2011 JETRO Global Trade and Investment Report

International Business as a Catalyst for Japan's Reconstruction

Japan External Trade Organization (JETRO)
Overseas Research Department

2011 JETRO Global Trade and Investment Report

Written and published by:
INTERNATIONAL ECONOMIC RESEARCH DIVISION
OVERSEAS RESEARCH DEPARTMENT
JAPAN EXTERNAL TRADE ORGANIZATION (JETRO)

ARK MORI BUILDING 6F, 12-32 AKASAKA 1-CHOME, MINATO-KU, TOKYO
107-6006 JAPAN
TEL: +81-3-3582-5177
FAX: +81-3-3582-5309
E-mail: ORI@jetro.go.jp

Preface

We herewith deliver the "2011 JETRO Global Trade and Investment Report."

When we look back over the past year's world economy, trade and investment, the world economy has steadily recovered from the damage caused by the financial crisis that began in 2008 in the U.S., with emerging countries centering on Asia leading the recovery. However, the world economy is still faced with issues such as the soaring prices in the international commodity market and sovereign risks becoming evident in Southern European countries, and the situation continues where a sense of uncertainty remains. In addition, the Great East Japan Earthquake that occurred on March 11, 2011 caused tremendous damage to the Japanese economy, and has also exerted influence on the overseas economy through the supply chains stretching in Japan and abroad. Although there have been steady efforts toward reconstruction in Japan following the earthquake, as can be seen in the recovery of domestic supply chains achieved at an earlier stage than expected, we are still facing an unpredictable situation with concerns remaining over "Japan passing" and the hollowing-out of domestic industry.

While achieving reconstruction in the disaster-afflicted areas and resolving the nuclear plant accident are priority challenges for Japan, a growth strategy that covers the rebuilding of both domestic and overseas businesses is required from a medium- to long-term perspective, in order to ensure successful reconstruction.

Given such a situation, in this report, Chapter I, "The World Economy, Trade and Direct Investment" analyzes world trade and investment trends in 2010 and thereafter in light of the situation following the earthquake, and searches for future implications. Chapter II, "World Trade Rules under the New Economic Environment," deals with the latest trends of WTO and FTA as well as the trends of an Economic Partnership Agreement (EPA) between Japan and the EU and the Trans-Pacific Partnership (TPP) Agreement, which have been drawing attention in recent years. Chapter III, "International Business for Disaster Recovery," analyzes the impact of the Great East Japan Earthquake on the overseas business of Japanese companies, and discusses Japan's strength that should be reacknowledged precisely during the reconstruction process, including the perspective of enhancing Japan's locational competitiveness. In addition, in light of the importance of overseas business for Japanese companies that remains unchanged even after the earthquake, many cases of Japanese companies that are steadily achieving results in international business by taking Japan's advantage to the fullest are incorporated in the chapter. We sincerely hope that this report will be a useful reference for those making efforts toward reconstruction through global business development.

Information such as Japan's and global statistics on trade and direct investment is regularly updated on JETRO's website. We hope you will also find these useful.

Please note that this is a provisional translation from Japanese.

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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)
(4) BOP: Balance of Payments Statistics (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. "Foreign currency reserves" exclude gold.
(3) Figures for "rate of growth" are year-on-year figures. 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.
(4) 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, the Philippines, Malaysia, Brunei, Vietnam, Laos, Myanmar, Cambodia
(2) ASEAN 4: Indonesia, Thailand, the Philippines, Malaysia
(3) Hong Kong and Taiwan are treated as independent economies.
(4) EU27: EU15 (Austria, Belgium, Denmark, Germany, Greece, Finland, France, Ireland, Italy, Luxembourg, Portugal, Spain, Sweden, Netherlands, UK), plus 12 new members (10 countries which acceded in 2004 (Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia) and 2 countries which acceded in 2007 (Romania, Bulgaria))
(5) EU member candidates: Croatia, Macedonia, Turkey
(6) EFTA (European Free Trade Association) : Liechtenstein, Norway, Switzerland, Iceland
(7) NAFTA (North American Free Trade Agreement) : U.S., Canada, Mexico
(8) BRICs: Brazil, Russia, India, China

4. Base point in time

As a general rule, the base point in time is at the end of June 2011 unless mentioned otherwise.

