This rate significantly exceeds the long-term (1980-2006) average rate of 3.5%.

World trade and direct investment also recorded year-on-year increases in 2006, with trade increasing by 15.4% on a nominal export basis and direct investment increasing by 25.8% on an inward direct investment basis. This made 2006 the third successive year of high growth in the world economy, trade and direct investment (Fig. I-1).

The developing countries provided the engine for these historic levels of growth. (Developing countries and their economies will be discussed later.)The growth rate of the developing countries was 7.9% in 2006, representing a pace of development more than twice that of the developed countries, which recorded a figure of 3.1% (Table I-1). With a rate of contribution of 65-70% to economic growth between 2004 and 2006, the developing countries have provided an overwhelming level of propulsion to the world economy.[2] Among the developing countries, the contribution of China and India (each of which recorded growth of around 10%) was 29.4% and 10.3% respectively, meaning that the collective contribution of these two Asian giants to the world economy was approximately 40%.

---

1. Purchasing power parity (PPP) is calculated on the basis of how much goods and services actually sell for in different countries (domestic-foreign price difference). This indicator is considered to be more accurate than the nominal exchange rate, which varies significantly in response to a variety of factors. World GDP growth rates published in the IMF's World Economic Outlook (WEO) are calculated on a PPP basis.
2. The high rate of contribution of the developing countries is due to the fact that the GDP of these countries, in which commodity prices are low, appears higher on a PPP basis than the actual rate. On a PPP basis, the GDP of the developing countries represents 48.0% of the world total, while in terms of the actual GDP rate it represents 25.6% of the total, an almost two-fold difference.

The developed countries displayed a more balanced economic growth than the U.S.-led growth

observed to date. The developed countries collectively represent the main area of final demand in the world economy, and there is a risk that an excessive dependence on the U.S. could have a major impact in the event of a slowdown in the U.S. economy. However, in 2006, the EU25 economy recorded growth of 3.0%, overtaking the U.S. at 2.9%. The rate of contribution of the EU to the world economy was 11.7%, surpassing that of the U.S. (10.8%) for the first time since the recession that followed the collapse of the IT boom in 2001.

The world economy has recently experienced a set of conditions favorable to high economic growth: 1) Rapid economic growth, stimulated by exports and investment, in developing countries integrated into the international division of labor (China is a representative example); 2) Favorable financial conditions; and 3) Control of inflation. On the finance front, Japan, the U.S. and the EU have actively adopted monetary loosening policies since 2001 to dispel concerns over deflation, resulting in the supply of excess liquidity and the invigoration of financial markets. Following this, the U.S. increased interest rates 17 times from June 2004 to normalize rates. Despite this, as of 2006, interest rates in Europe and the U.S. were sitting at 4-5%, and stock prices around the world had reached their maximum ranges. In addition, the risk spread (the difference in yield with U.S. Treasury bonds) of high-risk bonds and bonds issued by developing countries was maintained at a low level. In mid-2006, global financial markets underwent a process of short-term adjustment. This shifted them to a growth footing, providing a boost to the world economy. Fears of inflation caused by skyrocketing crude oil prices were calmed by a reduction in prices in the latter half of 2006. The world inflation rate of 3.8% for 2006 is no higher than the average figure since 2000, and the figure of 2.3% for the developed countries was within the acceptable range. At 5.3%, the inflation rate for the developing countries was lower than the 6.0% average since 2000, and represents a relatively low level in comparison to past figures (Fig. I-2).

Despite a slight reduction in the pace of growth compared to 2006, the world economy is expected to maintain a high level in 2007. The IMF predicts a growth rate of 5.2% in the world economy in 2007 (as of July 2007). Looking at risk factors, in addition to the potential overheating of the Indian and Chinese economies and spiraling stock prices, there are concerns over the effect of the U.S. sub-prime loan problem and the failure of hedge funds on financial markets.

(2) The housing sector and crude oil prices are risk factors in the U.S. economy

The U.S. recorded a real GDP growth rate of 2.9% in 2006, the third consecutive year of growth at around the 3% mark since 2004. However, a downturn in facility investments, combined with reduced housing investment from the second half of 2006 through 2007, resulted in a slowdown of the economy. The growth rate in the first quarter of 2007 slipped below 1%, recording 0.7% on a quarter-by-quarter basis.

Housing investment displayed two-figure negative growth from the 2nd through the 4th quarters

of 2006. The contribution rate also shows housing investment figures to have reduced GDP growth by around one point per quarter on average. Adjustment of the housing sector is dragging on, and concern remains over the effect of the sub-prime loan problem on financial markets. This sector has therefore been indicated as a risk factor for GDP. However, considering the status of the U.S. economy as a whole, as of the present, adjustment of housing prices has been limited, and no major drop in prices has occurred; personal consumption is also growing steadily. These factors reduce the probability of the scenario of a downturn in the U.S. economy due to reduced housing investment.

While the situation in the housing sector has obscured its significance, the downturn in U.S. facility investments is continuing. Facility investments had recorded growth of around 6% on average in recent years, but growth became negative in the 4th quarter of 2006. However, this result is considered to have been strongly affected by cyclical factors arising from inventory adjustment, and there are strong expectations of a progressive recovery.

Taking the factors discussed above into consideration, there are many reasons for optimism regarding future trends in the U.S. economy. Economic forecasts by private sector organizations in the main predict a return to potential growth rates (in general, around 3%) in 2008.

Trends in crude oil prices can be indicated as a risk factor in sectors other than the housing sector. In summer 2006, crude oil prices exceeded $70 per barrel, and gasoline also cost approximately $3 per gallon. This had a considerable effect on sales of large pickup trucks, etc. (Fig. I-3; monthly data). Following this, over January 2007, crude oil prices dropped to $54-55 per barrel, and gasoline prices fell to around $2.20-2.30 per gallon. However, the climb in prices then picked up pace, with gasoline prices rising to a new record of over $3 per gallon in May. A review of trends over a period of around two years shows that crude oil and gasoline prices have continued a steady rise while increasing and decreasing within a specific range.

The weakening of the housing market would not by itself result in a reduction in consumption and a consequent downturn in the U.S. economy, but it is having a significant impact in combination with the rise in crude oil prices. During the downturn of 1990-1991, an increase in crude oil prices (prices doubled from $18 per barrel in July 1990 to $36 per barrel in October 1990) coincided with a reduction in housing investment (quarter-on-quarter negative growth of 15-20% for four consecutive quarters), resulting in negative growth in individual spending. If geopolitical factors were to overlap with a repeat of the destructive hurricanes that lashed the U.S. in 2005, generating a further rise in crude oil prices, the potential for an economic downturn would increase.

With regard to inflationary fears, while the prices of natural resources such as crude oil continue to increase, the pace of employment increases is gradually slowing and the Federal Reserve Board (FRB) is implementing prudent financial management policies. The risk of inflation is therefore limited. Long-term interest rates began to increase in May and June 2007, and this is suppressing a recovery in housing investment. However, long-term interest rates are unlikely to continue to

increase when inflationary fears have been eliminated.

Turning to the twin deficit, the fiscal deficit (in relation to GDP) reached its peak at 3.6% in 2004, and dropped to 1.9% in 2006. Against a background of continuing outflow, in particular to fund the engagement in Iraq, increased tax revenues generated by the economic upturn contributed to the reduction of the deficit. The current account deficit (in relation to GDP) has continued to worsen on a yearly basis, and 2006 was no exception. Despite this, if the figures are considered on a quarterly basis, the deficit declined from 6.5% in the third quarter of 2006 to 5.6% in the fourth quarter. This is an effect of the slowing of the growth of the trade deficit, which had previously been driven by a decline in domestic demand, a weak dollar, and high crude oil prices, among other factors. However, the current account deficit remains high, and the danger of a "triple sell-off," a mass dumping of U.S. dollars, U.S. Treasury bonds and U.S. stocks has by no means been eliminated. The current account deficit is the reverse side of excess expenditure (or a too-low level of savings), the inherent structural problem of the U.S. macro-economy. Economic management to regulate domestic demand, personal consumption in particular, will be required for a certain period in order to control the current account deficit to a sustainable level.

Economic management to regulate domestic demand, in particular personal consumption, will be required for a certain period in order to control the current account deficit to a sustainable level.

(3) 2006 high growth levels expected to continue in Europe

The European economy commenced a process of recovery from the second half of 2003, but the economy slowed from the second half of 2004 through the first half of 2005. Following this, the EU economy regained a recovery pace, and the EU25 recorded a real GDP growth rate of 3.0% in 2006 (2.7% in the Euro zone) (Table I-2). This rate of growth was more than 1% higher than the 2005 rate (1.8%; 1.5% in the Euro zone), and exceeded initial projections. The rate of growth of the European economy has been low for the past several years, not exceeding the 1-2% level, and the 2006 figures represent the highest level of growth since the figure of 3.9% recorded in 2000.

This rapid recovery is being driven by domestic demand centering on investment in facilities; gross fixed capital formation recorded a year-on-year increase of 5.5% in 2006. The economic upturn is supported by rising private sector expenditure, which recorded an increase of 2.0% as consumer confidence recovered on the back of improving employment figures. In addition, exports displayed a high level of growth, recording an increase of 9.2% against the background of steady growth in the world economy due to increasing demand in emerging markets. (The rate of contribution of net exports was 0.1%).

Considered by country, the German economy displayed the greatest recovery. The German economy had stagnated since 2001, maintaining growth of only 0-1%, but it broke the 2% barrier for the first time in two years in 2006, recording a figure of 2.8%. The Italian economy had similarly

been in a state of stagnation, but displayed signs of a recovery in 2006, recording growth of 1.9%. The French and Spanish economies have been supporting the economy of the Euro zone for the past several years. In 2006, Spain maintained its drive with a growth rate of 3.9%, while growth in France was low-key at 2.0%. Growth rates were higher outside the Euro zone. The new Central and Eastern European member countries in particular displayed high growth of approximately 4-8%, with especially high growth exceeding 10% in some Baltic states.

German companies have regained international competitiveness by controlling wages and labor costs, and have improved their business results. A rapid growth in exports, in particular to emerging markets, and increasing investment in facilities are factors in the country's achievement of a high rate of growth for the first time in six years. The fact that investment in construction shifted to positive growth in 2006 after recording year-on-year negative growth every year from 1995, with the exception of 1999, was also an important factor. Personal consumption also increased on the back of improvement in the employment situation. A percentage of the expansion in consumption resulted from temporary factors, such as demand in advance of a 2007 increase in value added tax from 16% to 19%, and demand for AV equipment related to the holding of the soccer World Cup.

- **The level of growth recorded in 2006 is predicted to continue in 2007**

The EU predicts that growth in the EU25 will maintain a rate very close to the 2006 rate of 2.8% (2.6% for the Euro zone) in 2007.

Increases in domestic and foreign demand are projected to continue, increasing the utilization rate of facilities and improving business results. Given the consequent rise in the ability and the desire of companies to conduct investments, the current increase in facility investment is predicted to continue. The outlook is for a continuing decline in the unemployment rate, improvement in the employment situation, and growth in real wages, enabling the projection of a continued stable increase in personal consumption.

In the first quarter of 2007, the EU25 maintained the strong growth characterizing 2006, recording year-on-year growth of 3.1% (3.0% for the Euro zone). While figures for personal consumption displayed a slight drop in Germany (down 0.2%), figures for investment in facilities showed a considerable increase to 8.6%, enabling the achievement of a growth rate of 3.3%. It is predicted that the increase in value added tax will not have a significant effect.

A downturn in outward demand in the event of a greater than expected slowdown in the pace of growth in the U.S. economy is a risk factor, as is the effect of an increasingly strong Euro on exports. An exchange rate of 1 euro to 1.33 U.S. dollars or 158.9 Japanese yen is a base condition of EU economic forecasts, but the euro climbed past this rate from April.

A slowdown in housing investment, which had previously been supported by booms in Spain and the UK, and the effect of increases in interest rates are risk factors in terms of domestic demand.

Interest rates increased eight times in the Euro zone between December 2005 and June 2007, and five times in the UK between August 2006 to July 2007, resulting in an increase in the policy rate from 2.0% to 4.0% in the former, and from 4.5% to 5.75% in the latter. There are concerns that a further increase in interest rates in 2007 could have an impact on consumption and corporate investment.

(4) Developing economies: Continuing high growth and risk factors

In 2006, the developing economies recorded real GDP growth of 7.9%, their highest level of growth since 1980. The real GDP growth rate of the developing economies was 7.7% in 2004 and 7.5% in 2005, making 2006 the third consecutive year of growth at 7.5% or above (Fig. I-4). Due to the scale of the economies of China and India (China represents 31.4% and India 13.1% of the total GDP of the developing countries) and their extremely high growth rates of around 10%, the rate of contribution of these economies to economic growth in the developing economies overall was correspondingly high, with a figure of 42.9% for China and 15.1% for India. Taken together, this is just under 60%. As is clear, a significant proportion of the results for the developing economies is dependent on the performance of China and India, and the medium- to long-term prospects for economic growth in the two countries and potential risk factors affecting this growth are therefore a focus of concern.

- **Continuing high economic growth in China and concerns regarding investment overheating**

The Chinese economy has maintained long-term high levels of growth. Since 2000, the lowest level of growth recorded by the country was 8.3% in 2001, while a level of more than 10% has been maintained since 2003. China's total import and export volume increased by 350% between 2001 and 2006, reaching $1,760.7 billion in 2006, putting the country in third place behind the U.S. and Germany. Since China's accession to the WTO, the country has attracted interest as a market in addition to a production base, and the pace of direct investment is accelerating.

Because China's high rate of growth in the past several years has been dependent on increases in fixed capital investment and exports, some doubt exists with regard to its sustainability. The country is in a situation in which an inflow of hot money may be generated by expectations of an increase in the value of the yuan based on the trade surplus and investment inflows. The yuan has actually been increasing in value at a relaxed pace since the country revised its exchange rate regime in July 2005. Because the level of sterilization (the absorption of base money by the central bank via the sale of government bonds, etc.) is insufficient in relation to massive influxes of foreign funds, there is an undeniable potential for excess liquidity to result in real estate speculation and overheating of investment in booming industries.

China's development has resulted in inward contradictions, such as the economic gap between

regions. The country has shifted its course from “Senpuron” (prioritized development of certain regions and industries) to “Wakai shakai” (the achievement of a harmonious society), and has made clear its intention to achieve balanced, high-quality growth in its 11th Five-Year Plan. The country intends to move away from a growth-orientated approach excessively reliant on the infusion of production factors and to correct the economic disparities between regions, add value to its industries, develop its own technologies and deal with its environmental issues.

China’s consumption of crude oil, steel and other energy and mineral resources has rapidly increased. While economic growth is driving this increased demand for resources, it is also a result of excessive use of resources due to inefficient production methods. Increased demand from China has also had an effect in buoying world commodity markets in recent years.

China’s government recognizes the country’s present mode of growth as being insufficiently guided, and sees a need for change. A stable 7-8% growth rate is desirable for China, rather than a two-figure rate that carries with it the possibility of a sudden slowdown. A rate of 7.5% is projected in the country’s 11th Five-year Plan. In order to ensure stable growth, the country is aiming to shift from investment-driven growth (Fig. I-5) to consumption-driven growth by means of bolstering the farming economy, among other strategies. An increase in the minimum wage also forms part of the background to the increase in labor costs in the country’s coastal areas. Progress in the protection of employees is also expected, as indicated by the enforcement from 2008 of a labor contract law that places restrictions on termination of employment. A movement towards greater selectivity with regard to foreign capital can also be observed; at the National Peoples’ Congress held in March 2007, it was decided that preferential measures for corporate tax on foreign-funded companies would be progressively phased out, while the tax return rate for value-added taxes on increases in exports of some IT and high-tech products were increased from September 2006 as a preferential measure.

Turning to responses to economic overheating, interest rates and the deposit reserve rate have been increased in stages since 2006. However, these restraining measures have failed to allay fears of an overheated economy, with the real GDP growth rate climbing to 11.9% in the second quarter of 2007, higher than the figure of 11.1% recorded in 2006.

China’s government is making efforts to increase the quality of the country’s growth by continuing to apply macroeconomic control, attempting to increase consumer demand by increasing agricultural wages, and working to improve the economy’s structural problems by reforming national companies, the financial system and the social insurance system.

According to UN estimates, China’s population will continue to increase, reaching 1.45842 billion by 2030. However, it is predicted that the productive population (from 15-60) will reach its peak figure (0.92175 billion) rather sooner, in 2010. From the macroeconomic perspective, an increase in the non-working population will cause a drain on savings. Considering the balance between savings and investments, it can be assumed that this will be another factor generating a reduction in the scale

of investment.

- **The Indian economy: Average growth of 8.6% since 2003**

The pace of growth of India's economy is accelerating, up to 9.4% in FY2006 (April 2006-March 2007) from 7.5% in FY2004 and 9.0% in FY2005 (Fig. I-6). Between FY2003 and FY2006 the average rate of real GDP growth in India was 8.6%, considerably higher than the average figure of 5.9% recorded in the period between FY1991, when the country embarked on its program of economic reform, and FY2002. Given the scale of India's population (1.1 billion) and recent high rates of growth, the Indian economy is becoming an increasingly significant presence in the world economy.

Looking at GDP growth by industry category, a noteworthy feature of results for 2006 is that year-on-year growth in the manufacturing sector (12.3%) outpaced growth in the service sector (11.0%). However, growth in the agricultural, forestry and fisheries sector, which represents approximately 20% of GDP, was low at 2.7%. The rate of contribution of service and manufacturing industries to the real GDP growth rate was 90%. To date, agricultural, forestry and fisheries industries have represented a high proportion of India's GDP, a weakness in a country in which irrigation systems are not widely diffused, and in which the effect of weather conditions on agricultural production can have a significant effect on the entire economy. Economic stability has increased in the past several years, with the country experiencing economic growth driven by the service and manufacturing sectors.

However, caution needs to be exercised with respect to the potential for India's economy to overheat. The wholesale price index shows a declining tendency in the growth of fuel prices, while the rate of growth of the prices of products of other primary and manufacturing industries is increasing. The consumer price index also recorded a 6.8% increase in FY2006, against 4.2% in FY2005. Money supply (M3) shifted to a high level, increasing 20.8% as of March 2006, and the central bank has begun to apply a clear fiscal tightening policy, for example by raising the cash reserve rate.

(5) Increasing activity in cross-border capital transactions and risk factors

Cross-border capital transactions continued to increase, totaling $6,482.3 billion and 14.5% of world GDP (2005, Fig. I-7). Following the collapse of the boom in mergers and acquisitions (M&A) in 2000, cross-border capital transactions declined sharply through 2002, dropping to 7.1%, around half their 2000 level as a percentage of GDP. However, there was a rapid pickup from 2003-2005, and during this period cross-border capital transactions more than doubled as a percentage of GDP. From a medium-term perspective, the percentage of GDP represented by cross-border capital transactions has displayed an increasing trend since 1995, pointing to the progress of financial

globalization. Data for 2006 is not yet available, but an increase in the level of transactions as compared with those in 2005 is predicted.

Considering results by category, investment in securities represented 50.5%, bank loans, etc., represented 34.0%, and direct investment represented 15.5% of cross-border capital transactions (2005). These recent results for capital transactions have been driven up by bank loans, etc., and investment in securities, which increased 4.4-fold and 3-fold respectively in 2005 against 2002 figures. Among investment in securities, a higher level of investment in bonds was observed, while results for bank loans were increased by a higher level of loans by European banks and increased provision of funding to developing countries.

- **Increased presence of developing countries in cross-border capital transactions**

An increase in the provision of funding by developing countries is an element of cross-border capital transactions which is attracting attention. In 2006, Asia (excluding Japan) recorded a current account surplus of $340 billion and the Middle East recorded a surplus of $210 billion. Centering on these two regions, developing countries are recirculating funds into global financial markets via the management of foreign currency reserves and other mechanisms (Fig. I-8). Research shows that funds from the management of foreign currency reserves by developing countries have reduced long-term U.S. interest rates by 0.3-1.0% (WEO, April 2004; IMF), and are contributing to the stability of financial markets.

Up to the present, the management of foreign currency reserves has generally been focused on low-risk (and low-return) investments such as U.S. Treasury bonds. However, there are more recent examples of diversification of investments into stocks, real estate and the like via state funds (sovereign wealth funds [SWF]). The combined scale of SWF currently reaches $2,500 billion worldwide. The Abu Dhabi Investment Authority of the United Arab Emirates (UAE) is operating a fund of $875 billion, while Singapore's Government of Singapore Investment Corporation (GIC) and Temasek Holdings are operating a fund of $430 billion (Table I-3). China, which holds the world's highest level of foreign currency reserves, has established an SWF managing $200 billion, and has announced the intention to invest $3 billion in the Blackstone Group, a major U.S. investment fund, as its opening investment.

As this indicates, public sector investments are no longer exclusively focused on U.S. Treasury bonds; funds from SWFs and oil profits moving through London are being circulated into stock investments and hedge funds. The flow of international capital transactions is heating up and becoming more complex.

In addition, in certain regions "south-south financing" is an increasing presence, as illustrated by an increase in loans by Chinese banks to the resources sector in sub-Saharan Africa. The Export-Import Bank of China has provided loans of $2.3 billion to Mozambique, $2.0 billion to

Angola, and $1.6 billion to Nigeria (2005, 2006, Center for Global Development).

Capital inflows to developing countries are also continuing historical increases. Net capital inflows to developing countries (capital inflows minus outflows to the rest of the world) reached $570 billion in 2006, or 5.1% of GDP (World Bank; Fig. I-9). The flow of capital to the developing countries has increased significantly since 2003. This is the result chiefly of an increase in capital flows to the private sector via bank loans and direct investment.

A global economic environment of low interest rates and abundant liquidity has encouraged investors in the developed countries to seek investments offering a higher rate of return. At the same time, improved fundamentals in the developing countries as a result of high economic growth and increased foreign currency reserves has reduced the risk (risk premiums) associated with investment in these countries. As institutional investors, including hedge funds and some private investors, adopt global perspectives in order to diversify investments, the investment exposure of the developing countries has increased. In future, attention must be focused on the effects of fiscal tightening in the U.S. and Europe, the normalization of risk premiums via reevaluation of risk, and the risk of a sudden retreat of capital from those developing countries in which an excessive amount of debt has been denominated in foreign currencies by domestic stock markets and banks.

- **Increased scale of hedge funds and associated risks**

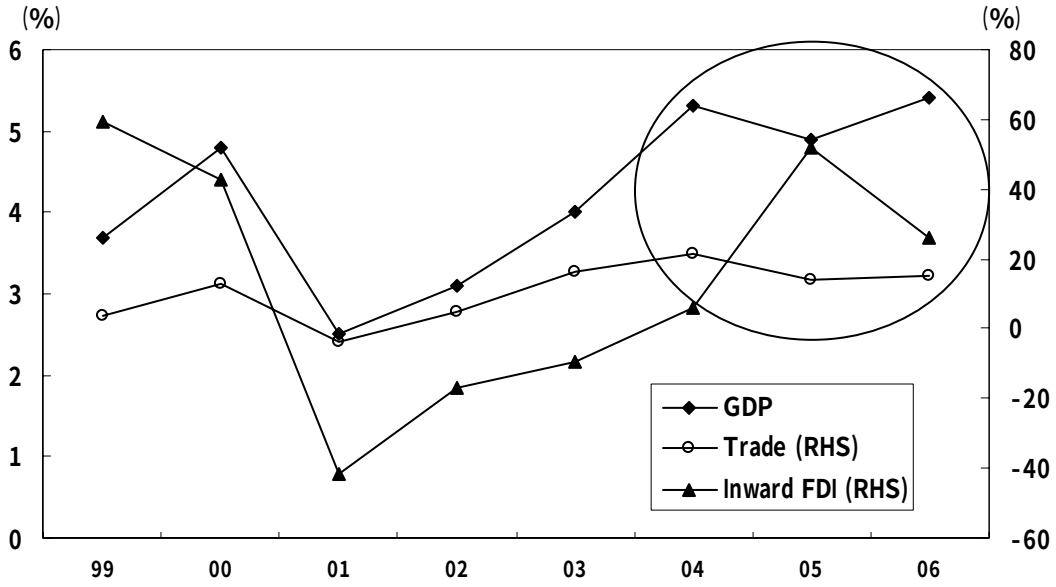
Amid the increased activity in the area of cross-border capital transactions, concern has also mounted over hedge funds actively conducting investments across national borders. Hedge funds attempt as much as possible to avoid the supervision and regulation of the authorities by conducting their activities in offshore markets, and freely manage funds accumulated from a limited range of investors (the super-rich, institutional investors, etc.) using a variety of methods in order to increase returns regardless of market trends. Their standard procedure is to conduct investments in bonds, stocks, commodities and other products, applying leverage via derivatives. As of January 2007, there were 9,550 hedge funds worldwide, with accumulated funds totaling $1.5 trillion (Fig. I-10). This represents a substantial increase against 2000, with accumulated funds increasing 4.7-fold, and the number of hedge funds 2.4-fold.

Up to the present, the super-rich represented the investor base for hedge funds. However, the ratio of investments by the super-rich to total investments in hedge funds declined from 62% in 1997 to 44% in 2005. At the same time, the ratio of investments by institutional investors has climbed from 22% to 28%, and the ratio of investments by the Fund of Hedge Funds (FOHF, a fund that conducts investments in multiple hedge funds) has increased from 16% to 28%. Taking into consideration the fact that the majority of institutional investors conduct investments in hedge funds via the FOHF, it is clear that the investor base for hedge funds has shifted from the super-rich to institutional investors.

The background to increased investment by institutional investors in hedge funds is a quest for diversification of investments due to a reduction in returns from traditional investments, and an increase in the level of acceptable investment risk in the present stable financial environment.

The increased scale of hedge funds and the increased involvement of institutional investors have generated calls for enhanced supervision and regulation and greater transparency. The regulation of hedge funds was discussed at the G8 Summit in June 2007, but no agreement on direct regulation was reached. It has also been pointed out that hedge funds focus on distortions in international price formation (in bond markets, etc.), and seek to increase profits in the process of correcting these distortions, and by this means make a certain contribution to the unification of global financial markets. Balancing this, there are concerns over the danger of hedge funds making the transition from their present comparatively low-risk operations to more high-risk investment styles as profits decline with increased scale, and over the increased exposure of institutional investors to hedge funds.

Fig. I-1 GDP, trade and FDI growth



Notes: % changes from the previous year, GDP based on purchasing power parity and trade is nominal figures.
Source: WEO(IMF), and local statistics

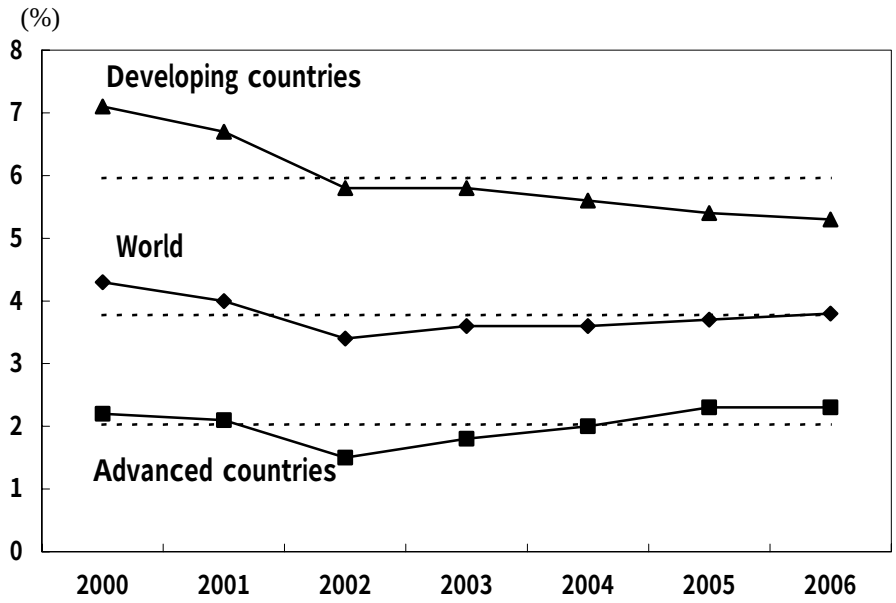
Table I-1 GDP growth rate and contribution rate by country and region

(%)

	2003		2004		2005		2006	
	Growth rate	Contribution	Growth rate	Contribution	Growth rate	Contribution	Growth rate	Contribution
U.S.A.	2.5	13.2	3.6	14.1	3.1	13.0	2.9	10.8
EU25	1.3	7.4	2.4	10.1	1.8	7.9	3.0	11.7
Japan	1.4	2.5	2.7	3.5	1.9	2.6	2.2	2.6
East Asia	8.0	39.5	8.6	33.5	8.6	37.1	9.2	37.3
China	10.0	30.7	10.1	24.8	10.4	28.8	11.1	29.4
ROK	3.1	1.4	4.7	1.6	4.2	1.5	5.0	1.6
ASEAN10	5.9	6.2	6.5	5.3	6.0	5.3	5.9	4.9
India	7.3	10.1	7.8	8.4	9.2	10.9	9.2	10.3
Latin America	2.4	4.6	6.0	8.5	4.6	7.1	5.5	7.7
Brazil	1.1	0.8	5.7	2.9	2.9	1.6	3.7	1.8
Russia	7.3	4.4	7.2	3.4	6.4	3.3	6.7	3.2
World	4.0	100.0	5.3	100.0	4.9	100.0	5.4	100.0
For reference								
Developing countries	6.7	73.0	7.7	65.0	7.5	70.0	7.9	68.6
BRICs	8.0	45.9	8.8	39.4	8.9	44.7	9.4	44.7

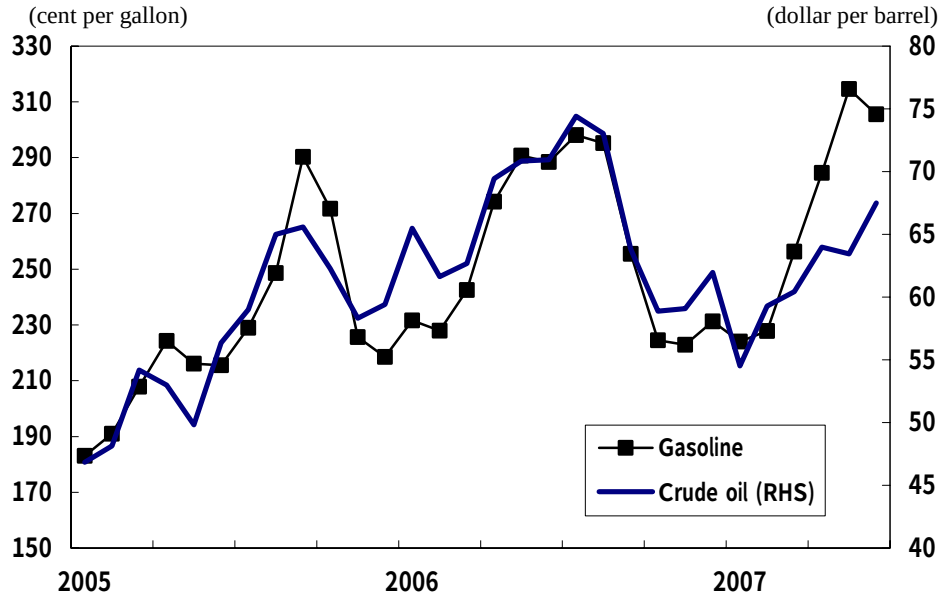
Notes: 1. The world growth rate was calculated by the IMF using purchasing power parity weighting.
2. Each country or region's contribution rate was calculated using 2006 prices and purchasing power parity weighting.
3. Figures may differ from those found elsewhere due to revisions, differing source data, and other factors.
4. East Asia includes the ASEAN10, China, the ROK, Hong Kong, and Taiwan.
5. Developing countries are as defined by WEO (IMF).
Sources: WEO (IMF), national statistics.

Fig. I-2 World inflation trends



Note: broken lines are annual averages between 2000 to 2006. Definitions of developing and advanced countries are based on IMF's WEO.
Source: WEO(IMF)

Fig. I-3 Crude oil and gasoline prices



Note: WTI spot price for crude oil and Retail regular price for gasoline, monthly prices. Source: US EIA

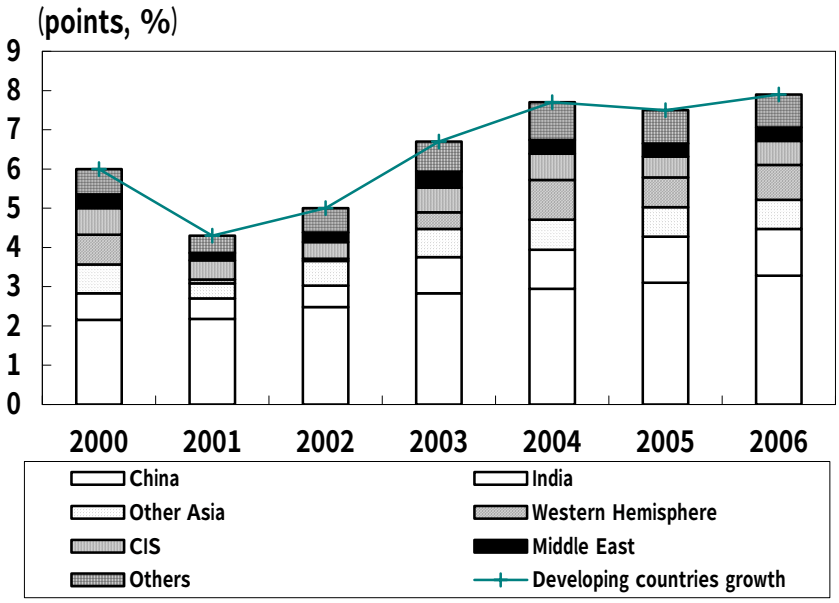
Table I-2 EU Real GDP Growth by expenditure and by country

(Unit: %)

	2006	2007 (forecast)	2008 (forecast)
EU 25	3.0	2.8	2.6
Personal consumption expenditure	2.0	2.4	2.5
Government consumption expenditure	2.1	1.8	1.8
Gross fixed capital formation	5.5	5.0	4.0
Exports of goods and services	9.2	7.0	6.2
Imports of goods and services	9.0	7.0	6.4
EMU	2.7	2.6	2.5
Germany	2.8	2.5	2.4
Spain	3.9	3.7	3.4
France	2.0	2.4	2.3
Italy	1.9	1.9	1.7
UK	2.8	2.8	2.5
Czech Republic	6.1	4.9	4.9
Hungary	3.9	2.4	2.6
Poland	6.1	6.1	5.5

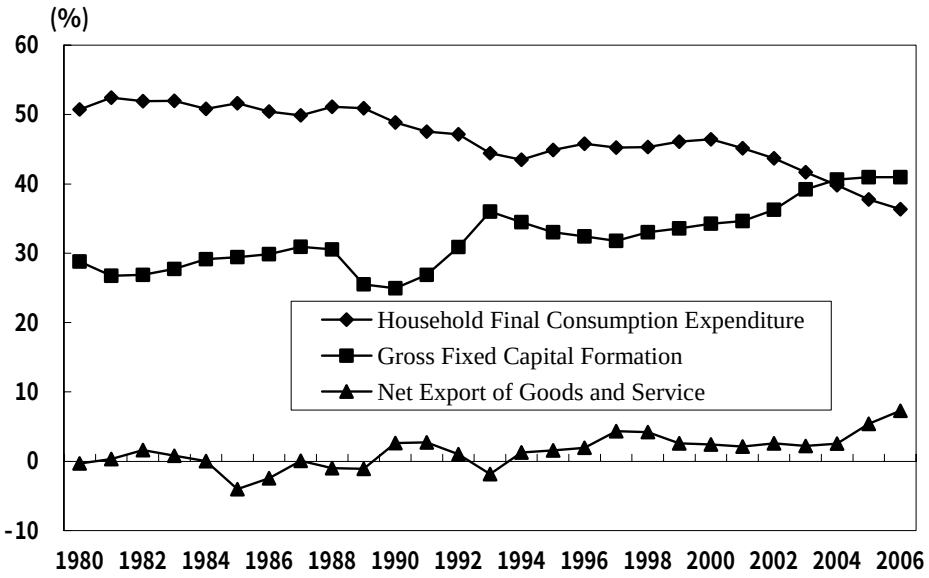
Source: Eurostat

Fig. I-4 Contributoin to developing cuntries total GDP growth by country/region



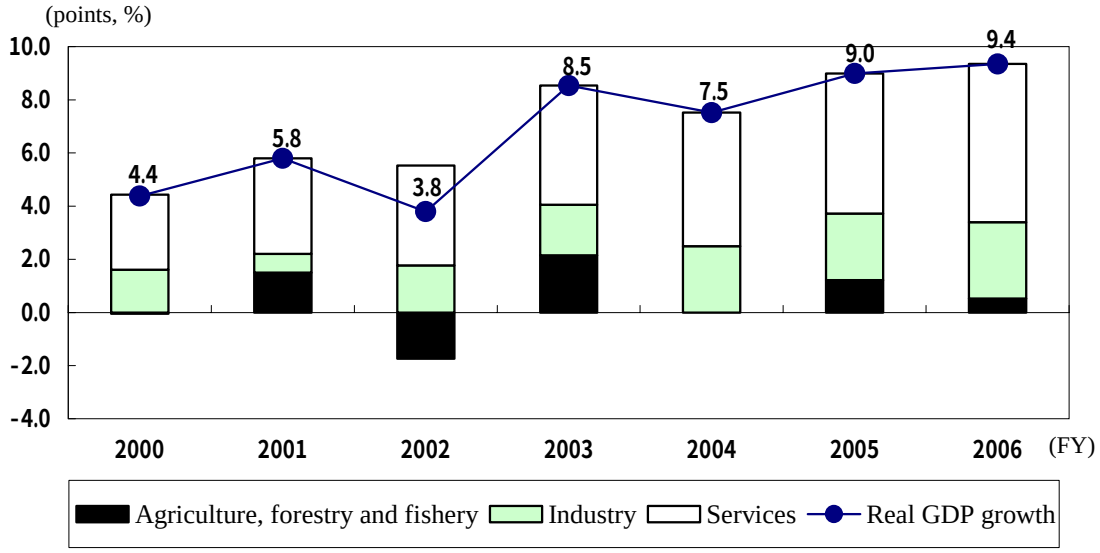
Note: real and PPP basis. Definitions of developing and advanced countries are based on IMF's WEO.
Source: WEO(IMF)

Fig. I-5 % share of consumption, investment and net exports to total GDP in China



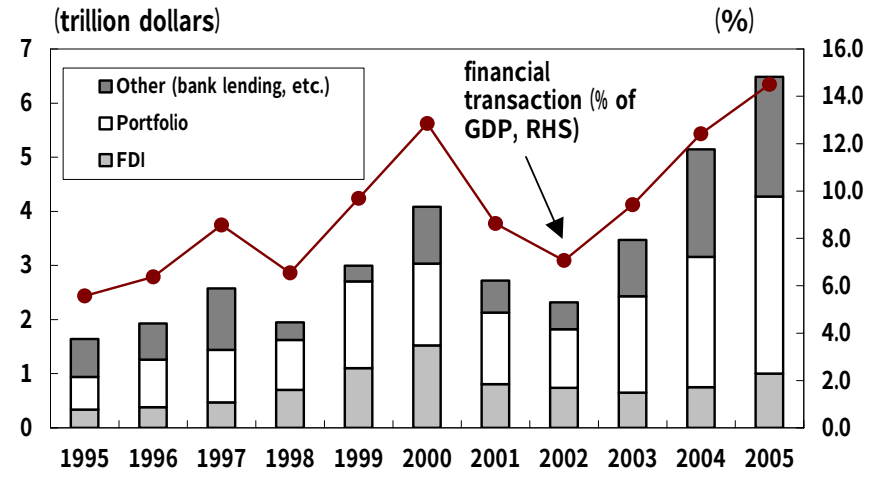
Note: nominal figures,
Source: Chinese official statistics abstracts

Fig. I-6 Real GDP growth contribution by sector in India



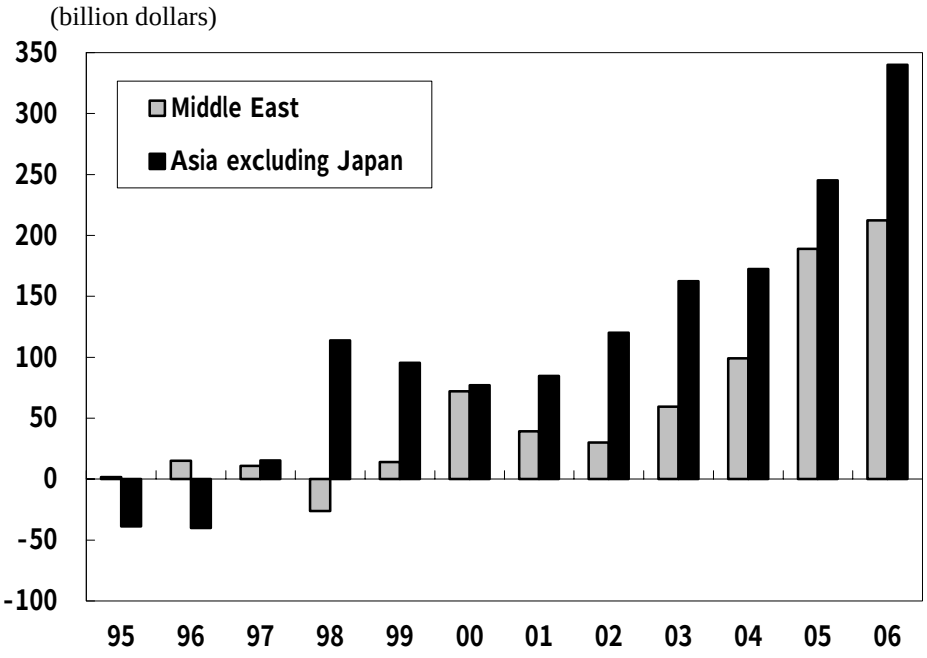
Note: FY99 price, Industry includes mining, manufacturing ,utility (electricity, gas and water supply) and construction. Services include commerce, hotel, transportation, telecommunication, financial, real estate, business services and community and social services.
Source: "Handbook of Statistics on Indian Economy"(RBI), Ministry of Statistics and Programme Implementation

Fig. I-7 Cross boarder financial transaction



Note: Sum of each countries' liabilities (inward flows) of financial account (FDI, Portfolio investment, Other investment including financial derivatives) of balance of payments accounts of the world.
Source: BOP(IMF)

Fig. I-8 Current account balances of Middle East and Asia



Source: WEO(IMF)

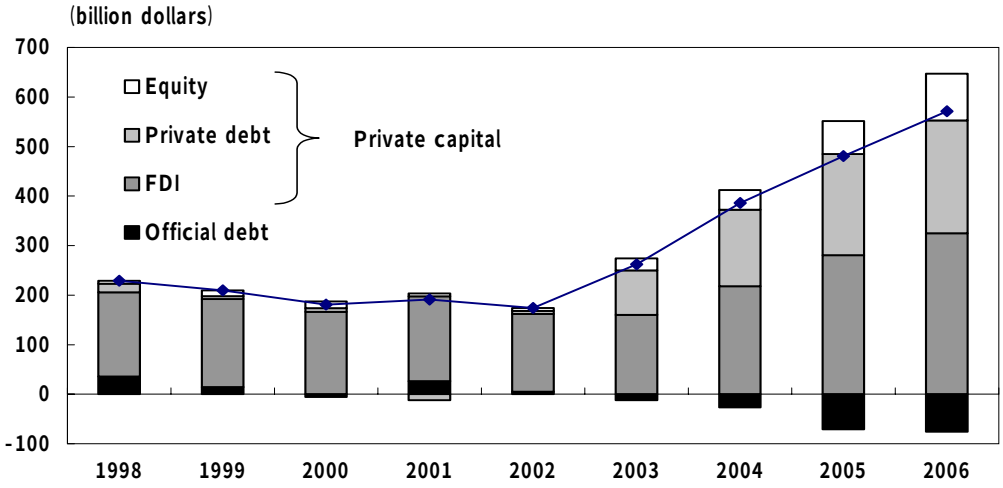
Table I-3 Major Sovereign Wealth Funds (SWFs) of the world

(Unit: billion dollars)

country	SWFs	Assets
UAE	Abu Dhabi Investment Authority	875
Singapore	Government of Singapore Investment Corporation (GIC) and Temasek (corporate M&As)	430
Saudi Arabia	Several SWFs	300
Norway	Government pension fund	300
China	Official fund (scheduled to establish in September 2007)	200

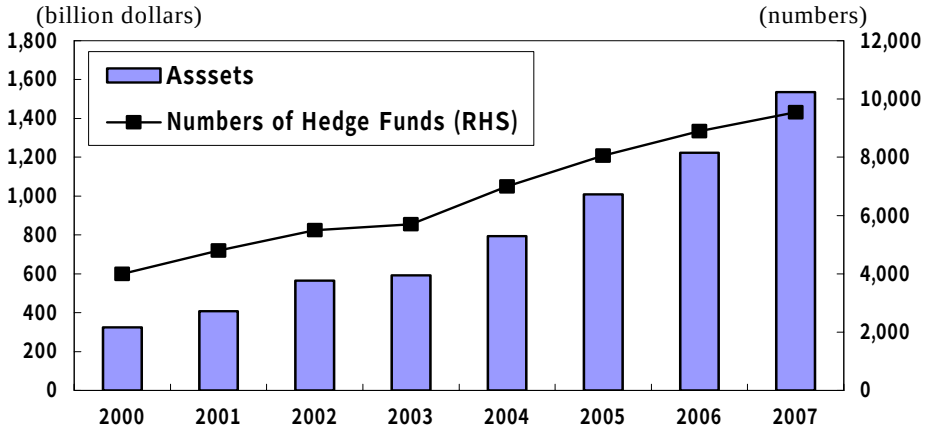
Source: Morgan Stanley, etc.

Fig. I-9 Net capital flows to developing countries



Notes: All items are net inflows. Estimated for year 2006 by the World Bank.
Source: GDF(World Bank)

Fig. I-10 Assets and numbers of Hedge Funds



Note: as of January Source:Hennessee Group

2. World Trade

(1) World trade increased by 15.4% in 2006, the fourth consecutive year of double-digit growth

The volume of world trade (merchandise trade, export basis) maintained a high level in 2006, recording a year-on-year increase of 15.4% to reach $11.8742 trillion (JETRO estimates; Table I-4). This is the first time that world trade has recorded double-digit growth for four consecutive years in 26 years, since the second oil crisis (1976-1980).

In 2006, buoyant world economy and rapid rise in primary product prices contributed to the growth in world trade. On the back of rising prices of primary products such as crude oil and metals, the export price growth rate (IMF) increased by 5.6% (remained unchanged from the 2005 figure of 5.2%), pushing up the nominal export value. Crude oil prices increased by 20.5%, maintaining a high rate of increase though it declined from the increase of 41.3% recorded in 2005. The prices of primary commodities (non-fuel) rose significantly, recording an increase of 28.4% due to the rapid increases in the price of metals such as copper, zinc and nickel (Table I-5). While good harvest saw food prices decrease by 0.3% in 2005, they increased by 9.9% in 2006. Prices of industrial products increased 4.4%, equivalent to the level of increase in 2005.

The world real export growth rate increased by 9.8% in 2006, topping the 2005 figure of 8.8%. The world real GDP growth rate was strong at 5.4%, and the growth in Industrial Production Index also increased significantly, rising to 3.7% against a 2005 figure of 1.8%.

▪The expansion in world trade was boosted by the EU, East Asia, and resource-exporting countries

Almost all countries and regions experienced trade expansion in 2006, but the rate of increase among the developing countries (20.5%, to $5.2055 trillion) outpaced that of the developed countries (11.7%, to $6.6687 trillion) (Table I-6). Looking at the figures by country and region, the contribution to world trade growth (exports) by the EU25 (up by 12.5% to $4.5362 trillion) and East Asia (up by 19.1% to 2.5812 trillion) is particularly remarkable. The contribution rate by the EU25 was 31.9%, while East Asia contributed 26.1%. Exports from raw material exporting countries also rose conspicuously on the back of spiraling primary product prices. In addition to an increase of 25.7% in the Middle East, exports from Australia increased by 16.5%, Brazil by 16.2%, and Russia by 22.5%.

The export growth from the EU25, which accounted for 38.2% of world trade, rose by 12.5% year-on-year, overtaking the 2005 figure of 8.1%. This rise springs from a significant increase in trade within the EU, which recorded a 13.0% increase in 2006 against 7.1% in 2005, as a result of economic recovery in the area. Inward exports accounted for 67.3% of total EU25 exports in 2006. Exports outside the EU also grew 11.6%, up from 10.3% in 2005. The rate of outward export

increased significantly, rising to 31.4% with expanded exports of general machinery and transport equipment to Russia and the CIS. A particularly high increase of 14.8% was recorded by Germany, and it contributed most to the world export growth among developed countries (9.0%). Exports from three Central and Eastern European countries (Poland, Hungary and Czech Republic) also recorded a strong increase of 21.8% on the back of increasing machinery exports.

Due to weak dollar, exports from the U.S. (accounting for 8.7% of the world total) increased by 14.4% to $1.0366 trillion, representing an advance on the 10.7% increase recorded in 2005. However, imports also rose by 10.8%, resulting in an increase of trade deficit to $817.3 billion, against $767.5 billion in 2005. The country's trade deficit with China represents $232.6 billion.

Exports from Russia recorded an increase of 22.5% to reach $226.5 billion Fueled by rising crude oil prices, Russia's crude exports increased 23.0% to $93.6 billion. The value of Russia's crude oil exports was the second largest in the world, and represented 41.3% of Russia's total export value. Imports also increased by 40.1% to $128.2 billion, the first time in four years that the import growth has outpaced that of export. Import figures were driven up by increased imports of automobiles (up 64.6% to $12.7 billion) and IT products (up 56.0% to $14.1 billion).

Brazil recorded strong export growth, up by 16.2% to $137.5 billion. This growth was driven by increases in exports of iron ore (up 22.6% to $8.9 billion), crude oil (up 65.5% to $6.9 billion), and Base metals and related products (up 16.0% to $15.3 billion).

Although the rise in crude oil prices has slowed growth in exports from the Middle East from the figure of over 30% recorded in 2004 since 2005, the region still recorded a 25.7% increase in 2006, surpassing the world export growth rate.

In East Asia, China's export value increased by 27.2% to $969.1 billion, making 2006 the fifth consecutive year of growth over 20%. Contributing to this figure were increases in exports of IT products (up 27.9% to $316.3 billion), which represent 30% of China's total export value, textile products (up 28.3% to $138.1 billion), and steel products (up 52.2% to $51.9 billion). China's exports represented 8.2% of the total value of world exports in 2006, putting the country in third place behind Germany (9.4%) and the U.S. (8.7%) as an exporting country.

The ASEAN countries (Thailand, Malaysia, Indonesia, the Philippines, Singapore and Vietnam) also recorded strong growth in 2006, with export value increasing by 17.4% year-on-year to $751.0 billion. Vietnam displayed the most conspicuous growth among the ASEAN countries, a figure of 22.8%. Vietnam's export has increased by over 20% per year since 2003, and in 2006 exports were strong in textiles (up 24.8% to $6.1 billion) and crude oil (up 12.2% to $7.7 billion).

India's trade volume increased significantly, with exports up 21.7% and imports up 24.9% year-on-year. Exports of petroleum products were particularly strong, recording an increase of 73.0%, and rising from 10.2% to 14.5% as a percentage of India's total exports.

Australian exports increased by 16.5% to $123.4 This growth was mainly due to favorable

increase in iron ore (up 28.8% to $10.8 billion), liquefied natural gas (LNG) (up 37.4% to $3.9 billion), coal (up 5.6% to $17.5 billion) and base metals and related products (up 42.6% to $11.8 billion), buoyed by spiraling primary product prices.

- **Mineral fuels and base metals are engines of world trade growth**

Looking at trade trends by product (export base), the majority of products recorded double-digit increases in 2006 (Table I-7). Particularly high growth was recorded by mineral fuels (up 25.7%) and base metals and related products (up 26.4%). These two categories contributed 19.3% and 12.7% respectively to the increase in world trade.

Due to the escalating prices, mineral fuel exports have risen in the 25-35% range for four consecutive years; between 2002 and 2006 the average growth rate was 30.8. During this period, the mineral fuel share of world trade rose from 8.1% in 2002 to 12.6% in 2006.

In 2006, petroleum exports grew by 30.0% to $852 billion, with growth somewhat slower than the 38.9% posted in. The Middle East accounted for almost 40% (39.1%) of world crude oil exports, but the increasing presence of Russia and Africa was also noteworthy in 2006. Russia accounted for 11.0% of world crude oil exports in 2006, an increase of 3.7 points since 2000. Africa's share of world crude oil exports rose to 19.6% (a 4.0-point increase since 2000) with increased exports from Nigeria, Libya, Angola and Algeria.

LNG exports also increased significantly, up 32.9%. The past four years have seen an average increase of 27.5% in LNG exports driven by rising prices and increasing global demand. Indonesia, the world's largest exporter of natural gas, accounted for 19.5% of exports, followed by Qatar at 15.5% and Malaysia at 12.4%. In 2006, export growth from Asia's two main exporting countries fell below the rate of global growth rate, with Indonesia recording a 16.2% increase to $10 billion, and Malaysia recording 15.7% to $6.3 billion. On the other hand, Qatar's exports increased 46.4% to $7.9 billion (estimated figures) with an expansion of exports to Japan and Korea. Australia, the world's sixth largest exporter of LNG, commenced exports to China in 2006, and recorded an increase of 37.4% to $3.9 billion dollars. Indonesia's share of world total LNG exports has been declining year by year, and the figure of 19.5% recorded in 2006 represents a 13.8-point decline against the 33.3% recorded by Indonesian exports in 2000. Further declines are expected in future due to problems in liquefaction plants and the drying-up of gas fields.

Among base metals and related products, steel exports recorded an increase of 16.9% to $531.7 billion. China's steel exports increased by 52.2% to $51.9 billion, and the country increased its share in the world's steel market to 9.8% in 2006, from 7.5% in 2005. Significant increases in copper exports were recorded among Central and South American countries, with Chile's exports increasing by 68.1% and Peru's by 71.8%. In aluminum, there was a considerable expansion in exports from Russia (up 31.9%) and Canada (up 41.9%).

As prices of mineral fuels continue to spiral upwards, exports of ethanol (ethylene/alcohol, a fuel that has attracted interest as an oil substitute) continued their spectacular rise, increasing by 64.9% (against 57.0% in 2005) to $3.5 billion. This increase is linked to the fact that rising crude oil prices and the need to respond to global warming have increased demand for bio-fuels, consequently driving up prices. Increased exports to the U.S. (up 10.7-fold to $700 million) among others have seen Brazil, the world's largest exporter, double its exports to $1.4 billion (up 93.6%). Brazil boasts an overwhelmingly high presence in ethanol export, increasing its share of total world exports from 35.0% in 2005 to 41.1% in 2006. China has also increased its share of world mineral fuel exports from 2.9% to 12.3%, recording an approximately 7-fold increase against the previous year to reach an export figure of $0.4 billion on the back of increased exports to Korea (registering a 5.5-fold increase) and Singapore (registering an 11.7-fold increase). Among ethanol import figures, imports to the U.S. rose sharply, increasing 4.7-fold year-on-year to $1.5 billion.

The export value of corn, a raw material in the production of ethanol, had seen negative growth in 2005 (down 3.6% year-on-year), but increased 16.4% in 2006 to $13 billion.

Machinery and equipment exports grew by 12.9% to $4.9266 trillion, accounting for 40% of exports worldwide. In 2006, exports from China accounted for 9.9% of total machinery and equipment exports, while Japan accounted for 9.9% of total exports, making China number 3 in the world, behind Germany (12.5%) and the U.S. (11.3%). (Fig. I-11). Electrical equipment exports represented 46.7% of China's figure of $487.1 billion in machinery and equipment exports, followed by general machinery (38.3%), transport machinery (7.9%) and precision machinery (7.1%). However, exports by foreign-affiliated companies accounted for 58.2% of China's total export volume in 2006, and the greater percentage of machinery and equipment exports were also assumed to be made by these companies.

With demand for automobiles growing in both the U.S. and Europe, automobile exports grew by 10.2% to $644.2 billion. As major automakers shifting production overseas, passenger vehicle exports from developing countries including China, Thailand, Mexico and South Africa have increased significantly (Fig. I-12). In 2006, the developing countries accounted for 18.2% of all passenger vehicle exports, a 4.8-point increase over the figure of 13.4% recorded in 2003. Mexico especially displayed tremendous growth in up 28.9% to $17.4 billion. Eastern European countries also recorded significant increases, with the Czech Republic up 35.3%, Slovakia up 66.5%, and Hungary up 65.3%. In Asia, Thailand and China recorded large increases in automotive exports, up 35.8% and 80.7% respectively. According to the Japan Automobile Manufacturers Association (JAMA), in 2006, Japanese manufacturers produced 11.48 million units domestically, and 10.97 million units overseas, an overseas production ratio of 48.9%. The ratio of domestic to overseas production is expected to be reversed in 2007.

The developing countries accounted for 27.6% of world motorcycle exports in 2006, with China's

figure of 17.5% placing it second only to Japan (34.9%).

World textile exports grew by 8.7% to reach $551.8 billion. China, the world's largest exporter of textiles, continued the extraordinary expansion of its exports, recording a 28.3% increase to $138.1 billion despite the U.S. and the EU import restrictions to Chinese textiles since 2005.[3] Since the abolition of the quotas established under the WTO's Multifibre Arrangement (MFA), most countries have seen their share of world textile exports decline, while China's share increased by 6.6 points (18.4% to 25.0%) from 2004 to 2006.

---

3. In November 2005, the U.S. and China signed a Memorandum of Understanding on trade in textile and apparel. According to this Memorandum, 21 categories of products exported from China to the U.S. would become subject to import restrictions until 2008. In June 2005, an agreement was reached between China and the EU under which China would voluntarily limit exports of 10 categories of textile products to the EU until the end of 2007.

- **Global IT trade grows 13.9% to $1.898 trillion**

Exports of IT products (finished IT products such as computers and video equipment and IT parts such as semiconductors) recorded strong growth in 2006, up by 13.9% to $1.898 trillion. With the collapse of the IT bubble, trade in IT products stagnated in 2001 (down 11.8%) and 2002 (up 1.5%), but has demonstrated more than two-figure growth every year since 2003.

The most notable phenomenon of the year was the stunning growth in IT exports from developing countries, whose share rose from 42.0% in 2000 to 55.9% in2006. China became the world's largest exporter of finished IT products in 2003, of IT parts in 2005, and of IT products as a whole in 2004. As for 2006, China accounted for 16.7% of IT exports worldwide, a more than approximately four-fold increase since 2000, when the nation recorded a share of 4.1%. In 2006, Japan took a 9.4% share of world exports of IT parts, putting it at the number 3 position as an exporter, while its share of exports of finished IT products declined, placing the nation in number 6 position as an exporter behind China, the U.S., the UK, Germany and the Netherlands (Table I-8).

Almost all categories excepting audio devices either remained at the same level or increased against the previous year.

Flat panel displays demonstrated the greatest growth among IT products, increasing by 21.2% to $98.2 billion. China's exports increased by 38.4% to $24.0 billion, representing a 24.4% share of the world market (a 3-point increase over the 2005 figure of 21.4%). Korea eclipsed Japan to take 2nd place as an exporter in this market, increasing its exports by 27.5% to $13.3 billion against Japan's increase of 17.3% to $12.3 billion.

Dramatic growth was also recorded in video equipment exports, with an increase of 17.5% fueled by global demand for liquid crystal televisions and plasma televisions. Telecommunications equipment exports also grew well, up 19.2% to $278.9 billion. In this area, the category that includes mobile phones (HS852520) recorded an increase of 14.6%. U.S. Strategy Analytics indicates that the number of mobile handsets shipped globally increased by 24.7% as new contracts have been signed in emerging economies such as China and India, reaching a new record of 1 billion units in 2006. In India, enormous population and a low diffusion rate led to a net increase of 67.27 million contracts in FY2006, bringing the nation's total number of users to 166.05 million (data from Telecom Regulatory Authority of India [TRAI]).

Exports of semiconductors and electronic component recorded a 14.2% increase to $422.2 billion, representing an 8.6-point year-on-year increase, and exports of electronic tubes and integrated circuits were both up approximately 8 points against the previous year. According to the U.S. Semiconductor Industry Association (SIA), favorable economic conditions in the main markets and strong sales of domestic electronic products such as high-definition television (HDTV) sets contributed to the expansion of the market for semiconductors.

(2) China's trade structure changing, Imports of intermediate goods slowing

China's trade surplus has expanded markedly since 2005. The nation's 2006 balance of trade rose sharply up $75.6 billion from the previous year to reach $177.5 billion (Table I-9). Until this point, export and import growth rates had been similar. Since 2005, however exports have grown 7-10 points faster than imports. The expansions of foreign-affiliated parts manufacturers' production and China's growing technological capability have resulted in rapid growth in local production of intermediate goods. The previous pattern of importing intermediate goods for assembly in China, followed by export of final goods, is changing.

In 2006, intermediate goods represented 56.0% of China's imports, and final goods represented 57.2% of its exports. Intermediate goods were mainly imported from Korea, Taiwan, Japan and ASEAN (imports from these countries and regions accounted for 60% of China's total imports of intermediate goods). The majority of final goods were exported to Europe, the U.S. and Japan. As part of an East Asian production network, intermediate goods are imported from within the region, assembled and processed in China, and the final goods are exported to developed countries.

Growth in China's imports of intermediate goods and exports of final goods had previously been almost in balance. However, the growth in the nation's imports of intermediate goods peaked at 46.8% in 2002, and dropped to 17.5% in 2006. Meanwhile, the final goods' growth rate was much higher, at 25.0% in 2006. Imports of intermediate goods, which accounted for 61.4% of China's total imports in 2002, accounted for only 56.0% in 2006. The share of final goods in the nation's total exports also declined, but the fall was small compared to that of imports of intermediate goods

(Fig. I-13). Despite the slow down of imports of intermediate goods imports, the nation's exports of final goods such as home electronics and transportation equipment are continuing to grow strongly, and have recorded an increase of around 30% since 2003.

This change in China's trade structure shows the increase in domestic production of intermediate goods as well as the increasing infiltration of foreign-affiliated parts manufacturers and improvement in Chinese companies' technology, resulting in a greater reliance on domestic production rather than import, for the sourcing of intermediate goods.

Japanese companies are working to expand local procurement in China. In JETRO's November-December 2006 survey of Japanese manufacturers in Asia, we found the percentage of Japanese companies doing business in China that are increasing local procurement was up 4.0 points to 50.9%. Japanese automotive manufacturers are also seeking to expanding their local procurement in China in the next three to four years.

■ **The world trade begins to decline in 2007**

Trade (export) statistics for the 16 major countries and regions for which quarterly data is available up to the first quarter of 2007 show that trade growth slowed to 10.5% in the first quarter of 2007 (Table I-10).

By product, there was a decline in mineral fuels, including crude oil (down 5.9%), in addition to a conspicuous slowing of growth in the area of machinery and equipment. The IT-related product exports displayed a declining tendency from the third quarter of 2006, and slowed to record growth of only 2.5% in the first quarter of 2007.

(3) World service trade increases by 10.6% in 2006

World trade in services (cross-border private sector service exports, excluding government services) remained the same in 2006 as the previous year, recording an increase of 10.6% to reach $2.7108 trillion (Table I-11).

By category, trade in transportation increased by 9.2% to $625.9 billion, travel by 7.3% to $737.1 billion, and "other services"s (financial services, insurance, telecommunications, royalties and license fees, etc.) increased by 13.1% to $1.3477 trillion. "Other services", a category which has recorded double-digit growth for five consecutive years, was the only category of services recording the growth that has exceeded that of the previous year.

According to the World Tourism Organization (WTO), the number of travelers (arrivals basis) globally increased by 4.5% to 842 million in 2006. Despite rising crude oil prices and safety concerns, the strong growth in the travel sector recorded in 2005 continued in 2006.

In 2006, trade in services maintained strong growth at levels similar to the previous year in the majority of countries and regions (Table I-12). Looking at the main 20 service-exporting countries,

Japan surpassed France to take fourth place behind the U.S., the UK and Germany.

Service exports from the U.S., the leading nation in service trade, increased by 9.4% to $387.4 billion in 2006. U.S. service imports increased 9.1% to $306.7 billion. Growth in the "other services", which accounted for approximately 50% of U.S. service exports, was particularly strong against a background of increased trade in financial services. An increase of 11.5% was recorded in this category.

Services trade grew by 8.8% to reach $1.2472 trillion in the EU25. Growth in transport services declined to 7.4% against a figure of 11.2% in 2005, but growth accelerated in both travel services (from 4.6% to 6.3%) and "other services" (from 9.5% to 10.6%). The growth in travel services is considered to be an effect of large-scale sporting events.

In Asia, service trade grew by 15.2% to reach $613.9 billion. China's exports grew 17.0% to $86.5 billion, giving the nation a 3.2% share of world services exports. Trade in the services sector increased by 11.9% to $57.3 billion in Singapore. Growth in travel services was particularly marked in Singapore, with the rate of growth in this area accelerating from 9.8% in 2005 to 19.5% in 2006. Singapore removed the ban of casinos in 2005, and the government has set a target of doubling the number of foreign tourists and tripling tourism revenues by 2015.

The rate of growth of services trade in India was the highest recorded by any of the major countries, with year-on-year growth of 33.8% in exports and 40.5% in imports. Software services represented almost 40% of India's service exports, and this category grew strongly, increasing 33.5% to $28.8 billion.

Table I-4 World trade indices

		Unit	2002	2003	2004	2005	2006
World merchandise trade (based on exports)		US$ billion	6,447	7,498	9,111	10,381	11,874
	Nominal growth rate	%	4.9	16.3	21.5	13.9	15.4
	Real growth rate	%	4.1	6.1	12.6	8.8	9.8
	Export price growth rate	%	0.8	10.2	9.0	5.2	5.6
World trade in services		US$ billion	1,608	1,842	2,211	2,452	2,711
	Growth rate	%	7.3	14.6	20.0	10.9	10.6
World real GDP growth rate		%	3.1	4.0	5.3	4.9	5.4
Growth in industrial production index (22 industrialized economies)		%	-0.5	1.3	2.9	1.8	3.7
Crude oil	Price (average)	US$/barrel	25.0	28.9	37.8	53.4	64.3
	Demand	Million barrels/day	77.7	79.2	81.9	83.1	83.7
Change in nominal effective exchange rate of U.S. dollar		%	-1.6	-12.3	-8.2	-1.5	-0.9

Notes: 1. 2006 trade value and growth rates are JETRO estimates.
2. Real GDP growth rates based on purchasing power parity.
3. A negative change in the nominal effective exchange rate of the U.S. dollar indicates depreciation.
Sources: IMF, *IFS* , and *WEO* ; WTO; BP; and national trade statistics.

Table I-5 Trends in trade price indices by commodity

(%)

	2002	2003	2004	2005	2006
Industrial products	2.3	14.1	9.3	3.4	4.4
Crude Oil	2.5	15.8	30.7	41.3	20.5
Primary commodities	1.7	6.9	18.5	10.3	28.4
Food	3.4	5.1	14.3	-0.3	9.9
Beverage	16.6	4.9	3.0	21.0	6.3
Agricultural raw materials	1.8	3.7	5.5	1.6	10.1
Metals	-2.7	12.2	36.1	26.4	56.5

Source: IMF, WEO.

Table I-6 World trade by country and region (2006)

(US$ million, %)

			Exports				Imports			
			Value	Growth rate	Share	Contribution	Value	Growth rate	Share	Contribution
NAFTA			1,675,209	13.1	14.1	12.3	2,459,938	11.3	20.1	16.1
	U.S.A.		1,036,635	14.4	8.7	8.2	1,853,938	10.8	15.1	11.6
	Canada		388,113	7.6	3.3	1.7	349,795	11.2	2.9	2.3
	Mexico		250,461	17.0	2.1	2.3	256,205	15.7	2.1	2.2
EU25			4,536,175	12.5	38.2	31.9	4,624,074	13.7	37.8	35.8
	EU15		4,156,494	11.7	35.0	27.4	4,187,369	12.7	34.2	30.4
		Germany	1,113,036	14.8	9.4	9.0	909,523	17.3	7.4	8.6
		France	489,853	5.8	4.1	1.7	534,845	6.2	4.4	2.0
		UK	447,619	13.6	3.8	3.4	566,031	12.7	4.6	4.1
		Italy	411,234	10.3	3.5	2.4	437,759	13.8	3.6	3.4
		Netherlands	462,848	14.1	3.9	3.6	416,892	14.8	3.4	3.5
		Belgium	369,328	10.5	3.1	2.2	353,843	11.1	2.9	2.3
		Spain	205,482	6.7	1.7	0.8	316,621	9.8	2.6	1.8
		Sweden	147,506	13.3	1.2	1.1	126,771	13.9	1.0	1.0
	New EU members		379,681	22.9	3.2	4.5	430,255	23.7	3.5	5.3
		3 central and eastern European countries	280,249	21.8	2.4	3.2	296,683	21.5	2.4	3.4
Japan			647,290	8.2	5.5	3.1	579,294	11.7	4.7	3.9
East Asia			2,581,248	19.1	21.7	26.1	2,295,051	16.2	18.8	20.6
	China		969,073	27.2	8.2	13.1	791,614	19.9	6.5	8.5
	ROK		325,465	14.4	2.7	2.6	309,383	18.4	2.5	3.1
	Taiwan		213,004	12.7	1.8	1.5	202,038	11.2	1.7	1.3
	Hong Kong		322,664	10.4	2.7	1.9	335,753	11.7	2.7	2.3
	ASEAN		751,043	17.4	6.3	7.0	656,264	14.8	5.4	5.4
		Thailand	130,621	18.9	1.1	1.3	128,652	8.9	1.1	0.7
		Malaysia	160,845	14.1	1.4	1.3	131,223	14.5	1.1	1.1
		Indonesia	100,799	17.7	0.8	1.0	61,065	5.8	0.5	0.2
		Philippines	47,037	14.7	0.4	0.4	51,533	17.0	0.4	0.5
		Singapore	271,916	18.4	2.3	2.7	238,900	19.4	2.0	2.5
		Vietnam	39,826	22.8	0.3	0.5	44,891	21.4	0.4	0.5
India			121,259	21.7	1.0	1.4	172,876	24.9	1.4	2.2
Switzerland			147,884	13.1	1.2	1.1	141,468	11.9	1.2	1.0
Australia			123,372	16.5	1.0	1.1	132,753	11.9	1.1	0.9
Brazil			137,470	16.2	1.2	1.2	91,396	24.3	0.7	1.1
Argentina			46,528	15.3	0.4	0.4	34,159	19.1	0.3	0.4
Russia			226,524	22.5	1.9	2.6	128,151	40.1	1.0	2.4
Turkey			85,502	16.4	0.7	0.8	138,295	18.4	1.1	1.4
South Africa			57,897	11.6	0.5	0.4	68,157	23.9	0.6	0.8
World			11,874,183	15.4	100.0	100.0	12,239,837	14.6	100.0	100.0
Industrial countries			6,668,707	11.7	56.2	44.0	7,362,212	12.0	60.1	50.8
Developing countries			5,205,476	20.5	43.8	56.0	4,877,625	18.6	39.9	49.2
BRICs			1,454,326	24.8	12.2	18.3	1,184,036	22.9	9.7	14.2

Notes: 1. Value of world trade and for the EU25, new EU members, industrial countries, and developing countries based on JETRO estimates.
2. The 3 central and eastern European countries are Poland, Hungary, and the Czech Republic.
3. ASEAN consists of 6 countries: Thailand, Malaysia, Indonesia, the Philippines, Singapore, and Vietnam.
4. Definitions of industrial countries and developing countries are based on the IFS (IMF) .
Sources: National trade statistics.

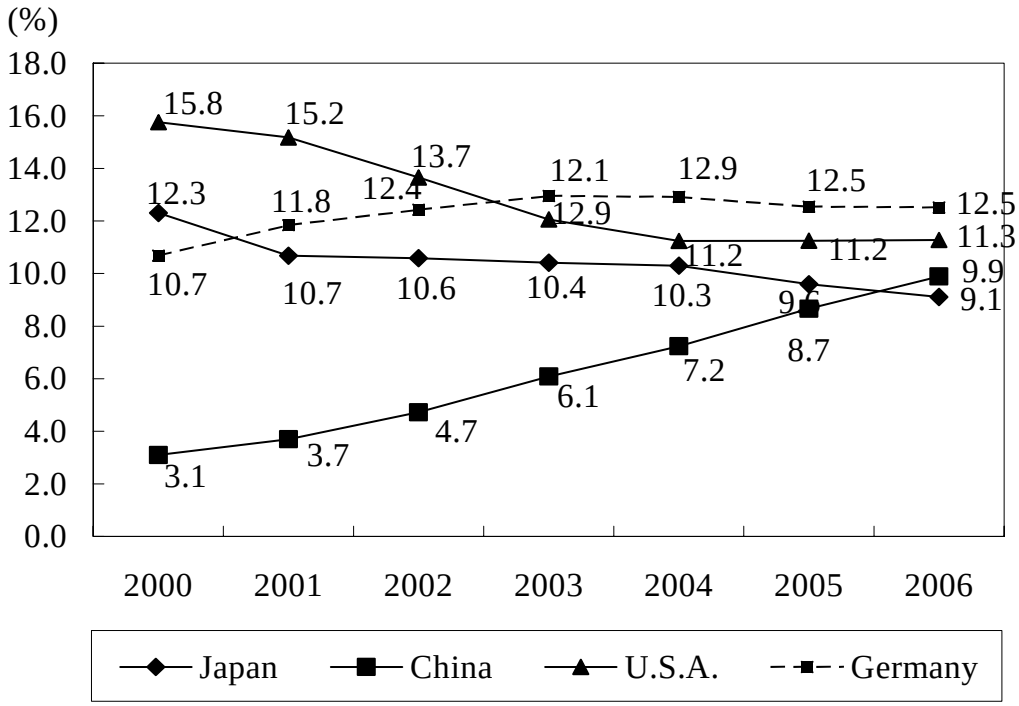
Table I-7 World trade (exports) in 2006

(US$ million, %)

	Value	Growth rate	Share	Contribution
Total value	11,874,183	15.4	100.0	100.0
Machinery and equipment	4,926,611	12.9	41.5	35.6
General machinery	1,583,395	12.0	13.3	10.7
Air conditioners	24,841	9.9	0.2	0.1
Electrical equipment	1,633,948	15.4	13.8	13.8
Transport equipment	1,307,632	10.9	11.0	8.1
Automobiles	644,231	10.2	5.4	3.8
Passenger vehicles	541,039	9.6	4.6	3.0
Motorcycles	18,310	11.1	0.2	0.1
Automotive parts	281,531	9.3	2.4	1.5
Precision instruments	401,663	13.2	3.4	3.0
Chemicals	1,502,311	12.5	12.7	10.5
Industrial chemicals	1,005,270	12.1	8.5	6.8
Pharmaceuticals and medical supplies	289,964	15.2	2.4	2.4
Plastics and rubber	497,041	13.3	4.2	3.7
Foodstuffs	686,362	9.6	5.8	3.8
Seafood	62,202	7.7	0.5	0.3
Tuna	2,262	-10.8	0.0	0.0
Grains	46,675	11.8	0.4	0.3
Corn	12,960	16.4	0.1	0.1
Processed food products	309,768	12.2	2.6	2.1
Ethanol (Ethyl alcohol)	3,495	64.9	0.0	0.1
Oils, fats, and other animal and vegetable products	78,688	10.4	0.7	0.5
Soybeans	16,056	2.9	0.1	0.0
Animal and plant fats	43,125	15.6	0.4	0.4
Miscellaneous manufactured goods	342,855	10.2	2.9	2.0
Iron ore	33,760	18.7	0.3	0.3
Mineral fuels, etc.	1,559,176	25.0	13.1	19.7
Mineral fuels	1,494,286	25.7	12.6	19.3
Coal	50,346	7.5	0.4	0.2
LNG	51,209	32.9	0.4	0.8
Petroleum and petroleum products	1,276,577	28.4	10.8	17.8
Crude oil	852,016	30.0	7.2	12.4
Textiles and textile products	551,806	8.7	4.6	2.8
Synthetic fibers and textiles	66,456	3.0	0.6	0.1
Clothing	306,229	11.9	2.6	2.1
Knit products	147,777	16.3	1.2	1.3
Cloth	158,452	8.1	1.3	0.7
Base metals and base metal products	965,735	26.4	8.1	12.7
Steel	531,721	16.9	4.5	4.8
Primary steel products	326,775	15.0	2.8	2.7
Steel products	204,947	20.0	1.7	2.2
Copper	49,969	81.4	0.4	1.4
Nickel	15,229	55.2	0.1	0.3
Aluminum	51,640	35.9	0.4	0.9
Lead	3,260	30.6	0.0	0.0
IT products				
Computers and peripherals	522,716	9.6	4.4	2.9
Computers and peripherals	307,871	9.0	2.6	1.6
Parts for computers and peripherals	214,846	10.4	1.8	1.3
Office equipment	22,169	18.8	0.2	0.2
Telecommunications equipment	278,854	19.2	2.3	2.8
Semiconductors and electronic components	422,160	14.2	3.6	3.3
Electron tubes and semiconductors	73,493	12.8	0.6	0.5
Integrated circuits	348,667	14.5	2.9	2.8
Other electronic components	354,596	15.9	3.0	3.1
Flat panel displays	98,206	21.2	0.8	1.1
Video equipment	135,013	17.5	1.1	1.3
Audio equipment	13,455	-8.7	0.1	-0.1
Measuring and testing equipment	149,751	13.5	1.3	1.1
IT parts	991,602	14.0	8.4	7.7
Finished IT products	906,394	13.9	7.6	7.0
Total IT equipment	1,897,996	13.9	16.0	14.6

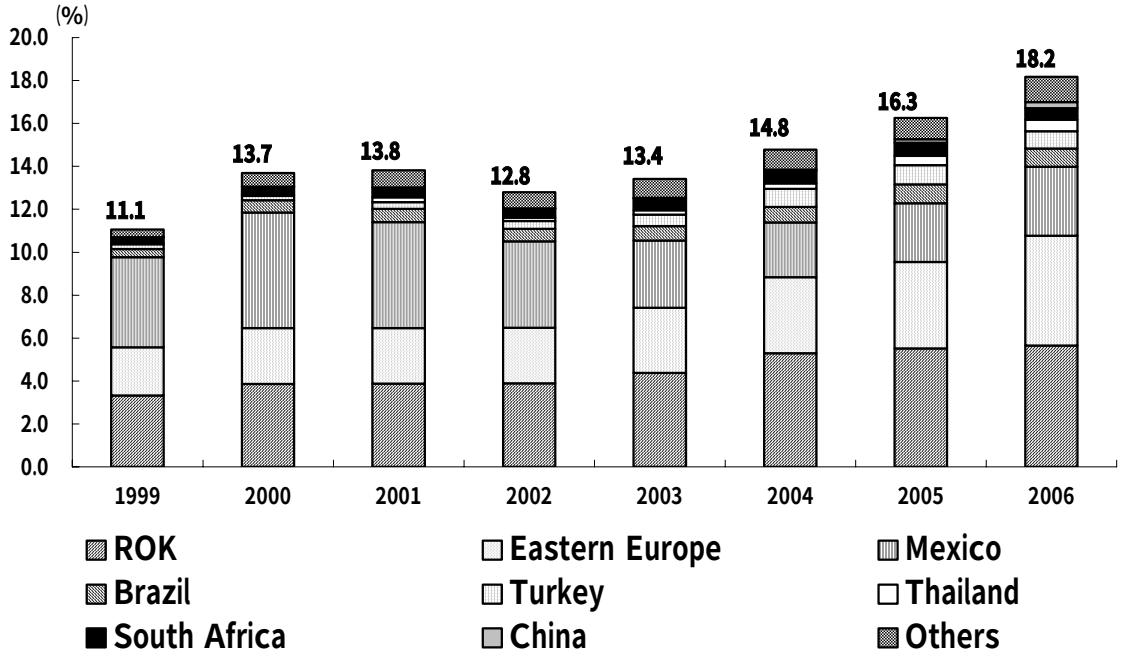
Sources: National trade statistics.

Fig. I-11 Shares of world machinery and equipment exports



Sources: National trade statistics.

Fig. I-12 Developing countries' share of world passenger vehicle exports



Notes: 1. Definition of developing countries based on the IFS(IMF).
2. Eastern Europe are the Czech Republic, Poland, Slovakia, Hungary, and Slovenia.
Source: National trade statistics.

Table I-8 Top ten countries/regions in IT-related exports

(%)

Rank	IT Products (total)		IT parts		IT finished products	
	Countries/regions	Share	Countries/regions	Share	Countries/regions	Share
1	China	16.7	China	12.6	China	21.1
2	U.S.A.	9.7	U.S.A.	10.2	U.S.A.	9.2
3	Japan	7.3	Japan	9.4	UK	8.0
4	Germany	6.2	Taiwan	6.6	Germany	7.1
5	UK	5.1	ROK	5.9	Netherlands	5.4
6	ROK	5.0	Germany	5.3	Japan	4.9
7	Netherlands	4.4	Malaysia	4.5	Mexico	4.6
8	Taiwan	4.2	Singapore	4.0	ROK	4.1
9	Malaysia	3.9	Netherlands	3.5	Malaysia	3.2
10	Mexico	3.0	UK	2.4	France	2.7

Sources: National trade statistics.

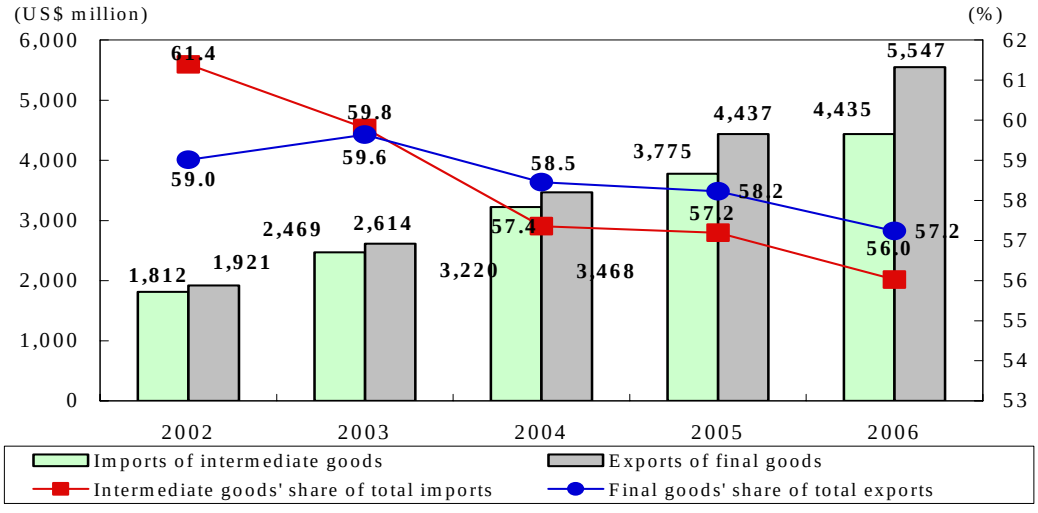
Table I-9 China's trade balance

(US$ million, %)

	2000	2001	2002	2003	2004	2005	2006
Trade balance	24,115	22,541	30,362	25,534	31,946	101,881	177,459
Change	-5,098	-1,574	7,821	-4,828	6,411	69,935	75,579
Exports	249,212	266,155	325,565	438,371	593,369	761,999	969,073
Growth rate	27.8	6.8	22.3	34.6	35.4	28.4	27.2
Imports	225,097	243,613	295,203	412,836	561,423	660,119	791,614
Growth rate	35.8	8.2	21.2	39.8	36.0	17.6	19.9

Source: China's trade statistics.

Fig. I-13 China's exports of final goods and imports of intermediate



Note: Based on the UN BEC classification. Intermediate goods do not include processed fuels.
Source: China's trade statistics.