I The World Economy, Trade and Direct Investment

1. Current Issues of the World Economy

(1) Bipolarization and multipolarization of the world economy

Downside risk lingering

Though the world economy as a whole has been on a path of recovery since 2010, the pace of recovery is varied not only between developed and developing countries (Note 1) but also among developing countries. According to an April 2011 estimate by the International Monetary Fund (IMF), the world's real gross domestic product (GDP) growth (on a purchasing power parity [PPP] basis) was 5.0% in 2010, a significant recovery from 2009 when it was weighed down 0.5% by the financial crisis that originated in the United States, and the world economy is projected to grow at a rate in the mid-4% range in both 2011 and 2012.

Developed countries returned to positive growth of 3.0% in 2010 from negative growth in 2009, and are expected to post growth in the mid-2% range in 2011 onward, all but recovering the growth pace before the financial crisis. While the United States is reverting back to its potential growth rate, personal consumption, which accounts for about 70% of GDP, has yet to see a full-fledged expansion due to a combination of a delay in the job recovery, sluggish housing prices and balance sheet adjustment in the household sector. In Europe, while Germany and France are showing steady growth, helped by brisk exports on the weak euro, overall downside risk is lingering, with UK still in the midst of balance sheet adjustment in the household sector and sovereign risk (the government debt crisis) coming to the fore particularly in Southern European countries.

The economic growth for developing countries accelerated to 7.3% in 2010 from 2.7% in 2009, and is projected to stay in the mid-6% range in 2011 onward. In particular, China, India and other emerging countries in Asia are expected to post high economic growth. The IMF estimates that their growth is likely to surpass that of developing countries as a whole in 2011 and onward, with the region steadily enhancing its presence in the world economy. Against the backdrop of rising international commodity prices, the Middle East and North Africa as well as Latin American countries are also expected to post solid growth. By contrast, countries in Central and Eastern Europe, some of which are now being supported by international institutions after incurring severe damage in the financial crisis, are somewhat lagging other developing countries, though the worst is now behind them (see Figure I-1).

(2) Impact of rising inflationary pressure on the economies of various countries and regions

Soaring international commodity prices and their impact

Over the period from 2008 to 2009, the governments and central banks of major countries took measures for large-scale fiscal spending and monetary easing to mitigate the damage of the global financial crisis to their real economies. While these measures were effective, to a certain extent, in staving off the sharp economic slowdown, they created excess liquidity in some countries and regions by providing more funds than their economies needed. In conjunction with the weaker dollar, sluggish performance of conventional financial assets (stocks and bonds, etc.) and expectations of stronger demand in emerging countries, these surplus funds poured into commodity markets to cause soaring prices of such commodities as precious metals, crude oil and grains. Gold continued to reach new all-time high prices in 2011, topping US$1,500 per ounce in April. Crude oil prices rose above US$100 in March 2011 for the first time in about two and a half years and remained in a high price range thereafter. Rising commodity market prices have then spread to grains, including wheat, soybeans and corn.

At the end of April 2011, the Thomson Reuters/Jefferies CRB Index, a comprehensive indicator of international commodity markets, stood over 80% higher than the low of March 2009, and remains at high levels after calming down somewhat over May and June (see Figure I-2).

Higher commodity markets increase inflationary pressure in many countries through higher import prices. Particularly damaging to people's living are rises in food prices, and the damage is particularly serious in developing countries with the higher Engel's coefficient (see Figure I-3). The impact of higher food prices, cited as one of the reasons behind massive pro-democracy street demonstrations seen in North Africa and the Middle East, increases the risk of amplifying social unrest.

Rises in commodity prices influence the economies of various countries and regions through changes in terms of trade of each country and region (see Figure I-4). Countries that import resources see their terms of trade deteriorate due to rising import prices, resulting in the partial outflow of real national income, while exporting countries get higher income thanks to improved terms of trade associated with higher export prices. Countries that export primary commodities such as crude oil and grains are benefiting from sharply increasing trade profit, while developed countries and developing countries in Asia are seeing an expansion in their trade losses. Consequently, real national income has

[1] In this report, unless otherwise specified, pursuant to the examples of the IMF and "World Economic Trend" of the Cabinet Office, "developed countries" indicates the 34 countries/regions so defined by the IMF, "developing countries" countries/regions other than developed countries, and "emerging countries" those countries with high economic growth, particularly countries participating in the G20 such as China and India.

Figure I – 1 Trends of GDP growth and contribution by country and region

(%)

	2008		2009		2010		2011 (Estimate)		2012 (Estimate)	
	Growth rate	Contribution	Growth rate	Contribution	Growth rate	Contribution	Growth rate	Contribution	Growth rate	Contribution
U.S.	0.0	0.0	-2.6	-0.5	2.8	0.6	2.8	0.5	2.9	0.6
EU27	0.7	0.2	-4.1	-0.9	1.8	0.4	1.8	0.4	2.1	0.4
Euro Zone	0.4	0.1	-4.1	-0.6	1.7	0.3	1.6	0.2	1.8	0.3
UK	-0.1	-0.0	-4.9	-0.2	1.3	0.0	1.7	0.0	2.3	0.1
Japan	-1.2	-0.1	-6.3	-0.4	3.9	0.2	1.4	0.1	2.1	0.1
East Asia	7.0	1.3	5.8	1.1	9.3	1.9	8.0	1.7	8.0	1.8
China	9.6	1.1	9.2	1.1	10.3	1.3	9.6	1.3	9.5	1.4
South Korea	2.3	0.0	0.2	0.0	6.1	0.1	4.5	0.1	4.2	0.1
ASEAN	4.4	0.2	1.4	0.1	7.5	0.3	5.4	0.2	5.6	0.2
Thailand	2.5	0.0	-2.3	-0.0	7.8	0.1	4.0	0.0	4.5	0.0
Singapore	1.5	0.0	-0.8	-0.0	14.5	0.1	5.2	0.0	4.4	0.0
Malaysia	4.7	0.0	-1.7	-0.0	7.2	0.0	5.5	0.0	5.2	0.0
Vietnam	6.3	0.0	5.3	0.0	6.8	0.0	6.3	0.0	6.8	0.0
India	6.2	0.3	6.8	0.3	10.4	0.5	8.2	0.5	7.8	0.4
Australia	2.6	0.0	1.3	0.0	2.7	0.0	3.0	0.0	3.5	0.0
New Zealand	-0.2	0.0	-2.1	0.0	1.5	0.0	0.9	0.0	4.1	0.0
Central and South America	4.3	0.4	-1.7	-0.1	6.1	0.5	4.7	0.4	4.2	0.4
Brazil	5.2	0.1	-0.6	0.0	7.5	0.2	4.5	0.1	4.1	0.1
Central and Eastern Europe	3.2	0.1	-3.6	-0.1	4.2	0.1	3.7	0.1	4.0	0.1
Russia	5.2	0.2	-7.8	-0.3	4.0	0.1	4.8	0.1	4.5	0.1
Middle East and Northern Africa	5.1	0.2	1.8	0.1	3.8	0.2	4.1	0.2	4.2	0.2
Sub-Saharan Africa	5.6	0.1	2.8	0.1	5.0	0.1	5.5	0.1	5.9	0.1
South Africa	3.6	0.0	-1.7	-0.0	2.8	0.0	3.5	0.0	3.8	0.0
World	2.9	2.9	-0.5	-0.5	5.0	5.0	4.4	4.4	4.5	4.5
Reference										
Developed Countries	0.2	0.1	-3.4	-1.8	3.0	1.6	2.4	1.2	2.6	1.3
Developing Countries	6.1	2.7	2.7	1.2	7.3	3.4	6.5	3.1	6.5	3.2
ASEAN + 6	5.2	1.5	3.6	1.1	8.2	2.6	6.8	2.2	6.9	2.3
BRICS (Including South Africa)	7.5	1.7	4.8	1.1	9.0	2.2	8.0	2.1	7.8	2.1
BRICs (Excluding South Africa)	7.6	1.7	5.0	1.1	9.2	2.2	8.1	2.0	8.0	2.1