Table I-10 Quarterly trade by major countries and regions in exports of major products

(US$million, growth rate: %)

	Major 16 countries/regions ' share of world total in 2006	2006				2007
		Ⅰ	Ⅱ	Ⅲ	Ⅳ	Ⅰ
Total value	59.4	1,664,404	1,786,621	1,809,540	1,927,602	1,839,761
		(14.3)	(14.5)	(14.0)	(14.0)	(10.5)
Machinery and equipment	76.3	879,910	939,991	930,288	1,008,102	965,182
		(15.4)	(14.3)	(12.8)	(12.8)	(9.7)
General machinery	73.1	266,757	284,170	292,128	314,388	305,080
		(8.3)	(9.8)	(13.6)	(15.5)	(14.4)
Electrical equipmetn	80.1	304,428	330,055	327,866	346,290	318,758
		(24.0)	(22.9)	(13.3)	(9.8)	(4.7)
Transport equipment	74.7	234,953	248,169	230,676	261,884	263,620
		(12.9)	(9.7)	(11.0)	(13.8)	(12.2)
Precision instruments	78.8	73,771	77,596	79,618	85,541	77,724
		(17.2)	(13.1)	(12.6)	(12.1)	(5.4)
Chemicals	61.8	216,607	231,645	237,610	243,604	255,249
		(7.8)	(10.8)	(16.9)	(17.9)	(17.8)
Foodstuffs	45.8	70,846	74,993	80,149	88,609	83,748
		(7.9)	(6.8)	(13.2)	(16.2)	(18.2)
Textiles and textile products	58.1	69,539	79,375	89,456	82,333	74,768
		(8.3)	(11.3)	(12.6)	(15.5)	(7.5)
Steel	55.4	62,895	70,999	76,814	83,704	86,711
		(0.9)	(8.3)	(30.4)	(39.4)	(37.9)
Iron ore (Imports)	82.5	8,874	8,835	10,293	9,961	11,438
		(31.3)	(6.5)	(24.0)	(15.0)	(28.9)
Mineral fuels (Imports)	69.6	262,555	282,123	300,385	252,227	248,183
		(38.0)	(33.4)	(24.0)	(-1.7)	(-5.5)
Crude oil (Imports)	70.9	154,374	172,116	189,298	152,776	145,336
		(40.8)	(34.0)	(28.4)	(1.9)	(-5.9)
IT parts	84.8	192,186	203,388	219,265	225,639	199,392
		(17.0)	(16.4)	(15.9)	(11.8)	(3.7)
IT finished products	78.4	168,197	182,293	169,350	190,865	169,933
		(25.7)	(26.1)	(8.6)	(7.7)	(1.0)
Total IT equipment	81.7	360,383	385,681	388,615	416,504	369,325
		(20.9)	(20.7)	(12.6)	(9.9)	(2.5)

Notes: 1.16 major countries and regions are U.S.A, Canada, Mexico, Germany, France, UK, Japan, China, ROK, Taiwan, Hong Kong, Singapore, Thailand, Malaysia, Switzerland, and Brazil.
2. Iron ore, mineral fuels, and crude oil are import figures. Others are export figures.
3. Growth rates are Y o Y comparisons.
Sources: National trade statistics.

Table. I-11 Trade in services(exports)

(%, US$million)

	2000	2001	2002	2003	2004	2005	2006	Value	Contribution
Value of global service exports	6.2	0.3	7.3	14.6	20.0	10.9	10.6	2,710,800	100.0
Transportation	7.1	-0.9	4.6	13.4	24.9	12.2	9.2	625,900	20.4
Travel	3.9	-2.2	4.6	10.0	18.2	7.8	7.3	737,100	19.5
Other services	7.4	2.8	10.6	18.1	18.9	12.2	13.1	1,347,700	60.1

Source: WTO.

Table I-12 Trade in services by coutry and region(2006)

(US$million, %)

	Exports			Imports		
	Value	Growth rate	Share	Value	Growth rate	Share
World	2,710,800	10.6	100.0	2,619,600	10.3	100.0
NAFTA	459,633	8.8	17.0	400,863	9.4	15.3
U.S.A.	387,383	9.4	14.3	306,728	9.1	11.7
Canada	55,959	7.2	2.1	71,622	11.6	2.7
Mexico	16,292	1.2	0.6	22,513	7.6	0.9
Central and South America	77,000	14.2	2.8	80,100	13.5	3.1
Brazil	17,971	20.6	0.7	26,740	19.9	1.0
Europe	1,382,300	8.6	51.0	1,222,700	7.8	46.7
EU25	1,247,200	8.8	46.0	1,132,300	7.9	43.2
Germany	164,235	10.6	6.1	214,499	6.7	8.2
UK	223,103	9.3	8.2	169,367	6.5	6.5
France	112,353	-2.3	4.1	108,015	3.0	4.1
Italy	100,476	13.1	3.7	100,916	13.5	3.9
Spain	100,263	8.1	3.7	76,578	17.5	2.9
Netherlands	81,690	4.5	3.0	77,812	7.5	3.0
CIS	50,900	21.2	1.9	74,400	19.0	2.8
Russia	29,820	22.0	1.1	44,891	16.7	1.7
Africa	64,400	11.8	2.4	79,800	11.9	3.0
South Africa	11,793	8.2	0.4	13,936	17.5	0.5
Middle East	62,600	9.4	2.3	96,100	9.5	3.7
Asia	613,900	15.2	22.6	665,500	14.3	25.4
Japan	121,395	12.5	4.5	142,775	7.7	5.5
China	86,500	17.0	3.2	99,700	19.9	3.8
ROK	50,744	15.5	1.9	69,423	20.2	2.7
Hong Kong	71,323	14.7	2.6	34,731	7.2	1.3
India	72,800	33.8	2.7	69,532	40.5	2.7
ASEAN10	123,200	12.4	4.5	157,400	12.7	6.0
Singapore	57,300	11.9	2.1	60,767	12.4	2.3

Note: Value of China based on WTO estimates.
Source: WTO.

3. Global Direct Investment and Cross-border M&As

(1) Global inward direct investment exceeds 1 trillion dollars for the second consecutive year in 2006

In 2006 global inward direct investment grew by 25.8% year-on-year to reach $1.4215 trillion (JETRO estimate; international balance of payments base; net; flow), the second consecutive year of figures in excess of $ 1 trillion (2005: $1.1297 trillion (Table I-13; Reference Section/Statistics: See Table 6). Following the historical peak of $1.5876 trillion recorded for world inward direct investment in 2000 during the M&A boom, figures declined significantly through 2003. Three consecutive years of increases commenced in 2004, and figures reached 89.5% of their 2000 level in 2006. World outward direct investment increased 43.3% to $1.4358 trillion in 2006.[4]

Figures for global direct investment in 2006 rivaled the historical peak due to increased activity in cross-border M&As (up 14.8% year-on-year to $974.5 billion) against a background of low interest rates, increased company desire for acquisitions prompted by profit increase under high growth worldwide, and an increase in the number of leveraged buy-outs (LBOs) (discussed below) by investment companies and others, in addition to strong investment in developing countries (Fig. I-14).

---

4. Theoretically, figures for global inward direct investment and outward direct investment should match, but in many cases figures and trends differ in actual statistics. The reason for this is the fact that the definition and method of evaluation of direct investment (treatment of lower limit figures in accounts, reinvested profits, sub-subsidiaries, transfer of profits, transactions with offshore companies, etc.) and the period for which direct investment is recorded in the accounts differ from country to country.

■ **Significant increases in inward and outward direct investment in the U.S.**

Considered by country and region, growth in both inward and outward direct investment was particularly high in the U.S. The EU25 accounted for approximately half of world direct investment, but growth was low in both inward and outward investment.

Inward direct investment in the U.S. recorded a spectacular increase, up 65.7% year-on-year to $180.6 billion, the highest investment flow since the 2000 M&A boom. The rate of contribution of the U.S. to the global increase in inward direct investment in 2006 was 24.5%.

Looking at the figures for U.S. inward direct investment by category, ”net equity capital” recorded an increase of 73.2% to $98.0 billion, contributing 57.9% to the growth in inward direct investment in the country. This increase stems from an increase in M&As targeting U.S. companies, chiefly by European companies, for example the purchase of Lucent Technologies for $14.7 billion by France’s

Alcatel. “Reinvestment earnings” also increased by 48.0% to $70.6 billion, contributing 32.0% to the growth in inward direct investment in the U.S. This was due to a 14.8% increase in the profits of U.S. subsidiaries of foreign companies in favorable economic conditions, and an increase in the ratio of retention of those profits (reinvestment of profits in the U.S. subsidiary rather than transfer to the foreign parent company) from 46.7% in 2005 to 60.2% in 2006.

In a reversal of the reduction that occurred in 2005, U.S. outward direct investments recorded rapid growth to $235.4 billion in 2006. The rate of contribution of the U.S. to the overall growth in world outward direct investment in 2006 was 56.0%.

In 2005, the effect of the American Jobs Creation Act[5] caused increased repatriation of profits from U.S. subsidiaries overseas to parent companies in the U.S., resulting in a reduction of $20.4 billion in reinvested earnings, and a consequent overall reduction in the level of outward direct investment. With the disappearance of this special factor in 2006, reinvested earnings climbed rapidly to $220.1 billion. Reinvested earnings accounted for almost the entirety of the increase in U.S. inward investment in 2006, with a contribution ratio of 99.0%.

---

5. The aim of the American Jobs Creation Act was to encourage U.S. companies to increase investment and create more jobs in the U.S. To this end, companies were offered tax breaks under specific conditions if they repatriated profits from overseas subsidiaries to the U.S. as dividends.

Inward direct investment in the EU25 recorded only a minor increase, growing 2.1% year-on-year to $668.7 billion (rate of contribution: 4.8%). However, the $80.3 billion structural reorganization of the oil giant Royal Dutch Shell Group (RDS) in 2005 contributed significantly to this result. If this factor is excluded, inward direct investment in the EU25 grew 16.4% in 2006.

Inward direct investment in the EU25 from the region itself, which accounted for 72.2% of its inward direct investment, decreased 9.2% against the previous year, due to the effect of the RDS reorganization and other factors. Investment from outside the region, however, grew rapidly at a rate of 55.1%. Investment from the U.S. increased approximately 2.5-fold. The resurgence in the level of reinvested profits discussed above was one factor in this increase. While the UK accepted the highest level of investment among the EU25 in 2005, investment in the nation was down 28.8% year-on-year to $139.5 billion in 2006, due among other factors to the RDS reorganization. By contrast, investment rose steeply in Belgium and Italy, up 110.4% and 96.3%, respectively.

Like inward direct investment to the region, outward direct investment from the EU25 grew only slightly in 2006, recording a 2.0% increase year-on-year to $794.9 billion. If the integration of RDS mentioned above is excluded, the increase becomes 13.7%. Investment within the region accounted

for 67.3% of outward direct investment from the EU, and was down 1.7% year-on-year due to the effect of the RDS reorganization and other factors. Investment outside the region increased by 9.6%.

Among the EU25, the level of investments by the Netherlands, the major investing nation in 2006, were down 11.0% year-on-year to $169.9 billion due among other factors to the RDS reorganization. Investment by Spain increased 2.1-fold to $89.7 billion on the back of large-scale M&As in the area of electronic communications. Spain's rate of contribution to the increase in world outward direct investment was 11.0%, the highest contribution made by an EU25 country. Spain has been requested by the European Commission to abolish its foreign investment support scheme[6] and has been reducing support measures from 2007 and plans to phase them out by 2010.

Inward direct investment to the ten new EU member countries increased 2.1% year-on-year to $38.8 billion. The greatest amount of investment was directed towards Poland. Investment in the nation increased by 45.0% to $13.9 billion, and accounted for approximately one-third of total investment in the new EU member countries.

---

6. This system enabled Spanish companies that have opened a foreign branch or purchased shares in a foreign company for the purpose of exporting goods or services to withhold an amount of tax corresponding to 25% of the amount invested.

■ **Investment in China records negative growth after two consecutive years of positive growth**

Inward direct investment to East Asia increased 15.9% year-on-year to $174.4 billion, representing 12.3% of the world total. China received the highest amount of investment in the region, but investment in the nation was down by 1.3% to $78.1 billion, the first time negative growth has been recorded since 2003, when investment fell 4.5% (down 4.5%) (Table I-14). On an investment execution basis (gross basis, excluding banks, securities, and insurance), investment in China increased by 4.5% to $63.0 billion, but direct investment from major countries and regions declined, including Japan (down 29.6% to $4.6 billion) and the U.S. (down 6.4% to $2.9 billion). Considered by industry sector, investment decreased in manufacturing industries and increased in non-manufacturing industries.

The peaking of investment in manufacturing industries and change in the investment environment can be observed behind the slowing of investment in China. Labor cost increased an average of 12.3% per year in China between 2000 and 2005 (China Statistical Yearbook). In addition, as part of a trend towards change in government policy regarding foreign funds, the tax refund rate for direct taxes on increased imports has been reduced, and a tax on company earnings was adopted by the National People's Congress in March 2007. As of January 2008, preferential company tax measures

relating to foreign funds will be scrapped, and a uniform tax rate (in principle, 25%), will come into effect for all domestic and foreign companies. In addition, improvement in the foreign funding environment is one focus of the nation's 11th Five-year Plan (2006 to 2010), and China is attempting to attract foreign capital to higher value-added products and service industries.

Both Hong Kong and Singapore also pushed up figures for inward direct investment in East Asia, with the former recording a 27.6% year-on-year increase to $42.9 billion to take second position in the region after China, and the latter recording a 61.3% increase to $24.2 billion to take third position.

The rate of increase of investment in Thailand slowed in 2006, with the nation recording an increase of 8.9% year-on-year to finish at $9.8 billion, against an increase of 52.8% in 2005. On an approval basis this represents a decline of 18.2% to $7.0 billion. To some extent this reduction in investment is an effect of the large-scale automotive-related investment conducted in 2005 by Japanese companies, but can also be seen to have been affected by political instability and unclear economic policy directions (strengthening of restrictions on short-term capital flows, foreign funding, etc.) since the military coup and the establishment of military rule in September 2006.

India recorded a 2.5-fold year-on-year growth in investment to $16.9 billion. Inward M&As also increased, up 44.8% to $0.79 billion. India's high economic growth is continuing, with an average annual growth of 8.6% in real GDP between 2003 and 2006, and the nation is experiencing an influx of direct investment that seeks to open up new markets.

Investment in Vietnam increased 2.1-fold year-on-year to $8.8 billion on a new approval basis, representing a historical high for the country. Given its abundant and low-cost labor force, political stability and the prospect of relaxation of restrictions on foreign funding with its accession to the WTO in January 2007, Vietnam has become the focus of attention as both an emerging market and a potential production base alongside China, enabling risk to be spread.

The UN's Economic Commission for Latin America and the Caribbean (ECLAC) reports that inward direct investment to Central and South America increased by 1.5% against 2005 to $72.4 billion. Mexico received the highest amount of investment, recording an increase of 20.8% to $19.0 billion, while investment in Brazil increased 24.7% to $18.8 billion. According to ECLAC, the sources of inward direct investment in Latin America and the Caribbean have displayed a trend towards diversification recently, with investment from Spain, the major investor in the region, on the decline. Investment in resources-related industries represented the major type of investment in the region.

Inward direct investment in Israel increased 3.0-fold year-on-year to $14.2 billion, continuing 2005's high growth (up 2.3-fold to $4.8 billion). Inward M&As also recorded a significant increase in Israel growing 3.4-fold to $8.2 billion. The majority of investment was conducted in the machinery and equipment, and software fields.

Israel is strong in the areas of advanced technology and military technology. In order to gain access to the country's technological prowess and labor force, Berkshire Hathaway, the investment company operated by U.S. investor Warren Buffett, purchased the Israeli metalworking company Iscar for $4.0 billion, while U.S. flash memory manufacturer SanDisk purchased Israel's M-Systems Flash Disk Pioneers for $1.5 billion. Israel's outward direct investment also increased 4.1-fold to $13.6 billion, a figure which included the purchase of the U.S. generic pharmaceutical giant Ivax by an Israeli counterpart, Teva Pharmaceutical Industries, for $8.4 billion.

Outward direct investment from the developing countries increased in 2006, centering on the BRICs. Investment from Brazil increased 11.2-fold to $28.2 billion, investment from Russia increased 40.9% to $18 billion, investment from India increased 3.9-fold to $9.7 billion, and investment from China increased 57.7% to $17.8 billion.

(2) 2006 level of cross-border M&As is second only to 2000; LBOs increase

According to data from Thomson Financial, the value of world cross-border M&As increased by 14.8% year-on-year in 2006 to $974.5 billion, while the number of M&As (completed mergers and acquisitions) increased by 11.5% to 7,953. The value of cross-border M&As in 2006 was second only to the historical peak of $1.2667 trillion (9,664 M&As) recorded in 2000. On an announced basis, cross-border M&As were up 46.0% to $1.5061 trillion (12,097 M&As), representing a new historical record.

■ Increase in cross-border M&As targeting U.S. and Canadian companies

M&As targeting U.S. companies increased by 39.8% year-on-year to $182.7 billion. These transactions accounted for 18.7% of the total value of world M&As, representing a contribution rate of 41.3%. Large-scale M&As included the purchase of U.S. communications giant Lucent Technologies by French counterpart Alcatel for $14.7 billion, and the $8.7 billion purchase of the U.S. gold mining giant Glamis Gold by Canadian counterpart Goldcorp (Table I-15). Acquisitions by U.S. companies increased by 33.4% to $207.3 billion, representing 21.3% of the world total. 2006 saw the $11.3 billion buyout of Dutch media giant VNU by a consortium including the U.S. Carlyle Group and Blackstone Group among its members, and the $10.6 billion buyout of Denmark's largest telecommunications company, TDC, by Valcon Acquisition, a group of private equity funds including Apax Partners of the UK and the U.S. Blackstone Group.

M&As targeting Canadian companies increased 2.5-fold against the previous year to $74 billion (contribution rate: 35.6%), contributing to the growth in world total M&As. Resources-related M&As were conspicuous among these, with major acquisitions including the buyout of nickel giant Inco by the major Brazilian resources company Companhia Vale do Rio Doce ($18.4 billion), the buyout of nickel giant Falconbridge by Swiss nonferrous metals giant Xstrata ($18.2 billion), and the

buyout of steel maker Dofasco by Luxembourg steel giant Arcelor ($5.3 billion), one of the world's major steel manufacturers.

Despite the fact that M&As targeting EU25 companies declined by 4.8% against 2005 to $481.4 billion, they accounted for approximately 50% of the world total value.[7] As it did in 2005, the UK recorded the highest figures in the EU with an increase of 2.2% to $208.3 billion. Major acquisitions include the $31.8 billion buyout of British mobile phone group O2 by Telefonica, Spain's largest telecommunications company, the $30.2 billion buyout of British airport management giant BAA by the major Spanish construction group Ferrovial Group, and the $15.5 billion buyout of British industrial gas giant BOC by German counterpart Linde.

High total transaction amounts were recorded in Germany (down 13.2% year-on-year to $56.3 billion) and France (up 31.9% to $46.1 billion). Among new EU member countries, rapid growth was recorded by Lithuania (up 34.1-fold to $2.5 billion) and Slovakia (up 7.4-fold to $1.3 billion). Major acquisitions included the purchase of Lithuania's largest oil refinery, Mazeiku Nafta, by Polish oil giant PKN Orlen ($2.4 billion) and the purchase of Slovakian electricity producer Slovenske Elektrarne by Italian energy giant Enel ($1.1 billion). M&As by EU25 companies declined by 10.5%, but their value still reached $430.4 billion, accounting for 44.2% of the world total. Among the EU25, M&As increased 3.2-fold to $98.4 billion in Spain, and decreased 29.8% to $87.9 billion in the UK.

---

7. The Dutch steel giant Mittal Steel purchased the major Luxembourg steel producer Arcelor for $39.5 billion, but this was not recorded by Thomson Financial as a cross-border M&A because Mittal transferred its national registration to Luxembourg.

- **Significant increase in M&As in finance/insurance, telecommunications and mining fields**

By industry category of acquired companies, 2006 saw a 43.8% year-on-year increase to $156.4 billion in the finance/insurance field (this represents the highest transaction value in the year), a 49.5% increase to $109.0 billion in the telecommunications field, and a 4.4-fold increase to $60.4 billion in the mining field. M&As in the area of real estate leasing, mortgage bankers and brokers also increased 19.5% to $66.0 billion.

In the finance/insurance category, acquisitions included the purchase of Italy's Banca Nazionale del Lavoro by French finance giant BNP Paribas (in May and July 2006, for a total of $11.1 billion) and the purchase of Switzerland's largest insurance company Winterthur by French insurance giant Axa ($10.0 billion). On an announced basis, this represented an increase of 29.7% year-on-year to $219.9 billion, and M&A activity centering on Europe seems set to pick up further in future with strong

profits posted by European banks and continuing progress in the integration of financial markets within the EU.

M&As in the area of telecommunications included the previously mentioned purchase of Britain's O2 by Spain's Telefonica ($31.8 billion), of Lucent Technologies in the U.S. by France's Alcatel ($14.7 billion), and of Danish telecommunications giant TDC by a British and U.S. investment group ($10.6 billion). Among other factors, the improved financial status of major companies, the saturation of the fixed and mobile telephone markets in the countries of the manufacturing companies, the desire to market third-generation services, and plans to expand composite services through M&As were behind this activity in the area of telecommunications.

2006 saw a rapid increase in M&As in the mining field against a background of spiraling resource prices. Companies in the emerging economies also made their mark as purchasers in this area. Contributing to results in this area were the previously mentioned buyout of Canadian nickel giant Inco by major Brazilian resources company Companhia Vale do Rio Doce ($18.4 billion), the purchase of Canadian nickel giant Falconbridge by Swiss nonferrous metals producer Xstrata ($18.2 billion), and the purchase of the U.S. gold mining giant Glamis Gold by Canadian counterpart Goldcorp (US8.7 billion).

Growth of M&As in the real estate leasing, mortgage bankers and brokers area was particularly remarkable since 2004. Buyouts of German companies represented the highest percentage of the total (34.9%), with the majority of purchasers from the U.S. or major European countries such as the UK and France. A group of U.S. investment funds including Goldman Sachs purchased the rights to the department store properties of German retail and distribution giant KarstadtQuelle in March 2006 for $5.4 billion following a continuing downturn in performance for the German company.

- **Increasing acquisition by companies in the developing economies**

M&As by companies in the developing economies recorded a staggering increase of 71.9% year-on-year to $159.5 billion in 2006. In terms of value and number, M&As by companies in developing economies represented less than 10% of the world total at the beginning of the 1990s. However, figures have continued to increase, and in 2006 M&As by companies in these economies represented 16.4% of the total value and 17.6% of the total number of M&As in 2006. M&As between developing countries represented the greater part (58.5% on an M&A number basis) of these M&As.

Among the BRICs, the growth rate of M&As was significantly above the world average level in Brazil (up 8.9-fold year-on-year to $19.7 billion), China (up 66.5% to $14.3 billion), and India (up 3.3-fold to $7.1 billion). Among other factors, this increase in M&As is spurred by companies taking action to ensure the necessary resources to respond to rapid economic growth, and companies using the increased economic power resulting from increased profits to engage in M&As as a means of

obtaining technologies and brands from advanced countries (Table I-16).

An examination by category of outward M&As from the BRIC countries shows Brazilian companies to have concentrated on M&As in resources[8] and manufacturing industries, with a lower rate of activity in the area of services. The rate of outward M&As in resources-related industries has increased in recent years in China, and the rate of outward M&As in manufacturing and service industries is increasing in India.

The majority of outward M&As by Brazilian companies targeted companies in the U.S., Canada, and neighboring Argentina. Major acquisitions included the previously mentioned purchase of Inco by Companhia Vale do Rio Doce (in 2006 and 2007, for a total of $20.7 billion), and the purchase of John Labatt Canada by Brazilian beer giant AmBev ($7.8 billion).

Chinese companies focused on M&As of companies in East Asia (Hong Kong, etc.), but also engaged in M&As of companies in advanced countries such as the U.S. and EU countries. Most M&As were conducted by state-run companies, and included the acquisition of PetroKazakhstan, a British company holding rights to oil reserves in Kazakhstan, by the China National Petroleum Corporation (CNPC) for $4.0 billion, and the purchase of Udmurtneft, a subsidiary of a joint venture between British BP and a Russian oil company, by Chinese oil giant Sinopec for $3.5 billion in 2006. In non-resources-related areas, Chinese PC giant Lenovo Group acquired IBM's PC business for $1.8 billion, and the China Construction Bank purchased the Hong Kong-based retail subsidiary of the Bank of America (BOA), BOA (Asia), for $1.2 billion in 2005.

Indian companies have focused on M&As targeting companies in the U.S., the EU and Asia, but since 2003 have also expanded M&A activities in Australia and New Zealand. The fields covered are diverse, encompassing resources, pharmaceuticals and business services, among others. In 2007, India's Tata Steel acquired the Anglo-Dutch steel manufacturer Corus ($15.9 billion), and the Indian aluminum giant Hindalco Industries purchased its U.S. rival Novelis ($5.8 billion). M&As in Australia were mainly mining resources-related.

M&As by Russian companies have mainly targeted companies in the U.S. and the UK, but M&As in the Republic of South Africa have also been observed since 2004. M&As have centered on resource-related fields, but have also been increasing in the areas of metals, copper products, telecommunications and finance. In 2007, Russian steel giant Evraz Group acquired Oregon Steel Mills of the U.S. for $2.1 billion, and Russian non-ferrous metals giant Norilsk Nickel purchased the nickel business of Finland's OM Group for $0.8 billion (Table I-17).

---

8. "Resources" refers to oil/natural gas (oil refining) and the mining industry.

■ **Rapid rise in LBOs contributes to increase in M&As**

Leveraged buyouts and other types of cash purchase have become the major form of cross-border M&As in recent years. The opposite was the case in the M&A boom of 2000, when acquisition by means of share exchange (including cash sharing) accounted for the majority of transactions. Cash-only transactions accounted for 54.9% of the total in 2006, double the 2000 figure of 27.0%, while share exchanges were down to 7.1%, one-sixth the 2000 figure of 42.0% (Fig. I-16). Companies are favoring cash purchases rather than share exchanges because of the ready availability of funds resulting from the fact that 2006 company profits in Japan, the U.S. and the Euro zone (GDP ratio: 12%) were 25% above the long-term average (1988-2006; IMF). In addition, as will be discussed below, the easy availability of funding is another factor in the increase in cash purchases.

In 2006, cross-border LBOs recorded a tremendous increase of 71.2% to $180.4 billion, contributing 59.9% to the increase in cross-border M&As.

An LBO is a scheme in which the purchasing company procures funds using the assets of the company to be purchased as collateral, and the purchased company repays the loan following completion of the purchase. This mechanism enables the purchasing company to conduct transactions on a scale far in advance of their available funds.

Until 2002, LBOs represented only around 5% of M&As on a value basis even at their highest. However, in 2003, LBOs increased to account for approximately 10% of M&As, and in 2006 they represented 18.5%. The easy availability of funds spurred by low interest rates, high liquidity and the active willingness of banks and other financial institutions to provide funding for LBOs is one factor driving this rapid increase in LBOs. An examination of the changes in U.S. interest rates and the number of cross-border LBOs indicates a pattern in which a low interest rate environment like today's can act as the trigger for a rapid increase in LBOs (Fig. I-17).

The main actors in cross-border LBOs are investment companies (purchasing funds, etc.). Institutional investors are increasing their investments with investment companies in a quest for higher operating profits, and investment funds are actively engaging in cross-border LBOs in addition to domestic LBOs. In 2006, investment from the U.S. to Europe represented just under half (47.1%) of cross-border LBOs, while investment within Europe represented 32.5%, meaning that almost 80% of cross-border LBOs were conducted by the U.S. and Europe.

The current situation differs from the LBO boom in the U.S. in the late 1980s in that there is a higher ratio of cross-border LBOs today, financing is being obtained from banks and other financial institutions rather than by issuing high-yield bonds, and the leverage ratio (the debt to equity ratio) is around five times lower today than in the boom. For these reasons, the risk of a collapse of the LBO boom is limited in comparison to the previous case.

However, the financial environment that is supporting the current LBO boom is changing, with a trend towards tightening (increasing interest rates, curtailing of excess liquidity, etc.), and in future

there is a possibility that financing may become difficult to obtain. In addition, as illustrated by the announcement in May 2007 by Timothy F. Geithner, President of the Federal Reserve Bank of New York, that LBO financing by financial institutions would be the subject of intense scrutiny, there is concern that the increasing demand for LBO financing may cause financial institutions to act imprudently in this area.

Cash buyouts such as LBOs represented the main stream of M&As in 2006, but during the M&A boom of 2000, M&As by means of share exchanges represented 42.0% of the total. In this type of M&A, shares function as "currency," and become the units in which the transaction is measured. Therefore, if the shares increase in value, the "currency" (i.e., share value) also increases, and the value of the transaction increases proportionately. Before and after 2000, the purchase price in individual M&As increased as a result of increases in share value (Fig. I-18). In addition, there were 330 M&As in 2000, the peak year, a figure significantly higher than the average of 192 for the past decade (1997-2006). This is considered to be because numerous companies were spurred by the continuous announcement of large-scale M&As to conduct M&As via share exchanges (i.e., an M&A boom).

In the first quarter of 2007, share prices were at the same level as that recorded during the IT boom, and unit prices for share exchange M&As had not returned to their 2000 level. In addition, the figure of 183 M&As involving share exchange recorded during 2006 showed the average for the past decade. At present, companies are controlling the value of share exchange M&As despite the fact that share prices are increasing.

■ **Trends in the first half of 2007**

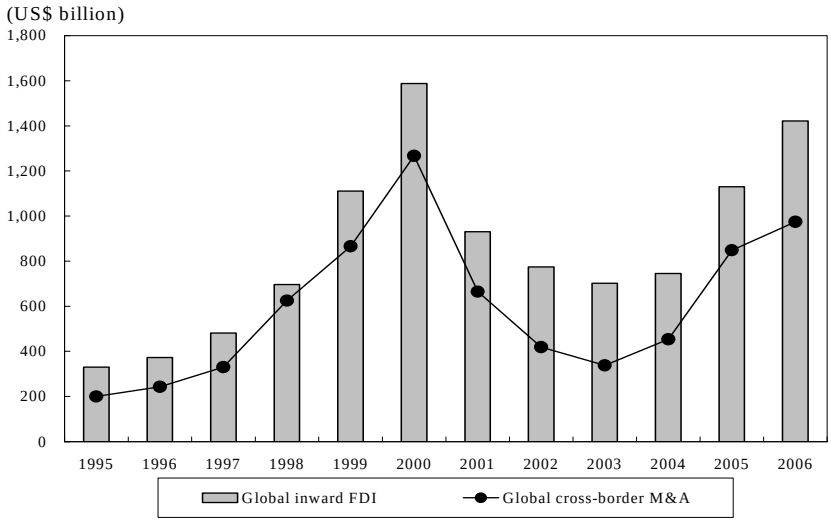
Cross-border M&As continued to increase between January and June 2007, recording a year-on-year increase of 36.6% to a transaction value of $630.2 billion in 4,235 M&As. On an announcement basis, this represents an increase of 70.2% to $1.3090 trillion. Increases are expected to continue throughout 2007.

Looking at the countries and regions in which acquired companies are located, the EU25 recorded an increase of 24.9% against the previous year to $316.6 billion, accounting for 50% of the world total. Acquisitions in the UK increased in particular, up 5.4% to $130.9 billion, or 20% of the world total. Major acquisitions included the purchase of UK electricity company Scottish Power by the Spanish energy giant Iberdrola ($26.6 billion), and the purchase of the UK's largest drug store chain, Boots Alliance, by a group of U.S. private equity funds including Kohlberg Kravis Roberts ($21.5 billion). M&As also increased 55.6% in the U.S. to $125.2 billion, or 20% of the world total. The purchase of U.S. biotechnology giant MedImmune by British pharmaceuticals giant AstraZeneca for $14.7 billion was a major acquisition in the U.S. in 2006.

By industry type, the highest transaction values were recorded in the areas of petroleum and

natural gas (a 3.7-fold increase to $46.8 billion), finance and insurance (up 53.0% to $102.0 billion), and electric, gas and water distribution (a 6.2-fold increase to $57.9 billion). In addition to the acquisitions mentioned above, major M&As included the purchase of the European stock exchange federation Euronext by the New York Stock Exchange (NYSE) Group ($10.2 billion) and the purchase of Canadian petroleum company Shell Canada by the British petroleum giant Royal Dutch shell ($7.6 billion).

Fig. I-14 Global FDI and cross-border M&A trends



Sources: IMF, National and regional balance of payments statistics, Eurostat, Thomson Financial.

Table. I-13 FDI of major economies (net flows based on balance of payments)

(US$ million, %)

	Inward FDI					Outward FDI				
	2005	2006	Growth rate	Share	Contribution	2005	2006	Growth rate	Share	Contribution
U.S.A.	108,996	180,580	65.7	12.7	24.5	-7,662	235,358	n.a.	16.4	56.0
Canada	28,922	69,041	138.7	4.9	13.8	33,542	45,243	34.9	3.2	2.7
EU25	654,761	668,688	2.1	47.0	4.8	779,470	794,904	2.0	55.4	3.6
EU15	616,767	629,882	2.1	44.3	4.5	771,821	782,922	1.4	54.5	2.6
Luxembourg	116,373	96,960	-16.7	6.8	-6.7	124,029	81,507	-34.3	5.7	-9.8
France	81,063	81,076	0.0	5.7	0.0	120,971	115,036	-4.9	8.0	-1.4
Germany	35,866	42,868	19.5	3.0	2.4	55,514	79,422	43.1	5.5	5.5
Italy	19,922	39,114	96.3	2.8	6.6	41,754	41,994	0.6	2.9	0.1
Netherlands	97,663	77,423	-20.7	5.4	-6.9	190,952	169,892	-11.0	11.8	-4.9
Spain	25,020	20,016	-20.0	1.4	-1.7	41,829	89,679	114.4	6.2	11.0
UK	195,990	139,543	-28.8	9.8	-19.4	90,913	79,457	-12.6	5.5	-2.6
Ten new EU members	37,994	38,806	2.1	2.7	0.3	7,649	11,982	56.6	0.8	1.0
Poland	9,602	13,922	45.0	1.0	1.5	3,024	4,266	41.1	0.3	0.3
Slovakia	2,107	4,165	97.7	0.3	0.7	157	368	134.7	0.0	0.0
Switzerland	-1,266	25,089	n.a.	1.8	9.0	54,308	81,506	50.1	5.7	6.3
Australia	-35,056	24,531	n.a.	1.7	20.4	-34,376	20,973	n.a.	1.5	12.7
Japan	3,223	-6,789	n.a.	n.a.	-3.4	45,461	50,165	10.3	3.5	1.1
East Asia	150,467	174,407	15.9	12.3	8.2	57,574	91,378	58.7	6.4	7.8
China	79,127	78,095	-1.3	5.5	-0.4	11,306	17,830	57.7	1.2	1.5
ROK	6,309	3,645	-42.2	0.3	-0.9	4,298	7,129	65.9	0.5	0.7
Taiwan	1,625	7,424	356.9	0.5	2.0	6,028	7,399	22.7	0.5	0.3
Hong Kong	33,625	42,894	27.6	3.0	3.2	27,196	43,460	59.8	3.0	3.7
ASEAN	29,782	42,350	42.2	3.0	4.3	8,747	15,561	77.9	1.1	1.6
Thailand	8,957	9,751	8.9	0.7	0.3	552	790	43.2	0.1	0.1
Malaysia	3,967	6,047	52.4	0.4	0.7	2,971	6,041	103.3	0.4	0.7
Singapore	15,004	24,207	61.3	1.7	3.2	5,034	8,626	71.3	0.6	0.8
India	6,676	16,881	152.9	1.2	3.5	2,495	9,676	287.8	0.7	1.7
Brazil	15,066	18,782	24.7	1.3	1.3	2,517	28,202	1020.6	2.0	5.9
Mexico	15,763	19,037	20.8	1.3	1.1	6,474	5,758	-11.1	0.4	-0.2
Russia	12,766	28,732	125.1	2.0	5.5	12,763	17,979	40.9	1.3	1.2
Israel	4,754	14,150	197.7	1.0	3.2	3,323	13,633	310.2	0.9	2.4
World	1,129,748	1,421,452	25.8	100.0	100.0	1,001,596	1,435,762	43.3	100.0	100.0

Notes: 1. JETRO estimates for the world.

2. ASEAN consists of Thailand, Malaysia, Indonesia, the Philippines, and Singapore.

3. For the Netherlands, from the 2007 JETRO White Paper on, the data include special-purpose entities (SPE).

Sources: IMF, National and regional balance of payments statistics, Eurostat and other sources.

Table. I-14 Foreign direct investment (FDI) in China, Thailand, India, and Vietnam: totals and growth rates

(US$ million, %)

Year	China		Thailand		India		Vietnam	
	FDI	Growth rate	FDI	Growth rate	FDI	Growth rate	FDI	Growth rate
2002	49,308	11.5	3,335	-34.1	5,627	2.8	1,558	-38.4
2003	47,077	-4.5	5,235	57.0	4,585	-18.5	1,914	22.9
2004	54,936	16.7	5,862	12.0	5,474	19.4	2,222	16.1
2005	79,127	44.0	8,957	52.8	6,676	22.0	4,268	92.1
2006	78,095	-1.3	9,751	8.9	16,881	152.9	8,827	106.8

Note: For Vietnam, the basis is new approvals.

Sources: National trade statistics and balance of payments data.

Table. I-15 Cross-border M&A: 10 largest (2006 and first half of 2007)

2006

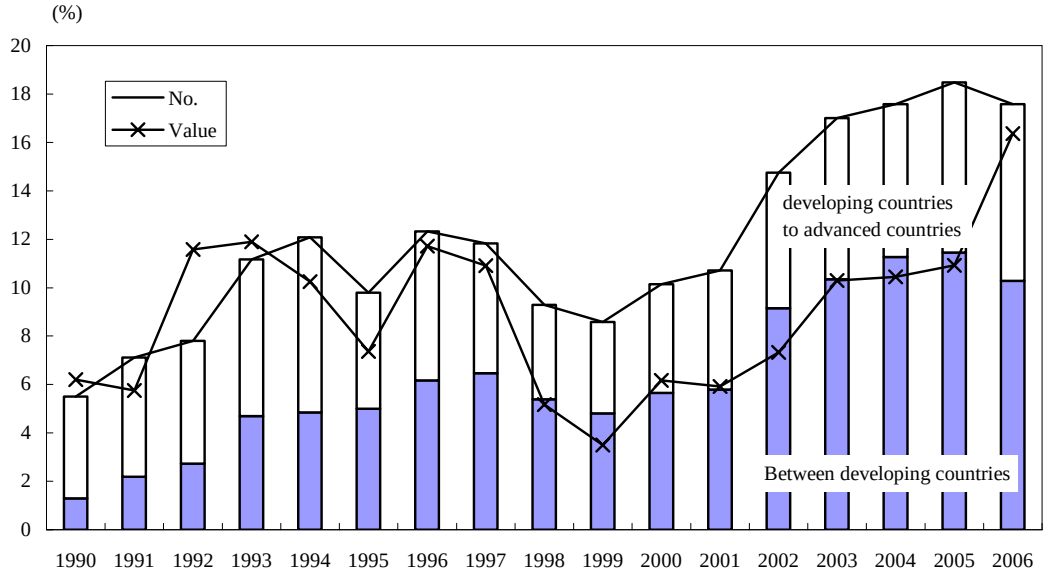
Date	Acquirer company			Target Company			Amount (US$ million)
		Nationality	Industry		Nationality	Industry	
January-06	Telefonica SA	Spain	Telecommunications	O2 PLC	UK	Telecommunications	31,798
June-06	Airport Development	Spain	Finance (investment)	BAA PLC	UK	Air transport	30,190
November-06	COMPANHIA VALE DO RIO DOCE	Brazil	Mining	Inco Ltd	Canada	Petroleum & natural gas	18,372
August-06	Xstrata PLC	Switzerland	Mining	Falconbridge Ltd	Canada	Petroleum & natural gas	18,236
September-06	Linde AG	Germany	General machinery	BOC Group PLC	UK	Chemical product related	15,545
December-06	Kemble Water Ltd	Luxembourg	Finance (investment)	Thames Water PLC	UK	Electric, gas, water utilities	14,889
November-06	Alcatel SA	France	Communication equipment	Lucent Technologies Inc	U.S.A.	Communication equipment	14,674
July-06	Valcon Acquisition BV	U.S.A.	Finance (investment)	VNU NV	Netherlands	Publishing and printing	11,287
January-06	Nordic Telephone Co ApS	U.S.A.	Telecommunications	TDC A/S	Denmark	Telecommunications	10,618
November-06	Osprey Acquisitions Ltd	Australia	Finance (investment)	AWG PLC	UK	Electric, gas, water utilities	10,409

first half of 2007

Date	Acquirer company			Target Company			Amount (US$ million)
		Nationality	Industry		Nationality	Industry	
April-07	Iberdrola SA	Spain	Electric, gas, water utilities	Scottish Power PLC	UK	Electric, gas, water utilities	26,635
June-07	AB Acquisitions Ltd	U.S.A.	Finance (investment)	Alliance Boots PLC	UK	Retail	21,450
April-07	JTI(UK)Management Ltd	Japan	Finance (investment)	Gallaher Group PLC	UK	Cigarettes	18,800
April-07	Tata Steel UK Ltd	India	Finance (investment)	Corus Group PLC	UK	Metals and metal products	15,856
June-07	AstraZeneca PLC	UK	Pharmaceuticals	MedImmune Inc	U.S.A.	Pharmaceuticals	14,681
May-07	Vodafone Group PLC	UK	Telecommunications	Hutchison Essar Ltd	India	Telecommunications	12,748
April-07	Allianz AG	Germany	Finance (investment)	AGF	France	Finance (life insurance)	11,107
April-07	NYSE Group Inc	U.S.A.	Finance (investment)	Euronext NV	Netherlands	Finance (investment)	10,203
January-07	Merck KGaA	Germany	Pharmaceuticals	Serono International SA	Switzerland	Pharmaceuticals	8,561
April-07	Citigroup Japan Investments	U.S.A.	Finance	Nikko Cordial Corp	Japan	Finance (investment)	7,921

Notes: 1. The date is the completion date of the transaction.
2. The nationality of the aquirer is that of its ultimate parent company.
3. The definition of M&A follows Thomson Financial's (including the founding of a joint venture by integrating existing assets).
4. The ranking is based on the value of a single transaction.
Source: Thomson Financial.

Fig. I-15 M&A by corporations in developing nations



Note: Definitions of industrial and developing countries are based on IFS (IMF), with the Caribbean financial centers (Bermuda, the Caymans) included in the industrial countries. The bar graph shows the breakdown by number of M&As (acquisition of corporations in advanced countries by corporations in developing countries, acquisitions of one corporation in a developing country by another.
Source: Thomson Financial.

Table. I-16 Cross-border M&A in BRICs

(US$ million, %)

		2002	2003	2004	2005	2006
BRICs total	Value	3,675	8,903	14,167	19,758	45,384
	Growth rate	-37.8	142.2	59.1	39.5	129.7
Brazil	Value	353	2,047	8,600	2,212	19,725
	Growth rate	-83.6	479.7	320.2	-74.3	791.9
Russia	Value	561	1,035	2,414	6,781	4,245
	Growth rate	48.1	84.5	133.3	180.9	-37.4
India	Value	182	1,137	857	2,157	7,084
	Growth rate	-90.3	525.9	-24.7	151.8	228.3
China	Value	2,580	4,684	2,297	8,606	14,331
	Growth rate	71.9	81.6	-51.0	274.7	66.5
World	Value	418,766	338,302	453,462	848,603	974,459
	Growth rate	-37.0	-19.2	34.0	87.1	14.8

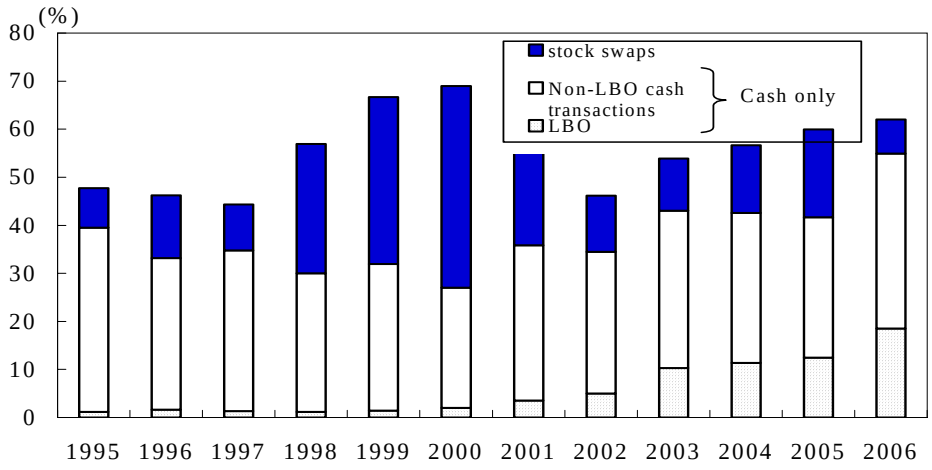
Source: Thomson Financial.

Table. I-17 Major cross-border M&A by BRICs (2003 to June 2007)

	Completed	Purchaser		Company purchased			Amount (US$ million)
			Industry		Nationality	Industry	
Brazil	January-07	COMPANHIA VALE DO RIO DOCE	Mining	Inco Ltd.	Canada	Mining	20,688
	August-04	Ambev	Beverages	John Labatt Ltd.	Canada	Beverages	7,758
	May-03	Petroleo Brasileiro SA	Petroleum & natural gas	Perez Companc SA	Argentine	Petroleum & natural gas	1,028
Russia	January-07	Evraz Group SA	Metals and metal products	Oregon Steel Mills Inc.	U.S.A.	Metals and metal products	2,107
	December-05	Lukoil Overseas Holding Ltd.	Petroleum & natural gas	Nelson Resources Ltd.	UK	Mining	2,088
	November-05	Alfa Group	Finance (banking)	Turkcell Iletisim Hizmetleri	Turkey	Telecommunications	1,602
India	April-07	Tata Steel UK Ltd.	Finance (investment)	Corus Group PLC	UK	Metals and metal products	15,856
	May-07	AV Aluminum Inc.	Finance (investment)	Novelis Inc.	U.S.A.	Metals and metal products	5,767
	June-07	Essar Global Ltd.	Finance (investment)	Algoma Steel Inc.	Canada	Metals and metal products	1,467
China	October-05	CNPC International Ltd.	Petroleum & natural gas	PetroKazakhstan Inc.	UK	Petroleum & natural gas	3,957
	August-06	Sinopec Corp Qingdao Br, China	Petroleum & natural gas	OAO Udmurtneft	Russia	Petroleum & natural gas	3,500
	April-06	CNOOC Ltd.	Petroleum & natural gas	NNPC-OML 130	Nigeria	Petroleum & natural gas	2,692

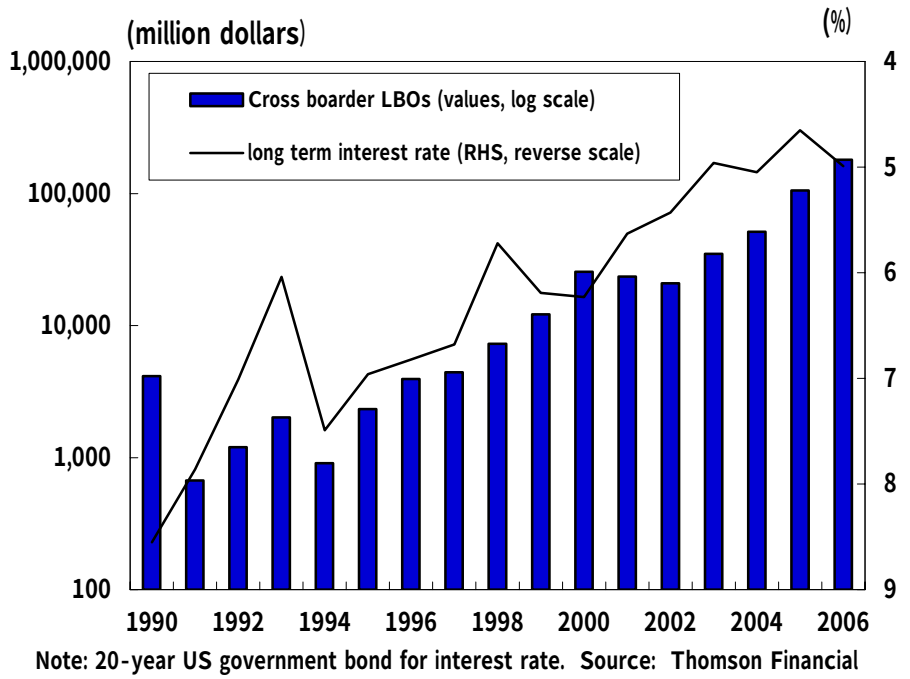
Note: Rio Doce of Brazil's acquisition of Canada's Inco was carried out in two stages, in November, 2006 (US$18.4 billion) and January, 2007 (US$2.3 billion); the figure stated is the total purchase price.
Source: Thomson Financial.

Fig. I-16 Means of acquisiton in cross-border M&A



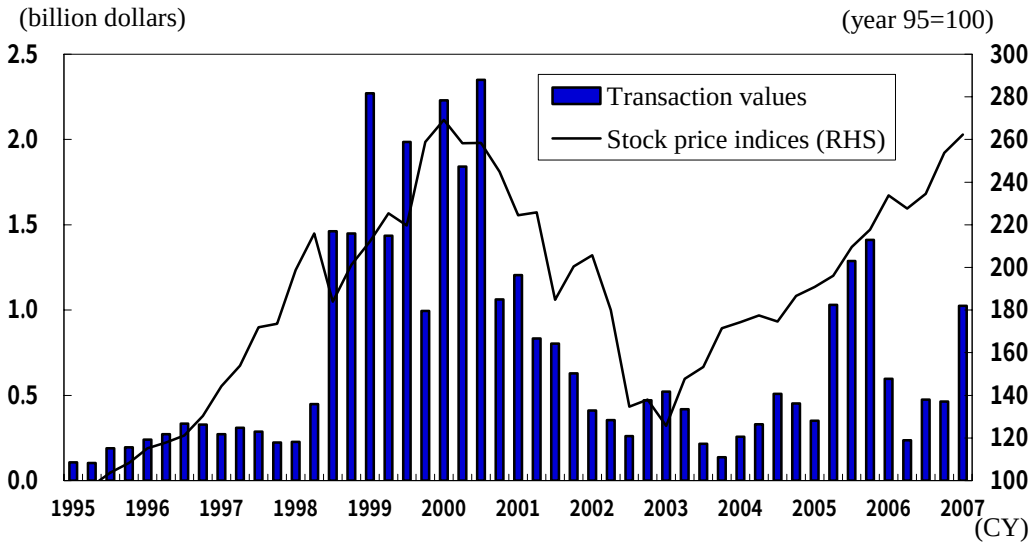
Note: Transaction Value base.
Source: Thomson Financial.

Fig. I-17 Cross boarder LBOs and interest rate



Note: 20-year US government bond for interest rate. Source: Thomson Financial

Fig. I-18 Values of stock swap M&As per transaction and stock price



Notes: quarterly data. Transaction values are three quarters moving average and undisclosed transactions excluded. Stock price indices are average of US, UK and Germany.
Source: Thomson Financial, etc.

4. Trade and Direct Investment in Japan

(1) The Japanese economy: Towards a stable growth trajectory

In 2006, the Japanese economy overall settled into a stable growth trajectory driven by company facility investments. At 2.2%, real GDP in 2006 exceeded the figure of 1.9% recorded in 2005. Considered by quarter, the first quarter of 2007 represented the ninth consecutive quarter of positive growth.

The “three excesses” (excess facilities, excess staff and excess debt) that acted as a drag on the Japanese economy from the latter half of the 1990s to the first half of the 2000s are largely things of the past. The ratio of non-performing loans held by major banks reached 8.4% at its peak (March quarter, 2002), but was down to 1.5% in the March quarter of 2007. In addition, the employment environment is improving against a background of solid company performance, with unemployment down from 5.5% in August 2002 to 3.8% in April 2007. Company investment in facilities also grew at the high rate of 7.5% year-on-year in 2006, the fourth consecutive year of year-on-year positive growth since 2003. However, these improvements in the corporate sector and the employment environment have not necessarily translated into higher earnings, and the growth rate of personal consumption in 2006 had little momentum at 0.8% year-on-year. Foreign demand has recently picked up on the back of a healthy world economy, contributing 0.8 points to the growth in real GDP in 2006 and acting as a factor supporting a stable economy.

The economic recovery commencing from January 2002 reached its 58th month in November 2006, and there is a strong possibility that this may become Japan’s longest period of sustained postwar growth.

With Japan’s population having begun to decline from 2005, exports and the cultivation of overseas markets by means of active outward direct investment will be important factors in ensuring sustainable economic growth when increased domestic demand can no longer be relied upon. In addition, the use of advanced technologies and expertise to increase productivity, and the encouragement of investment in Japan by overseas companies to promote the revitalization of Japan’s regional areas, will play increasingly important roles than has previously been the case.

(2) Trade in Japan

- **Five consecutive years of export increases for the first time since 1995**

Turning to Japan’s trade figures (customs clearance basis), in 2006, exports increased 8.2% year-on-year to $647.3 billion, and imports increased 11.7% to $579.3 billion (Table I-18). 2006 was the fifth consecutive year of export increases and the fourth consecutive year of import increases. Exports broke through the $600 billion mark for the first time against a background of export increases driven by a weak yen and a healthy world economy. 2006 represented the first time that five years of consecutive export growth had been recorded since 1995. As a result, Japan’s total trade

value (total value of imports and exports) increased 9.8% to $1,226.6 billion. The increase in import value, pushed up by growth in the Japanese economy due mainly to demand in the private sector and rapidly increasing crude oil prices among other factors, produced a $11.6 billion reduction in the balance of trade to $68.0 billion. This has resulted in a reduced trade surplus for the second consecutive year. On a quantity basis, exports increased by 7.7% and imports by 3.7%, both rates higher than 2005. The growth trend in 2006 continued into 2007, with exports in the first quarter of the year up 10.1% against the first quarter of 2006 to $166.4 billion, and imports up 4.3% to $144.7 billion. However, on a quantity basis, the rate of growth has slowed since the fourth quarter of 2006.

While the trade surplus declined for the second consecutive year in 2006, the current account surplus increased on an international balance of payments basis for the first time in two years. The current account surplus increased by $4.6 billion (2.8%) year-on-year to $170.5 billion in 2006, increasing also as a percentage of GDP to 3.9% from 3.6% in 2005. This was a result of an increase in the surplus of the balance of income , in addition to a reduction in the service trade deficit (Table I-19). The surplus of the balance of income increased for the fourth consecutive year, recording a historical high of $118.2 billion. Due to the fact that the trade surplus was down by $12.7 billion to $81.3 billion in the same period, the balance of income surplus exceeded the balance of trade surplus for the second consecutive year. The increase in the balance of income was generated by increased interest and dividends from overseas and increased reinvestment of profits resulting from greater activity in the areas of overseas portfolio investment and direct investment. Portfolio investment income, representing 76.3% of the balance of income, increased $11.7 billion to $90.1 billion, while direct investment income increased $5.2 billion to $26.1 billion. According to international balance of payments statistics by region, North America recorded the highest level of portfolio investment income at $43.2 billion (up $5.3 billion), of which the U.S. recorded the greatest share ($41.8 billion, up $5.1 billion). By contrast, Asia ($11.4 billion, up $1.6 billion) recorded the highest level of direct investment income, followed by North America ($7.9 billion, up $2.1 billion).

Japan’s service balance deficit fell $5.8 billion against 2005 to $18.3 billion. This was a result of a significant decline in the travel balance deficit, from $25.2 billion to $18.4 billion. In 2006, the number of overseas visitors to Japan increased by 9.0% against 2005 to 7.3 million people, due among other factors to the relaxation of restrictions on the issuance of visas to visitors from Asia, while the number of Japanese citizens leaving the country for overseas travel increased only 0.8% to 17.35 million people, in part because of the significant increase in air fares with the rise in crude oil prices. These factors contributed to the reduction in the travel balance deficit.

In other service trade categories, the transport services deficit increased by $0.5 billion year-on-year to $5.2 billion, while a $5.3 billion surplus was recorded in the other services balance. A noteworthy feature of the other services balance was the dramatic increase in the surplus for royalties and license fees. 2006 was the fourth consecutive year that a surplus has been recorded in

this category, with a year-on-year increase of $1.6 billion to $4.6 billion. This can be seen to be a result of increased royalty payments to corporate head offices in Japan stemming from increased manufacturing and sales in overseas bases by Japan's manufacturing industries. By country and region, the balance of royalties and license fees increased by $0.7 billion in Asia to record a $4.2 billion surplus, increased by $0.1 billion in North America to record a $1.2 billion deficit, and increased by $0.5 billion in Western Europe to record a $0.6 billion surplus. The increase in Asia, where Japan's manufacturing industry is establishing production bases, is particularly noticeable. Among other categories, the financial services balance increased by $0.8 billion to record a surplus of $3.2 billion due to a rise in the value of service fees with an increase in purchases of Japanese shares by non-residents, the construction services balance improved with an increase in plant orders from the Middle East, but the surplus was reduced by a decline in the amount recorded in the insurance services category and an increase in the deficit in the data services category.

■ **The U.S. and China drive Japanese exports**

Looking at Japan's exports (customs clearance basis) in 2006 by destination country and region (Table I-20), two noteworthy features can be indicated:

1) Two-figure growth was recorded in Japan's exports to China, in terms of both value and quantity;
2) There was steady growth in exports to the U.S.

Japanese exports to China grew 15.6% year-on-year to $92.9 billion, representing a two-figure increase over the rate of 8.8% recorded in 2005. Exports of electrical equipment including electrical components increased 21.3% to $25.2 billion and exerted a considerable influence in pushing up total exports. Exports of general machinery including motors also increased, up 10.9% to $18.9 billion. Among other factors, increased plant orders from the Middle East stemming from increasing energy demands are considered to form the background to these increases.

Japan's exports to the U.S. increased by 8.0% year-on-year to $145.7 billion in 2006. Exports of transportation equipment (up 18.2% to $58.9 billion), including automobiles (up 25.3% to $45.4 billion), contributed significantly to the increase in total exports. Exports to the U.S. contributed 21.9% to the increase in Japan's total exports, 18.7% of which was represented by automobile exports, making automobile exports the major factor in increased Japanese exports to the U.S. The strength of demand is indicated by the magnitude of the increase in exports of passenger vehicles to the U.S., which were up 35.8% to 2.2 million units in 2006, against 1.6 million units (up 6.7%) in 2005 (Table I-21). In the first quarter of 2007, exports to the U.S. were up 2.5% to $35.3 billion against the same period in 2006. On a quantity basis, this was a decline of 0.7%, representing the first decline in two years. Exports to the U.S. are being pushed down by declines in exports of construction and mining machinery (down 30.5% to $0.6 billion), which have been affected by

sluggishness in the U.S. housing market.

Considering trends in imports by country and region of origin in 2006, the following two noteworthy characteristics emerge:

1) Spiraling crude oil prices drove up imports from Middle Eastern countries;
2) The rate of growth of imports from China decreased.

In terms of the rate of contribution to the rate of growth of import value, the most important countries were China (15.5%), Saudi Arabia (14.0%) and the United Arab Emirates (UAE) (10.3%).

Imports from China increased by 8.6% year-on-year to $118.5 billion, a decline to a one-figure increase compared to the increase of 15.8% recorded in 2005. There was also a slight decline in the rate of increase on a quantity basis, from 11.2% in 2005 to 7.8% in 2006. Behind this is a slowdown in imports of mechanical components (up 8.7% to $48.3 billion). Due to price declines, among other factors, imports of audio-visual equipment recorded negative growth, declining 5.8% to $7.1 billion. In addition, an 18.2% decline in coal imports to $1.5 billion also pushed down Japan's imports from China. This can be seen as a result of a reduced export ability due to China's prioritization of domestic consumption. The major category driving imports from China was manufactured goods, such as metal goods (including steel construction machinery, nails, screws and bolts), which increased 12.3% to $14.8 billion.

■ **Automobiles make major contribution to propelling exports**

A review of exports by product in 2006 (Table I-22) shows that automobile exports (up 16.9% year-on-year to $105.8 billion) contributed significantly to pushing up the total value of Japanese exports. Other than automobiles, a considerable increase was recorded in exports of manufactured goods (up 10.7% to $74.6 billion), such as nonferrous metals (up 47.8% to $10.8 billion). In addition to growth in automobile exports, those to North America, the weak yen was the major factor responsible for pushing up exports.

Automobile exports were strong throughout the year, with the export ratio of vehicles manufactured domestically by major manufacturers exceeding 50% for the first time in 19 years, since 1987. According to the Japan Automobile Manufacturers Association (JAMA), the number of units exported in 2006 increased by 18.1% to 5.97 million, and the export ratio was 52%. Despite the fact that the number of units manufactured overseas increased 3.5% to 10.97 million, production is still not keeping pace with global demand. The sharp increase in exports of non-ferrous metals to China (up 70.1% to $2.6 billion) is conspicuous, and increases in the price of copper and aluminum have driven up Japan's export value.

Turning to 2006 imports by product (Table I-23), imports of mineral fuels (up 21.4% to $160.5 billion) such petroleum (up 24.1% year-on-year to $99.2 billion in value; down 0.8% to 246.73 kiloliters in quantity) were the major factor in the overall import increase. The import price of crude

oil exceeded $60 per barrel, increasing 25.1% to $63.90. In the third quarter of 2006, the price per barrel exceeded $70 for the first time, reaching $70.70. The import value of petroleum increased sharply due to the fact that the upward trend in crude oil price increases continued throughout the year. However, the value of crude oil imports declined for the first time in 11 quarters in the fourth quarter of 2006, declining 0.3% year-on-year to $23.1 billion. In the same period the rate of increase of crude oil prices has stabilized, with crude at $60.8 per barrel. Import increases were also recorded in the areas of electrical equipment (up 10.3% to $74.4 billion), including semiconductor components (up 15.7% to $24.7 billion) and manufactured goods (up 14.1% to $56.4 billion), including nonferrous metals (up 39.6% to $18.6 billion). Imports from Taiwan and South Africa pushed up the value of imports of semiconductor components and nonferrous metals respectively.

- **Surplus in IT trade balance increases for the first time in two years**

In 2006, Japan's IT exports increased 3.3% against 2005 figures to $138.2 billion, and imports increased 4.5% to $85.8 billion (Table I-24). An increase in exports of IT components for the first time in two years saw the surplus in the IT trade balance increase by $0.7 billion year-on-year to $52.5 billion. In addition to the strength of the world economy, increased overseas investment and increased export of core components by Japanese manufacturers are the key factors in this increase in exports of IT components.

By destination country and region, IT exports were given a considerable boost by increases in exports to China (up 19.3% year-on-year to $23.1 billion) and Mexico (up 38.6% to $3.2 billion). Exports of IT final products (up 19.9% to $4.8billion) and IT components (up 19.2% to $18.3 billion) to China both increased significantly over 2005, with two-figure growth recorded in each. Increased exports of semiconductor components (up 25.9% to $8.2 billion) such as integrated circuits (up 34.3% to $6.1 billion) were a particular factor in the overall export increases, and was due to increased exports of components as Japanese manufacturers expand production bases in China. Mexico is a base for the assembly of televisions for the North American market, and increased exports of core components as Japanese electrical goods manufacturers increased their capacity for the production of liquid crystal televisions in 2006 was a factor in the overall increase of exports to Mexico.

IT exports declined to South Korea (down 7.8% year-on-year to $9.5 billion) and the U.S. (down 1.4% to $26.3 billion). Exports of IT components to South Korea declined, with exports of semiconductor components down 13.2% to $3.8 billion, and exports of other electronic parts down 8.7% to $2.2 billion. With regard to exports to the U.S., because IT final products for the U.S. market are assembled in Mexico before export, as indicated above, there has been a decline in direct exports to the U.S. In fact, exports of IT final products from Mexico increased 26.3% to $35.8 billion, of which 85.5% were exports to the U.S..

In terms of specific product categories, exports were driven up by increases in exports of IT components, including semiconductor components (up 4.5% year-on-year to $41.7 billion) and electronic parts (up 11.6% to $36.0 billion). 2006 was the fourth consecutive year of growth in exports of IT components since the low recorded in 2002, with exports climbing 6.6% to $93.6 billion. Imports of IT final products grew 0.7% to $37.2 billion, representing a decline from the 4.6% growth recorded in 2005, while growth in imports of IT components accelerated to some extent, up 7.6% (to $48.6 billion) as compared to 4.0% growth in 2005. The trend was the same in imports from East Asia, which accounted for approximately 75% of Japan's IT imports. Imports of IT final products were down 0.6% against 2005(to $26.2 billion), the first time in five years that growth has gone below the level recorded in the previous year, while imports of IT components grew 6.4%(to $38.6 billion), advancing on the growth of 5.4% recorded in 2005. Imports of IT final products and components formerly displayed largely identical trends, and this divergence of trends is a noteworthy characteristic of results for 2006.

Japan's IT import figures were driven by imports from China (up 4.5% year-on-year to $30.5 billion) and Taiwan (up 14.3% to $10.2 billion). The import value of IT components (up 6.7% to $13.8 billion) and IT final products (up 2.8% to $16.8 billion) from China both increased

■ **Further development of division of production between Japan and East Asia in electrical equipment**

The Grubel-Lloyd Index (GLI) is an index that shows the degree of intra-industry trade in terms of imports and exports of goods belonging to the same industry category from individual countries. The GLI is normally defined as 1-Σ | (exports – imports) | / Σ (exports + imports), and takes a value between 0 and 1. As the proportion of intra-industry trade increases, the figure moves closer to 1. If there is a divergence between exports and imports in the country in question, the GLI will be skewed, and the figure following correction is defined as the intra-industry trade index[9].

Considering the intra-industry trade index between Japan and East Asia (here defined as nine major countries and regions)[10] by industry (HS six-digit basis) (Table I-19), we find that the index for electrical equipment is particularly close to 1, indicating increasing intra-industry trade in this category. Looking at the destination country and regions indices for electrical equipment, East Asia's intra-industry trade index in electrical equipment is high, and displays an increasing tendency. Japan's intra-industry trade in electrical equipment with East Asia can be indicated as being more active than the country's intra-industry trade in this category with the U.S. or the EU25 (Fig. I-20).

---

9. Exports are calculated as EXij X Σ (EXij + IMij)/Σ (EXij + EXij) and imports as IMij X Σ(EXij + IMij)/Σ(IMij + IMij), where EXij is exports of commodity i from country j, and IMij is imports of

commodity i to country j. Based on Isogai, T., Morishita, H., Ruffer, R. (2002), " Analysis of Intra- and Inter-regional Trade in East Asia: Comparative Advantage Structures and Dynamic Interdependency in Trade Flows," International Department, Bank of Japan.

10. China, South Korea, Taiwan, Hong Kong, Singapore, the Philippines, Malaysia, Indonesia, Thailand.

Intra-industry trade can be classified into vertical intra-industry trade and horizontal intra-industry trade. Vertical intra-industry trade is a pattern in which partner countries import goods of differing quality from the same industry category. For example, Japan might export capital-intensive, high-quality goods, while importing labor-intensive, low-quality goods from another country. This case represents trade with a high unit price differential between exports and imports. In horizontal intra-industry trade, countries import and export goods belonging to the same industry category but distinguished by design, brand, or other features. This is intra-industry trade with a low unit price differential between exports and imports. The intensifying intra-industry trade between Japan and East Asia in the electrical equipment category is vertical intra-industry trade, in which there is a divergence between the unit price of export and imports.

The trade pattern between Japan and East Asia in the electrical equipment category was analyzed based on “Trade Patterns in the Machinery Sector” published by the Bank of Japan in 2005, in which trade characterized by imports and exports with a price ratio of less than 1/1.25 (0.80) or more than 1.25 was defined as vertical intra-industry trade, and trade characterized by imports and exports with a price ratio of between 1/1.25 (0.80) and 1.25 were defined as horizontal intra-industry trade. Calculations were performed using HS six-digit classifications for IT-related equipment to divide commodities into components and final products and determine the form of trade in each case. The divergence between import and export unit prices for the top ten components in terms of trade value in the IT components category and the IT final products category was 25% or greater in both cases. This indicates that vertical intra-industry trade is the trade pattern for both IT components and IT final products (Table I-25). However, while the trade pattern is the same, for many products in the IT components category, Japanese export unit prices were higher, and for many products in the IT final products category, Japanese import unit prices were higher.

According to the Quarterly Survey of Japanese Business Activities, published by the Ministry of Economy, Trade and Industry, Japan’s electrical equipment companies are accelerating their push into East Asia, in particular China. The number of companies that have established bases in China increased from 403 in FY2001 to 737 in FY2005 (Fig. I-21), and investment in facilities increased from ¥98.2 billion to ¥221.4 billion. Investment in facilities in this industrial sector has also increased in Japan, with investments increasing from ¥2,405.8 billion to ¥3,926.6 billion between FY2001 and FY2005, according to the Financial Statements Statistics of Corporations by Industry

published by the Ministry of Finance. This indicates that the overseas expansion of Japanese companies is not a simple shift of production bases. It can be seen as indicating, as discussed above, that the structure in the electrical equipment sector is not one in which Japanese companies simply supply domestically-produced parts for assembly into final products in East Asia, but that a system is developing in which there is a regional division of labor in the production of parts according to the degree of value added.

(3) Outward direct investment in Japan

- **Figures for outward direct investment set new maximum for first time in 16 years**

Japanese outward direct investment (international balance of payments basis; net; flow) in 2006 continued on the growth path that commenced in 2004, increasing 10.3% year-on-year to $50.2 billion (Fig. I-22). This figure surpasses the previous maximum ($48.0 billion in 1990) for the first time in 16 years. Factors that can be indicated in the background are 1) active expansion into developing economies, particularly in Asia, 2) development investment in oil, natural gas, etc., conducted to ensure rights to energy resources, and 3) increased M&As of overseas companies.

While domestic investment is concentrating in the areas of production of high value-added goods and the development of new products, investment overseas is expanding in the area of measures for mass production.[11]

---

11. See JETRO's "FY 2006 Survey of Japanese Firms' International Operations" , page 51.

A number of differences emerge from a comparison of the peak period for Japanese outward direct investment from the second half of the 1980s to the beginning of the 1990s and the present period. In the former period, investment concentrated in North America, and largely in the U.S., while today Asia is the major investment destination, and in particular China with its high potential for growth. During the previous peak period, companies involved in the automotive and related industries enhanced their production systems in the U.S. in order to avoid trade friction. In addition, a strengthening yen increased perceptions of affordability with respect to companies and real estate, and investment picked up pace in non-manufacturing sectors such as finance and insurance and real estate. Today, in order to increase global competitiveness, investment is focusing on core operations, and is being employed to establish new production bases and expand factories, in particular in the manufacturing sector, such as the transport equipment industry, and the tobacco and glass industries, in which major M&As have recently been conducted.

■ **Japanese investment in China declines for the first time in seven years**

Looking at results by country and region, investments in western Europe were responsible for driving up the total value of Japan's outward direct investment. Within western Europe, figures for investment were buoyed by investment in the UK and the Netherlands. Japanese direct investment in the UK increased by 150.4% against 2005 to $7.3 billion, while investment in the Netherlands increased 156.3% to $8.5 billion. A certain amount of the direct investment in the UK represented a large-scale M&A in the ceramics sector (the purchase of Pilkington by Nippon Sheet Glass) as part of a global business expansion strategy. In the case of the Netherlands, the total amount of investment was boosted by increased investments in holding companies by trading companies to fund oil and natural gas development.

Investment in Asia represented 34.2% of Japan's direct investment, increasing 6.0% year-on-year to $17.2 billion. Investment in Asia is driving the current expansion in investment, but there was a hiatus in 2006, with the rate of growth of investment in the region slowing from the 53.7% recorded in 2005. The growth of investment in China in particular fell by 6.2% to $6.2 billion, following six consecutive years of growth from 2000 (Fig. I-23). In the background is a reconsideration of strategies for investment in China, in the wake of a backlash in relation to the rapid investment growth since 2003, increases in the cost of investment, and a greater awareness of the risks associated with investment in China. As can be seen in Casio's concentration of its multiple Chinese production bases in the hands of a newly created production subsidiary in order to increase production efficiency and reduce costs, companies are not merely refraining from investments in new facilities, but a trend towards consolidating production facilities in China can also be observed.

Direct investment in ASEAN 10 increased 38.4% year-on-year to $6.9 billion, boosted by a large-scale M&A in Malaysia (the purchase of OYL Industries by Daikin). However, investment in Thailand, Indonesia and the Philippines fell below 2005 levels. In the case of Thailand, this is a result of major investments having been conducted in the country by automotive manufacturers in 2005, in addition to an effect of political instability and a higher Baht. In the case of Indonesia, it is possible that, in addition to the slow pace of infrastructure provision, the stagnation of internal demand affected investment.

Investments in North America, accounting for 20.3% of Japan's outward direct investment, were down 22.6% against 2005 to $10.2 billion. Investments in the U.S., which accounted for the majority of North American investments, declined 23.3% to $9.3 billion. This is an effect of large-scale pull-outs in the area of communications in the first quarter of 2006. Given the increasing focus on specific business areas and consolidation of business by Japanese companies in the U.S., the significance of the U.S. holding company of NTT Communications, NTT USA, Inc., had declined, and the company opted to disband it. In addition, Matsushita Electric Industrial made the decision to sell its stake in Universal Studios Holdings in view of the increasing distribution of image content

online.

With regard to direct investment in the U.S., 2006 also saw a large-scale M&A in the field of power generation (the purchase of Westinghouse by Toshiba and others), and increased reinvestment of profits on the back of rising profits in the transportation equipment field.

Investment in Central and South America recorded a decline of 60.2% year-on-year to $2.5 billion due to a major withdrawal in the field of transportation equipment in Mexico. An automotive manufacturer transferred the shares in its Mexican production subsidiary held by its head office to a newly established subsidiary in Europe. While this was not a capital withdrawal in the true sense, it resulted in the recording of the maximum decline in investment growth and rate of contribution among the major regions in Central and South America.

■ **Increasing investment in emerging markets**

While investment in China decreased, in Asia investment in India and Vietnam, which have attracted attention as emerging markets, increased significantly, by 92.7% to $0.5 billion and 204.4% to $0.5 billion, respectively. Investment in the fields of transportation equipment and electrical machinery represented the highest percentage of investments in India and Vietnam, respectively. Advances by Japanese companies into emerging economies increased in 2006, with investments in Brazil, Russia and Eastern European nations, in addition to India and Vietnam (Fig. I-24).

In particular, Japan's major automotive manufacturers are increasingly advancing into India. Suzuki increased its presence in the country, holding an inauguration ceremony in February 2007 in Manesar, Haryana, for three new production plants for an automobile manufacture and sales subsidiary, an engine manufacturing subsidiary, and a motorcycle manufacturing and sales subsidiary. The company also plans to conduct further large-scale investments in the country by 2010. In the same period, Nissan, France's Renault and India's Mahindra and Mahindra announced that they would construct a factory in Chennai in Tamil Nadu to manufacture passenger cars and SUVs. The investment conducted by the three companies over the next seven years will amount to more than ¥109.6 billion. In July 2007 Honda commenced construction of an integrated production plant, which it intends to commence operating by the end of 2009, with an investment of approximately ¥27.6 billion. The plant will manufacture passenger vehicles, including small cars.

This push by major automotive manufacturers is not limited to India, but can also be observed in Russia (Table I-26). Following Toyota, Nissan decided in June 2006 to establish a new car assembly plant in Saint Petersburg. In June 2007, Suzuki also announced its intention to establish a base in Russia.

■ **Manufacturing industry boosts figures for outward direct investment**

By industry category, outward direct investment in the manufacturing industry increased by 32.0%

year-on-year to $34.5 billion in 2006, reaching a level of more than twice that of the non-manufacturing sector. A large-scale M&A conducted in Malaysia increased investment in the area of electrical machinery by 60.8% to $7.0 billion, boosting figures for the manufacturing sector. Investment in the areas of glass and stone also increased significantly, up 967.6% to $2.8 billion. Investments were also actively conducted in the oil industry in order to ensure rights to resources. Investments in this sector were up 450.0% to $2.9 billion. An investment conducted via a holding company in the Netherlands saw investment in the Netherlands representing the major percentage of investment in this sector.

By contrast, investment in the non-manufacturing sector fell by 19.0% year-on-year to $15.7 billion. In addition to a net outflow of $3.4 billion in the communications sector, which saw a large-scale withdrawal of capital from the U.S., this result was affected by a reduction in investment in the finance and insurance sector, down 39.7% to $5.6 billion, following large-scale investment in this sector in Central and South America in 2005. Investment in other non-manufacturing sectors increased by 360.3% to $5.5 billion, as a result of a large-scale M&A in the field of U.S. power generation (the purchase of Westinghouse by Toshiba and others). An 18.6% increase in investment in the wholesale and retail sectors to $5.5 billion, mainly in the UK, also contributed to the result.

■ **Cross-border M&As increased in scale in 2006**

The value of cross-border M&As involving Japanese companies increased by 63.6% year-on-year to $19.9 billion in 2006, while the number of M&As declined by 24 to 212. The figure recorded in the first half of 2007, $30.9 billion, has already exceeded the figure for 2006.

The value of cross-border M&As in 2006 reached its highest level since 2000, when M&As were stimulated by the IT boom. The increase in the scale of cross-border M&As can be indicated as a characteristic of 2006, and this trend has continued into 2007 (Fig. I-25). In addition, a tendency for companies to concentrate on their core businesses has become clear. This differs from the tendency towards business diversification displayed in the early 1990s, as exemplified by Sony’s purchase of the film company Columbia Pictures Entertainment and Matsushita's purchase of the major U.S. film and entertainment company MCA.

During 2006, there were four extremely large-scale M&As that exceeded $1.0 billion involving Japanese companies. The largest of these was the $5.4 billion purchase of U.S.-based Westinghouse by Toshiba, the U.S. engineering company Shaw Group and others. Toshiba decided on large-scale investment based on projections of increased demand for nuclear power to ensure stable electricity supply and as a measure to combat global warming (Table I-27). The $4.0 billion purchase of UK Pilkington by Nippon Sheet Glass was the next-largest M&A. This purchase was stimulated by the necessity of maximizing the synergy between the companies in the area of technological development.

The first half of 2007 saw the buyout of major British tobacco producer Gallagher by Japan Tobacco for $18.8 billion, a purchase that set a new historical record for M&As involving Japanese companies. The expansion represented by this purchase will enable Japan Tobacco to benefit from the economies of scale achieved, in addition to enhancing its technological assets and distribution infrastructure.

■ **Sales strategies of Japanese companies differ region by region**

It will be difficult for Japanese companies to rely on an increase in domestic demand in the future, and they are therefore pursuing strategies that see them hurrying to break into overseas markets and increase their profits on a global scale. According to the "Quarterly Survey of Overseas Subsidiaries", published by the Ministry of Economy, Trade and Industry, the sales ratio of commodities manufactured overseas (all domestic companies basis) has demonstrated a constant increase since the middle of the 1990s, from 8.3% in FY1995 to 16.7% in FY2005. The percentages in the area of information and communications equipment, including electronic component and device manufacture, and the area of transportation equipment, are over 30%. In addition, the fact that the percentages are at their highest in Asia, exceeding North America, indicates that Japanese companies are positioning their corporate activities in Asia as the center of their overseas business strategies.

The sales achieved by Japanese companies overseas can be broadly divided into three types: sale in the country of manufacture, export to a third country other than Japan, and export to Japan (reverse import). Considered by region, there is a strong tendency for Japanese companies in North America to expand their sales volume by means of sales in North America (Table I-28). In Europe, there is a high proportion of export to third countries in addition to domestic sales. It is characteristic of Japanese companies in Asia, however, to seek profit by means of all three avenues: domestic sales, exports and reverse imports. In 2006, the percentage of domestic sales in Asia rose to approximately 50% from the level of around 40% that it had maintained for a five-year period up to 2006. The growth was particularly pronounced in China, increasing from around 35% to more than 50%. Japanese companies do not merely regard China as a production base, but are also serious about the development of enormous consumer markets in the country.

Considered by industry, domestic sales in the country that formed the destination for investment is the major type of sale in the transportation equipment sector, and in the related steel sector. In the electrical machinery and precision machinery sectors, exports to third countries represents the major sale type in all regions other than North America, with reverse imports also forming an important source of profit in Asia.

■ **Increase in reinvestment of profits continues**

Japanese companies are expanding their overseas sales channels, and are adopting a strategy that stresses reinvestment of profits overseas rather than their repatriation to Japan.

The balance of direct investment profits (interest generated by directly invested capital held overseas, dividends, etc.) increased by $5.2 billion in 2006 to reach a $26.1 billion surplus, with increases in Asia in particular. This figure represents the largest surplus recorded in the period since 1996 for which statistics are available. Dividends and branch profits allocated from overseas subsidiaries and related companies to parent companies increased $2.5 billion to $11.3 billion, while reinvested profits increased $2.6 billion to $14.1 billion, both figures maintaining high rates of increase (Fig. I-26).

The profit ratio of overseas investments has also recovered from its drop at the time of the Asian monetary crisis, and has recently maintained a higher level than recorded in the past. However, despite the fact that the profit ratio has overtaken that of Germany, it is still at a lower level than that of the U.S. (Fig. I-27). The divergence between profit ratios is particularly high in Asia. Reasons that can be indicated for this are the facts that U.S. companies are expanding their activities internationally in the services sector, in particular the finance industry, in addition to the manufacturing sector, and they display a higher level of localization than Japanese companies, leading to greater customer acceptance.[12]

---

12. For a discussion of the causes of differences in the profit ratio of investments by Japanese and U.S. companies in China and ASEAN 4 (Thailand, the Philippines, Indonesia, Malaysia), see page 149 of the "White Paper on International Economy and Trade" (2006) published by the Ministry of Economy, Trade and Industry.

---

(4) New records set for inward direct investment inflows and outflows

- **Net capital outflow recorded for the first time since 1996**

In 2006, a $6.8 billion capital outflow (international balance of payments basis; net) was recorded in Japanese inward direct investment. This represents the first negative figure recorded since 1996, but new records were set for the value of both capital inflow and outflow. Capital inflow increased 51.7% year-on-year to $45.6 billion, the highest figure since 1996. Equity capital increased 49.0% to $25.8 billion, while reinvested earnings (unallocated profits at the destination of the investment) increased 32.4% to $2.2 billion, with both figures representing new records (Fig. I-28). Investment by overseas companies in Japan also recorded a steady increase, with other capital (borrowing and lending of funds and sale and purchase of securities other than shares by foreign companies) increasing by 58.7% to $17.7 billion.

Capital outflows from Japan also achieved a new maximum, at $52.5 billion. Equity capital increased 157.4% to $34.6 billion, while other capital increased 32.7% to $17.8 billion. This result was significantly affected by the sale by UK Vodafone of their Japanese subsidiary to BB Mobile, a Softbank Group company, in April for $17.53129 billion. (This withdrawal of capital represented 33.4% of the capital outflow from Japan on an international balance of payments basis. In its absence, a capital outflow of $34.9 billion would have been recorded, resulting in a net capital inflow of $10.7 billion.) Continuing capital withdrawals in response to poor business performance by the investing company, as exemplified by U.S. GM's sale of its stake in Suzuki ($1.956 billion), also contributed to the increase in capital outflows. In addition, the trend towards recovery of investments by foreign funds, etc., which became conspicuous in 2005, also continued in 2006.

Looking at net capital inflow and outflow by region, net outflows were recorded in the major regions such as North America, Western Europe and Asia. In North America, the sale by GM of its stake in Suzuki in March 2006 and a trend towards recovery of capital by some financial institutions led to a $2.7 billion outflow, while in Western Europe, the Vodafone sale mentioned above resulted in a capital outflow of close to $4.0 billion against a $1.1 billion inflow the previous year. In Asia, a trend towards the incorporation of Japanese branches of foreign securities companies and the partial recovery of the capital held by the branches through bases in Asia led to a $0.9 billion capital outflow in 2006, against a capital inflow of $1.6 billion in 2005 (Fig. I-29).

By industry sector, the manufacturing sector, which recorded a $2.2 billion outflow in 2005, recorded an inflow of $0.3 billion in 2006. In the non-manufacturing sector, in addition to a $9.7 billion outflow in the communications sector resulting from the Vodafone sale, an outflow of approximately $2.2 billion to Hong Kong was recorded in the finance and insurance sector. However, this was offset by inflows of around $1.0 billion from each of the UK, the Netherlands and Singapore, resulting in an overall capital inflow of approximately $2.3 billion (Reference Section/Statistics: See Table 13).

In 2007, with a series of large-scale M&As targeting Japanese companies (to be discussed below), a capital inflow of $27.1 billion was recorded between January and May. While capital outflows totaled $12.9 billion, the net inflow of $14.2 billion represents a new high.

The stock of inward direct investment in Japan as of the end of 2006 was ¥12.8 trillion, meaning that the scheme launched by the government in 2003 to double direct investment the levels at the end of 2001 has largely been achieved (Fig. I-30). As a result, the percentage of GDP represented by investment in Japan rose from 1.3% as of the end of 2001 to 2.5% in 2006, and the government has established a new target, seeking to increase the figure to 5% by 2010.

■ **A paucity of large-scale domestic M&As in 2006**

According to data published by Thomson Financial (completion basis), the announced value of

domestic M&As in 2006 was $3.42060 billion, a slight increase over the figure of $3.25610 billion recorded in 2005, but at 87, the number of M&As failed to break the 100 mark for the first time since 1999. In addition, large-scale M&As were limited to several deals by the U.S.'s investment banks in January, etc., and no M&A exceeded $1.0 billion, continuing the 2005 trend (Fig. I-31, Table I-29).

The numerous corporate revival-related M&As that occurred in 2003 and 2004 came from 2005 to mainly involve small and medium-sized acquisitions, and therefore do not have the presence that they previously did. In addition to the fact that there is largely no longer any requirement for the revival of large companies with the recovery of the Japanese economy, this is a result of an increasing involvement of domestic funds and financial institutions in corporate revival, an area that was previously dominated by foreign funds, diminishing the relative presence of the latter. There have been increasing cases recently, on the other hand, of foreign funds, etc., involving themselves in companies with minimal investments, and on that basis making stockholder proposals regarding dividend increases, abolition of lockup policies, selection of board members and the like (Table I-30).

By country and region, domestic M&As initiated in North America continued to maintain a high level at 46 M&As totaling $1.971 billion, while the presence of East Asian companies also displayed a gradual increase. In 2006, 14 M&As were initiated in Japan by East Asian companies. The announced value of these M&As was $0.866 billion on an announced basis, a figure that represents a new high. Among these, cases of involvement in companies based on investments to raise capital by investment funds in financial centers such as Hong Kong and Singapore were conspicuous, but other M&As indicated that East Asian companies are gradually extending their power with respect to M&As in Japan. These included the purchase of the solar power system manufacturer MSK by the Chinese solar battery manufacturer Suntech Power, the purchase of the Kaga Central Golf Club by a group of Korean investors, and the takeover of the computer program services company Commseed by the Korean online game company Cykan.

Column I-1

⊙Japanese companies using Asia as a base to increase overseas profitability

According to trends in overseas profits calculated by JETRO on the basis of the consolidated statements of listed companies for FY2006, the overseas sales ratio of Japanese companies (excluding exports from Japan, etc.) was 33.8% for the period, the next highest ratio to the 33.9% recorded in 2005 (see Table). In addition, data for the 773 companies indicates that the value of sales in overseas bases increased 13.0% year-on-year while operating profits increased 14.9%, marking five consecutive years of increased revenues and increased profits. Due to the fact that domestic

business is generally growing strongly, in FY2006 the growth in revenue and profits recorded in domestic divisions (14.3% and 33.4% respectively) were higher than those in overseas divisions, but from a longer-term perspective, overseas divisions have been supporting overall company profits since FY2001.

Variations can be observed in the degree of overseas expansion by different industry sectors. In terms of changes over time in the overseas sales ratio, the ratio increased from 31.8% in FY1997 to 37.6% in FY2006 in the manufacturing sector, while it declined from 24.9% to 19.6% in the non-manufacturing sector. Other differences can be noted between industry sectors, for example the fact that the total overseas asset ratio in the manufacturing sector increased from 26.6% to 32.2% between FY1997 and FY2006, while declining from 25.8% to 19.9% in the non-manufacturing sector.

In addition, looking at the return on assets (ROA) and asset ratio by region, both ratios are high for both the manufacturing and non-manufacturing sectors in the Asia-Pacific region, while trends differ for each sector in the U.S. and Europe. In the U.S. in particular, both ROA and the asset ratio are generally high for the manufacturing sector, whereas for the non-manufacturing sector, while ROA is high, the asset ratio is relatively low, indicating a slow start in terms of overseas expansion in comparison with the manufacturing industry (Fig. 1). Examining the two factors which consist ROA, -the sales to operating profit ratio (the ratios of operating profit to sales) and the ratio of return on total assets (the ratio of total assets to sales)-, a comparison of domestic and overseas divisions indicates that for overseas divisions, ROA is bolstered by the ratio of return on assets rather than the profit ratio, and this trend is particularly marked in Asia. This appears to be because the increase in ROA is supported by economic growth in the country in which the company is located rather than the competitiveness of the product or service itself. Over the past several years, overseas profit ratios have tended towards improvement, but the question as to how to achieve a sustained improvement in both the manufacturing and non-manufacturing sectors can be indicated as an issue for the future (Fig. 2).

Table Overseas sales and profits trends among listed companies

Sales share by region (%)

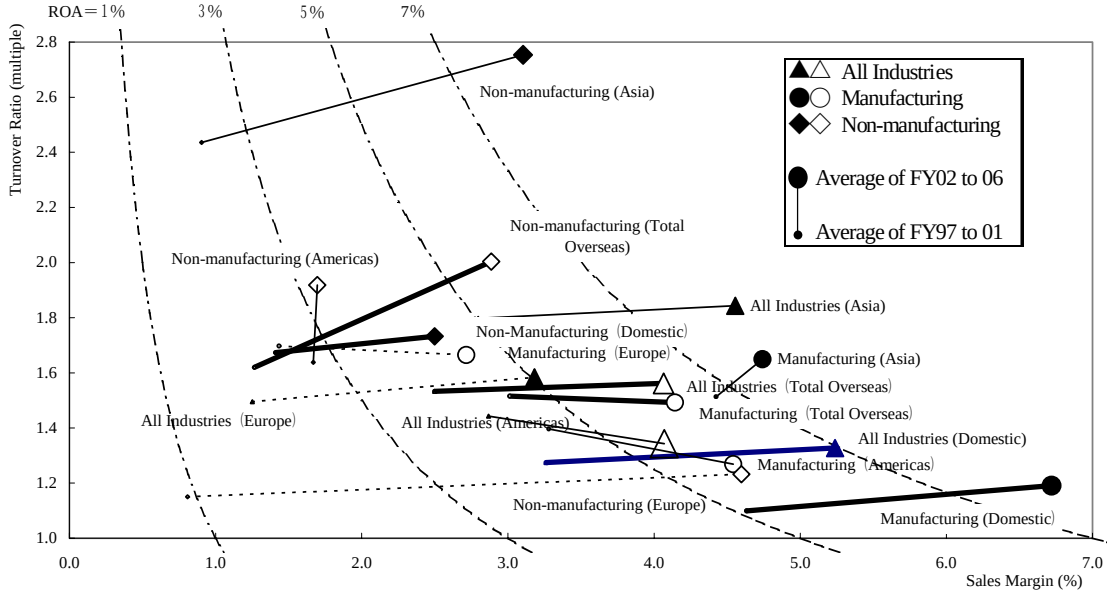
Fiscal year	No. of companies	World	Domestic	Overseas	Americas	Europe	Asia-Pacific	Other
1997	(582)	100.0	71.4	28.6	11.3	5.4	5.8	6.1
1998	(593)	100.0	71.1	28.9	13.4	6.0	4.9	4.6
1999	(643)	100.0	72.5	27.5	12.4	5.4	5.5	4.2
2000	(668)	100.0	71.9	28.1	12.6	5.2	6.4	3.9
2001	(715)	100.0	69.7	30.3	13.7	5.5	6.7	4.4
2002	(728)	100.0	68.0	32.0	13.7	6.0	7.8	4.6
2003	(738)	100.0	67.9	32.1	12.9	6.1	8.2	4.9
2004	(774)	100.0	67.3	32.7	12.2	6.4	8.8	5.3
2005	(804)	100.0	66.1	33.9	12.5	6.3	10.1	5.0
2006	(832)	100.0	66.2	33.8	12.6	6.9	10.3	4.1

Operating profits share by region (%)

Fiscal year	No. of companies	World	Domestic	Overseas	Americas	Europe	Asia-Pacific	Other
1997	(582)	100.0	76.6	23.4	9.8	3.4	4.8	5.3
1998	(593)	100.0	73.4	26.6	13.8	4.8	4.4	3.6
1999	(643)	100.0	75.0	25.0	14.1	2.1	5.0	3.7
2000	(668)	100.0	79.9	20.1	10.4	0.7	6.0	3.0
2001	(715)	100.0	76.0	24.0	12.4	0.6	6.7	4.2
2002	(728)	100.0	72.9	27.1	13.0	2.8	7.2	4.1
2003	(738)	100.0	73.3	26.7	11.1	4.3	7.5	3.7
2004	(774)	100.0	71.8	28.2	10.9	4.7	8.6	4.0
2005	(804)	100.0	70.8	29.2	10.8	4.7	10.0	3.7
2006	(832)	100.0	73.5	26.5	9.1	4.1	8.3	5.1

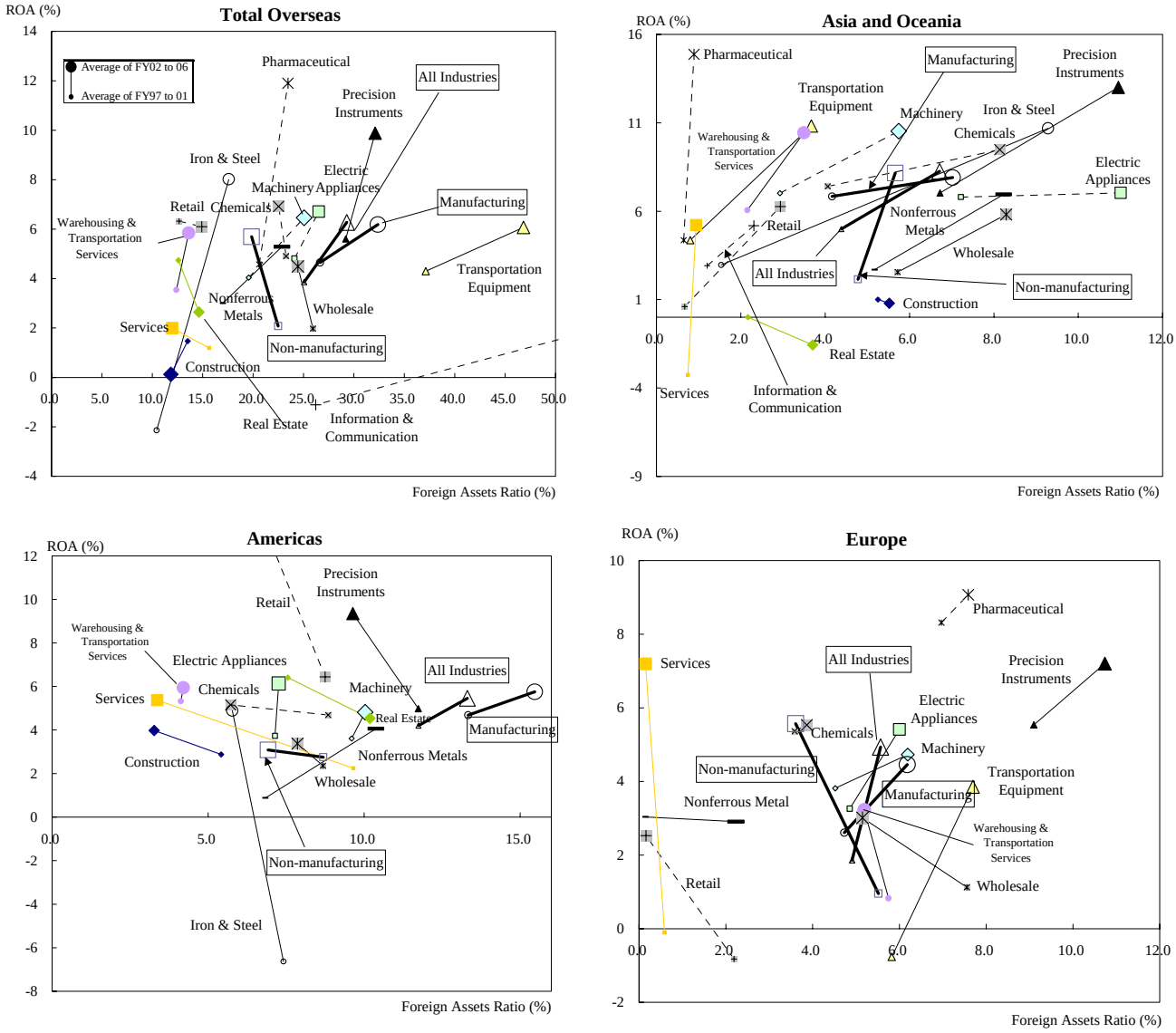
Notes: 1. The data cover listed companies whose fiscal years end between December and March (excluding banks and insurance companies) and whos
2. For FY2006, the data include corporations that had released their consolidated financial results by May 31, 2007.
3. The totals are totals of each region prior to exclusion of internal transactions within the consolidation. Total sales thus include inter-segment sales.
4. The YoY growth rate is based on the same companies as sampled in the previous year.
5. The data include some listed subsidiaries and thus are duplicated in some cases.
6. “Other,” in regions, includes data covering multiple regions, such as “Europe and America” or “overseas.”
Sources: Toyo Keizai Inc. *CD-ROM of corporate financial records* (to FY2005); corporations’ consolidated financial statements (FY2006).

Fig 2　Sales Margin and Turnover Ratio by Region



Note: ROA=Operating profit/Total Asset (end of fiscal year)
Sources: Toyo Keizai Inc. CD-ROM of corporate financial records (to FY2005); corporations' consolidated financial statements (FY2006).

Trends of Foreign Assets Ratio and ROA by Region
（FY97 to 2001 and FY2002 to 2006）



Note:

1) Figures for FY2006 exclude companies that did not disclose their assets on their financial statements. The other figures are same as indicated in the Tables.
2) ROA is calculated as operating profits during the fiscal year divided by total assets as of the end of the fiscal year.
3) “Manufacturing sector” here represents 16 of the 33 classifications employed by the Tokyo Stock Exchange, as follows: Foodstuffs, textile products, pulp and paper, chemicals, medical products, petroleum and coal products, rubber products, glass and earth products, iron and steel, non-ferrous metals, metal products, machinery, electrical equipment, transport equipment, precision equipment, and other products. “Non-manufacturing sector” refers to all industries other than industries in the manufacturing sector (excluding banks and insurance companies).
4) For the U.S. and Europe, some industries could not be included in the graphs. The figures for such industries are shown in the following table (unit: %).

Americas

Transportation Equipment	Assets Ratio	ROA
FY97-01	26.9	5.5
FY02-06	31.1	5.9
Pharmaceutical	Assets Ratio	ROA
FY97-01	9.8	3.6
FY02-06	12.4	14.6
Information & Communication	Assets Ratio	ROA
FY97-01	40.7	1.6
FY02-06	17.8	-3.1

Europe

Construction	Assets Ratio	ROA
FY97-01	1.5	-2.4
FY02-06	0.9	-19.9
Information & Communication	Assets Ratio	ROA
FY97-01	4.0	5.7
FY02-06	2.4	22.5
Real Estate	Assets Ratio	ROA
FY97-01	0.2	-18.7
FY02-06	0.1	-

Looking at the business type of purchased companies, continuing the trend of 2005, numerous resort facilities such as golf courses were acquired for revival in 2006, with a strong drive to invest evident in regions in which comparatively low-cost facilities remain available. M&A of real estate-related companies also registered a significant presence, with eight M&As totaling $0.465 billion. However, given indications of overheating in some real estate transactions, mainly in metropolitan areas, and the rising trend of long-term interest rates since the end ofzero interest rate policy of the Bank of Japan, there is less activity in the area of real estate than was previously the case. With regard to the purchasing companies in Japanese M&As, investment funds and related entities maintained a high share, representing approximately half of total M&As in terms of number (32) and announced value ($0.9617 billion).

In 2007, a number of major M&As have already taken place, including the acquisition of the Nikko Cordial Group by Citigroup, the purchase of hotels managed by ANA by the Morgan Stanley Group, and the buyout of Nissan Diesel by the Volvo Group. M&As from January to June, at an announced value of $17.00735 billion, have already surpassed results for 2006, and have recorded the most rapid increase ever on a semi annually basis. While there is a strong element of credit enhancement in the purchase of the Nikko Cordial Group by Citigroup, it can, together with the purchase of Nissan Diesel, be viewed as part of a global business reorganization. Overseas also, having experienced a reorganization from the latter half of the 1990s to the first half of the 2000s, is once again undergoing a new reorganization, including the separation of Chrysler from DaimlerChrysler and the purchase of the Reuters Group by the Thomson Financial Group. In the future, this reorganization may gather pace and involve Japanese companies.

- **Effect of lifting the ban on triangular mergers**

As this global business reorganization proceeds, lifting the ban on triangular mergers in May 2007 is attracting attention as a systemic change that will very likely promote M&As of Japanese companies by overseas companies. A new Company Law fusing the former [Part II] of the Commercial Code, the Limited Company Law, and others, came into effect from May 2006. One year later, a provision providing for increased flexibility in merger considerations came into effect, making triangular mergers and cash-out mergers possible. Formerly, the shareholders of the acquired company could only be compensated by means of shares in the acquiring company. The new provisions make it possible, subject to the approval of the board of directors and a special resolution of the general shareholders' meeting of the acquired company, to employ shares issued by the parent company of the acquiring company, among other means. This will enable foreign companies to acquire Japanese companies without the requirement for large amounts of cash, as in a takeover bid.

According to the Enforcement Regulations of the Revised Company Law promulgated in April 2007, in the event of a merger, companies are obliged to disclose information regarding the appropriateness of the merger consideration and the method of conversion of the consideration, among other pieces of information.

With regard to tax treatment, under the former corporate restructuring tax system, if specific criteria of eligibility were met, book price transfer of assets and liabilities (deferment of tax) was allowed. The April 2007 amendment of the Corporation Tax and Special Taxation Measures Laws maintains business relatedness between the parties to the merger as a condition for tax deferral, but recognizes conditions of eligibility as being fulfilled if the parties have fixed facilities or employees. This means that dummy companies lacking business substance do not fulfill the condition for tax deferment. The amendment of the laws also increases the range of options available to companies that already possess a Japanese representative when they take a Japanese company under their umbrella without modifying their corporate structure.

The aggregate market value of shares of companies in emerging economies, in particular the BRICs, has recently increased, and the aggregate market value of shares per company in Mexico, Brazil, and South Africa has exceeded that of Japan (Fig. I-32). Because tax issues currently make it difficult to conduct exchange offers using shares of the purchasing company as consideration, the low aggregate market value of Japanese companies means that there is only a potential risk of hostile takeovers, but the occurrence of friendly takeovers via triangular mergers by companies in emerging countries in addition to companies in the U.S. and Europe, which have traditionally been the main actors in M&As of Japanese companies, can be projected.

■ **Establishment of a regulatory environment suited to a period of global reorganization**

The establishment of a legal system relating to corporate restructuring, including the measure that lifts the ban on triangular mergers, has increased the possibility that Japanese companies will be

exposed to international pressure to restructure. Some companies are merging with other domestic companies to become competitive on a global scale, while many cases of the implementation of takeover prevention measures have also been observed.

Against this background, the Guidelines to Application of the Antimonopoly Act Concerning Review of Business Combination were revised in March 2007. Under the pre-revision guidelines, the degree of oligopoly in the domestic market was the major focus when attempting to control market concentration through business combination. Following the revision, the degree of oligopoly in overseas markets is also considered in areas of business in which severe international competition exists, and the standards regarding oligopoly have been relaxed. This will in some cases enable M&As that were previously prevented because a high degree of oligopoly in the domestic market, and, in combination with the revision of the legal system relating to corporate restructuring, will increase the range of options available to companies in terms of restructuring.

However, there is serious concern that corporate restructuring involving foreign companies might result in the illegal overseas channeling of technologies possessed by Japanese companies that could be put to military use, which would have a significant impact on security. Based on the Foreign Exchange Act, Japan's regulations concerning inward investment include a requirement for prior notification in the case of certain types of companies, but because they were established in 1991, aspects of the current regulations are insufficiently adapted to a situation in which economic activities and corporate restructuring are globalized. With regard to this issue, the interim report of the Study Group on the International Investment Environment in a Globalized Economy of the Ministry of Economy, Trade and Industry, published in April 2007, outlined an orientation for inward investment regulations, among other proposals suggesting that, in addition to the maintenance of the existing regulations, regulations should be extended to cover general purpose items with significant potential for diversion to military use, and that regulations should also be applied to the parent companies of companies operating in businesses that are subject to the regulations. A Revision of Government and Ministerial Ordinances concerning Inward Direct Investment Regulations based on the Foreign Exchange and Foreign Trade Acts that incorporates these proposals was formulated in June 2007, and is scheduled to be enacted in September 2007. These regulations must not impede inward investment by constraining the advance of foreign companies into Japan to an unnecessary degree, and the introduction of rules that are highly objective and transparent in terms of content, procedure and operation, and which are balanced with the purpose of the regulations, is therefore required.

Table I-18 Trends in Japanese Trade

(US$ million, %)

	2005	2006	2006				2007
			Q1	Q2	Q3	Q4	Q1
Exports	598,215	647,290	151,191	158,145	166,258	171,696	166,410
YoY change (%)	5.9	8.2	4.8	7.3	10.4	10.1	10.1
Imports	518,638	579,294	138,741	142,591	148,608	149,354	144,651
YoY change (%)	14.1	11.7	14.2	11.5	11.5	9.9	4.3
Trade balance	79,577	67,997	12,450	15,554	17,651	22,342	21,759
YoY change	-30,792	-11,581	-10,370	-3,932	327	2,395	9,308
Export volume index	114.4	123.2	119.2	122.5	125.6	125.4	122.0
YoY change (%)	0.8	7.7	11.2	8.8	8.3	3.3	2.4
Import volume index	117.9	122.3	117.8	121.9	122.7	126.8	117.7
YoY change (%)	2.9	3.7	2.6	4.5	3.0	4.9	-0.1
Crude oil imports price (US$/barrel)	51.1	63.9	59.5	64.9	70.7	60.8	57.5
YoY change (%)	40.5	25.1	46.1	30.6	26.0	6.2	-3.4
Ratio of oil imports	15.4	17.1	17.4	17.4	18.3	15.5	15.6
Radio of manufactured imports	58.6	56.8	56.2	56.3	56.3	58.3	58.2
Exchange rate (yen/$ avg.)	110.2	116.3	116.9	114.4	116.2	117.8	119.4
YoY change (%)	-1.8	-5.3	-10.6	-5.9	-4.3	-0.4	-2.1

Notes: 1. The base year for volume indices is 2000.
2. Exchange rates are the interbank central rate averages for the period.
3. Quarterly growth rates are YoY comparisons.
Sources: Ministry of Finance, Trade Statistics; Cabinet Office, The System of National Accounts; and Bank of Japan , Economic Statistics Monthly

Table I-19 Trends in Japanese current account balance

(US$ million, %)

	2005	2006	value change
Current account balance	165,887	170,507	4,620
Balance of goods and services	69,958	63,040	-6,918
Trade balance	94,018	81,296	-12,722
Exports	567,889	615,778	47,889
Imports	473,872	534,483	60,611
Swervices balance	-24,060	-18,257	5,803
Income balance	103,510	118,151	14,641
Current transfers	-7,580	-10,684	-3,104
Current account balance/GDP(%)	3.6	3.9	-

Note: Data publshed in Yen is calculated into dollars by interbank central rate averages for the period.
Sources: Ministry of Finance, Trade Statistics; Cabinet Office, The System of National Accounts; and Bank of Japan , Economic Statistics Monthly

Table I-20 Japan's import /export trends with major trading partners

(US$ million, %)

			2005	2006	2006				2007
					Q1	Q2	Q3	Q4	Q1
World	Exports	Value	598,215	647,290	151,191	158,145	166,258	171,696	166,410
		YoY change	5.9	8.2	4.8	7.3	10.4	10.1	10.1
	Imports	Value	518,638	579,294	138,741	142,591	148,608	149,354	144,651
		YoY change	14.1	11.7	14.2	11.5	11.5	9.9	4.3
	Export volume YoY change		0.8	7.7	11.2	8.8	8.3	3.3	2.4
	Import volume YoY change		2.9	3.7	2.6	4.5	3.0	4.9	-0.1
U.S.A.	Exports	Value	134,889	145,651	34,427	35,516	37,256	38,452	35,285
		YoY change	6.4	8.0	5.0	6.7	12.4	7.8	2.5
	Imports	Value	64,497	68,071	16,404	17,016	17,344	17,307	17,079
		YoY change	3.3	5.5	7.1	2.1	5.3	7.9	4.1
	Export volume YoY change		2.1	8.8	9.3	8.4	9.7	8.1	-0.7
	Import volume YoY change		1.6	0.4	0.3	-3.7	0.9	4.2	9.4
EU25	Exports	Value	88,036	93,869	22,696	23,207	23,107	24,860	25,470
		YoY change	-1.0	6.6	0.3	7.3	9.1	10.1	11.9
	Imports	Value	59,066	59,830	14,884	14,577	14,838	15,531	15,673
		YoY change	2.2	1.3	-1.7	-2.0	2.1	6.9	4.9
	Export volume YoY change		-5.2	3.9	4.1	5.8	4.9	1.1	-3.0
	Import volume YoY change		0.2	0.9	1.9	-0.9	0.9	1.9	1.8
East Asia	Exports	Value	283,336	300,142	68,777	73,891	77,710	79,764	76,041
		YoY change	5.6	5.9	2.5	4.9	7.1	8.9	10.6
	Imports	Value	226,485	247,716	58,814	60,389	62,483	66,030	62,110
		YoY change	12.1	9.4	7.6	7.6	9.2	12.9	5.6
China	Exports	Value	80,340	92,852	20,318	22,536	24,009	25,988	24,247
		YoY change	8.8	15.6	13.0	17.4	14.3	17.3	19.3
	Imports	Value	109,105	118,516	27,671	28,731	29,876	32,239	29,806
		YoY change	15.8	8.6	6.0	6.3	8.5	13.4	7.7
	Export volume YoY change		2.4	14.4	19.0	18.4	11.7	10.1	13.8
	Import volume YoY change		11.2	7.8	7.9	6.4	6.7	10.3	2.9
ASEAN 10	Exports	Value	76,074	76,349	17,668	18,588	20,106	19,987	19,440
		YoY change	4.4	0.4	-4.0	-4.9	3.7	6.7	10.0
	Imports	Value	73,076	79,990	19,108	19,605	20,462	20,815	20,323
		YoY change	8.4	9.5	6.3	8.8	9.5	13.2	6.4
	Export volume YoY change		1.4	-0.2	2.9	-1.5	0.2	-2.3	5.7
	Import volume YoY change		-1.6	3.5	-2.7	5.5	5.0	5.8	1.2
South Korea	Exports	Value	46,880	50,321	12,033	12,522	12,634	13,132	13,154
		YoY change	6.1	7.3	6.5	10.4	5.8	6.8	9.3
	Imports	Value	24,536	27,345	6,722	6,730	6,659	7,233	6,493
		YoY change	11.4	11.4	16.6	9.7	11.8	8.3	-3.4
Taiwan	Exports	Value	43,910	44,152	10,610	11,229	11,162	11,149	10,172
		YoY change	4.7	0.6	-3.4	-2.8	3.7	5.0	-4.1
	Imports	Value	18,187	20,345	4,927	4,963	5,091	5,364	5,107
		YoY change	9.1	11.9	11.6	9.3	8.8	17.7	3.7
Hong Kong	Exports	Value	36,132	36,469	8,148	9,015	9,798	9,509	9,027
		YoY change	2.1	0.9	-3.2	2.5	3.4	0.8	10.8
	Imports	Value	1,580	1,521	386	361	395	379	381
		YoY change	-2.6	-3.7	-3.6	-6.1	4.6	-9.2	-1.3
Middle East	Exports	Value	16,575	19,194	4,585	4,268	4,990	5,350	5,985
		YoY change	14.6	15.8	19.7	10.8	15.5	17.0	30.5
	Imports	Value	87,667	109,190	26,546	26,774	29,989	25,880	25,349
		YoY change	39.8	24.6	44.9	34.6	26.1	0.8	-4.5
Central and South America	Exports	Value	25,112	30,574	7,399	6,598	8,387	8,189	8,423
		YoY change	16.0	21.8	24.9	14.1	28.0	19.6	13.8
	Imports	Value	16,107	20,411	5,071	5,003	5,210	5,126	5,192
		YoY change	17.2	26.7	33.1	27.5	20.3	26.8	2.4

Note: Data for EU25 in 2007 Q1is calculated in EU27.
Source: Ministry of Finance, Trade Statistics.

Table I-21 Trends in passenger car exports and sales in U.S.A.

(vehicles, %)

	2004	2005	2006
Exported to U.S.A.	1,523,220	1,624,685	2,206,347
(YoY change)	-2.7	6.7	35.8
Japanese passenger cars sold in U.S.A.	810,004	922,934	1,154,456
(YoY change)	-0.9	13.9	25.1
Passenger cars sold in U.S.A.	7,505,932	7,667,066	7,780,758
(YoY change)	-1.4	2.1	1.5
Japanese passenger cars produced in U.S.A.	3,143,603	3,383,277	3,281,073
(YoY change)	11.4	7.6	-3.0

Source: Japan Automobile Manufacturers Association

Table I-22 Japanese exports by product (2006)

(US$ million, %)

	World		U.S.A.		EU25		China		ASEAN10		Middle East	
	Value	YoY	Value	YoY	Value	YoY	Value	YoY	Value	YoY	Value	YoY
Total value	647,290	8.2	145,651	8.0	93,869	6.6	92,852	15.6	76,349	0.4	19,194	15.8
Foodstuffs	3,078	6.4	516	1.1	117	5.8	423	19.8	321	2.0	44	12.3
Raw materials	7,742	14.6	497	50.9	581	20.1	3,220	18.8	749	8.7	77	60.4
Mineral fuels	5,550	30.8	1,161	75.8	471	18.4	1,380	13.4	402	1.9	11	37.4
Chemiccals	58,445	9.7	6,905	-0.4	6,912	5.7	12,206	16.6	6,791	6.1	371	12.4
Basic manufactures	74,639	10.7	8,628	9.7	5,756	7.6	15,061	13.7	13,685	4.0	3,549	26.1
Iron and steel	29,987	8.2	2,031	24.9	842	26.1	5,951	5.3	6,541	-5.2	1,779	36.3
Nonferrous metals	10,752	47.8	724	14.4	588	34.5	2,599	70.1	2,304	49.4	273	40.2
Manufactures of metals	9,023	6.3	1,999	8.8	1,161	0.1	1,549	18.8	1,812	1.0	145	16.7
General machinery	127,344	4.6	31,318	2.9	23,241	5.9	18,947	10.9	15,634	-5.8	3,202	32.0
Electrical equipment	138,262	4.4	23,144	-1.7	20,800	0.4	25,215	21.3	21,734	2.4	1,742	4.2
Transportation equipment	156,898	13.3	58,862	18.2	23,707	8.5	5,373	33.0	7,337	-13.5	9,401	11.5
Automobiles	105,787	16.9	45,363	25.3	15,741	5.6	1,557	20.6	3,078	-15.3	8,765	11.9
Others	75,333	6.3	14,620	-1.3	12,284	15.4	11,027	5.6	9,695	10.1	796	-0.6

Source: Ministry of Finance, Trade Statistics

Table I-23 Japanese imports by product (2006)

(US$ million, %)

	World		U.S.A.		EU25		China		ASEAN10		Middle East	
	Value	YoY	Value	YoY	Value	YoY	Value	YoY	Value	YoY	Value	YoY
Total value	579,294	11.7	68,071	5.5	59,830	1.3	118,516	8.6	79,990	9.5	109,190	24.6
Foodstuffs	49,122	-3.1	12,890	-3.6	5,311	-4.4	8,041	1.8	5,699	1.8	108	-6.9
Raw materials	40,724	27.5	4,009	12.1	2,115	3.1	1,749	3.6	8,506	44.0	152	51.8
Mineral fuels	160,496	21.4	957	-21.4	150	6.4	2,845	-13.8	21,463	10.2	107,028	24.9
Chemiccals	42,239	7.1	8,756	8.3	14,299	0.3	5,352	25.0	4,097	5.8	775	22.7
Basic manufactures	56,382	14.1	4,167	14.4	5,612	5.4	14,817	12.3	7,650	16.7	609	8.2
General machinery	53,677	3.9	11,118	8.6	7,369	0.9	20,020	7.1	7,568	0.9	99	-23.8
Electrical equipment	74,353	10.3	12,115	15.1	6,318	10.4	23,038	10.5	15,136	0.4	166	-13.6
Transportation equipment	19,442	3.5	5,831	3.1	8,174	-0.4	1,949	23.7	975	20.3	1	-17.0
Others	82,858	7.5	8,227	0.7	10,482	-0.3	40,705	8.2	8,897	7.6	252	0.1

Source: Ministry of Finance, Trade Statistics

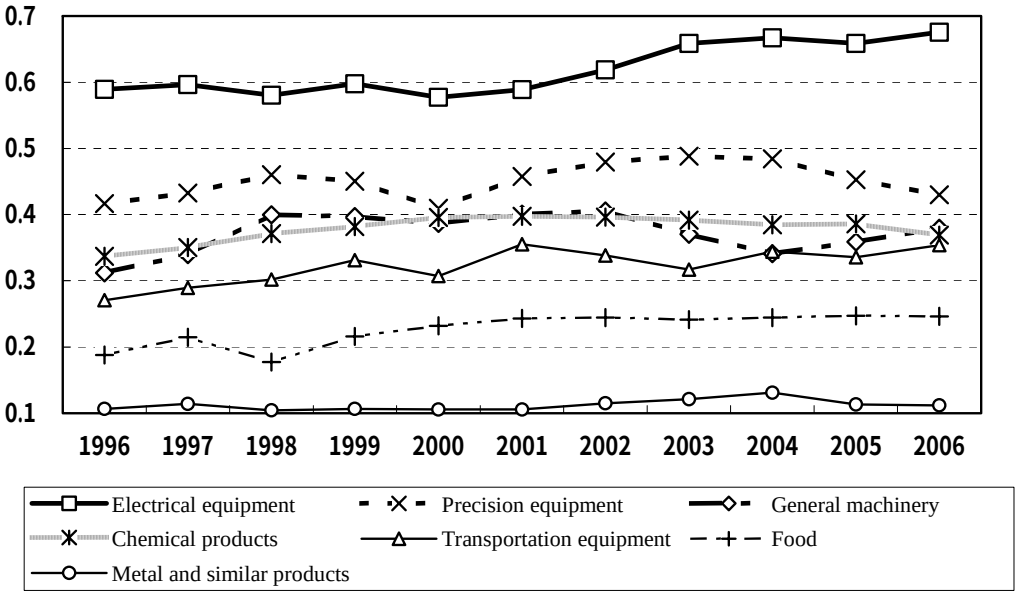
Table I-24 Trends in Japanese IT exports and imports

(US$ million, %)

	Exports			Imports		
	2005	2006		2005	2006	
	Value	Value	YoY	Value	Value	YoY
①Computers & peripherals (total)	22,953	22,946	0.0	27,117	25,771	-5.0
Computers & peripherals	7,273	7,051	-3.0	18,779	18,057	-3.9
Computer components	15,680	15,894	1.4	8,338	7,714	-7.5
②Office equipment	1,205	790	-34.4	460	390	-15.2
③Communication equipment	4,428	4,027	-9.1	3,487	4,129	18.4
④Semiconductor components	39,886	41,695	4.5	21,257	24,693	16.2
Electron tube, semiconductor, etc	10,787	10,993	1.9	2,672	2,907	8.8
Integrated circuit	29,099	30,702	5.5	18,585	21,785	17.2
⑤Other electronic parts	32,297	36,046	11.6	15,575	16,177	3.9
Flat panel display	10,520	12,340	17.3	5,497	5,354	-2.6
⑥Video products	16,497	15,508	-6.0	4,661	3,901	-16.3
⑦Audio products	336	199	-40.7	1,150	982	-14.6
⑧Measuring equipment	16,276	17,024	4.6	8,371	9,707	16.0
Components	87,864	93,635	6.6	45,170	48,583	7.6
Final products	46,014	44,600	-3.1	36,908	37,167	0.7
Total	133,878	138,235	3.3	82,078	85,750	4.5

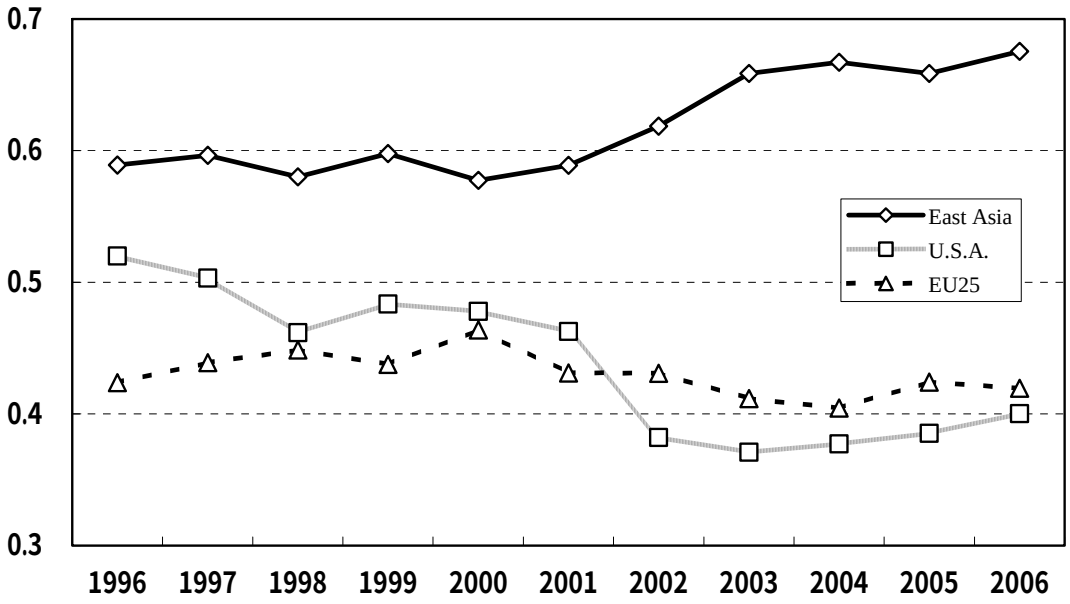
Note: Product definition follows note 2 at the reference.

Fig, I-19 Degree of intra-industry trade between Japan and East Asia in each industry



Sources: World Trade Atlas、Bank of Japan; Trade Patterns in Japan's Machinery Sector, Analysis of Intra and Inter-regional Trade in East Asia: Comparative Advantage Structures and Dynamic Interdependency in Trade Flows.

Fig, I-20 Degree of intra-industry trade between Japan and geographic area in electrical machinery industry



Sources: World Trade Atlas、Bank of Japan; Trade Patterns in Japan's Machinery Sector, Analysis of Intra and Inter-regional Trade in East Asia: Comparative Advantage Structures and Dynamic Interdependency in Trade Flows.

Table I-25 Price fraction of top 10 products (HS codes in 6 digits) in IT trade between Japan and East Asia

Components

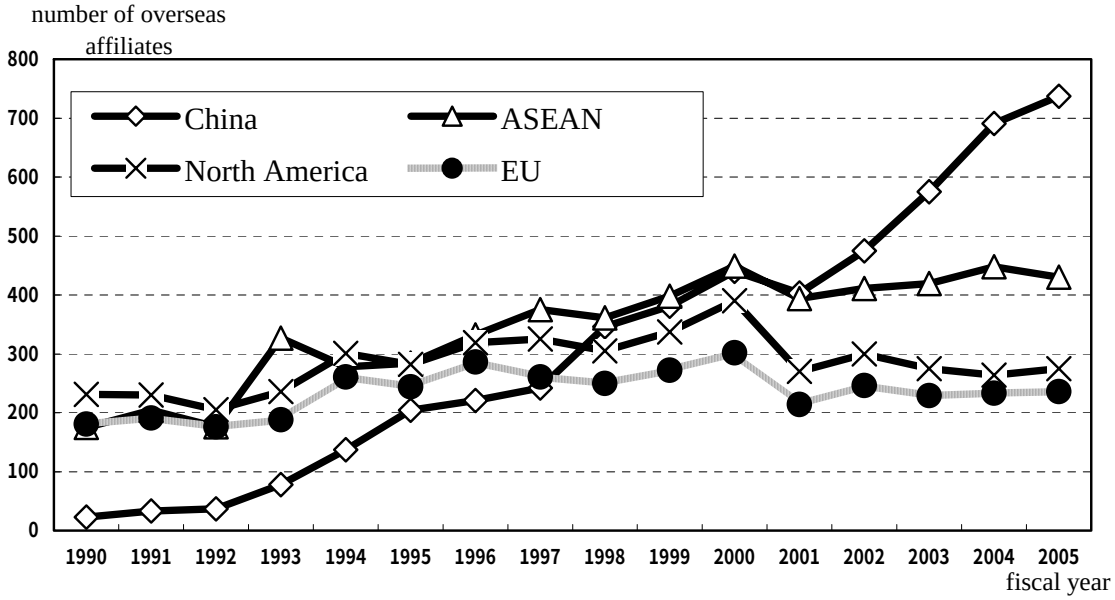
	HS Code	name of the product	Share in IT components trade	Price ratio (export unit price/import unit price)				
				2002	2003	2004	2005	2006
1	854221	Electronic integrated circuits (digital)	31.6	0.5	0.7	0.6	0.5	0.5
2	847330	Parts and accessories for automatic data etc.	11.7	0.9	1.0	1.0	1.0	1.1
3	852990	Parts for radio, TV, etc	10.8	1.6	1.9	1.7	6.5	4.9
4	854229	Electronic integrated circuits (other)	6.8	0.9	0.9	1.0	0.9	0.5
5	853400	Printed circuits	4.1	1.7	1.6	2.0	2.6	2.8
6	854140	semiconductor devices	4.1	6.3	5.2	3.1	3.4	3.9
7	853690	Electrical apparatus	3.5	-	-	-	-	-
8	854290	Electronic integrated circuits (parts)	2.7	1.2	1.7	1.6	1.6	2.1
9	850440	Static converters	2.0	2.4	2.6	2.5	3.2	2.7
10	853224	Ceramic dielectric	1.7	1.4	1.6	1.6	1.5	1.3

Final products

	HS Code	name of the product	Share in IT final products trade	Price ratio (export unit price/import unit price)				
				2002	2003	2004	2005	2006
1	847130	Portable digital automatic data processing machines	10.6	0.7	0.8	0.7	1.0	0.7
2	847160	Automatic data processing machines (input or output units)	10.1	2.6	2.1	1.9	1.4	1.0
3	852540	Video cameras(includes digital cameras)	8.4	1.9	1.4	1.4	1.3	1.8
4	847170	Automatic data processing machines (storage units)	8.1	1.5	1.2	1.0	0.4	0.9
5	847150	Automatic data processing machines (digital processing units)	6.3	0.2	0.4	0.6	0.3	0.1
6	854389	Measuring and testing equipment	6.0	0.4	0.5	0.7	0.7	0.6
7	852520	Transmission apparatus	4.0	2.8	1.9	1.1	1.5	0.2
8	847180	Other units of Automatic data processing machines	3.4	4.1	2.2	5.5	3.2	4.2
9	903180	Measuring or checking instruments	3.3	43.0	78.4	64.6	52.8	39.6
10	852812	Color TV	2.9	0.7	0.6	0.6	0.6	0.7

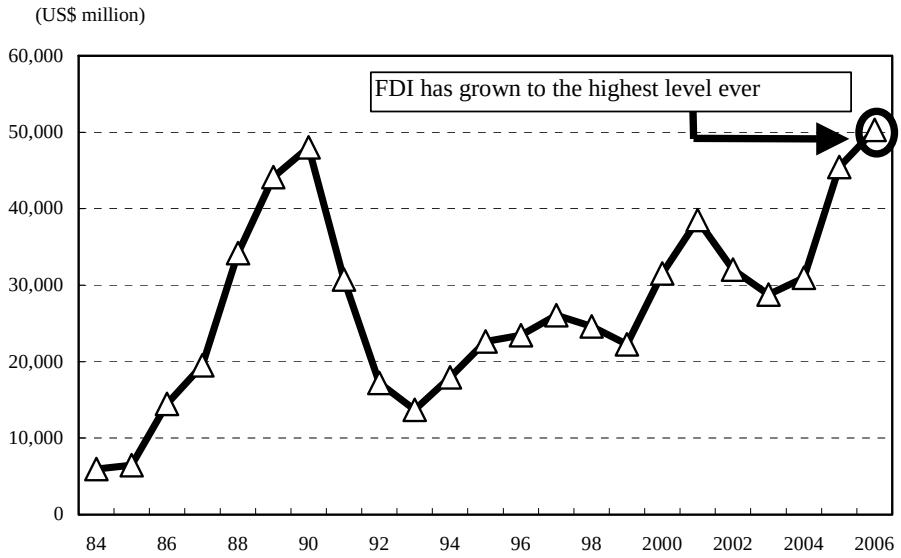
Note: Colored are 0.80≦export unit price/import unit price≦1.25 rounded off to two decimal places.
Sources: Global Trade Atlas, World Trade Atlas

Fig, I-21 Number of overseas affiliates in eletrical machinery industry



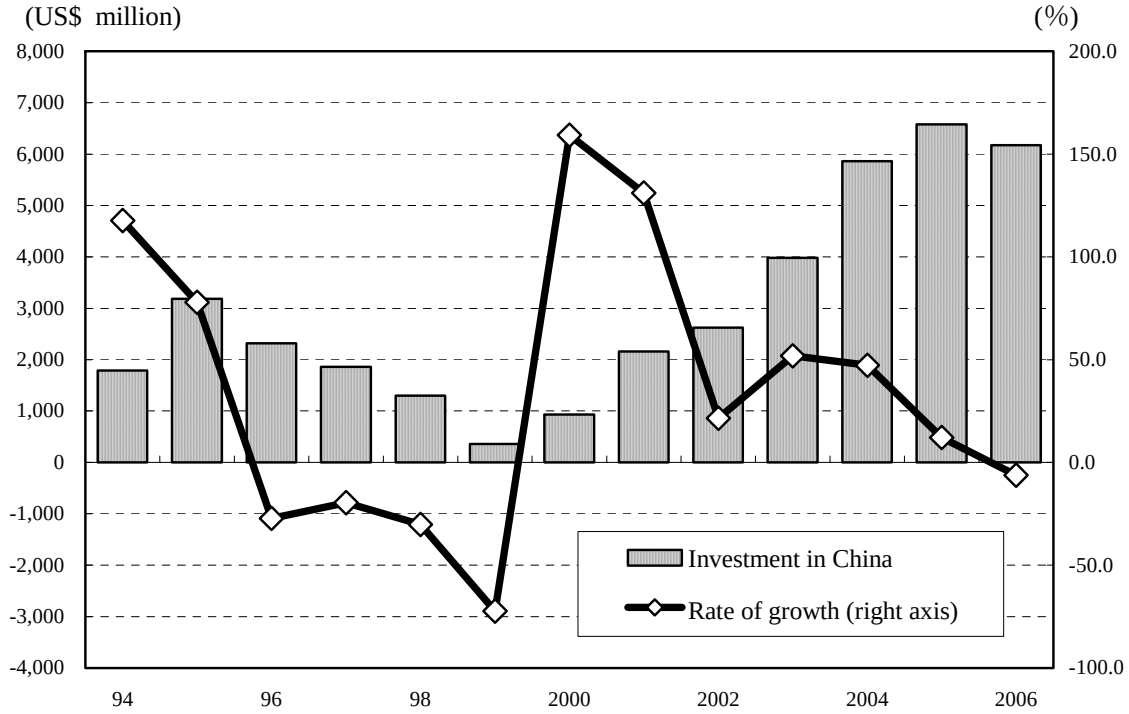
Notes: 1.Electrical machinery industry includes 'Electrical machinery', 'Information and communication equipment', and'Precision instruments'.
2.There is gap between fiscal year 2000 and 2001 as classification in industry was revised.
Source: Ministry of Economy, Trade, and Industry, *Basic (Trend) Survey of Overseas Business Activities*

Fig. 1-22 Trends in Japan's FDI (based on balance of payments)



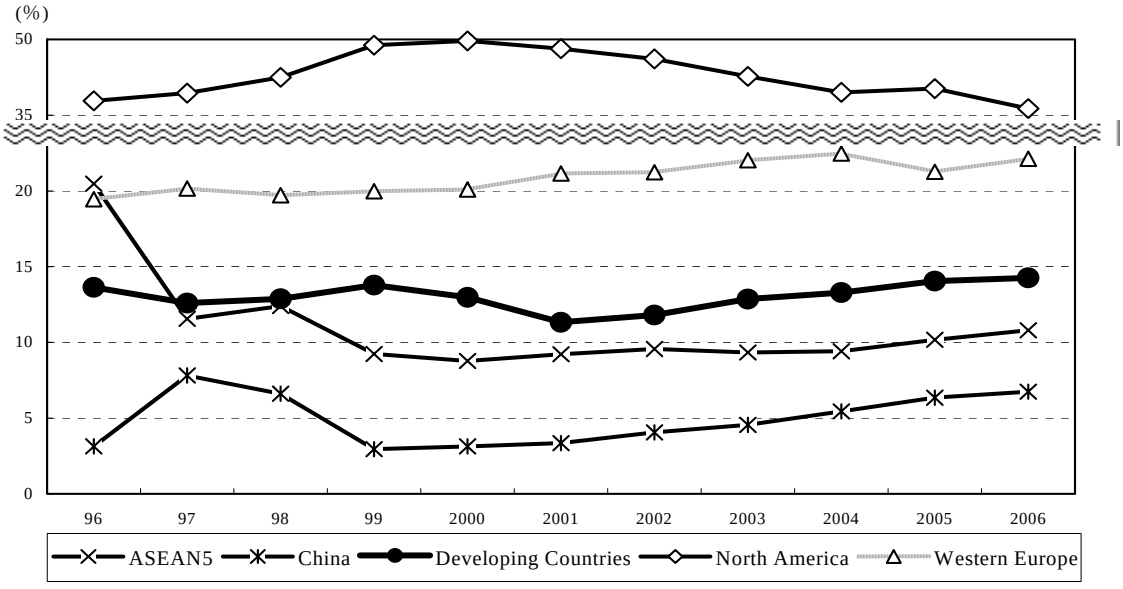
Note: These data lack strict continuity due to differences in yen-dollar exchange rate calculation methods, changing definitions of direct investment, and other factors. For 1985-1994, dollar-denominated values were used. For 1995, yen-denominated published values were converted to dollars for each six-month period using the average Bank of Japan interbank rate for the period. For 1996 on, yen-denominated values were converted to dollars for each quarter using the average Bank of Japan interbank rate for the period.
Sources: Ministry of Finance, *Balance of Payments Statistics* ; Bank of Japan, *Foreign Exchange Rates* ; and others.

Fig. 1-23 Investment in China



Sources: Ministry of Finance, *Balance of Payments Statistics*; Bank of Japan, *Foreign Exchange Rates*

Fig. 1-24 Japanese Foreign Direct Investment by Geographic Area (International Investment Position)



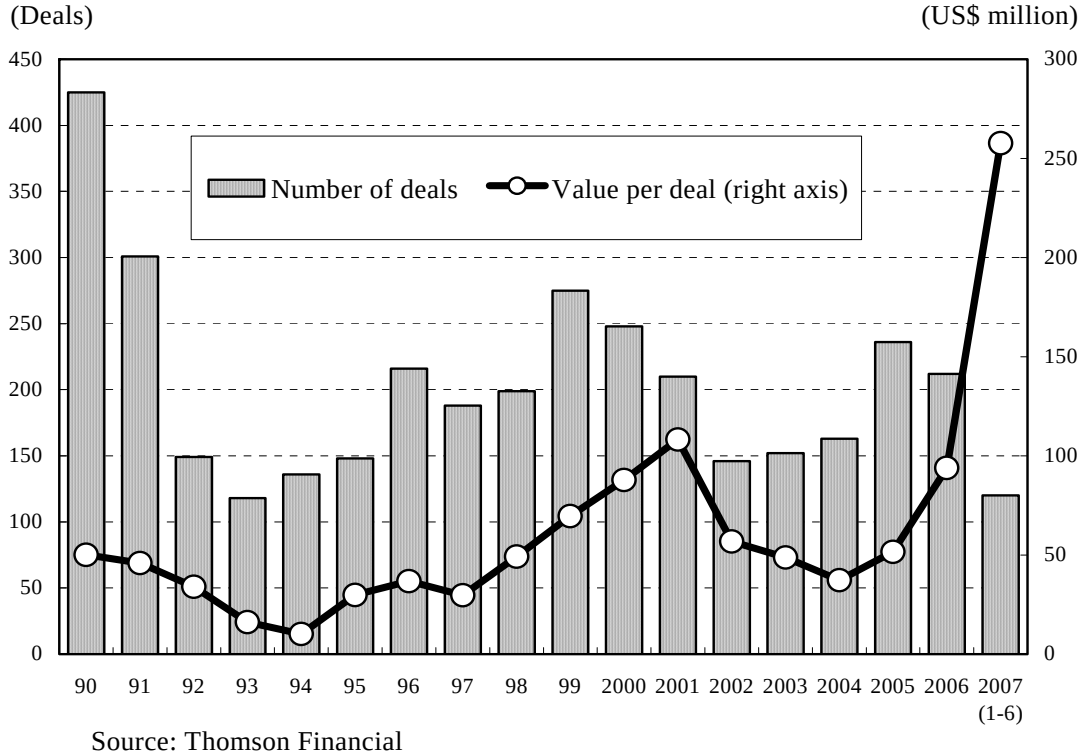
Notes: 1. ASEAN5 are Indonesia, Thailand, Philippines, Malaysia and Singapore.
2. Developing countries are an area except North America, Western Europe, ASEAN5, South Korea, Taiwan, Hong Kong and China from World.
Source: Ministry of Finance and Bank of Japan, *Direct Investment Position by Region and Industry*

Table I-26 Direct investment in Russia and India by major Japanese automakers

	Specifics		
	Investing company	Amount of investment (Approximate)	Outline
India	Suzuki	¥200 billion	Investment conducted to augment an already operating automotive manufacturing plant (Manesar Plant) and to increase the production capacity of an automotive engine plant. ¥200 billion is expected to be invested by 2010.
	Nissan Motors	More than ¥ 109.6 billion (total of three companies)	Nissan, Renault (France) and Mahindra and Mahindra (India) will construct factories in Chennai to manufacture passenger cars and power trains. The facilities are scheduled to commence operation in the second half of 2009. The investment conducted by the three companies in a seven-year period from 2007 is expected to be more than $109.6 billion.
	Toyota Motors	¥40-50 billion	Toyota will establish a small car assembly plant. The company aims to construct the plant adjacent to its primary plant in Bangalore by 2010. Initial production is scheduled for 100,000 vehicles.
	Honda	¥27.6 billion	Honda will establish an integrated manufacturing plant performing all processes from engine assembly to pressing and chassis assembly, commencing operation at the end of 2009 at an annual output of 60,000 vehicles. The plant is scheduled to produce passenger vehicles including small cars.
Russia	Nissan Motors	¥22.66 billion	Investment conducted to establish a car assembly plant in St.Petersburg and enhance business operations. The new plant is scheduled to commence operation in 2009. The plant will produce a maximum of 50,000 vehicles per year, and is expected to employ around 750 workers.
	Toyota Motors	¥15 billion	Anticipating a future expansion of the Russian market, Toyota has decided to establish its first Russian plant, in St. Petersburg's Shushary district. Toyota's investment will be approximately ¥15 billion, and the plant is expected to commence operation in December 2007.
	Suzuki	¥14 billion	Suzuki will establish a car assembly plant in Russia to respond to the expected future expansion of the Russian automobile market. Operation is scheduled to commence in the second half of 2009, and the plant is expected to employ around 500 workers.
	Isuzu	-	Isuzu has agreed to commence manufacturing and marketing its Elf light truck with the Russian automaker SSA in Russia. The companies plan to manufacture and market 500 vehicles in FY2006, but have agreed to aim for annual production of 10,000 vehicles per year within three years. Future sales potential is projected as 30,000 vehicles.

Source: Japan Corporate Watcher (PHP Kenkyusho), company press releases

Fig. 1-25 Outward cross-border M&A activity



Source: Thomson Financial

Table 1-27. Japan's major outward M&A (2006 and first half of 2007)

Year	Purchaser		Company purchased			Amount	Equity ownership after purchase (%)
		Industry		Nationality	Industry	(US$ million)	
April 2007	Japan Tobacco	Cigarettes	Gulliver International	UK	Cigarettes	18,800	100.0
October 2006	Toshiba, Shaw Group, Ishikawajima Harima Heavy	-	Westinghouse	U.S.A.	Electric power	5,402	100.0
June 2006	Nippon Sheet Glass	Glass manufacturing	Pilkington	UK	Glass manufacturing	4,001	100.0
June 2007	Marubeni, Tokyo Electric Power	-	Mirant Asia Pacific	Philippines	Electric power	3,420	100.0
October, November 2006	Daikin	Air conditioning equipment	O.Y.L. Industries	Malaysia	Air conditioning equipment	2,116	99.3
March 2006	Marubeni Offshore Production	Oil and gas drilling	Pioneer Natural Rexources U.S.A.	U.S.A.	Oil and gas drilling	1,300	100.0
February 2007	Nomura Holdings	Finance	Instinet	U.S.A.	Securities and commodities service	1,200	100.0

Notes: 1. The Thompson Financial definition of an M&A was followed (including the founding of a joint venture by integrating existing assets).
2. In the JT, Toshiba, and Marubeni cases, the acquisition was carried out through a coroproation set up for that purpose.
Source: Thompson Financial

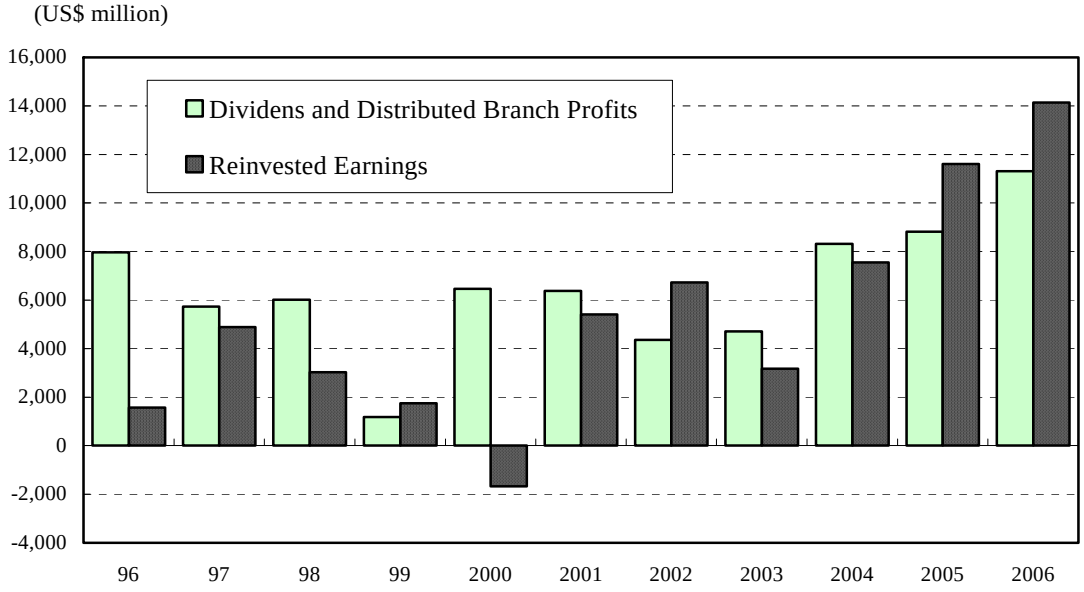
Table1-28 Sales Ratio of Japanese Company in Advancing Area (by Demand; CY2006)

(Unit:%)

	North America			Europe			Asia NIES3			ASEAN4			China (including Hong Kong)		
	Locally-made Sales	Sales to third power	Sales to Japan	Locally-made Sales	Sales to third power	Sales to Japan	Locally-made Sales	Sales to third power	Sales to Japan	Locally-made Sales	Sales to third power	Sales to Japan	Locally-made Sales	Sales to third power	Sales to Japan
Manufacturing industry in total	91.0	7.4	1.6	60.0	38.7	1.3	55.3	28.3	16.5	47.6	30.8	21.6	50.5	22.2	27.4
Food and tabacco	82.3	6.7	11.0	74.3	23.7	2.0	73.2	11.0	15.8	57.0	28.2	14.8	87.4	3.0	9.6
Textiles	85.6	11.1	3.3	45.3	47.6	7.1	71.2	26.9	2.0	46.7	38.2	15.1	56.3	7.8	36.0
Wood, pulp, and paper products	61.3	18.9	19.7	42.8	57.2	0.0	n.a.	n.a.	n.a.	22.7	34.6	42.7	81.3	4.1	14.6
Chemicals	82.8	14.9	2.2	45.5	52.4	2.0	56.4	40.2	3.4	56.5	36.0	7.3	67.6	12.5	19.9
Ceramics, stone and clay	97.3	2.0	0.7	n.a.	n.a.	n.a.	62.2	16.5	21.3	37.5	24.2	38.3	59.9	16.0	24.1
Iron and steel	93.5	5.7	0.9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	81.2	13.6	5.2	94.2	1.8	4.0
Non-ferrous metals	88.0	8.2	3.9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	52.7	14.0	33.3	57.1	26.7	16.2
Metals	91.4	7.1	1.5	45.3	14.2	40.5	n.a.	n.a.	n.a.	44.2	13.1	42.8	52.1	3.2	44.8
Industrial machinery	89.0	10.5	0.5	61.9	36.9	1.3	43.6	42.3	14.1	29.0	21.3	49.7	32.3	24.1	44.0
Electrical machinery	84.7	12.5	2.9	58.9	39.4	1.7	44.6	28.5	26.8	16.4	46.8	36.8	29.4	36.5	34.0
Transportation equipment	94.1	5.2	0.7	62.8	36.9	0.2	85.6	10.8	3.7	77.7	18.8	3.5	91.3	4.1	4.6
Precision instruments	88.9	6.3	4.9	67.4	29.5	3.1	11.4	37.7	50.9	4.0	14.4	81.7	40.9	7.1	52.1

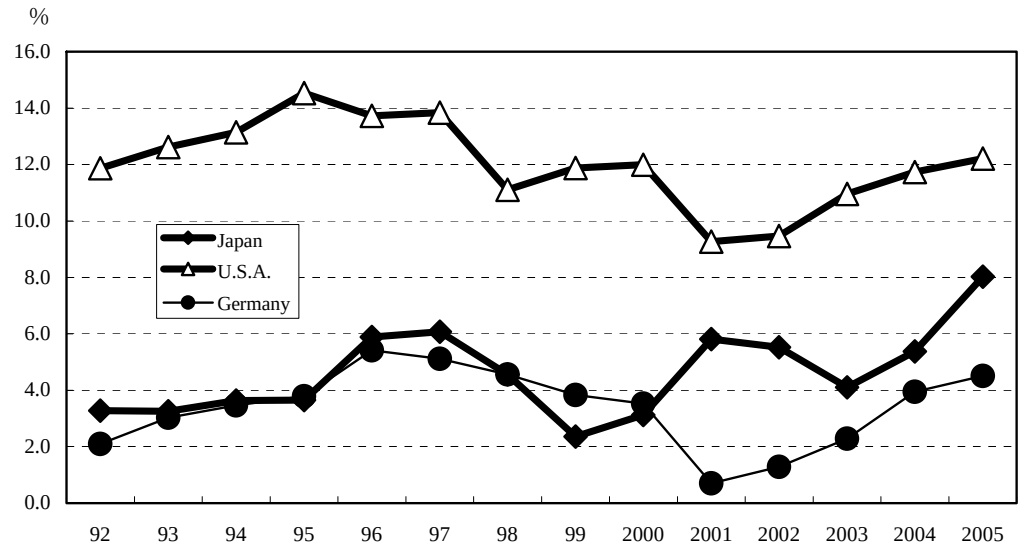
Notes: 1. Each retes = each items /Sales.
2. NIES3 are Taiwan, South Korea and Singapore.
3. Items without original data are indicated as "n.a.".
Source: Ministry of Economy, Trade and Industry, *Trends in Overseas Subsidiaries (Quarterly Survey of Overseas Subsidiaries)*

Fig. 1-26 Trends in Direct Investment Income (Balance)



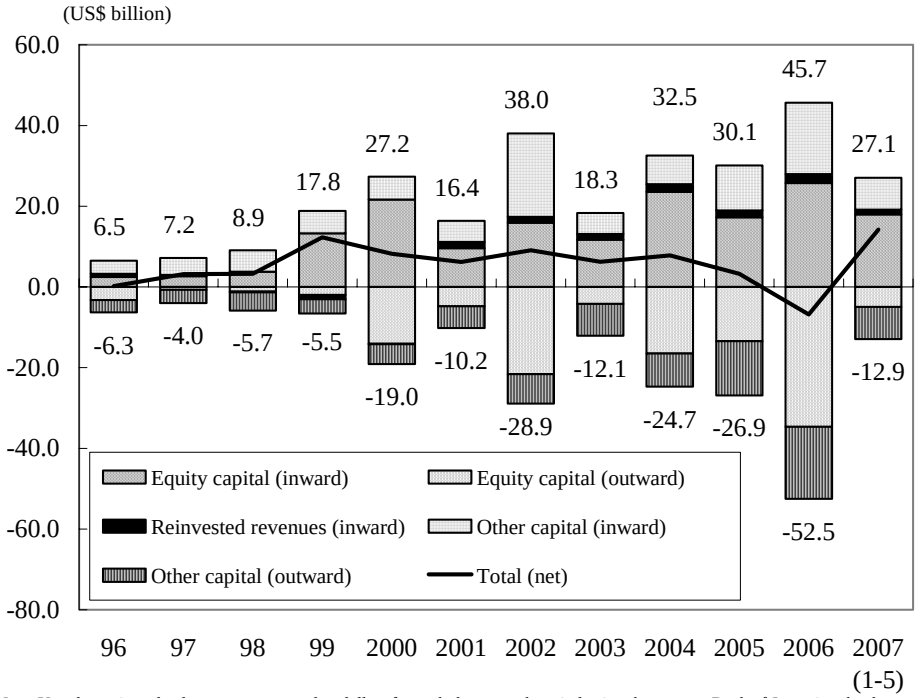
Note: Because of the revision of the method for calculating reinvested earnings, 2004-2006 are based on revised data.
Source: Ministry of Finance, *Balance of Payments Statistics*

Fig. 1-27 International Comparison of the Rate of Return on External Assets



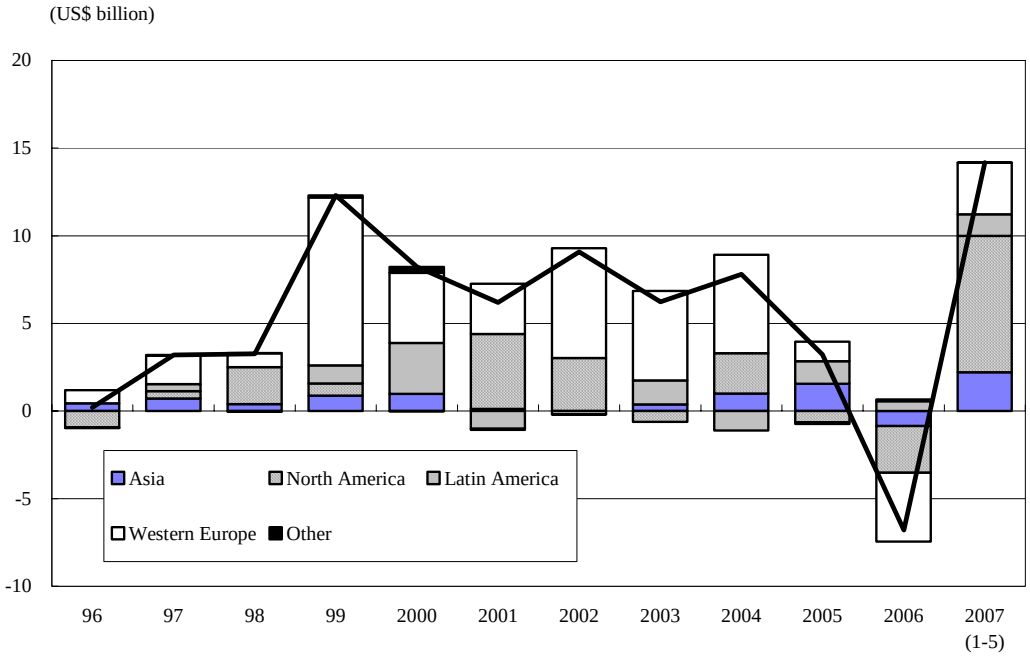
Note: Derived from return on external assets for current year/average of outstanding direct investment for current year and end of previous year.
Sources: IMF, *Balance of Payments Statistics* ; UNCTAD, *World Investment Report*

Fig, I-28 Inward direct investment in Japan



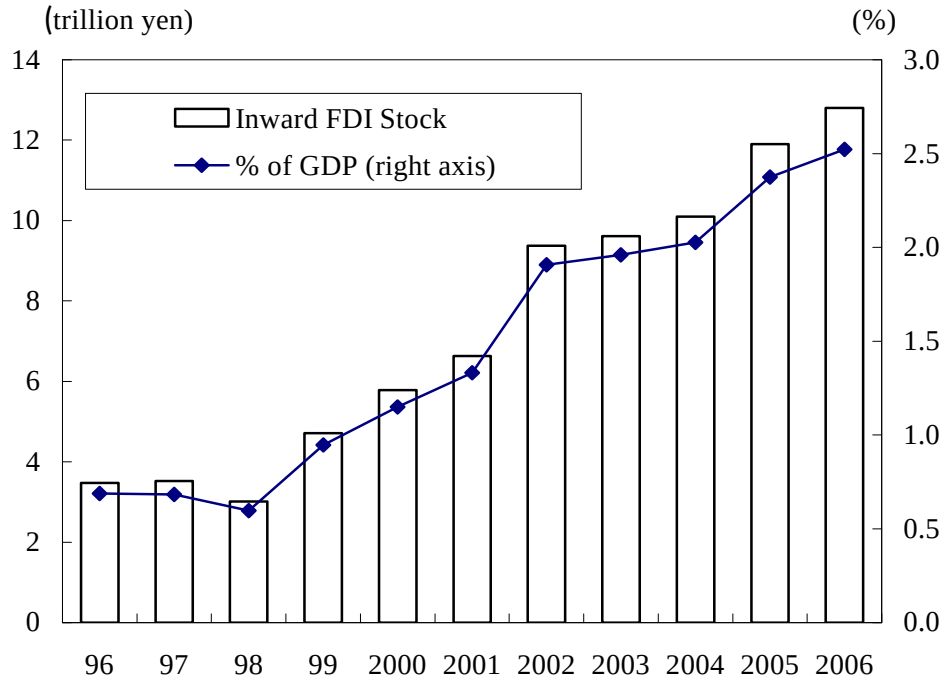
Note: Yen-denominated values were converted to dollars for each three month period using the average Bank of Japan interbank rate for the period.
Source: Bank of Japan, Ministry of Finance.

Fig, I-29 Inward direct investment in Japan, by region



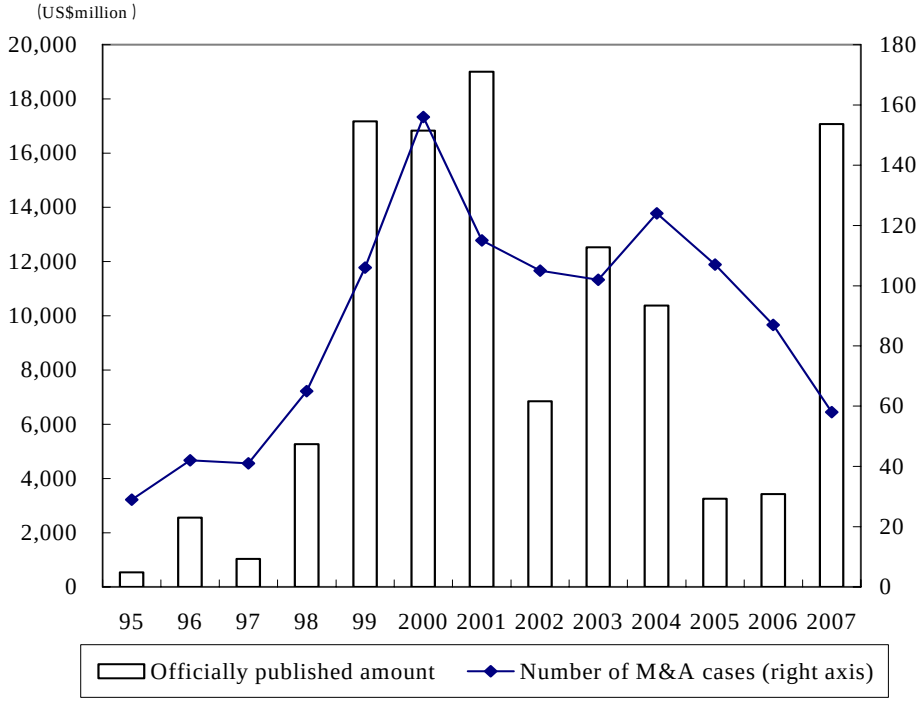
Note: Yen-denominated values were converted to dollars for each three month period using the average Bank of Japan interbank rate for the period.
Source: Bank of Japan, Ministry of Finance.

Fig I-30 Japan's Inward FDI Stock



Source: Bank of Japan, Ministry of Finance

Fig I-31 Cross-border M&A activity in Japan



Source: Thomson Financial

Table I-29 Major Inward M&A Deals (from Jan. 2006 to June 2007)

Date	Target	Sector	Acquioror	Acquiror Nation	Sector	Value of Deal ($ million)	% Owned After Trans-action
Apr-07	Nikko Cordial Corp	Security brokerage	Citigroup Japan Investments	U.S.A.	Banks	7,921	61.1
Jun-07	ANA Co Ltd-Hotels Business	Hotels and motels	Shiroyama Properties (SP), a special purpose acquisition vehicle formed by an investment fund operated by Morgan Stanley	U.S.A.	Financial	2,361	100.0
Mar-07	Nissan Diesel Motor Co Ltd	Truck and bus bodies	NA Co Ltd(NA), a wholly owned unit of Volvo AB	Sweden	Automobile	2,294	94.6
Mar-07	Hawks Town Corp	Department stores	GIC	Singapore	Investment advice	862	100.0
Mar-07	Japan Air Gases Ltd	Industrial gases	Air Liquide Group	France	Industrial gases	778	100.0
Jan-06	Kokudo Corp	Amusement and recreation services	Cerberus Asia Capital Mgmt LLC	U.S.A.	Financial	751	49.3
Sep-06	Mitsuboshi Belt Kaseihin Co	Motor vehicle parts and accessories	Intl Auto Components Group JP	U.S.A.	Financial	305	100.0
Apr-06	Fintech Global Inc	Security brokers, dealers, and flotation companies	Goldman Sachs International	U.S.A.	Security brokers, dealers, and flotation companies	255	12.7
Feb-07	Fujita Kanko Inc	Hotels and motels	SSF lll Asia Holding Partner	Cayman Islands	Financial	124	14.9
Aug-06	MSK Corp	Semiconductors and related devices	Suntech Power Holdings Co Ltd	China	Semiconductors and related devices	107	66.7
Feb-06	Yokogawa Analytical Systems	Computers and peripheral equipment and software	Agilent Technologies Inc	U.S.A.	Instruments to measure electricity	105	100.0

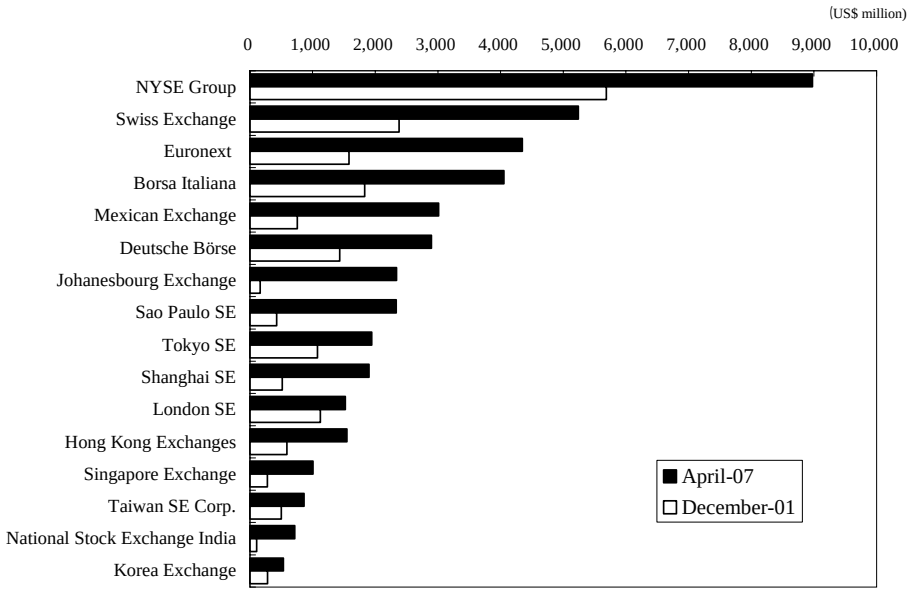
Source: Thomson Financial

Table I-30 Cases of Stockholder proposals by Foreign Companies

Acquiror	Target	Proposal
Steel Partners Japan Strategic Fund	Aderans, Sapporo Holdings, Bull-Dog Sauce	Abolishment of takeover defense measures
	Brother Industries, Fukuda Denshi, TTK, Inaba Denki Sangyo, Denki Kogyo Company, Ezaki Glico	Dividend increase
Dalton Investments LLC	Fujitec, Nippon Fine Chemical	Management and employee buy out
The Children's Investment Master Fund	Chubu Electric Power, Electric Power Development	Dividend increase
Safe Harbor Master Fund LP	SNT Corporation	Dividend increase and election of directors
Brandes Investment Partners & Co.	Ono Pharmaceutical	Dividend increase

Source: Press releases

Fig I - 32 Market Value per Company on Major Stock Exchanges



Source: World Federation of Exchanges

5. WTO

(1) Trend of the new round: Difficulty in building consensus

The strong will of the WTO member countries to achieve further liberalization of world trade led to the inauguration of the new round of WTO negotiations with the 4th Ministerial Conference in Doha in November 2001. Commencing seven years after the conclusion of the Uruguay Round, the new round represents the ninth multilateral trade negotiations since the formation of GATT.

As of July 2007, the new round is approaching its sixth year. Until the end of 2007, each of the parties to the negotiations will expend considerable effort on the attempt to reach an overall consensus. However, the negotiations are experiencing difficulties, unable to overcome standoffs in different areas: between the developed and developing countries over the elimination of tariffs on products of the mining and manufacturing products in the non-agricultural market access (NAMA) negotiations; between other countries and the U.S. over the elimination of subsidies to agricultural producers in agricultural negotiations; and between the EU and agricultural exporting countries over the elimination of tariffs on agricultural products.

Above all else, the confrontation between the developed and developing countries in the NAMA and agricultural negotiations has underlined the importance of considering development as the key to consensus in the new Round. As long as new trade rules do not guarantee sufficient merits to the developing countries, which now comprise almost 80% of the WTO membership, achieving a consensus will be difficult. This awareness has resulted in the new Round being dubbed the Doha Development Agenda. However, as indicated by the collapse of the 5th Ministerial Conference in Cancun in September 2003, it is anything but a simple matter for the developed and developing countries to make mutual concessions.

Against this background, the developed and developing countries adopted a cooperative stance at the 6th Ministerial Conference held in Hong Kong in December 2005. The importance of development was a given of the conference, with the developed countries offering to make the exports of the least developed countries (LDC) tariff- and quota-free, while in NAMA negotiations the developing countries accepted the Swiss Formula urged by the developed countries. In agricultural negotiations, members agreed to eliminate export subsidies by 2013. Finally, it was determined that a general agreement would be reached by the end of 2006.

Following the Hong Kong conference, the members of the G6 (the U.S., the EU, Japan, Australia, Brazil and India) proceeded with vigorous negotiations aiming at the achievement of agreement regarding agricultural market access (elimination of tariffs) and domestic support (provision of subsidies to producers) and, in NAMA negotiations, the coefficients employed in the Swiss Formula, by the end of April 2006. However, the standoffs mentioned above were repeated, and the negotiations stalled without a conclusion being reached.

The G6 member countries failed to overcome their differences in an informal ministerial meeting

held July 23-24, 2007, and the meeting was closed by WTO Director-General Pascal Lamy without a resolution. Director Lamy later announced the suspension of the new round at the meeting of the General Council, indefinitely discontinuing talks that had continued for almost five years, since November 2001.

Since then, Director Lamy has visited major parties to the negotiations, including Japan, to sound out their positions and determine the potential for compromise. In November 2006, four months after the suspension of the new round, he proposed the commencement of working-level discussions. In January 2007, an informal WTO ministerial meeting held at the meeting of the World Economic Forum in Davos agreed to continue negotiations either bilaterally or between small groups of countries. With these moves, the ground has been prepared for a full-fledged recommencement of the new round.

Since then, the U.S., the EU, Brazil and India have formed the G4 and have proceeded with negotiations aimed at establishing modalities (including coefficients) for agricultural and NAMA negotiations by the end of July 2007, but these talks have once again failed to break the existing deadlocks. An informal G4 ministerial meeting held in Potsdam, Germany, on June 21 collapsed without being able to bridge the gap between the U.S. and the EU on the one hand, and Brazil and India on the other, over the issue of coefficients in the Swiss Formula. On July 17, Crawford Falconer, Chairperson of the agriculture negotiations, and Don Stephenson, of the NAMA negotiations, each distributed Chairperson's texts, and it was decided to continue with negotiations referring to these texts at the working level (Table I-31). It appears that more time will be required for the developed and developing countries to reach a consensus (Fig. I-33).

■ **Status of negotiations and sticking points in major areas**

For developing countries that seek to expand their agricultural exports, improved market access in this area is the most important issue. Agriculture negotiations focus on three issues: "market access (elimination of tariffs)," "domestic support (provision of subsidies to agricultural producers)," and "export competition (provision of export subsidies)." The elimination of export subsidies by 2013 was decided at the Hong Kong conference, and the focus of current negotiations has therefore turned to market access and domestic support. The U.S., Brazil and India seek the EU to eliminate tariffs and agree to the treatment of agricultural products as sensitive products, while the EU, Brazil and India wish the U.S. to eliminate agricultural subsidies. In addition, India seeks the expansion of special safeguards applicable only to developing countries and the range of application for special products, but the U.S. is resisting this move in the interests of preventing excessive protectionism.

Falconer's Chairperson's text seeks compromise chiefly around proposals made by the EU and the G20 (the group of agricultural-exporter developing countries, of which Brazil and India participate in the G4 as representatives). At present, negotiations are proceeding with the Chairperson's text

being employed as a reference by the countries involved.

For Japan, which has a competitive advantage in the manufacturing sector, the lowering of tariffs on mining and manufacturing products is an important issue. Tariff levels remain high in the developing countries in particular, and the reduction of tariffs in these countries would be a significant boon for Japanese manufacturers, which have production bases in China and the ASEAN countries and seek access to promising emerging markets such as the rapidly growing BRICs (Fig. I-34).

The focus of the NAMA negotiations is the coefficients employed in the Swiss Formula. The Swiss Formula is a formula used to determine tariff reductions. The higher the coefficient employed in the formula, the higher the final tariff rate (bound rate) will be. Developed countries, including the U.S. and the EU, propose a coefficient of 10 for developed countries and 15 for developing countries, but the developing countries themselves seek a higher coefficient. For example, the NAMA 11 Group,[13] which includes Brazil and India, insists that a 25-point difference between the developed and developing countries (developed countries: 10; developing countries: 35) is required. However, a coefficient of 35 would reduce the final bound rate for Brazil from the current 30% to 16%, higher than the applied rate of 12.6% for most favored countries (MFNs), and the new tariff rate would therefore not be lower than the applied rate. For many developing countries there would be a wide divergence between bound rates and applied rates as in the case of Brazil, and there is concern that the use of a coefficient that is too high would prevent substantial tariff reductions from being achieved. The Chairperson's text prepared by Don Stephenson, the Chairperson of the NAMA negotiations, suggests figures of 8-9 for the developed countries and 19-23 for the developing countries. Discussions will continue with these figures as a reference.

---

13. A group of middle-income countries that stresses the need for alleviation of conditions in developing countries in NAMA negotiations based on principles of flexibility and reciprocity. The group is made up of 10 countries: Argentina, Venezuela, Brazil, Egypt, India, Indonesia, Namibia, the Philippines, South Africa and Tunisia.

With regard to the liberalization of the services sector, the developed countries, given their high level of competitiveness in this area, are basically on the offensive, with the developing countries playing a defensive hand. The situation is reversed with respect to Mode 4 (movement of persons), with some developing countries that wish to provide workers to the labor markets of the developing countries, pressing for liberalization in this area. Service sector negotiations formerly involved bilateral requests and offers. However, inefficiency was an issue using this method, and a system of

plurilateral request was adopted at the Hong Kong conference at the urging of the developed countries. Among other areas, Japan is seeking liberalization in the areas of computer-related, electronic communications, financial, marine transport, construction and distribution services, primarily from China and ASEAN.

In other areas, the new round has seen negotiations regarding rules to concretize and improve the anti-dumping (AD) agreement and increase discipline, and negotiations aimed at making trade smoother by increasing the transparency of customs procedures and clarifying rules.

(2) Correction of unfair trade practices via WTO dispute resolution procedures

The WTO has received extensive attention as a result of the new round of trade negotiations, but the WTO also has an important role to play as an organization that resolves trade conflict. If the functions of the WTO are divided into legislative, administrative and judicial functions, it can be said that the nature of the legislative function is exemplified by the new round, the WTO Secretariat is responsible for the administrative function, and the organization's dispute settlement procedures exemplify the judicial function. Using the dispute settlement procedures, the member countries are able to correct unfair trade practices and improve the rules regulating international trade.

The Uruguay Round resulted in the formulation of an understanding regarding rules and procedures for dispute settlement (the Dispute Settlement Understanding: DSU). A Dispute Settlement Body (DSB), which employs a system of "negative consensus,"[14] was established on the basis of the DSU. In addition, an Appellate Body (AB) was established, "cross-retaliation"[15] was introduced, unilateral measures[16] were prohibited, and time limits were placed on procedures. These measures have dramatically increased the effectiveness of dispute settlement, and the number of dispute raised has increased from 101 in the GATT period (approximately 40 years) to 366 in the 12-year period between the establishment of the WTO in 1995 and July 2007.