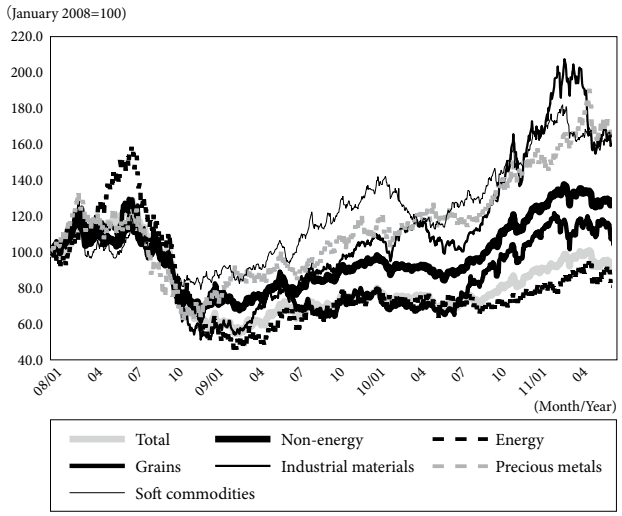
Notes: (1) The IMF calculates GDP growth rate using purchasing power parity (PPP).
(2) Contributions by country and region are calculated using the weighted PPP for 2009.
(3) East Asia refers to China, South Korea, Hong Kong, Taiwan and ASEAN.
(4) ASEAN+6 refers to ASEAN, Japan, China, South Korea, India, Australia and New Zealand.
(5) Figures may differ from elsewhere in this presentation due to revisions and differences in original statistics.
(6) The definitions of developed and developing countries follow the World Economic Outlook (IMF).

Source: WEO (IMF).

decreased in importing countries, yielding a negative impact on personal consumption and capital spending, while higher income is leading to more active investment and consumption in exporting countries. This transfer of income from consuming countries of primary commodities to exporting countries results in differences in economic growth.

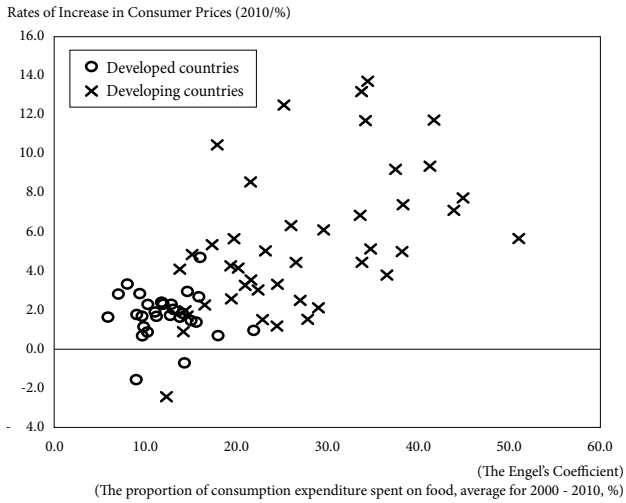
Looking at the structure of income from overseas, meanwhile, developed industrial countries and regions such as Japan, Germany and Taiwan offset the deterioration in terms of trade by exports and net receipts from overseas (mainly income from direct investment and securities investment), while countries such as South Korea and Thailand are highly dependent on exports (see Figure I-5). If commodity prices continue to rise significantly go-

Figure I – 2 Trends of international commodity markets (Thomson Reuters/Jeeries CRB Index)



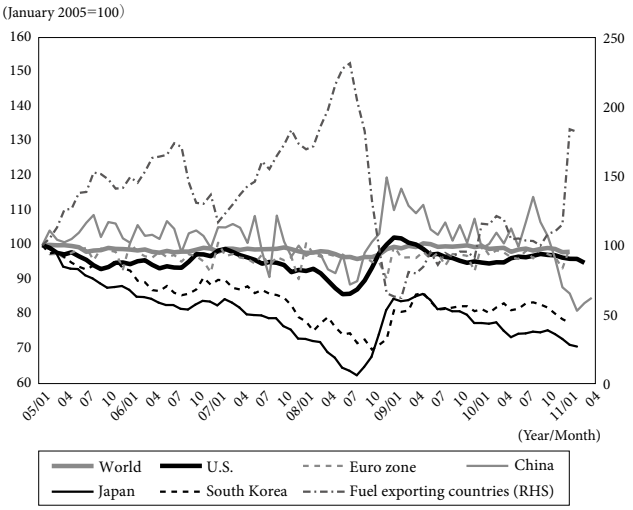
Note: Soft commodities are coffee, cocoa and sugar.
Source: Thomson Reuters.