---

14. Under this system, a panel recommendation is adopted if it is not rejected by all member countries.
15. Cross-retaliation enables retaliatory measures to be adopted in another sector if they are ineffective in the sector in which a dispute is occurring.
16. Disregarding dispute settlement procedures and adopting retaliatory measures such as the lowering of tariffs on the basis of a unilateral decision.

▪ **The major focus of disputes in the past was trade remedy measures, while today the domestic institutions of developing countries (subsidies in China, etc.) are also a focus.**

Between 1995 and the end of 2005, 421 countries brought 342 disputes before the WTO. A

breakdown of the number of countries by the type of disputes in which they were involved shows the greatest number (75) involved in disputes regarding AD measures, followed by 74 countries involved in disputes regarding import and export restrictions (import licenses, etc.), 34 countries involved in disputes regarding safeguard measures, and 33 countries involved in disputes regarding subsidies and export subsidies (Fig. I-35).

The areas in which developed countries displayed the greatest tendency to raise disputes with other developed countries were trade remedy measures overall, government procurement, the Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS), internal taxes, the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS), the Agreement on Technical Barriers to Trade (TBT), subsidies, export subsidies, and services (Fig. I-36). It is apparent that developed countries seek to correct the internal institutions of other developed countries as they relate to services, government procurement, internal taxes, etc.

Developing countries tend most strongly to commence disputes with developed countries in the areas of AD, tariffs and charges, import restriction measures and the like. Areas in which developing countries bring cases against developing countries include AD, safeguards, and tariffs and charges. Developing countries can be seen to make efforts to clear away import and export restrictions rather than focusing on internal regulations.

The share among the trade remedy measures that have been the subject of disputes held by the developed countries is 60% in the case of AD, 59% in the case of safeguards, and 70% in the case of countervailing duties. Overall, trade remedy measures is an area in which there is a strong tendency for cases to be brought against developed countries. 130 countries have raised disputes regarding trade remedy measures, or approximately one-third of all countries that have raised disputes. Of these, 62 countries, or almost half, have raised disputes with the U.S. in this area. As this indicates, numerous countries are seeking by means of the DSB to correct the trade remedy measures adopted by the U.S. Japan has considerable experience in the area of disputes regarding U.S. trade remedy measures, having been through disputes regarding steel safeguards, the Byrd Amendment, and “zeroing,” among others. The U.S. has recently been the losing party in these disputes, and is bowing to international pressure and modifying the relevant systems and measures that it has in place.

The disputes raised by developed countries against developing countries relate to the Agreement on Trade-related Investment Measures (TRIMS), subsidies/export subsidies, internal taxes and agriculture treaties, among others. The causes of these disputes can be found in the fact that numerous developing countries, in a quest to foster domestic industry, introduce preferential measures for foreign investment, with regard to some of which there may be concerns regarding violation of WTO rules. The liberalization of investment-related regulations was the most important of the Singapore Issues in the new round for the developed countries. However, it faced strong

resistance from the developing countries at the 2003 Cancun Ministerial Conference, and following this was excluded from the negotiations. The developed countries are attempting, via dispute resolution procedures, to remove impediments to investment in the developing countries.

Many cases in which developed countries have raised disputes regarding the internal systems of developing countries have arisen recently. Of the 342 disputes that arose between 1995 and the end of 2005, approximately three-quarters (255) involved import and export measures, and the remainder (87) involved national laws and regulations. However, of the 11 disputes regarding which deliberation has been requested since November 2006, seven are disputes involving internal systems, and of these, five have been raised by developed countries against developing countries (Table I-32). Of these, the most numerous are disputes regarding China's domestic regulations. Disputes regarding Chinese regulations have recently increased. In addition to the disputes listed in Table I-32, in April 2004, the U.S. raised a dispute regarding a value-added tax on semiconductors, and in March 2006, the U.S., the EU, and Canada raised joint objections to measures related to imports of automobile parts. More than five years have passed since China acceded to the WTO in November 2001, and the country has largely completed the liberalization schedule to which it committed on that occasion. Given this, the increase in disputes can be seen as an indication that other countries are actively seeking correction of regulations and measures put in place by the country that do not conform to WTO rules.

■ Toward prevention of misuse of trade remedy measures by the U.S.: The decision to eliminate zeroing as a result of Japan's victory

The U.S. makes extensive use of trade remedy measures (AD, countervailing duties, safeguards). Between 1995 and 2006, there were 239 instances of AD, putting the country at number two in the world behind India, and 47 instances of countervailing duties, placing the country at number one in the world. Between 1995 and April 2007, there were a total of six instances of safeguards, putting the U.S. at number four in the world.

AD and countervailing duties are measures implemented to prevent imported goods from having a negative effect on industries in the importing country (AD target goods that are dumped by exporting companies, and countervailing duties target goods that are competitive due to the provision of subsidies by the government of the exporting country). Safeguards, by contrast, temporarily restrict imports in the event that a rapid increase in imports has a significant negative effect on domestic industries. These measures were subjected to discipline under the terms of the agreements that emerged from the Uruguay Round, and member countries amended their domestic systems in accordance with the respective agreements.

However, certain problems remain with regard to the trade remedy measures put into effect by the U.S., and other countries have therefore actively sought their correction by means of bringing cases

before the DSB. Since the establishment of the WTO, 50 cases have been brought involving U.S. trade remedy measures, of which 31 have concerned AD measures.

As one case of AD involving the U.S., a method of calculating the dumping margin employed by the U.S. termed “zeroing” resulted in a series of disputes. In November 2004, Japan brought this issue to the DSB. The AB announced an outright victory for Japan in January 2007. Due to this victory, the U.S. is now under pressure to amend the relevant systems. For countries that had been subject to extremely unfair AD tariffs, Japan’s victory is highly significant. A discussion of the nature of zeroing, the means by which Japan achieved its victory, and the significance of that victory follows below.

1) Zeroing and cases brought before the WTO

At the stage of initial investigation for the application of AD measures, it is necessary to calculate the dumping margin, i.e., to aggregate the sum of the difference between the export price of goods from a specific country and the selling price of goods in that country when the latter is higher than the former. Zeroing refers to a calculation method in which the difference between the export price of goods from a partner country and the domestic selling price of those goods when the former is higher than the latter is excluded from the margin. If there actually were any of these negative margin goods, then the aggregate dumping margin would be lower than it would be if there were none of these goods. However, by converting negative margins to zero, the U.S. obtains a margin that is higher than it would have been if the negative figures had been included (Table I-33). Numerous countries have requested the U.S. to eliminate zeroing, and an increasing number of cases have been judged as being in violation of WTO rules. In the final decision of the U.S.-Canada softwood lumber dispute, for examples published in August 2004, the use of zeroing in the AD initial investigation was ruled to be a violation of the AD agreement. In the case “U.S. – Zeroing (EC)” brought by the European Commission, the AB ruled in 2006 that the use of zeroing in the periodic administrative review of the AD tariffs following the implementation of AD measures was in violation of the AD agreement.

2) The reversal won by Japan and its significance

In February 2004, Japan requested a panel to deliberate on U.S. AD measures relating to 16 steel products including steel sheets and bearings for automotive use. The Japanese complaint concerned the use of zeroing, not only at the initial investigation stage, but also in the administrative reviews and the sunset review.[17] The difference between cases brought by Canada, the EC and others and the Japanese case was that the latter targeted not merely the AD measures as applied to the 16 goods, but the use of zeroing as such. A judgment regarding the violation represented by the individual AD measures would have resulted in the U.S. simply correcting the specific measures. By seeking a

judgment on the violation represented by the use of zeroing as such, the case sought to prevent any future use of the method. This case attracted considerable attention from other WTO member countries, with 10 countries including the EU, China and Korea sitting on the panel as observers.

The Japanese case was conducted largely simultaneously with the "U.S. – Zeroing (EC)" case brought by the European Commission, and the European victory produced high expectations in Japan that the country's case would result in the elimination of zeroing. These expectations were, however, dashed by the panel's decision. The panel concluded that the use of zeroing in W-W comparison[18] at the stage of initial investigation was a violation of the rules, but that its use in the administrative reviews (W-T comparison) was not. This decision banned zeroing in W-W comparison, but supported the status quo in every other respect. The decision disappointed Japan's expectations, and was experienced largely as a defeat for the country.

Japan was not satisfied with the panel's decision, and launched an appeal to the AB in October 2006. The AB reversed the panel's decision, and decreed the use of zeroing by the U.S. to be a violation of the rules in every respect. In an unqualified victory for Japan, zeroing came to represent a violation at the initial investigation stage, in administrative reviews, and in the sunset review.

---

17. A sunset review is a review of an AD tariff five years following the implementation of the measure. The tariff can be extended if it will be eliminated after five years but dumping will continue or recur. The U.S. has in almost all cases employed extensions.

With regard to the use of zeroing in T-T comparisons in initial examinations, based on the decision handed down by the AB in the U.S.-Canada softwood dispute, the AB ruled the use of zeroing a violation of Article 2.4 of the Anti-dumping Agreement concerning fair comparison, reversing the decision of the panel that had stressed the contradiction involved in prohibiting zeroing in all methods of comparison. With regard to the administrative reviews, quoting the decision in "U.S. – Zeroing (EC)," the AB determined that the use of zeroing in the W-T comparison by the U.S. Department of Commerce had resulted in the application of AD tariffs higher than the actual dumping margin, and that the use of zeroing in administrative reviews represents a violation of the Anti-dumping Agreement. Finally, the AB examined two cases in which AD measures had been extended as a result of the sunset review, and ruled that they were in violation of the agreement because they were based on dumping margins resulting from the use of zeroing, which had already been judged as a violation of the agreement.

3) The meaning of Japan's victory and the U.S. response

What is the meaning of Japan's victory? The major setback for the U.S. in the decision was probably the prohibition on the use of zeroing in administrative reviews. The administrative reviews represented an important issue because an AD tariff increased by such a review could be applied to the company in question retrospectively. Ultimately, if zeroing was employed to increase AD tariffs during administrative reviews, the loss incurred from zeroing being unable to be used at the initial examination stage could be made up in this way. The prohibition of the use of zeroing in administrative reviews resulted in a lowering of the overall level of AD tariffs.

Strong pressure is being exerted worldwide for the correction of unfair U.S. trade measures. Zeroing is not the only measure that has produced dissatisfaction among other countries. In 2003, numerous countries raised a joint appeal to the DSB against the Byrd Amendment[19], and were ultimately able to have it abolished.

---

18. Article 2.4.2 of the Anti-dumping Agreement recognizes three methods of comparison for use in determining the margin between the export price and domestic selling price: 1) weighted-average-to-weighted-average (W-W) comparison; 2) transaction-to-transaction (T-T) comparison; and 3) weighted-average-to-transaction (W-T) comparison. The U.S. Department of Commerce employed W-W comparisons in its initial investigations for the application of AD measures, and employed W-T comparison in administrative reviews. The panel ruled that the use of W-W comparison should be prohibited, but that the use of W-T comparison did not represent a violation of the Anti-dumping Agreement. Having lost the case brought against it by Canada regarding softwood imports, the U.S. recalculated dumping margins for these imports using T-T comparison in place of the W-W comparison that had been ruled to be in violation of the agreement, and imposed tariffs on this basis. Japan's case asserted that T-T comparison was also a violation of the Anti-dumping Agreement.

However, it is likely that some time will elapse before the elimination of zeroing. In the case of the Byrd Amendment, the U.S. Congress raised strong objections to the judgment of the WTO, and the U.S. was slow to take action to repeal the Amendment. This occurred two years later, following the institution of retaliatory measures by other countries. Some members of Congress have already shown strong objections to the complete elimination of zeroing. In June 2007, the United States Trade Representative presented a proposal that would enable the use of zeroing in rule negotiations in the new round. The U.S. is under pressure from the international community to revise its domestic laws, and its future responses will be the focus of considerable attention.

- **U.S.-China trade friction as observed in WTO disputes**

Low-priced Chinese products have recently come to represent a threat to U.S. industry. The U.S. trade deficit with China has expanded significantly, from $83.8 billion in 2000 to $232.6 billion in 2006.

The deficit is causing the U.S. Congress to harden its attitude towards China. The pressure being put on China to revalue the yuan, the virulent reaction to the attempted purchase of Unocal by the China National Offshore Oil Corporation (CNOOC), and the pressure being exerted to convince China to resolve issues of infringements of intellectual property rights (pirated products, etc.), among other factors, makes the "China problem" in the U.S. remind us of the "Japan bashing" of the past.

The Bush administration is treating the hardening attitude of Congress with caution. From a broad perspective, the stance that the administration is adopting is to deal with unfair trade practices in China in ways that conform to WTO rules. In March 2004, the U.S. requested a consultation with China via the DSB regarding a Chinese measure to refund value added tax on integrated circuits to domestic producers. China eliminated this measure as a result of the consultation. In March 2006, the US, with the EU and Canada, brought to the DSB the case regarding China's *Rules for Determining Whether Imported Automotive Parts and Components Constitute Complete Vehicles.* China announced that it would extend the application of the measure until July 2008, but the complaining parties seek complete elimination of the measure and have requested the establishment of a panel.

---

19. A U.S. law under which the revenue obtained by the U.S. from AD and countervailing duties would be distributed to domestic producers applying for remedy (formulated in October 2000).

In 2007, the U.S. became even more active in bringing cases to the WTO regarding Chinese systems and measures. The first of these involved nine subsidies provided in order to attract foreign investment, the second violations of intellectual property rights, and the third regulations concerning the domestic distribution of imported media such as magazines and DVDs.

1) U.S. case against nine preferential measures and China's response

In February 2007, the U.S. complained to the WTO regarding a system put in place by China that provides nine subsidies to domestic exporting companies. (Five nations are acting as observers, including Japan and the EU. Mexico has also made a separate complaint to the WTO regarding the same system). The U.S. complaint is based on its belief that the Chinese system corresponds to a subsidy contingent upon export performance, or a subsidy contingent upon the preferential use of

domestic products, as prohibited by Article 3.1 of the Agreement on Subsidies and Countervailing Measures. (The U.S. also indicates violations of Article 3 of GATT and Article 2 of the TRIMS Agreement). China has to date introduced numerous preferential measures designed to attract foreign companies, and the majority of the nine subsidies that are the subject of the dispute fall into this category (Table I-34). If any of the subsidies is a subsidy contingent upon export performance or upon preferential use of domestic products, such subsidies will be the violations of Article 3 of the Agreement on Subsidies and Countervailing Measures and China will be obliged to abolish them.

Intermittently visible behind the U.S. case is the consideration given by the Bush administration to the strong attitude of the U.S. Congress on China. Susan C. Schwab, the USTR, emphasized that China's subsidy programs have encouraged U.S. manufacturers to switch from parts and materials produced in the U.S. to those imported from China causing damages to SMEs and their employees in the U.S. Senator Max Baucus, Chairman of the Senate Finance Committee, Senator Chuck Grassley, and Senator Carl Levin have successively backed the U.S. case.

In March 2007, China announced that it had eliminated one of the subsidy programs that was under challenge, in this case a program that enabled certain export companies access to discount loans from commercial banks. In the same month, China further announced that it would abolish a program under which tax was waived for companies for a two-year period from the year in which they first recorded a profit, and subsequently halved for the next three-year period.[20] The tax breaks following the application of this program will be abolished in 2008. Although it did not form part of the content of the objections raised against the nation, China has also announced a uniform 25% tax on corporate earnings.

---

20. A system under which productive foreign companies that scheduled operation for more than 10 years during company registration procedures are exempt from tax for two years following their first profit-making year, and are then taxed at a half rate for the following three years.

Foreign companies that have entered China still face an uncertain situation. According to "Heisei 18 nendo nihon kigyo no chugoku ni okeru gaishi yuuguu seisaku riyo jokyo" (the Report on the Status of Use of Preferential Measures by Japanese Companies in China) (2006), published by JETRO in April 2007, based on the results of a questionnaire survey of 104 Japanese companies doing business in China, 14 companies were making use of the tax breaks that followed the two-year/three-year system discussed above, and for 10 of these companies the tax relief offered by the system represented more than 10% of their profits. Six companies were making use of the system offering discount loans from commercial banks. Forty-one companies were making use of the

two-year/three-year system (which was not a subject of the complaints discussed above), and for 22 of these companies, the tax remedy provided represented more than 10% of their profit.

As indicated above, China has commenced a fundamental review of its preferential programs for foreign investors under the influence of the cases brought to the WTO by the U.S. China has worked to ensure that its domestic laws and systems conform to WTO rules since its accession to the organization in 2001. To date, China has been cooperative in amending measures in response to complaints to the WTO. If the U.S. Congress sees that requests to China for revision of trade measures via WTO dispute resolution procedures produces results, it is likely that in the future its attitude towards China will also change.

TableI-31 Chairperson for Agriculture, Mr. Falconer and for NAMA, Mr. Stephanson's revised texts, and proposals submitted by major countries （As of July 2007）

	Chairman's Paper	Japan (G10)	EU	developing countries	U.S.
Tariff cuts in the highest tier*1	Middle between EU and US's proposals	45%	60%	75%	higher than 85%
Tariff Cap	Not mentioned	Opposing	100% (except sensitive products)	100%	75%
# of Sensitive Product	4-6% of dutiable tariff lines*2	15% of Agr. tariff lines	8% of Agr. tariff lines	1% of Agr. tariff lines (dutiable)	1% of Agr. tariff lines
Cuts on US's Domestic Support	$13 billion ～ $16.4 billion	Less than $15 billion			$22.7 billion
Coefficients in Swiss Formula	Developed: 8-9, Developing: 19-23	developed: 10	developed: 10	developed: 10	developed: 10
		developing: 15	developing: 15	developing: 30*3	developing: 15

(note) *1 The highest tier is the highest of the four tiers, into which the bound rate is divided. Japan proposes to set the highest at higher than 70% bound tariff rate, EU higher than 90%, G20 higher than 75%, and U.S. higher than 60%. Mr. Falconer sets the highet tier at higher than 75% for developed, 130% for developing countries.

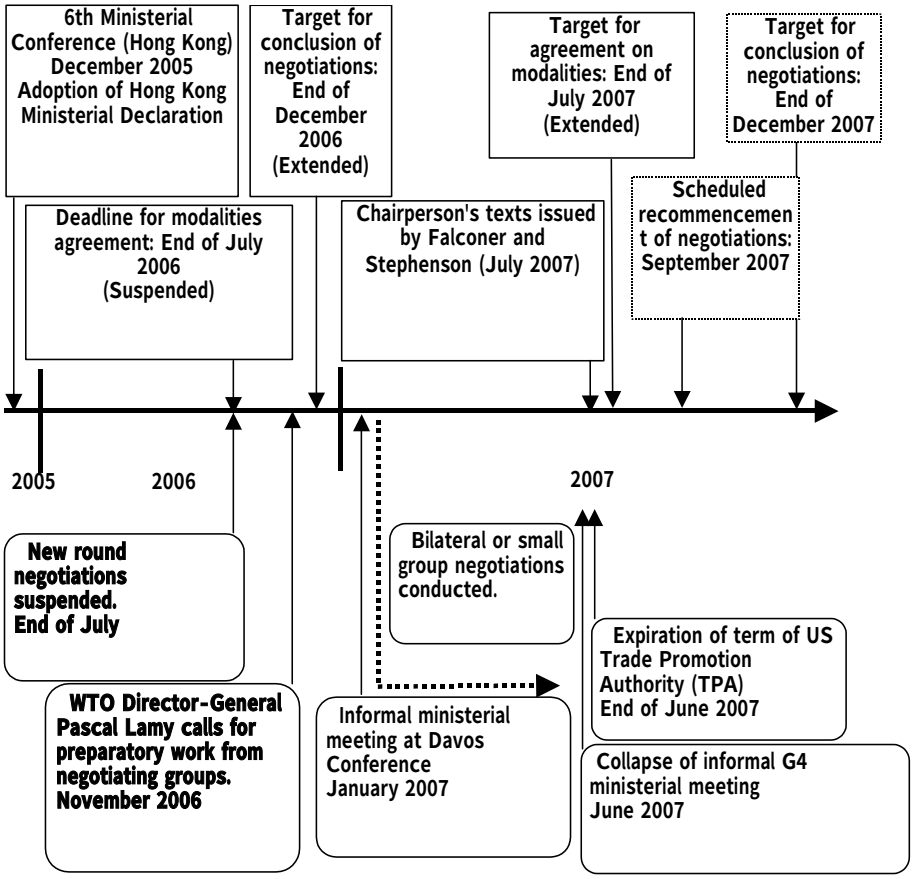
*2 However, if the member countries have higher than 30% of tariff lines in the highest tier, or application of this methodology would impose a disproportionate constraint in absolute number of tariff lines because that Member has its import duty commitments at 6-digits level, they have an option to have the number of sensitive products increased up to 6-8%.

*3 This is the proposal submitted by the NAMA 11 group (including Brazil and India of G4). The proposals vary among developing countries. For instance, 8 countries including Chile, Colombia, Costa Rica, Thailand are proposing to accept 20 if deveoped countries accept less than 10.

(source) MAFF, Chairperson, Mr. Falconer and Mr. Stephanson's revised texts, BNA WTO Reporter

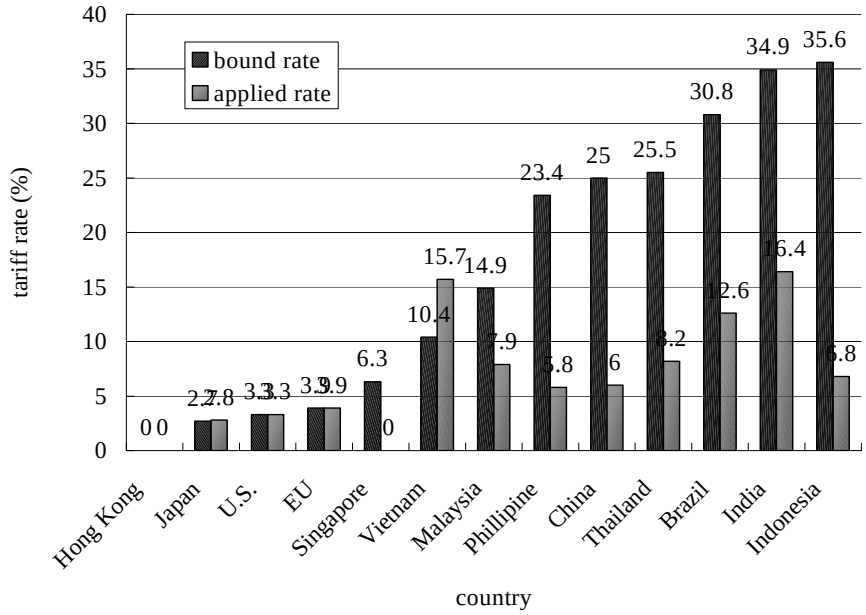
Date of Chairspersons' announcement: July 17, 2007

Fig. I-33 New round since Hong Kong Ministerial Conference (Dec. 2005 - Dec. 2007)



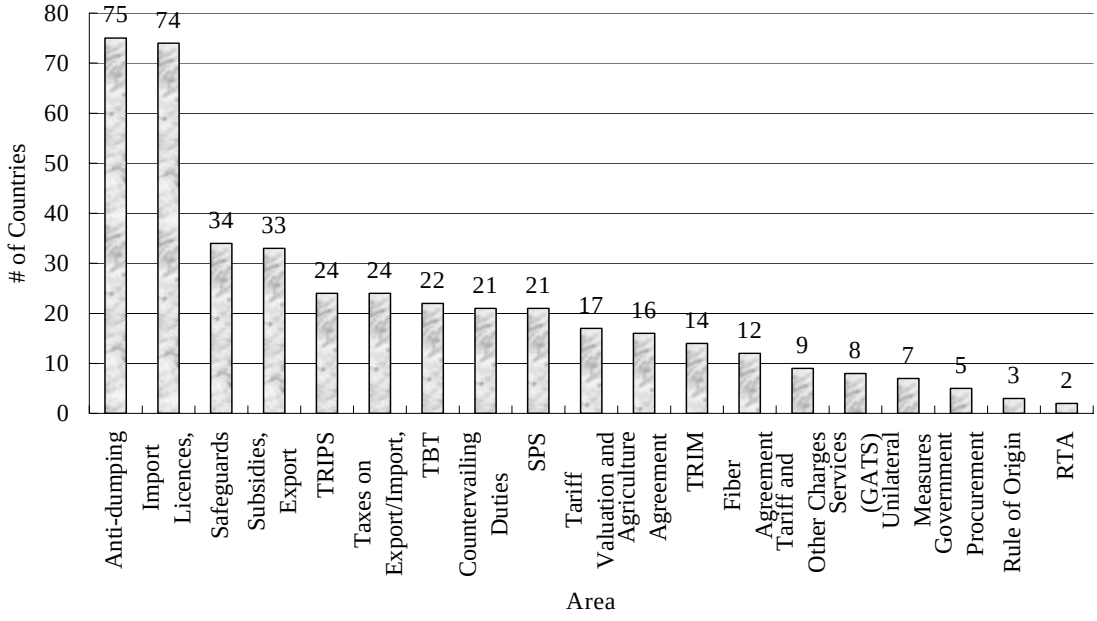
Source: Compiled from METI documents, data from BNA WTO Reporter, etc.

Fig. I-34 Tariff rates on mining and manufacturing products of selected countries/areas (year 2006)



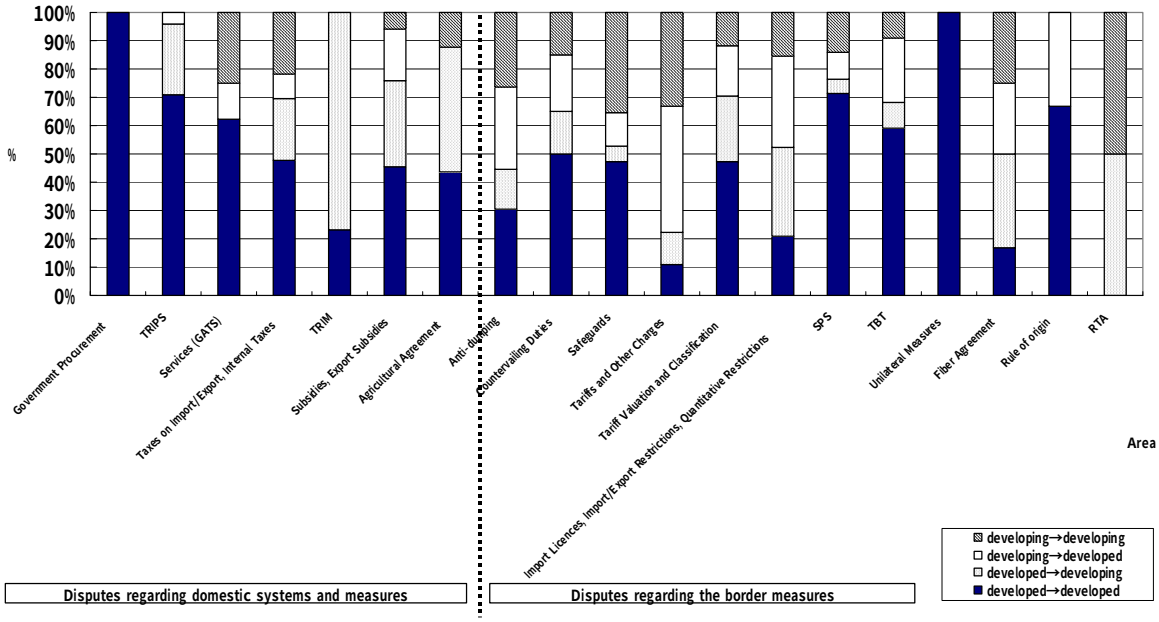
Note: The rates of India are in 2005.
Source: "World Tariff Profiles" (WTO)

Fig. I-35 Number of Countries participating in dispute settlement by area (1995-the end of 2005)



Source: WTO, "2007 Report on Compliance by Major Tradeing Partners with Trade Agreements-WTO, FTA/EPA and BIT-"(METI)

Fig. I-36 Proportions of disputes brought by developed and developing countries by area (1999-the end of 2005)



Source: WTO, "2007 Report on Compliance by Major Tradeing Partners with Trade Agreements-WTO, FTA/EPA and BIT-"(METI)

Table Ⅰ-32 Recent WTO Disputes (November 2006-April 2007)

DS#	Dispute Cases	Date of Request for Consultation	Complainant	Measures in Question	Domestic Institutions
352	India — Measures Affecting the Importation and Sale of Wines and Spirits from the European Communities	2006/11/20	EU	Internal Taxes	○
354	Canada — Tax Exemptions and Reductions for Wine and Beer	2006/11/29	EU	Subsidies	○
355	Brazil — Anti-dumping Measures on Imports of Certain Resins from Argentina	2006/12/26	Argentina	AD	
356	Chile — Definitive Safeguard Measures on Certain Milk Products	2006/12/28	Argentina	Safeguards	
357	United States — Subsidies and Other Domestic Support for Corn and Other Agricultural Products	2007/1/8	Canada	Subsidies, Agriculture	○
358	China — Certain Measures Granting Refunds, Reductions or Exemptions from Taxes and Other Payments	2007/2/2	U.S.	Subsidies, TRIM	○
359	China — Certain Measures Granting Refunds, Reductions or Exemptions from Taxes and Other Payments	2007/2/26	Mexico	Subsidies, TRIM	○
360	India — Additional and Extra-Additional Duties on Imports from the United States	2007/3/6	U.S.	Tariff	
361	European Communities — Regime for the Importation of Bananas	2007/3/21	Colombia	Tariff	
362	China — Measures Affecting the Protection and Enforcement of Intellectual Property	2007/4/10	U.S.	Accession Protocol, TRIPS	○
363	China — Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products	2007/4/10	U.S.	Accession Protocol, GATS	○

(source) "2007 Report on Compliance by Major Tradeing Partners with Trade Agreements-WTO, FTA/EPA and BIT-"(METI)

Table I-33 Zeroing mechanism

(Unit: $)

Export goods	a	b	c
Export price	80	40	70
Domestic price	60		

The export price and domestic selling price of goods (a, b, and c) exported by country A to the U.S. are compiled on a tabl
When zeroing is not employed, the aggregate dumping margin is calculated as (80 - 60) + (40 - 60) + (70 - 60) = 10.
The export price exceeds the domestic selling price, and therefore no dumping is recognized.
However, when zeroing is employed, the goods with a negative margin are excluded from the aggregate, as follows:
(0) + (40 - 60) + (0) = -20. This leads to a judgment that dumping is occurring.
(Source) Formulated by JETRO.

Table I-34 Overview of nine Chinese subsidy programs against which cases have been brought to the WTO DSB by the U.S.

Potential prohibited subsidy category	Subsidies	Eligible companies	Additional information
Subsidy contingent upon preferential use of domestic goods (Agreement on Subsidies and Countervailing Measures, Article 3.1 (b)) Note 1	Complete refund of value-added tax paid for purchase of domestic production facilities	Foreign-funded companies	Only applicable to companies in areas of business in which foreign investment is encouraged.
	Corporate tax exemptions for companies purchasing domestic production facilities	Foreign-funded companies	Exemption of 40% of investment in domestic production facilities from corporate tax in a fiscal year in which investment has increased against the previous fiscal year for companies in areas of business in which foreign investment is encouraged.
	Corporate tax exemptions related to investments in domestic production facilities using advanced technologies, etc.	Domestically-funded companies	Exemption of 40% of investment in domestic production facilities using advanced technologies in a fiscal year in which investment has increased against the previous fiscal year for domestically-funded companies.
Subsidy contingent upon export preformance (Agreement on Subsidies and Countervailing Measures, Article 3.1 (a)) Note 2	Further tax reductions following "two-year/three-year" system	Foreign-funded companies that have completed the term of preferential investment measures	Corporate tax is halved for companies for which exports represent 70% or more of total production value in a specific fiscal year. Tax is levied at a rate of 10% for foreign-funded companies in special economic zones, etc. (Applicable to companies to which a 15% tax abatement already applies).
	Corporate tax reductions for companies in areas of business in which foreign investment is encouraged	Foreign-funded companies	No obligation to export. However, the export ratio of authorized projects should be 100%. Corporate tax is reduced from 30% to 15% for foreign-funded companies that have conducted investment in areas of business in which foreign investment is encouraged.
	Tax refunds related to reinvestment in export companies or companies with advanced technologies	Foreign-funded companies	Export ratio of 70% or higher. No obligation to export for companies with advanced technologies. When profits from a qualifying company are directly invested in a qualifying company or another foreign-funded company, and the period of operation of this company will be five years or more, 100% of the tax already paid on the profit that was invested can be refunded.
	Tax exemptions on various employee subsidies	Foreign-funded companies	Export ratio of 70% or higher. No obligation to export for companies using advanced technologies.
	Provision of discount loans by commercial banks for superior exporters	Domestically-funded companies and foreign-funded companies	Companies with exports totaling $0.2 billion or more per year and an export debt coverage ratio of 85% or higher are classified as superior exporters.
	Exemption from customs duties and value-added tax on imported equipment	Foreign-funded companies	No obligation to export. However, the export ratio of authorized projects should be 100%. Conditions apply for exemptions, including involvement in an area of business in which foreign investment is encouraged and the provision of technology licenses.

Note 1: In addition, these measures may be in violation of Article 3.4 of the GATT, Article 2.1 of TRIMS, and Articles 7.2, 7.3 and 10.3 of China's WTO accession document.
Note 2: In addition, these measures may be in violation of Article 10.3 of China's WTO accession document and Article 1.1(a)(iv) of the Agreement on Subsidies and Counterv
(Source) Formulated from WTO documents and documents relating to trade measures in China

II. Searching for the Growth Strategy for Japan in the Growing Momentum in Asian FTAs

1. The World and the Asian FTA

(1) Rise in FTAs Worldwide Accelerated by Lagging WTO New Rounds

As of July, 2007, 143 free trade agreements (FTAs) are in effect worldwide. Until 1989 there were only 19, but starting in the 1990s the number has increased dramatically. In the decade from 1990 to 1999, 48 agreements were formed, and 76 new agreements have been created since the year 2000. (Fig. II-1).

Factors behind this sudden acceleration in new FTAs may include the fact that as the WTO talks in the previous Uruguay Round and the current Doha Round have been slow to bear fruit, more countries started to pursue FTAs so as to supplement the lagging WTO. The number of WTO members has increased and negotiations are going beyond tariffs to include many areas such as services and trade remedy measures (Table II-1). In other words, WTO demands a large number of countries to reach consensus on many subjects. Consequently, they, in some occasions, find it more reasonable to pursue FTAs, which can be concluded with a more limited number of counterparts than the Rounds, in relatively short time period. The shift toward FTAs by the major trading countries such as the U.S., which has driven other competing countries to turn to FTAs, is, we believe, another reason for this acceleration. In other words, each new FTA spurs the creation of yet more FTAs.

■Regional Integration Occurring at Various Levels, Such as FTAs, Custom Unions, and Common Markets

FTA is an agreement between the governments of two or more countries/regions whose purpose is to eliminate tariff and other trade barriers. The custom union, on the other hand, is an agreement that eliminates tariffs within member countries while instituting common tariffs as well as trade policies against the imports from countries or regions outside the area. Adopting common tariffs and trade policies while having already the characteristics of FTAs, custom unions can achieve a greater degree of economic integration than an FTA.

Custom unions are much fewer in number than FTAs worldwide. According to the WTO reports, only eight of them exist today, among which are the Mercado Común del Sur (Mercosur) made up of Brazil, Argentina and other South American countries, and the Gulf Cooperation Council (GCC) comprised of six Persian Gulf countries including the United Arab Emirates. Countries have not been very enthusiastic to form custom unions for a variety of reasons, such as: (1) Having common tariffs and trade policies make it necessary for individual countries to discard their own trade policies and denies them the freedom to negotiate FTAs independently with outside countries. (2) Stabilizing the region is what countries are looking for in custom unions. Therefore, this strong

motivation toward regionalism lowers their incentives to form custom unions cross-regionally. (There are no such custom unions at present.) The EU belongs to the common market, which affords an even greater degree of economic integration than a custom union with such additional features as free movement of people and capital.

■Cross-Regional FTAs and FTAs Between Advanced and Developing Countries Also Increasing

It used to be that FTAs would most often be formed among countries that have geographical proximity (Table II-2). It is rather natural that neighboring countries/regions that already have strong economic or political ties form an FTA to further deepen their relationship.

The EU, originated from the Treaty of Rome in 1957, is the center of economic integration in Europe, embracing more and more peripheral countries since its inception, to become a huge common market. In 2004, ten Eastern European countries like Poland and Hungary joined the EU, and subsequently, Romania and Bulgaria acceded in 2007, which resulted in a total of 27 member countries. There have also been some movements to form FTAs between the EU and Middle Eastern and African countries. As of July 2007, the number of FTAs in Europe, Russian and the CIS, the Middle East, and Africa exceeds 81, accounting for 56.6% of the world total. In the Western Hemisphere, NAFTA in North America, the Central American Common Market (CACM), the Caribbean Community (CARICOM), the Andean Community of Nations (CAN) and Mercosur in South America are among the free trade areas as well as custom unions that have been formed. The number of FTA in this region has currently risen to 19, accounting for 13.3% of the total. Representative FTAs in the Asia-Pacific region include the ASEAN Free Trade Area (AFTA), and FTA networks are being formed around the hub of ASEAN, such as the ASEAN-China FTA (ACFTA) and the ASEAN-Japan Comprehensive Economic Partnership (AJCEP). There are 22 FTAs in the Asia-Pacific region, accounting for 15.4% of the total.

Recent years have also seen an increase in regional FTAs that cut across regional boundaries. The U.S.-Australia FTA and the Japan-Mexico EPA belong to this category. 21 FTAs, 14.7% of total, are placed in the cross-regional FTA category. As globalization advances, FTAs are extending beyond regional barriers, which create a global network of agreements.

The EU-South Africa FTA, NAFTA, FTA between Japan and ASEAN countries, whereby advanced countries/regions are seeking liberalization of trade and investment in developing countries that are experiencing a remarkable economic growth. FTAs with advanced countries give developing countries a greater access to the enormous markets.

In the past, economic disparities between advanced and developing countries were the reasons that advanced countries are more inclined to have FTAs with other advanced countries (such as the EU), and developing countries with other developing countries (such as Mercosur). However, FTAs

between advanced and developing countries are on the rise. This type of FTAs represented only about 30% of all FTAs prior to the year 2004, but the figure has increased to more than 50% since 2005.

On a regional basis, notable examples include the EU with the Middle East, Eastern Europe and Africa, the U.S. with Central and South America, and Japan with other Asian nations, including those in ASEAN countries, aimed at securing fast-growing markets in the each region. More recently, there are starting to be cross-regional FTAs between advanced and developing countries, such as the U.S.-Republic of Korea FTA and the Japan-Mexico EPA.

■FTAs Increase Depth of Coverage Beyond Tariffs to Include Investment, Services, etc.

Many of the past FTAs aimed at liberalizing trade in goods through the elimination of tariff. Recent FTAs go beyond the elimination of tariff and non-tariff barriers to cover a wide range of fields including services, investments, intellectual property, competition policy and dispute settlement. According to WTO report, until 1999 there were only 11 FTAs that included services. Since 2000, that number has increased by 32 for a current total of 43. Particularly noteworthy is the fact that 63.2% of FTAs concluded since 2005 include services (Fig. II-2). The world-class FTAs such as NAFTA and the EU are comprehensive, and Japan's EPAs also cover not only tariffs and investment, but also other areas including bilateral cooperation.

As growing numbers of companies extend their oversea operations in this globalization of economy, countries demand their counterpart countries more to tackle with problems such as the strict regulations on foreign investment in manufacturing as well as service industries, and those involving the infringement of intellectual property rights caused by the flood of counterfeit products entering markets. There has been a growing emphasis on the FTA as a forum for the resolution of problems like these, as well. Thus the concept of the FTA has come to extend beyond its previous scope of trade in goods, and the FTA has become capable of influencing even domestic policy in counterpart countries.

(2) Trends in the Asian FTA Getting More Attention from the World

There are 22 FTAs in force in the Asia-Pacific region. The countries making up ASEAN+6 (ASEAN plus Japan, China, the Republic of Korea, India, Australia and New Zealand) participate in as many as 14 FTAs (including Early Harvest (EH) schemes) (Table II-3). Japan's EPAs with Singapore and Malaysia went into effect in November 2002 and in July 2006, respectively. In May 2007, Japan also reached an agreement in major issues with ASEAN that includes the percentages of tariff items subject to liberalization, those of sensitive items, and other such matters. Specific items are to be determined from this point forward. Apart from negotiations with ASEAN as a whole, Japan has also signed EPAs with Thailand, the Philippines, and Brunei that are expected to become

effective in the near future.

China and the Republic of Korea have also been actively pursuing FTAs. The ASEAN-China FTA went into effect in July 2003, and China is currently negotiating with Australia, New Zealand, and Singapore. The Republic of Korea, following its "multiple simultaneous" FTA strategy, has focused its efforts on concluding FTAs with countries and regions that will make Korea the trade hub for Northeast Asia.

Agreements with other countries in the Asia-Pacific region include an FTA with Singapore, signed in March 2006, and with the U.S., signed in July 2007, as well as the FTA with ASEAN that went into effect in June 2007. At present, its negotiations are underway with India.

The center of the FTA network that covers the Asia-Pacific region is ASEAN. In addition to promoting the liberalization of trade and investment within itself, ASEAN has actively sought to conclude FTAs with other countries in the Asia-Pacific region outside its area with the aim of becoming the hub for this region. Japan, the Republic of Korea, China, Australia, New Zealand, and India have all either concluded or are currently negotiating FTAs with ASEAN. In this way, a network of FTAs is being formed in the Asia-Pacific region, as though these countries were following the Japan's Comprehensive Economic Partnership in East Asia (CEPEA) framework proposal (Fig. II-3).

FTA frameworks covering the Asia-Pacific region include the CEPEA framework by ASEAN+6 countries (Japan, China, Republic of Korea, Australia, New Zealand, India), the East Asia FTA (EAFTA) framework by ASEAN+3 countries (Japan, China, Republic of Korea), and the APEC-wide Asia-Pacific Free Trade Area (FTAAP) framework.

The CEPEA framework was formulated as part of the global economic strategy announced by Japan's Ministry of Economy, Trade and Industry in April 2006. The CEPEA is a comprehensive FTA framework that includes a wide range of fields, such as goods, investment, services, and intellectual property rights. At the ASEAN+3 economic ministers meeting in August 2006, Japan proposed that a study group of experts be convened, and the East Asia Summit in January 2007 agreed to form a private-sector study group. The first meeting of the group was thereupon held in Tokyo in June of the same year, and plans were made to deliver an interim report at the East Asia Summit to be held in Singapore in November of that year.

The EAFTA framework originated in the East Asia Vision Group report presented to the ASEAN+3 Summit in November 2001. A private-sector study group of experts was then formed, as proposed by China, and carried out a feasibility study. The results of that study were reported to the ASEAN+3 Summit in January 2007. At the summit, the Republic of Korea proposed the formation of a Phase II study group for field-by-field analysis, and it was decided that this group would present a final report to the ASEAN+3 economic ministers meeting in the summer of 2009.

The FTAAP framework, which was proposed around 2004, was originally met with some

reservations by the U.S. That country, however, suddenly proclaimed its support in 2006, perhaps because it was concerned that it could be excluded from the FTA network that was gradually taking shape in the Asia region. With U.S. support, the APEC Summit of November 2006 in Hanoi decided to conduct research on methods of promoting regional integration, including the FTAAP designated as a long-term target, and to have a working-level report given at the APEC Summit in 2007.

(3) Japan's EPA Strategy

Japan has been supporting the GATT/WTO multilateral trade system for a considerable time. The U.S., which had been supporting multilateral trade systems alongside Japan, formed NAFTA in 1994. Then, the third WTO ministerial conference in Seattle ended in failure in 1999. With the difficulties of multilateral trade negotiations thus cast in relief, Japan began actively working on EPAs as a supplement to the WTO. The first EPA with Singapore came into being in November 2002, and was followed by the conclusion of EPAs with Mexico and Malaysia (Table II-4).

Japan has sought by means of EPAs to secure overseas markets for Japanese companies and to reduce their costs of doing business overseas. It has therefore given top priority to concluding EPAs primarily with the East Asia region, which has recorded significant growth and which is a manufacturing center for Japanese companies, and particularly with the ASEAN countries. Not only do the ASEAN countries generally have high tariffs on mining and manufacturing products, but they also still have numerous barriers to investment and services. Japan consequently seeks to improve the environment for trade and investment by concluding EPAs with these countries. Japan so far has EPAs in effect with Singapore, Mexico, and Malaysia, has signed agreements with the Philippines, Chile, Thailand, and Brunei, and has reached an agreement in the major issues with Indonesia. Negotiations with ASEAN as a whole also reached agreement in the major issues in May 2007, aimed toward the adoption of cumulative rules of origin that will the stimulate intra-regional trade of ASEAN by Japanese companies that have located there.

Japan is also promoting EPAs to resolve the disadvantages of not having FTAs in place. Mexico and Chile, for example, have concluded numerous FTAs, and could be termed advanced FTA countries. Both countries have, more particularly, concluded FTAs with the U.S. and the EU so that Japanese companies that are competing against European and American products have been forced to engage in disadvantageous competition. Moreover, Japanese companies are unable to qualify for the Mexican government procurement market, which European and American companies are qualified to participate in, so that the Japanese companies have been unable to contract for oil, electric power, and other such large-scale projects. Following its strategy for improving disadvantageous competitive conditions like these, Japan has concluded an EPA with Mexico and signed an EPA with Chile. Japanese companies are planning to utilize the opportunities opened up by EPAs with these countries to recover lost ground.

Promotion of structural reform in Japan and counterpart countries is another important purpose of

the EPA. Although some consideration is required in the fields of agriculture, forestry, and fisheries, the conclusion of EPAs is intended to promote domestic structural reform while making the economy more efficient and vigorous.

Japan has further accelerated EPA negotiations in 2007. It signed EPAs with Chile in March, Thailand in April, and Brunei in June. Negotiations have begun with India, Australia, Vietnam, and Switzerland.

Negotiations with India were initiated in January 2007 with the goal of signing an agreement within two years. Japan aims to acquire the vast consumer market centered on the rapidly growing high-income segment in the cities of India, with its population of 1.1 billion.

Negotiations with Australia began in April. This is Japan's second-ranked export destination for automobiles and automobile parts, and the EPA is expected to expand automobile-related exports. Australia is also a crucial source for procurement of iron ore and other resources, and it is important that assurance of stable supplies be written into the EPA. Meanwhile, Australia is the fourth largest source of Japan's agricultural, forestry, and fishery product imports.

The EPA with Vietnam, for which negotiations began in January 2007, is subject to even greater expectations because Vietnam in particular is considered a "China plus one"[(1)] candidate location.[(2)]

---

1. The strategy of distributing investment over China and one other country in order to reduce the risk of concentrating investment in China.

2. Vietnam acceded WTO in January 2007.

The conclusion of EPAs with these countries as well as with ASEAN will constitute a major step toward realization of the economic partnership that Japan seeks for the Asia-Pacific region.

(4) NAFTA as a Precursor of the FTA Between Advanced and Developing Countries

NAFTA, which is made up of the U.S., Canada, and Mexico, symbolizes the combination of large advanced countries (the U.S.) with developing countries (Mexico), the initiative of multinational companies in the U.S., and the achievement of comprehensive, high-level liberalization. The fact that NAFTA incorporated Mexico into the U.S. production network can be considered one of the economic effects achieved by this agreement. Moreover, there are some aspects in common between NAFTA and the economic partnership that Japan is pursuing in the Asia-Pacific region. There is the combination of an advanced country, Japan, with developing countries China, India, and the ASEAN countries, and there is the fact that Japanese companies are in the process of forming a production network through investment in China and ASEAN. These are the elements that overlap with NAFTA

characteristics. Japan also aims at having comprehensive, high-level liberalization in the Asia-Pacific region. This is what NAFTA has achieved. Below, we introduce some examples from NAFTA that could serve as a useful reference in thinking about an economic partnership in the Asia-Pacific region.

■Significant Liberalization Achieved in Goods, Services, and Investment

NAFTA trade in goods has become almost entirely tariff-free, with some exceptions, such as dairy products. Rather than the WTO's positive list system, NAFTA has adopted the negative list system for dealing with services, which resulted in significant liberalizations in service-related regulations. In investment, national treatment principle was given for pre-investment, and the negative list system was adopted for those categories in which foreign investment is restrained.

Mexico's foreign investment policy, influenced by the liberalization of services and investment due to NAFTA, underwent major change. Mexico amended its law on foreign investment in December 1993, immediately before NAFTA went into effect, and eliminated the across-the-board upper limit of 49% that had applied to the ratio of foreign capital participation in many fields. Even finance and insurance, which had been handled as exceptions under the revised foreign investment law, were opened to 100% participation in the NAFTA framework.

In Mexico, NAFTA led to the elimination of tariffs on finished vehicles simultaneously with deregulation of the automobile industry. Tariffs on NAFTA-originated vehicles in Mexico were reduced from 20% to 10% immediately after the agreement went into effect. With the graduated reduction in rates that was then implemented, tariffs on small trucks were eliminated completely in 1998, followed by tariffs on passenger vehicles in 2002. In conjunction with the graduated lowering of tariffs, certain performance requirements for the automobile industry, such as the requirement that the percentage of domestically produced parts be maintained at or above a certain level, and the requirement to maintain a certain balance between imports and exports, were relaxed in stages until they were eliminated in 2004.

After NAFTA went into effect, Mexico gained in importance as a base to produce automobiles for export to the U.S. The number of automobiles produced in Mexico nearly doubled from 1.01 million units (of which 580,000 were for export) in 1994 (the year NAFTA went into effect) to 1.98 million units (of which 1.56 million were for export) in 2006. The greater part of this increase was from expansion for export to the U.S. Mexico thus received the benefit of increased employment while U.S. auto manufacturers were able to reduce costs through production in Mexico.

With NAFTA, Mexico accepted liberalization in the financial sector, which most developing countries do not actively embrace. This liberalization contributed to the stabilization of Mexico's economy.

Even with the foreign investment law as amended in 1993, Mexico limited foreign capital

participation in commercial banks to 49%. With NAFTA, however, U.S. and Canadian financial organizations were allowed to enter the Mexican market with 100% owned subsidiaries. Financial liberalization under NAFTA was one factor in the 1999 amendment of foreign investment law, which eliminated all limitations on capital participation in commercial banks for enterprises both inside and outside the NAFTA area.

Mexico was hit by a peso crisis (the tequila shock) in December 1994, immediately after the country joined NAFTA. There was a series of collapses of local banks. As a result of liberalization of the financial sector, U.S. and Canadian banks bought up local banks in Mexico. The Mexican government established an organization to deal with non-performing loans and took steps to normalize the banking system. The purchase of local banks by foreign banks taking advantage of financial sector liberalization under NAFTA can be considered to have helped contribute to the stabilization of the financial system.

■Mexico, Not a Member of the WTO Government Procurement Agreement, Opens up Through NAFTA

NAFTA incorporated government procurement provisions. The language and substance of these provisions make them largely the same as what is in the WTO Government Procurement Agreement, which establishes that the NAFTA signatory countries are not as a rule allowed to treat the products, services, and enterprises of any other NAFTA signatory country so that they are at a disadvantage relative to domestic products, enterprises, and so on.

Given the existence of the WTO Government Procurement Agreement, one may wonder why NAFTA would have to include the very same content. The WTO Government Procurement Agreement is unlike service agreements or other such agreements in that membership in it is voluntary. Only 13 countries and regions are signatories, and developing countries are not members. Although the U.S. and Canada are WTO Government Procurement Agreement signatories, Mexico is not. NAFTA is the first instance of Mexico opening government procurement to other countries by an international agreement. NAFTA broke the ice for Mexico to determine government procurement according to the FTAs (or EPA) with the EU and Japan, and this has effectively put Mexico in a situation that is practically the same as being a WTO Government Procurement Agreement signatory.

There are some sectors of infrastructure development in the developing countries that require technology and capital from advanced countries. Wide-ranging FTAs with a plurality of advanced and developing countries as participants should probably consider including government procurement provisions in the interest of assuring transparency.

■Adopting a Self-Certification System for Certification of Origin

NAFTA prescribes rules of origin by individual product items. Theoretically, therefore, products that are imported from outside the area will not be exported to other signatory countries as NAFTA products with preferential tariffs unless they have undergone value-added processing within the area. However, there have been actual cases in which low-cost Chinese or other such products were imported into the U.S. and then illegally imported into Mexico falsely identified as NAFTA products. These cases have become a problem. These illegal imports have resulted from the disparity between the U.S. and Mexico in their tariffs on goods imported from outside the area. The apparel industry has suffered serious damage, and according to a study report announced by the Ministry of the Economy of Mexico in 2002, approximately 60% of the domestic apparel market ($16.3 billion in 2000) was made up of these kinds of illegally imported products.

The fact that illegal importation of this kind persists in NAFTA is considered to be a systemic problem. NAFTA has adopted a system of self-certification, so that certificates of origin do not have to be issued by public agencies or third-party organizations. The exporter's own signature is sufficient. Self-certification systems are thought to be more susceptible than prior certification systems to false declarations and other such illegal actions.[3]

---

3. Even under self-certification systems, it is usual to set up arrangements whereby the importing country's authorities check certificates of origin after the fact.

It should be noted, however, that systems of self-certification have advantages compared to systems of certification by third-party organizations, such as allowing for speedy export procedures. The cost of certification of origin also has the effect of offsetting the advantages of tariff reduction, and there is demand for reduction of that cost. It is probably necessary to study the adoption of selective systems for certification of origin, so that, for example, enterprises engaged in local production can use a system of self-certification for importation of parts they require for production.

(5) EU Still Continuing to Implement Measures for Integration

Movements toward economic partnership in the Asia and Pacific region are centered on liberalization with respect to goods and investment. Attempts to impose the level of integration found in the EU, which is the highest in the world, would be premature in this region. On the other hand, ASEAN is aiming to institute an ASEAN Community by the year 2015. Moreover, Japan has recently been seeing discussion of an East Asian Community. There is a likelihood that movements aimed at achieving a high degree of integration, as found in the EU, in the Asia-Pacific region will take concrete form in the long term. Here, therefore, we shall provide a summary review of initiatives for the free movement of persons and monetary union, which are still underway in the EU even now.

■Seeking the Free Movement of Persons: EU Measures and Issues

The EU has adopted numerous statutes in the past intended to realize the free movement of persons. In fact, however, the adoption of statutes alone did not suffice to facilitate the movement of people. There were many impediments, such as differences among the signatory countries in their societies, cultures, languages, pension and tax systems, and other aspects of domestic laws, capabilities, and occupational qualifications. These interfered with the freedom of EU citizen to live in other countries. The percentage of EU citizens at present who live in a signatory country other than their country of origin, or who work in a signatory country other than their country of origin, amounts to no more than about 1.5% of the total working population. Even though the procedures required for people to move have been simplified, this figure has hardly changed at all over the past 30 years.

The EU has therefore begun to make environmental improvements to promote people's movement. One of these is the mutual recognition of occupational qualifications. When mutual recognition is in place, then a physician in one country, for example, will be able to provide medical services in another country. A Directive of the European Parliament and of the Council on the Recognition of Professional Qualifications is to become effective in October 2007. This will make it possible for EU citizens who live in other signatory countries to provide services using their qualifications in their country of origin temporarily without applying for permission. Under certain conditions, their qualifications may also be recognized for the purpose of starting a business in another country.

Although a variety of attempts toward the free movement of persons have been made in the EU, barriers still remain. The disparity in income levels between signatory countries and other such economic elements are one factor preventing people's free movement. There is concern that a sudden movement of workers from a new member of the EU to an earlier signatory country, for example, could cause housing shortages, school shortages, and other such societal problems. Earlier signatory countries are therefore permitted to restrict the free movement of workers from new member countries. Workers from Romania and Bulgaria, for example, which joined the EU in January 2007, will have their free movement limited for a period of seven years at most. Only two countries, Sweden and Finland, have taken the step of opening up completely to date.

The United Kingdom, which had acted positively to accept workers, announced that it would limit the acceptance of workers from Romania and Bulgaria. The reason is that more workers than originally expected were received by the country since 10 countries became new members in 2004, leading to problems in paying expenses resulting from the consequent lack of housing, lack of schools to take in the workers' children, training in the English language, and so on.

■Monetary Union Brings Stability to Economic Indicators but Some Fiscal Discipline Issues

Remain

There have been a number of factors in efforts toward the establishment of the European Economic and Monetary Union (EMU). These include economic factors such as expansion of trade and investment by a reduction of foreign currency risk and foreign currency transaction costs, stabilization of cost of living fluctuations and narrowing of inflation level differences in the EU region by means of shared financial policies, and reinforcement of fiscal discipline. There has also been a political aspect in the background, such as the desire to establish a common currency on a par with the dollar as a symbol of regional integration.

The economies of a region must be to some extent homogeneous as a precondition for unification of their currencies. Monetary union signifies each country's abandonment of its regulatory function with respect to drops in overseas demand and other such shocks involving its own national currency and financial policy. The existence of large economic disparities within a region, therefore, becomes a problem in that it limits the effects of shared currency alignment and financial policy. Countries that participate in monetary union are consequently required to satisfy the criteria for economic and monetary convergence established by the Maastricht Treaty. These criteria relate to prices, long-term interest rates, stabilization of exchange rates, and sound fiscal discipline. As it turned out, the 11 countries that satisfied the convergence criteria inaugurated the EMU. The European Central Bank (ECB) was established in June 1998, use of the euro as a common currency for non-cash transactions began in 1999, and cash transactions using the euro (withdrawal from circulation of national currencies) began in 2002. Greece joined the EMU in 2001 and Slovenia joined in 2007.

It is difficult to accurately measure the extent to which regional trade and investment has increased because of the EMU. There is no doubt, however, that there were positive effects in the formation of single markets such as goods or investment. Price increases have also held quite steady, barely exceeding 2%, even within the context of sharply rising crude oil prices. Inflation disparity was also reduced from about 4 points in 1997 to about 2 points in 2006.

In June 1997, a Stability and Growth Pact (SGP) that included provisions for monitoring fiscal deficits and imposing sanctions was concluded for the purpose of maintaining fiscal discipline even after the inauguration of the EMU. The SGP made signatory countries responsible for keeping their government deficit to less than 3% of their GDP and maintaining the level of government debt at less than 60% of GDP. Countries that persisted in violation would be subject to corrective measures, and ultimately to monetary penalties.

Since 2001, however, the economy has deteriorated, policy priority has been given to business recovery measures, and national governments are less motivated to seek fiscal soundness. Deficits of 3% or more have been recorded not only in smaller countries such as Portugal and Greece, but also in countries such as Germany and France, which are leaders in European integration.

Given this context, fiscal discipline by means of SGP has relaxed. In November 2003, the decision

was made to temporarily suspend fiscal deficit improvement procedures regarding Germany and France. In March 2005, the SGP was amended to exclude European unification costs, such as the cost of East and West German unification, as well as research and development expenses. There is some tendency to approve of making operations flexible by such means as relaxing fiscal stimulation requirements temporarily during economic slumps. At the same time, however, many take the view that this has lessened the effectiveness of the SGP, which seeks adherence to strict fiscal discipline. The ECB has expressed apprehension about the SGP amendment.

As a result of the recent upturn in the business climate, deficits of over 3% have been seen only in Italy and Portugal as of 2006. The debate over the SGP has also grown relatively quiet. The maintenance of fiscal discipline is still a critical problem affecting confidence in the euro, however, and it is not to be overlooked from the viewpoint of new member countries in the expanding EMU.

Column II-1

☉Adoption of SOLVIT Makes Dispute Resolution Easy to Turn to

Many cases occur in which the incorrect application and mistaken interpretation of laws by signatory country authorities in the EU cause problems for citizens and enterprises from other countries. A means for resolving these problems that arise from the incorrect application of statutes relating to markets within the EU, and resolving them promptly and at low cost, was created in 2002. It is called the SOLVIT on-line network. SOLVIT centers have been established in the various countries, and they are offering their services at no charge.

The SOLVIT centers as a rule provide measures for resolving problems within 10 weeks after application. They can also request assistance from the European Commission when necessary. When official suits are brought before the European Commission, those cases that are determined to be solvable without going through the European Court of Justice are also sometimes turned over to SOLVIT centers to be handled.

Difficult problems that are unlikely to be resolved within 10 weeks basically do not come within the SOLVIT purview. However, many people turn to SOLVIT, which can try to resolve problems quickly and at no charge, rather than pursuing complicated, time-consuming court cases. The SOLVIT centers have been presented with 1,500 or more cases since 2002.

SOLVIT will attempt to resolve a wide range of problems, including those that concern social security, tax systems, services, and so on. It can also be effective in dealing with factors that impede the free movement of persons, such as troublesome and arbitrary administrative procedures involved in applications to start a business, refusal to recognize occupational qualifications, and so on.

There was one case, for example, of a self-employed person (a builder) from the Czech Republic who had attempted to start doing business in Germany. The German authorities insisted that a work permit was needed to provide services in the construction sector, and refused to issue a work permit.

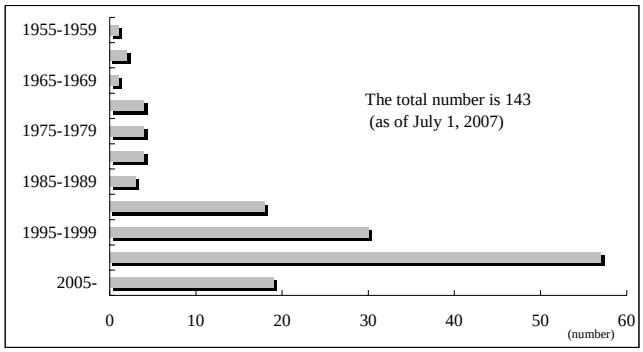
SOLVIT in Germany determined that self-employed people are not required to obtain work permits, and succeeded in obtaining permission for this self-employed person to conduct business. The time taken to resolution was four weeks.

In another case, an anesthetist from the UK requested that Spanish authorities recognize his professional qualification so that he could work in Spain. The authorities required the anesthetist to produce an unnecessary amount of documentation. SOLVIT in the UK and Spain then intervened and the anesthetist was eventually able to work in Spain. The problem took eight weeks to resolve.

Of the 467 cases handled by SOLVIT centers in 2006, 15% had to do with recognition of occupational qualifications while 9% had to do with the free movement of persons and civil rights in the EU, and 21% of all the cases involved movement of persons. As this indicates, SOLVIT functions to facilitate activity by EU citizens and businesses in signatory countries other than their country of origin.

Reference: European Commission, "SOLVIT 2006 Report: Development and Performance of the SOLVIT network in 2006," European Union Website, 2007.

Fig. II-1 Worldwide FTA Trends



Notes:
1. Of the 194 regional trade agreements listed on the WTO website (listing signifies that GATT or the WTO has been notified of the agreement and it is currently in effect), we have excluded 54 as duplicates due to new participants in existing FTAs, notification of both GATT and GATS, and etc.
2. The period is based on the date of the agreement. If that is unclear, the date of notification to GATT or the WTO is used.
3. The graph includes non-reported FTAs, namely ROK-ASEAN FTA, Thailand-India FTA as well as Singapore-India FTA.
Source: WTO website (www.wto.org/english/tratop_e/region_e/region_e.htm) as of March 1, 2007.

Table II-1. Overview of the past WTO multilateral negotiations

Year	Negotiation	Number of years	Number of participant countries
1947	Round 1	1	23
1949	Round 2	1	13
1951	Round 3	1	38
1956	Round 4	1	26
1960-1961	Dillon Round	2	26
1964-1967	Kennedy Round	4	62
1973-1979	Tokyo Round	7	102
1986-1994	Uruguay Round	9	123
2001-Present	Doha Development Agenda	7+	150

Source: Data from WTO Website

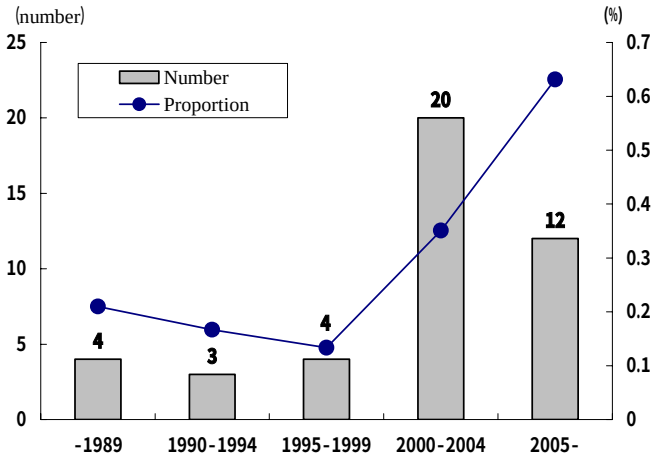
Longer negotiation periods

Increase in number of participant countries

Table II-2 FTAs by Region

Year	Europe, Russia and the NIS, Middle East, Africa	Western Hemisphere	Asia-Pacific	Cross-Regional	Total
55-59	1				1
60-64	1	1			2
65-59				1	1
70-74	1	1		2	4
75-79	2		2		4
80-84	1	1	2		4
85-89		1		2	3
90-94	13	2	3		18
95-99	24	4	1	1	30
2000-04	32	8	8	9	57
2005-	6	1	6	6	19
Total	81	19	22	21	143

Fig. II-2 Trend of FTAs that include services: number and proportion



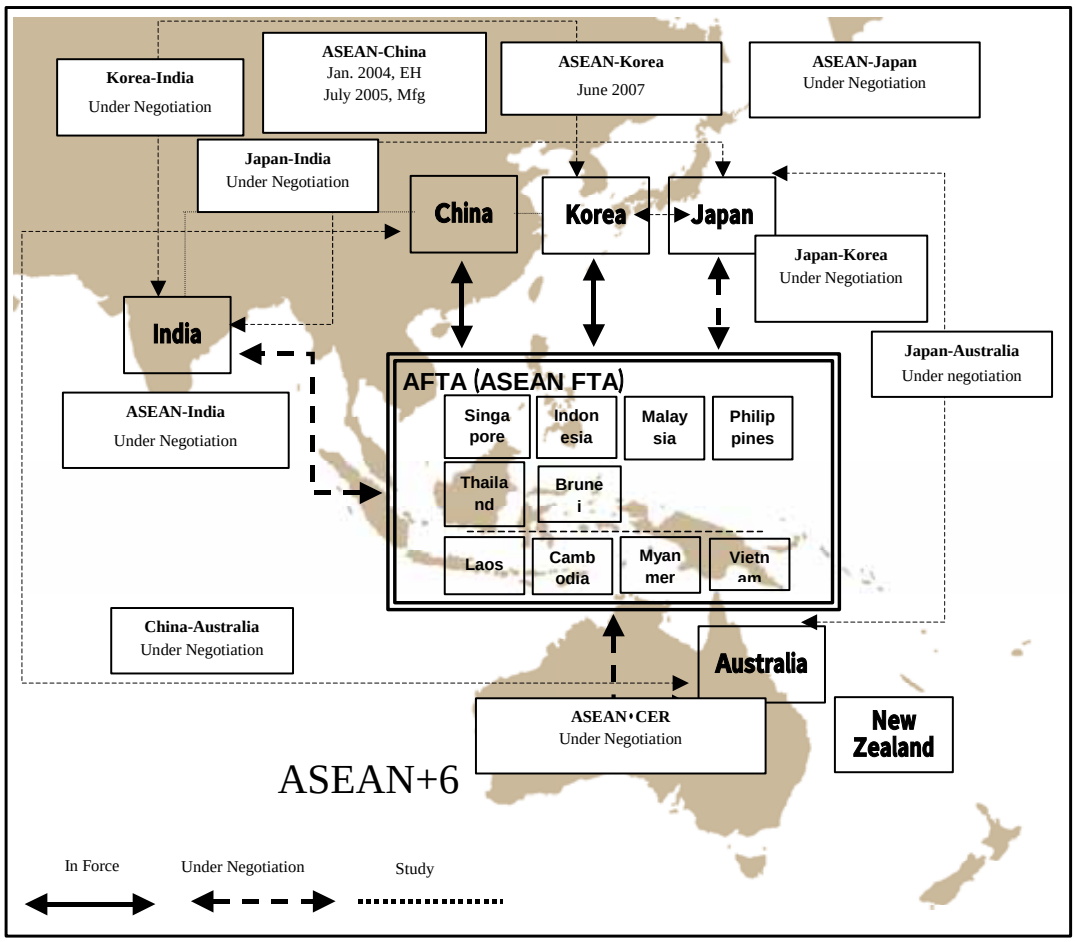
Note: Based on the data reported by member countries to GATS
Source: WTO

Table II-3 FTAs in force in the Asia-Pacific region

FTA	Date, Status
Australia-New Zealand	January 1983
Laos-Thailand	June 1991
Asean Free Trade Area (AFTA)	January 1992 (start of tariff reduction: January 1993)
Singapore-New Zealand	January 2001
Japan-Singapore	November 2002
Singapore-Australia	July 2003
Asean-China	July 2003
Thailand-India	September 2004 (start of EH)
Thailand-Australia	January 2005
Thailand-New Zealand	July 2005
Singapore-India	August 2005
Singapore-ROK	March 2006
Japan-Malaysia	July 2006
ASEAN-ROK	June 2007

Note: EH stands for Early Harvest
Source: Data from countries involved in FTAs above

Fig. II-3 "ASEAN+1" FTAs continue to expand to form the free trade area in the East Asia



Source: JETRO

Table II-4 Japan's EPAs: in effect, signed, being negotiated

Country/Region	Consideration ⇒	Negotiation ⇒	Agreement in Principle, Signed, In Effect		
Singapore		Joint study group, March-Sept. 2000	Negotiations from Jan. 2001	Signed Jan. 2002	In effect November 2002
Mexico		Japan-Mexico joint study group, Sept. 2001-July 2002	Negotiations from Nov. 2002	Signed Sept. 2004	In effect April 2005
Malaysia	Intergovernmental working group, May-July 2003	Joint study group, Sept.-Nov. 2003	Negotiations from Jan. 2004	Signed Dec. 2005	In effect July 2006
Philippines	Intergovernmental working group, Oct. 2002-July 2003	Joint coordinating team, Sept.-Nov. 2003	Negotiations from Feb. 2004	Signed Sept. 2006	
Chile		Joint study group, Jan.-Sept. 2005	Negotiations from Feb. 2006	Signed March 2007	
Thailand	Intergovernmental working group, Sept. 2002-May 2003	JTEPA Task Force, July-Nov. 2003	Negotiations from Feb. 2004	Signed April 2007	
Brunei		Intergovernmental preparatory meetings, Feb.-April 2006	Negotiations from June 2006	Signed June 2007	
Indonesia	Preparatory meeting, Sept.-Dec. 2003	Joint study group, Jan.-April, 2005	Negotiations from July 2005	Agreement in principle Nov. 2006	
ASEAN	Intergovernmental committee, March-Oct. 2003	Intergovernmental preparatory meeting, Jan.-Dec. 2004	Negotiations from April 2005	Framework agreement May 2007	
ROK		Joint study group July 2002-Oct. 2003	Negotiations from Dec. 2003		
Gulf Cooperation Council		Intergovernmental preparatory meeting, May 2006	Negotiations from Sept. 2006		
Vietnam		Intergovernmental joint discussion group, Feb.-April 2006	Negotiations begin Jan. 2007		
India		Joint study group, July 2005-June 2006	Negotiations begin Jan. 2007		
Australia	Intergovernmental preparatory meeting, Sept. 2002-July 2003	Joint study group, Nov. 2005-Dec. 2006	Negotiations begin April 2007		
Switzerland		Joint governmental study group, Oct. 2005-Nov. 2006	Negotiations begin May 2007		

Sources: Ministry of Foreign Affairs, Ministry of Economy, Trade and Industry of Japan

2. Economic Effects of FTAs

(1) FTA Model Analysis with a Focus on ASEAN

The creation of free trade areas centered on ASEAN has been progressing steadily in Asia. This chapter will present an estimate of the economic effects of various free trade agreements (FTAs) in Asia by means of model analysis. By clarifying the effect of upward pressure on GDP and changes to the structure of trade, the chapter will present the possibilities brought by FTAs, together with measures intended to maximize the economic effects of FTAs.

Needless to say, estimations of the economic effects of an FTA by means of a model will produce results according to the assumptions involved. If the conditions and assumptions are made as clear as possible, however, and the effects of the FTA are presented concretely and specifically, then the results may be significant insofar as they are able to provide certain suggestions for discussion of FTAs and the issues involved in their implementation.

The estimate here was made using the sixth edition (with 2001 base data) of GTAP, which is the most standard general equilibrium model. The subject was FTAs centered on ASEAN, including the ASEAN Free Trade Area (AFTA), ASEAN+1, ASEAN+3, ASEAN+6, and so on. This includes FTAs that have been signed, on which agreements have been reached, and that are being planned. The analysis was applied to a total of 11 industries with a focus on eight industrial classifications involving manufacturing of electric machinery, transportation equipment, and so on. (For further information, including details of the assumptions employed, please see the Commentary at the end of this chapter.)

The economic effects of an FTA were estimated first of all by converting base data from before the FTA was concluded or completely implemented, in the case of ASEAN, to the common effective preferential tariff (CEPT) rate as of 2003.[4] The working assumption is that tariffs within the region will then be eliminated and non-tariff measures (NTMs) will be reduced. The liberalization effects are estimated on this basis. (For ASEAN+6, only the effects of tariff elimination were estimated, for purposes of comparison.)

---

4. The adoption of CEPT tariff rates in 2003, in the present model analysis, results in an intra-ASEAN tariff rate of 2.1%. Consequently, the liberalization effect of intra-ASEAN trade is the effect of not imposing this 2.1% tariff. The original ASEAN signatory countries are slated to remove tariffs on more or less all product categories by 2010.

■The ASEAN+6 FTA Pushes GDP Up 1.3% for all Signatory Countries

The economic effects of an FTA bring change to the entire economy in the form of consumption and production structure changes that occur when trade within and outside the area rises and falls

because of the elimination of tariffs and the reduction of NTMs. These are static effects.

The economic effects of the main FTAs centered on ASEAN (envisioning tariff elimination and NTM reduction) include, in the case of ASEAN+6, pushing GDP up in all signatory countries by 1.3%. In the case of ASEAN+3, this margin was 1.0% (Table II-5). For Japan, the margin of GDP increase from ASEAN+6 was 1.0%, from ASEAN+3 it was 0.7%, and from Japan-ASEAN it was 0.3%. The margin of GDP increase for ASEAN from ASEAN+6 was 2.3%, followed by ASEAN+3 at 2.0%, while the margins from ASEAN+1 were 1.0% (ASEAN-India FTA) to 1.4% (Japan-ASEAN), and 0.9% (AFTA), respectively.

On the other hand, examination of the effects on countries that have not joined FTAs shows that there was either a diminishing effect or no effect in all cases. It was confirmed that FTAs could, in some cases, have a negative effect on outside (non-signatory) countries. In the case of Japan, the ASEAN-China and ASEAN-Australia FTAs, to which Japan is not a party, had a diminishing effect of 0.01%.

In all cases, the effects were greatest with ASEAN+6, which has the most comprehensive membership. This is because the effects of an FTA are propagated directly through trade, so that liberalization of trade between a larger number of countries will have a greater effect. In other words, the elimination or reduction of tariffs and NTMs tends to lower the prices of import and increase their volume, but the effect on imports as a whole will be greater when the tariffs and NTMs imposed on imports from a counterpart country are at a higher level (so the effects of reduction are correspondingly greater) or when imports from a counterpart country make up a larger percentage of total imports. With ASEAN+6, ASEAN reduced tariffs and NTMs on imports from signatory countries within the area by 8.4% of the total. The effects on imports as a whole were greater because imports from within the area made up over half the total, and the volume of imports from the rest of the world increased 12.9%. Meanwhile, with ASEAN+3, ASEAN reduced tariffs and NTMs on imports from within the area by the equivalent of 8.0%, while the percentage of imports from within the area was 47.8% of the total. Both these figures are lower than for ASEAN+6, and the effects on imports as a whole were consequently smaller than in ASEAN+6. The volume of imports from the rest of the world increased 12.0%, which was also lower than the figure for ASEAN+6.

As in the case of imports from within the area, exports to the area have also increased in accordance with the extent of tariff elimination and NTM reduction by the trading partner country for intra-area trade. In the case of ASEAN+6, for example, ASEAN exports to the area increased 39.7%, while exports to the rest of the world also increased 6.2%. (Effects on trade will be explained later.)

An increase in imports has an unmistakable depressing effect on GDP. The inflow of inexpensive imported goods, however, can cause personal consumption, capital investment, and other internal

demand to expand, which has the effect of pushing GDP up. For example, the rate of increase in ASEAN imports as a result of ASEAN+6 was greater than the increase in exports. Therefore, external demand (net exports) had the effect of depressing GDP by 4 points. Meanwhile, internal demand grew, with personal consumption increasing 5.2% and capital investment increasing 14.0%, so that internal demand had a positive upward effect of 6.2 points, offsetting the decreasing effect of external demand. The increase in GDP as a whole amounted to 2.3%.

■The Effects of NTM Reduction Are a Greater Factor in the Economic Effects of FTAs

The above estimates took into account the effects from the elimination of tariffs and the reduction of NTMs by FTAs. When only tariffs are eliminated, however, the economic effects are limited. Considering the margin of GDP increase in ASEAN+6, for instance, we see that the effect of tariff elimination does not exceed 0.2% for ASEAN+6 as a whole (Fig. II-4). This is because the tariffs imposed by the main countries on imports from within the area are already low, at 4.2% for ASEAN, 5.0% for Japan, 6.4% for Australia, and so on.

When NTMs are taken into consideration, however, the margin of GDP increase in ASEAN+6 as a whole rises to 1.3%, and in the main countries and areas it expands by 1.0–2.3%.[(5)] The tariff rate on imports from within the area imposed by Australia is 6.4% while the tariff equivalent rate of NTMs that are reduced is 9.3%, and the impact of the NTMs is approximately 1.5 times greater. In the case of ASEAN, NTMs at 4.3% are higher than the tariff rate of 4.2%. When NTM reduction is included, therefore, the effect in ASEAN+6 as a whole is to push the GDP up by 1.1 points more than when only tariffs are eliminated.

Estimates show that NTMs tend to be higher in advanced countries such as Australia where the tariff rates are already at low levels. The data used in this chapter for the tariff equivalent rate of NTMs indicate, for example, that Australia imposes technical restraint measures (standards, quality inspections, and so on) on agricultural products, some general machinery, and some other items.

---

5. The present analysis assumed that FTAs would reduce NTMs by half. The effects from 25% reduction and 75% reduction of NTMs within the ASEAN+6 framework were also considered, for reference. A 25% reduction of NTMs results in a margin of GDP increase of 0.7% in the area as a whole, while the effect of a 75% reduction was 2.0%. The extent to which an FTA reduces NTMs has a relatively large influence on the resulting effect of upward pressure on the GDP.

---

(2) The Importance of Reducing Service Link Costs

Estimation of the economic effects of FTAs with a focus on ASEAN showed that the greatest economic effects were in ASEAN+6, which has the largest number of members. Examination of the economic effects of FTAs also made the following points clear:

<1> The economic effects from elimination of tariffs alone are limited.

<2> The effects from reduction of NTMs are often greater than those from elimination of tariffs.

When negotiating FTAs and economic partnership agreements (EPAs), therefore, the extent to which NTMs can be reduced is an essential consideration for maximizing the economic benefits to be received.

Many researchers have recognized that governments, especially in developing countries, do not make clear the nature of the measures they actually put in place as NTMs. The collection and publication of more highly accurate information regarding NTMs by national governments and international organizations is, therefore, a crucial first step toward the reduction of NTMs.

The reduction of NTMs has great significance for recent business expansion by Japanese enterprises. Enterprises have been undergoing fragmentation as their bases become geographically dispersed. This is progressing in two dimensions, one being dispersal of an enterprise's in-house production processes to different sites and the other being international outsourcing.(6) In this context, the international division of labor furthered by FTAs lowers service link costs. These are the costs of linking together different production bases, such as tariffs, NTMs, transportation costs, and so on. The lowering of these costs makes it likely that production networks within the area will become more active, so that lowering NTMs and other such service link costs other than tariffs offers a greater margin for possible cost reduction.

---

6. Fukunari KIMURA and Mitsuyo ANDO, "International Production and Distribution Networks and New International Trade Strategies," *Financial Review* (April 2006), published by the Policy Research Institute, Ministry of Finance.

The estimates made in this chapter have also shown that the reduction of NTMs, which make up a portion of service link costs, has a greater effect than the elimination of tariffs. Thus it is important for FTAs to include schemes not just for the reduction of NTMs, but also, beyond that, for reducing service link costs as a whole, to include physical distribution infrastructure, financial services, and so on. This is crucial in figuring the economic effects of an FTA. The reduction of service link costs provides a boost to enterprises that seek to optimize production or achieve economies of scale by making use of comparative advantages within the region, by clustering, and so on. Depending on the FTA, the productivity of an enterprise could be enhanced or its competitiveness reinforced.

(3) ASEAN+6 Significantly Expands Imports and Exports in the Area

Changes in trade volume resulting from ASEAN+6 among signatory countries as a whole will be examined in detail, industry by industry. The growth in intra-area export volume for all industries is 65.9%. This major increase was brought about by the elimination of tariffs and reduction of NTMs

in the area (trade creation effect, Table II-6).

On the other hand, exports outside the area shrank by 14.0% overall (trade conversion effect). In terms of global exports to countries inside and outside the area, all the ASEAN+6 signatory countries and regions show a positive effect. The overall figure is an increase of 13.8%.

The total of imports for all industries from within the region likewise amounts to an increase of 67.1%, and from outside the region a decrease of 12.6%, so that global imports from all countries show a 21.0% increase. As with exports, the trade creation and trade conversion effects are perceptible. Examination of total growth in global exports and imports for all industries shows that the growth in imports exceeds the growth in exports by about 7 points. This is because a larger percentage of imports are from within the region, and the growth in the large intra-area imports has a greater contributory effect toward the total growth.

Examination of the rate of growth in intra-area exports for the major industries shows that transportation machinery, the manufacturing industry subject to the highest tariff rate (18.6%) for intra-area imports, increased intra-area exports by a factor of two or more. Japan and the Republic of Korea, which account for approximately 60% and 10% of intra-area exports, respectively, increased by a factor of 2.5. Under imports, China increased by a factor of 5.6.

In general machinery, Japan accounts for 47.5% of intra-area exports. Reduction by a tariff equivalent of 10.7% in tariffs and NTMs resulted in an increase of 73.6% in Japanese intra-area exports. Transportation machinery and general machinery are sectors where Japanese exports are very competitive, and these two industries account for just under one-half of the percentage increase of Japanese intra-area exports.

Electric machinery, which is the manufacturing industry sector with the largest export volume, showed a relatively low increase of 25.8%. This is because there are not very many NTMs involved and because the intra-area tariff rate for the electric machinery industry is already low at 2.9% due to the WTO's Information Technology Agreement (ITA).[7] In electric machinery, Chinese intra-area exports increased 66.2% while exports outside the area increased 27.2%. In this case, both increased. Intra-area imports also increased 71.2%. This is thought to be in part because of the processing trade pattern whereby China imports parts from within the area to assemble into finished goods that it then exports to countries inside and outside the area.

---

7. ITA signatory countries basically eliminate their tariffs on IT-related products. The ASEAN+6 signatory countries subjected to analysis in this chapter have all joined the ITA.

Commentary

Overview of Simulation, Assumptions and Preconditions, Etc.

・About GTAP

A computable general equilibrium (CGE) model was selected to serve as a framework for analysis of the economic effects of FTAs. The purpose is to analyze the effects of an FTA before it is concluded or before the substance of the FTA agreement is fully executed (ex ante analysis), or to analyze its influence on the economy as a whole.

The analysis in this chapter utilized a CGE model known as GTAP. The Global Trade Analysis Project (GTAP) was developed primarily by Professor Hertel of Purdue University in the U.S. and is being operated as a worldwide trade model. The latest version covers 87 countries and regions and 57 industries across the globe. GTAP has become established as the worldwide standard CGE model for estimating the economic effects of an FTA. This has happened for various reasons, including (1) that it allows easy access to databases, models, and related information, and enables analysis to be done with relative ease; and (2) that the entire project is operated in an open environment in which specialists in every country and field provide their data and other resources. The present analysis used the most recent version (6th edition) of the GTAP database with 2001 base data.

Care is required, however, since accurate measurement of FTA economic effects using the analytical model has proven to be difficult. The CGE model is capable of measuring an FTA's effects on the economy as a whole, for example, but this analysis requires vast amounts of data, and it is more or less impossible to gather data with uniformly high levels of quality on all countries and industries. Another point is that the model is based on general economic theories that are simplified, for example, in their assumptions of perfect competition. Also, there are limits to the accuracy of the various types of coefficients and factors that exercise a major influence on the results of analysis. For reasons like these, analysis by this model does not necessarily yield a faithful reflection of economic reality. Although the results obtained by model analysis may be suitable for determining an outlook on the economic effects of an FTA, therefore, the resulting figures cannot be expected to be accurate.

・Country, Region, Industry, Tariff Rate, and Non-Tariff Measures in the Analytical Model

The countries and regions of the model were Thailand, Malaysia, Indonesia, the Philippines, Singapore, Vietnam, Japan, China, the Republic of Korea, Hong Kong, Taiwan, Australia, New Zealand, India, the U.S., the EU-15 countries, the new EU signatory countries (12 countries), and 18 additional countries and regions of the world from the GTAP database of 87 countries.

The FTAs subjected to analysis were the ASEAN Free Trade Area (AFTA), ASEAN+1 (bilateral FTAs between ASEAN and Japan, China, the Republic of Korea, Australia, and India), ASEAN+3 (inter-regional FTAs between ASEAN and Japan, China, and the Republic of Korea), and ASEAN+6 (inter-regional FTAs between ASEAN and Japan, China, the Republic of Korea, Australia, New Zealand, and India). ASEAN as referred to in this chapter comprises the six countries of Thailand, Malaysia, Singapore, the Philippines, Indonesia, and Vietnam.

The 11 industries considered in the model were agriculture, forestry, and fisheries (including food products), mining, textiles, paper manufacturing, chemicals, metals, general machinery, electric machinery, transportation machinery, other manufacturing industries, and services out of the 57 industries in the GTAP database. There are limitations on the trade data on services, making it difficult to calculate the economic effects on this industry from an FTA. Consequently, this was not broken down into more detailed industrial classifications, but rather aggregated as services.

The original GTAP database only recorded the most-favored-nation (MFN) tariff rate for the Thai tariff rates. The Common Effective Preferential Tariff (CEPT) rates were not utilized. It was desirable, therefore, to bring the Thai tariff rates closer to the norm, and to better reflect the fact that the original ASEAN member countries have reduced tariff rates to the 0–5% range on almost all items since 2003 (full implementation of CEPT). For that purpose, the 2002 CEPT package published on the ASEAN Secretariat Web site was taken as a basis for the 2003 CEPT concessionary rates.

The non-tariff measures (NTMs) adopted for the model were the tariff equivalents that Ando (2005) converted by country and industrial category. Ando (2005) compared the import price of a certain goods with the domestic manufacturer's price, broke down the difference to identify the portion with the tariff excluded, and estimated the influence on price of the NTM by conducting regression analysis of the portion with the tariff excluded and the NTM incidence. This is known as the price gap approach. The results of estimation by Ando (2005) are used to obtain total values for four measures: technical regulation (labeling, standards, implementation of quality inspections, troublesome customs procedures, etc.), quantitative limits (arbitrary issuance of import licenses, import quotas, import prohibitions, etc.), monopolistic behavior (allowing imports only by monopolistic import companies, etc.), and price regulation (control of import prices, etc.). For convenience, however, average values were used for certain countries that were not analyzed by Ando (2005), namely Thailand, Indonesia, and Malaysia for the Philippines and Vietnam, and Thailand, Indonesia, Malaysia, and China for India.

Worldwide tariff rates are converging on lower levels, and the existence of NTMs is exerting no small influence on trade in this context, as is apparent also from interviews with enterprises. Researchers have not agreed, however, on the extent to which trade is distorted because of (1) the lack of accurate data on the status of NTM implementation, (2) various statistical errors that occur when converting NTMs to tariff equivalents, and other such factors in positive analysis. Although the research results in Ando (2005) have received positive evaluations from specialists in NTM research in terms of what it is possible to calculate at the present stage, these results should be understood as a partial representation of the distorting effects on trade from actual NTMs.

・Assumptions Regarding the Liberalization Caused by FTAs

This chapter has presented an estimate of the liberalization effects of FTAs made with the following policy variables changed externally.

With regard to tariffs, it was assumed that tariffs on imports from countries covered by an FTA would be eliminated, and that subsidies on exports to countries covered by the FTA would be eliminated. With regard to NTMs, it was assumed that the FTA would reduce them by half. Since NTMs correspond to transportation costs in the broad sense, they constitute an external shock to import-related productivity where imports from countries covered by the FTA are concerned. This effect is generally similar to that of tariff reduction.

・Current Status of Non-Tariff Measures (NTMs)

As a result of the model analysis, it was found that reducing NTMs has a major effect on trade. The current status of NTMs in the major ASEAN+6 countries was verified using the data now available.

In ASEAN, each country has a total of 100–400 NTMs (table). Looking by type of measure, we see that there are more than 100 quantitative limits in Thailand, Malaysia, and Indonesia, and as many as 60–80 in the other countries, making these measures very numerous. Discretionary issuance of import licenses, import quotas, import prohibitions, and other such measures can be found. Technical regulations are next most numerous, and these include quality inspections, labeling, standards, regulation of advertising, and so on. Monopolistic measures and price regulation are fewer in number.

According to the Report on Foreign Trade Barriers (2006 version) by the U.S. Trade Representative (USTR), China has been applying an import licensing system on iron ore (without notification to the WTO) as well as activities in inspection and quarantine of agricultural products that restrain trade. On the other hand, China had removed import quotas from all items, including air conditioners, cameras, televisions, clocks, motorcycles, and other such items by January 2005, based on its WTO membership commitment. The USTR report also identified issues in India, including the import licensing systems for poultry, certain chemical products, and so on, and a monopolistic importer system in petrochemical products, some pharmaceuticals, grains, and so on. It also pointed out that certification must be obtained from the Bureau of Indian Standards (BIS) for the importation of 109 items, including food products and household electrical appliances.

Reference: Ando Mitsuyo (2005), "Estimating Tariff Equivalents of Non-tariff Measures in APEC Member Economies" in Philippa Dee and Michael Ferrantino, eds., *Quantitative Methods for Assessing the Effects of Non-tariff Measures and Trade Facilitation*, Singapore: World Scientific Pub Co., Inc.

Table II-Reference The number of NTM in ASEAN countries

(number of cases)

	Number of NTM by country						Main examples
	Thailand	Malaysia	Indonesia	Singapore	Philippines	Vietnam	
Quantity control measures	113	123	189	64	67	82	Import licensing on a discretionary basis (foods, electric equipment, etc.); import quotas (iron and steel, automobiles, foods, etc.), prohibitions on imports (used cars, etc.)
Technical measures	22	6	134	29	90	158	Quality inspections, labeling and specifications standards, advertising restrictions on foods, pharmaceuticals, cosmetics, electric products, machinary, and etc
Monopolistic measures	0	1	13	0	2	8	Monopolistic import company system for rice, petroleum, etc.
Price control measures	0	0	0	1	0	34	Price controls on imports (in Vietnam, on beverages, glass, etc.), anti-dumping measures (in Singapore, on iron and steel products)
Other	6	4	71	8	0	1	Automatic licensing measures
Total	141	134	407	102	159	283	

Note: We summerized the data disclosed by ASEAN Secretariat, which had taken the information of the number of NTA from APEC, UNCTAD, etc. who compiled the data mainly reported from each government. The years of compiling the data vary with country, ranging from 2001 to 2003. We count the number of NTM regardless of the level of HS digit in question. For instance, a measure affecting HS tariff lines (products) at two digit level is counted as one while another measure affecting products at HS eight digit level is also counted as one. Thus, that a country is shown as having a large number of NTMs in this table does not necessarily mean that it does have many NTMs or that the impact of the NTMs applied is large.

Source: ASEAN Secretariat.

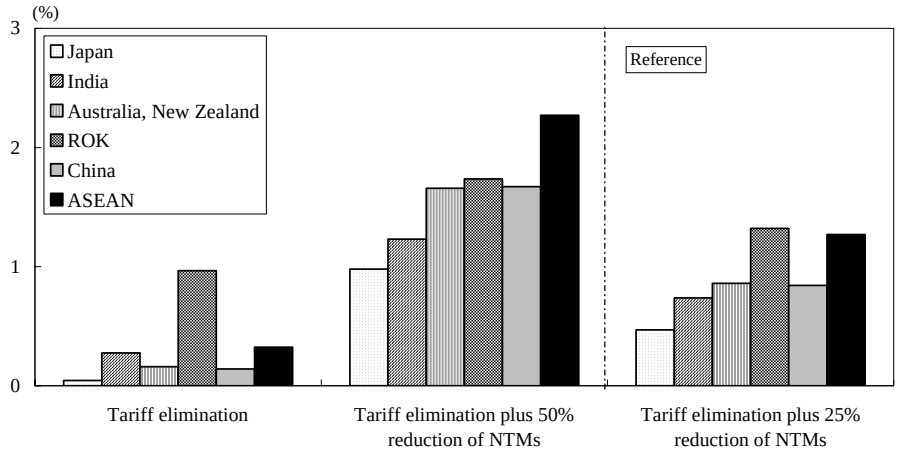
Table II-5 Effects of various FTAs on GDP (tariff totally eliminated and NTM reduced by 50%)

(%)

	Intra ASEAN (AFTA)	ASEAN-China	ASEAN-ROK	ASEAN-Japan	ASEAN-Australia	ASEAN-India	ASEAN +3	ASEAN +6
All member countries	0.9	0.7	0.7	0.5	0.8	0.9	1.0	1.3
ASEAN	0.9	1.3	1.0	1.4	1.0	1.0	2.0	2.3
Japan	-	-0.01	-	0.3	-0.01	-	0.7	1.0
China	-0.01	0.4	-0.02	-0.02	-0.01	-0.01	1.5	1.7
ROK	-0.01	-0.04	0.3	-0.02	-0.01	-	1.6	1.7
India	-0.01	-0.03	-0.02	-0.1	-0.02	0.9	-0.1	1.2
Australia	-	-0.02	-0.01	-0.04	0.5	-0.01	-0.1	1.4

Notes: Rounded down below two decimal points; regard 0.00% as no influence and indicate as "-."
Shaded boxes indicate FTA member countries/regions.
Sources: Estimated from GTAP

Fig. II-4 Effects of ASEAN+6 FTA on GDP of each country/region



Source: Estimated from GTAP

Table II-6 Effects of ASEAN+6 FTA on trade by industry （tariff totally eliminated and NTMs reduced by 50%）

(unit: %)

	Export				Import			
	% change			% share	% change			% share
	intra trade	extra trade	to the world	(pre FTA)	intra trade	extra trade	from the world	(pre FTA)
All industries (Asean +6 all member countries)	65.9	-14.0	13.8	100.0	67.1	-12.6	21.0	100.0
Textile	83.7	-6.6	24.8	7.9	83.4	-39.0	45.4	4.8
Chemicals	78.9	-10.2	29.9	10.5	79.2	-23.3	23.5	12.8
General machinery	56.5	-16.2	9.5	15.1	56.4	-12.7	18.7	14.0
Electric machinery	25.8	-7.0	6.5	23.4	25.8	-14.4	10.7	18.1
Transportation equipment	115.1	-15.8	3.5	8.9	114.8	-20.0	24.7	4.8

Notes: "All industries" category includes services. "% share" indicates % of total export/import in value to "to/from the world" before the FTA comes into effect.
Source: Estimated from GTAP

3. Increasingly Tight Economic Ties in Asia and the Utilization of Asian FTAs with Issues Involved

(1) Increasingly Tight Economic Ties in Asia

As noted above (Chapter 2, Section 1), there are currently 14 free trade agreements (FTAs), including Early Harvest (EH), in effect in the countries making up ASEAN+6 (Japan, ASEAN, China, the Republic of Korea, India, Australia, and New Zealand).

As FTAs continue to be formed within the Asia-Pacific region, the amount of trade among FTA signatory countries as a proportion of intra-area trade among the ASEAN+6 countries ($1.1768 trillion, export basis) was $521.7 billion, which accounts for 44.3% of total intra-area trade (Table II-7). Japan, India, Australia, and other countries are pursuing FTA negotiations centered on ASEAN, so that the amount of trade among FTA signatories as a percentage of intra- regional trade is expected to grow.

Intra- regional trade within the Asia-Pacific region itself is also increasing. Examination of the percentages of intra-regional trade within the major regions of the world (2006) shows that the EU25 has the highest percentage among the major regions at 66.1%. The North American Free Trade Agreement (NAFTA), formed in 1994, reaches 44.2%, but intra-regional trade among the ASEAN+6 countries also reaches 43.3%, which is an increase of 2.7 points since 2000 (40.6%) (Table II-8). The figure for ASEAN is 27.2% in the ASEAN Free Trade Area (AFTA), which was formed in 1993 and has already lowered agreement tariff rates to the 0–5% range on most items. This is a rise of 3.2 points since 1995. The rates of intra-regional trade between ASEAN and Japan, India, and China also show a rising trend. Asia-Pacific intra-area trade is driven by East Asian intra-area trade, which includes Japan and ASEAN exports to China and Chinese exports to ASEAN.

Examination of trade in East Asia (export basis) in terms of the major trade categories of IT products and transportation machinery (automobiles, automobile parts, etc.) shows a distinctively large expansion of exports to China by Japan and the ASEAN5 (Thailand, Malaysia, Indonesia, the Philippines, and Singapore.[8] (Table II-9) The expansion of Japanese and ASEAN exports to China parallels the growth of IT product manufacturing in China, and one factor in this export expansion is the increase in exports of intermediate goods and other such products from Japan and ASEAN. As the production network for IT products and other such products advances, ASEAN5 intra- regional trade accounts for 23.4% of the total value of ASEAN5 IT product exports. Although exports from Japan and ASEAN 5 to China in the category of transportation machinery show a tendency to expand, these still remain a small percentage of the total. On the other hand, ASEAN5 intra- regional trade has risen from 21.5% in 2000 to 25.7%, suggesting how the division of labor in the transportation machinery sector has progressed in the ASEAN area, as well.

---

8. ASEAN5 was chosen rather than ASEAN10 because of statistical constraints.

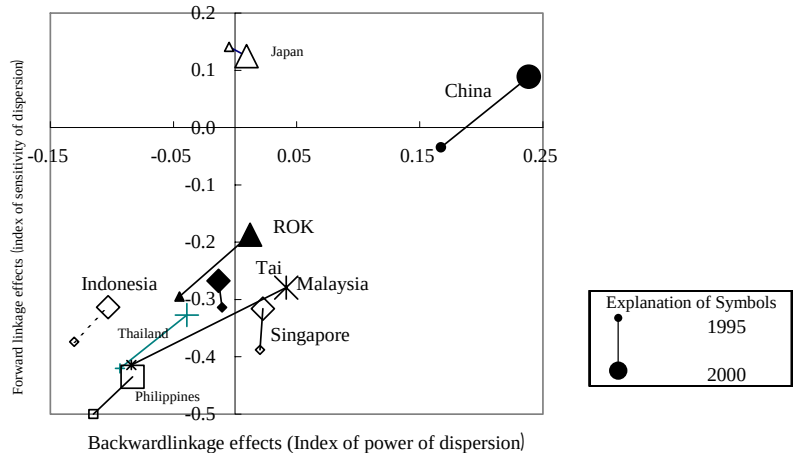
Column II-2

⊙Asian Economic Development of Tighter Ties as Seen in Terms of International Input-Output Tables

The advancing regional specialization （←division of labor） taking place in Asia has given rise not only to growing vigor of intra-area trade, but also to an increasing mutual dependency among industries. Here we shall examine the influence of production inducement by country and region on the basis of forward and backward international linkage effects as calculated from Asian international input-output tables (1995 and 2000). Forward linkage effects (index of sensitivity of dispersion) measure the magnitude of production inducement effects resulting from the creation of demand in the industry of another country or region by a particular country (region) or industry. Conversely, backward linkage effects (index of power of dispersion) measure the magnitude of the production inducement effect exerted on another country (region) or industry by the generation of additional demand in a specific country (region) or industry. Forward and backward linkage effects both form an index for the combined average sensitivity or power of dispersion for an entire region or for all industries covered by an international input-output table. An increase in both the forward and backward linkage effects indicates a strengthening of mutual dependency among industries in a region.

The figure shows these factors as calculated for Asian countries and regions and plotted in contrast with the figures for the U.S. Most of the major Asian countries and regions, led by China, show forward and backward linkage effects that are increasing compared to the U.S. Whereas forward linkage effects (the magnitude of influence exerted in production inducements) in Japan are declining somewhat, the backward linkage effects (the magnitude of influence exerted by production inducements) are on the rise. In Taiwan, on the other hand, the backward linkage effects are declining while forward linkage effects rise, and so on, indicating that there is a certain amount of variation. Overall, however, it is apparent that mutual dependency among industries in the East Asia region is growing stronger. During the measurement period from 1995 to 2000, the U.S. increased its influence on the world economy as a whole by leveraging the IT boom. In Asia, on the other hand, this period included a currency crisis as well as a period of stagnant production. Even under these circumstances, however, links among industries in the Asian region grew stronger, in a movement that crossed national boundaries. When this trend is combined with recent conditions, including advances in the regional specialization (←division of labor) systems and a rise in intra-area trade as a percentage of total trade, it can be assumed that the development of tighter economic ties through the deepening of mutual dependency is progressing further, even today.

Fig. Forward and backward international linkage effects in major Asian countries and regions （1995-2000, all industries, relative comparison with U.S.A.）



Note: Regarding methods of computing forward and backward international linkage effects, see "Ajia kokusai sangyo renkan bunseki handobukku: sakusei to bunseki no shuho" (Handbook of Input-Output Analysis of International Industry in Asia: Methods of Compilation and Analysis), Institute of Developing Economies, JETRO (March 2004).
Source: Institute of Developing Economies, JETRO, Asian International Input-Output Table

---

(2) Utilization of FTAs Advancing Step-by-Step in Asia

A succession of new FTAs have been forged in the Asia-Pacific region, but the status of their utilization is another matter. Thailand and Malaysia publish their record of FTA utilization in terms of the value of exports involved (to be discussed below), but, with some partial exceptions, no official statistics are available.

JETRO conducted a questionnaire survey in November and December of 2006 to determine how Japanese enterprises had been using FTAs in Asia. The questionnaire results show that the largest group of respondents (42.7%) said they were "not utilizing or not planning to utilize preferential tariff schemes" for export business in FTAs that are presently in effect in Asia, while the number responding that they are "utilizing or planning to utilize preferential tariff schemes" amounted to 13.3% (97 of 728 responding enterprises). On the other hand, "undecided" enterprises also amounted to 34.2% (249 enterprises), suggesting that a lack of familiarity with FTAs is one background factor in this situation.

Regarding the FTAs that are being utilized, some distinctive points are as follows: (1) There is considerable utilization of AFTA, where Japanese enterprise production networks are becoming widely established; (2) there is conspicuous use of the Japan-Malaysia Economic Partnership Agreement (EPA), which just went into effect in July 2006; and (3) cases can be found of FTA utilization for export from Thailand, which is a key production base for Japanese enterprises, to India, Australia, and other countries outside the ASEAN market area (Table II-10).

According to a questionnaire survey targeting local Japanese companies in ASEAN and India,

“Zai Asia nikkei seizogyo no keiei jittai chosa” (the Survey of Business Conditions for Japanese Manufacturing Companies in Asia) (JETRO, conducted from November 27 to December 27, 2006), the number of enterprises responding that they "are currently utilizing" FTAs amounted to some 10–20% of the total (Fig. II-5). Of Japanese enterprises in India, 33.3% (10 out of 30 enterprises) utilize FTAs for imports to India, and the Indian utilization for imports stands out.

The below will examine the circumstances of utilization of individual FTAs that are in effect in the Asia-Pacific region.

■The Japan-Malaysia EPA: Expecting Expansion in Exports of Automobile Parts and Other Products from Japan and Expanding Textile Exports from Malaysia to Japan

The Japan-Malaysia EPA and the Japan-Singapore EPA have already gone into effect as FTAs between Japan and the Asia-Pacific region.

The Japan-Malaysia EPA went into effect in July 2006 as Japan's third EPA following those between Japan and Singapore and Mexico. Among items exported from Japan to Malaysia, automobile parts are considered to be significantly affected by the elimination of tariffs in the Japan-Malaysia EPA. Malaysia instantly eliminated tariffs on completely knocked down (CKD) products and plans to eliminate tariffs on passenger vehicles with 2000-cc or larger engines by 2010 and those on other passenger vehicles by 2015. Color television sets are another item subject to instant elimination or phased reduction of tariffs, and expansion is expected to take place in exports of Japanese flat-panel television sets and other high value-added products in which Japanese enterprises are highly competitive.(9)

Prominent among the products imported by Japan from Malaysia are textile products. Japanese import tariffs are already at low levels on most items. Malaysian imports from Japan in most categories were originally subject to generalized system of preferences (GSP) rates, which are even lower than the most favored nation (MFN) tariff rates for developing countries. In this context, textiles were among the products for which tariff elimination had a relatively large effect in the Japanese tariff structure for both MFN and GSP rates. Japan's MFN and GSP tariff rates on textile products are within the 0–14% range, with many items of apparel specifically being subject to rates of around 10%. As a result of the Japan-Malaysia EPA, almost all textile product items imported by Japan from Malaysia are not subject to tariffs.

An 80% share of textile imports by Japan come from China, where GSP or MFN tariff rates are applied. Malaysia therefore has an advantage relative to China with respect to tariffs, as well. Japanese textile imports from Malaysia amounted to $142.61 million in 2006, which is only 0.5% of total textile imports. It appears, however, that the tariff benefits are being enjoyed since the Japan-Malaysia EPA went into effect. Imports of some items are on a rising trend, with imports of sheep wool for 2006 increasing 27.5% over the previous year to $36.85 million. The total value of

imports of these products as a share of total imports from the world also rose from 5.2% the previous year to 6.2%. No marked increase has been apparent in apparel since the Japan-Malaysia EPA went into effect, but it is conceivable that the FTA will be utilized because of the large tariff advantage.(10)

---

9. Tariff reductions under the Japan-Malaysia EPA are figured with reference to tariffs in place as of 2005. The government of Malaysia has lowered its MFN tariff rate since that EPA went into effect, however, so that some items are now subject to MFN tariffs that are lower than the Japan-Malaysia EPA tariffs. It will be necessary, therefore, to check both MFN and EPA tariff rates and confirm which are lower. For details see the Ministry of Economy, Trade and Industry Website (http://www.meti.go.jp/policy/trade_policy/epa/data/061127malaysia_epa_MFN.pdf)

10. Rules of origin for textile products are subject to manufacturing process criteria. In principle, it is a condition that two processes be carried out in a signatory country or in an ASEAN member country.

■FTA Signatory Countries Gain Greater Share of Dutiable Alcohol in Singapore

The Japan-Singapore EPA, which became effective in November 2002, appears to be being utilized for Japanese exports to Singapore of beer. The only items subject to tariffs in Singapore are six alcohol items. Beer is subject to duty at the rate of 0.8 Singapore dollars (S$) per liter or, for stout beer, S$1.7 per liter. Medicinal liquors (HS 22089010–22089040) are subject to a duty of S$8 per liter. In other words, the only items for which counterpart countries can obtain any tariff advantage under the FTA with Singapore for their exports to Singapore are these six items. Imports of dutiable alcohol by Singapore in 2006 amounted to $78.33 million. The FTA signatory countries'(11) share of total import value grew from 63.0% in 2004 to 71.2% in 2006, suggesting that this tariff advantage in imports of dutiable alcohol is being enjoyed. Japanese imports in 2006 accounted for 2.8% of that share.

A protocol amending the Japan-Singapore EPA was signed in March 2007, providing for an increase in the number of items subject to lower tariffs from 2008. Certain items had previously been excluded from tariff reductions on the Japan side, including organic chemicals (HS 29), plastics and articles thereof (HS 39), cocoa paste, defatted or not, and cocoa powder, unsweetened (HS 1803 and 1805), and chocolate and other food products containing 'cocoa’ (HS 1806). Now the tariffs on these items are to be lowered still further, and utilization of the Japan-Singapore EPA can be expected to expand from 2008.

---

11. The FTA signatory countries are ASEAN, Japan, the Republic of Korea, China, Australia, New Zealand, Jordan, Panama, Switzerland, Iceland, Liechtenstein, Norway, Chile, and the

U.S.

■AFTA Eliminates 76% of Intra-Area Tariffs for Original ASEAN Signatories and Lowers Almost All Tariffs to 5% or Less

This section will examine the utilization of AFTA, which is a preeminent example of the FTAs now in effect in the Asia-Pacific region, the ASEAN-China FTA, which was the first FTA between ASEAN as a whole and a country outside its area, and FTAs with Thailand, India, and Australia. While utilization of AFTA is advancing, use of the ASEAN-China FTA remains restricted, though the rate of utilization is on an upward trend. In addition to the FTA, ASEAN and China appear to be using tariff-exempt imports based on an Information Technology Agreement (ITA), which provides for tariff exemption of IT products and wide-ranging tariff reduction and exemption schemes for the purpose of promoting exports. It is also apparent that utilization of the FTAs with Thailand, India, and Australia is centered on Japanese enterprises, and the rate of utilization is high.

AFTA initiated tariff reductions among the original ASEAN signatories (Thailand, Malaysia, Singapore, Indonesia, the Philippines, Brunei) in 1993, and is among the very oldest FTAs formed in the Asia-Pacific region. It provided graduated tariff reductions such that, in 2003, tariff rates on the majority of items were in the 0–5% range for the original ASEAN signatories. There is also the ASEAN Framework Agreement for the Integration of Priority Sectors, concluded in November 2004, which identifies 11 sectors to be given priority for integration (agriculture-based products, fisheries, automotives, electronics, healthcare, rubber-based products, wood-based products, textiles and apparels, e-ASEAN (IT and other related products), air travel, and tourism). The nine sectors dealing with material goods, out of the 11 sectors identified as priority sectors for integration, are to become exempt from tariffs, with the exception of excluded items (to be limited to 15% of the subject items at most), beginning from January 2007 in the original ASEAN member and from January 2012 in Cambodia, Laos, Myanmar, and Vietnam (CLMV).

Looking at the status of tariff reductions under the Common Effective Preferential Tariff (CEPT) scheme to lower tariffs under AFTA, we find that the original ASEAN member countries eliminated tariffs on 75.7% of all items in 2007 (Table II-11), and the remaining 22.4% of items have had tariffs reduced to 5% or less, as well. AFTA is becoming a very complete FTA with respect to trade in material goods. On a country-by-country basis, Thailand has exempted 54.4% of items from tariffs, which leaves its rate of tariff elimination at a relatively low level. In CLMV, only 16.5% of items have been made tariff-exempt, and 65.0% of items are subject to tariffs of 5% or less. In Vietnam, however, 51.2% of items have been made tariff-exempt, and it is leading CLMV in tariff reduction.

In AFTA, the original members of ASEAN are to eliminate tariffs on all items on the inclusion list in 2010, and in CLMV, tariffs are to be lowered to the 0–5% range in Vietnam in 2006, in Myanmar

and Laos in 2008, and in Cambodia in 2010, and then eliminated by 2015, with the exception of some excluded items.

■CEPT Utilization Accounts for 23.5% of All Exports from Thailand and Malaysia

The figures for trade utilizing CEPT published by Thailand and Malaysia provide fundamental data for determining the status of AFTA utilization. The value of exports by Thailand and Malaysia utilizing CEPT in 2006 comes to $8.4 billion in total (excluding Singapore, where only alcohol is subject to tariffs in any event). This constitutes a 23.5% share (utilization rate) of the total value of exports (Table II-12).

Malaysia has published actual CEPT utilization amounts by item (exports). The top items in 2006 were machinery and equipment at 20.5%, chemical products and plastics for a total of 26.3%, and electronic and electric products at 7.9% (Table II-13). Thailand has not published a breakdown by item, but Thailand's exports to ASEAN by item in 2006 show that the main part is made up by general machinery (16.9%), electric machinery (14.8%), transportation machinery (11.5%), and other such mechanical categories, together with plastics and other chemical products (18.0%), suggesting that CEPT is being utilized for items such as these. Exports of automobiles, in particular, have increased rapidly since 2003, and the value of $1.3 billion reached in 2006 is 8.9 times the 2002 figure.

Examination of CEPT utilization by country shows that Thailand and Malaysia both have relatively high rates of utilization with exports to Vietnam, together reaching 42.4% of the total. The simple average of Vietnam's most favored nation (MFN) tariff rate had been high at 16.8%, so that the January 2006 reduction of CEPT tariffs on most items to the 0–5% level has significantly expanded advantageous AFTA utilization. Exports to Vietnam from Thailand and Malaysia are centered on plastic products and other such chemical goods and transportation machinery. Air conditioners have been a conspicuous presence in the expansion of exports from Thailand to Vietnam. Thai exports to Indonesia also show a high rate of CEPT utilization, and that utilization is progressing. Approximately 50% of exports from Thailand to Indonesia are made up of chemical products and transportation machinery, and CEPT utilization appears to be particularly notable in passenger vehicle exports.

■Utilization of the ASEAN-China FTA is Limited but Apparently Still on an Upward Trend

The ASEAN-China FTA began reducing tariffs on agriculture and fishery products (HS 01–08) as part of the early harvest (EH) scheme. Tariff reductions in non-agriculture and fishery sectors began in July 2005 on the basis of an Agreement on Trade in Goods. China and the original ASEAN signatories will be eliminating tariffs on most items classified as normal track, with the exception of up to 150 deferred items, in 2010. The deferred items are also scheduled to have their tariffs

eliminated by 2012. Sensitive list (SL) items are to number no more than 400 items at the HS six-digit level, and are not to exceed 10% of the total value of imports. The upper limit on the number of highly sensitive list (HSL) items is to be 40% of the SL or 100 items, whichever is smaller. Although tariffs on these items are to be lowered step by step, it is possible for them to be declared exceptions. CLMV will be subject to a less demanding tariff elimination schedule than the original ASEAN signatories, such that tariffs will be eliminated on all but deferred items, which are to number up to 250, by 2015. Tariffs on the deferred items are also scheduled to be eliminated in or after 2018.

Under the ASEAN-China FTA, products in the automobile and household electrical appliance sectors, for which there appear to be high utilization demand by Japanese and other enterprises, are assigned to the SL in many cases. Passenger vehicles are on the SL or HSL in both China and the major ASEAN countries, while motorcycles are on the SL or HSL in the major ASEAN countries. Although the majority of items in the household electrical appliance category are assigned to the normal track in China, television sets are categorized as SL or HSL in China and the major ASEAN countries, while Thailand, which is seeking to foster the electronics industry, has placed many household electrical appliances, such as air conditioners, refrigerators, television sets, and so on, in the SL or HSL categories. The ASEAN-China FTA also includes a reciprocity(12) arrangement so that when items are classified as normal track in the importing country and are nevertheless assigned to SL or HSL in the exporting country, the agreement tariff rate does not have to be applied (Annex 2 of the Agreement on Trade in Goods).

---

12. Specifically, items positioned as SL in the exporting country and subject to tariff rates above 10% will be subject to MFN tariff rates in the importing country. For items with tariff rates of 10% or less, the tariff rate is to be either the country's own SL rate or the counterpart country's normal track rate, whichever is higher. (However, the importing country's MFN tariff rate is to be the upper limit.)

As to utilization of the ASEAN-China FTA by Malaysia and Thailand, the record of Thailand's actual exports to China in 2006 by value ($11.8 billion) shows that the portion of this amount attributable to FTA utilization was $1.5 billion. The rate of utilization rises no higher than 12.3%, but this is still double the 2005 figure of 6.7% (Table II-14). Contributory factors in this result were the EH program and the fact that tariff reductions in the non-agricultural and fishery sectors began in July 2005. Similarly for Malaysia, the portion of the value of actual exports to China in 2006 ($11.7 billion) attributable to FTA utilization was $1.0 billion. The rate of utilization was 8.9%, which was a significant increase from the 2.9% figure for 2005. The total rate of FTA utilization for the two countries combined was 4.8% in 2005, which rose to 10.6% in 2006.

Trade between ASEAN and China since the FTA went into effect can be examined by comparing

the ASEAN share of exports to and imports from China for 2006 with the figure for 2003, before the FTA went into effect. Although trade appears generally to show little change in terms of total value, items subject to the EH scheme (HS 01–08) showed a considerable increase in both imports and exports (Table II-15). In agricultural and fishery products, China's imports of cassava and fruit from Thailand are said to have increased. Malaysia also publishes the items that are utilized under the ASEAN-China FTA, and chemical products account for approximately 50% of the items utilized in exports to China in 2006, while rubber products account for approximately 30%. Other items utilizing the FTA for export to China include vegetable oil, cocoa products, and so on.

Large amounts of the trade between ASEAN and China and within the ASEAN area has been covered by wide-ranging tariff exemptions through systems other than FTAs. Many of the Japanese enterprises that have established presences in China and the ASEAN area have created export bases there, as typified by electronics and textiles. The importation of capital goods and intermediate goods to export bases occurs under schemes of export processing zones, bond arrangements, and other such schemes that in many cases provide import tariff reductions and exemptions but that are different from FTAs (Table II-16). The major Asian countries are prepared to provide a variety of tariff reduction and exemption schemes, including export processing zones and free trade zones as well as arrangements to grant enterprises bonded status. These systems had been adopted before FTAs were concluded in order to attract investment and for other such purposes, and tariff reduction and exemption schemes of these kinds are being utilized in a wide-ranging manner, together with FTAs for trade between ASEAN and China and within the ASEAN area. Tariff-free importation based on the ITA is widely utilized in China and within ASEAN, which have become export bases for IT products.

A distinctive characteristic of Japanese enterprises operating in ASEAN is the high proportion of raw materials and parts that they import free of tariffs and the high proportion of export in their sales. According to “Zai Asia nikkei seizogyo no keiei jittai chosa” (the Survey of Business Conditions for Japanese Manufacturing Companies in Asia), which was discussed earlier, Japanese manufacturing companies operating in ASEAN show a high percentage of raw materials and parts procured through tariff-free importation, and exports make up a large percentage of their sales. Enterprises that obtain 50% or more by value of their raw materials and parts at zero tariff make up 60–70% of the enterprises in the Philippines, Malaysia, and Vietnam, and approximately 40% in Thailand and Indonesia. Similarly, enterprises that receive 50% or more of their sales by value from exports make up 60–80% of the enterprises in the Philippines, Malaysia, and Vietnam, and approximately 40% in Thailand and Indonesia (Table II-17). In India, on the other hand, 71.0% of enterprises have less than 10% of their products tariff free, and 61.8% of enterprises export less than 10% of their products. These figures are extremely low compared to ASEAN, and these enterprises are engaged in production geared to internal demand.

Under export processing zones, free trade zones, and other such tariff reduction and exemption schemes, goods marketed domestically are generally subject to tariffs. For this reason, FTA utilization is expected to continue increasing in China and ASEAN, together with domestic marketing that addresses expanding internal demand.

Column II-3

⊙Japan-Mexico EPA Shows Effects in Japan's Automobile and Other Exports to Mexico

The Japan-Mexico EPA (Japan-Mexico Economic Partnership Agreement) went into effect in April 2005, and trade between the two countries has been expanding steadily since then. Imports to Mexico from Japan showed an average annual growth of 18.7% from FY2004, before the FTA went into effect, to 2006. This exceeds the average annual growth of 13.5% in total imports from the world.

Imports to Mexico from Japan revealed the greatest effects from the EPA in automobiles. According to the Japan Automobile Manufacturers Association (JAMA), exports of Japan-produced automobiles to Mexico were favorable. In FY2005 they showed a 36.5% year-on-year increase to 81,334 units, and in FY2006 they likewise showed a 23.6% rise to 100,529 units. Mexico as a rule allows manufacturers of completely built vehicles that manufacture locally a tariff-free import quota of 10% of their production in number of units. On the other hand, the general tariff rate for automobiles is set high, at 50%. For Japanese enterprises apart from those Japanese manufacturers that conduct local production in Mexico (Nissan, Toyota, and Honda) and Mitsubishi Motors, which can make use of the tariff-free import quota of its business partner DaimlerChrysler, therefore, it was effectively impossible to import automobiles to market in Mexico. The Japan-Mexico EPA has established new tariff quotas (tariff-free) such that even Japanese enterprises that do not engage in production in Mexico have an opportunity to participate in the Mexican automobile market. After the Japan-Mexico EPA went into effect in 2005, Mazda, Suzuki, and Isuzu began selling in Mexico, as did Fuji Heavy Industries in 2006.

Imports to Mexico from Japan have also been expanding in items other than automobiles for which tariffs were immediately eliminated. Imports from Japan are increasing, for example, in glass products, railway rails, forklifts, and shock absorbers (Table). The EPA effects are limited on items other than those immediately made tariff-free. The greatest reason for this is that the government of Mexico lowered MFN tariffs after concluding the EPA, resulting in a reversal of the MFN tariff rates and the Japan-Mexico EPA tariff rates. Mexico lowered MFN tariff rates on 9,336 items at the end of December 2004, and on 6,089 items at the end of September 2006. As a result of these two reductions, the Japan-Mexico EPA tariff rates were higher than the MFN rates on approximately 5,000 items as of FY2006. The base rate for tariff reductions in the Japan-Mexico EPA is fixed at the

MFN tariff rate at the time of negotiations (end of March 2003), so that reduction of MFN rates leads to this reversal.

Meanwhile, where imports to Japan from Mexico are concerned, the benefits of the Japan-Mexico EPA are enjoyed in agricultural and fishery products for which Japan imposes tariffs on many items. Tariffs on many of these items were not immediately eliminated, however, but rather reduced in stages, so import expansion effects were not suddenly apparent. Of the items covered by the Japan-Mexico EPA, there are agricultural and fishery products for which imports have significantly increased in the two years since the EPA went into effect. These include fresh yellowfin tuna, frozen octopus, roasted coffee, pumpkins, bananas, and tequila. Japan's MFN tariff rates for manufactured products are zero for most items, but many items in the footwear and textile categories are dutiable. Based on the Japan-Mexico EPA, tariffs on apparel products were immediately eliminated. In apparel, the import volume for women's cotton trousers showed an average annual growth of 45.3% from FY2004 to 2006.

Table Items showing duty reduction effect of Japan-Mexico EPA (Mexico imports from Japan excluding finished vehicles)

Item	Units	FY 2004	FY 2005	FY 2006	Average annual increase (%)	Tariff rate (%)	
						MFN	EPA
Other glass products	$1,000	5,103	11,616	46,909	203.2	10.0	Duty free
	Tons	193	517	2,528	261.5		
Railway rails	$1,000	1,114	3,065	12,711	237.8	7.0	Duty free
	Tons	191	2,901	15,504	801.0		
Forklifts (w/internal combustion engine; capacity 7 tons or less)	$1,000	4,752	5,625	20,008	105.2	20.0	Duty free
	Units	606	644	1,338	48.6		
Automatic transmissions	$1,000	16,286	23,518	56,061	85.5	7.0	Duty free
	Sets	21,784	34,696	61,706	68.3		
Theodolite	$1,000	95	2,492	5,118	634.0	20.0	Duty free
	Units	94	771	1,293	270.9		
Shock absorbers	$1,000	980	8,309	27,638	431.1	10.0	Duty free
	1,000 units	59	745	n.a.	n.a.		

Note 1. Increase is average annual increase from FY 2004 to FY 2006. Tariff rates are as of January 2007. "MFN" is the general rate, "EPA" is the rate for imports from Japan under the Japan-Mexico EPA.
2. Shock absorber amounts are for Japan exports to Mexico.
Source: Compiled from Mexico trade statistics, tariff tables, etc.

■ Thailand's Utilization of the FTA between Thailand and India was 18% for Only 82 Categories

Like Singapore, Thailand is one of the ASEAN countries most actively engaged in promoting bilateral FTA negotiations, and it has already concluded bilateral FTAs with India (Early Harvest

only), Australia, and New Zealand. The Thailand-India FTA began implementing an Early Harvest scheme for 82 items in September 2004, with phased reduction of tariffs, and eliminated basic tariffs from September 2006 onwards. Although it covers only some items, the Thailand-India FTA has attracted considerable interest from Japanese enterprises, and it is known as the FTA that reversed the balance of trade between the two countries. The average annual growth in exports of EH items from Thailand to India from 2004 to 2006 was 58.7%, a major expansion (Table II-18). On the other hand, imports of EH items and total imports both showed growth of about 20%. As a result, Thailand overcame the trade deficit with India that had lasted up to 2004, and began showing a trade surplus from 2005 on.

The value of Thailand's exports to India in 2006 utilizing the FTA was $300 million. Even though applied only to the 82 EH items, this resulted in a utilization rate of 18.1% of Thailand's exports to India (Table II-14). This accounted for 89.1% of exports from Thailand to India in the Early Harvest categories, meaning that the majority of those exports utilized the FTA. A background factor here was that the kind of production activity conducted by export bases supplying intermediate goods to each other, as occurs within ASEAN and between China and ASEAN, was not occurring between India and ASEAN. In the trade between India and ASEAN, the bulk of exports to India were intended rather for the end market. In other words, the exports to India were not directed to export processing bases, but were mainly exported to meet India's internal demand. Consequently, they are thought to have utilized FTAs more than in-bond and other such schemes that provide import tariff reductions and exemptions for export processing bases.

Looking at specific items, the export of color television sets from Thailand to India in 2006 amounted to $124.78 million, while television picture tubes similarly amounted to $32.27 million. These figures represented an average annual growth of 70.5% and 160.1% respectively from 2004 to 2006. There was also a conspicuous expansion in exports of polycarbonates used in a wide range of products, including air conditioners, CDs, DVDs, and all types of household electrical appliances. Imports of these products to India are exempt from basic tariffs, so they are contributing to a tax saving effect and a rise in the price competitiveness against goods imported from other countries. A background factor in this situation is thought to be the Japanese and other enterprises with production bases in Thailand that are using exports from Thailand as an approach to development of the growing markets in India.

Gear boxes are a conspicuous element in the increase of imports to Thailand from India. Gear boxes are a type of transmission mechanism used in motor vehicles, and this increase suggests that Japanese automobile manufacturers are supplying the automobile industry clustered in Thailand with parts from India.

■Expanding Trade in Finished Vehicles Utilizing the Thailand-Australia FTA

Australian FTAs in the Asia-Pacific region began with the FTA with Singapore, which went into effect in July 2003, followed by the FTA with Thailand (TAFTA), which went into effect in January 2005.

Exports from Thailand to Australia utilizing the FTA amounted to $2.7 billion in 2006. This made up 62.6% of the total export value (Table II-14).

Examination of trends in trade after the Thailand-Australia FTA went into effect shows a conspicuous expansion of automobile exports from Thailand to Australia. Australia imposes tariffs of 5% on commercial vehicles and 5–10% on passenger vehicles. With the Thailand-Australia FTA, however, automobile imports from Thailand have become tariff-exempt. This has provided a tariff advantage to Japanese enterprises that have clustered their production bases in Thailand. Figures for automobile imports to Australia show that in 2005, when the Thailand-Australia FTA went into effect, imports of commercial vehicles from Thailand increased 78.6% year-on-year to $1.2 billion, and imports of passenger vehicles increased 124.5% to $200 million (Fig. II-6). Although the figure for commercial vehicles declined somewhat to $1.1 billion in 2006, the figure for passenger vehicles doubled with an increase of 128.5% to $500 million. The share of vehicles from Thailand in Australia's commercial vehicle imports has increased from 25.3% in 2004, before the FTA went into effect, to 32.0% in 2006. Passenger vehicle imports also rose sharply from 1.1% to 4.8%, while commercial vehicle imports from Thailand overtook those from Japan in 2005, making Australia the greatest importer from Thailand. These exports of automobiles from Thailand to Australia are the work of Japanese enterprises.(13)

Thailand's FTAs with India and Australia have a high rate of utilization, largely from Japanese enterprises. It would appear that these FTAs, which encompass the promising end markets in India and Australia, are contributing to market development by Japanese enterprises from their existing bases in ASEAN and other areas.

---

13. The primary reason for the increase in exports from Thailand to Australia is the way that the Japanese automobile industry's global strategy has positioned Thailand as an automobile production base. Even if the Thailand-Australia FTA had not gone into effect, Thailand's automobile exports would probably have increased. The FTAs, however, have effectively provided tariff advantages and increased the price competitiveness of automobiles manufactured in Thailand.

■FTAs Between China and Hong Kong Utilized in Service Sectors

The Closer Economic Partnership Arrangement (CEPA) between Mainland China and Hong Kong was concluded in 2003 and went into effect in January 2004. At present it has been amended three times, gradually expanding the scope of liberalization. Agreement on the fourth amendment was

reached in June 2007, and this will open up 11 service sectors for the first time, including public services, from January 2008. The main distinctive characteristics of the China-Hong Kong CEPA are that it will enable practically all goods from Hong Kong to be imported tariff-free by China where trade in goods is concerned so long as the rules of origin are met, and, in the service sectors, that Hong Kong enterprises, including foreign-owned enterprises that meet certain conditions, will be allowed priority access to the China market.

There are many examples of FTAs in Asia that are utilized for trade in goods, but there are few instances of utilization in services. Given this circumstance, it is a breakthrough that so many enterprises, largely in the transportation and physical distribution sectors, including Japanese enterprises, as shown below, have utilized the CEPA.

The China-Hong Kong CEPA will enable service enterprises in Hong Kong to move into mainland China before China carries out the commitments it made in joining the WTO. This was intended to put those enterprises in a position of competitive advantage over other foreign enterprises. It was also envisioned as an inducement to foreign enterprises seeking to utilize the China-Hong Kong CEPA to locate in Hong Kong. A background factor in the situation appears to be the intention to forestall any progressive decline in Hong Kong's position as a center for services directed to China as a result of that country's liberalization.

The amended version of the CEPA that went into effect in January 2007 allows for priority access to the Chinese market by 27 industries. Enterprises that attempt to establish a presence in China utilizing the China-Hong Kong CEPA will have to acquire Hong Kong Service Supplier (HKSS) certification. The requirements for HKSS certification are: (1) For most industries, having operated in Hong Kong for three years or more (five years for construction, banking, insurance, and ground-based services of air transportation, no period specified for real estate); (2) having paid corporate taxes in Hong Kong; (3) either owning or renting offices appropriate to the size of the business in Hong Kong; and (4) having half or more of the employees hired in Hong Kong be residents with permanent residence status or be people from the Mainland of China staying on residential visas.

A cumulative total of 1,739 HKSS Certificates had been issued by the end of March 2007 (Table II-19). Transportation and physical distribution account for just under 60% of the total, and wholesale and retail approximately 20%, so that these two sectors together account for 80% of the whole. About 1,000 enterprises have HKSS certification (some enterprises hold several HKSS Certificates), and just under half of these are thought to be foreign-owned enterprises. Japanese enterprises are said to account for about 10% of the total.

Conspicuous examples of utilization by Japanese enterprises can be found in the transportation and physical distribution sector. As of August 2005, there were 19 Japanese enterprises making use of the China-Hong Kong CEPA to establish 22 100%-owned local subsidiaries in China (*Japan*

Maritime Daily of September 27, 2005). For example, the Hong Kong subsidiary of Nippon Express obtained HKSS certification in April 2004. In a press release, this company pointed out that the ability to establish a 100%-owned subsidiary in China before that country carries out the commitments it made in joining the WTO was an advantage of utilizing the China-Hong Kong CEPA. That company subsequently established a 100%-owned warehouse company in Zhejiang Province in November of that year. There is also the case of the Hong Kong subsidiary of Tempstaff, an employment agency, which utilized the China-Hong Kong CEPA to establish a 100%-owned local subsidiary in Guangzhou in February 2007. They will build up a full-scale business supplying Japanese-capable personnel mainly to Japanese enterprises in Guangzhou, where an automobile industry cluster has formed. In the retail sector, the Hong Kong subsidiary of Aeon obtained HKSS certification in September 2004, and established Aeon China in Shenzhen to control its business in China.

The advantages offered by the China-Hong Kong CEPA in the service sectors existed only insofar as it enabled enterprises to establish a presence in China early, before that country carried out the commitments it made in joining the WTO. As China gradually carries out its membership commitments, therefore, those sectors that were liberalized only under the China-Hong Kong CEPA scheme are being liberalized on an MFN basis instead, diluting the advantages of utilizing the China-Hong Kong CEPA. In the transportation and physical distribution sector, for example, 100% foreign ownership was allowed until December 2005, and in the wholesale and retail sector until December 2004. (There are some exceptions in both sectors.)

Advantages to utilizing the China-Hong Kong CEPA presently exist only in those particular sectors where the minimum capitalization amounts are set at low preferential levels, for example, or where 100% foreign ownership is allowed only under the China-Hong Kong CEPA, such as in airfreight forwarding.

(3) FTAs in Asia Face Issues Affecting Utilization, Including Rules of Origin

Utilization of FTAs in the Asia-Pacific region is advancing, but rules of origin and related matters are presenting issues for trade in goods.

Rules of origin are standards for deciding whether certain goods are products of an agreement signatory country in terms of the applicability of the FTA tariff rate to those goods. The substance of those rules determine the applicability of the agreement tariff rate, and are a major factor in deciding the FTA's ease of use. Rules of origin are generally of three kinds: value-added criteria, manufacturing process criteria, and change in tariff classification criteria. The change in tariff classification criteria provide for the country of origin of goods to be recognized by whether the tariff classification (HS code) assigned to the final goods produced in that country show a change from the tariff classification of the input goods. The manufacturing process criteria recognize the

country of origin as the country where certain specific processes are carried out on the product, and these criteria are commonly applied to textile products.

Cumulation rules are also an important part of the rules of origin. Under these rules, all the countries that are party to the agreement are considered to form one region among them, and the added value that is added in that region is treated as an originating product. In the case of AFTA, the rules of origin in principle require 40% or more of added value. If the cumulative added value that was added within the ASEAN area amounts to 40% or more, then that product can be certified as of ASEAN origin.

■Five Types of Asia-Pacific Rules of Origin

At present, the rules of origin that are in effect in the major FTAs are of five general types: (1) Value added criteria alone, (2) change in tariff classification criteria alone, (3) a choice of criteria type allowing the choice to be of either value added or change in tariff classification, (4) a dual criteria type requiring both to be of value added and change in tariff classification, and (5) manufacturing process criteria alone. Different rules of origin are applied in different FTAs (Table II-20). Ordinarily, the dual criteria rules of origin are the strictest of these five types, while the choice of criteria type allows the greatest flexibility.

The value added criteria alone are applied in AFTA, the ASEAN-China FTA, and so on.

As a rule, 40% or more of cumulative added value is required for certification as the country of origin. Change in tariff classification criteria are used in the Thailand-Australia FTA, the Japan-Singapore EPA, and the Singapore-Republic of Korea FTA. The choice of criteria type has been adopted in the Japan-Malaysia EPA and so on. These require either a change in tariff classification at the four-digit or six-digit level of the product's HS code or cumulative added value of 40% or more for certification as the country of origin. The dual criteria have been adopted in the Thailand-India FTA, the Singapore-India CECA, and other FTAs involving India. These require both a cumulative added value of 40% or more and a change in tariff classification. The manufacturing process criteria are mainly applied in the China-Hong Kong CEPA and the China-Macao CEPA.(14)

The following have been identified as issues that arise because of the existence of differing rules of origin: (1) Certification procedures under rules of origin for each FTA can become troublesome, and (2) satisfying different rules of origin requires changing the manufacturing process, which is likely to bring increased costs. Troublesome procedures would include the need to carry out two types of country of origin certification procedures under the dual criteria type, which itself leads to increased costs. Products that have extremely large numbers of parts, such as passenger vehicles, entail administrative costs under the tariff classification change criteria that can be significantly higher than the administrative costs of country of origin certification by the value added criteria. The choice of criteria type, however, has the advantage that the method with the lower administrative

costs can be chosen for country of origin certification.

---

14. The China-Hong Kong CEPA and the China-Macao CEPA provide for tariff classification changes at the four-digit level and apply an added value criterion of 30% or more, depending on the item, with considerable variation among items.

■Intermediary Trade Also Involves Differing Criteria

Issues involved in rules of origin include re-invoicing, back-to-back certificates, and other aspects of intermediary trade (Fig. II-7).

Re-invoicing occurs in a commercial flow in which invoices are issued from a home office or regional headquarters in a third country other than the country of origin. This kind of re-invoicing is a matter of general business in Asia. It is common for invoices to be issued from Singapore, where many regional headquarters are located, or from head offices in Japan. When products produced in Malaysia are exported to Indonesia in AFTA, for example, even though the products and country of origin certificates are sent directly to Indonesia, the invoices show that the regional headquarters in Singapore bought the products from its subsidiary in Malaysia, and the invoices are issued from Singapore to Indonesia. This is the re-invoicing pattern. Physical distribution is by direct shipping, but the commercial flow is through a third country.

Back-to-back certification is a phenomenon that occurs in FTAs concluded by three or more countries. In addition to re-invoicing, both the goods and the country of origin certificates are shipped through a third country. In AFTA, for example, there are cases in which products from Malaysia are aggregated first at a distribution center in Singapore for a time, then shipped from there to Indonesia. Where AFTA is involved, products produced in Malaysia will have the AFTA Form D certificate of origin issued in Malaysia, and the government of Singapore, which is an AFTA signatory, will issue a new, separate certificate of origin based on the above certificate of origin. This is the back-to-back Form D.

Trade conducted on patterns like these is termed intermediary trade, and it is a common form of trade. The background to trade conducted by enterprises through third countries using re-invoicing and back-to-back certification is thought to include such factors as the occurrence of substantive transactions at regional headquarters and through head offices, and the implementation of comprehensive exchange risk control and improvements in physical distribution efficiency through head offices and regional headquarters.

In an FTA, the question of whether an importing country will accept back-to-back certificates or re-invoicing from a country other than the country of origin becomes an issue. AFTA explicitly provides for re-invoicing and back-to-back certification.(15) AFTA recognizes these practices, and the

FTA agreed tariff rate is applied even on transactions that are routed through a regional headquarters in Singapore, for example. The Japan-Malaysia EPA, the ASEAN-Republic of Korea FTA, and other such agreements similarly recognize re-invoicing. On the other hand, the ASEAN-China FTA does not expressly provide for re-invoicing or back-to-back certification. Re-invoicing is therefore accepted or not according to the understanding of each country's own customs service, and it has been pointed out that every country's understanding differs. Apparently the FTAs that India is connected with do not accept re-invoicing.

---

15. Articles 10 and 21 of AFTA Operational Certificate Procedures (OCP) for the Rules of Origin.

There is demand for the creation of rules of origin that fit according to the actual business practice. Given these circumstances, it would appear that recognition of intermediary trade, which has become a general pattern for transactions, would also improve FTA utilization rates.

Enterprises that make use of FTAs have expressed the wish that rules of origin be unified to recognize (1) the most flexible of the five types of rules of origin, the choice of criteria type, as well as cumulative rules of origin, and (2) intermediary trade using re-invoicing and back-to-back certification. Other issues related to rules of origin include (3) the occurrence of differences in how exporting countries and importing countries interpret the HS codes, (4) the appearance of FOB prices on certificates of origin in some FTAs so that the factory selling price becomes known, which can pose problems, and (5) technical innovations in physical distribution that have reduced lead times, leading to calls for increased speed and computerization of procedures for issuing certificates of origin.

Column II-4

☉EU Adoption of Cumulative Rules of Origin

The EU has presently concluded two customs unions and 17 FTAs with other parties outside its area. It also has three one-way preferential trade arrangements (generalized system of preferences (GSP), directed to Africa, the Caribbean, and the Pacific (ACP), and directed to Overseas Countries and Territories (OCT)). These form an extremely complicated system for trade. Up until several years ago, the EU had also concluded eight European agreements with new member countries in Central and Eastern Europe (currently expired because of EU accession). Concern was expressed in some quarters that this would result in a so-called spaghetti bowl phenomenon.

The EU, however, has made every effort to realize common rules of origin in order to limit increases in administrative and regulatory costs resulting from multiple rules of origin and to limit distorting effects on trade. The EU has been integrating its rules of origin in the manufacturing industry with the Change in Tariff Heading (CTH, applicable to four-digit HS codes), with the

value-added criteria (added value of 40–60%), and with manufacturing process criteria (mainly textile).

The EU has further made attempts to introduce common rules of origin in Europe, the Mediterranean, and other such regions. These rules have allowed regions that are joined by multiple FTAs to be considered as a single country when determining the country of origin. In the case of Turkish manufacturing industry processing parts produced in Tunisia and exported to the EU, for example, both Turkey and Tunisia would be seen as a single country. Therefore, for example, preferential tariffs would be applied even if the percentage of value added in Turkey were low (multilateral cumulation or diagonal cumulation, Figure). This system, however, is applicable only among those countries that have concluded FTAs including provisions for pan-European and Mediterranean cumulative rules of origin.

The full cumulation system has advanced the diagonal cumulation scheme another step. This system grants certification of origin even to non-originating goods (goods such as textile products originating from outside the covered region), on the condition that they undergo some processing or manufacturing process within the covered region. (That processing may be distributed over multiple countries or regions.)

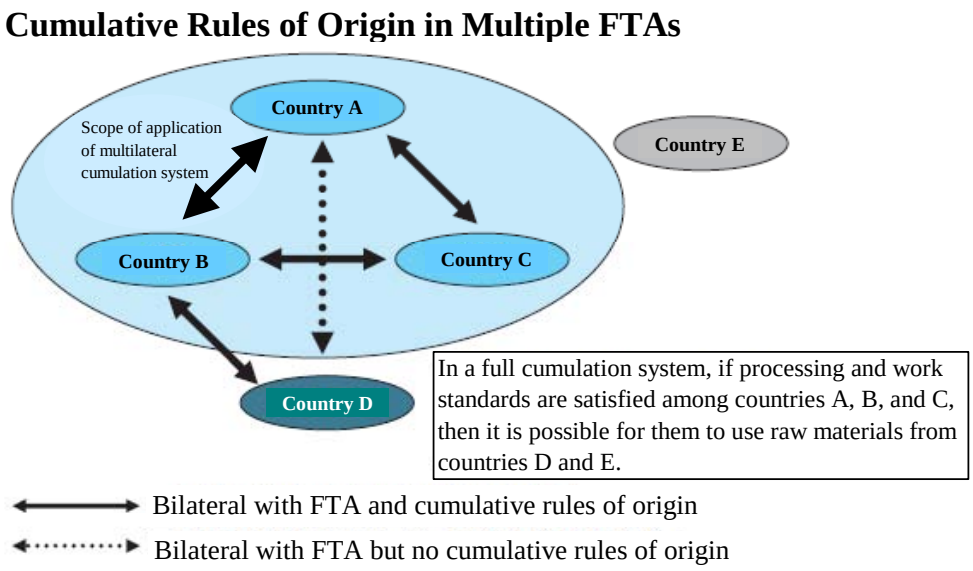
The EU's ACP and OCT one-way preferential trade arrangements are together considered to form a single country where multilateral (diagonal) cumulation and full cumulation are recognized. Under the GSP, multilateral cumulation is recognized only within Group 1 (Southeast Asia), Group 2 (Latin America), or Group 3 (South Asia).

Such a system of cumulative origin makes it possible in some cases for enterprises to enjoy the benefits from procuring parts and raw materials from within a free trade area, or building up production network. This system is thought to be utilized most intensively by the textile and apparel industries.

The precedents established by EU examples suggest that systems of cumulative origin are significant in two senses. One is that transitional measures can be used until area markets develop within areas that are linked together by multiple bilateral FTAs. As such, these systems would make production network possible for enterprises. The other significance is for cases in which an already integrated area market is in the process of moving toward more advanced levels of integration, and other countries seek to join as new members in the integrated area (expansion of regional markets). The area could deal with candidate member countries that evince different rates of integration by first forming a network of FTAs with them and adopting the system of cumulative origin. This would enable those countries to enjoy some of the advantages of participating in the integrated area market.

As the number of FTAs in Asia continues to grow, it is possible that the introduction of common rules of origin and cumulative origin systems like those implemented in the EU would offer significant benefits to enterprises in the area.

Fig. Cumulative rules of origin in multiple FTAs in the EU



Countries and Regions Subject to Cumulative Rules of Origin

Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Syria, Tunisia, Palestinian National Authority, Iceland, Norway, Switzerland, Lichtenstein, Faeroe Islands, Turkey

Countries and Regions Subject to Full Cumulative System

Iceland, Norway, Lichtenstein, Tunisia, Morocco, Algeria

Note: Actually applicable to trade among countries and regions that have concluded FTAs, to include pan-European Mediterranean cumulative rules of origin provisions.

Source: Compiled from Tanimura, "Gensanchi kisei kyoutsuukaha ookina kanouseiwo motarasu" (Applying Common Rules of Origina Opens Up Major Possibilities), JETRO Sensor (July 2007), and European Commission material

---

Table II-7 Value of trade between FTA signatories in the Asia-Pacific region (2006)

(dollars in millions, %)

	Japan	China	ROK	Thailand	Indonesia	Malaysia	Philippines	Singapore	Brunei	Vietnam	CLM	India	Australia	New Zealand	Total	Trade among FTA signatory countries	Share
Japan	-	93,955	49,893	22,670	7,522	13,404	9,020	19,393	98	4,061	194	4,351	12,410	2,060	239,030	32,797	13.7
China	91,773	-	44,558	9,763	9,457	13,540	5,738	23,188	100	7,468	2,074	14,588	13,626	1,620	237,494	71,328	30.0
ROK	24,910	81,653	-	4,610	6,229	6,425	3,544	9,525	72	4,026	326	5,394	5,145	707	152,568	34,758	22.8
Thailand	16,571	11,806	2,652	-	3,337	6,667	2,611	8,421	83	3,098	3,039	1,818	4,384	531	65,018	48,447	74.5
Indonesia	21,972	8,746	8,908	3,147	-	4,502	1,668	13,415	49	853	218	3,619	3,036	523	70,656	41,507	58.7
Malaysia	14,241	11,646	5,806	8,502	4,074	-	2,173	24,744	346	1,758	279	5,129	4,553	674	83,925	73,569	87.7
Philippines	7,318	14,620	1,619	1,820	570	2,636	-	4,946	11	250	23	97	530	82	34,521	26,494	76.7
Singapore	14,854	26,513	8,736	11,312	24,901	35,536	5,079	-	574	5,459	1,064	7,673	10,186	1,393	153,280	153,280	100.0
Brunei	2,070	196	839	117	1,344	69	1	200	-	-	0	1	750	199	5,785	2,766	47.8
Vietnam	4,927	2,260	740	822	579	1,287	960	1,500	-	-	721	115	3,657	87	17,655	8,869	50.2
CLM	338	307	63	2,621	17	177	2	165	0	172	1	527	47	1	4,437	3,524	79.4
India	3,660	9,518	1,906	1,478	1,681	1,212	533	4,440	39	768	162	-	946	148	26,490	5,917	22.3
Australia	23,570	15,106	8,992	3,226	3,335	2,110	769	3,421	21	1,105	74	6,568	-	6,536	74,833	13,184	17.6
New Zealand	2,303	1,220	881	284	399	323	334	346	67	158	4	218	4,598	-	11,134	5,228	47.0
Total	228,507	277,544	135,593	70,373	63,446	87,887	32,432	113,702	1,460	29,176	8,180	50,097	63,867	14,563	1,176,826	521,667	44.3

Notes: 1. Reticular cells are trades between FTA signatories.
2. Share is the ratio of exports between FTA signatories to total exports to ASEAN+6.
3. Trades between the ROK and all ASEAN member countries are counted; the FTA between India and Thailand is only in the Early Harvest stage but the total trade value was counted.
4. The CLM countries are Cambodia, Lao PDR and Myanmar.
Source: IMF "DOT May 2007."

Table II-8 Intra-regional trade within major regions of the world

(%)

		1980	1985	1990	1995	1999	2000	2005	2006
Asia	ASEAN + 6 (adjusted for re-exports)	-	-	-	-	40.6	42.1	44.2	43.3
	ASEAN + 6	34.6	34.8	33.7	40.8	38.9	40.5	43.1	42.7
	ASEAN + 3	30.2	30.2	29.4	37.6	35.4	37.3	38.9	38.4
	ASEAN	17.9	20.3	18.8	24.0	23.8	24.7	27.2	27.2
	ASEAN + China	16.4	17.4	17.0	20.6	20.1	21.0	21.3	21.6
	ASEAN + India	17.4	18.7	18.1	23.5	23.4	24.4	26.9	26.8
	ASEAN + Japan	24.6	20.6	22.4	29.1	26.2	27.8	27.6	27.2
North America	NAFTA	33.8	38.7	37.9	43.1	48.5	48.8	46.1	44.2
Europe	EU25	61.3	59.8	67.0	67.4	68.6	66.8	66.4	66.1
	EU27	61.6	59.9	67.1	67.7	69.0	67.3	67.2	66.9

Notes: 1. ASEAN + 6 is the ASEAN countries plus Japan, China, the ROK, Australia, New Zealand, and India.
2. ASEAN + 3 is ASEAN plus Japan, China, and the ROK.
3. Adjustments for re-exports among the ASEAN + 6 (adjusted for re-exports) were made as follows: For Hong Kong, a non-member of the ASEAN + 6, the value of exports from the ASEAN + 6 to ASEAN + 6 via Hong Kong was added from Hong Kong trade statistics. Exports from China to China via Hong Kong were regarded as domestic trade and excluded. For Singapore, instead of the total value of exports to the ASEAN + 6, using Singapore trade statistics, the value of exports calculated as re-exports to ASEAN + 6 countries was excluded from total exports to ASEAN + 6 countries; the resulting figure is regarded as exports of Singapore origin and used. The same method was used to calculate its world export figure. In addition, of exports from other ASEAN + 6 countries to Singapore, a given percentage was regarded as being re-exported to non ASEAN + 6 countries. The ratio of re-exports to non ASEAN + 6 countries in Singapore's total imports (converted to FOB by multiplying by 0.9) was calculated for each calendar year, and that ratio multiplied by the value of
Source: IMF, "DOT May 2007."

Table II-9 Trade of IT and tranportation equipment among major Asian countries and region

(US$ million, %, times)

	Exporting country	Importing country and region	2000		2006		
			Amount	share	Amount	share	2006/2000
IT products	Japan	China	7,478	5.3	23,069	16.7	3.1
		ASEAN5	26,159	18.5	20,848	15.1	0.8
		Total export	141,366	100.0	138,235	100.0	1.0
	China	Japan	6,514	12.9	21,831	6.9	3.4
		ASEAN5	4,736	9.4	23,299	7.4	4.9
		Total export	50,525	100.0	316,332	100.0	6.3
	ASEAN5	Japan	19,214	10.0	19,808	7.2	1.0
		China	4,877	2.5	28,969	10.6	5.9
		ASEAN5 intra-trade	46,782	24.4	64,046	23.4	1.4
		Total export	191,729	100.0	273,245	100.0	1.4
Transport equipment	Japan	China	1,178	1.2	5,384	3.4	4.6
		ASEAN5	5,580	5.5	7,177	4.5	1.3
		Total export	101,520	100.0	158,595	100.0	1.6
	China	Japan	708	7.6	2,946	7.7	4.2
		ASEAN5	680	7.3	2,824	7.3	4.2
		Total export	9,268	100.0	38,431	100.0	4.1
	ASEAN5	Japan	520	7.4	1,411	5.8	2.7
		China	118	1.7	924	3.8	7.8
		Total export	7,036	100.0	24,415	100.0	3.5

Notes: ASEAN5 includes Thailand, Malaysia, Indonesia, Philippines and Singapore.
Sources: National trade statistics.

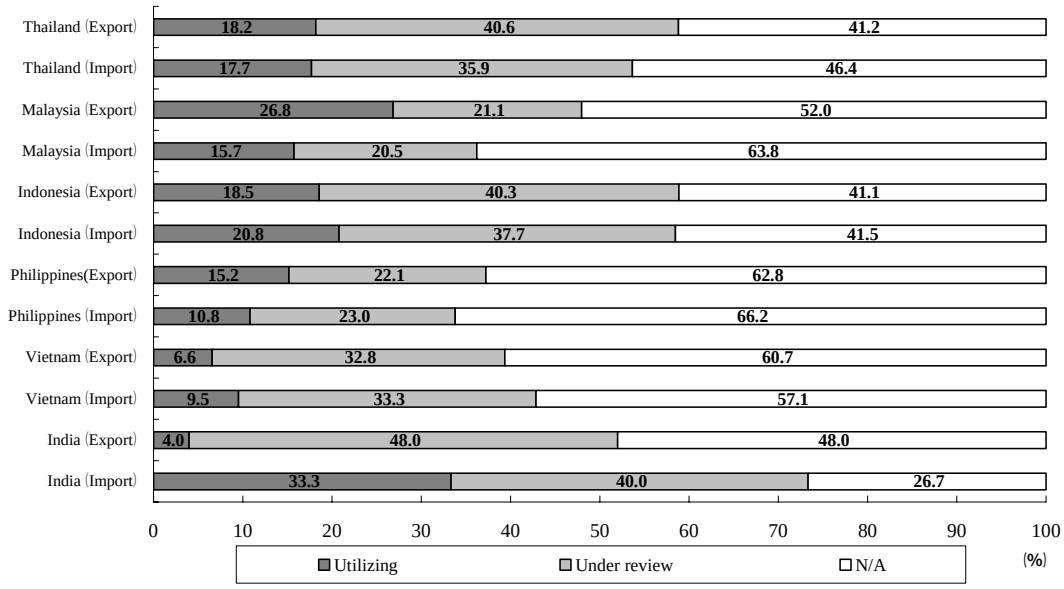
Table II-10 Firms utilizing/planning to utilize schemes under the FTAs in effect within the Asia Pacific region for their export business

(number, %)

FTA	Number	%share (n=37)
AFTA	24	64.9
Japan・Malaysia	15	40.5
Thailand・Australia	8	21.6
China・Hong Kong	7	18.9
Thailand・India	6	16.2
China・ASEAN	4	10.8
Thailand・New Zealand	2	5.4
Japan・Singapore	1	2.7

Notes:Firms utilizing schemes under the FTAs in effect.
Source: "Survey on International Operations of Japanese Firms" (JETRO)

Fig. II-5 Firms utilizing schemes under the FTAs in effect in major Asian countries



Note1: Number of firms : Thailand=Export 187、Import 192、Malaysia=Export 123、Import127、 Indonesia=Export124、Import130、Philippines=Export145、Import148、Vietnam=Export61、Import63、India=Export25、Import30。
Note2: Conducted from 27 November 2006 to 27 December 2007.
Source : "Survey of Japanese Manufacturers in Asia"(JETRO)

Table II-11 CEPT tariff reductions

(Number of categories, %)

	Number of categories	Products on the inclusion list (IL)										Temporary exclusion list (TEL)	General exception list (GEL)	SL/HSL
			Ratio	? 5%	Ratio	0%	Ratio	Dutiable	Ratio	> 5%	Other			
Thailand	8,301	8,301	100.0	8,288	99.8	4,513	54.4	3,775	45.5	13	0	0	0	0
Malaysia	12,593	12,504	99.3	12,439	98.8	9,785	77.7	2,654	21.1	34	31	0	89	0
Indonesia	8,732	8,619	98.7	8,619	98.7	5,730	65.6	2,889	33.1	0	0	0	96	17
Philippines	11,490	11,444	99.6	11,369	98.9	8,149	70.9	3,220	28.0	75	0	0	27	19
Singapore	10,705	10,705	100.0	10,705	100.0	10,705	100.0	0	0.0	0	0	0	0	0
Brunei	10,702	10,598	99.0	9,924	92.7	8,444	78.9	1,480	13.8	674	0	0	104	0
ASEAN countries	62,523	62,171	99.4	61,344	98.1	47,326	75.7	14,018	22.4	796	31	0	316	36
Vietnam	10,689	10,523	98.4	10,285	96.2	5,478	51.2	4,807	45.0	238	0	0	166	0
Laos	10,690	10,389	97.2	9,960	93.2	629	5.9	9,331	87.3	429	0	0	98	203
Cambodia	10,689	10,454	97.8	5,301	49.6	603	5.6	4,698	44.0	5,153	0	0	181	54
Myanmar	10,689	10,611	99.3	9,325	87.2	365	3.4	8,960	83.8	1,286	0	0	51	27
CLMV	42,757	41,977	98.2	34,871	81.6	7,075	16.5	27,796	65.0	7,106	0	0	496	284
Total	105,280	104,148	98.9	96,215	91.4	54,401	51.7	41,814	39.7	7,902	31	0	812	320

Notes: 1. Products on the inclusion list (IL) are subject to tariff reductions.
Products on the temporary exclusion list (TEL) are temporarily shielded from tariff reductions (preparations for reductions are not comlete).
General exception list (GEL) items are generally excluded from tariff reductions (defense-related categories, items of scholarly value, etc.).
SL: The sensitive list items (unprocessed agricultural products, for which a flexible approach to transfer to the IL is taken).
HSL: Highly sensitive list items (rice-related).
2. The number of items is based on ASEAN Harmonized Tariff Nomenclature 2002 (AHTN 2002), except for Indonesia and Thailand, for which AHTN 2007 was used.
3. These calculations assume that tariffs on all items slated for tarif elimination in the eleven priority sectors for integration have been entirely eliminated.
4. The items for which tariffs exceed 5% include items for which specific duties rather than ad valorem duties apply. "Other" is 31 items on which Malaysia applies a special tax.
5. 2007 shifts to the IL included Brunei's transfer of items from the GEL and Malaysia, Thailand, and the Philippines from the SL. Vietnam, which had delayed shifting 14 automobile-rel
6. The CLMV countries are Cambodia, Lao PDR, Myanmar, and Vietnam.
Source: ASEAN Secretariat.

Table II-12 AFTA (CEPT) utilization ratios in Thailand and Malaysia

(measure: %)

		Country/Region	98	99	2000	2001	2002	2003	2004	2005	2006
Total for Thailand and Malaysia		Vietnam	0.8	6.6	5.3	8.2	12.8	30.3	33.3	38.3	42.4
		Philippines	9.3	12.7	10.9	16.5	18.2	24.9	29.6	33.2	31.9
		Indonesia	5.0	7.0	10.5	14.9	15.0	20.6	27.1	33.9	29.6
		Malaysia	11.9	14.0	12.7	15.5	20.4	20.7	22.1	22.4	20.5
		Thailand	3.9	8.0	6.8	10.8	11.3	13.0	16.0	16.2	14.9
		Brunei	0.1	0.2	0.1	0.8	1.1	0.7	0.8	1.3	3.3
		Singapore	0.1	0.1	0.1	0.3	0.5	1.1	1.5	1.3	2.8
		Laos	0.0	0.0	0.0	0.0	0.0	0.9	3.1	2.8	2.3
		Myanmar	0.0	0.0	0.0	0.1	0.0	0.4	0.6	0.6	0.4
		Cambodia	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1
		Total	2.2	3.3	3.4	5.1	6.2	9.3	12.0	13.3	13.6
		(Except Singapore)	5.6	8.5	8.4	11.9	13.7	18.4	22.2	24.6	23.5
	Thailand	Indonesia	6.5	12.6	20.8	24.9	23.8	32.1	41.5	45.9	50.6
		Vietnam	1.1	9.0	6.3	8.2	13.8	31.2	33.8	41.5	39.9
		Philippines	13.1	16.1	14.5	20.2	24.3	31.6	40.4	41.8	37.6
		Malaysia	11.9	14.0	12.7	15.5	20.4	20.7	22.1	22.4	20.5
		Brunei	0.4	1.3	0.7	1.4	2.3	2.1	3.2	3.9	8.2
		Singapore	0.2	0.1	0.2	0.4	0.9	1.8	2.7	2.7	2.5
		Laos	0.0	0.0	0.0	0.0	0.0	0.9	3.1	2.8	2.3
		Myanmar	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.4
		Cambodia	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
		Total	4.0	5.7	6.4	8.6	10.8	15.5	19.3	21.5	20.2
		(Except Singapore)	7.4	10.7	11.5	14.6	17.7	23.0	27.5	30.0	28.2
	Malaysia	Vietnam	0.2	3.0	3.5	8.1	11.3	28.9	32.6	31.7	46.7
		Philippines	6.8	10.3	8.7	13.1	12.4	17.1	19.4	24.2	25.0
		Thailand	3.9	8.0	6.8	10.8	11.3	13.0	16.0	16.2	14.9
		Indonesia	3.5	2.6	2.5	6.1	6.8	8.0	12.1	19.6	12.4
		Laos	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
		Singapore	0.1	0.1	0.1	0.2	0.3	0.8	1.0	0.9	2.9
		Brunei	0.0	0.0	0.0	0.8	0.9	0.5	0.3	0.8	2.1
		Cambodia	0.0	0.0	0.4	0.0	0.0	0.0	0.3	0.5	0.5
		Myanmar	0.0	0.0	0.0	0.1	0.0	0.9	2.2	1.7	0.3
		Total	1.2	2.0	1.8	3.2	3.6	5.3	7.2	7.9	9.2
		(Except Singapore)	3.8	6.5	5.6	9.3	9.8	13.2	16.4	18.5	18.4

Note: The CEPT utiliation ratio is value of exports utilizing CEPT/total value of exports.
Source: Ministry of International Trade and Industry, Malaysia and Ministry of Commerce, Thailand and trade statistics of Thailand and Malaysia.

Table II-13 Malaysia's CEPT utilization amounts by item (exports, 2006)

(US$ millions, **%**)

Items	Dollar Amount	%share
Machinery and mecanical appliances	792	20.5
Chemical products	583	15.1
Plastic products	432	11.2
Food seasoning and preparations	337	8.7
Electrical and electronics products	306	7.9
Vegetable oil and fats	284	7.4
Iron and steel	217	5.6
Cereals and pastry products	110	2.8
Textile and textile products	104	2.7
Wood and wood products	102	2.6
Other	596	15.4
Total	3,861	100.0

Sources: "International Trade and Industry Report2006"(Ministry of International Trade and Industry)

Table II-14 FTA usage in Thailand and Malaysia

(US$ million, %)

		Trading partner	2005	2006
Thailand	Value of exports using an FTA	China	614	1,450
		Australia	2,122	2,746
		India	267	328
		ASEAN (exclusive of Singapore)	4,942	5,299
		Total	**7,944**	**9,824**
	Value of total exports	China	9,104	11,797
		Australia	3,153	4,383
		India	1,519	1,815
		(The 82 Early Harvest items only)	338	368
		ASEAN (exclusive of Singapore)	16,467	18,809
		Total	**37,668**	**45,205**
	FTA utilization rate	China	6.7	12.3
		Australia	67.3	62.6
		India	17.6	18.1
		(The 82 Early Harvest items only)	79.0	89.1
		ASEAN (exclusive of Singapore)	30.0	28.2
		Total	**26.3**	**26.7**
Malaysia	Value of exports using an FTA	China	274	1,045
		ASEAN (exclusive of Singapore)	2,731	3,150
		Total	**3,005**	**4,194**
	Value of total exports	China	9,303	11,735
		ASEAN (exclusive of Singapore)	14,756	17,141
		Total	**24,059**	**28,876**
	FTA utilization rate	China	2.9	8.9
		ASEAN (exclusive of Singapore)	18.5	18.4
		Total	**12.5**	**14.5**
Total	Value of exports using an FTA	China	888	2,495
		ASEAN (exclusive of Singapore)	7,673	8,449
		Total	**8,561**	**10,944**
	Value of total exports	China	18,048	23,532
		ASEAN (exclusive of Singapore)	31,223	35,950
		Total	**49,630**	**59,482**
	FTA utilization rate	China	4.8	10.6
		ASEAN (exclusive of Singapore)	24.6	23.5
		Total	**17.2**	**18.4**

Note: The utilization rate is value of exports utilizing an FTA/total value of exports.
Source: Ministry of International Trade and Industry, Malaysia and Ministry of Commerce, Thailand and trade statistics of Thailand and Malaysia.

Table II-15 Major ASEAN trade items with China

(US$ million, %)

Exports					Imports				
Category	2003		2006		Category	2003		2006	
	Value	% of all external trade	Value	% of all external trade		Value	% of all external trade	Value	% of all external trade
Electrical equipment	7,195	8.1	19,360	8.5	Electrical equipment	17,248	16.6	39,914	18.2
General machinery	6,360	7.6	12,636	6.8	General machinery	8,203	11.5	14,186	13.0
Textiles & textile products	3,627	4.9	7,071	5.1	Chemicals	7,237	12.8	13,808	13.5
Iron & steel	1,107	8.6	6,406	12.3	Mineral fuel	5,511	19.2	7,160	8.1
Chemicals	2,814	9.1	6,045	9.0	Animal, vegetable oils and fats and cleavage products	1,675	19.2	2,813	23.0
EH (agricultural and fisheries products)	694	8.4	1,303	10.7	EH (agricultural and fisheries products)	567	13.9	1,207	19.4
Total	30,935	7.1	71,325	7.4	Total	47,350	11.5	89,538	11.3

Notes: 1. EH stands for "Early Harvest" (HS01-08).
2. The % of all external trade is the ratio of ASEAN exports (or imports) to total world exports (or imports) of items in this category.
Source: China Foreign Trade Statistics.

Table II-16 Tariff exemption systems of major Asian countries

Country	Overview of key system points
Thailand	・Export processing zones and free zones are exempt from import tariffs. There are nine export processing zones and 19 free zones in operation. ・Bonded factories are exempt from customs duty and so on, on condition that products be reexported. Component members must be reexported within two years. There are 151 bonded factories. ・Tax exemptions include tariff exemptions for components produced for export instituted by Board of Investment, tariff refunds for components produced for export allowed under Article 19 of the Customs Law, tariff exemptions for electrical and electronic components (EEI scheme), tariff reductions and exemptions for automotive parts, and so on.
Malaysia	・Free zones are exempt from import and other tariffs. ・Bonded warehouses (LNW) are granted import tariff exempt status intended for manufacturers that place establishments in locations other than free zones. ・Raw materials, parts, equipment, and so on that are for export or that were not produced domestically are exempt from import and other such tariffs.
Indonesia	・Export processing zones (EPZ) and stand-alone export processing zones (EPTE) are exempt from import and other such tariffs. ・There are tariff exemptions on unrefined sugar imported by sugar refiners, tariff exemptions on products imported for operation of geothermal energy businesses, import tariff reductions and exemptions on major raw materials and secondary materials for the manufacture of electronic products and parts, and so on.
Philippines	・Special economic zones are exempt from import and other such tariffs. There are 111 special economic zones. ・There are tariff reductions and exemptions for enterprises registered with the Board of Investment.
Vietnam	・Export processing zones (EPZ) and export processing enterprises (EPE) are exempt from import tariffs and other such. There are three export processing zones in operation.
China	・Export processing zones (EPZ) are exempt from import tariffs and other such. There are 37 EPZs being operated. ・Free trade zones are exempt from import and other such tariffs. There are 15 FTZs. ・Under the processing trade system, component members are exempt from import tariffs on the condition that they are reexported.
India	・Special economic zones (SEZ) are exempt from import and other such tariffs and other such. There are 14 SEZs in operation. ・It is possible to import goods in bond in export-oriented units (EOU). There are 1,924 companies with EOUs in operation. ・There are import tariff reduction and exemption systems of various kinds, including advance authorization schemes (AAS) that provide tariff exemption to manufacturers that import intermediate goods and parts to manufacture specific export products, process them, and export them), duty-free import authorization schemes (DFIA) that provide import tariff exemption for intermediate goods and parts used in manufacturing specific export products, for traders acting as agents for manufacturers engaging in import and export, duty-free replenishment certificate (DFRC) schemes for intermediate goods, duty entitlement pass book (DEPB) schemes, export promotion capital goods (EPCG) schemes.

Source: JETRO, "Higashi Asia ni okeru FTA oyobi kanzei genmen seido no genjo to kadai" (Status and issues of FTAs and tariff reduction and exemption systems in East Asia), compiled from JETRO-FILEs.

Table II-17 Ratio of imported cost which is not subject to tariff to the total imported cost and ratio of exports to total sales of Japanese affiliated companies in ASEAN and India

(measure: %)

	Percentage of raw materials and parts procured through tariff-free importation				Percentage of sales from exports			
	0～10%	10%～50%	50%～100%	100%	0～10%	10%～50%	50%～100%	100%
Thailand	47.6	11.6	31.2	9.5	27.6	30.7	32.2	9.5
Malaysia	15.3	11.5	32.1	41.2	12.8	27.1	40.6	19.5
Indonesia	46.6	17.3	18.8	17.3	32.6	23.2	30.4	13.8
Philippines	19.5	6.7	22.1	51.7	14.1	9.0	35.9	41.0
Vietnam	23.1	13.8	20.0	43.1	25.0	7.4	14.7	52.9
India	71.0	16.1	6.5	6.5	61.8	20.6	14.7	2.9

Notes1: Number of Percentage of raw materials and parts procured through tariff-free importation: Thailand=189、Malaysia=131、Indonesia=133、Philippines=149、Vietnam=65、India=31。
Notes2: Number of Sales by value from exports :Thailand=199、Malaysia=133、Indonesia=138、Philippines=156、Vietnam=68、India=34
Notes3: Conducted from 27 November 2006 to 27 December 2007.
Source : "Survey of Japanese Manufacturers in Asia"(JETRO)

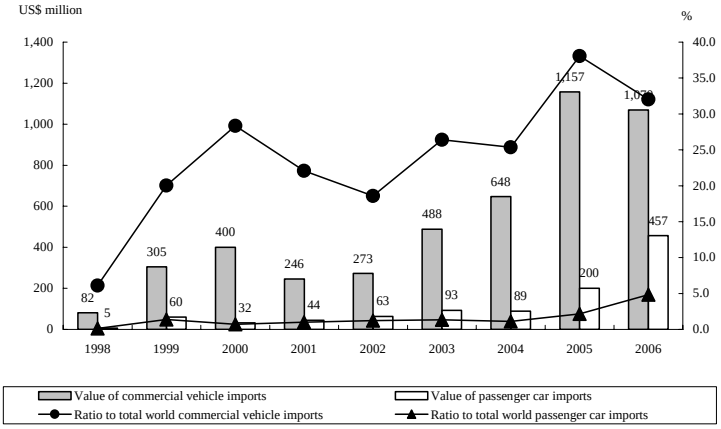
Table II-18 Top five by value of trade among the 82 Thailand-India Early Harvest categories

(US$ million, %)

	Category	2003	2004	2005	2006	Annual average growth rate, 2004-2006
Exports	Color TVs	0	43	96	125	70.5
	Polycarbonates	11	17	112	52	77.6
	CRTs for TVs	0	5	21	32	160.1
	Air conditioners	9	8	16	28	90.4
	Epoxy resins	3	5	11	16	80.1
	EH total	66	146	338	368	58.7
	Total exports	639	905	1,519	1,815	41.6
Imports	Gear boxes	0	4	30	40	206.1
	Ferrous and non-metal product	30	36	6	12	-41.7
	Cocks, valves, etc.	1	2	4	6	84.3
	Anodized aluminum	2	4	6	6	16.0
	Other polyester	0	1	2	6	151.8
	EH total	73	70	88	101	20.0
	Total exports	877	1,138	1,275	1,625	19.5
Balance of trade		-239	-233	244	190	-

Note: EH stands for Early Harvest.
Source: Thai trade statistics.