Figure I – 3 The Engel's coefficient for major countries and the rate of increase in CPI



Note: The classification of developed countries and developing countries follows WEO standards.
Sources: WEO (IMF), International Marketing Data and Statistics 2011 (Euromonitor International).

Figure I – 4 Trends of terms of trade of major countries/regions



Note: The classification of regions follows WEO standards.
Sources: IFS (IMF) and materials of the State Statistical Bureau of China.

ing forward, many countries will find that securing income from overseas through the promotion of exports and investment is the key to maintaining their economic growth.

Convergence of international money into developing countries

The excess liquidity generated in some countries and regions poured into international commodity markets and also led to an inflow of funds into developing countries through international financial markets. According to data of the Bank for International Settlements (BIS), the balance of cross-border lending of BIS reporting banks (on a direct transaction basis) reached around US$37 trillion in March 2008, but then declined and stood at US$30 trillion at the end of 2010, just about 80% of the peak level, indicating that credits provided through international financial markets have yet to recover to the pre-financial crisis level. The breakdown of credit recipients show that while credits given to developed countries remained sluggish, centering on those to the United States and Europe, credits to developing countries, except those in Europe, are displaying an increasingly strong trend, with credits outstanding to Asia and Oceania, China, Central and South America, the Middle East and Africa all standing at all-time highs at the end of 2010 (see Figure I-6).

The inflow of funds into developing countries is also conspicuous in terms of direct investment and securities investment as well as bank lending. According to the IMF, direct investment in developing countries (on balance of payments basis, net and flow) increased sharply to US$371.1 billion (up US$123.4 billion over 2009) and securities investment to US$162.2 billion (up US$41.9 billion over 2009). Asia saw an accelerated inflow of direct investment (up US$108.5 billion year on year to US$175.3 billion), while Central and South America experienced a sharp rise in securities investment (up US$36.9 billion year on year to US$71.5 billion). In addition to primary investment, cited as another factor for the inflow of funds into developing countries is the back-flow of investment in the United States and other developed countries made by developing countries using their accumulated foreign currencies in association with the re-expansion of global imbalances described later.

Figure I – 5 Trading gains and the structure of income from overseas of major countries (2000 base, share of GDP)

(%)