Fig. II-6 Imports of Australian automobiles



Note: Passenger cars are HS code 8703; commercial vehicles HS code is 8704.
Source: Australian trade statistics.

Table II-19 The number of Hong Kong Service Supplier (HKSS) certification

Business Area	Number of Issuance
Transportation/Distribution	1,023
Whole Sales/Retail Sales	337
Advertisement	79
Architecture	73
Employment Placement	36
Management Consulting	32
Total	1,739

Notes: A cumulative total as of March 2007
Source: Hong Kong Trade and Industry Department

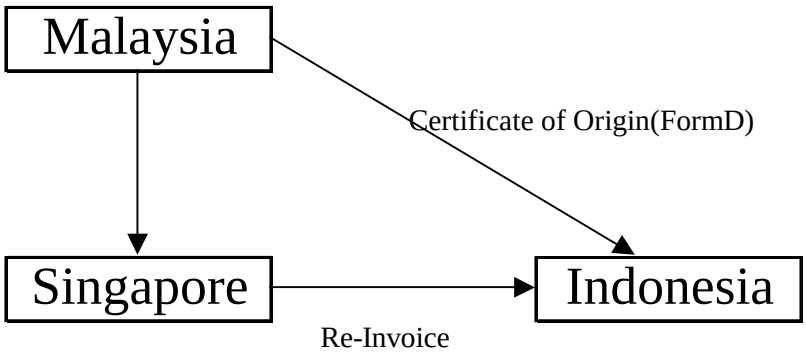
Table II-20 Rules of origin in major FTAs in the Asia-Pacific region

	FTA	Rules of origin
Value added-criteria	ASEAN Free Trade Agreement (AFTA)	40% or more of cumulative added value. For iron and steel products and some other categories, the change in tariff classification criteria is applied.
	China-ASEAN	40% or more of cumulative added value.
	Singapore-New Zealand	40% or more of cumulative added value.
	Singapore-Australia	50% or more of cumulative added value. (For some categories, 30% or more.)
	Australia-New Zealand	50% or more of cumulative added value.
Change in tariff classification criteria	Japan-Singapore	Change in tariff classification criteria (at 4-digit HS level) But for 264 categories, the choice of a change in tariff classification or 60% or more of cumulative added value applies (to be reduced to 40% in the future).
	Thailand-Australia	Change in tariff classification criteria (at 4-digit or 6-digit HS level) But for some categories, a cumulative added value criteria also applies.
	Thailand-New Zealand	Change in tariff classification criterion (at 4-digit or 6-digit HS level) But for some categories, a cumulative added value criteria also applies.
	Singapore-ROK	Change in tariff classification criteria (at 4-digit or 6-digit HS level) But for some categories, a cumulative added value criteria also applies.
Choice of criteria	Japan-Malaysia	Either the 40% or more of cumulative added value criteria or the change in tariff classification (at 4-digit or 6-digit HS level) criteria.
	ASEAN-ROK	Either the 40% or more of cumulative added value criteria or the change in tariff classification (at 4-digit HS level) criteria.
Dual criteria	Thailand-India (only the 82 Early Harvest items)	Both the 40% or more of cumulative added value criteria and the change in tariff classification (at 6-digit HS level) criteria must be met. But for some items only the change in tariff classification (at 4-digit or 6-digit HS level) or only the added value criteria applies.
	Singapore-India	Both the 40% or more of cumulative added value criteria and the change in tariff classification (at 4-digit or 6-digit HS level) criteria must be met. For a fairly large number of items, however, only the change in tariff classification criteria is applied.
Manufacturing process criteria	China-Hong Kong	The manufacturing process criteria applies in a majority of cases, but the change in tariff classification (at 4-digit HS level) and 30% or more added value criteria are applied to some categories.
	China-Macao	The manufacturing process criteria applies in a majority of cases, but the change in tariff classification (at 4-digit HS level) and 30% or more added value criteria are applied to some categories.

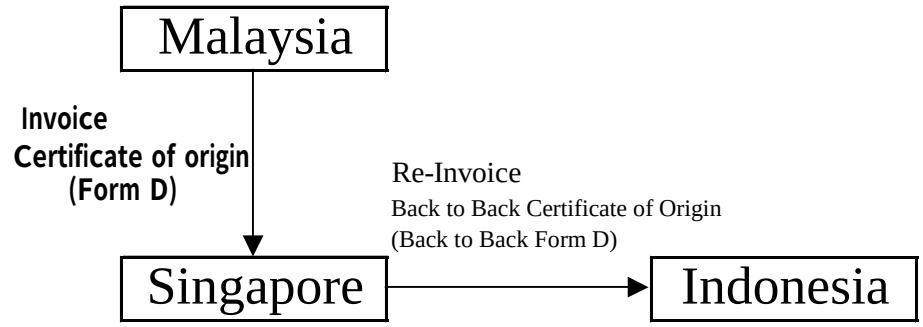
Note: The above rules of origin are those provided in the FTA to apply to a majority of categories; there are exceptions, depending on category.
Source: FTA agreements

Fig II-7 Re-Invoicea and Back to Back in the case of AFTA

<case of Re-Invoice>



<case of Back to Back>



Source: JETRO

4. Building Asia-Pacific Economic Partnerships

■Key Terms for Economic Partnerships in the Asia-Pacific Region are "Wide-Area" and "Comprehensive"

ASEAN+6 (ASEAN, Japan, China, the Republic of Korea, India, Australia, and New Zealand) is an economic partnership in the Asia-Pacific region that has yielded great benefits for Japan. As seen in the preceding section, GTAP (see the Commentary on pages 56 and 57) shows that ASEAN+6's elimination of tariffs and partial removal of non-tariff measures (NTMs) resulted in a 1.3% rise in the GDP of the signatory countries overall. The free trade agreements (FTAs) that have gone into effect between Thailand and India and Thailand and Australia have also been actively utilized by Japanese enterprises, so that FTAs including India and Australia are understood as generating significant advantages for Japan. No doubt greater effects are still to be achieved from the economies of scale and improvements in productivity brought about by incorporating the enormous consumer market in India and the advanced countries of Australia and New Zealand into the Asia-Pacific economic sphere.

It is especially important for Japanese enterprises developing their businesses in ASEAN and other developing countries that there be liberalization in the services that accompany the manufacturing industry, such as the transportation industry and the retail and wholesale industry, improved predictability for the investment, that equitable competitive conditions be established for local industries and foreign enterprises from other countries, and that conditions for participation in electric power and other such large-scale public projects be improved. The benefits would be great. The fact is, however, that the commitment by developing countries made in the WTO Service Agreement is limited, and that the developing countries have not joined the voluntary government procurement agreement. In other words, there are limits to the liberalization of these sectors by the developing countries under the rules of multilateral trade as they stand at present. As explained earlier, however, the North American Free Trade Agreement (NAFTA) has provided opportunities for Mexico to take steps to liberalize its service, investment, and government procurement sectors, which had been closed until then. Mexico's subsequent growth as a production base for automobiles going to the U.S. and the increasing health of its financial system are as previously described. It may not be appropriate to apply the NAFTA model directly to the Asia-Pacific region just as it is. In this region with its many developing countries, however, a "WTO Plus" economic partnership that supplements those sectors not addressed by WTO commitments could bring great benefits for Japan.

■Promote Still Further Utilization by Integrating Rules of Origin

Integration of rules of origin appears likely to bring about greater utilization of FTAs by enterprises. The rules of origin, including the selection type allowing the choice of either value added or change in tariff classification criteria, should be simplified and integrated in the form of

systems that recognize cumulative origin and intermediary trade. It will be necessary, moreover, to study the introduction of a system of self-certification for products from enterprises that have established records of adequately satisfying origin ratio requirements and for parts that are required for products from enterprises that carry out local production, as well as to simplify procedures for certification of origin that would enable enterprises to carry out export procedures more quickly.

■Reducing Service Link Costs by Means of Japan's Economic Partnership Agreements (EPAs)

The liberalization of trade in goods by eliminating tariffs is one key element of the FTA. A look at the Asia-Pacific region will show that developing countries have relatively high tariff levels, and eliminating these tariffs would have definite advantages. The WTO has announced the average tariff rates applied in 2006 by advanced countries such as Hong Kong, Singapore, Japan, Australia, and New Zealand, had reached the low level of 0–5%. The rates in China and Thailand, however, were at the 10% level, and the rates in Vietnam were staying at or above the 15% level.

The elimination of tariffs alone, however, will not constitute removal of all barriers to trade. Troublesome customs clearance procedures, high transportation costs caused by inefficient infrastructure, severe regulation of services and investment systems, and many other such non-tariff obstacles exist in all those countries. Today, in fact, when a certain degree of tariff reduction has been realized through past GATT/WTO rounds, the removal of service link costs such as NTMs could be considered even more important than before. The removal in this way of barriers that have been hidden behind tariffs is likely to be of great benefit to Japanese enterprises doing business in the Asia-Pacific region.

The use of more time than should be required to clear import and export products through customs is a problem to be found in many developing countries. A World Bank report found that the import procedures in East Asia and Pacific countries (documentary procedures prior to arrival in port, overland transport to a warehouse after clearing customs) required an average of 28 days, which is two times longer than the average of 14 days in OECD member countries.

According to JETRO's “Heisei 18-nendo keizai renkei business kankyo seibi program ‘ASEAN butsuryu enkatsuka shien’ ni kansuru chosa houkokusho (ASEAN butsuryu chosa)” (Report on Study of *Support for Facilitation of Physical Distribution in ASEAN*, an Economic Partnership Business Environment Improvement Program for Fiscal Year 2006 (Study of Physical Distribution in ASEAN)), the time required for import clearance in the ASEAN countries ranges from two to five days for the most part, excluding Singapore, where customs clearance can be completed within one day. According to Japanese enterprises in Indonesia, however, customs clearance ordinarily requires three days, but when clearance involves inspection, this time may extend to nearly two weeks. Container charges are incurred during the time products are held up at the port, in addition to which plant inventory increases. This can constitute a significant cost (Table II-21).

Improvement of the physical infrastructure of roads and ports also shortens the time for products to reach enterprises and consumers, and leads to lower transportation costs. The status of infrastructure within ASEAN varies greatly from country to country. According to a study of ASEAN distribution, improvement of the principal roads in Singapore and Thailand is advanced. The principal distribution routes linking Thailand with peripheral countries such as Malaysia and Cambodia have been designated part of the United Nations' Asia Highway, and all their sections have been paved. In contrast to this is Indonesia, where the condition of the roads has been identified as a factor in the decline of the country's industrial competitiveness. The Northern Java Arterial Highway that links Tanjungpriok Harbor in Jakarta with the suburban industrial parks has inadequate traffic capacity and is poorly maintained. This has caused chronic traffic congestion.

The GTAP results revealed that removal of NTMs would be important in enhancing the economic effects of an FTA. The EPAs being promoted by Japan can contribute to improvement of environments for services and investment in the counterpart country by comprehensive implementation of measures including customs procedures, standards and certification, business environment improvement committees, and bilateral cooperation. In the area of customs procedures, the introduction of information and telecommunications technology and simplification of the procedures to bring them in line with international standards would work toward greater speed in clearing imports. In the area of standards and certification, thoroughgoing measures to comply with the Agreement on Technical Barriers to Trade (TBT) and cooperation on joint research would help to prevent the counterpart country's technical standards from becoming a barrier to trade. Improvement of various problems experienced in business would be addressed by organizing business environment improvement committees with joint private and public sector participation. The Japan-Mexico EPA, for example, provided for a business environment improvement committee that identified issues with entry and exit procedures for people going from Japan to Mexico, public safety problems, and other issues. The Mexico side is working to resolve these problems (Table II-22). Bilateral cooperation is of particular importance in EPAs with developing countries. Japan can make use of its accumulated knowhow from past ODA programs to address the counterpart country's requests through trade and investment promotion, human resource development, information telecommunications technology, and other such infrastructure projects. Bilateral cooperation leads to improvement of trade and investment infrastructure in the counterpart country, and in the long term should provide advantages to Japanese enterprises.

It is important to create mechanisms to address these issues and achieve an overall reduction in service link costs through economic partnerships in the Asia-Pacific region.

Table II-21. Time required for import clearance in ASEAN countries

Country	Time required for import clearance
Vietnam	Number of days required varies greatly according to amount of work in customs. About 1/2 to 2 days.
Thailand	About 1-3 days
Singapore	Within 1 day
Philippines	Four days for ordinary cargo; 2-3 days for PEZA members.
Myanmar	Two days for document examination, about 1 day for cargo examination. At least 3 days from declaration to import permission.
Malaysia	About 1-2 days.
Laos	Single window arrangement with Vietnam makes 20-minute clearance possible. Similar scheme planned with Thailand.
Indonesia	About 3-5 days for ordinary cargo; about 1-2 days for in-bond entry to bonded factories.
Cambodia	One week from document examination to customs clearance authorization. In some cases, several weeks are required to obtain authorization.
Brunei	—

Source: JETRO, "Heisei 18 nendo keizai renkei business kankyo seibi program "ASEAN butsuryu enkatsuka sien ni kansuru chosa hokokusho" (Report on Study of "Support for Facilitation of Physical Distribution in ASEAN," an Economic Partnership Business Environment Improvement Program for Fiscal Year 2006.)

Table II-22. Progress of Mexico's business environment improvement under the Japan-Mexico EPA (as of July 2007)

Area	Specific problem	Progress/Results
Public Safety	・Deteriorating public safety at airports and in districts where Japanese reside. ・Many thefts and robberies of products, rising cost of crime prevention.	・Continuing consultations with Secretariat of Public Safety. ・Rail terminal monitoring implemented. ・Improved public safety at Mexico City International Airport. ・Studies being made of augmentation of security guards on freight transport routes.
Entry and Exit Procedures	・Procedures for US-Mexico border customs are troublesome. ・Mistakes by border official resulted in restrictions on traveler's destinations. ・Factual errors by regional immigration officials have resulted in unnecessary procedures.	・Service improved by placement of new border stations. ・Written notification that traveler's destinations would not be restricted. ・"Visa Manual" created in cooperation with immigration authorities. ・Visa seminars held in regional cities with responsible officers from the National Institute of Migration as instructors.
Intellectual Property Rights	・Circulation of counterfeit products has negative impact on sales and brand image. ・Exposure of infringing goods requires damaged enterprises to request administrative judgement and file suit, so they hold back from action because it exposes them to risk of revenge by the infringing enterprise. ・Customs does not have authority to seize infringing goods.	・Continuing consultations to be held with the Mexican Intellectual Property Institute (IMPI). ・IMPI sends warning letters to trademark violating companies at request of Japanese corporations. ・IMPI personnel dispatched to Japan to study customs systems for enforcing control. ・Promises of cooperation with customs on border enforcement measures. ・Representatives of Japanese corporations participate as observers in government committees dealing with intellectual property.
Standards and Certification	・Domestic testing is required (double effort) and standards are old and incompatible with international standards so procedures are troublesome and introduction of new products takes considerable time and additional expense.	・Decision has been made to revise technical standards for electronic equipment, with participation by Japanese corporations promised.
Infrastructure	・High electricity costs and frequent power outages. ・High overland transport costs. ・Expansion of Otay frontier required (Tijuana-San Diego).	・Consultations to be held with regional governments for infrastructure improvement in border zones. ・Roads paved in city of Tijuana.
Tax and Customs Procedures	・Customs clearance takes time and imposes costs, lowering competitiveness. ・Method of resolving differences in tariff classifications is unclear. ・Value added tax refund procedures are time-consuming.	・Contact people in customs and tax administration designated.

Source: Compiled from Tanimura, "Gensanchi kisei kyoutsuukaha ookina kanouseiwo motarasu" (Applying Common Rules of Origina Opens Up Major Possibilities), JETRO Sensor (July 2007), and European Commission material

III. Global Business Models and Concerns for Japanese Companies

1. Enhancing company capacity to build international business models

■ The growing debate over innovation

When Japan decided on its "New Economic Growth Strategy" in June 2006, the government set a goal of accomplishing real GDP growth of about 2.2% per year on average from FY2004 to FY2015. In a society with a falling birth rate and aging population, the strategy identified innovation as the key to new economic growth. The government merged this in June 2007 with other strategies to form its Strategic Framework for Economic Growth, with innovation singled out as particularly important for making Japan more internationally competitive. The government envisioned making Japan into the world's innovation center, from which position it could partner with other Asian countries to continue developing and offering new, internationally competitive technologies and products, creating a positive cycle at the world level.

Nippon Keidanren, meanwhile, has initiated its INNOVATE Japan campaign and says that if Japan is to continue to be a major player in the world economy, it must work nonstop to hone its competitive edge with innovation.

The idea that innovation is crucial to international competitiveness is echoed in the U.S. and countries of Europe and Asia, inspiring a noteworthy trend among individual countries and regions to step up their own innovation strategies.

Driving these trends is the fact that this is an era of global competition, together with an acknowledgement that innovation makes a nation competitive and that competitors are multiplying around the world at a breathtaking rate, and finally the belief in a need each country has to change its citizens' awareness so that they may be fairly prepared for these realities.

In the Global Competitiveness Report[1], in which the World Economic Forum (WEF, based in Switzerland) ranks the countries and regions of the world for their level of competitiveness, out of 125 countries and regions around the world, Japan ranked number 1 for innovation during FY2006-07. Private investment in research and development in Japan, the usefulness of its scientists and engineers, and its excellent record in acquiring large numbers of general patents were all major factors pushing Japan's overall ranking so high (Table III-1).

All around us, innovative new products keep appearing, from hybrid cars and flat-panel televisions to game machines like the Nintendo Wii built on a concept never before imagined.

■ Toward a profitable international business model

According to the "Survey on Japanese Firms' International Competitiveness and Business Development" conducted by JETRO and given to 1,605 Japanese manufacturing companies between March and May 2007 (response rate, 29.1%), when asked about the innovativeness of Japanese

companies on an international scale, 22% of respondents, or 104 companies, said that their own businesses were “capable of creating innovative technologies and profitable international business models using them” (Fig. III-1). This reflects the opinions of those in supporting industries for metal products as well as those in the electrical machinery and automobile industries.

On the other hand, 62% of companies (289 companies) answered that they were “technologically innovative but not good at creating profitable international business models.” A further 8% (38 companies) said that they were “not technologically innovative and not good at creating profitable international business models.” Combining the number of respondents giving the latter two answers, 70% of companies felt that they were insufficiently able to create international business models.

In probing the reasons for these results, we examined this issue from three points of view: 1) the question of whether currently used business models are consistent with international trends, 2) the effectiveness of the strategic use of outsourcing, and 3) issues of overseas marketing.

First, the previously mentioned questionnaire asked the participants about changes in the overseas business environment facing the responding company compared to five years before (2001), to which 65% of respondents said that the environment had “improved” (Fig. III-2). Reasons given for claiming improvement included “our overseas market share has expanded” (46.5%), “our profit margin from overseas has expanded” (40.3%) and “our brand is stronger” (28.4%) (Fig. III-3). Industries for which the overseas business environment was improving included “general machinery,” “automobiles and parts/other transportation equipment,” “fiber and textile products/apparel,” “chemicals,” “ferrous and nonferrous metals/metal products,” and so on (Table III-2).

On the other side, only 14% of companies answered that the business environment had “worsened,” but the percentage was high in such industry sectors as “communication equipment, electronic components and devices” (43.3%). The reasons given for a worsening environment by this industry included “sales prices have fallen because of product and component standardization, etc.” (69.2%) and “companies in other countries are catching up technologically” (53.8%) (Fig. III-3).

The trend toward standardization (modularization) of products and components in the electronics industry was already apparent in the 1990s, but as digitalization has advanced in recent years, it has become easier for new businesses seeking to get into this industry with an assembly (modularization) business model, as long as a supply of funding and semiconductors is available (refer to Column III-1). Companies in the U.S., South Korea, Taiwan, China and so on created this trend, and year by year they have increased their share of the international market for digital products.

Also in recent years, the product cycle of digital goods has grown shorter and shorter, with the result that capital investment costs are a huge burden for companies. As a result, a trend has emerged in which vertically integrated finished product manufacturers are ensuring a certain amount of revenue by selling intermediate goods (such as semiconductors and electronic devices) to competing

companies, thus recovering a portion of their capital investment. The result of this is a dilemma for manufacturers: a trend toward price erosion of the final product and the commoditization of goods because of the competition.

■ Strategic use of outsourcing

Many Japanese companies in general, such as those in the electronics and drug industries, have developed and produced goods on the principle of vertically integrated self-sufficiency. This principle has its merits: namely, it raises the motivation of engineers who want to build fine products in-house, brings out the overall strength of the company by fusing company technologies (that is, the technologies of different departments), and maintains employment. On the other hand, however, companies must consider strategic outsourcing in those areas where they aren't as strong, in order to make themselves more cost competitive. So-called fabless companies, which do not have their own factories (such as Qualcomm and Broadcom) have rapidly grown in the U.S. to become world leaders in terms of semiconductor sales. These companies specialize in product development and marketing, but leave production to Taiwanese foundries (manufacturing contractors). Under this arrangement, each business recognizes its own strengths; this is a horizontal and non-integrated business model.

In the previously mentioned JETRO questionnaire, 47% of Japan's manufacturing companies said that "offshore outsourcing is effective" for maintaining and expanding global competitiveness (including those who modified this remark by saying that this posed some problems). The result indicates that there is a high level of awareness that outsourcing is effective (Fig. III-4).

On the other hand, 29% of companies answered that outsourcing "is not very effective." By industry sector, 43% of the "communication equipment, electronic components and devices" industry answered that "offshore outsourcing is not effective." Asked to explain why, the respondents who answered this way said that offshore outsourcing causes a "risk of leak of technology" (69.2%), entails "problems with quality and delivery" (61.5%) or "leads to a decline of added value" (30.8%) (Fig. III-5). It would therefore appear that if outsourcing is to be adopted, it will be necessary to take approaches and steps different from those of companies in the U.S. and the emerging countries of Asia (this is addressed later).

■ Active promotion of product value overseas and hiring of local talent

Next, looking at overseas marketing, the active promotion of product value overseas is necessary to get overseas companies and consumers, who have different business models and cultures, to understand the value of one's own products. Asked on the questionnaire about their plans for overseas marketing in the future, 63.6% of companies gave the most common answer that they would "promote the value of their

products overseas," following which 44.1% of companies said that they intend to "actively hire local talent to develop markets" (Fig. III-6).

In terms of R&D, it will be necessary to investigate whether product development is taking place that is consistent with the needs of world markets. Because Japan is the world's second largest economy, companies can expect to earn fairly sizable revenue, just from Japan, as long as they develop products focusing on this market.

If the goal is to reach world markets, however, products have to be created with the world in mind from the very start of development, and efficient R&D investment should be leveraged to generate much of a business's profit.

The automobile and parts industry, which largely answered on the questionnaire that the overseas business environment had improved compared to five years before, may fairly be described as an industry that has properly read the needs of the time and thus successfully increased its share of the international market and its profitability. Now that international concern has grown about the environment, including global warming and the high price of gasoline, Japanese manufacturers have gained an increasing amount of trust as they have developed hybrids and highly fuel-efficient autos.

[1] The Global Competitiveness Report consists of general statistical data along with results of studies that the World Economic Forum conducted jointly with research institutes and companies. It uses results of questionnaires given to 11,000 businesspeople in 125 countries and regions of the world.

Column III-1

☉ The Product Architecture Theory: integral type or modular type?

The Product Architecture Theory systematizes the source of a company's competitiveness, stating that when people are designing a new product or process in a factory or laboratory, there are two approaches, which can be classified as integral type and modular type. Professor Takahiro Fujimoto of the University of Tokyo has developed this theory in Japan.

An integral type product seeks to enhance total performance by making fine adjustments among components. The typical example is the automobile: to make an automobile more comfortable to ride, for example, one must adjust not only the seats but also make mutual adjustments between the seat and the springs, tires, body and so on.

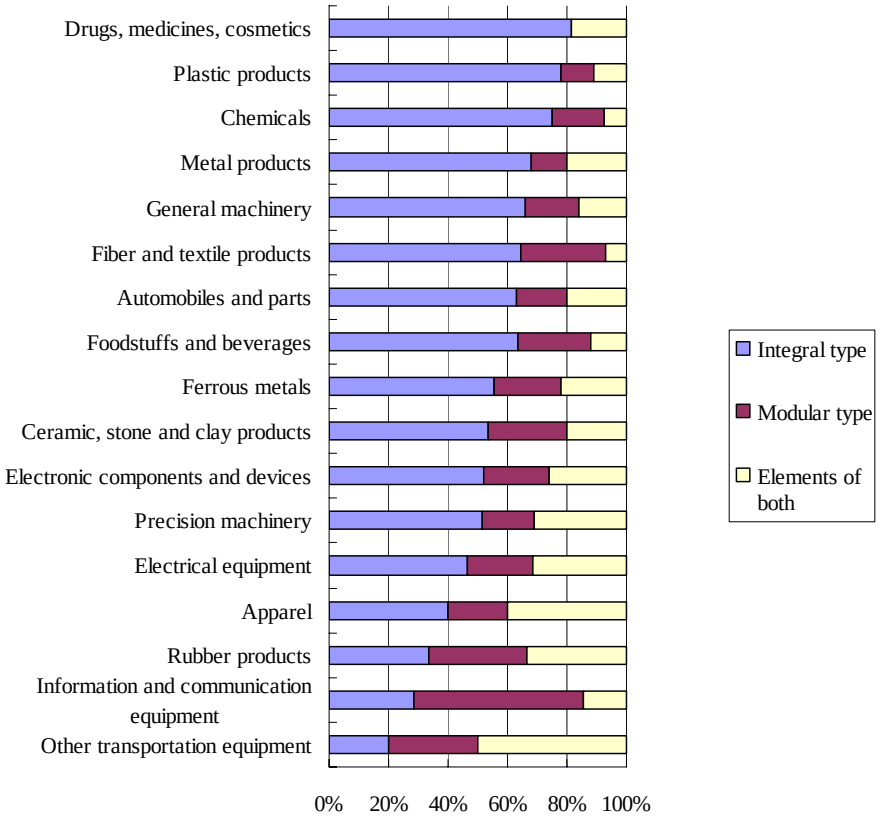
A modular type product is created in a production system where pre-designed components are brought together into a finished product. Personal computers, DVD players and so on are typical examples; standardized interfaces among components make them easy to assemble. In a DVD player, for example, LSI devices play the interface role, while the various structural components are connected by the LSI devices and are independent of other components. Because of this, such

products are typically easy to outsource.

Under this theory, additionally, product architectures may be classified under the two concepts of open and closed. An open architecture is one in which the product's structural components and interfaces have been standardized beyond any one company's specifications, while a closed architecture is any other. In short, an open architecture is accessible to those outside the company, while a closed architecture is closed to all but one company.

In the JETRO survey, many respondents in the fields of "drugs, medicines and cosmetics," "plastics," "chemicals" and so on reported the prevalence of an integral type architecture in their industries, while many in the fields of "communication equipment, electric components and devices," "rubber products" and so on reported the dominance of a modular type architecture.

Column III-1: How enterprises describe their own product architecture



Notes: 1. 467 companies responding (of which, 15 did not respond to this question).

2.The survey asked each company to select whether their own industry sector is "integral type" or "modular type" or "has elements of both."

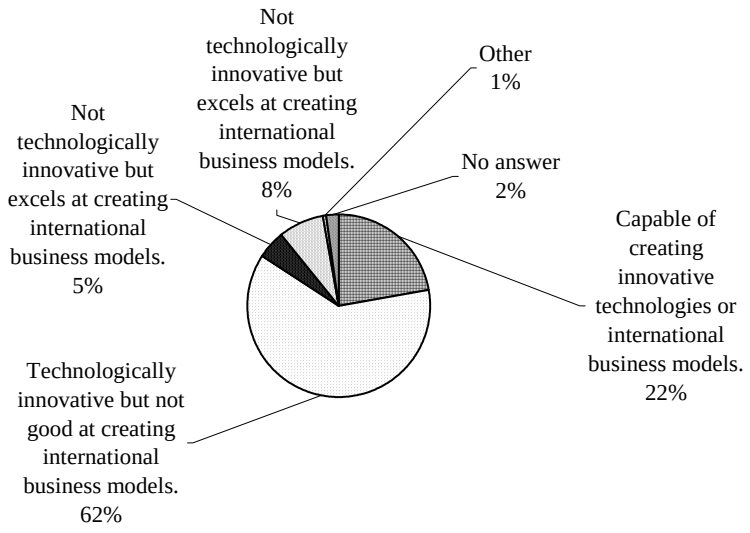
Source: Survey on Japanese Firms' International Competitiveness and Business Development, May 2007 , JETRO

Table III-1 Japan's Global Innovation Index rankings

Factors	Rank	Other upper countries/economies
Overall	1st	2nd: Switzerland, 3rd: Germany
Company spending on research and development	2nd	1st: Switzerland, 3rd: U.S.A
Availability of scientists and engineers	2nd	1st: Israel, 3rd: Finland
Utility patents	2nd	1st: U.S.A, 3rd: Taiwan
Capacity for innovation	2nd	1st: Germany, 3rd: Switzerland
Quality of scientific research institutions	5th	1st: Switzerland, 2nd: U.S.A
Government procurement of technology products	5th	1st: Singapore, 2nd: Malaysia
University/industry research collaboration	9th	1st: Switzerland, 2nd: Sweden
Protection of Intellectual property	12th	1st: Germany, 2nd: Finland

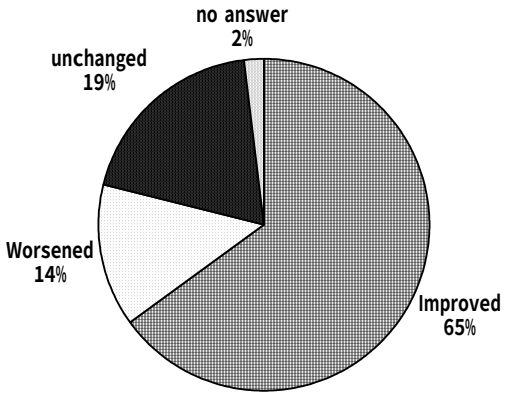
Source: The Global Competitiveness Report 2006-2007, World Economic Forum

Fig. III-1 Innovative capacity of Japanese corporations(single answer, N= 467)



Source: Survey on Japanese Firms' International Competitiveness and Business Development, May 2007 , JETRO

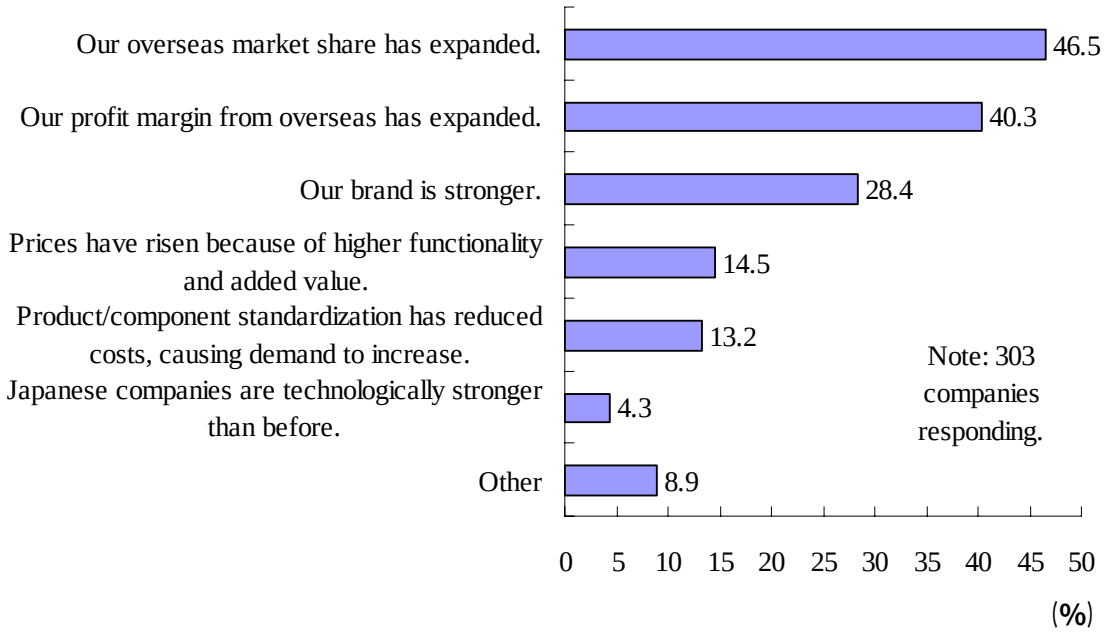
Fig. III-2 Changes in the overseas business environment, compared with five years ago (N= 467)



Source: Survey on Japanese Firms' International Competitiveness and Business Development, May 2007 , JETRO

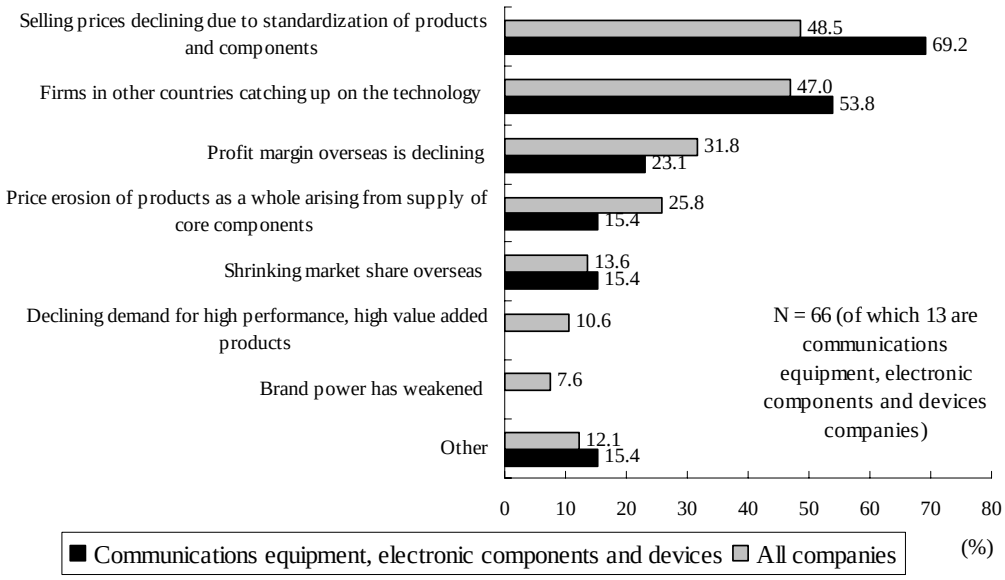
Fig. III-3 Reasons why the overseas business environment has improved or worsened

<Reason for improvement>



Source: Survey on Japanese Firms' International Competitiveness and Business Development, May 2007 , JETRO

<Reason for worsening>



Source: Survey on Japanese Firms' International Competitiveness and Business Development, May 2007 , JETRO

Table III-2 Changes in the overseas business environment, compared with five years ago (by industry, N= 467)

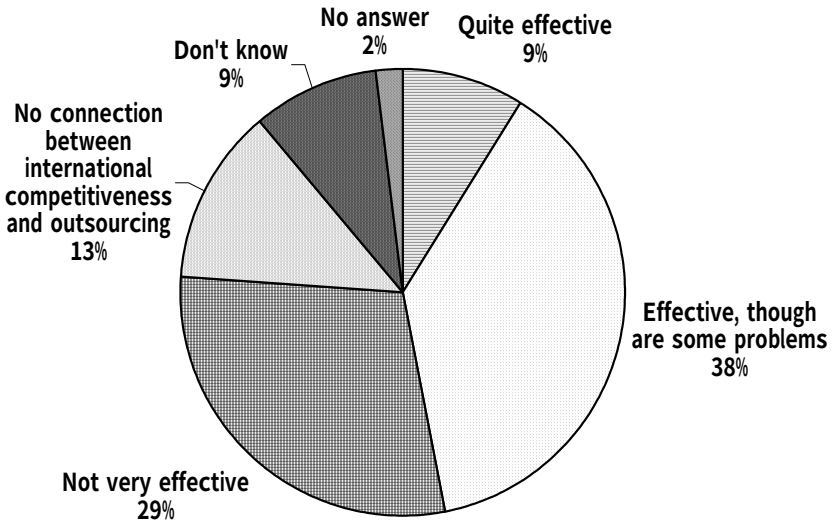
Rank	Industries reporting improvement	Industries reporting worsening	Industries reporting no change
1	General machinery (80.4%)	Communications equipment, electronic components and devices (43.3%)	Lumber, wood products, furniture, construction materials, paper, pulp (50.0%)
2	Automobiles, parts, other transport equipment (71.1%)	Textiles and textile products, apparel (21.1%)	Ceramic, stone and clay products (33.3%)
3	Textiles and textile products, apparel (68.4%)	Precision parts (20.7%)	Drugs, medicines, cosmetics (31.3%)
4	Chemicals (68.3%)	Electrical equipment (14.3%)	Petroleum and coal products, plastic and rubber products (27.6%)
5	Ferrous and nonferrous metals, metal products (66.7%)	Petroleum and coal products, plastic and rubber products (13.8%)	Electrical equipment (23.8%)

Note: The percentages in parentheses are the proportion of replies by companies in each industry.

Please refer to Fig.Ⅲ-2 for number of respondents.

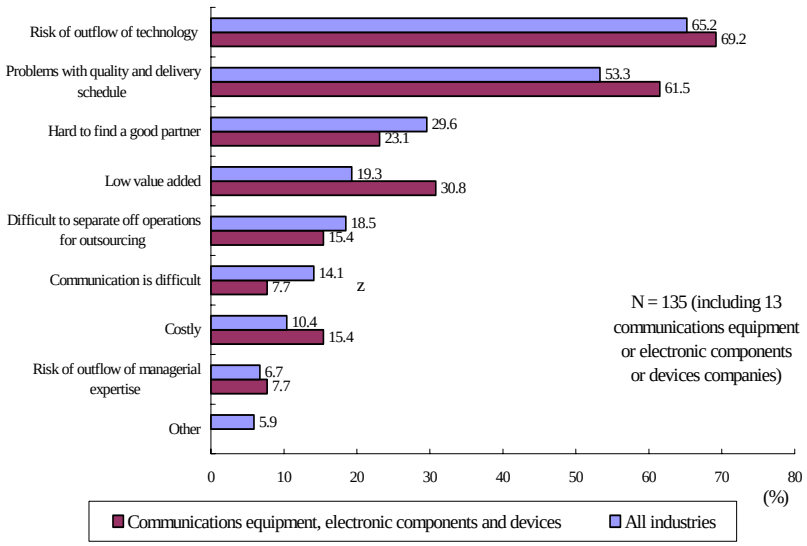
Source: Survey on Japanese Firms' International Competitiveness and Business Development, May 2007 , JETRO

Fig. III-4 Effectiveness of overseas outsourcing (SA, N= 467)



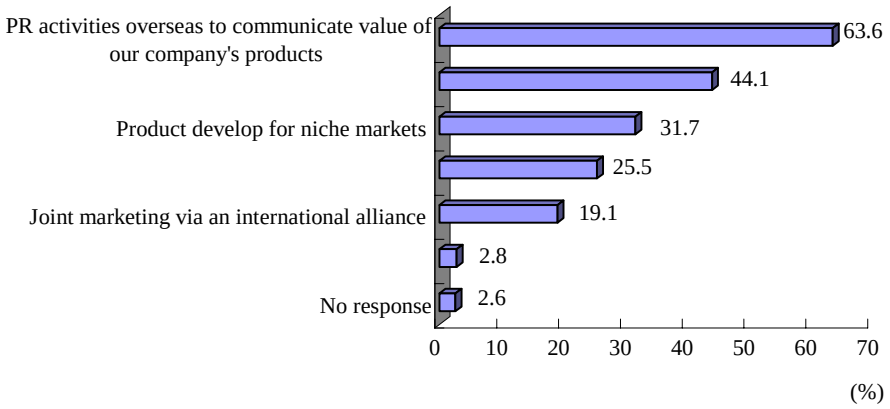
Source: Survey on Japanese Firms' International Competitiveness and Business Development, May 2007 , JETRO

Fig. III-5 Reasons for not outsourcing overseas



Source: Survey on Japanese Firms' International Competitiveness and Business Development, May 2007 , JETRO

Fig. III-6　Future strategies for expanding overseas marlket share(MA, N=467)



Source: Survey on Japanese Firms' International Competitiveness and Business Development, May 2007 , JETRO

2. The global competitiveness of Japanese industry

(1) Digital home electronics

■ Emergence of businesses in emerging countries

The digital home electronics market is expected to continue growing in 2007, spurred by flat-panel televisions such as liquid crystal and plasma display panel (PDP) televisions. According to "Nikkei Market Access," in its forecast of growth rates of annual world production of electronic devices in 2007, liquid crystal televisions will grow by 46.5% and PDP televisions by 29.5%, such that flat-panel televisions will enjoy the strongest growth of all digital home electronics. The Japan Electronics and Information Technology Industries Association (JEITA), moreover, forecasts that world demand for flat-panel televisions will grow by an average rate of 22.5% between 2006 and 2011, while DVD recorders will grow by 16.7% on average.

Japanese brands have a comparatively high share of world markets for digital home electronics. By manufacturer, in 2006, the largest share of the world market for liquid crystal televisions (production volume basis) was held by Samsung, with 15%, followed by Philips, Sharp and Sony, each with 13% (Fig. III-7). Matsushita Electric Industrial was the leader for DVD recorders in 2006, with a share estimated at 18.5%, followed by Sony with 12.7%, South Korea's LG Electronics with 11.7%, and Funai Electric with 10.3%.

Looking at the market as a whole, however, manufacturers from emerging countries, although not well recognized as brands, have gained increasing market presence in recent years. According to Nikkei Market Access's overview of annual production volume share by manufacturer in 2002, the "Other" category, which included everyone other than the major brands, accounted for merely 5.1% of the total, but in the second quarter of 2006, these manufacturers' share had grown to 30%. This primarily reflects the market entry by manufacturers from emerging countries and regions such as Taiwan and China. Most of these manufacturers have entered the market as modular type manufacturers, who procure components such as semiconductors and panels externally and then assemble them. There are also many manufacturers who have entered the market that do not even have their own factories; the U.S. home electronics manufacturer Vizio is an example of this type of completely OEM-based producer.

■ Digital home electronics market characteristics

It is said that the field of digital home electronics offers low profitability for finished products and makes it difficult for any one product to distinguish itself from others.

The low profitability of finished products is primarily because prices tend to drop precipitously. Although most analog product prices drop after a one year cycle, the prices of digital home electronics drop after a cycle of just half a year or even three months. Figure III-8, for example, illustrates price trends for liquid crystal television panels (inter-business transactions), indicating that

prices have dropped year by year.

The number one reason for price declines is that digital home electronics tend to become commoditized. Because of worldwide oversupply and the advancement of information networks, technologies and components become standardized more quickly than in the past. Digital home electronics can be simply manufactured by procuring the parts externally and assembling them to create a product with a certain level of performance. Therefore, once intermediate products and modular components make it to the market, even companies that do not have the fundamental technology can enter the market. Any company can develop a new product simply by modifying the assembly of modules, so it is easier for manufacturers from emerging countries, since they can assemble modules at low-cost, to get into the market.

Second, companies such as general home electronics manufacturers who handle digital home electronics find it difficult to influence market prices. The sales structure of the market is such that companies do not have affiliated dealers, but rather the volume stores and other retailers determine the sales price. Once retailers start competing with each other to set the lowest price, it becomes very difficult to bring the price back up. This is particularly true of the U.S. market, where volume retailers have so much influence and the price competition is so severe. For that reason, maintaining brand influence and developing a relationship of trust with local retailers both affect pricing strategies.

Because so many of their functions tend to be concentrated in the semiconductors, which are their core technology, it is difficult for digital home appliances to make themselves distinctly different from each other. Even if the producer goes to great expense to add many functions, the basic functions are evolving day by day, making it all the more difficult for customers to recognize value. As the digital home electronics technologies and markets mature, the more the market will be subject to price and brand influence competition.

■ Responding to modular type products

Most Japanese manufacturers, who specialize in products with high function and high added value, find that competing with modular type products is one of their biggest challenges. In the early 2000s, when the market for liquid crystal televisions started to expand, the Japanese manufacturers who were driving this field owned more than half of the market share (Sharp had 60% of the world market share in 2002, Matsushita 8%, Sony 5% and so on), but as products became more commoditized, non-Japanese manufacturers gained market share. Worldwide demand has been increasing, so it is not as if Japan’s leading manufacturers have seen their world sales or profit margins deteriorate, but their shares of the world market have certainly declined.

In response to these circumstances, many Japanese manufacturers have tried first of all to keep companies from other countries from catching up by creating a technology lead time. Although

commoditized goods have low profit margins but sell in high volume and thus are very economic, high-performance, high-added-value products need only sell in small volumes for the manufacturer to maintain profitability, until such time as the competition catches up technologically.

Second, manufacturers such as Sharp and Matsushita use the technique of simultaneous worldwide product launches. This is a marketing technique that causes sales to be higher than usual, directly after the launch, when product value is highest, by selling the product at essentially the same time around the world. To do this, companies are finding ways to reduce the time spent in transportation. In the past, manufacturers who produce liquid crystal panels in-house would have manufactured their products up to the point of the liquid crystal modules, then would use inexpensive marine transportation and the final product would be assembled at overseas factories. Marine transportation, however, could take weeks or even more than a month to ship a product to its overseas destination, leaving the product open to the risk of price declines in the meantime. For that reason, liquid crystal panels are now produced up to the point of forming the glass component consisting of thin transistors, then are shipped in a state more compact than modules, enabling them to travel by air and shortening transportation time.

Third, manufacturers are increasingly compensating for the price drops of flat-panel televisions by creating entire lineups of peripheral equipment (such as DVD recorders, PCs and digital cameras), thus helping to keep up purchase prices. Although this offers little profitability for individual products, it can increase sales as consumers buy bundles of products. It also gives customers motivation for repeat purchases of that company's products the next time they make a purchase.

■ A business model with a double-sided strategy

The previously described strategies are characteristic of high-end markets, and they are primarily used in developed countries such as Japan, the U.S., and Europe, but in view of future growth expectations, a strategy for expanding markets in such places as emerging countries is essential.

Because digital home electronics are generally not widely diffused in new markets such as the BRICs (Brazil, Russia, India and China), companies have an opportunity to expand their share as markets switch from analog to digital products. However, if the technology from non-Japanese manufacturers ends up satisfying the demand of consumers in these countries, the vertically integrated Japanese manufacturers will need to seriously consider how far to go in the pursuit of high functionality and high added value and whether they should be manufacturing under the principle of self-sufficiency. Put another way, it seems necessary for these companies to take a more active role in the market for general-use products in order to advance their businesses while assimilating the positive cycle of growth in emerging countries skillfully into their own growth strategies. However, if the principle of self-sufficiency is used when developing and producing integral type commoditized goods and this creates obstacles to the proper allocation of management resources,

active outsourcing and alliances with competitors should be considered. When forming alliances, moreover, businesses should be careful to ensure royalty income. If a Japanese company could ensure things are arranged so that it receives royalty income even as competitors' sales increase and its own share falls, it can increase revenue and cover the cost of new R&D.

Also, in order to maintain and spread Japanese brands, it is necessary for a company not only to build distribution and sales networks for their products but also a system that addresses corporate social responsibility (CSR) and after-sales service.

Accordingly, it is important that Japanese companies follow a two-sided strategy, catering to the high-end market as in the past by taking full advantage of Japan's integral type technology and working to secure lead time, while also serving the market for general-use products by actively engaging in outsourcing and working within alliances. These companies need to put such a business model into effect and simultaneously work on building their overseas marketing. The "Survey on Japanese Firms' International Competitiveness and Business Development, " conducted by JETRO between March and May 2007, found that only 4.7% of the 467 companies responding replied that their "overseas marketing skill" was a source of their international competitiveness (Fig. III-9). In other words, the more effort companies put into overseas marketing, the more they can expect their businesses to prosper.

Column III-2

☉ Different price ranges in Japan and the U.S.

A significant gap exists between price ranges of high-tech products in Japan and the U.S. At volume retailers in the U.S. such as Best Buy or Circuit City, the most common price range of laptop computers handled, for example, is $1,000 or below (basic models), whereas the price range handled the most by Japanese stores Yamada Denki and Yodobashi Camera is $1,500 (¥180,000) or more (high function models) (based on local studies of April 2007).

The models of flat-panel televisions handled in Japan and the U.S. are also very different.
Best Buy sells many televisions below $1,500, whereas Yamada Denki makes most of its sales in high-end models at $4,000 (¥480,000) or higher, indicating completely opposite trends in the two markets.

Although even products at the high end of the price range sell well in the Japanese market, to sell in the American market, products must at the very least be inexpensive and feel like a good buy to consumers.

Column III-2: Selling prices of large－screen TVs in Japan and the U.S.A. (40－49 inch; April, 2007)

U.S.A.	$1,499 or less	$1,500-1,999	$2,000-2,699	$2,700-3,299	$3,300-3,999	$4,000 or more
Best Buy	13 models	10 models	9 models	4 models	0 models	0 models
Japan	¥179,999 or less	¥180,000~ 239,999	¥240,000~ 323,999	¥324,000~ 395,999	¥396,000~ 479,999	¥480,000 or more
Yamada Denki	0 models	0 models	2 models	13 models	4 models	19 models

Note: The table covers LCD and plasma televisions.

Source: Each company`s website.

(2) Semiconductors

Most of the Japanese semiconductor businesses that started out as divisions of general home electronics manufacturers are oriented toward a vertically integrated business model, in which everything from development to production takes place in-house. In the 1980s, these companies led the world market in production, particularly in DRAM products. Today, they have a solid reputation in application-specific semiconductors (ASIC) and custom semiconductors. The major applications of these semiconductors are in digital home electronics, mobile telephones, automobiles, and so on.

■ Loss of share in world market

Since the Japanese semiconductor industry lost the lead to Intel in 1991, its share of sales in international markets has slowly declined, so that by 2006 only two Japanese companies ranked in the top 10 for sales: Toshiba and Renesas Technology (Table III-3).

Considering that in the middle of the 1980s, six of the top 10 semiconductor manufacturers were Japanese (NEC, Toshiba, Hitachi, Fujitsu, Matsushita Electric, Mitsubishi Electric), Japan’s presence has relatively declined in this area.

On the other hand, looking at average operating profit margins for the past five years, although Japan’s semiconductor manufacturers cannot rival the industry benchmarks Intel (23.6%) and Samsung (29.5%), No. 4 Toshiba has achieved a double-digit operating profit margin.

■ Japan: a latecomer to modularization

The first reason that the presence of Japanese semiconductor manufacturers has declined is because they have clung to high-function, high-added-value integral type products even as the industry has moved toward modularization, which allows producers to create inexpensive general-use products.

Modularization in the semiconductor industry refers to a product architecture incorporating combination processes (systems) in the various development and production processes. In other words, not only are design and software embedding processes combined; technology and know-how are embedded even within production systems. All the producer needs to do is to purchase such systems to be able to make products more or less of the desired specifications, even if the producer does not have any particular integrating technology.

Semiconductor manufacturers in the U.S., South Korea and Taiwan have actively pursued this trend to modularization. In part because Japanese companies have been oriented toward high-added-value products, they have been passive towards the modularization trend, and as a result they have allowed South Korea and Taiwan to gain share and the U.S. to recover its share.

A second reason is related to the modularization trend: the fact that in semiconductor development and production, processes are being spun off. The great example of this is the sharing of processes between fabless companies in the Silicon Valley in the U.S. (i.e., semiconductor manufacturers without factories) and Taiwanese foundries (production contractors). This arrangement allows each side to specialize in its strengths and to run its business more efficiently. As a result, it is possible to enter the industry without the need for massive capital investment, a characteristic which has allowed fabless world companies like QUALCOMM and Broadcom to emerge.

Third, since most of Japan’s semiconductor manufacturers have put their main effort into meeting demand from their parent companies (general home electronics manufacturers), they have not become industry platform leaders and have not had many products that could affect pricing on the world market. Many of the top manufacturers in the world have actively pursued standardization, establishing industry standards for such items as microprocessors (Intel), DRAM (Samsung Electronics) and DSP (Texas Instruments) and thereby assuring high profitability.

In contrast, many Japanese semiconductor manufacturers have put their energy into system LSI technology, which is believed to require about as much capital investment and R&D cost as microprocessors and general DRAM, but which is mostly suitable for small-lot custom products for particular customers, making it difficult to achieve economies of scale.

Thus it is not the case that Japanese semiconductor manufacturers have lost share on the international market because their technology is declining, but rather differences in business structure and management policies have had the major impact. It is difficult to directly compare technical strength against any benchmark (in part because of the strict practice of information control at each company) and there have been few examples of research in which the international

competitiveness of company technologies in the semiconductor industry have been discussed.

However, Japanese semiconductor manufacturers in general apply a high level of elemental technology and create high-quality products, but they have been late to respond with product lineups that meet the needs of emerging markets, where demand is increasing, or in the U.S. market, where prices have been declining.

■ Generating a profit in the market for general-use products

At Japan's IDMs (vertically integrated device manufacturers), a business model has been adopted such that, after the depreciation of highly advanced factories built for custom items and system LSI technology that required a high degree of integration technology, the same production line could be used to produce a high volume of general-use products to generate a profit. The reason is because in the semiconductor industry, the chips are getting smaller and smaller with the passing years, so that one needs to make very large capital investments (about ¥100 billion) and as such, each company is trying to recover its development investment and expand profits by reusing the assets earned by the development of leading edge products.

The problem is how the relative weight is placed in such a portfolio; the part of the portfolio for leading edge products is very important in terms of the level of technical development, but if too much emphasis is placed here, it is difficult to benefit from economies of scale because these are small-lot custom products, making this a management structure in which it is difficult to generate a profit overall.

Ideally, Japanese manufacturers would find a way to sell to the market the products they have manufactured with their strong internal integration capacity, which others cannot copy, as de facto standards (as Intel and AMD have done), and they would also be able to incorporate the integral type technologies they have developed into general-use products to set themselves apart from businesses that have focused on modular type technology. As a specific example, a business could apply ASIC-derived technology to ASSP (system LSI technology for non-specific products).

It is additionally important for companies to make the noncompetitive portions of their businesses more efficient, for example by jointly developing with other companies the embedded software platforms (embedded operating systems and middleware) for system LSI technology that each company currently develops individually, and by seeking industry standardization.

■ A double-sided strategy: high-end products and general-use products

In the future, semiconductor applications expected to face growing demand include high performance microcomputers and systems on chip (SoCs) for high-end digital home electronics (organic EL TVs and other next-generation flat-panel TVs, next-generation DVD players and recorders, single lens reflex digital cameras, etc.) as well as automobiles, industrial equipment,

medical devices and robots. Also anticipated are applications in products with integrated functions such as recent 1seg mobile telephones.

The growing application of electronics in automobiles in particular in recent years has given a lift to the microcomputer industry. High precision electronic control units are now required for new types of engine drive systems, most typically in hybrid cars, so that demand has risen for fast 32-bit microprocessors and the SoCs internal to them. This market for automobile microcomputers is one that can make full use of the strengths of Japanese companies. This is because automobile microcomputers are vital to protecting human safety, so that customers and consumers want to feel they can depend on these products. This field can truly use the business model of a Japanese IDM, which takes responsibility for the product all the way from design to production.

Thus Japan's semiconductor manufacturers need to have a double-sided strategy in which they work to expand the market for high-end products, which take advantage of the vertically integrated form of these companies, in balance with developing the market for general-use products, for which the company, as described previously, can exert some influence over pricing.

Column III-3

☉ Japan's metal processing technology: supporting world innovation

Thanks to its imaginatively designed products and international business model, the U.S. company Apple has earned a solid reputation as an extremely innovative company. As its rival Microsoft became a major player, however, Apple reached a crisis point in the mid-1990s. It based its comeback strategy on a dedication to product design and was reborn as an innovative company offering new digital lifestyles to consumers.

Apple's business model was that of a fabless company, not having a factory of its own, and so it found itself needing to find a partner that could bring Apple's vision to life. Since the typical user cannot distinguish the different brands of components that go into a computer, the external appearance became all-important. At the time, laptop computers were thick and difficult to carry. Apple decided to base its design on the thickness of one inch initially and then centered its development around finding a way to assemble components to achieve that goal. Still, internal components such as motherboards and batteries as well as the liquid crystal monitor were limited in how thin they could be made, so ultimately the issue became how to make the external components thinner while protecting the design characteristics. Apple's achievement of this goal seemed out of reach, however, after it searched the world for a metal processor with the capacity to bring out such a design but was unable to find one.

While one of Apple's designers working with this project was making an occasional visit to Europe, he found a camera by Leica and discovered that the case was made with titanium. Realizing that if titanium could be used in a camera, it could also be used in a computer, he began a search for

the company that produced the camera case. He ultimately tracked down a company in Tsubame City, Niigata Prefecture, better known for its western tableware. Since then, the company has regularly undertaken R&D and manufacturing of exterior components for new Apple products including the iPod and iPhone.

The president of the company in Tsubame describes his business's strength as the ability to integrate base technology with customer specifications, along with the company's persistence in product development.

The T company manufactures these external components under contract from Apple.

While it is willing to manufacture the entire run on its own during the period of new product development, once the market grows to a certain size, it finds it prudent to outsource its production to competitors in China or elsewhere. This is because as the scale of the company grows to meet demand, the capital investment is burdensome and the risk increases, and in addition it does not wish to bear responsibility alone for supplying a world company like Apple. In other words, its objective is not merely to survive on low margins and high volume, but rather to make itself more competitive by using its technical development as its strong suit at the appropriate scale and taking advantage of the company's strength in integration.

(3) Automobiles and parts

■ Japan: Strong at integral type products

In order to survive intense competition from European, U.S. and South Korean companies, Japanese auto manufacturers have assembled cars with very precisely integrated components. In the development process, which is where the design of the automobile begins, and in the manufacturing process based on this, Japanese companies are vertically integrated, such that most of these processes take place in-house. An advantage of vertical integration is that, by controlling the various processes, one can easily maintain a high degree of functionality and quality assurance over the automobiles.

To give an example, enhancing the handling of an automobile requires integrating components, not only those of the steering but also of the body, suspension, brakes and tires. Japanese automobile and parts manufacturers are well-known for their integral type architecture, which allows them to achieve an optimal balance of functions and parts. This is a very important reason why they are so competitive internationally.

Actually, research by Professor Fujimoto et al of the University of Tokyo2 suggests that Japanese companies have a smaller number of developmental processes for automobiles and spend less time in development as compared to their international counterparts in Europe and the U.S. By both measures, the gap shrank between Japan and its counterparts in the U.S. and Europe in the first half of the 90s, but the gap began to widen again in the latter half of that decade. On top of that, Japanese

companies keep far fewer project members than their counterparts, indicating high efficiency.

One explanation for this discrepancy could be that project managers play a greater role in Japanese companies, efficiently carrying out the integration function when the 20,000 to 30,000 components are assembled. An additional reason for efficient production is that Japanese companies start developing and designing their components with integration in mind from the earliest stages. In other words, the level of efficiency is so high because problems are predicted from the beginning of development rather than adjusted for afterwards.

During development and production processes, the manufacturer of the finished vehicle is not alone as it practices integration: parts manufacturers are also involved. In the U.S. and Europe, an auto manufacturer simply tells the parts maker what design to use (referred to as the "auto manufacturer-design system"). Japanese auto manufacturers, in contrast, give parts manufacturers a general idea of the overall vehicle but often choose to let the parts manufacturer take charge of actual parts design (the "parts manufacturer-design system"). More recently, however, the predominant trend among Japanese automakers is to start coordinating at an earlier stage than in the past to raise the level of development productivity. The industry is transitioning from a "design-in" principle, or engaging parts manufacturers starting with the design stage, to "concept-in," getting them involved even earlier. This attempt to streamline development processes and development time, coupled with an integral type production system, helps Japanese manufacturers continuously enhance their competitiveness.

■ Different approaches to modularization

When Japanese auto manufacturers develop parts with parts manufacturers and procure from them, they are practicing a type of outsourcing, but rather than just handing the whole process over, the two sides work together and practice constant communication. In other words, the auto manufacturers embrace a development system that reaches beyond company boundaries, as if the parts manufacturer were a division of the auto manufacturer. As an outgrowth of this, auto manufacturers have begun directing parts manufacturers to develop units, or assemblies of components, in order to reduce costs and processes.

In contrast, in the U.S. and European manufacturers are asking their suppliers not just for assemblies of a limited number of components, but even large modularized units that completely integrate components, such as instrument panels (including the speedometer, other instruments and air-conditioning vents). Near a factory, there may be sub-lines where doors, front ends or other modules are put together, and these are then brought by truck or conveyor belt to a production line for assembly. In recent years, some parts makers have started to undertake nearly every auto production process, which is modularization to its extreme. The reason this trend has taken hold in the U.S. and Europe is because the markets in those regions have matured while demand in emerging

countries is expanding, forcing manufacturers to become more cost competitive. This trend brings in modular type production, in which various components are gathered and pieced together like Lego blocks, in place of the integral type manufacturing traditional to the auto industry.

Modularization has several advantages: it makes assembly less labor intensive, cuts costs because fewer suppliers are used, makes just-in-time parts procurement easier, makes development and design less of a burden for manufacturers, and so on.

The reasons that Japanese auto manufacturers have not actively endorsed modularization until now may be because they already had a fairly advanced practice of procuring assembled units, because modularization would make them more dependent on parts manufacturers in terms of quality maintenance control and technical development, and because the cost savings would be smaller than those afforded in the U.S. and Europe owing to the wage differential. It would appear, therefore, that Japanese manufacturers chose to counter the practice of modularization by their U.S. and European counterparts by further strengthening the integral type elements of their own production systems, engaging components' manufacturers under the "concept-in" principle.

This does not mean, however, that Japanese companies are ignoring the modularization trend. In the "Survey on Japanese Firms' International Competitiveness and Business Development," of the 35 companies responding from the automobile and parts industry, 18 companies, or just over half, said that they were expanding the use of modularization. Although there was a divide between Japanese companies who are proactive about modularization and those passive about it, modularization is on the increase, with doors, front ends, instrument panels and even platforms already being shared, so there is no question that the industry will continue to move in this direction. Whereas U.S. and European auto manufacturers are pursuing open modularization, which makes them increasingly dependent on a number of parts manufacturers, Japanese auto manufacturers appear more inclined to avoid black boxes by pursuing closed modularization, a form that preserves their current pyramid-type keiretsu system, which is close to a vertically integrated structure.

■ The impact of electronic technology on competitiveness

Electronic technology has rapidly grown in the auto industry in recent years with the advance of information technology, hybrid cars and so on. A high-end car may contain 100 electronic control units (ECUs), and the wiring harnesses that connect devices in the car may be more than 100 km in length (Fig. III-10). ECUs consist of multiple units such as those for engine control, brake control, steering control and multimedia control, necessitating a great number of software programs. Research on the integration of the different software programs is being undertaken.

To do this, ECU software must be standardized. As things stand now, however, each business is developing its own ECU software, and using another company's software programs can sometimes create problems, such as cars being unable to work. Thus, if the automobile industry were to work

together to standardize their software, it would make it easier to cut costs and development times.

As an example of ECU standardization, automakers in Europe and Japan are working together to standardize automobile LANs, the communications networks that connect the ECUs. By so doing, they can potentially decrease the number and weight of wiring harnesses. Additional research is being undertaken to standardize the ECU software platform, which, if used as an interface, would make it easier to integrate application software from other companies, and this would in turn allow a number of ECUs to integrate, helping to reduce the number of required LSI devices and development costs.

These joint projects represent a shift from the vertically integrated (closed) development internal to individual companies in favor of horizontally integrated (open) development that engages outside parties. If the only joint development that a company engages in is with its own partners, it may be able to produce more closed products, but if ECU software platforms could be standardized, auto manufacturers would be able to create ECU products from electronic components and application software sourced from Japan and abroad, much as the case with DVD players and PCs. This could allow not only doors and instrument panels but also ECUs themselves to be modularized, which may diminish one source of competitiveness of the Japanese auto industry; its strong integral type manufacturing.

Consumers, however, will continue to think highly of the feel and ride of automobiles manufactured under the integral type model, and they will pay a corresponding premium. Drivers do not always like open modular automobiles assembled under a standardized system. Even with the standardization of ECU software platforms, manufacturers will be able to develop products by integrating individual application software programs with each other and thereby distinguishing their products from others.

In the development of ECU embedded software, links can be made between the various processes such as design, analysis, mounting and testing, or the mechanical and electrical specialists can work together, thereby creating integral type products even with ECUs, much as is done with skilled manufacturing. Moreover, in the development of automobile LANS and software platforms for ECUs, standardization of ECU software, grounded in Japan’s technological foundation, should result in international predominance.

In sum, the likely future international business model for Japan’s automobile industry would appear to be one with a two-sided strategy: a side that deals adequately with the open modular assembly system created by modularization and the increasing use of electronics, and a side that holds to and furthers the traditional closed integral type development and production system. At the same time, the industry will need a product strategy to meet the strong need for cost performance among the middle income class in emerging countries.

(4) Finance

■ The pursuit of high profitability

Although Japan's major banks are starting to recover profitability, the return on equity (ROE) for Japanese banks is stuck at more or less 15%, lower than the 20%-30% of European and U.S. banks, which have actively dealt with the globalization of the economy. This is not only because the European and U.S. banks have proven the strength of their investment banking services (that is, the procurement of funds from securities markets by issuing stocks and bonds, intermediation in corporate mergers and acquisitions (M&A) and the advice they give on financing and capital strategy), but also because they have earned stable revenues in their retail services (individual savings, foreign currency savings, home loans, credit cards, pension insurance, investment trust and so on). Japanese banks have a more difficult time in retail services because their profit margin on loans is lower than that of European and U.S. banks. While Japanese banks earn a profit margin of about 1.5%, North American banks earn profit margins of between 4 and 5%. In addition, the loan-to-savings ratio (the amount of money lent divided by the amount of savings) is more than 100% at banks in the UK, Germany and France, but the rate is declining in Japan and is now below 80%. Loans from Japanese banks to companies are stagnating. Those to the high-profit manufacturing industries in particular are on a declining trend. Up to now, company financing has been a major part of profitability at Japanese banks. At a time when financing for both individuals and companies is stagnant, savings are being used in such instruments as low-yield national bonds.

Low interest and stagnating profit margins continue to hamper Japan's financial industry, and there is little in the environment to suggest that the interest rate situation will rapidly improve for Japanese banks. Accordingly, Japan's financial institutions must work to build profitability with non-interest income, which yields relatively low results compared to those in Europe and the U.S. Non-interest income includes fees on savings, investment trusts, pension insurance, home loans, credit card services and so on.

There is already an increasing trend among Japanese financial institutions of expanding sales in home loans and investment trusts as well as pension insurance to individuals, and the credit card market can be fostered by raising credit card settlement rates and loan rates. It is also possible for banks to expand services to companies such as syndicate loans (i.e., a loan in which multiple financial institutions work together to provide financing under identical conditions) and working thereby to increase revenue from fees.

■ Dealing with globalization

As Japanese financial institutions face severe competition at home, they are reviewing their business strategies. One trend is to globalize. According to the Bank for International Settlement (BIS), at the end of 1990, reporting banks from Japan had an international position (i.e., the total of

foreign assets and foreign denominated domestic assets) equivalent to a 34% share of the world total, but this had declined drastically to just 8% by the end of March 2006. In contrast, in Germany the rate has risen from less than 10% to 16%.

As world demand for funds has grown, particularly in emerging economies, European and U.S. banks have aggressively globalized. Japan, on the other hand, has prioritized the disposition of bad loans since the end of the bubble era, so that in the meantime it has fallen behind Europe and the U.S. in terms of globalization. The international divisions of Japan's major financial institutions have contributed on average only between 10 and 20% of those institutions' overall profits. Overseas profit rates for European and U.S. banks, however, have already reached about 70% for Deutsche Bank and more than 50% for Citigroup of the U.S.; several other banks derive nearly half their profits from this area. Particularly noteworthy is the fact that such European and U.S. banks earn about 10% of their income from the Asia-Pacific region. Also, according to the BIS, at the end of 2006, just 5% of the loan balance of Japanese banks to foreign countries went to the Asia-Pacific region, lower even than the 13% for U.S. banks (Fig. III-4).

The way in which European and U.S. financial institutions approach globalization can be classified into several styles: the Citibank pattern of globalization that offers a full line of services to all customers around the world; a form of globalization focusing on investment banking services such as M&A support and derivatives; and globalization that targets emerging countries and the U.S. market even as it strengthens the domestic foundation of the financial institution. Considering the fact that Japan's manufacturing industry has actively developed its business in emerging markets, especially in Asia, it would appear that for Japan's financial institutions, the most realistic choice is a global strategy that focuses on the third item above: emerging countries and the U.S. market.

As Europe's financial institutions have globalized, their strategy has actively focused on M&As. Because this strategy has paid off, these institutions have been able to hire local talent and enhance their sales systems and auditing functions, among others, in a short amount of time. M&As would also appear to be very effective in efforts to globalize Japan's financial institutions, who might also benefit from simultaneously securing licenses in the U.S. to act as financial holding companies (FHCs), establishing a network of branch offices overseas and expanding their networks through alliances with local financial institutions.

One factor to be aware of if using this strategy is that Japan's affiliated companies in Asia are procuring more of their funding from within their own groups to reduce capital procurement costs, meaning that they are less dependent on Japan's financial institutions. The financial institutions will have to build advantageous funding procurement systems in order to deal with this, and will also need to enhance services providing information relevant to the local area.

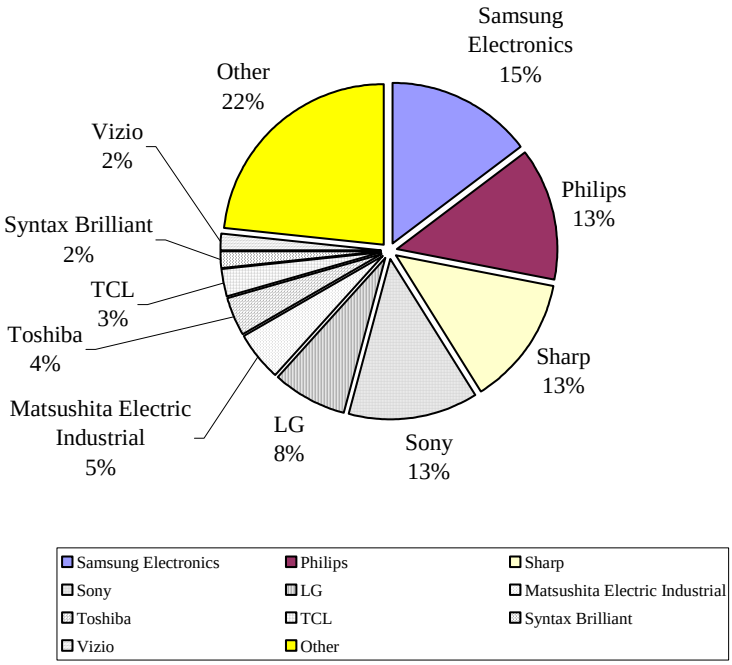
In their expansion of business overseas, Japanese banks have in some cases recently been ranked among the leaders in project financing (a funding procurement mechanism used for resource

development, the construction of large plants and so on) and in leveraged buyouts in Asia. This would appear to be proof of the efforts Japanese banks have made up to now. For these institutions to master the investment banking business in global markets, however, they will need several things: the capacity to build and assess systems in the field of M&As, syndicate loans, equity finance (the procurement of funds from capital markets by issuing securities) and others; the ability to network with world companies and major financial institutions; and the ability to form personal relationships. Serving as an advisor in project financing and syndicate loans and playing the role of executive coordinator are examples of a solutions service, and will require exercising integral type functions. A high level of management capacity and authority, such as that invested in a project manager when developing an automobile, is necessary in order to carry out the function of coordinating diverse elements.

Making the financing industry more globally competitive requires a strong "open" business model that engages numerous customers and companies at home and abroad at the retail and other levels and demands the continued expansion of markets in investment banking services, such as project financing and leveraged buyouts. This necessitates the overseas development and hiring of persons with international management skills and access to financial networks and the provision of support systems in Japan for these personnel.

2 "Seihin kaihatsu no soshiki noryoku–Nihon jidousha kigyo no kokusai kyosoryoku–"(Organizational Strength for Product Development: The International Competitiveness of Japan's Automobile Industry;) Kentaro Nobeoka (Kobe University), Takahiro Fujimoto (University of Tokyo); University of Tokyo Manufacturing Management Research Center, January 2004.

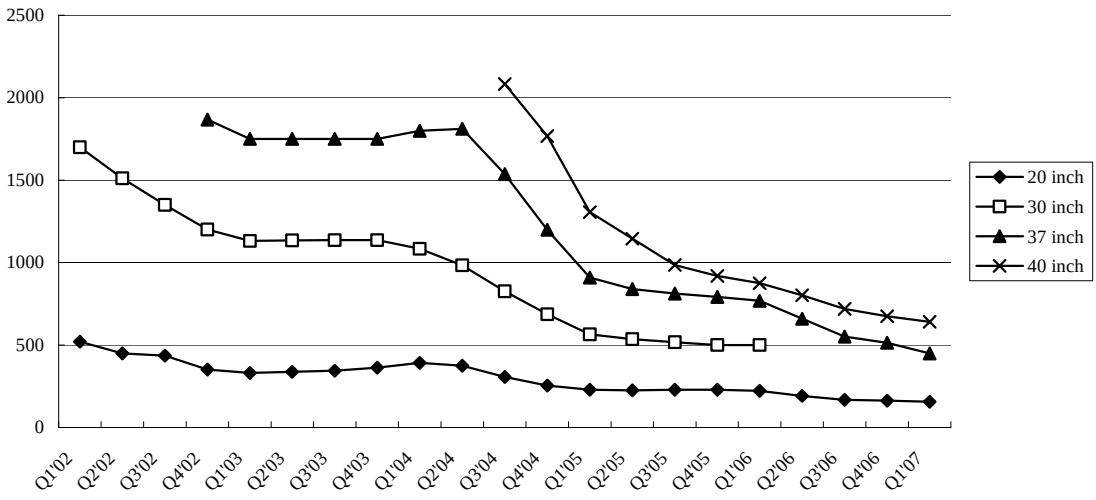
Fig.III-7　2006 global LCD TV market share by manufacturer (unit base)



Note: The 2002 global market shares were Sharp, 60%, Matsushita 8%, Sony 5%. (Nikkei Market Research survey).

Source: iSuppli

Fig. III-8　Prices of panels for LCD TVs



Source: DisplaySearch

Fig. III-9 What companies see as sources of their international competitiveness (Multiple answers)

Note: The number of firms answered is 467.

Source: Survey on Japanese Firms' International Competitiveness and Business Development, May 2007 , JETRO

Table III-3 Rankings of semiconductor manufacturers by sales

(unit: US$ 1Million, %)

Rank	Company(country)	Sales	Growth rate from 2005	Sales share	Average operating income 2002-2006
1	Intel(U.S.A.)	31,542	△11.1	12.1	23.6
2	Samsung Electronics(ROK)	19,842	12.0	7.6	29.5
3	Texas Instruments(U.S.A.)	12,600	17.3	4.8	17.1
4	Toshiba(Japan)	10,141	11.7	3.9	10.6
5	STMicroelectronics(France-Italy)	9,854	11.0	3.8	6.3
6	Renesas technology(Japan)	7,900	△2.6	3.0	n.a.
7	Hynix(ROK)	7,865	41.5	3.0	8.5
8	AMD(U.S.A.)	7,506	91.6	2.9	△8.9
9	Freescale Semiconductor(U.S.A.)	5,988	7.0	2.3	△11.7
10	NXP(Netherlands)	5,874	4.0	2.3	△12.9
11	NEC Electronics(Japan)	5,679	△0.5	2.2	1.4
12	Qimonda(Germany)	5,413	0.0	2.1	△5.1
13	Micron technology(U.S.A.)	5,210	9.1	2.0	△12.3
14	Infineon Technologies(Germany)	5,119	△38.3	2.0	△5.6
15	Sony(Japan)	4,852	6.1	1.9	n.a.
16	Qualcomm(U.S.A.)	4,529	31.0	1.7	38.2
17	Matsushita Electric(Japan)	4,022	△2.6	1.5	n.a.
18	Broadcom(U.S.A.)	3,668	37.3	1.4	△53.3
19	Elpida Memory(Japan)	3,527	98.6	1.4	△14.2
20	Sharp Electronics(Japan)	3,341	2.3	1.3	n.a.

Source: Each company’s website

Fig. III-10 Complex in-vehicle electronic control unit(ECU)

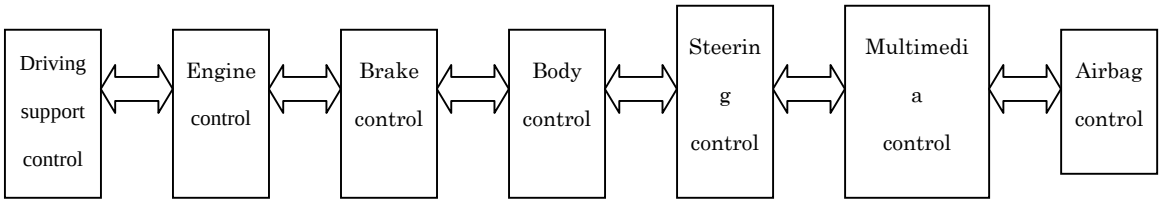


Table III-4 Consolidated foreign claims on individual countries by nationality of reporting banks / Amounts outstanding

(End-December 2006, Unit: US$ billion, %)

	Japan		United Stated		Europe	
		share		share		share
Developed countries	1,383	74.6	813	60.9	15,143	81.5
Japan	-	-	65	4.9	498	2.7
United States	676	36.5	-	-	4,605	24.8
Canada, Australia and NZ	77	4.2	99	7.4	512	2.8
Europe	630	34	649	48.7	9,528	51.3
Developing countries	135	7.3	393	29.5	2,225	12.0
Asia & Pacific	93	5.0	174	13.0	519	2.8
Europe	16	0.9	45	3.4	914	4.9
Latin America/Caribbean	15	0.8	145	10.9	498	2.7
Africa & Middle East	12	0.6	29	2.2	294	1.6
Offshore centers	336	18.1	128	9.6	1,167	6.3
Int. Organizations	0	0	0	0	41	0.2
Others	0	0	0	0	7	0
All countries	1,854	100.0	1,334	100.0	18,583	100.0

Source: BIS Quarterly Review, June 2007

3. Issues with the service industries' activities in emerging markets

As Chapter 1 mentioned, Japan's service industries have been slower than the manufacturing industries to develop overseas; one reason for this is that compared to the U.S. and other countries, many service businesses operate on a small scale, so they do not have the management systems in place to develop overseas in the first place. Moreover, because of the lateness of their efforts to franchise and modularize, productivity has stayed at a very low level, so that the Japanese service industries appear weaker in terms of international competitiveness.

An international comparison of productivity in the manufacturing industries (other than electrical equipment) and service industries on a macro basis shows Japan's manufacturing industries contributing a decreasing share to the overall economy, but productivity is growing at an improving rate and is very close to the level of the leading developed countries. In contrast, the service industries are greatly increasing their contribution to the overall economy, as is the case in the leading developed countries, but productivity has dropped markedly, which is different from the U.S. and UK, whose economies are increasingly service-oriented and continue to grow (Fig. III-11). In addition, a comparison of total factor productivity between Japanese companies on the one hand and Chinese and South Korean companies on the other shows that in the service industries, the productivity of Japanese companies has been lower than that of their South Korean counterparts since the mid-1990s. Japanese companies ranked higher than Chinese companies in both service and manufacturing industries, but the difference has been relatively small for the service industries (Fig. III-12).

Some of Japan's service industry members are steadily increasing their presence in Asia, emerging countries and elsewhere. In China in particular, the Measures for the Administration on Foreign Investment in Commercial Fields, which came into force in June 2004, removed limitations on geographical regions where wholesale and retail industries could be established, while in December of that year, restrictions on the percentage of capital investment, with the exception of some products and services, were abolished, leading a series of Japan-affiliated distribution companies to set up shop. Subsequently, China lifted a ban on foreign-owned franchises, prompting members of the food service industry and others to get into the area. In recent years, these trends appear to be broadening to include even business service and content providers targeting companies in China, such as those for human resources development (Table III-5)

The first reason that Japan-affiliated companies are steadily increasing their presence in China is that, as China deregulates, Japan-affiliated companies have met existing demand by becoming increasingly native, actively hiring local human resources and considering local customs during product development. Second, industry sectors and businesses with highly developed manual-based, standardized operations, such as convenience stores, are using their advantages in terms of productivity and efficiency to be the leaders in competitiveness in the local market. Third, in fields

where it is difficult to run a business from procedural manuals, such as services for individual customers, Japan-affiliated companies are creating new demand by using their accumulated know-how and providing a high level of added value. These and other factors could be mentioned. These companies are creating success by taking advantage of their strengths from the Japanese business world and adapting themselves to the local market.

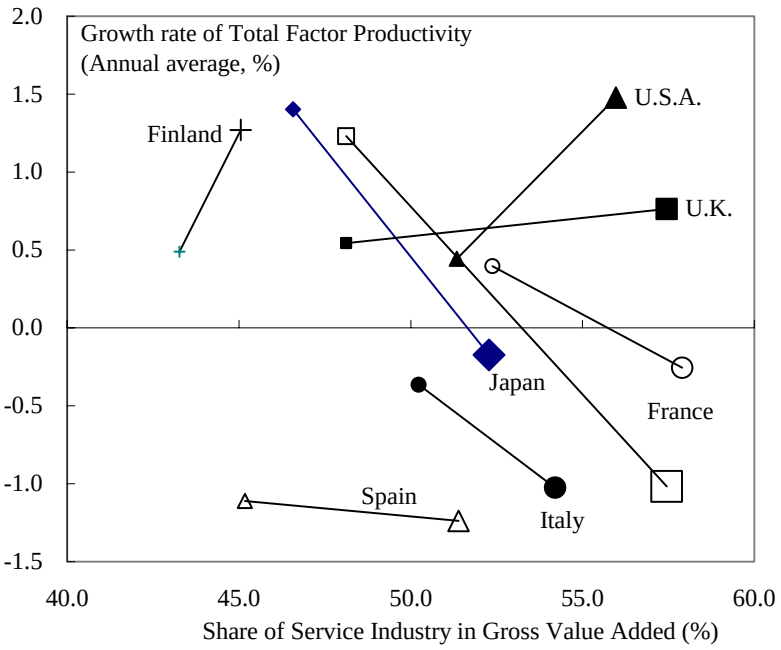
Even so, the service industry faces numerous issues when expanding overseas. First of all, because the quality of service offered is highly dependent on personnel, the industry must work to secure and develop excellent employees. Costs are an obstacle, however, in emerging countries where salaries in particular rise very quickly, which can only make it difficult to secure human resources. At the same time, while developing human resources is an issue, even those businesses that already have the know-how to develop personnel locally need to be flexible in terms of how they meet local requirements.

Additionally, the competition is getting more intense not only with foreign-affiliated companies from Europe, the U.S. and so on, but also from local businesses. This means that Japan-affiliated businesses need to improve their level of productivity to rival that of European- and U.S.-affiliated companies. Another important factor they must consider is how to deal with the rapid changes and diversification of customer needs that are likely to occur in emerging countries and regions in the future. On the other hand, Japan-affiliated companies have already gained significant experience with these types of changes in the Japanese market since the 1990s. The key to survival in the competitive international market is how well such companies can turn Japan's strengths, i.e., the attention to detail and quality of service that come from experience in the Japanese market, into a source of competitiveness.

As Japan's population has been falling since 2005, making future market growth unlikely, the service industries face issues on both the supply and demand sides, such as the increasing difficulty of acquiring the personnel that are so crucial to these industries. Given the circumstances, it seems increasingly important, not only for the retail industry (which has already proven successful overseas) but also for fields such as finance and services to business and individual customers—industries that have a strong domestic orientation—to make good use of local personnel and take steps to turn the high level of growth in emerging countries into profitable business enterprises.