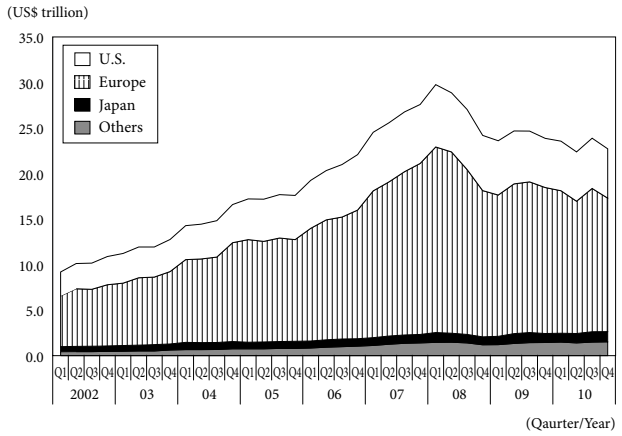
	U.S.				UK			
	Net exports	Net receipts from overseas	Trading gains (losses)	Total	Net exports	Net receipts from overseas	Trading gains (losses)	Total
1990s	-1.2	0.4	-0.7	-1.5	-0.4	-0.7	-0.8	-1.8
2000s	-4.6	0.8	0.0	-3.8	-4.7	1.2	0.5	-3.0
Latest year (Note (3))	-2.6	1.0	-1.4	-2.9	-9.4	2.1	0.4	-6.9
	Germany				France			
1990s	-0.3	-0.2	1.1	0.5	0.7	0.6	0.3	1.6
2000s	4.5	0.5	0.1	5.0	-0.9	0.9	0.5	0.5
Latest year (Note (3))	4.3	1.4	0.4	6.1	-3.2	0.8	0.9	-1.4
	Japan				South Korea			
1990s	0.8	1.0	0.6	2.4	-4.2	-0.6	7.5	2.8
2000s	2.9	2.3	-1.9	3.3	7.0	0.1	-3.5	3.6
Latest year (Note (3))	4.9	2.5	-3.9	3.5	14.1	0.5	-7.3	7.3
	[Reference] Taiwan [2006 base]				[Reference] Thailand [2005 base]			
1990s	-8.3	1.8	9.4	2.9	-9.7	-1.8	-0.2	-11.7
2000s	4.3	2.6	1.5	8.4	4.4	-3.9	0.1	0.6
Latest year (Note (3))	15.2	2.8	-6.9	11.1	10.0	-5.0	0.1	5.1
	[Reference] China [2005 base] (Note (4))				[Reference] India [2005 base]			
1990s	1.7	-0.1	0.0	1.6	-2.4	-1.1	-0.1	-3.5
2000s	5.2	-0.3	0.0	-	-2.9	-0.7	-0.0	-3.6
Latest year (Note (3))	3.8	0.7	0.4	-	-4.6	-0.5	0.0	-5.1

Notes: (1) Trading gains (or losses) show relative changes in income from overseas associated in changes of terms of trade from the base year, not absolute levels of income. Therefore, it should be noted that they are not suitable for intertemporal comparison or simple comparison between countries/regions having different base years.
(2) Figures for the 1990s and 2000s are the averages for the respective periods covered.
(3) The latest year is 2009 for the United States, UK, Germany, France, South Korea, Thailand, China and India, and 2010 for Japan and Taiwan.
(4) Since the latest figure for net receipts from overseas for China is for 2007, it does not show the sum for the 2000s.

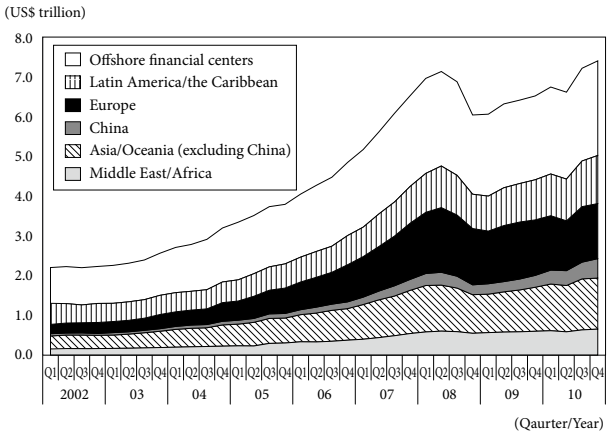
Sources: Annual National Accounts (OECD) for U.S., UK, Germany, France and South Korea.
Japan: National Economic Accounting (Economic and Social Research Institute, Cabinet Office).
Taiwan: Republic of China National Income Statistics (Statistical Bureau, Executive Yuan).
Thailand, China and India: Asia Development Bank statistics (net receipts from overseas) and National Accounts Main Aggregate Table (United Nations).

Figure I – 6 Trends in cross-border bank lending (by country)

(1) Developed countries/regions



(2) Developing countries/regions and offshore financial centers



Source: Consolidated banking statistics (BIS).

These flows of funds into developing countries remain as a risk to be kept under watch as they increase inflationary pressure and, when exceeding a certain scale, distort the allocation of resources in fund-recipient countries, and could also give a tremendous impact on their real economies through the generation and ensuing bursting of bubbles. In fact, according to a survey by the Organization for Economic Cooperation and Development (OECD), out of 268 cases of excessive fund inflows in the past, about 60% saw an abrupt halt to the inflow of funds and 10% experienced either a financial crisis or a currency crisis.