Fig III-11 Share and TFP Growth Rate of Service Indusrties and Manufacturing, excluding electrical in Major Countries（1980-95 and 95-2004）

Service Indusrties in Major Countries



Source: EU KLEMS

Total Manufacturing Industries excluding Electrical

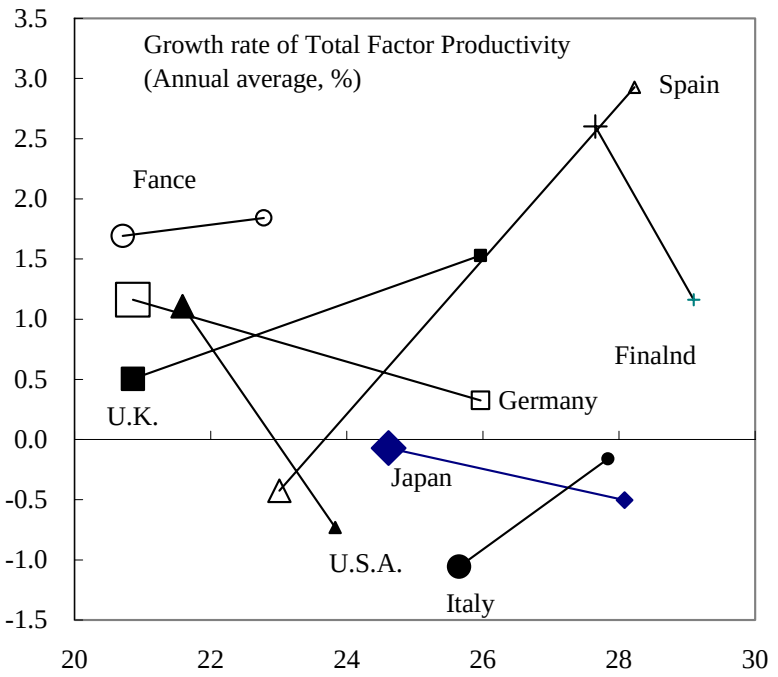
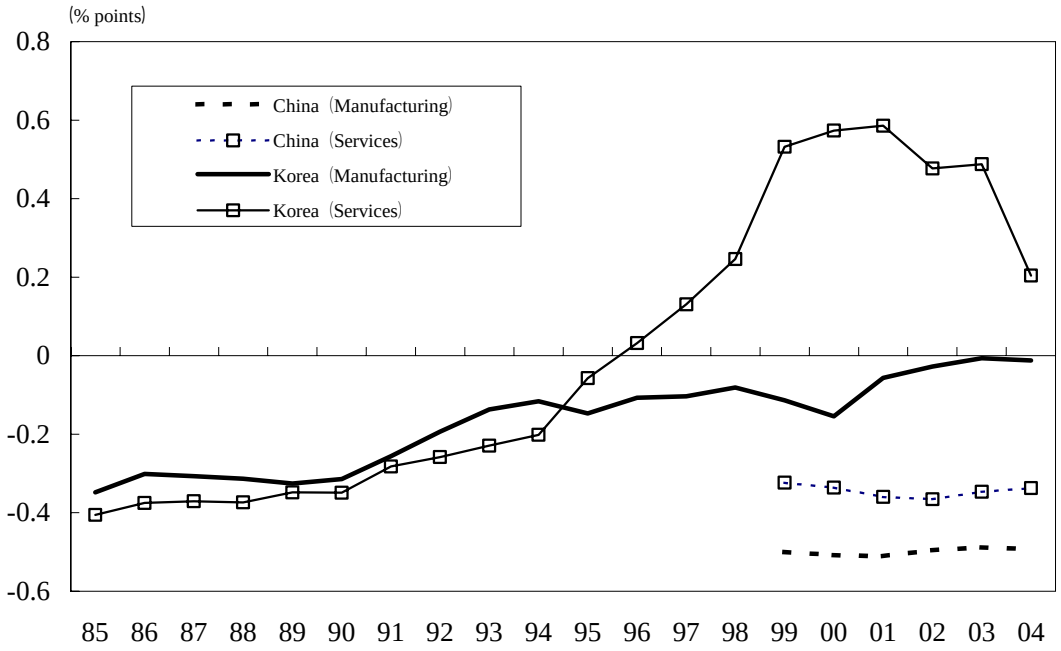


Fig III-12 Productivity of Chinese and Korean Companies compared with Japanese Companies



Notes:
1. Based on a total factor productivity standard that is standardized for each company (see references below for calculation procedures), the median is found from samples of businesses in each country, each industry sector and each year, and the difference with Japanese companies is then calculated.
2. Service industries include transportation, communication, electricity, gas, wholesale and retail, finance, real estate and other private and public services. Manufacturing industries include all industries other than service industries, agriculture, forestry, fishing, mining and construction.
3. For Chinese companies, figures were only available since 1999.
Source
"Database on Productivity of Japanese, Chinese and South Korean Companies" (Based on East Asian Listed Companies (EALC) Database 2007 by the Japan Center for Economic Research, Hitotsubashi University Center for Economic Institutions, Nihon University Center for China and Asian Studies, Seoul National University Center for Corporate Competitiveness)

Table III-5 Japanese service companies actively doing business in China

Company	Sector	Business areas
Seven-Eleven Japan	Convenience store	In January 2004, established joint venture Seven-Eleven Beijing, with central government authorization (total investment $70 million). Opened 50 stores in Beijing by December 2006 and plans to have 350 stores by the end of December 2008.
FamilyMart	Convenience store	Opened store in Shanghai in 2004; in July 2004, Shanghai FamilyMart Co., Ltd. began operating stores in Shanghai (25 stores under direct management). First franchise store opened in December 2004. In January 2007, it opened the first Japan-affiliated convenience store in Guangdong Province. As of May 2007, 111 stores operating in China.
Lawson	Convenience store	Established joint venture in 1996; has opened 291 stores in Shanghai since then (end of December 2006). Is the leader in per-store sales, offering a product lineup that adapts to rapidly changing local tastes and encourages the penetration of Japanese foodstuffs locally.
AEON	Retailer	In February 2007, opened the first mall type shopping center in South China; putting its effort into developing large shopping centers that anticipate increasing motorization.
Kumon	Education and study support	Established local corporation in Shanghai in 1995; since then, the "Kumon method" has become a local fixture as interest has grown in education. Using its years of know-how and putting its energy into training instructors, it has set up 200 classrooms with 25,000 students currently.
Watabe Wedding	Wedding producers	Established local corporation in 2004. Offers set services including photography at ceremonies held at five-star hotels, together with hairstyling, make up, clothing and event site decoration. With Shanghai's wedding rush and increasing expenditures on wedding related services as income levels have risen, its sales have increased by 300% and operating income by 170% in 10 years as of March 2007.
Wilson Learning Worldwide	Human resources development and training	Established local corporation in China in 2002; provides human resources development consulting for Japan-affiliated companies in China and for European and U.S. companies. In the three years leading up to March 2007, sales in China have risen 40% and operating income by 55%.
Ajisen Rahmen	Food service	Began expanding its chain of stores when a ban on foreign-owned franchises was lifted in February 2005. Has 34 stores in Shanghai and more than 70 throughout China. Has become popular because it stays true to the original taste, incorporating local tastes, provides Japanese style non-pushy service.
Avex Group Holdings	Music	Established joint venture in Beijing in November 2006. Does business primarily in discovering and developing Chinese artists and producing live events, not limiting itself to J-POP licensing.

Source: Compiled based on interviews in China and Japan, company press releases, etc.

4. Current status and issues with Japanese companies' overseas intellectual property strategy

■ The importance of patent strategy

At a time when the economy is becoming more global and competitive, Japanese companies increasingly need a comprehensive intellectual property strategy, executed for example by actively turning R&D breakthroughs into an important source of international competitiveness.

For Japanese companies to demonstrate their competitiveness in total, they are required to make proper judgments, such as whether to pursue patent rights to the original technology generated by their R&D, or whether to keep it internal as know-how. A company must avoid situations in which it loses its global competitiveness because of the unintentional leak of the technology it has developed. Once a technology is developed, getting it adopted as the international standard is crucial to securing dominance in world markets. Additionally, although Japanese companies have taken steps against counterfeit and pirated goods, there is room for further improvement in the situation and they need to continue strengthening their countermeasures. The content industry in particular sees the promise of new development with the rapid globalization that is afforded by the Internet, but the growth of related companies greatly depends on an effective anti-pirating strategy.

■ Pursuing intellectual property rights in overseas business development

When a business expands overseas, it is extremely important for it to pursue the rights to its inventions and other intellectual property. Japan's pursuit of such rights, as seen by the number of international patent applications, is second only to the U.S.: Japan filed 26,906 applications in 2006, or 18.2% of the world total (Table III-6).

In the world's five largest patent producing countries and regions (the U.S., Japan, EU, China, South Korea), Japanese companies acquired 36,807 patents in the U.S. (2006, a gain of 21.3% over the previous year), 9,546 in Europe (European Patent Office) (2005, down 8.6%), 15,099 in China (2006, includes patent inventions only, up 8.7%) and 11,000 in South Korea (2005, up 50.2%), showing that patent rights are in a growing trend overseas.

■ Growing revenues from licensing

Japan's international balance of royalty payments, etc., shows that the $600 million deficit in 2002 has ultimately reversed, leading to a surplus of $4.6 billion in 2006 (Table III-7). By region, although Japan continues to have deficits with North America, its deficits with Asia and Western Europe have changed to a surplus, with contributions in the industrial fields of transportation equipment and electrical equipment. The royalties arise primarily in the form of compensation from overseas subsidiaries and other affiliates of Japanese companies.

According to the 2006 Outline of Survey of Research and Development (Ministry of Internal Affairs and Communications, released December 2006), technology licensing to other companies overseas accounted for 25.1% of technology exports in FY2005, slightly lower than the previous year, and companies are expected to make active use of their intellectual property in the future such as by increasing the licensing of their technology.

■ Need for linkage between intellectual property strategy and technical standards

Getting the technologies that companies have developed to be adopted as international standards is a very crucial element in maintaining market predominance, so much so that the goal of promoting their own technologies as international standards needs to be an integral part of companies' intellectual property strategy.

Technologies adopted as international standards often have their patent rights licensed out, and when companies form a patent pool3, they are allowed to use other companies' patent inventions royalty-free, in exchange for sharing their own patent inventions when they manufacture products. It is easy to acquire royalties from companies that do not provide patent inventions to patent pools. In addition, if a third party uses a patented invention without permission, one can prove patent infringement simply by the fact that the business manufactured products conforming to the international standard. If in contrast, a company's patented invention is not adopted as an international standard, it will necessarily be less competitive because, instead of receiving revenue, it will have to pay a royalty to use patented inventions, so that it will not be cost competitive and its product development will be playing catch up.

The Japanese government's Intellectual Property Strategy Headquarters announced a International Standardization Comprehensive Strategy in December 2006. The strategy pointed out the importance of setting international standards and said that the industrial world, especially top management, needs to change its way of thinking. Whereas the U.S. and Europe (particularly Europe) have long been especially influential in the area of international standards, in recent years, China has been accelerating its efforts on setting international or domestic standards on its own for such products as 3G, wireless LANs and DVDs. There is now a stronger movement to promote their own technologies as international standards, as demonstrated by the fact that South Korea contributed to creating the international standards for wireless broadband.

■ Technology leaks: current status and prevention measures

In a globalizing economy and the more competitive business environment that results, the leakage of confidential R & D results is a serious issue because this outflow damages the business foundation of a company and takes away from its competitiveness.

To give an example, one reason that South Korea and Taiwan have taken over production of liquid

crystal flat panel displays is because, according to some, the technology had been leaked to these places. This is an example of how technology that a company tries to keep concealed as its own know-how is able to end up in the competitors' hands through various channels. Coming up with a strategy to prevent leaks of technology effectively is a most urgent issue.

1) Current state of technology leaks

Technology leaks occur when information flows out through one of two agents: humans (because of their mobility) and things (including electronic data).

Human mobility can cause technology leaks when staff members reach retirement age and then go to work for a competitor overseas or when members hired locally by affiliates quit and go to work somewhere else.

Several examples can be mentioned of how technology leaks through things: information may slip out from disclosure materials given to licensees, joint venture partners and development collaborators; it could also come from disclosure documents such as specification sheets when equipment is ordered; information can also leak out during factory visits or by service professionals while performing equipment repair.

In either case, most often the cause is an inadequate control system made faulty by insufficient trade secret awareness.

2) Effective leakage prevention strategy

Japan and other countries have seen many cases whereby a company has lost a lawsuit (or had its demands thrown out of court) over trade secrets in cases of unfair competition. The cause of this is poor confidentiality management. In other words, if confidentiality is not thoroughly managed, it will be impossible to protect information as a trade secret no matter how valuable that information might be. Japanese companies in particular have tended not to be very interested in controlling their confidential information because they have long done business in the belief that human nature is basically good. Once information leaks out, however, it is impossible to restore it to its confidential state. Therefore, it is critical to have measures in place to prevent such outflow of information.

■ Japanese content and overseas business: a need for anti-piracy measures

The world content industry has steadily expanded in recent years and is expected to continue growing in the future. While the world content market in 2005 was worth $1.33 trillion, the same market in 2010 is expected to reach $1.83 trillion.4 The size of the content market in Japan in 2005 was $124.4 billion, second only to the U.S.; the market at this point had remained fairly flat since 2001. In order for the Japanese content industry to continue growing, it has no choice but to expand its market overseas.

3) Expansion of the content industry via networks

Looking over the trends in the world content industry, in many cases content has only been used in a relatively small area, i.e., the originator's domestic market and a few neighboring countries, because of such factors as language and cultural differences. Content is generally considered a domestic industry, with a few exceptions such as Hollywood movies. As technical changes have led to digitalization and networking, however, content has become increasingly accessible by the Internet, mobile phones and so on, and content users themselves are becoming increasingly borderless, willing to take content from beyond their own countries. South Korea has embarked on a national campaign to bring its TV dramas, movies and online games to the Asian markets that are expected to grow greatly in coming years. China, moreover, seeing a rapid growth in demand for domestic content thanks to the nation's solid economic growth, is strengthening its domestic content industry. While Japanese content has received high praise overseas for its quality, related businesses need to be sensitive to changes in overseas markets and to develop overseas with strategies of their own.

4) Anti-piracy measures as a basic part of the business environment

As the content business starts to aim overseas for further business development, it cannot get around the need for anti-piracy measures. The success of such measures in China, Hong Kong and Taiwan has come thanks to the efforts of the Content Overseas Distribution Association (CODA). CODA leads joint initiatives to use the CJ mark (applied to Japanese content distributed overseas) to expose fake versions of Japanese content (Fig. III-13).

Under this initiative, the CJ mark is registered as a trademark in different countries and regions (the U.S., EU, China, Hong Kong, Taiwan, etc.); even beyond copyright issues, it is intended as an effective measure for exposing pirated goods. By applying the trademarked CJ mark to authentic goods, any pirated goods in packages to which the CJ mark has been copied can be jointly controlled on the basis of trademark infringement. Some countries are currently considering the application for trademark, while CODA is going ahead with joint activities to detect pirated goods as based on copyright. Between January 2005 and April 2007, CODA had successfully exposed 3,587 cases of pirating in China, Hong Kong and Taiwan. This series of exposures resulted in the seizure of 3.74 million pirated DVDs, CDs and other goods and the arrest of 1,242 individuals, indicative of how effective the strategy has been.

5) Going on the offense

Although pirated goods are said to make up more than 90% of the content available in China, that nation is looked upon hopefully as a market for future growth, and overseas groups such as the

Motion Picture Association of America (MPA) are stepping up their measures against pirated goods. In December 2006, the MPA, together with the Business Software Alliance (BSA), the Association of American Publishers (AAP) and The Publishers Association (TPA) of the UK, concluded a memorandum of understanding with the National Copyright Administration of China (NCAC) (which has authority over all copyright matters for the Chinese government) to create a cooperative structure to protect copyright on the Internet.

Protection of copyrighted materials on the Internet has now been legislated in China with the "Regulations on Protection of the Right of Communication through Information Networks," announced on May 18, 2006 (enforced July 1, 2006). Though overseas copyright holders may demand that websites be shut down and that works be eliminated if they infringe on copyright, however, in practice the difficulties are many. For that reason, the above memorandum of understanding calls for copyright holder information and other data to be added to a list of works to be protected on the Internet and submitted to the NCAC, which will then control pirated works based on this list.

At the same time, the Japanese content industry participates as CODA in joint public-private missions sent to China each year by the International Intellectual Property Protection Forum (IIPPF). In a meeting that took place in April 2007 on a visit to the NCAC, the problem of illegal uploading to the Internet came up in conversation. CODA suggested that a transmission prevention system using "reliability checking groups" as adopted in Japan be used as a concrete way of helping China's domestic providers respond quickly. CODA seeks to make cooperative proposals, not just one-way requests for improvements, and hopes to conduct dialogue-based lobbying, which is intended to resolve problems through dialogue and cooperation.

Such copyright protection initiatives by groups concerned with content in each country are important in terms of preparing the content business environment. Going on the offensive—eliminating pirated goods and other examples of copyright infringement and turning such businesses into a legitimate ones—can lead to capturing the market in the content business. The skillful use of anti-piracy measures could give the industry a globally competitive edge in the content business, and Japan's content related businesses need to be actively pursuing this goal as an advance investment in future success.

3 In this case, a system established for the mutual licensing of a number of patents, allowing the holders of those patents to take advantage of each other's patents while reducing the time and cost of licensing negotiations and other coordination.

4 Based on "Entertainment and Media Market Outlook 2006- 2010" (PWC).

Column III-4

⊙ Cooperation and request are the key to Public-private Intellectual Property Protection Missions, Japanese companies' trump card for protecting intellectual property in China

According to the OECD's "The Economic Impact of Counterfeiting and Piracy," released in June 2007, counterfeit and pirated goods accounted for $200 billion of international trade in 2005. If the value of such goods produced and consumed within national borders, as well as that of digital content illegally traded over the Internet, were added in, the total would come to several hundreds of billions of dollars. Regionally, the OECD points to Asia as the largest source of counterfeit goods, with China the single largest national source.

It was under these circumstances that in April 2007 the International Intellectual Property Protection Forum (IIPPF) (a cross-industry organization set up to protect the intellectual property of Japanese companies in partnership with the government (Chairman: Yoshihide Munekuni, former Chairman of Honda Motor, Vice Chairman: Yasuo Hayashi, Chairman of JETRO), the Secretariat: JETRO) sent the fifth joint public-private working-level mission to Beijing.

The mission consisted of about 60 members in total, including representatives from the private sector (electrical/electronic, automotive, pharmaceutical, content, nursery and other industries) and the public sector (METI, MOF, Ministry of Foreign Affairs, Ministry of Agriculture, Forestry and Fisheries, Japan Patent Office, Agency for Cultural Affairs, JETRO, etc.). When in China, they visited 12 ministries and agencies and 15 institutions.

These missions have had a steady string of successes, including revision to and better execution of legal regulations at the request of the Japan side, such as: 1) a lower threshold for indictment, 2) complete elimination of rights-infringing characteristics before the auction of infringing goods, 3) the introduction of a law reducing the burden on rights-holders, 4) publication of decisions on the Internet, and 5) revised standards for examining patents (patents, utility models and designs). The critical element to these successes has been cooperation. The stance of these missions is that "Japan will do whatever it can to ensure that intellectual property protection in China moves forward, even a little bit." These efforts will ultimately result in a win-win relationship, with Japanese companies protecting their intellectual property and the Chinese preparing their regulatory system and properly enforcing their laws. In fact, the Chinese government has expressed its appreciation toward these missions and cooperative projects, and has stated its hope for the continuation of these projects because they are so important to the government itself. By conducting such events yearly, with public and private sectors working together rather than separately, China is beginning to see mission members as old friends, and with each visit the level of sincerity rises.

Table III-6 Trends in number of international patent applications for three leading countries

(Units: applications)

	2002	2004	2006
U.S.	41,296	43,350	50,089
Japan	14,063	20,264	26,906
Germany	14,326	15,216	16,866
Total for members of Patent Cooperation Treaty (PCT)	110,392	122,627	147,500

Source: The International Patent System in 2006, PCT Yearly Review

Table III-7 Trends in Japan's balance of payments of patent royalties, etc.

(Units: $100 million)

	2002	2004	2006
Income	104	157	201
Expenditures	110	136	155
Balance of payments	-6	21	46

Source: Based on "International Balance of Payments Statistics" (Bank of Japan) data, converted at the Bank of Japan's interbank quarterly average dollar exchange rate.

Fig III-13 CJ Mark

Supplement: Japanese Companies' Growth Strategy and Emerging Markets

■ The growing middle class

The attention being given to emerging economies has resulted in a number of them being nicknamed the "BRICs" (Brazil, Russia, India, China). After the BRICs are the so-called "Next 11" (Bangladesh, Egypt, Indonesia, Iran, South Korea, Mexico, Nigeria, Pakistan, the Philippines, Turkey, Vietnam). In addition, the BRICs are now commonly referred to as the BRICS, with the capital S standing for South Africa.

The trajectory of economic growth in each of these countries is different depending on their respective national systems and economic structures, but they all have two things in common: a high rate of economic growth in recent years and an emerging middle class.

The World Bank says that because of global economic growth, the "global middle class" in developing countries will grow from 4.2% of world population in 2000 to 14.9% in 2030 (Fig. III-14). At the microeconomic level, active consumerism has led to a continuing rush to build European and U.S. style shopping malls and to open brand-name stores in emerging economies, while at the same time the state of distribution is changing greatly.

Given the emergence of this middle class, Japanese companies seeking to achieve stable growth need to incorporate the positive cycle of growth in the emerging economies into their business activities and to form business partnerships and develop new markets in the emerging countries. However, although these emerging economies are often lumped together, each country has its own consumption patterns and culture, and naturally a unique approach will need to be taken in each market.

Acknowledging this reality, this supplementary section gives an overview of market characteristics in India, China, Brazil, Russia, South Africa and Turkey, as well as case studies of market development strategies.

■ India

■ Middle class to make up more than 40% of population in 2025

India's consumer market is expected to grow from 17 trillion rupees in 2005 (about $385.5 billion, no. 12 in the world) to 40 trillion rupees in 2015 and 70 trillion rupees in 2025, making it the fifth largest market in the world.[5]

Other forecasts regarding income classes in the future are that 1) average household income will rise from 113,744 rupees in 2005 to 318,896 rupees in 2025, and that 2) the middle class[6], defined as having an annual household income of 200,000 to 1,000,000 rupees (purchasing power parity equivalent, $23,530 - $117,650), will grow to be 41% of all households by 2025, or about

583,000,000 people.

Behind these projections of rapidly growing markets and income are active manufacturing and service industries and the resulting increase in wages. Sales at 673 major companies listed on stock exchanges were up 32.3% year on year during FY2006 (April 2006 to March 2007), while net profit rose 46.3%. Because positive corporate performance is reflected in employee wage standards, India's wage increase of the past few years, remarkable even by Asian standards, will continue.

■ Domestic retail markets rapidly organizing

Under the circumstances, India's retail industry has been rapidly transforming in recent years. Large shops under corporate management are quickly appearing, especially in large cities and their suburbs, and "organized markets" such as department stores, shopping malls and supermarkets, are forming. As a result, non-organized or individually managed shops are starting to reorganize or drop out of the market, indicative of the waves of reform starting to lap against the retail industry as a whole.

According to India Retail Report 2007 (published January 2007) by India's Ministry of Commerce & Industry and an American group of consultants, the estimated size of the retail market in India in FY2006 was 12 trillion rupees (about $270 billion), equivalent to approximately 60% of total consumer expenses; the share of this total from organized markets, those providing retail services under corporate management, was 550 billion rupees (about $12.4 billion).

While India's retail market has grown 5.7%[7] annually since FY2004, organized markets have grown 34.8% annually, and their share of the entire market has risen from 3.0% in FY2004 to 4.6% in FY2006 (Table III-8).

Organized markets have a high share of the following categories: apparel and fashion (18.9% share), timepieces (45.6%), shoes and footwear (37.8%) and so on. Specialty shops under corporate management and targeted at high income customers are seen as growing quickly in those fields dominated by fashion and luxury articles. The growing number of shopping malls, primarily in urban centers, is also spurring the opening of new shops for these specialty stores. As of 2006, there were already in operation 100 large shopping malls housing various specialty stores, department stores and supermarkets, with about 600 more such malls under construction (or in planning). Over the next four to five years, more than 20,000,000 square feet of new shopping mall space is expected to be constructed annually (Table III-9).

The development of new forms of retail, such as shopping malls, department stores and supermarkets, not only diversifies the means of sales and simplifies distribution, but also gives greater access to leading edge and high function products and at the same time gives consumers a wider range of choices, thereby encouraging new demand among the middle class with its buying power. The changing market structure and new consumer demand will be a growing business

opportunity for Japanese companies in the coming years.

■ Taking advantage of rapidly growing organized retail chains is key

In 2006, such major domestic zaibatsu (financial clique) company groups as Reliance Group and Tata Group were seriously getting into the retail business, committing large amounts of capital to develop retail chains for the nationwide market. Existing retail chains, such as ITC Group, RPG Group and K Raheja Group, likewise have stepped up the pace of opening new shops on a national scale, and India's retail market is expected to change greatly in the next few years.

According to industry group estimates, the number of hypermarkets (extra large supermarkets that combines a supermarket and a department store) managed by major company groups will expand from 50 in 2006 to 1,200 in 2011.

Similarly, volume home electronics chains like Next, Vivek and Vasanth have rapidly expanded their store numbers in recent years, especially in the vicinity of large cities like Delhi, Mumbai and Chennai, further spurring organized markets. The Tata Group, in addition, formed a business partnership with Woolworths, a major Australian retailer, leading to the opening of Chroma, the first in a chain of retail stores of a nationwide scale, in Mumbai in October 2006. By 2010, the group expects to be operating 100 stores nationwide, each with a spacious 15,000 to 20,000 square feet of retail area and a wide selection of more than 6,000 types of products.

As this has been happening, companies like Sony, Hitachi, and Matsushita in recent years have been devising serious sales strategies in the market for high-end home electronics such as large-screen flat-panel televisions and digital appliances. For Japanese electronics manufacturers to expand their share of the home electronics market in the future, they need a strategy for expanding the number of shops through franchises and must additionally form partnerships with the nationwide specialty retail chains mentioned earlier to build their sales and after-sales service networks.

■ China

■ Consumer markets based mainly in urban centers

Although China's rural population greatly outstrips the number of urban dwellers, the retail market is mainly urban in character. Markets in urban centers make up more than two-thirds of China's total consumer market.

The National Bureau of Statistics of China divides the urban population into eight income classes and calculates the average per-capita income for each of these. Based on this average income, JETRO has estimated the average monthly income for each income class and found that in 2005 the average monthly household income for the upper class in the urban centers (estimated to be about 10% of all households) was about $839. According to the statistics bureau's data, the monthly income for the highest income households has grown 130% in the past five years and 60% for

middle income households, while that of the lowest income households has grown only 20%, indicating a growing income gap even in the urban centers (Table III-10). Furthermore, in 2005, the highest income households made 8.9 times the income of the lowest income households, and the gap is increasing year by year.

The Chinese government does not at this time clearly define the middle class, but the income range of 60,000 - 500,000 yuan annually (about $7,500 - $62,700) is a widely accepted definition. Though there are no definitive statistics concerning the population in this range, some estimates say it includes 80 million income earners, making up 6% of China's total population (Shanghai Securities News, June 18, 2007).

Next, the statistics on the number of durable goods owned per household in urban areas (Table III-11) indicate that private automobiles have shown the greatest growth rate over six years. In 2006, 4.3 households out of 100 owned an automobile, which is low compared to other durable goods, but the annual growth rate of 44.0% is very high in relative terms. Another category showing a similarly high growth rate is mobile telephones, which grew by 43.5%. Still other products with high growth rates include personal computers and video cameras. At the other end, washing machines, refrigerators, color televisions and so on grew only by single digits.

■ Rural area consumption starting to resemble urban pattern

Statistics for the number of durable goods owned by households in rural areas showed very similar characteristics as the urban centers. Color televisions and mobile telephones for example showed a relatively high diffusion rate. Other products with a high ownership growth rate include air conditioners (33.8%) and personal computers (33.2%). Nonetheless, there were large gaps in ownership numbers with the urban areas in 2006: 88 air conditioners were owned by urban households for every seven owned by rural households, and for PCs the ratio was 47:3. In rural markets, consumer demand for such products is expected to continue growing in the future. However, the breakdown and prices of products consumed will vary by income class, even for the same types of products. While lower income households will only consume the necessities, middle income households will exhibit a certain level of demand for quality and specific models. The high income class, moreover, will mimic consumption patterns of urban areas, for example by showing interest in product brands, quality, models and service.

■ Changes in target markets

The Chinese market consists of smaller markets from diverse income classes, and consumption patterns vary considerably depending on the income class.

Because of this, those wishing to develop their markets in China must clarify their target market

and then proceed accordingly. The high-end market, however, which is the target of many foreign owned companies, already has many participating companies and is limited in scale, making the competition very intense.

One direction that a company can go in this situation is to expand the scope of the company's strategy to encompass markets other than those previously targeted. A company might expand, for example, from the high-end to mid-range market, or from there to the low-end market.

In 2003, Nokia of Finland began reorganizing its sales system in the mobile telephone industry. Its goal was to expand sales further by stepping up marketing in regional cities and rural areas, as well as in urban areas, filling out its product line with an awareness of the needs of its Chinese consumers. The strategy paid off as Nokia's share in the Chinese mobile telephone market rose to 35% in 2006.

In the cosmetics industry, Procter & Gamble of the U.S. had based its business since 1999 solely on the Olay brand for general users, but in recent years, as consumer income has risen, it has been adding mid-range and high-end products. During this time, it has been expanding its target to the high-end market with the 2005 launch of high-end products in the CoverGirl cosmetics brand and the 2006 rollout of the illume skincare brand. The target of the L'Oreal brand extends all the way from the wealthy class to consumers in inland areas and regional cities. Procter & Gamble has offered many independent brands, from high-end goods priced at 200 yuan and above to inexpensive products of 50 yuan, which compete with local brands. It has recently announced a strategy to expand its target to include rural areas.

Foreign companies doing business in China have very diverse strategies for developing markets there. Japanese companies might consider continuing to specialize in the high-end market, putting most of their investment there and differentiating themselves from other brands and products to expand the high-end market, or they might consider a strategy of expanding from the high-end to the mid-range and then the low-end market. On the other hand, the more the Chinese market is characterized by the mid-range and low-end markets, the greater the competition will be against local Chinese companies. To do business effectively in such a market requires refraining from competing on price and domestic sales capacity and competing instead on quality and brand power.

■ Brazil

■ Breakdown of consumer income

The popular image of Brazil's consumer market is characterized by a wide gap between rich and poor and with only a small target customer base for products sold by Japanese companies. Certainly, the statistics indicate that the lower income class makes up more than 40% of the economically active population in the Brazilian consumer market.

■ More than half of households are target of mid-range product market

In Brazil, however, characterized by many working individuals in a single family, the standard that companies commonly use when they conduct marketing is monthly income per household (Table III-12). The exact standard that each company uses varies somewhat, but households with monthly income of more than $1,234, or 10 times the minimum wage, are largely considered the target of high-end products.[8] The target of mid-range markets is households with monthly incomes of more than $247 and up to $1,234 (two to 10 times the minimum wage), and that of low-end products is households with incomes of $247 (twice the minimum wage) down to no income. In 2005, the number of households targeted by the mid-range market reached 27,760,000, or 52.3% of all households, while the number of households targeted by the low-end market was 18,910,000, or 35.6% of the total. Between 2002 and 2005, the growth rate for these two markets was 11.6% for households targeted by the mid-range market and 22.4% for those in the low-end market.

■ Rising standard of income for lower income class

In recent years, Brazil's lower income class has become more willing to spend. This is the result of President Lula's so-called Borsa Familia program for the redistribution of income to low income people and growing demand for the resource industry. Retail sales have been strong in the north and northeast, regions considered to be not highly developed. Whereas the retail sales index for 2006 was up 6.2% over the previous year for the country as a whole, in the north and northeast it grew far faster than other regions, at 17.6% and 10.4%, respectively. Incidentally, the average growth in the southeast, where the state of São Paulo is located, rose 8.1%.

■ Installment payment plans contribute substantially to rising purchasing power

Although middle income and low income consumers make up the bulk of the Brazilian market, the country has a relatively high rate of diffusion of televisions, refrigerators and other consumer durables. Per-household diffusion rates for durables in 2005 were 91.4% for televisions, 88.0% for refrigerators, 35.8% for washing machines and 18.6% for personal computers. The diffusion rate for personal mobile telephones among the population aged 10 and up was 36.7%.

The custom of installment payments makes it possible for low income people to buy durables with high unit prices. To give an example, an LG brand 21-inch flat-panel color television priced at 599 reais can be purchased in 12 monthly installments of 49.92 reais (about $20; as of April 2007). Although these installment plans are advertised as charging no interest, the purchase price in fact appears to have interest built in. What is important to the consumer is not the lump-sum price, but whether or not the price can be paid in monthly installments; in many cases, the price tag shows the

monthly installment price in larger lettering than the lump-sum price.

Casas Bahia, Brazil's rapidly growing volume retail chain of home electronics and furniture for lower income customers, gets only 10% of its sales from customers who pay the price in one lump sum; all other sales come from installment plans. The chain offers financing to low income customers who would not qualify for financing at ordinary shops, and for that reason sets a high average interest rate of 4.5% monthly (69.6% annually) (as of 2006). Because customers with credit problems can purchase products here that they could not purchase on installment from other shops, the probability of defaulting on a loan is actually said to be reduced.

■ Riding the wave of a growing purchasing class

Brazil does not have any wholesale or distribution companies with nationwide networks. For that reason many industry sectors have to build their own distribution networks in each region. Very few large foreign owned retailers such as Wal-Mart of the U.S. and Carrefour of France have penetrated the north and northeast, which are dominated by the many small-scale, locally owned shops.

Different advertising techniques are used in each region as compared to those used in the cities. Newspaper advertising is effective in the southeast and south, but less so in the north and northeast. With radio the opposite is true. There is supposedly little difference in the effectiveness of television commercials in different regions. In the north and northeast, a "direct appeal" to consumers is said to be often effective. Advertising techniques frequently used include putting advertisements on vans and bicycles and having them go around town, as well as the use of pop-up advertising in supermarkets. Some foreign-owned companies have conducted product PR as part of the curriculum in social studies, etc., at public elementary schools, which are attended by many children from low income families.

Professor Eduardo Ayrosa of the Brazilian School of Public and Business Administration remarks that "Very few foreign-owned companies have a deep understanding of the consumer characteristics of Brazil's lower and middle classes, but marketing effectively to these classes will be increasingly important in the future."

In addition to appealing to the upper income class as in the past, Japanese companies will need to ride the wave of the growing purchasing class that has recently emerged.

■ South Africa

■ Where 80% of consumers are black

Of the total population of 47,810,000 in South Africa, 37,390,000 (78.2%) are Black, 5,120,000 (10.7%) are White, 4,130,000 (8.7%) are Coloured (mixed race) and 1,160,000 (2.4%) are Asian. Although whites make up only about 10% of the population, they account for 39.0% of the total income. Per-capita income in 2005 was $12,671 for Whites but only $2,100 for blacks, $7,246 for

Asians and $3,519 for Coloureds, indicating that a large economic gap persists between the races (Table III-13).

There is a widening income gap even among Blacks, however, so the income of Blacks is not uniformly low. The Gini coefficient for Blacks is the highest at 0.63, followed by 0.56 for Coloureds, 0.51 for Asians and 0.45 for Whites.

Statistics for the number of households in different economic classes in 2005 indicate that there were 1.37 million Black households in the class earning more than 96,000 rand annually, outnumbering the 1.19 million white households in the same class (Fig. III-15). The 480,000 White households in the class earning at least 360,000 rand annually were 59% of the total, but these were followed by 220,000 Black households, which outnumbered the 60,000 Coloured households and 50,000 Asian households.

Although it is true that an increasing number of Blacks in South Africa have seen their incomes grow in recent years, it is also a fact that the number of Black households making no more than 2,400 rand annually has increased from 210,000 in 1996 to 590,000 in 2005, so there is a growing income gap not just among the races but also among Blacks.

The fact that some high income individuals have appeared among the Black race, of whom there are so many low income persons, is due in part to the government's effort to integrate black people into the South African economy. Under the apartheid system, blacks faced occupational restrictions and their salaries were kept lower than those of whites. Ownership of the means of production was also prohibited from them. Since democratization, the South African government has passed the Employment Equity Act, banning discrimination such as the use of race or sex as a condition of employment, and requiring companies to give priority to Blacks, non-Whites and women in proportion to population. In order to raise the equity interest of non-Whites in companies, the government has made certain levels of equity interest held by Black people a requirement for winning procurement orders. Because a certain level of Black equity interest is a requirement for members of the banking and mining industries to get an operating license, such businesses have transferred shares to Black companies at discount prices and Black people have taken some management positions.

■ The rapidly growing consumer market

South Africa's household consumption has demonstrated strong growth since 2003, greatly spurred by purchases of durable and semi-durable goods (Table III-14).

The growth in household consumption can be attributed first to the increasing employment of Black people and the growing income of their households, as mentioned previously. Second, the number of households is increasing (i.e., the number of members per household is decreasing) and there is a growing population of young people, leading to greater demand for durable goods. Third,

the rand has been strong on the exchange market, bringing down the prices of imports; particularly in categories with a high percentage of imports such as automobiles and home electronics, prices have declined on a year-to-year basis. In addition, wages have risen faster than the consumer price index (CPIX), causing the price of such products to decline in relative terms.

Fourth, access to financial services has improved. Interest rates have fallen in response to the decline in the CPIX since 2002. As these rates have come down and the incomes of Black people have risen, financial institutions are actively extending financing to Blacks, whom they would not have served in the past. Aside from financial institutions, retailers are actively offering sales on an installment basis to accommodate the new middle class consisting mainly of Blacks, which in turn is expanding consumption by Blacks beyond their present income levels.

■ The emergence of a new Black middle class

The UCT Unilever Institute of Strategic Marketing, based at the University of Cape Town, released a study report in 2006, referring to the new middle class of Blacks with growing economic clout as the “Black Diamond.” The report suggested that this new middle class would spur future consumption.

The new Black middle class as described by the Institute refers to a group of people who 1) make up 2.6 million (12%) of the country’s 23 million Black consumers but account for 54% of those consumers’ purchasing power, and 2) generally speaking, are wage earners, have higher education, and have an average monthly income of 6,100 rand (about $900). They also have what is described as incredibly high confidence in their own future and the future of their country and tend to be glad to make long-term investments. They take pride in their African culture and heritage and believe in nationalism as well as peace and cooperation among the races. Members of this class say that their biggest concern is their amount of debt, but at the same time many of them are managing their debt relatively well. They take loans to purchase real estate, automobiles, home electronics (heaters, refrigerators, washing machines, televisions, DVD players, etc.), apparel and so on. Goods that they would like to buy next include real estate, the latest mobile telephones, laptop computers, decoders for paid television broadcasts, and plasma televisions.

■ Business models for South African companies

A variety of business models are being looked to, especially in the distribution companies, targeting the growing new Black middle class. At the present time, shopping centers are being built in many townships (formerly districts set aside for Black residents), and a steady stream of supermarkets, apparel dealers and fast food shops are appearing in the same areas, expanding sales at a very quick pace. Most retailers issue their own installment sales cards to get customers.

Woolworths, a large South African supermarket targeting relatively high income customers, has tried offering products for low and middle income customers and changing its store brands, but this was unsuccessful. The retailer now believes that township residents want access to the same types of products as those available in urban shopping centers, so it is currently converting to the unified national Woolworths brand and looking to rally with mid-range and high-end goods.

Foschini, another apparel dealer that is getting into the townships, likewise believes that low-priced goods are not necessarily what customers in these areas are looking for. The company says that a house, a car and the right clothing are critical to being seen as a success in the townships, and in the area of clothing the trend is to purchase items that are different from what other people are wearing. Thus the association between Blacks and low-priced goods is being rejected.

On the other hand, home electronics dealer Hi-Fi Corporation says that its venture into the townships was a mistake. The company opened for business in Soweto, a township on the outskirts of Johannesburg, in 2006, but sales fell short of plan. It notes that members of the new Black middle class who own automobiles tend to purchase expensive products such as plasma and liquid crystal televisions in stores located in districts where many Whites live, and the Soweto store tends to sell inexpensive home electronics like irons and lower-priced models of televisions. The company creates newspaper insert advertisements especially for Soweto, primarily featuring low-priced items. It does not actively promote installment purchases because that tends to increase prices.

Thus, South African companies are eager to win customers from the new Black middle class by distinguishing what they sell according to product type and region.

[5] Based on The Bird of Gold: The Rise of India's Consumer Market, a report on India's consumer markets by McKinsey & Company in May 2007.

[6] Based on definition by the National Council of Applied Economic Research (NCAER). Of households in the middle class, 25% owned automobiles and 66% owned such home electronics as refrigerators and air conditioners.

[7] Real growth rate, based on FY2003 as benchmark year.

[8] Based on categories defined by Brazilian consulting company Data Popular.

Column III-5

☉ The middle class: driver of automobile sales (Russia)

Russia's strong economy of recent years has energized its consumer market. After the wealthy class, it is the middle class that is mainly driving consumption.

The automobile market has been particularly active with the growth in income. In November 2005, the major auto dealer Avtomir conducted a survey of about 1,700 customers who had purchased new autos from the company and found that those making more than $400 and up to $1,000 per month were the largest income class of customers (54.1%). While it is possible to buy an auto for about $5,000 in Russia if it is a compact, the best-selling autos are those priced between $10,000 and $20,000.

☉ Foreign brand autos in high demand

For several years after the 1998 fiscal crisis, the Russian market for automobiles stagnated, but it has steadily expanded since 2003. While the market share for Russian brand autos manufactured by major domestic automaker AvtoVAZ has fallen, that of foreign brand automobiles has climbed rapidly.

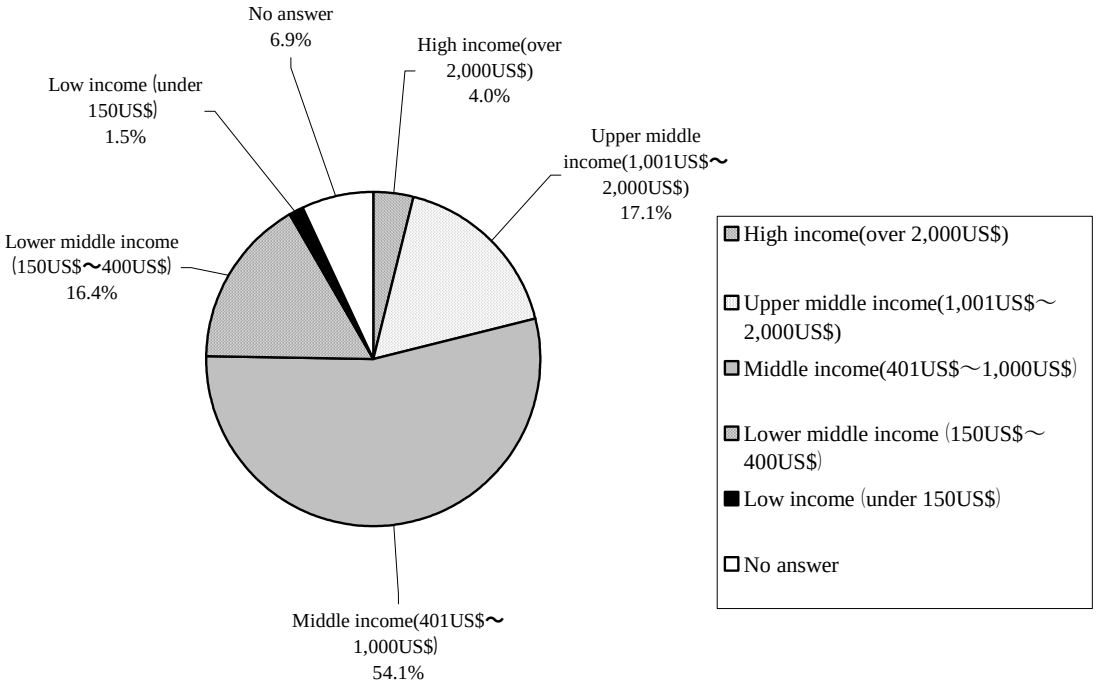
In 2006, sales of foreign brand autos passed the one million mark for the first time, outstripping the number of Russian brand autos sold. While foreign brand autos increased sales by 64% over the previous year, AvtoVAZ sales increased less than 3%, and its market share fell from 49% to 41%. Some of the big reasons why foreign brands are so popular include rising incomes, the growing use of auto loans, and the more ready availability of foreign autos that were once considered unattainable.

☉ GM sets aside special sales area for wealthy customers

In this market environment, Klarus Trading, official dealer for U.S.-based General Motors (GM), has been greatly successful with a two-sided strategy that clearly distinguishes between wealthy customers and all others.

This dealer handles four lines (Cadillac, Hummer, Chevrolet and Opel), but the first floor of its store in Moscow displays just Chevrolet and Opel, for ordinary customers. The average monthly income of these customers is $700-$2,000, and about 70% of these take out auto loans. The main target here is company employees and managers of smaller companies. On the second floor, however, Cadillacs and Hummers are on display. Wealthy individuals such as politicians, artists and managers of major companies are the main target here. Almost none of these customers take out auto loans, and in many cases they make lump-sum payments in cash.

Column III-5: automobile purchaser's average monthly income in Russia



Source: Avtomir

■ Turkey

■ Vigorous private sector consumption

Turkey's economy has continued to grow by an average of more than 7% since 2002. The greatest contributing factor to this growth is personal consumption, which is valued at more than 60% of GDP. Particularly vigorous spending on such durables as automobiles, home electronics and furniture, as well as non-durables like apparel, bags and shoes is supporting this economy. Per-capita GDP (nominal purchasing power parity base) continues to climb, reaching $7,711 in 2005. That represents an increase of 40.3% over the figure from a decade earlier in 1995. As past concerns over high interest rates and a drop in the exchange market recede, it has gotten easier for consumers to take out lira-denominated loans, as demonstrated by the significant growth in consumer loan and credit card loan balances since 2004. Most customers purchasing automobiles, home electronics or home furnishings in particular take out a loan to do so.

The average household's disposable income in Turkey climbed from $5,542 in 1994 to $8,996 in 2004, a 62.3% gain in 10 years. By income class, average disposable income doubled for the 20% of the population with the lowest income in the decade between 1994 and 2004, indicating that the economy has raised the income floor for the low income class (Table III-15). As for the distribution of disposable income, whereas in 1994 there was a very significant gap between the poorest class (4.9%) and wealthiest class (54.9%), by 2005 the gap had narrowed to 6.1% for the poorest and 44.4% for the wealthiest.

Even so, however, there is an income gap with a multiplier of seven between the wealthiest class and the lowest class, and even comparing the upper class and lowest class reveals an income gap with a multiplier of approximately two. Figures show that the wealthiest class spends more than 50% of their income on education, transportation and culture, with household effects such as apparel and durable goods accounting for about 40%. The 15,000,000 people in the wealthiest class, or to put it more precisely, those at the upper end even within this group, substantially support Turkey's growth in consumption.

■ Contest to reach consumers with TV commercials intensifying

As if to symbolize the vigorous growth in private sector consumption, the rush to build large shopping malls in recent years continues in Istanbul and other major cities. In Istanbul alone there are now about 40, with 20 or more in planning, while in the suburbs large foreign owned shops are also increasing their presence, including Metro (Germany), Carrefour (France) and Ikea (Sweden). Of Turkey's 81 provinces, 18 had a population of at least 1,000,000 in the year 2000, starting with Istanbul and its 10,010,000 residents. Targeting regional consumer markets, major commercial facilities are being constructed at an accelerating pace in the capital Ankara (population 4,010,000) as well as Izmir (3,370,000), Konya (2,190,000), Bursa (2,130,000) and Adana (1,850,000).

At the same time, there are signs that the competition to grab customers is starting to overheat. Simply providing favorable treatment such as installment purchases, which are already commonplace, is not enough; what determines success is effective advertising through the optimal media. A brand survey conducted by a private survey company revealed that the most recognized brand in Turkey during 2006 was Arçelik, a domestic leader in home electronics that has retained the top spot in recognition for the past 10 years. Others highly recognized were the Turkish brand Ülker (pastries), Nokia (mobile telephones) and Coca-Cola (soft drinks). All of these were so well recognized because of their frequent TV commercials. Among the reasons that television is considered the most effective means for developing a market is the fact that television is such an intimate part of the Turkish people's lives, in part because the entertainment industry is so advanced in the nation.

■ Availability of after-sales care critical to success

Turkish companies and consumers are reportedly characterized by a love of new items and brand goods and a desire to show off; this mindset is a major motivation for consumption. There is a deeply rooted contradiction in this market, however: on the one hand, consumers are adept enough to absorb new products and leading-edge technologies, but on the other hand they prioritize price and a sense of getting a good deal over getting a lot of functions for a higher price. This is an extremely complex market, simultaneously offering goods for the "high-end market" and the "inexpensive market," designations which apply regardless of income class. High-tech products, where Japan has so much expertise, are very highly regarded, and newspapers frequently feature new technologies and products developed in Japan, but when business actually takes place, the customer often tends to demand a lower price, since he does not really need all the added functions. Japanese products, therefore, face brisk competition from three sources: 1) Turkish brands, which have high recognition and are affordable, 2) European products, which enjoy the quality and price benefits of being part of the EU customs union and whose brand names have widely penetrated the market, and 3) very inexpensive Chinese products.

The supplier countries that have most successfully used these characteristics of the Turkish market are South Korea and China. In the mobile telephone market, Samsung of South Korea is competing as an equal with European companies such as Nokia, and Motorola, a U.S. company. Mobile telephones are seen as a status symbol in Turkey, and partly because of this they are very common even among the low income class. Many people have more than one mobile telephone, and it is estimated that about 50 million such phones were in use at the end of 2006, with the number expected to continue growing steadily into the future. Recently, the purposes for using a mobile telephone have been partly recreational, including text messaging and shooting photos and video, and for this reason Samsung is enhancing their telephones' audio function and storage capacity,

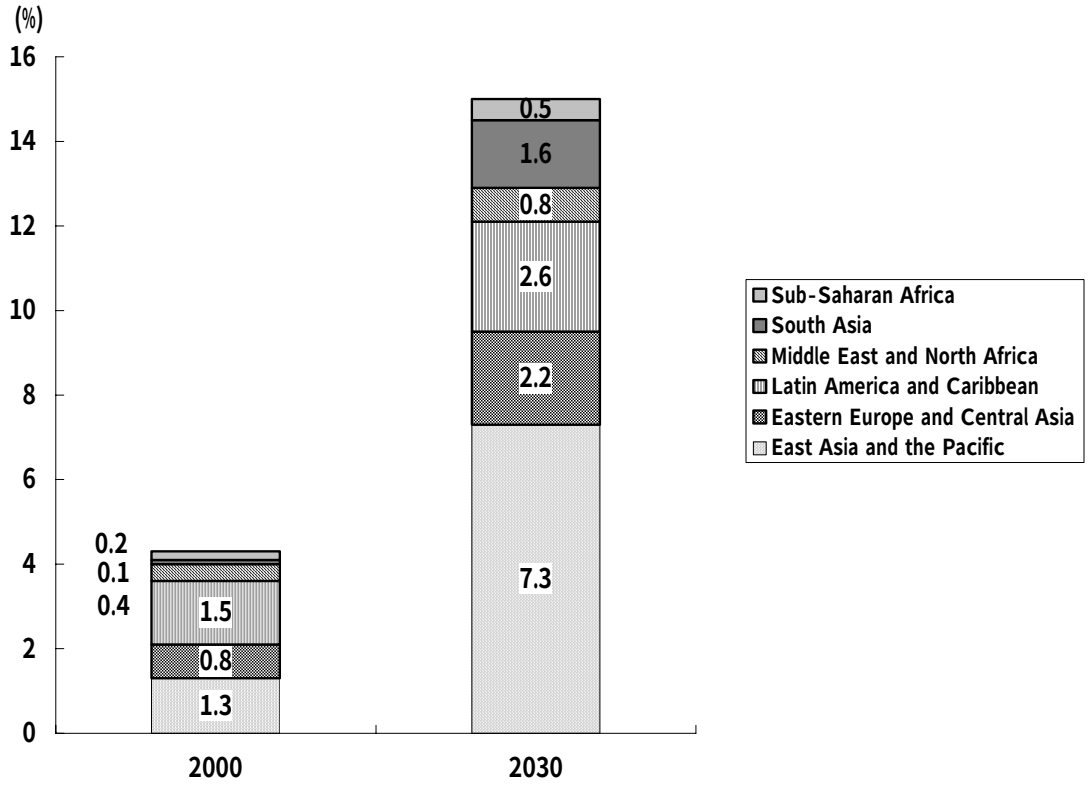
introducing extra thin and wristwatch-type models. As new models come out featuring the latest technologies such as these, Samsung simultaneously conducts product promotion using various types of advertising media, and the company has successfully grasped the psychology of the Turkish consumer.

In the case of China, most of the business consists of orders from Turkish companies looking to reduce costs, but in the past five years the value of imports from China has grown sevenfold, taking a portion of the business by consumers who prioritize price. Products from China now make up 7% of imports.

Amidst this competition against products from Europe, China and South Korea, the key to success is whether or not a company provides after-sales support in Turkey. In the Turkish market for commercial sewing machines, where Japan is a strong player, low-priced Chinese goods have threatened Japan's share in recent years. This, however, has resulted in a large number of claims over breakdowns and lack of repair services, so customers are returning to Japanese manufacturers, who have local representative offices and have provided after-sales care for many years.

While there is some demand in Turkey for low-priced products, there is also a strong tendency to repair products when they break down and to use them for a long time, and so Turkish consumers feel uneasy about foreign companies who do not have some kind of base in the country. This is why, in the Turkish home electronics market, the leading domestic manufacturers, who have set up strong nationwide after-sales care networks with strong local ties, have such a big share of the market.

Fig. III-14 Developing country share of the global middle class



Note: Thresholds of Brazil and Italy are annual per capita incomes (2000 PPP) of US$3,914 and US$16,746.

Source: Global Economic Prospects 2007, World Bank

Table III-8 Retail Market by segments in India(2006)

Fashion segments	Total Rs. Crore	Growth Rate	Organised Retail Rs. Crore	% Share in total organised retail Growth Rate	Growth Rate
Clothing, Textile & Fashion	113,500	10.7%	21,400	18.9%	30.3%
Jewellery	60,200	9.3%	1,680	2.8%	30.6%
Watches	3,950	10.2%	1,800	45.6%	18.2%
Footwear	13,750	9.1%	5,200	37.8%	34.2%
Health & Beauty Care Services	3,800	14.9%	400	10.6%	52.9%
Pharmaceuticals	42,200	10.2%	1,100	2.6%	31.4%
Consumer Durables, Household electronics	48,100	13.9%	5,000	10.4%	31.2%
Mobile handsets	21,650	19.9%	1,740	8.0%	33.7%
Furniture & Furnishings	40,650	3.1%	3,700	9.1%	20.6%
Food and Grocery	743,900	2.2%	5,800	0.8%	30.8%
Catering Services	57,000	18.6%	3,940	6.9%	30.8%
Books, Music & Gifts	13,300	18.4%	1,680	12.6%	34.9%
E entertainment	38,000	14.5%	1,560	4.1%	44.1%
Total	1,200,000	5.7%	55,000	4.6%	34.8%

Note: The Growth rate is the average growth rate from FY04-06 at 2003 prices.

Source: India Retail Report 2007

Table III-9 Number of Malls Across India

	Number of Malls (As of 2006)	Built-up Square Feet Area	Number of Malls in planning or under construction to be	Total Square Feet Area
Delhi(NCR)	27	3.50	65	19.99
Mumbai	19	5.11	80	15.64
Bangalore	5	1.33	22	9.20
Kolkata	3	1.27	19	5.37
Hyderabad	3	0.37	12	1.99
Chennai	3	0.90	9	4.90

Source: India Retail Report 2007

Table III-10 Average household income trends in China's cities

(Unit: US$)

	Proportion	2000	2005	Growth rate, % (2000～2005)
Highest Income	90～100%	359	839	133.7
High income	80～90%	274	509	85.8
Upper middle income	60～80%	225	386	71.6
Middle income	40～60%	187	297	58.8
Lower middle income	20～40%	154	226	46.8
Low income	10～20%	125	170	36.0
Lowest income	0～10%	96	115	19.8
(impoverished)	0～5%	85	94	10.6

Source: China Statistical Yearbook

Table III-11 Chinese household durable goods ownership (average units owned / 100 households)

	Urban			Rural		
	2000	2006	Average growth rate (2000-2006)	2000	2006	Average growth rate (2000-2006)
Color TV	116.6	137.4	2.8	48.7	89.4	10.7
Refrigerator	80.1	91.8	2.3	12.3	22.5	10.6
Washing machine	90.5	96.8	1.1	28.6	43.0	7.0
Air conditioner	30.8	87.8	19.5	1.3	7.3	33.8
Cell phone	19.5	152.9	43.5	4.3	62.7	57.7
Computer	9.7	47.2	30.9	0.5	2.7	33.2
Camera	38.4	48.0	3.8	n.a.	n.a.	n.a.
Family car	0.5	4.3	44.0	n.a.	n.a.	n.a.
Motorcycle	18.8	25.3	5.1	21.9	44.6	12.6

Source: China Statistical Abstract 2007

Table III-12 Number of households in each market in Brazil

(Units: 1,000 households)

	2002	2005	Growth rate 2002 - 2005
Number of households in high-end market (more than 10 times the minimum wage)	6,306	5,485	-13.0
Number of households in mid-range market (more than two times, up to 10 times the	24,885	27,763	11.6
Number of households in low-end market (up to two times the minimum wage, down to no wage)	15,455	18,912	22.4
Other (unknown because income not reported)	961	935	-2.7
All households	47,606	53,095	11.5

Notes: Brazilian household income statistics compiled using indicators that are based on multiples of minimum wage.
"No income" includes people who live only on pensions or other funds provided by society.
Source: Compiled from data of the Brazilian Institute of Geography and Statistics (IBGE).

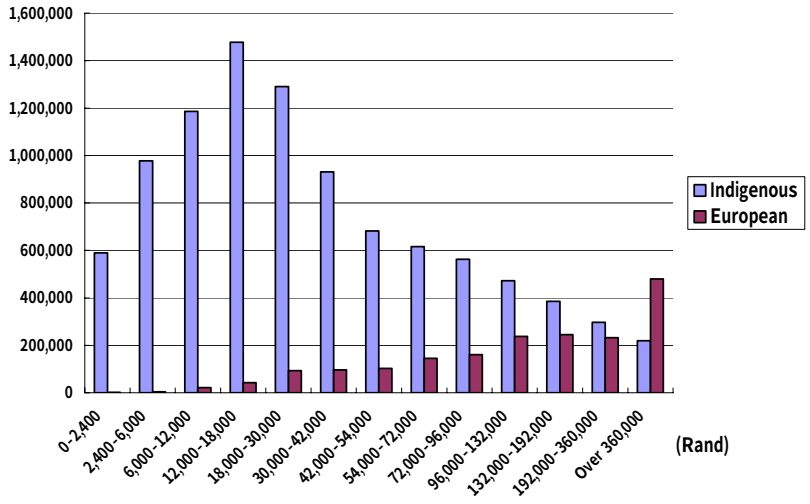
Table III-13 Annual income per capita in South Africa

(Unit:US$)

	2001	2002	2003	2004	2005
Indigenous	1,023	941	1,451	1,893	2,100
European	7,072	6,255	9,171	11,633	12,671
Coloured	1,691	1,548	2,384	3,124	3,519
Indian/Asian	3,712	3,411	5,223	6,703	7,246
Total	1,826	1,643	2,469	3,172	3,481

Source: Global Insight Southern Africa

Fig. III-15 Number of households by income group in South Africa(2005)



Source: Statistics South Africa

Table III-14 Real final consumption expenditure by households(Unit:%)

	2000	2001	2002	2003	2004	2005	2006
Durable goods	12.4	4.6	0.7	8.6	16.2	18.7	15.5
Semi-durable goods	9.0	5.3	8.9	6.2	18.2	16.5	18.6
Non-durable goods	-0.6	1.5	2.1	1.8	4.8	4.8	4.8
Services	6.1	4.7	3.3	3.3	3.4	2.6	3.6
Total	4.1	3.5	3.2	3.5	6.7	6.6	7.3

Source: South Africa Reserve Bank

Table III-15 Disposal income by stratum in Turkey (1994-2005)

	Year	All income levels	Income level strata, at 20% intervals				
			Poorest	⇒			Richest
Distribution of household disposable income by stratum (%)	1994	100.0	4.90	8.60	12.60	19.00	54.90
	2003	100.0	6.00	10.28	14.47	20.93	48.32
	2004	100.0	6.04	10.69	15.22	21.88	46.17
	2005	100.0	6.05	11.08	15.83	22.60	44.44
Average disposable income per family (US$)	1994	5,542	1,346	2,391	3,494	5,272	15,207
	2003	7,212	2,162	3,708	5,219	7,548	17,423
	2004	8,996	2,716	4,809	6,845	9,842	20,768
	2005	10,865	3,287	6,018	8,602	12,278	24,139

Source: The Turkish Statistical Institute

IV. The Growing Use of Free Trade Agreements in Asia and Japanese Company Growth Strategies (Conclusion)

■ World trade and investment: more than three years of strong continuous growth

The remarkable aspect of the world economy, trade and investment in recent years is that all three of these have sustained a high level of growth. Because the three are interrelated, it makes sense that they should follow the same trends over the long term. Looking at the past two to three years, however, one notes that they are not simply moving in parallel; a major feature of the three is that the economy has grown at a strong steady rate of about 5%, while both trade and investment have maintained double-digit growth rates, putting them all on very high growth trajectories.

The fact that the three elements have shown such high growth rates while moving in unison with each other can be attributed to several factors: growing demand and increasing exports from developing countries, especially emerging countries; the rapid growth in resource trading and corporate mergers and acquisitions (M&A); and the boost given to trade and investment by a favorable financing environment.

In China and India, the economy has grown at the rate of about 10% annually, causing some concern of the danger of overheating. Chinese stock prices have risen rapidly, reflecting the increase in domestic demand, and financial risk is growing greater. With the growing risk, the higher investment cost and revisions to government policies favorable to foreign ownership, there has been negative growth in foreign direct investment in China since the previous year, although the amount is still large in scale.

■ Japanese foreign investment hits an all-time high

The Japanese economy has shaken off its three areas of excess (excess capacity, excess employment and excess debt) and is now achieving solid growth. This has resulted in greatly increased domestic profitability, which in turn has led to active expansion overseas. The low yen boosts corporate revenues when payments for exports and profits from overseas are converted to yen. At the present time, this effect is absorbing the increasing cost of resources and energy, allowing the Japanese economy to grow steadily. Reflecting improvements in the profit structures of Japanese companies, Japan set a new record for foreign direct investment in 2006, surpassing the previous record of 16 years earlier in 1990. This has much to do with the fact that Japanese companies have expanded aggressively into emerging countries, are increasing their investments to secure rights to energy and resources, and are experiencing M&As on a large scale.

■ Overseas profit: dependent upon local growth

As a result of overseas expansion, especially in Asia, Japanese companies now get one-third of

their total sales from overseas, and one-third of this comes from the Asia-Pacific region. The percentage of sales from the Asia-Pacific region in FY2006 (10.3%) was more than double that of FY1998 (4.9%), while in the meantime the share from Europe and the U.S. changed very little, indicating that Japanese companies are increasingly dependent upon sales in Asia.

On the other hand, however, although Japanese companies' operating profits in FY2006 rose overseas, the increase was relatively lower than the growth in the domestic market. Additionally, when return on assets (ROA; operating profits during the term divided by value of assets at the end of term) is broken down into the operating profit ratio and total asset turnover, turnover is shown to be a bigger contributor to ROA than profit ratio in the overseas business area in contrast to the situation in domestic business, and this trend is particularly strong in Asia. This may be because rising ROA is less dependent on the competitiveness of products and service than it is on the economic growth of the area in which one is located. This suggests, in other words, that during times of continued strong growth such as Asia is experiencing, it is best to offer products and services to meet the growing demand, and when growth slows down, it is best to have a supply system that can create profitability backed by competitiveness.

■ Reaping the benefits of the middle class and the positive cycle of growth in emerging markets

The growing consumption in emerging markets such as the BRICs, Turkey and South Africa bears some astonishing characteristics. The consumer markets in these countries are facing a period of major change. The important characteristic here is the rapid entry of "organized markets" such as department stores, shopping malls and supermarkets. India's retail sector for apparel and home electronics grew by about 10% in 2006, but the growth for organized markets in each case was more than 30%. In China's rural areas, far fewer households own such durable goods as televisions and air conditioners than urban households, but in recent years the diffusion rate has tended upwards.

At the same time, the percentage of people in the middle class in these emerging countries is growing at a quick rate, and this is a major factor supporting demand in the organized markets. The World Bank estimates that by 2030, the percentage of the world's population consisting of middle-class persons in developing countries will grow to 14.9%, up from just 4.2% in 2000. The spread of the middle class and the growth of organized markets are leading companies to get into the market both for ordinary goods and high-end goods in China, not just for mobile phones but also for cosmetics. Even in such markets as South Africa and Turkey, the middle class's demand is transitioning from low-end goods to mid-range products.

In this scenario, competition among businesses will grow stronger and stronger in global markets, and the push to offer lower-priced goods is spreading widely even in developed countries such as the U.S. The U.S. market is characterized by spacious homes, and televisions there are getting larger. Even as they get larger, they are also getting less expensive, such that volume retailer Best Buy

mainly displays widescreen televisions of a lower price range than those on display at similar stores in Japan. This is true not only of televisions but also of DVD players and PCs.

■ A double-sided strategy: general-use products and high added-value products

Japanese companies are stronger at integral type production and sales, as best demonstrated in the areas of automobiles and digital home electronics with a high degree of added value; on the other hand, in recent years these companies have become less competitive at the modular type of general-use products. Dell Computer of the U.S., to give an example of a company that uses the modular type of production, outsources production of components overseas when a consumer places an order for a custom-made PC, then in the end assembles the components at its U.S. factory. It also sells products directly to consumers, with some products sold by volume retailers.

Japanese companies have typically depended primarily on integral production systems, in which products are completed in house, and have been very cautious about using any modular type system that requires outsourcing. One option that may allow Japanese companies to take advantage of the growing middle class and favorable cycle of growth in emerging markets, and to keep up with the trend toward lower prices in such markets as the U.S., would be to adopt a double sided strategy that is based on an integral type system that also incorporates elements of a modular type system.

In order to do this, one option for Japanese companies is to use outsourcing for general-use products and sell them under their own brand names, or to form alliances with companies in developing countries. Another idea is to apply integral type technology to general-use products and sell modular type products using Japanese technology. Finally, the public and private sectors could actively work together to provide information so that the world becomes more widely acquainted with the significant value of Japan’s integral type products.

■ A Japanese growth strategy using free trade agreements with major Asian countries

A trade strategy that liberalizes tariff and non-tariff barriers among major Asian countries is one step that can be taken to increase global competitiveness of Japanese companies. The Asia-Pacific region is the site of active trade in goods and services at this time, thanks to trade deregulation. Along with trade deregulation negotiations taking place at the WTO, there are some other notable actions taking place, including the formation of free trade agreements (FTAs) and economic partnership agreements (EPAs) that seek to eliminate national and regional tariff and non-tariff barriers.

At this time, a total of 22 FTAs are in effect in the Asia-Pacific region, nearly all of which have been concluded since 2000. The second oldest of these, the ASEAN Free Trade Area (AFTA, in effect since 1993), is one of the most commonly used FTAs, and the Common Effective Preferential Tariff (CEPT), the scheme for reducing tariffs within the AFTA, is used on average 23.5% of the

time in Thailand and Malaysia. Looking at this figure alone, one might conclude that the usage of CEPT is not very high. A closer look at the actual situation, however, reveals that Japanese companies and others are already taking advantage of tariff exemption systems in special economic zones in certain countries of Asia, and that they are also using tariff exemptions on products that they export from countries where they are doing business to other member countries (or the U.S.). Additionally, Information Technology Agreements (ITAs) eliminate tariffs on IT products traded between countries that are members to such agreements. Because such schemes have penetrated so far, one cannot necessarily conclude that the usage of CEPT is low.

What is particularly noteworthy concerning FTAs going forward is the exporting of products from ASEAN to India and Australia, two major markets outside of ASEAN, for internal sale there. For example, the percentage of all exports traded under FTA arrangements between Thailand and India make up just 18.1%, but if one looks at just 82 “early harvest” items (items whose tariffs have been reduced before their FTA took effect), the usage shoots up to 89%. The rate for Thai exports to Australia is 62.5%, suggesting that if the purpose is internal sales in the importing nation, the rate of usage of FTAs will be quite high. Thailand uses FTAs to export color televisions, air conditioners and other products to India and private and commercial automobiles to Australia. In both cases, Japan-affiliated companies are major users, but in 2005, Thailand passed Japan to become the top source of Australia’s commercial vehicle imports.

Progress is being made for new FTAs/EPAs in the Asia-Pacific region in the form of ASEAN + 1 (i.e., ASEAN plus either Japan, China or South Korea), ASEAN + 3 (ASEAN plus Japan, China and South Korea) or ASEAN + 6 (ASEAN plus Japan, China, South Korea, India, Australia and New Zealand). Considering how much FTAs are actually used by companies in the Asia-Pacific region, an FTA that involves India, Australia and New Zealand could have the greatest effect.

When this was actually run through the GTAP model, deregulation within the ASEAN + 6 scheme showed a greater economic effect than ASEAN + 3. However, as one can tell from the actual CEPT usage rate, even a model that examines the economic effects of just reducing tariff rates was not enough to create much benefit, but one that also looks at the benefits of reducing non-tariff barriers (regulations, standards, volume restrictions, complex tariff procedures, etc.) showed a greater economic benefit. Based on this, one would hope for a reduction of overall service link costs, i.e., the costs of the links between different production bases such as tariffs, non-tariff barriers and transportation costs, to be built into any FTA/EPA in the Asia-Pacific region.

In FTAs already concluded in the Asia-Pacific region, five types of regulations stemming from the product origination side may be identified: (1) Value added criteria alone, (2) change in tariff classification criteria alone, (3) a selection type allowing the choice to be of either value added or change in tariff classification, (4) a dual criteria type requiring both to be of value added and change in tariff classification, and (5) manufacturing process criteria. Of these, “the dual criteria rules of

origin” are the strictest, while “the selection type” allows the greatest flexibility. Accordingly, the most preferable course for the future would be a convergence into flexible criteria easy for companies to use.

Appendix

Note 1: Definition of products

1. Products

Name of products	HS
Total Value	00～99
Machinery and equipment	84～91
Genral equipment	84
Air conditioners	8415
Electrical equipmet	85
Transport equipment	86～89
Automobiles	8702～8705
Passenger vehicles	8703
Motorcycles	8711
Automotive parts	8707～8708 8407.31～8407.34
Precision instruments	90～91
Chemicals	28～40
Industrial chemicals	28～38
Pharmaceuticals and medical supplies	30
Plastics and rubber	39～40
Foodstuffs	1～11、16～24
Seafood	03
Tuna	0302.31～0302.32 0302.34～0302.36 0303.41～0303.42 0303.44～0303.46
Grains	10
Corn	1005
Processed food products	16～24
Ethanol (Ethyl alcohol)	2207.10
Oils, fats, and other animal and vegetable products	12～15
Soybeans	1201
Animal and plant fats	15
Miscellaneous manufactured goods	64～67、92～97
Iron ore	2601
Mineral fuels, etc.	27
Mineral fuels	2701～2705 2708～2713、2715
Coal	2701
LNG	2711.11
Petroleum and petroleum products	2708～2710 2712～2713、2715
Crude oil	2709
Textiles and textile products	50～63
Synthetic fibers and textiles	54～55
Clothing	61～62
Knit products	61
Cloth	62
Base metals and base metal products	72～83
Steel	72～73
Primary steel products	72
Steel products	73
Copper	7403
Nickel	7502
Aluminum	7601
Lead	7801

2. IT products

	HS
①Computers and peripherals	8471、8473
Computers and peripherals	8471
Parts for computers and peripherals	8473
②Office equipment	8469、8470、9009
③Telecommunications equipment	8517、8525.10 8525.20、8526
④Semiconductors and electronic components	8540～8542
Electron tubes and semiconductors	8540～8541
Integrated circuits	8542
⑤Other electronic components	8504、8518、8522、8523 8529、8532～8536
Flat panel displays	8529.90
⑥Video equipment	8521、8525.30、8525.40 8528、9006
⑦Audio equipment	8519～8520
⑧Measuring and testing equipment	8543、9014～9015 9024～9027、9030～9032
IT parts	8473、④、⑤
Finished IT products	8471 ②、③、⑥、⑦、⑧
Total IT equipment	Parts, finished products

Note 2: Estimates of world trade in 2006

The value of world trade in 2006 was estimated based on customs statistics from 52 countries and regions from which data was available in July 2007; a grand total was found for each of the three following categories (the amount of product-specific trade was found by adding categories 1 and 2 below).

1. The total value of exports (total value of imports) from 52 countries and regions added together.

2. For countries and regions from which customs statistics were not available (about 120 countries and regions, mainly developing ones), the value of imports from those regions (CIF basis) extracted from customs statistics for the 52 countries and regions and converted to FOB basis (for imports, value of exports (FOB basis) converted to CIF basis).

3. For approximately 150 countries and regions where customs data was not available, mainly developing ones, data was taken from "Direction of Trade Statistics" May 2007 (IMF).

<52 countries and regions>

Japan, U.S.A., Canada, Belgium, Netherlands, Luxembourg, Germany, France, Italy, Ireland, Denmark, Greece, Spain, Portugal, Austria, Finland, Sweden, UK, Norway, Switzerland, Australia, New Zealand, ROK, Taiwan, Hong Kong, Singapore, Thailand, Malaysia, Indonesia, Philippines, China, India, Mexico, Argentina, Brazil, Chile, Columbia, Costa Rica, Panama, Peru, Venezuela, Czech Republic, Hungary, Poland, Slovakia, Slovenia, Lithuania, Russia, Ukraine, Romania, Turkey, South Africa.

Note 3: Estimates of world direct investment in 2006

World direct internal and external investment in 2006 was estimated as below.

1. Data was collected as below from 55 countries and regions where data was available for 2005 and 2006.

i. For U.S.A., Canada, Australia, Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Portugal, Luxembourg, Netherlands, Spain, Denmark, Norway, Sweden, Switzerland, UK, China, Hong Kong, India, ROK, Malaysia, Philippines, Singapore, Thailand, Taiwan, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Russia, Slovakia, Slovenia, Israel, Argentina, Brazil, Chile, Columbia, Mexico, Venezuela, Turkey, international trade balance statistics were used for each nation and region. Data denominated in local currency was converted to the U.S. dollar at the IMF's average annual rate.

ii. For Japan, the international trade balance statistics announced by the Bank of Japan were converted to the U.S. dollar at the Bank of Japan's interbank average rate during the term.

iii. For Armenia, Belarus, Georgia, Iceland, Uruguay and South Africa, data was used from the IMF's Balance of Payments Statistics (BOPS, May 2007).

2. The process above was used to calculate the world total and growth rate of world direct internal and external investment. Fifty-four countries and regions (the above 55 countries and regions, exclusive of Taiwan) made up 90.5% of the world direct internal investment in 2005 according to BOPS (May 2007) and 98.0% of direct external investment.

3. Figures for the Netherlands used data that included special purpose enterprises (SPEs), so in the BOPS total (May 2007), data from the Statistical Office of the European Communities (Eurostat) was replaced with EU15 data for 1995-2000 and EU25 data for 2001-2005 to recalculate the world total.

4. Growth in total value as calculated for the 55 countries and regions was taken as the growth rate for world direct investment in 2006 and multiplied by the 2005 total of world direct investment as found in 3 to estimate total world direct investment.

Table 1 GDP growth rate and contribution rate by country and region

(%)

	2003		2004		2005		2006	
	Growth rate	Contribution	Growth rate	Contribution	Growth rate	Contribution	Growth rate	Contribution
U.S.A.	2.5	13.1	3.9	15.2	3.2	13.3	3.3	12.3
EU25	1.3	7.4	2.4	10.1	1.8	8.0	2.9	11.3
EU15	1.1	5.7	2.3	8.8	1.6	6.4	2.8	9.9
Japan	1.4	2.5	2.7	3.5	1.9	2.6	2.2	2.6
East Asia	8.0	39.7	8.6	33.6	8.6	37.2	8.9	36.3
China	10.0	30.8	10.1	24.9	10.4	28.9	10.7	28.4
ROK	3.1	1.4	4.7	1.6	4.2	1.5	5.0	1.6
ASEAN10	5.9	6.2	6.5	5.3	6.0	5.3	5.9	4.9
Thailand	7.1	1.6	6.3	1.1	4.5	0.8	5.0	0.8
Singapore	3.1	0.2	8.8	0.3	6.6	0.3	7.9	0.3
Malaysia	5.5	0.6	7.2	0.6	5.2	0.5	5.9	0.5
Vietnam	7.3	0.7	7.8	0.6	8.4	0.7	8.2	0.6
India	7.3	10.1	7.8	8.4	9.2	10.9	9.2	10.3
Latin America	2.4	4.6	6.0	8.5	4.6	7.1	5.5	7.7
Brazil	1.1	0.8	5.7	2.9	2.9	1.6	3.7	1.8
Russia	7.3	4.4	7.2	3.4	6.4	3.3	6.7	3.2
Middle East	6.5	4.4	5.6	3.0	5.4	3.1	5.7	3.0
Africa	4.7	3.9	5.8	3.6	5.6	3.8	5.5	3.4
World	4.0	100.0	5.3	100.0	4.9	100.0	5.4	100.0
For reference								
Developing countries	6.7	73.0	7.7	65.0	7.5	70.0	7.9	68.6
BRICs	8.0	46.1	8.8	39.5	8.9	44.8	9.2	43.8

Notes: 1. The world growth rate was calculated by the IMF using purchasing power parity weighting.

2. Each country or region's contribution rate was calculated using 2006 prices and purchasing power parity weighting.

3. Figures may differ from those found elsewhere due to revisions, differing source data, and other factors.

4. East Asia includes the ASEAN10, China, the ROK, Hong Kong, and Taiwan.

5. Developing countries are as defined by WEO (IMF).

Sources: WEO (IMF), national statistics.

Table 2 World Export matrix(2006)

(US$ million)

	World	NAFTA	United States	Japan	EU25	East Asia	China	ASEAN	APEC	BRICs
World	11,967,300	2,335,105	1,776,390	529,306	4,579,150	2,240,647	769,310	662,780	5,457,890	1,147,085
NAFTA	1,652,536	880,808	499,561	70,247	248,647	202,167	64,099	61,144	1,193,938	103,188
United States	1,037,070	364,424	-	59,649	214,147	183,174	55,224	57,318	642,347	89,260
Japan	642,353	165,029	145,936	-	91,691	297,806	93,955	76,362	485,543	108,226
EU25	4,499,025	394,379	337,267	55,969	3,002,093	212,555	79,632	60,968	790,538	222,715
East Asia	2,628,711	488,060	438,100	230,770	393,862	1,114,838	358,407	353,638	1,915,344	442,294
China	969,284	228,242	203,898	91,773	182,058	293,625	-	71,328	646,891	37,798
ASEAN	791,733	119,077	110,662	82,292	99,218	374,087	76,093	197,919	603,996	100,140
APEC	5,429,648	1,576,184	1,117,016	338,992	935,557	1,697,808	555,783	507,573	3,775,761	709,276
BRICs	1,515,143	295,593	260,605	104,717	402,730	361,200	36,651	86,814	805,179	83,894

Notes: 1. Exports from each country/region to Taiwan were converted to FOB figures by multiplying 0.9 to Taiwan's CIF imports.

2. East Asia consists of 15 countries: China, ROK, Taiwan, Hong Kong, and ASEAN10.

3. APEC includes Japan, U.S.A., ROK, Taiwan, Hong Kong, Singapore, Thailand, Malaysia, Indonesia, Phillippines, China, Canada, Mexico, Chile, Vietnam, Papua

4. East Asia includes the ASEAN10, China, the ROK, Hong Kong, and Taiwan

Table 3 World trade by country and region

(US$ million, %)

	Exports						Imports					
	2004		2005		2006		2004		2005		2006	
	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate
Asia	2,523,596	24.8	2,906,344	15.2	3,399,831	17.0	2,330,543	26.7	2,693,134	15.6	3,119,632	15.8
China	593,369	35.4	761,999	28.4	969,073	27.2	561,423	36.0	660,119	17.6	791,614	19.9
Japan	565,039	20.3	598,215	5.9	647,290	8.2	454,669	19.2	518,638	14.1	579,294	11.7
ROK	253,845	31.0	284,419	12.0	325,465	14.4	224,463	25.5	261,238	16.4	309,383	18.4
Taiwan	174,350	21.0	188,963	8.4	213,004	12.7	168,715	32.3	181,743	7.7	202,038	11.2
Hong Kong	265,763	16.0	292,328	10.0	322,664	10.4	273,361	16.8	300,635	10.0	335,753	11.7
Singapore	198,791	24.2	229,681	15.5	271,916	18.4	173,719	27.4	200,075	15.2	238,900	19.4
ASEAN4	334,127	20.4	377,495	13.0	439,301	16.4	291,058	27.2	334,491	14.9	372,473	11.4
Thailand	97,098	21.0	109,848	13.1	130,621	18.9	95,197	25.8	118,112	24.1	128,652	8.9
Malaysia	125,857	25.7	140,979	12.0	160,845	14.1	105,297	31.5	114,626	8.9	131,223	14.5
Indonesia	71,585	17.2	85,660	19.7	100,799	17.7	46,525	42.9	57,701	24.0	61,065	5.8
Phillippines	39,588	9.8	41,007	3.6	47,037	14.7	44,039	8.8	44,052	0.0	51,533	17.0
Vietnam	24,337	26.8	32,442	33.3	39,826	22.8	32,095	29.4	36,978	15.2	44,891	21.4
India	75,631	31.6	99,651	31.8	121,259	21.7	97,313	36.7	138,370	42.2	172,876	24.9
Oceania	112,467	22.5	134,652	19.7	153,271	13.8	135,421	21.3	156,253	15.4	170,888	9.4
Australia	86,406	22.8	105,891	22.6	123,372	16.5	103,686	22.2	118,610	14.4	132,753	11.9
New Zealand	20,334	23.0	21,738	6.9	22,449	3.3	21,716	24.7	24,541	13.0	24,788	1.0
North America	1,136,279	14.0	1,266,606	11.5	1,424,748	12.5	1,743,836	16.5	1,988,034	14.0	2,203,733	10.8
U.S.A.	818,775	13.0	905,978	10.7	1,036,635	14.4	1,469,704	16.9	1,673,455	13.9	1,853,938	10.8
Canada	317,504	16.6	360,629	13.6	388,113	7.6	274,132	14.1	314,580	14.8	349,795	11.2
Central and South America	451,755	22.2	537,481	19.0	635,688	18.3	442,534	21.8	519,226	17.3	619,283	19.3
Mexico	189,200	14.8	213,995	13.1	250,461	17.0	197,303	15.7	221,414	12.2	256,205	15.7
Panama	887	11.1	955	7.6	985	3.1	3,582	14.6	4,111	14.8	4,657	13.3
Brazil	96,475	32.0	118,308	22.6	137,470	16.2	62,782	30.1	73,551	17.2	91,396	24.3
Chile	30,901	53.4	38,598	24.9	55,884	44.8	22,339	31.6	29,788	33.3	34,750	16.7
Europe	4,173,264	20.2	4,575,255	9.6	5,184,717	13.3	4,091,210	20.6	4,516,531	10.4	5,179,620	14.7
EU25	3,728,093	19.2	4,031,007	8.1	4,536,175	12.5	3,715,238	20.1	4,067,146	9.5	4,624,074	13.7
EU15	3,461,246	18.1	3,721,963	7.5	4,156,494	11.7	3,401,605	19.3	3,714,639	9.2	4,187,369	12.7
Germany	909,296	20.9	969,884	6.7	1,113,036	14.8	715,730	18.3	775,553	8.4	909,523	17.3
France	451,892	15.1	462,968	2.5	489,853	5.8	470,831	18.0	503,744	7.0	534,845	6.2
UK	347,563	13.5	394,090	13.4	447,619	13.6	466,784	18.2	502,143	7.6	566,031	12.7
Italy	353,522	17.8	372,689	5.4	411,234	10.3	355,258	19.2	384,533	8.2	437,759	13.8
Denmark	77,052	15.8	84,951	10.3	92,890	9.3	68,140	18.6	75,439	10.7	86,381	14.5
Ireland	104,730	12.7	109,604	4.7	111,982	2.2	61,842	14.7	68,525	10.8	72,788	6.2
Netherlands	357,432	20.7	405,806	13.5	462,848	14.1	319,725	20.7	363,191	13.6	416,892	14.8
Belgium	306,769	19.9	334,237	9.0	369,328	10.5	285,566	21.5	318,551	11.6	353,843	11.1
Luxembourg	16,256	21.9	18,715	15.1	22,798	21.8	20,049	23.8	21,819	8.8	26,636	22.1
Spain	182,581	16.8	192,526	5.4	205,482	6.7	258,312	23.6	288,479	11.7	316,621	9.8
Portural	35,727	12.5	38,137	6.7	43,355	13.7	54,859	16.1	61,165	11.5	66,649	9.0
Greece	15,322	14.4	17,169	12.1	20,900	21.7	52,731	17.5	54,077	2.6	63,290	17.0
Austria	118,307	21.7	124,998	5.7	140,533	12.4	119,905	20.4	127,137	6.0	140,383	10.4
Sweden	123,218	20.6	130,220	5.7	147,506	13.3	100,432	20.2	111,340	10.9	126,771	13.9
Finland	61,579	15.6	65,969	7.1	77,130	16.9	51,442	20.9	58,941	14.6	68,957	17.0
Poland	74,952	39.1	89,246	19.1	110,449	23.8	89,666	31.1	101,402	13.1	126,229	24.5
Czech Republic	68,940	41.4	77,976	13.1	95,199	22.1	69,919	34.9	76,332	9.2	93,383	22.3
Slovakia	27,516	25.6	31,950	16.1	41,838	30.9	29,451	30.3	35,279	19.8	45,996	30.4
Hungary	55,559	28.6	62,801	13.0	74,601	18.8	60,472	26.2	66,405	9.8	77,071	16.1
Slovenia	16,353	28.0	19,212	17.5	23,287	21.2	17,751	28.0	20,285	14.3	24,148	19.0
Switzerland	118,700	17.8	130,795	10.2	147,884	13.1	111,777	15.8	126,440	13.1	141,468	11.9
Russia, CIS	198,236	43.0	257,076	29.7	317,345	23.4	132,196	33.2	169,741	28.4	229,745	35.4
Russia	136,926	43.2	184,916	35.0	226,524	22.5	68,125	34.8	91,481	34.3	128,151	40.1
Ukraine	32,672	41.6	34,287	4.9	38,368	11.9	28,996	26.0	36,141	24.6	45,035	24.6
Middle East	345,492	30.8	453,727	31.3	570,381	25.7	338,048	28.6	404,854	19.8	466,085	15.1
Iran	31,832	25.2	42,655	34.0	60,597	42.1	31,723	26.4	34,360	8.3	35,733	4.0
Saudi Arabia	97,365	29.2	138,178	41.9	173,237	25.4	42,407	9.2	52,430	23.6	61,981	18.2
Kuwait	22,524	34.9	30,963	37.5	40,974	32.3	10,706	11.1	12,387	15.7	13,306	7.4
U.A.E.	43,292	37.9	62,163	43.6	74,954	20.6	68,243	29.9	90,584	32.7	104,143	15.0
Oman	10,742	16.5	14,540	35.4	18,988	30.6	5,378	29.2	6,525	21.3	8,004	22.7
Qatar	15,952	27.8	22,325	40.0	30,085	34.8	7,161	46.1	8,764	22.4	13,679	56.1
Israel	33,154	20.1	37,729	13.8	41,214	9.2	39,308	23.9	42,980	9.3	46,255	7.6
Turkey	63,167	33.7	73,476	16.3	85,502	16.4	97,540	40.7	116,774	19.7	138,295	18.4
Africa	206,560	32.5	263,877	27.7	322,741	22.3	202,336	27.2	235,597	16.4	274,274	16.4
Egypt	7,555	30.1	9,720	28.7	14,337	47.5	22,674	29.2	26,558	17.1	31,391	18.2
Nigeria	31,095	42.8	40,818	31.3	54,430	33.3	15,515	11.3	18,655	20.2	22,184	18.9
Angola	11,722	37.1	20,379	73.8	29,670	45.6	6,859	58.3	7,978	16.3	11,034	38.3
South Africa	45,973	31.4	51,870	12.8	57,897	11.6	47,653	38.5	55,029	15.5	68,157	23.9

Notes: Figures of some countries are estimated. See Reference Section "Note2"for the estimating method.

Sources: National trade statistics.

Table 4 World exports by major products (2006)

(US$ million, %)

	World		U.S.A.		EU15		Japan		China		ASEAN4		AsiaNIES	
	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate
Total value	11874183	15	1036635	14	4156494	12	647290	8	969073	27	439301	16	1133048	14
Machinery and equipment	4926611	13	555593	13	1830486	10	448839	7	487109	29	198957	12	696902	14
General machinery	1583395	12	182387	9	647122	11	125909	5	186618	25	69747	17	168709	7
Air conditioner	24841	10	2292	8	6132	8	1284	13	5710	13	3258	5	2272	4
Electrical equipment	1633948	15	145908	13	438551	13	127956	5	227447	32	102640	7	387420	16
Transport equipment	1307632	11	164652	19	600035	7	158595	13	38431	35	18292	21	79932	15
Automobiles	644231	10	48081	12	310074	5	104946	18	3471	87	7345	27	34733	10
Passenger vehicles	541039	10	34847	11	263588	4	94429	18	1538	81	3525	32	32344	11
Motorcycles	18310	11	1085	25	5708	10	6391	5	3196	32	373	3	769	0
Automotive parts	281531	9	38880	8	118417	8	28913	1	9628	34	5541	12	14159	16
Precision instruments	401663	13	62646	12	144778	11	36379	-1	34613	26	8279	21	60840	24
Chemicals	1502311	12	162365	12	757725	11	74202	9	67390	22	48630	26	117905	13
Industrial chemicals	1005270	12	109889	12	543428	11	45334	8	37753	19	16200	20	60337	16
Pharmaceuticals and medical supplies	289964	15	25345	17	201851	13	2476	-3	1531	12	444	22	5774	64
Plastics and rubber	497041	13	52477	12	214297	11	28868	11	29638	27	32430	29	57567	9
Foodstuffs	686362	10	59874	12	317133	8	3112	8	28286	15	26078	14	12193	4
Seafood	62202	8	3841	4	15988	7	990	14	4743	9	4602	9	2521	-14
Tuna	2262	-11	42	-37	393	22	66	2	2	4	128	29	731	-28
Grains	46675	12	13461	18	9630	2	11	50	1038	-27	2914	21	29	-18
Corn	12960	16	7254	43	1792	-13	1	-50	412	-62	76	102	1	33
Processed food products	309768	12	21535	12	160001	10	1803	3	13802	23	13884	15	7089	9
Ethanol (Ethyl alcohol)	3495	65	45	-18	692	-2	1	-81	431	604	27	1	2	-55
Oils, fats, and other animal and vegetable products	78688	10	11655	10	21222	10	244	3	1925	5	14246	17	958	6
Soybeans	16056	3	6949	11	468	-7	0	-78	146	-14	8	18	6	2
Animal and plant fats	43125	16	2120	12	14156	14	88	6	391	38	13836	17	441	7
Miscellaneous manufactured goods	342855	10	24652	18	119993	8	6413	-7	82534	19	11400	7	30879	0
Iron ore	33760	19	636	9	2330	23	0	-45	1	82	218	60	13	56657
Mineral fuels, etc.	1559176	25	34897	31	246166	24	5895	34	17776	1	57223	19	68298	28
Mineral fuels	1494286	26	32309	30	201529	28	5416	32	16802	0	56287	18	66854	28
Coal	50346	8	3537	7	2469	18	1	-31	3683	-14	6087	40	1	-58
LNG	51209	33	159	1	17	-88	0	179	0	-36	16347	16	0	-83
Petroleum and petroleum products	1276577	28	25229	46	175953	29	4970	36	10762	9	31986	18	66080	28
Crude oil	852016	30	853	36	42575	56	0	-100	2737	2	18755	6	78	34
Textiles and textile products	551806	9	22724	4	146736	5	8099	0	138102	28	22188	8	68505	1
Synthetic fibers and textiles	66456	3	3689	3	20031	2	3549	2	12131	18	5140	5	12380	-3
Clothing	306229	12	4252	-4	74189	7	349	-6	88624	34	13025	10	31815	3
Knit products	147777	16	2510	-3	32238	8	147	-10	44901	45	6268	18	17161	3
Cloth	158452	8	1742	-5	41951	7	202	-2	43724	25	6757	4	14654	4
Base metals and base metal products	965735	26	54949	24	379430	25	52313	14	85317	49	22245	40	72392	21
Steel	531721	17	26084	15	224455	19	36985	9	51930	52	9962	36	42266	12
Primary steel products	326775	15	12581	10	135372	19	25957	6	25144	67	4537	34	27227	8
Steel products	204947	20	13504	19	89084	18	11028	17	26785	41	5425	37	15039	20
Copper	49969	81	469	87	7174	76	2310	130	1475	176	2347	112	1977	178
Nickel	15229	55	147	19	2706	49	17	-39	403	75	1	200	841	150
Aluminum	51640	36	1094	41	10530	38	64	-14	2841	19	647	43	856	14
Lead	3260	31	65	29	713	30	15	37	712	50	30	74	256	70
IT products														
Computers and peripherals	522716	10	47575	4	136073	5	22946	0	126051	20	52473	18	100958	3
Computers and peripherals	307871	9	26621	5	85674	2	7051	-3	93018	22	33621	18	36011	-6
Parts for computers and peripherals	214846	10	20954	4	50399	12	15894	1	33033	16	18851	17	64947	8
Office equipment	22169	19	1044	19	7822	15	790	-34	7572	51	766	46	3107	-7
Telecommunications equipment	278854	19	19638	10	114886	25	4027	-9	48922	45	7731	12	45751	5
Semiconductors and electronic components	422160	14	53091	10	57767	-1	41695	5	29214	43	51505	12	173320	22
Electron tubes and semiconductors	73493	13	6767	8	10639	10	10993	2	7658	32	14019	15	18767	17
Integrated circuits	348667	15	46324	10	47128	-3	30702	6	21556	48	37487	11	154553	23
Other electronic components	354596	16	27202	13	77393	10	36046	12	63062	30	17204	12	96944	18
Flat pnel displays	98206	21	5110	25	14455	11	12340	17	23963	38	3297	24	33040	20
Video equipment	135013	17	4390	21	26122	18	15508	-6	29530	24	7851	-3	17006	-6
Audio equipment	13455	-9	968	21	2122	-5	199	-41	6602	-5	780	-7	2372	-26
Measuring and testing equipment	149751	13	31131	15	55117	7	17024	5	5378	35	3757	8	16285	30
IT parts	991602	14	101248	9	185558	7	93635	7	125310	28	87561	13	335210	18
Finished IT products	906394	14	83791	11	291743	13	44600	-3	191022	28	54505	13	120533	1
Total IT equipment	1897996	14	185039	10	477301	10	138235	3	316332	28	142066	13	455743	13

Notes: 1.See Reference Section "Note 1" for the definition of products.

2. Value of world exports based on JETRO estimates.

Sources: National trade statistics.

Table 5 World imports by major products (2006)

(US$ million, %)

	World		U.S.A.		EU15		Japan		China		ASEAN4		AsiaNIES	
	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate
Total value	12,239,837	14.6	1,853,938	10.8	4,187,369	12.7	579,294	11.7	791,614	19.9	372,473	11.4	1,086,074	15.1
Machinery and equipment	4,525,245	11.0	764,003	9.2	1,591,576	8.5	167,326	8.1	417,847	22.1	174,100	9.3	532,108	12.3
General machinery	1,429,956	9.2	243,936	9.7	523,659	8.3	54,672	4.4	109,195	13.3	50,579	2.8	143,600	11.0
Air conditioner	21,360	4.8	3,572	18.8	8,421	-5.2	1,379	3.3	542	24.2	499	-4.4	1,608	15.7
Electrical equipment	1,603,005	13.9	229,202	10.5	422,016	10.8	67,692	10.2	218,990	25.3	97,227	13.0	309,767	13.9
Transport equipment	1,104,312	8.8	236,357	7.8	519,664	6.4	19,688	3.5	29,720	49.4	17,778	7.2	28,502	9.4
Automobiles	578,197	9.3	156,292	9.1	262,670	6.8	7,846	-5.2	7,510	47.2	3,973	-7.9	7,596	4.2
Passenger vehicles	482,520	9.3	135,982	9.8	224,348	6.3	7,653	-5.7	6,943	48.0	2,481	-2.1	6,589	5.6
Motorcycles	15,577	5.2	3,712	5.0	7,786	1.7	507	5.0	5	-12.7	433	26.4	319	19.8
Automotive parts	263,023	7.1	50,433	1.3	115,115	7.9	4,920	20.1	10,034	32.5	5,263	-12.2	5,833	2.2
Precision instruments	387,987	12.2	54,509	7.3	126,237	10.9	25,274	15.1	59,942	17.4	8,517	14.0	50,239	8.7
Chemicals	1,419,361	10.3	177,255	9.8	633,842	10.7	49,326	9.0	102,498	14.5	42,988	12.4	101,860	11.6
Industrial chemicals	960,872	9.7	125,312	10.1	447,594	10.2	35,800	7.0	56,221	11.2	27,343	10.3	66,877	12.0
Pharmaceuticals and medical supplies	276,638	12.3	42,205	19.1	155,987	10.0	7,584	4.1	2,401	22.6	2,230	20.8	5,935	22.3
Plastics and rubber	458,489	11.5	51,943	9.1	186,248	12.1	13,527	14.8	46,277	18.9	15,645	16.2	34,983	10.9
Foodstuffs	623,352	8.4	75,775	11.6	317,726	6.9	49,475	-2.7	11,421	7.9	18,680	13.0	33,379	8.8
Seafood	66,779	9.2	10,197	9.9	28,946	13.8	10,850	-6.1	3,155	9.6	2,083	8.5	5,080	10.6
Tuna	2,399	-3.4	236	-2.3	329	-6.3	1,445	-6.3	20	276.5	258	3.9	58	39.4
Grains	33,503	10.4	1,131	48.0	10,917	3.6	4,726	-0.1	821	-41.1	3,427	21.0	3,465	3.7
Corn	11,477	15.1	179	43.6	2,893	3.4	2,584	-0.3	12	764.4	742	73.9	2,040	4.6
Processed food products	275,984	8.8	38,029	15.7	138,900	5.9	19,192	5.0	4,074	17.8	8,098	10.7	13,387	8.8
Ethanol (Ethyl alcohol)	3,295	89.3	1,489	366.0	1,203	29.6	260	23.1	4	-38.7	7	-48.4	121	21.6
Oils, fats, and other animal and vegetable products	69,987	5.3	4,701	15.6	28,526	10.6	4,725	-4.4	12,213	5.3	2,357	5.6	3,451	-1.7
Soybeans	16,450	-7.2	56	-10.5	4,198	-4.2	1,282	-10.5	7,489	-3.7	872	-10.9	978	-12.7
Animal and plant fats	35,247	13.0	2,794	17.9	16,742	20.6	858	-3.6	3,921	18.4	1,056	22.9	1,329	-0.3
Miscellaneous manufactured goods	351,608	8.7	101,769	7.5	140,063	7.3	18,032	7.4	3,346	14.9	2,539	16.0	26,969	8.8
Iron ore	46,163	15.8	621	17.1	9,205	16.3	7,169	28.9	20,924	13.9	515	10.2	3,443	24.8
Mineral fuels, etc.	1,655,853	21.4	332,592	14.8	575,263	24.9	161,648	21.7	89,100	39.0	64,577	19.7	178,214	28.0
Mineral fuels	1,577,653	21.2	329,098	15.0	518,735	23.0	160,299	21.8	87,936	39.2	63,776	19.3	175,747	28.2
Coal	56,979	1.6	1,765	23.1	18,835	4.8	13,862	1.3	1,619	17.0	1,253	22.9	9,374	-3.2
LNG	56,842	31.4	4,295	-15.5	12,004	58.5	22,858	27.0	115	63195.4	0	142.9	15,682	37.0
Petroleum and petroleum products	1,303,678	23.0	292,797	20.2	404,773	21.7	115,138	23.8	83,280	41.3	59,654	18.9	146,639	29.8
Crude oil	943,409	23.6	225,156	23.1	278,433	22.6	98,917	24.5	66,411	39.2	37,980	23.2	99,932	26.0
Textiles and textile products	465,042	5.0	96,284	3.9	187,662	7.4	29,072	5.6	25,678	9.5	7,607	5.3	46,284	5.2
Synthetic fibers and textiles	48,228	-2.8	3,763	1.6	17,377	3.0	967	6.4	6,623	-5.8	2,022	3.1	5,248	0.0
Clothing	275,637	7.2	73,392	3.6	123,458	9.0	22,390	5.7	1,585	5.0	699	27.3	24,800	7.5
Knit products	129,721	9.0	35,532	6.7	56,962	11.0	10,361	5.9	717	3.1	275	24.9	12,435	5.5
Cloth	145,916	5.7	37,860	0.9	66,495	7.4	12,030	5.5	868	6.5	424	28.8	12,365	9.7
Base metals and base metal products	869,564	22.5	114,260	27.8	372,025	30.7	30,629	18.5	59,795	5.7	37,329	10.1	82,785	21.9
Steel	466,148	12.1	57,282	23.4	203,625	21.4	11,165	0.4	26,984	-15.4	22,794	-2.8	41,253	4.4
Primary steel products	293,126	9.7	28,873	29.9	135,428	24.6	6,136	-10.5	20,036	-23.6	15,236	-8.9	32,035	1.3
Steel products	173,021	16.4	28,410	17.4	68,197	15.5	5,029	18.0	6,948	22.0	7,557	12.5	9,218	17.3
Copper	46,062	75.8	6,693	95.2	19,674	106.8	510	80.2	5,500	22.7	3,016	83.1	7,919	83.8
Nickel	16,943	54.7	2,674	58.0	7,077	53.8	1,066	38.8	2,180	63.8	71	3.8	2,652	61.7
Aluminum	52,581	36.7	9,105	26.6	21,051	50.8	7,530	33.7	999	-1.9	2,171	35.0	5,836	39.4
Lead	3,203	25.9	414	46.3	1,186	15.6	68	121.6	67	24.0	265	44.3	527	44.0
IT products														
Computers and peripherals	503,084	7.1	101,743	8.4	180,891	5.8	25,771	-5.0	39,068	13.3	20,333	5.4	66,696	7.8
Computers and peripherals	299,261	4.8	67,519	6.4	118,065	1.5	18,057	-3.8	19,925	10.6	5,468	2.6	23,825	12.5
Parts for computers and peripherals	203,823	10.6	34,224	12.7	62,826	15.1	7,714	-7.5	19,142	16.3	14,865	6.5	42,872	5.4
Office equipment	21,156	12.4	1,599	3.9	12,077	18.5	390	-15.2	1,443	20.8	343	17.9	2,045	-5.4
Telecommunications equipment	242,615	15.3	53,532	8.4	94,890	14.5	4,129	18.4	7,101	27.1	5,440	-2.5	28,306	26.4
Semiconductors and electronic components	482,719	14.1	27,942	5.3	57,373	-0.1	24,693	16.2	121,732	27.7	59,451	16.6	155,748	14.5
Electron tubes and semiconductors	66,446	8.9	5,118	9.7	13,051	20.0	2,907	8.8	14,576	11.1	5,521	10.4	17,545	9.6
Integrated circuits	416,274	14.9	22,824	4.4	44,322	-4.8	21,785	17.2	107,156	30.4	53,930	17.3	138,203	15.1
Other electronic components	335,357	16.2	36,971	8.7	72,900	12.7	16,177	3.9	57,319	22.4	17,823	16.0	67,845	16.5
Flat pnel displays	88,987	25.9	5,442	-0.6	16,082	27.0	5,354	-2.6	19,258	18.6	2,827	39.5	17,864	22.8
Video equipment	130,816	15.1	41,536	20.5	48,411	16.9	3,901	-16.3	3,633	39.3	1,696	-7.5	12,070	-5.1
Audio equipment	14,618	-6.1	4,266	-9.8	4,653	-5.3	982	-14.6	242	27.8	155	-21.7	2,302	-15.6
Measuring and testing equipment	140,213	11.3	20,676	9.7	41,742	6.8	9,707	16.0	13,265	24.8	5,628	24.1	23,511	12.8
IT parts	1,021,899	14.0	99,137	9.0	193,099	9.3	48,583	7.6	198,193	25.0	92,139	14.7	266,464	13.4
Finished IT products	848,679	10.2	189,129	9.7	319,838	8.5	37,167	0.7	45,609	19.3	18,731	5.4	92,058	12.2
Total IT equipment	1,870,578	12.3	288,266	9.5	512,937	8.8	85,750	4.5	243,802	23.9	110,871	13.1	358,523	13.1

Notes: 1.See Reference Section "Note 1" for the definition of products.

2. Value of world imports based on JETRO estimates.

Sources: National trade statistics.

Table 6 FDI of major economics (net flows based on balance of payment)

(US$ million, %,)

	Inward FDI					Outward FDI				
	2005	2006	Growth rate	Shrare	contribution	2005	2006	Growth rate	Shrare	contribution
United States	108,996	180,580	65.7	12.7	24.5	-7,662	235,358	n.a.	16.4	56.0
Canada	28,922	69,041	138.7	4.9	13.8	33,542	45,243	34.9	3.2	2.7
EU25	654,761	668,688	2.1	47.0	4.8	779,470	794,904	2.0	55.4	3.6
EU15	616,767	629,882	2.1	44.3	4.5	771,821	782,922	1.4	54.5	2.6
Belgium	33,970	71,479	110.4	5.0	12.9	31,780	62,552	96.8	4.4	7.1
Luxembourg	116,373	96,960	-16.7	6.8	-6.7	124,029	81,507	-34.3	5.7	-9.8
Austria	9,045	248	-97.3	0.0	-3.0	10,023	4,087	-59.2	0.3	-1.4
Danmark	13,740	4,675	-66.0	0.3	-3.1	15,942	4,910	-69.2	0.3	-2.5
Finland	4,507	3,705	-17.8	0.3	-0.3	4,477	9	-99.8	0.0	-1.0
France	81,063	81,076	0.0	5.7	0.0	120,971	115,036	-4.9	8.0	-1.4
Germany	35,866	42,868	19.5	3.0	2.4	55,514	79,422	43.1	5.5	5.5
Greece	606	5,364	784.7	0.4	1.6	1,451	4,167	187.2	0.3	0.6
Ireland	-31,132	12,811	n.a.	0.9	15.1	13,568	22,101	62.9	1.5	2.0
Italy	19,922	39,114	96.3	2.8	6.6	41,754	41,994	0.6	2.9	0.1
Netherlands	97,663	77,423	-20.7	5.4	-6.9	190,952	169,892	-11.0	11.8	-4.9
Portugal	3,965	7,371	85.9	0.5	1.2	2,078	3,508	68.8	0.2	0.3
Spain	25,020	20,016	-20.0	1.4	-1.7	41,829	89,679	114.4	6.2	11.0
Sweden	10,169	27,231	167.8	1.9	5.8	26,540	24,600	-7.3	1.7	-0.4
England	195,990	139,543	-28.8	9.8	-19.4	90,913	79,457	-12.6	5.5	-2.6
10 new EU members	37,994	38,806	2.1	2.7	0.3	7,649	11,982	56.6	0.8	1.0
Czech Republic	11,603	6,021	-48.1	0.4	-1.9	-27	1,355	n.a.	0.1	0.3
Republic of Hungary	7,585	6,115	-19.4	0.4	-0.5	2,331	3,064	31.4	0.2	0.2
Poland	9,602	13,922	45.0	1.0	1.5	3,024	4,266	41.1	0.3	0.3
Slovakia	2,107	4,165	97.7	0.3	0.7	157	368	134.7	0.0	0.0
Slovenia	541	363	-32.8	0.0	-0.1	629	740	17.7	0.1	0.0
Estonia	2,998	1,600	-46.6	0.1	-0.5	609	1,039	70.5	0.1	0.1
Latvia	730	1,635	123.9	0.1	0.3	127	148	16.6	0.0	0.0
Lithuania	1,032	1,812	75.6	0.1	0.3	343	276	-19.6	0.0	0.0
Cyprus	1,214	1,492	22.9	0.1	0.1	482	732	52.0	0.1	0.1
Malta	582	1,681	188.9	0.1	0.4	-25	-5	n.a.	n.a.	0.0
Norway	6,391	1,635	-74.4	0.1	-1.6	21,052	12,232	-41.9	0.9	-2.0
Switzerland	-1,266	25,089	n.a.	1.8	9.0	54,308	81,506	50.1	5.7	6.3
Australia	-35,056	24,531	n.a.	1.7	20.4	-34,376	20,973	n.a.	1.5	12.7
Japan	3,223	-6,789	n.a.	n.a.	-3.4	45,461	50,165	10.3	3.5	1.1
East Asia	150,467	174,407	15.9	12.3	8.2	57,574	91,378	58.7	6.4	7.8
China	79,127	78,095	-1.3	5.5	-0.4	11,306	17,830	57.7	1.2	1.5
ROK	6,309	3,645	-42.2	0.3	-0.9	4,298	7,129	65.9	0.5	0.7
Taiwan	1,625	7,424	356.9	0.5	2.0	6,028	7,399	22.7	0.5	0.3
Hong Kong	33,625	42,894	27.6	3.0	3.2	27,196	43,460	59.8	3.0	3.7
ASEAN	29,782	42,350	42.2	3.0	4.3	8,747	15,561	77.9	1.1	1.6
Thailand	8,957	9,751	8.9	0.7	0.3	552	790	43.2	0.1	0.1
Malaysia	3,967	6,047	52.4	0.4	0.7	2,971	6,041	103.3	0.4	0.7
Philippines	1,854	2,345	26.5	0.2	0.2	189	103	-45.5	0.0	0.0
Singapore	15,004	24,207	61.3	1.7	3.2	5,034	8,626	71.3	0.6	0.8
India	6,676	16,881	152.9	1.2	3.5	2,495	9,676	287.8	0.7	1.7
Argentina	5,008	4,809	-4.0	0.3	-0.1	1,151	2,008	74.5	0.1	0.2
Brazil	15,066	18,782	24.7	1.3	1.3	2,517	28,202	1020.6	2.0	5.9
Chile	6,960	8,053	15.7	0.6	0.4	2,209	2,797	26.6	0.2	0.1
Colombia	10,255	6,295	-38.6	0.4	-1.4	4,662	1,098	-76.4	0.1	-0.8
Mexico	15,763	19,037	20.8	1.3	1.1	6,474	5,758	-11.1	0.4	-0.2
Venezuela	2,583	-543	n.a.	n.a.	-1.1	1,183	2,089	76.6	0.1	0.2
Russia	12,766	28,732	125.1	2.0	5.5	12,763	17,979	40.9	1.3	1.2
Israel	4,754	14,150	197.7	1.0	3.2	3,323	13,633	310.2	0.9	2.4
South Africa	6,133	-11	n.a.	n.a.	-2.1	909	6,496	614.3	0.5	1.3
Turkey	9,801	20,125	105.3	1.4	3.5	1,078	934	-13.4	0.1	0.0
World	1,129,748	1,421,452	25.8	100.0	100.0	1,001,596	1,435,762	43.3	100.0	100.0

Notes: 1. JETRO estimates for the world.

2. ASEAN consists of Thailand, Malaysia, Indonesia, the Philippines, and Singapore.

3. For the Netherlands, from the 2007 JETRO White Paper on, the data include special-purpose entities (SPE).

Sources: IMF, National and regional balance of payments statistics, Eurostat and other sources.

Table 7 World cross-border M&A (by country and region)

(US$ million, %, number of cases)

		2003	2004	2005	2006				first half year of 2007			
		Value	Value	Value	Value	Growth rate	Shrare	No. of cases	Value	Growth rate	Shrare	No. of cases
	World	338,302	453,462	848,603	974,459	14.8	100.0	7,953	630,169	36.6	100.0	4,235
Target country and region	United States	72,044	84,715	130,629	182,662	39.8	18.7	1,263	125,201	55.6	19.9	723
	Canada	5,664	22,359	29,199	74,026	153.5	7.6	439	39,894	135.9	6.3	245
	EU 25	153,798	230,936	505,572	481,385	-4.8	49.4	3,232	316,627	24.9	50.2	1,616
	EU 15	149,314	226,757	485,958	468,158	-3.7	48.0	2,923	306,988	24.7	48.7	1,470
	England	41,640	72,728	203,774	208,344	2.2	21.4	693	130,880	5.4	20.8	393
	France	19,418	25,899	34,912	46,052	31.9	4.7	387	39,896	47.4	6.3	172
	Germany	27,099	48,384	64,853	56,274	-13.2	5.8	595	42,575	37.6	6.8	250
	Netherlands	9,464	19,265	35,158	34,047	-3.2	3.5	142	22,987	256.5	3.6	105
	Spain	10,276	9,284	20,609	14,080	-31.7	1.4	223	19,491	614.4	3.1	106
	10 new EU members	4,484	4,180	19,614	13,227	-32.6	1.4	309	9,639	31.0	1.5	146
	Slovakia	498	432	179	1,315	636.9	0.1	20	56	-95.5	0.0	7
	Lithuania	138	104	72	2,451	3,313.1	0.3	26	604	1,191.5	0.1	7
	Switzerland	10,958	4,978	10,256	14,547	41.8	1.5	107	15,473	737.8	2.5	79
	Austria	11,460	15,414	11,782	17,976	52.6	1.8	306	16,047	353.9	2.5	200
	Japan	12,530	10,381	3,256	3,421	5.1	0.4	87	17,074	593.5	2.7	57
	East Asia	20,397	25,306	48,462	56,548	16.7	5.8	892	26,244	-26.2	4.2	465
	China	4,801	8,782	14,287	15,446	8.1	1.6	291	5,037	-43.7	0.8	156
	ROK	4,155	6,039	8,367	3,650	-56.4	0.4	42	245	-91.8	0.0	10
	Taiwan	429	622	814	5,859	619.9	0.6	35	1,407	-51.2	0.2	15
	Hong Kong	5,975	4,048	9,523	14,812	55.5	1.5	195	4,297	-57.2	0.7	91
	ASEAN6	5,037	5,815	15,472	16,781	8.5	1.7	329	15,258	42.4	2.4	193
	Singapore	2,077	1,352	5,752	7,563	31.5	0.8	130	4,222	-9.9	0.7	74
	Thailand	92	1,429	443	5,120	1,055.9	0.5	50	752	-85.1	0.1	21
	Malaysia	146	993	1,625	2,707	66.6	0.3	76	3,502	1,425.1	0.6	54
	Vietnam	23	79	7	220	3,188.1	0.0	12	87	116.3	0.0	10
	India	1,242	2,508	5,485	7,944	44.8	0.8	226	16,616	274.8	2.6	88
	Mexico	3,422	6,675	5,425	2,239	-58.7	0.2	88	3,237	246.7	0.5	48
	Brazil	6,014	8,018	8,626	10,820	25.4	1.1	99	4,038	-7.7	0.6	55
	Argentina	2,497	639	2,733	3,057	11.9	0.3	54	924	8.3	0.1	29
	Chile	284	1,871	716	3,964	453.7	0.4	28	198	-94.5	0.0	9
	South African Republic	1,574	2,255	6,684	5,635	-15.7	0.6	56	339	-92.0	0.1	27
	Russia	7,886	6,524	9,174	10,323	12.5	1.1	127	10,797	152.6	1.7	65
Acquirer country and region	United States	98,297	133,414	155,459	207,340	33.4	21.3	1,754	136,960	36.5	21.7	914
	Canada	18,504	34,909	23,016	37,978	65.0	3.9	500	26,231	128.6	4.2	283
	EU 25	145,669	198,217	480,669	430,402	-10.5	44.2	3,356	294,113	35.7	46.7	1,739
	EU 15	144,026	197,067	478,854	422,828	-11.7	43.4	3,261	293,471	36.2	46.6	1,693
	England	75,414	73,062	125,223	87,863	-29.8	9.0	1,046	90,328	136.9	14.3	539
	France	9,791	24,050	94,747	68,767	-27.4	7.1	417	34,853	57.1	5.5	230
	Germany	20,655	16,939	37,009	51,953	40.4	5.3	392	40,360	70.2	6.4	205
	Netherlands	9,906	6,701	92,997	21,627	-76.7	2.2	260	7,933	-44.1	1.3	124
	Spain	4,516	34,257	30,869	98,444	218.9	10.1	161	35,180	-58.7	5.6	77
	Luxembourg	1,234	604	7,563	24,591	225.2	2.5	54	3,583	-49.6	0.6	17
	10 new EU members	1,643	1,150	1,816	7,574	317.2	0.8	95	642	-48.8	0.1	46
	Switzerland	13,365	8,604	18,170	47,739	162.7	4.9	206	12,627	-37.3	2.0	91
	Australia	18,118	15,136	53,301	53,544	0.5	5.5	342	29,728	113.8	4.7	215
	Japan	7,398	6,074	12,166	19,901	63.6	2.0	212	30,925	210.1	4.9	120
	East Asia	16,713	21,092	35,384	45,978	29.9	4.7	642	14,501	-45.6	2.3	350
	China	4,684	2,297	8,606	14,331	66.5	1.5	54	2,003	-59.7	0.3	47
	ROK	643	218	225	1,861	726.2	0.2	22	189	2,417.3	0.0	17
	Taiwan	701	1,016	593	461	-22.2	0.0	18	367	-1.3	0.1	13
	Hong Kong	1,392	2,778	11,416	10,083	-11.7	1.0	163	4,812	-14.2	0.8	85
	ASEAN6	9,294	14,784	14,544	19,241	32.3	2.0	385	7,130	-54.6	1.1	188
	Singapore	5,380	12,010	8,867	13,871	56.4	1.4	190	5,820	-53.4	0.9	95
	Thailand	90	75	220	101	-54.1	0.0	13	214	150.7	0.0	4
	Malaysia	3,794	2,008	2,856	4,662	63.3	0.5	160	963	-63.7	0.2	80
	Indonesia	29	443	620	363	-41.5	0.0	11	45	-85.5	0.0	3
	India	1,137	857	2,157	7,084	228.3	0.7	144	29,556	541.9	4.7	82
	Mexico	5,318	2,096	3,144	3,860	22.8	0.4	24	4,191	558.1	0.7	15
	Brazil	2,047	8,600	2,212	19,725	791.9	2.0	24	4,252	436.8	0.7	17
	Chile	51	390	1	590	73,625.0	0.1	11	6	-97.1	0.0	5
	South Africa	524	637	2,440	5,845	139.6	0.6	47	3,967	-24.3	0.6	26
	Russia	1,035	2,414	6,781	4,245	-37.4	0.4	68	4,102	420.4	0.7	38

Notes: 1. Data as of July 5, 2007.

2. ASEAN consists of Thailand, Malaysia, Indonesia, the Philippines, and Singapore.

Source: Thomson Financial

Table 8 World cross-border M&A (by industry)

(US$ million, %, number of cases)

	2003	2004	2005	2006				first half year of 2007			
	Value	Value	Value	Value	Growth rate	Share	No. of cases	Value	Growth rate	Share	No. of cases
Industry Total	**338,302**	**453,462**	**848,603**	**974,459**	**14.8**	**100.0**	**7,953**	**630,169**	**36.6**	**100.0**	**4,235**
Primary Industries	**33,644**	**29,820**	**135,537**	**100,440**	**-25.9**	**10.3**	**695**	**59,042**	**148.6**	**9.4**	**406**
Oil and Gas; Petroleum Refining	23,916	21,476	119,891	37,785	-68.5	3.9	305	46,793	265.0	7.4	144
Agriculture, Forestry, and Fishing	1,435	1,422	2,032	2,280	12.2	0.2	56	1,148	-48.3	0.2	31
Mining	8,292	6,922	13,614	60,376	343.5	6.2	334	11,102	27.5	1.8	231
Manufacturing	**113,740**	**130,842**	**236,464**	**244,497**	**3.4**	**25.1**	**2,450**	**198,526**	**109.3**	**31.5**	**1,278**
Food ・Tobacco	30,988	23,156	54,713	25,861	-52.7	2.7	264	30,633	151.9	4.9	155
Food and Kindred Products	25,555	22,224	49,146	24,554	-50.0	2.5	256	9,592	-20.3	1.5	149
Tobacco Products	5,433	932	5,567	1,307	-76.5	0.1	8	21,041	16299.5	3.3	6
Textile and Apparel Products	458	4,947	3,421	3,441	0.6	0.4	93	2,092	-23.0	0.3	43
Wood and paper products	3,294	4,439	8,193	5,626	-31.3	0.6	133	7,814	535.5	1.2	61
Wood Products, Furniture, and Fixtures	393	907	4,005	3,463	-13.5	0.4	62	3,940	315.2	0.6	33
Paper and Allied Products	2,901	3,533	4,188	2,163	-48.4	0.2	71	3,874	1281.0	0.6	28
Stone, Clay, Glass, and Concrete Products	2,874	5,598	15,220	11,014	-27.6	1.1	113	8,521	-6.6	1.4	59
Chemicals	25,319	44,944	60,377	67,245	11.4	6.9	501	64,740	78.9	10.3	264
Chemicals and Allied Products	8,361	14,111	28,099	28,632	1.9	2.9	179	9,248	-2.3	1.5	112
Drugs	9,122	22,294	27,766	29,085	4.8	3.0	204	50,064	147.1	7.9	105
Metal and Metal Products	10,438	5,203	31,055	17,210	-44.6	1.8	234	32,708	283.3	5.2	134
Machinery and equipment	28,844	31,006	47,304	84,949	79.6	8.7	929	43,921	102.1	7.0	460
Machinery	8,920	5,289	4,891	19,104	290.6	2.0	250	9,881	190.7	1.6	125
Electronic and Electrical Equipment	4,432	11,252	11,802	19,085	61.7	2.0	257	10,305	125.9	1.6	132
Computer and Office Equipment	1,732	1,220	3,190	1,852	-41.9	0.2	49	1,482	138.2	0.2	25
Communications Equipment	235	2,490	1,589	19,602	1133.5	2.0	52	2,591	-15.6	0.4	28
Transportation Equipment	4,204	3,715	8,051	6,576	-18.3	0.7	116	4,307	17.1	0.7	53
Aerospace and Aircraft	3,637	497	3,061	9,673	216.0	1.0	21	8,264	475.5	1.3	13
Measuring, Medical, Photo Equipment; Clock	5,684	6,543	14,720	9,057	-38.5	0.9	184	7,093	42.8	1.1	84
Printing, Publishing, and Allied Services	9,734	10,857	11,462	27,451	139.5	2.8	139	7,492	344.5	1.2	68
Miscellaneous Manufacturing	1,792	692	4,719	1,700	-64.0	0.2	44	605	-59.4	0.1	34
Service	**190,919**	**292,800**	**476,602**	**629,522**	**32.1**	**64.6**	**4,808**	**372,601**	**8.7**	**59.1**	**2,551**
Electric, Gas, and Water Distribution	17,067	26,987	65,323	51,480	-21.2	5.3	191	57,851	522.8	9.2	103
Transportation	15,813	9,470	36,646	64,498	76.0	6.6	304	13,371	-75.0	2.1	147
Transportation and Shipping (except air)	14,454	6,049	30,000	27,671	-7.8	2.8	248	9,009	-52.3	1.4	119
Air Transportation and Shipping	1,358	3,421	6,646	36,827	454.1	3.8	56	4,362	-87.4	0.7	28
Telecommunications	28,880	33,978	72,935	109,021	49.5	11.2	227	37,524	-56.7	6.0	123
Construction Firms	1,833	1,227	7,514	17,949	138.9	1.8	132	8,512	-45.6	1.4	85
Retail	16,057	30,294	50,057	33,797	-32.5	3.5	595	43,520	97.9	6.9	326
Wholesale Trade	5,320	7,320	8,481	8,047	-5.1	0.8	372	7,101	43.4	1.1	205
Retail Trade, Eating and Drinking Places	10,737	22,974	41,576	25,750	-38.1	2.6	223	36,420	113.8	5.8	121
Real Estate; Mortgage Bankers and Brokers	16,508	47,201	55,271	66,043	19.5	6.8	399	35,461	2.7	5.6	211
Finance, insurance	62,242	100,690	108,742	156,368	43.8	16.0	825	101,970	53.0	16.2	449
Commercial Banks, Bank Holding Companies	19,253	36,203	59,439	76,453	28.6	7.8	176	34,095	2.1	5.4	99
Investment & Commodity Firms,Dealers,Excha	16,189	29,034	28,621	37,772	32.0	3.9	451	46,233	243.1	7.3	238
Insurance	7,760	18,470	15,080	37,367	147.8	3.8	131	19,758	8.5	3.1	73
Hotels and Casinos	3,925	5,859	8,752	25,423	190.5	2.6	116	8,233	-40.4	1.3	47
Other service	28,595	37,093	71,362	104,944	47.1	10.8	2,019	66,159	62.4	10.5	1,060
Advertising Services	28	754	1,589	2,057	29.5	0.2	47	2,541	371.7	0.4	22
Business Services	11,167	18,905	24,128	28,127	16.6	2.9	1,115	22,123	88.0	3.5	623
Prepackaged Software	2,213	5,808	12,480	20,120	61.2	2.1	405	7,942	24.6	1.3	194
ＩＴ	49,250	64,662	124,616	195,077	56.5	20.0	1,467	82,141	-26.9	13.0	758

Note: 1. Data as of July 5, 2007.

2. Based on industries of sellers.

3. IT consists of computer and accessory equipment hardware, communications equipment, software, telecommunication services.

Source: Thomson Financial.

Table 9 Japanese trade by country and region

(US$ million, %,)

	Exports						Imports					
	2004		2005		2006		2004		2005		2006	
	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate
Asia	273,708	25.4	289,661	5.8	307,779	6.3	205,305	20.9	230,383	12.2	252,506	9.6
China	73,818	29.0	80,340	8.8	92,852	15.6	94,227	25.3	109,105	15.8	118,516	8.6
ROK	44,200	27.5	46,880	6.1	50,321	7.3	22,027	23.5	24,536	11.4	27,345	11.4
Taiwan	41,959	34.6	43,910	4.7	44,152	0.6	16,670	17.0	18,187	9.1	20,345	11.9
Hong Kong	35,374	18.8	36,132	2.1	36,469	0.9	1,623	21.0	1,580	-2.6	1,521	-3.7
ASEAN10	72,896	19.6	76,074	4.4	76,349	0.4	67,405	15.6	73,076	8.4	79,990	9.5
Thailand	20,250	26.8	22,601	11.6	22,924	1.4	14,088	19.0	15,667	11.2	16,896	7.8
Malaysia	12,552	12.0	12,608	0.4	13,223	4.9	14,097	12.4	14,778	4.8	15,488	4.8
Indonesia	9,064	26.8	9,297	2.6	7,378	-20.6	18,670	14.1	20,937	12.1	24,149	15.3
Philippines	9,587	6.9	9,117	-4.9	9,015	-1.1	8,236	17.4	7,771	-5.6	7,963	2.5
Singapore	17,957	21.5	18,545	3.3	19,360	4.4	6,281	15.9	6,744	7.4	7,485	11.0
Vietnam	3,178	21.6	3,610	13.6	4,142	14.7	3,855	25.3	4,560	18.3	5,295	16.1
India	3,040	27.4	3,539	16.4	4,457	25.9	2,611	20.4	3,216	23.2	4,058	26.2
Oceania	14,809	21.4	15,617	5.5	15,502	-0.7	22,698	27.7	28,182	24.2	31,765	12.7
Australia	11,796	19.4	12,492	5.9	12,509	0.1	19,430	29.6	24,609	26.7	27,947	13.6
New Zealand	2,289	26.0	2,455	7.3	2,096	-14.6	2,465	20.4	2,528	2.6	2,534	0.2
North America	134,477	9.6	143,762	6.9	155,614	8.2	70,899	7.1	73,543	3.7	77,757	5.7
United States	126,839	9.9	134,889	6.4	145,651	8.0	62,435	6.4	64,497	3.3	68,071	5.5
Canada	7,638	4.0	8,873	16.2	9,963	12.3	8,398	12.2	8,976	6.9	9,623	7.2
Middle East	21,649	30.6	25,112	16.0	30,574	21.8	13,742	32.2	16,107	17.2	20,411	26.7
Mexico	5,182	43.0	6,921	33.5	9,283	34.1	2,170	22.6	2,552	17.6	2,823	10.7
Panama	6,051	11.8	7,426	22.7	8,096	9.0	116	12.0	44	-61.7	35	-20.8
Brazil	2,344	25.6	2,728	16.4	3,049	11.8	3,643	27.0	4,435	21.8	5,089	14.8
Chile	721	25.9	947	31.4	1,088	14.9	4,174	59.9	5,161	23.6	7,256	40.6
Europe	94,471	18.9	93,952	-0.6	100,835	7.3	64,440	16.3	65,974	2.4	67,001	1.6
EU15	84,258	17.2	82,644	-1.9	87,619	6.0	56,488	15.8	57,542	1.9	58,082	0.9
Germany	18,946	16.0	18,761	-1.0	20,433	8.9	17,056	20.5	17,966	5.3	18,463	2.8
France	8,353	18.5	7,817	-6.4	7,628	-2.4	8,336	15.7	8,564	2.7	8,972	4.8
England	14,968	13.8	15,174	1.4	15,238	0.4	6,652	14.3	6,754	1.5	6,718	-0.5
Italy	6,454	17.9	5,776	-10.5	6,428	11.3	6,891	13.4	6,924	0.5	7,037	1.6
Danmark	817	24.0	873	6.8	886	1.5	2,795	18.0	2,396	-14.3	2,037	-15.0
Ireland	1,985	4.7	1,946	-2.0	1,638	-15.8	3,792	7.2	3,793	0.0	3,494	-7.9
Netherlands	13,370	14.2	13,203	-1.3	14,740	11.6	1,987	6.6	2,143	7.8	2,176	1.5
Belgium	7,211	25.4	7,175	-0.5	7,155	-0.3	2,086	13.5	2,137	2.5	1,848	-13.5
Luxembourg	215	42.6	227	5.7	202	-11.0	51	-1.1	43	-16.2	33	-23.7
Spain	4,846	35.9	5,113	5.5	5,633	10.2	1,716	26.7	1,747	1.8	1,926	10.3
Portugal	941	45.7	747	-20.6	768	2.7	198	19.5	197	-0.6	188	-4.7
Greece	1,319	-1.1	886	-32.9	1,420	60.4	125	13.9	118	-5.3	77	-35.2
Austria	1,252	8.5	1,080	-13.7	1,194	10.6	1,305	24.4	1,334	2.2	1,543	15.7
Sweden	1,857	12.8	1,972	6.2	1,848	-6.3	2,110	7.2	2,182	3.4	2,215	1.5
Finland	1,725	26.0	1,894	9.8	2,407	27.1	1,386	13.9	1,242	-10.4	1,355	9.1
Switzerland	2,187	12.2	2,172	-0.7	2,420	11.4	4,810	24.6	5,064	5.3	5,106	0.8
Central Eastern Europe	3,877	53.8	4,858	25.3	5,638	16.1	1,290	34.2	1,544	19.7	1,711	10.8
Poland	832	43.3	1,011	21.5	1,057	4.6	210	66.8	229	8.8	263	14.8
Czech Republic	1,246	108.6	1,443	15.8	1,943	34.7	275	28.4	393	43.2	424	7.7
Slovakia	106	64.7	233	119.1	487	109.3	126	71.4	108	-14.2	168	55.0
Republic of Hungary	1,458	32.4	1,830	25.5	1,758	-4.0	508	18.7	569	11.9	579	1.8
Bulgaria	28	72.6	33	16.2	82	150.1	27	8.6	39	40.9	50	28.7
Romania	88	34.8	180	104.4	188	4.7	105	66.9	156	49.1	184	17.7
Russia･CIS	3,764	71.9	5,191	37.9	8,315	60.2	6,184	34.0	6,825	10.4	7,369	8.0
Russia	3,111	76.3	4,485	44.2	7,065	57.5	5,694	35.0	6,205	9.0	6,658	7.3
Middle East	14,464	12.6	16,575	14.6	19,194	15.8	62,704	23.2	87,667	39.8	109,190	24.6
Iran	1,117	-0.2	1,347	20.6	1,174	-12.8	8,260	11.5	10,354	25.4	11,113	7.3
Saudi Arabia	3,671	-1.1	4,192	14.2	4,641	10.7	18,460	27.3	28,739	55.7	37,215	29.5
Kuwait	935	-10.7	1,185	26.8	1,190	0.4	5,743	26.5	7,667	33.5	9,105	18.8
United Arab Emirates	4,605	27.1	4,868	5.7	6,050	24.3	18,320	28.3	25,324	38.2	31,590	24.7
Oman	1,161	20.4	1,393	20.0	1,731	24.3	1,621	-35.3	2,741	69.1	2,673	-2.5
Qatar	592	25.1	994	67.9	1,460	46.8	7,876	21.3	10,692	35.8	14,814	38.6
Israel	1,161	37.3	1,226	5.6	1,206	-1.6	787	13.9	842	7.0	834	-1.0
Africa	7,658	37.7	8,253	7.8	9,459	14.6	8,695	35.4	9,934	14.2	13,266	33.6
Egypt	762	4.7	792	4.0	1,140	43.9	57	-11.7	118	105.8	397	235.8
Nigeria	385	7.5	522	35.8	565	8.1	1,426	60.9	999	-29.9	811	-18.8
Liberia	932	47.8	1,112	19.4	873	-21.5	0	286.1	0	215.6	8	3084.1
South African Republic	2,904	43.7	3,287	13.2	4,062	23.6	4,602	28.6	5,541	20.4	6,635	19.7
World	565,039	20.3	598,215	5.9	647,290	8.2	454,669	19.2	518,638	14.1	579,294	11.7
APEC	425,915	20.2	454,562	6.7	488,067	7.4	307,386	18.6	341,916	11.2	374,233	9.5
ASEAN	72,896	19.6	76,074	4.4	76,349	0.4	67,405	15.6	73,076	8.4	79,990	9.5
NAFTA	139,659	10.5	150,682	7.9	164,897	9.4	73,002	7.5	76,025	4.1	80,517	5.9
Mercosur4	2,880	30.7	3,375	17.2	3,831	13.5	4,177	23.3	4,862	16.4	5,715	17.6
EU25	88,903	18.4	88,036	-1.0	93,869	6.6	57,796	16.1	59,066	2.2	59,830	1.3
SAARC	5,120	24.5	5,986	16.9	7,272	21.5	3,152	18.9	3,726	18.2	4,662	25.1

Note: Exchange rates are converted to US$ based on applicable customs rate.

Source: Ministry of Finance, Trade Statistics.

Table 10　Japanese import by product（2006）

(US$ million, %,)

	World		United States		EU25		China		ASEAN10		Asian NIEs	
	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate
Food	3,078	6.4	516	1.1	117	5.8	423	19.8	321	2.0	1,480	5.7
Raw material	7,742	14.6	497	50.9	581	20.1	3,220	18.8	749	8.7	2,321	3.2
Mineral fuels	5,550	30.8	1,161	75.8	471	18.4	1,380	13.4	402	1.9	1,467	34.1
Chemicals	58,445	9.7	6,905	-0.4	6,912	5.7	12,206	16.6	6,791	6.1	22,863	12.7
Organic chemicals	17,883	4.1	1,700	-5.6	2,269	-7.1	4,929	6.3	1,520	0.2	6,038	11.8
Medical products	3,201	-4.8	1,218	-9.0	997	-8.4	144	-3.9	89	11.5	363	8.9
Plastic materials	17,572	12.5	1,497	2.6	1,435	12.0	4,365	23.7	2,307	5.2	7,350	11.5
Manufactured goods	74,639	10.7	8,628	9.7	5,756	7.6	15,061	13.7	13,685	4.0	21,939	8.8
Iron and steel products	29,987	8.2	2,031	24.9	842	26.1	5,951	5.3	6,541	-5.2	9,918	4.5
Nonferrous metals	10,752	47.8	724	14.4	588	34.5	2,599	70.1	2,304	49.4	4,293	41.6
Manufactures of metals	9,023	6.3	1,999	8.8	1,161	0.1	1,549	18.8	1,812	1.0	1,654	-1.0
Textile yarn, fabrics	6,824	0.1	508	2.2	519	2.5	3,024	-0.2	888	2.0	1,324	-4.1
Non-metallic mineral ware	7,406	6.6	882	4.9	912	8.6	868	5.8	945	3.9	3,294	5.1
Rubber manufactured	7,891	6.3	1,979	5.4	1,539	0.4	481	39.7	635	2.5	704	-0.7
Paper & paper manufactures	2,557	0.1	496	-7.3	191	-4.9	499	2.0	531	6.6	691	-0.6
Machinery	127,344	4.6	31,318	2.9	23,241	5.9	18,947	10.9	15,634	-5.8	25,883	1.9
Power generating machine	19,952	0.1	6,133	-5.4	3,896	4.0	2,280	15.9	2,416	-20.5	1,856	0.1
Computers and units	7,060	-3.4	3,078	2.3	2,075	-7.8	455	-9.6	360	-17.1	989	-5.1
Parts of cumputer	15,301	0.6	4,473	1.2	4,626	5.3	2,491	7.3	2,101	-5.5	2,029	-12.1
Metalworking machinery	11,537	6.6	2,688	11.8	1,517	-5.4	2,273	9.0	1,560	-3.4	2,929	18.1
Pump and centrifuges	9,095	4.5	1,769	2.1	2,289	12.6	1,153	5.3	1,077	-10.9	1,554	0.2
Construction machines	9,729	19.3	2,930	11.8	1,760	31.2	482	17.0	718	-19.1	1,047	19.9
Mechanical handling equip	6,358	8.6	1,277	11.7	859	11.7	832	10.8	863	-1.7	1,285	-4.1
Heating or cooling machine	5,268	9.2	791	18.5	1,120	8.5	948	25.8	513	-6.3	1,426	5.4
Textile machines	2,390	7.0	111	-15.4	123	-3.1	1,019	32.7	206	-14.9	280	-16.1
Bearings	3,023	4.5	628	2.9	611	5.9	379	18.6	504	-4.3	720	5.7
Electrical machinery	138,262	4.4	23,144	-1.7	20,800	0.4	25,215	21.3	21,734	2.4	41,687	0.0
Semiconductors etc	41,749	4.2	3,064	8.9	3,819	0.3	8,187	25.4	10,240	-2.4	18,678	-1.1
Integrated circuits	27,343	3.5	1,848	10.5	1,790	1.0	5,579	32.0	6,188	-11.8	14,256	-0.7
Visual apparatus	15,252	-6.5	4,832	-14.6	4,775	-8.5	1,004	95.6	864	-10.7	2,040	-11.2
Video rec or repro app	10,928	-5.5	3,171	-9.0	3,751	-10.5	896	102.9	611	-15.1	1,426	-14.1
Television recivers	3,337	-14.8	1,271	-31.0	752	-6.5	36	28.5	198	0.0	473	-6.4
Audio apparatus	814	-25.9	347	-30.7	196	-30.8	68	2.0	49	-7.6	89	-22.9
Parts of audio,visual app	13,324	13.6	1,436	-1.4	2,543	13.1	2,895	2.7	1,477	27.2	2,718	-0.4
Electrical power machinery	6,729	9.8	1,512	7.0	915	7.2	1,343	27.3	905	-3.4	1,455	11.5
Telephony,telegraphy	4,261	-8.4	1,707	-2.5	707	-23.2	281	-25.5	366	30.8	480	-15.0
Electrical measuring	10,898	3.7	2,664	1.6	1,731	8.6	1,540	22.5	1,176	-4.7	3,278	1.1
Electrical apparatus	16,495	7.5	2,105	1.3	1,655	9.5	3,959	20.8	2,948	7.6	5,340	0.8
Batteries and accumulators	3,254	1.2	425	-12.8	384	-3.3	1,326	20.2	325	12.8	602	-20.5
Transport Equipment	156,898	13.3	58,862	18.2	23,707	8.5	5,373	33.0	7,337	-13.5	6,904	-15.9
Motor vehicles	105,787	16.9	45,363	25.3	15,741	5.6	1,557	20.6	3,078	-15.3	2,715	2.7
Passenger motor cars	94,338	17.9	44,095	25.0	15,197	7.1	1,357	15.7	1,590	-17.7	2,050	4.9
Buses and trucks	10,743	10.2	1,268	35.6	545	-24.5	190	74.2	1,205	-11.0	502	-8.0
Parts of motor vehicles	26,000	2.0	8,657	-6.8	3,664	4.0	3,308	28.2	2,907	-10.9	1,794	-10.7
Cycles with engines	6,399	4.2	2,709	5.4	2,450	0.8	1	-23.8	105	37.9	179	26.1
Ships	13,633	18.7	0	n.a.	1,266	234.1	4	-61.4	863	-30.2	1,457	-26.4
Other	75,333	6.3	14,620	-1.3	12,284	15.4	11,027	5.6	9,695	10.1	25,757	3.2
Scientific,optical inst	21,237	-6.1	3,702	-2.3	2,846	-2.2	4,046	-2.3	1,649	2.6	8,249	-11.9
Photographic supplies	4,706	0.0	931	-0.8	886	1.1	427	13.2	309	4.3	1,790	-3.8
Blank/recorded media	4,718	6.0	1,420	-0.5	1,099	4.5	358	7.6	903	20.9	980	6.5
Total	647,290	8.2	145,651	8.0	93,869	6.6	92,852	15.6	76,349	0.4	150,301	3.3

Note, Source: Same as Table 9.

Table 11　Japanese export by product（2006）

(US$ million, %,)

	World		United States		EU25		China		ASEAN10		Asian NIEs	
	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate
Food	49,122	-3.1	12,890	-3.6	5,311	-4.4	8,041	1.8	5,699	1.8	2,340	-13.3
Fish	13,532	-5.0	1,256	-9.7	470	3.1	3,149	1.5	2,775	-2.1	1,210	-22.0
Shrimps	2,133	-0.1	14	-10.6	10	-1.8	163	-2.4	1,160	0.7	5	-31.2
Meat	8,412	-14.4	1,465	-13.9	1,143	-30.1	1,018	9.0	529	5.5	40	-6.2
Cereals	5,771	-0.2	3,664	0.4	305	-2.5	443	-7.6	231	-5.9	91	-4.4
Vegetabls	3,657	1.2	636	6.5	197	-5.9	1,977	5.8	201	3.0	238	-22.0
Fruits	3,437	-1.9	891	-4.7	165	-0.9	609	3.2	723	-6.4	99	1.9
Raw material	40,724	27.5	4,009	12.1	2,115	3.1	1,749	3.6	8,506	44.0	1,340	34.4
Wood	5,000	4.8	709	-2.2	868	5.7	302	4.8	531	5.0	24	-45.2
Ore of nonferrous	14,380	58.5	432	80.6	52	-65.1	92	-26.7	3,779	60.9	1	-47.8
Iron ore and concentrates	7,175	28.4	0	—	0	-70.1	0	1802.0	373	72.8	5	16.2
Soy beans	1,282	-10.8	980	-3.9	0	—	79	-32.6	0	-83.4	0	n.a.
Mineral fuels	160,496	21.4	957	-21.4	150	6.4	2,845	-13.8	21463	10.2	4,553	23.9
Petroleum	99,235	24.1	0	—	0	—	469	73.3	4,499	22.0	80	205.3
Petroleum products	16,059	19.4	525	4.9	138	6.6	553	-6.7	3,003	17.8	4,421	22.5
Petroleum spirits	11,954	18.7	90	-28.9	93	26.0	465	-8.3	1,541	10.8	2,362	20.1
Liquefied natural gas	22,881	26.6	364	-2.3	0	—	0	—	11871	8.2	0	—
Liquefied petroleum gas	8,081	29.5	1	-96.0	2	-19.3	4	-27.3	152	-64.6	49	60.8
Coal	13,872	0.9	67	-79.8	0	—	1,497	-18.2	1,938	5.3	0	-72.0
Chemicals	42,239	7.1	8,756	8.3	14,299	0.3	5,352	25.0	4,097	5.8	5,131	7.6
Organic chemicals	11,593	7.1	1,405	7.7	4434	0.1	1,217	21.6	770	13.9	1,336	13.0
Medical products	8,523	3.2	1,445	2.7	4,976	-0.9	303	10.8	80	-2.8	197	20.0
Manufactured goods	56,382	14.1	4,167	14.4	5612	5.4	14,817	12.3	7650	16.7	6,782	1.8
Iron and steel products	6,521	-10.8	185	-3.6	435	2.6	1,599	-6.9	135	-10.8	2,519	-16.3
Nonferrous	18,603	39.6	1,260	42.5	1,382	28.0	2,054	20.0	979	53.1	1,032	64.0
Manufactures of metals	7,643	15.9	774	15.0	824	-1.9	3,458	21.4	1,050	20.4	1,360	13.7
Textile yarn,fabrics	6,142	5.7	274	6.8	697	-2.8	3,357	10.0	759	0.7	644	2.5
Non-metallic mineral ware	6,192	5.4	630	12.8	1,035	-4.9	2,016	11.0	861	15.0	647	9.6
Wood manufactured	6,787	10.5	177	1.3	434	14.0	1,237	13.4	2,838	16.6	64	9.8
Machinery	53,677	3.9	11,118	8.6	7,369	0.9	20,020	7.1	7,568	0.9	7,404	-6.9
Power generating machine	6,872	19.4	4,216	16.5	1,338	7.4	523	94.2	360	41.6	253	23.3
Computers and units	18,073	-4.2	1,588	-11.8	865	-14.3	10,340	1.0	3,617	-5.4	2,272	-15.1
Parts of computer	7,318	-10.4	758	-13.4	260	-14.0	3,422	-3.9	1,275	-8.6	1,803	-21.8
Electrical machinery	74,353	10.3	12,115	15.1	6,318	10.4	23,038	10.5	15,136	0.4	17,418	17.1
Semiconductors etc	24,716	15.7	4,675	17.4	1,095	20.6	2,195	25.1	5,301	-0.2	12,204	20.4
Integrated circuits	21,637	17.0	4,326	20.4	930	18.7	1,524	30.2	4,033	-3.1	11,574	21.8
Audio and visual apparatus	13,413	-7.9	1,056	18.0	290	-2.5	7,069	-5.8	3,127	-17.9	1,752	-9.1
Video rec or repro app	2,284	-14.3	39	18.4	42	56.2	1,401	-13.7	669	-18.4	121	-20.9
Electrical power machinery	4,796	14.1	300	0.9	708	69.5	2,467	10.0	871	2.5	344	15.5
Telephony,telegraphy	4,155	18.0	490	13.7	304	3.2	1,678	22.1	612	2.1	950	49.3
Electrical measuring	5,155	15.7	2,295	18.7	1,412	1.0	622	46.6	410	21.6	181	16.8
Transport equipment	19,442	3.5	5,831	3.1	8,174	-0.4	1,949	23.7	975	20.3	932	19.4
Motor vehicles	7,881	-5.5	631	-3.1	5,929	-6.4	20	77.5	72	9.1	58	18.2
Parts of motor vehicles	4,514	17.9	652	13.3	1,371	6.0	971	45.4	775	23.7	525	20.2
Aircraft	5,009	5.5	4,259	1.7	559	95.2	3	23.4	11	43.1	25	49.8
Other	82,858	7.5	8,227	0.7	10,482	-0.3	40,705	8.2	8,897	7.6	10,794	25.0
Scientific, optical inst	15,498	17.2	4,214	6.1	2,833	1.4	2,725	-3.0	1,210	0.9	3,685	106.3
Clothing and accessories	23,654	5.2	259	-12.6	1,583	-1.9	19,383	6.5	1,407	4.2	439	-15.9
Furniture	5,123	2.8	189	-0.3	646	-3.3	2,683	7.5	1,002	-1.0	340	-6.4
Bags	4,075	5.7	77	11.4	1,638	-0.3	2,167	11.5	101	-2.0	54	-16.0
Total	579,294	11.7	68,071	5.5	59,830	1.3	118,516	8.6	79,990	9.5	56,695	11.1

Note, Source: Same as Table 9.

Table 12 Japan's Foreign Direct Investment by Country and Region (Based on Balance of Payments, net)

(US$ million, %)

Outward	2004	2005	2006	Share	Growth Rate
Asia	10,531	16,188	17,167	34.2	6.0
China	5,863	6,575	6,169	12.3	-6.2
Asia NIES	1,873	4,902	3,893	7.8	-20.6
Hong Kong	491	1,782	1,509	3.0	-15.3
Taiwan	473	828	491	1.0	-40.6
R.Korea	771	1,736	1,517	3.0	-12.6
Singapore	138	557	375	0.7	-32.7
ASEAN4	2,534	4,276	6,038	12.0	41.2
Thailand	1,867	2,125	1,984	4.0	-6.6
Indonesia	498	1,185	744	1.5	-37.2
Malaysia	163	524	2,941	5.9	460.9
Philippines	6	442	369	0.7	-16.4
India	139	266	512	1.0	92.7
Vietnam	n.a.	154	467	0.9	204.4
North America	7,601	13,168	10,188	20.3	-22.6
U.S.A.	7,559	12,126	9,297	18.5	-23.3
Canada	42	1,042	892	1.8	-14.4
Central and South America	3,120	6,402	2,547	5.1	-60.2
Mexico	191	629	-2,603	n.a.	n.a.
Brazil	-65	953	1,423	2.8	49.2
Cayman Islands	2,726	3,915	2,814	5.6	-28.1
Panama	n.a.	451	558	1.1	23.6
Bermuda	n.a.	151	-305	n.a.	n.a.
Dutch Antilles	n.a.	108	0	n.a.	n.a.
British Virgin Islands	n.a.	-98	255	0.5	n.a.
Peru	n.a.	95	64	0.1	-32.6
Argentina	n.a.	29	11	0.0	-62.3
Puerto Rico	n.a.	39	.	n.a.	n.a.
Oceania	1,856	943	723	1.4	-23.3
Australia	1,651	640	466	0.9	-27.2
New Zealand	151	62	125	0.2	100.6
Guam	n.a.	-24	98	0.2	n.a.
Marshall	n.a.	262	20	0.0	-92.2
Western Europe	7,097	7,509	18,029	35.9	140.1
Germany	645	270	1,128	2.2	318.1
U.K.	1,649	2,903	7,271	14.5	150.4
France	25	541	842	1.7	55.8
Netherlands	3,337	3,315	8,497	16.9	156.3
Italy	163	44	51	0.1	13.9
Belgium	664	-195	133	0.3	n.a.
Luxembourg	-82	25	-478	n.a.	n.a.
Switzerland	-110	56	183	0.4	229.9
Sweden	-70	82	416	0.8	403.9
Spain	183	363	136	0.3	-62.5
Norway	n.a.	128	17	0.0	-86.9
Denmark	n.a.	82	6	0.0	-92.6
Ireland	n.a.	-111	-229	n.a.	n.a.
Austria	n.a.	8	41	0.1	428.1
Cyprus	n.a.	-30	-11	n.a.	n.a.
Turkey	n.a.	73	7	0.0	-90.9
Malta	n.a.	-61	-1	n.a.	n.a.
Eastern Europe, Russia, etc.	439	721	367	0.7	-49.1
Russia	49	95	160	0.3	68.5
Poland	n.a.	275	234	0.5	-15.1
Hungary	n.a.	191	-102	n.a.	n.a.
Czech	n.a.	150	-18	n.a.	n.a.
Middle East	-63	542	242	0.5	-55.4
Saudi Arabia	-38	494	254	0.5	-48.7
U.A.E.	-19	19	-56	n.a.	n.a.
Egypt	n.a.	25	21	0.0	-17.2
Africa	378	25	899	1.8	3549.8
South Africa	124	-17	466	0.9	n.a.
Liberia	n.a.	-284	-99	n.a.	n.a.
Mauritius	n.a.	309	533	1.1	72.4
World	30,962	45,461	50,165	100.0	10.3
Reference					
ASEAN10	2,800	5,002	6,923	13.8	38.4
EU	7,341	7,872	17,925	35.7	127.7

Inward	2004	2005	2006	Growth Rate
Asia	994	1,565	-852	n.a.
China	-9	11	12	2.3
Asia NIES	1,009	1,563	-856	n.a.
Hong Kong	295	960	-2,136	n.a.
Taiwan	74	-26	110	n.a.
R.Korea	251	31	108	244.2
Singapore	389	598	1,062	77.4
ASEAN4	2	-5	3	n.a.
Thailand	-1	-6	1	n.a.
Indonesia	2	0	3	15036.3
Malaysia	0	0	1	n.a.
Philippines	1	1	-1	n.a.
India	0	1	-1	n.a.
North America	2,294	-636	-2,666	n.a.
U.S.A.	1,407	308	105	-66.0
Canada	890	-944	-2,771	n.a.
Central and South America	-1,114	1,278	566	-55.7
Mexico	0	.	0	n.a.
Brazil	20	1	.	n.a.
Cayman Islands	-752	1,069	-82	n.a.
Panama	n.a.	14	9	-32.4
Bermuda	n.a.	-38	428	n.a.
British Virgin Islands	n.a.	205	181	-11.7
Oceania	-4	-114	36	n.a.
Australia	-4	-113	35	n.a.
New Zealand	1	1	0	n.a.
Wetern Europe	5,623	1,123	-3,938	n.a.
Gemany	1,170	237	-542	n.a.
U.K.	-310	132	1,807	1266.3
France	1,049	-78	274	n.a.
Netherlands	3,611	2,541	-7,583	n.a.
Italy	33	6	48	661.0
Belgium	-417	-1,188	884	n.a.
Luxembourg	260	363	-12	n.a.
Switzerland	108	-748	317	n.a.
Sweden	-82	-63	669	n.a.
Spain	115	41	40	-2.2
Ireland	n.a.	-123	128	n.a.
Austria	n.a.	-1	40	n.a.
Eastern Europe, Russia, etc.	-1	.	-4	n.a.
Russia	0	.	.	n.a.
Middle East	3	9	-1	n.a.
Saudi Arabia	0	.	.	n.a.
U.A.E.	1	-1	0	n.a.
Israel	n.a.	10	-1	n.a.
Africa	-13	1	63	11429.0
South Africa	.	.	.	n.a.
Mauritius	n.a.	0	63	n.a.
World	7,808	3,223	-6,789	n.a.
Reference				
ASEAN10	392	592	1,063	79.6
EU	5,492	1,858	-4,274	n.a.

Notes:

1.Figures were first released in Japanese yen and quarterly converted into US dollars using Bank of Japan average inter-bank rates.

2."-"indicates net outflow.

3."0"indicates an amount of less than one million US dollars; "." indicates no investment recorded during the corresponding period.

4.EU includes the 10 accession states(AC10) from the second quarter of 2004.

5."World" includes countries those are not classified into each region. Therefore, "World" is not necessarily equal to the sum of regional component.

Sources: Ministry of Finance Balance of Payments Statistics and Bank of Japan foreign exchange rates.

Table 13 Japan's Foreign Direct Investment by Industry (Based on Balance of Payments, net)

(US$ million, %)

	Outward				Inward		
	2005	2006	Share	Growth Rate	2005	2006	Growth Rate
Manufacturing(total)	26,146	34,513	68.8	32.0	-2,191	254	n.a.
Food	1,685	1,025	2.0	-39.2	-211	-717	n.a.
Textile	416	180	0.4	-56.8	188	58	-69.1
Lumber and pulp	826	420	0.8	-49.1	-22	-23	n.a.
Chemicals and pharmaceuticals	3,363	4,413	8.8	31.2	-1,168	1,538	n.a.
Petroleum	531	2,921	5.8	450.0	-44	37	n.a.
Rubber and leather	831	1,107	2.2	33.3	1	35	4314.5
Glass and ceramics	258	2,759	5.5	967.6	103	193	86.1
Iron, non-ferrous and metals	1,331	1,795	3.6	34.8	-34	60	n.a.
General machinery	1,296	1,663	3.3	28.3	164	-24	n.a.
Electric machinery	4,377	7,041	14.0	60.8	-1,195	32	n.a.
Transportation equipment	8,611	8,597	17.1	-0.2	32	-1,408	n.a.
Precision machinery	1,419	1,420	2.8	0.1	-59	598	n.a.
Non-manufacturing(total)	19,315	15,652	31.2	-19.0	5,414	-7,043	n.a.
Farming and forestry	23	42	0.1	82.0	-1	11	n.a.
Fishery and marine products	-44	28	0.1	n.a.	0	-39	n.a.
Mining	1,372	1,577	3.1	15.0	0	1	273.7
Construction	148	-64	n.a.	n.a.	41	37	-9.8
Transportation	824	1,507	3.0	82.9	2,108	28	-98.7
Communications	1,712	-3,368	n.a.	n.a.	912	-9,715	n.a.
Wholesale and retail	4,623	5,483	10.9	18.6	1,157	-387	n.a.
Finance and insurance	9,227	5,562	11.1	-39.7	645	2,265	251.2
Real estate	-851	-811	n.a.	n.a.	15	72	365.6
Services	1,086	188	0.4	-82.7	178	122	-31.1
Total	45,461	50,165	100.0	10.3	3,223	-6,789	n.a.

Notes: 1.Figures were first released in Japanese yen and quarterly converted into US dollars using Bank of Japan average inter-bank rates.

2."-" Indicates net outflow.

3."0" indicates an amount of less than one million US dollars

4. Figures by industry are released since 2005.

Sources: Ministry of Finance Balance of Payments Statistics and Bank of Japan foreign exchange rates.

Table 14 Japan's Foreign Direct Investment Stock by Country and Region (Based on Balance of Payments, net)

(US$ million, %)

	Outward				Inward			
	end of 04	end of 05	end of 06	Share	end of 04	end of 05	end of 06	Share
Asia	76,416	88,187	107,653	23.9	5,889	6,702	8,247	7.7
China	20,208	24,655	30,316	6.7	90	102	100	0.1
AsiaNIES	29,506	32,708	39,042	8.7	5,658	6,475	8,032	7.5
Taiwan	5,455	5,932	6,328	1.4	1,605	1,391	1,475	1.4
Korea	6,602	8,251	10,669	2.4	537	313	423	0.4
Hong Kong	6,275	6,715	7,776	1.7	2,136	2,612	1,928	1.8
Singapore	11,175	11,810	14,270	3.2	1,380	2,159	4,205	3.9
ASEAN4	23,806	27,657	34,313	7.6	120	105	107	0.1
Thailand	9,909	11,677	14,839	3.3	48	42	42	0.0
Indonesia	6,520	7,681	7,457	1.7	8	6	8	0.0
Malaysia	4,080	4,803	7,763	1.7	15	13	13	0.0
Philippines	3,296	3,496	4,253	0.9	49	44	43	0.0
India	1,756	1,802	2,315	0.5	10	10	9	0.0
North America	146,967	156,189	163,230	36.3	45,919	47,729	44,273	41.1
U.S.A.	142,302	150,152	156,411	34.8	40,872	43,888	41,989	39.0
Canada	4,665	6,037	6,818	1.5	5,049	3,841	2,284	2.1
South and Central America	26,588	33,064	39,291	8.7	3,004	8,218	12,123	11.3
Mexico	2,888	3,635	1,773	0.4	5	4	4	0.0
Brazil	4,560	6,001	7,829	1.7	33	31	30	0.0
Cayman Is.	15,008	18,071	21,440	4.8	2,666	5,599	8,400	7.8
Oceania	15,091	12,961	13,794	3.1	637	478	492	0.5
Australia	12,844	10,618	12,181	2.7	634	472	485	0.5
New Zealand	850	900	994	0.2	4	3	3	0.0
Europe	101,886	92,453	118,657	26.4	41,779	38,101	42,367	39.4
Germany	6,990	6,197	7,415	1.6	3,915	5,904	4,582	4.3
U.K.	26,845	24,264	31,613	7.0	2,310	3,033	4,983	4.6
France	12,937	11,325	13,064	2.9	13,693	10,777	11,549	10.7
Netherlands	36,499	34,591	45,419	10.1	14,210	11,654	12,175	11.3
Italy	1,092	845	807	0.2	555	559	495	0.5
Belgium	8,848	7,774	9,630	2.1	613	474	1,901	1.8
Luxembourg	1,107	763	1,128	0.3	1,650	1,632	1,635	1.5
Switzerland	1,035	869	985	0.2	3,172	2,264	2,640	2.5
Sweden	1,560	1,563	2,199	0.5	542	352	742	0.7
Spain	1,150	1,390	1,348	0.3	186	111	195	0.2
Eastern Europe, Russia, etc.	1,551	1,824	2,315	0.5	52	47	47	0.0
Russia	87	157	258	0.1	53	46	46	0.0
Middle East	1,022	1,685	2,038	0.5	9	14	14	0.0
Saudi Arabia	859	1,439	1,753	0.4	2	2	2	0.0
U.A.E.	39	185	183	0.0	2	1	1	0.0
Iran	5	5	4	0.0	.	.	.	n.a.
Africa	1,628	1,332	2,701	0.6	-12	1	63	0.1
South Africa	967	793	1,125	0.3	.	.	.	n.a.
OECD nations(Note4)	273,288	273,584	309,275	68.8	88,785	86,553	87,463	81.2
ASEAN	35,794	40,478	49,837	11.1	1,501	2,264	4,310	4.0
EU25	101,417	92,140	118,852	26.4	38,503	35,758	39,625	36.8
TOTAL	371,755	388,197	449,680	100.0	97,305	101,322	107,663	100.0

Notes: 1. Figures were first released in Japanese yen and converted to US dollars using Bank of Japan average inter-bank rates.

2."-" Indicates net outflow.

3."." Indicates no investment recorded during the corresponding period.

4. OECD member countries include the EU15, Australia, Canada, Iceland, New Zealand, Norway, Switzerland, Turkey, U.S.A., Mexico, Czech Republic, Hungary, ROK and Poland (28 countries in total).

Sources: Ministry of Finance and Bank of Japan balance of payment and cross-border investment statistics and Bank of Japan foreign exchange rates.

Table 15 Worldwide FTA

Area	Name	Date of the agreement	Area	Name	Date of the agreement
Europe, Russia and the NIS, Middle East, Africa	European Union	1958/1/1	Europe, Russia and the NIS, Middle East, Africa	Albania－Republic of Moldova	2004/11/1
	European Free Trade Association(EFTA)	1960/5/3		Republic of Moldova－Macedonia	2004/12/1
	EU－Switzerland	1973/1/1		Albania－Bosnia And Herzegovina	2004/12/1
	EU－Algeria	1976/7/1		EFTA－Tunisia	2005/6/1
	EU－Syria	1977/7/1		Turkey－Palestinian Territories	2005/6/1
	Gulf Cooperation Council(GCC)	May-81		Turkey－Tunisia	2005/7/1
	EU－Andorra	1991/7/1		Turkey－Morocco	2006/1/1
	EFTA－Turkey	1992/4/1		Turky－Syria	2007/1/1
	Economic Cooperation Organization(ECO)	Nov-92		EFTA－Lebanon	2007/1/1
	Economic Community of West Afarican States(ECOWAS)	1993	Western Hemisphere	Central American Common Market（CACM）	1961/10/12
	EFTA－Israel	1993/1/1		Caribbean Community（CARICOM）	1973/8/1
	Armenia－Russia	1993/3/25		Asociacion Latinoamericana de Integracion（ALADI）	1981/3/18
	Kyrgyzstan－Russia	1993/4/24		Andean Community(CAN)	1988/5/25
	Faroe Islands－Norway	1993/7/1		Common Market of the South（Mercado Comun del Cone Sur）	1991/11/29
	Faroe Islands－Iceland	1993/7/1		North American Free Trade Agreement（NAFTA）	1994/1/1
	European Economic Area(EEA)	1994/1/1		Costa Rica－Mexico	1995/1/1
	Georgia－Russia	1994/5/10		Canada－Chile	1997/7/5
	Common Market for Eastern and Southern Africa(COMESA)	1994/12/8		Mexico－Nicaragua	1998/7/1
	Commonwealth of Independent States（CIS)economic union	1994/12/30		Chile－Mexico	1999/8/1
	Faroe Islands－Switzerland	1995/3/1		Mexico－El Salvador	2001/3/15
	Kyrgyzstan－Armenia	1995/10/27		Guatemala－Mexico	2001/3/15
	Kyrgyzstan－Kazakhstan	1995/11/11		Honduras－Mexico	2001/6/1
	Armenia－Republic of Moldova	1995/12/21		Chile－Costa Rica	2002/2/15
	EU－Turkey	1996/1/1		Chile－El Salvador	2002/6/1
	Georgia－Ukraine	1996/6/4		Canada－Costa Rica	2002/11/1
	Armenia－Turkmenistan	1996/7/7		Panama－El Salvador	2003/4/11
	Georgia－Azerbaijan	1996/7/10		United States－Chile	2004/1/1
	Kyrgyzstan－Republic of Moldova	1996/11/21		United States－the Dominican Republic＋Central America（5）(CAFTA-DR)	2006/3/1
	Armenia－Ukraine	1996/12/18	Asia-Pacific	Bangkok Agreement	1976/6/17
	EU－Faroe Islands	1997/1/1		Papua New Guinea－Australia	1977/2/1
	Turkey－Israel	1997/5/1		South Pacific Regional Trade and Economic Cooperation Agreement（SPARTECA）	1981/1/1
	EU－Palestinian Territories	1997/7/1		Australia/New Zealand Closer Economic Relations Trade Agreement（ANZCERTA）	1983/1/1
	Eurasian Economic Community(EAEC)	1997/10/8		Lao People's Democratic Republic－Thailand	1991/6/20
	Croatia－Macedonia	1997/10/30		ASEAN Free Trade Area（AFTA）	1992/1/28
	the Pan Arab Free Trade Area	1998/1/1		Melanesian Spearhead Group(MSG)	1993/7/22
	Kyrgyzstan－Ukraine	1998/1/19		South Asian Association for Regional Cooperation(SAPTA)	1995/12/7
	EU－Tunisia	1998/3/1		New Zealand－Singapore	2001/1/1
	Kyrgyzstan－Uzbekistan	1998/3/20		India－Sri Lanka	2001/12/15
	Georgia－Armenia	1998/11/11		Japan－Singapore	2002/11/30
	Economic and Monetary Community of Central Africa(CEMAC)	1999/6/24		Singapore－Australia	2003/7/28
	EFTA－Palestinian Territories	1999/7/1		China－Macau	2004/1/1
	Georgia－Kazakhstan	1999/7/16		China－Hong Kong	2004/1/1
	EFTA－Morocco	1999/12/1		ASEAN－China（Framework Agreement）	2003/7/1
	EU－South Africa	2000/1/1		Thailand－India	2004/9/1
	Georgia－Turkmenistan	2000/1/1		Thailand－Australia	2005/1/1
	Western African Economic and Monetary Union(WAEMU/UEMOA)	2000/1/1		Thailand－New Zealand	2005/7/1
	EU－Morocco	2000/3/1		Singapore－India	2005/8/1
	EU－Israel	2000/6/1		ROK－Singapore	2006/3/2
	East African Community（EAC）	2000/7/7		Japan－Malaysia	2006/7/13
	Turkey－Macedonia	2000/9/1		ROK－ASEAN	2007/6/1
	Southern African Development Community（SADC）	2000/9/1	Cross-Regional	TRIPARTITE	1968/4/1
	Croatia－Bosnia And Herzegovina	2001/1/1		EU—Overseas Countries and Territories(OCTs)	1971/1/1
	EFTA－Macedonia	2001/1/1		Protocol relating to Trade Negotiations among Developing Countries(PTN)	1973/2/11
	EU－Macedonia	2001/6/1		United States－Israel	1985/8/19
	Armenia－Kazakhstan	2001/12/25		Global System of Trade Preferences among Developing Countries(GSTP)	1989/4/19
	EFTA－Jordan	2002/1/1		Canada－Israel	1997/1/1
	EFTA－Croatia	2002/1/1		Israel－Mexico	2000/7/1
	EU－Croatia	2002/5/1		EU－Mexico	2000/7/1
	EU－Jordan	2002/5/1		EFTA－Mexico	2001/7/1
	Albania－Macedonia	2002/7/1		United States－Jordan	2001/12/17
	Macedonia－Bosnia And Herzegovina	2002/7/15		EFTA－Singapore	2003/1/1
	EU－Lebanon	2003/3/1		EU－Chile	2003/2/1
	Croatia－Albania	2003/6/1		United States－Singapore	2004/1/1
	Turkey－Bosnia And Herzegovina	2003/7/1		ROK－Chile	2004/4/1
	Turkey－Croatia	2003/7/1		EFTA－Chile	2004/12/1
	Albania－Kosovo	2003/10/1		United States－Australia	2005/1/1
	Republic of Moldova－Bosnia And Herzegovina	2004/5/1		Japan－Mexico	2005/4/1
	EU－Egypt	2004/6/1		United States－Morocco	2005/12/31
	Croatia－Serbia and Montenegro	2004/7/1		United States－Bahrain	2006/7/31
	Republic of Moldova－Serbia and Montenegro	2004/9/1		Jordan－Singapore	2005/8/21
	Albania－Serbia and Montenegro	2004/9/1		EFTA－South Korea	2006/9/1
	Republic of Moldova－Croatia	2004/10/1			

Notes: 1 EEA has reported only to GATS, but the agreement contains GATT elements.

2. Based on the data reported by member countries to WTO except ROK-ASEAN, Thailand-India, Singapore-India.

Source: WTO website (http://www.wto.org/english/tratop_e/region_e/region_e.htm) as of March 1, 2007.