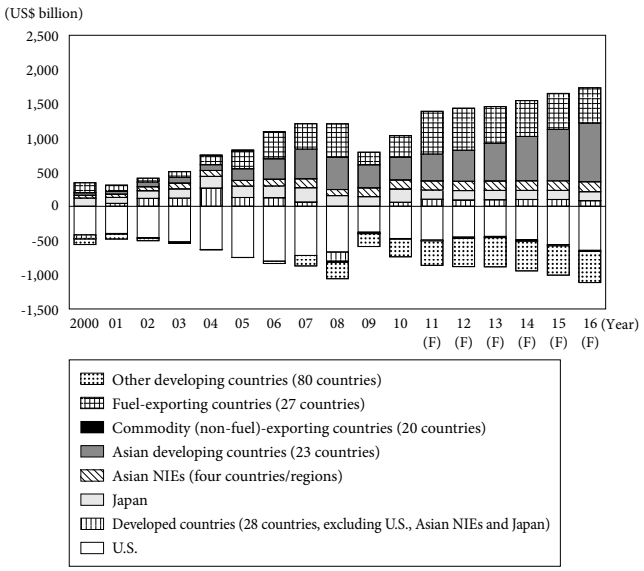
(3) The global imbalance expands again

The imbalance narrowed until 2009

The prolonged economic sluggishness in the United States and other developed countries and expanding demand in emerging countries have also altered the global balance of payments structure. Before the financial crisis, emerging countries, mainly Asian countries and oil exporters in the Middle East, expanded exports to accommodate robust consumption demand of developed countries, and they invested foreign currencies earned on their exports in the United States. This structure had come to stay and the trend of its expansion became more evident particularly since the mid-2000s. This is generally referred to as the global imbalance (the imbalance in the world's balance of payments). While some people argued that the global imbalance is sustainable as the rate of return on investment in the United States stays high and funds flow into developing countries stably, not a few others warned that it is a destabilizing factor for the world economy as the imbalance beyond a certain level is unsustainable and substantial adjustments of exchange rates and asset prices would be inevitable over time.

Following the weakening of domestic demand, particularly personal consumption, in the United States after the financial crisis, the U.S. current account deficit narrowed, with the ratio of the deficit to GDP declining to 2.4% in the second quarter of 2009 from the peak of 6.4% in the third quarter of 2006. At the same time, the current account surpluses of Asian countries started shrinking through decreasing U.S.-bound exports, putting a halt to the expansion of the global imbalance. However, the U.S. current account deficit began to widen again since the third quarter of 2009 (see Figure I-7). But the factors behind the widening U.S. deficit are entirely different from those before the financial crisis. This time around, the deficit is stemming from the shortage of funds in the government sector, while the household sector, which used to be cash-strapped, switched to a surplus of funds, presenting a structure completely different from the pre-financial crisis years (see Figure I-8).

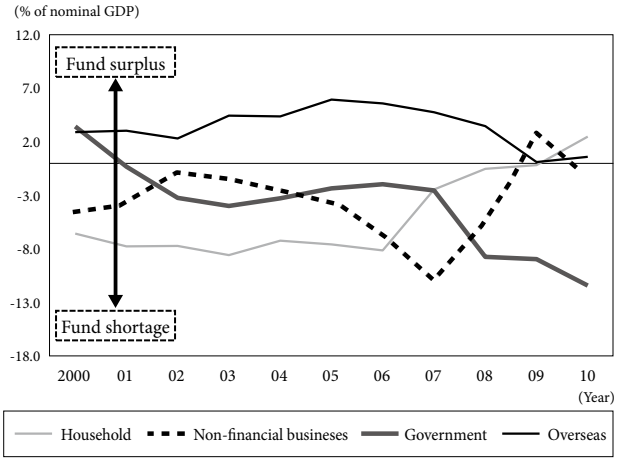
Figure I – 7 Trends of current accounts of major countries/regions



Notes: (1) The classification of developed countries and developing countries follows WEO standards.
(2) Asian NIEs are South Korea, Hong Kong, Taiwan and Singapore.
(3) (Est.): estimate
(4) Developing countries in Asia exclude four countries that belong to fuel-exporting countries and commodity (non-fuel)-exporting countries.

Source: WEO (IMF).

Figure I – 8 Trends of fund surplus/shortage in the U.S.



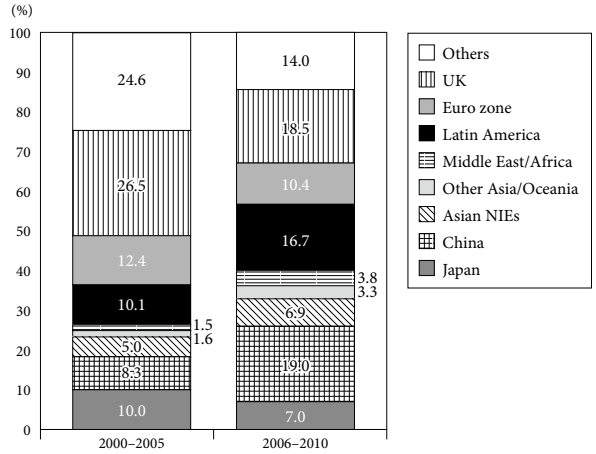
Source: "Flow of Funds Accounts of the United States" (Federal Reserve Board).

The growing presence and risk of Asian money

Meanwhile, the presence of Asian countries and regions is beginning to steadily increase in terms of financing the U.S. current account deficit. Investment from Asia and Oceania accounted for 32.9% of the total investment in the United States (direct investment, securities investment and other investments) of US$1,244.8 billion in 2010, with China contributing 9.0%, Taiwan 2.9% and Singapore 2.7%, respectively.

The trend of the rising Asian presence becomes even clearer in the medium- and long-term perspective. Among the total amount of investment in the United States, the ratio of China increased from 8.3% in 2000-2005 to 19.0% in 2006-2010, and the combined share of Asian NIEs (South Korea, Hong Kong, Taiwan and Singapore) and India reached 26.4% (see Figure I-9). It may be possible to argue that the widening U.S. current account deficit is being financed smoothly by Asia. But it needs to be noted that if concerns over the sustainability of U.S. federal debt become serious, it could have a huge impact on the actual economies of Asia through rises in long-term U.S. interest rates and declines in U.S. Treasury bond prices.

Figure I – 9 Inward direct investment in the U.S. by region (net flows, cumulative total for each period)



Note: The amount of investment is the sum of direct investment, securities investment and other investment.
Source: U.S. International Transactions (U.S. Department of Commerce).

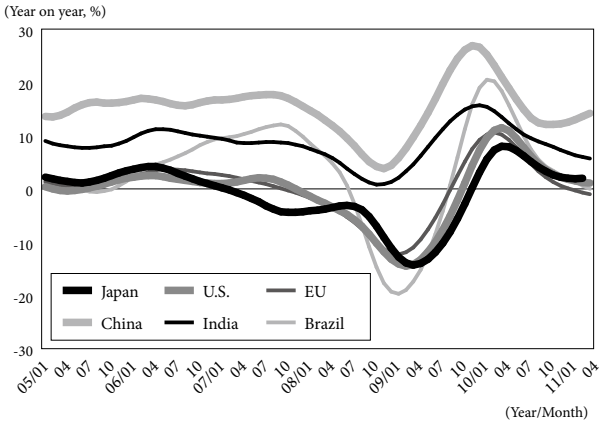
(4) Problems and risks confronting the world economy

The world economy slows down

Some of recent economic indicators of major countries are showing peaking-out or decelerating trends (see Figure I-10). In developed countries in particular, while corporate earnings are in the recovery phase, severe employment conditions are keeping personal consumption from beginning to show signs of perking up in earnest. Furthermore, the global trend of rising prices is prodding central banks of many countries and regions, centering on developing countries and resource-rich countries, into tightening credit policy. The European Central Bank (ECB) also moved toward tightening in April 2011 (see Figure I-11). Furthermore, the U.S. Federal Reserve Board decided to put an end to an additional round of quantitative easing (QE2), launched in November 2010, in June 2011.

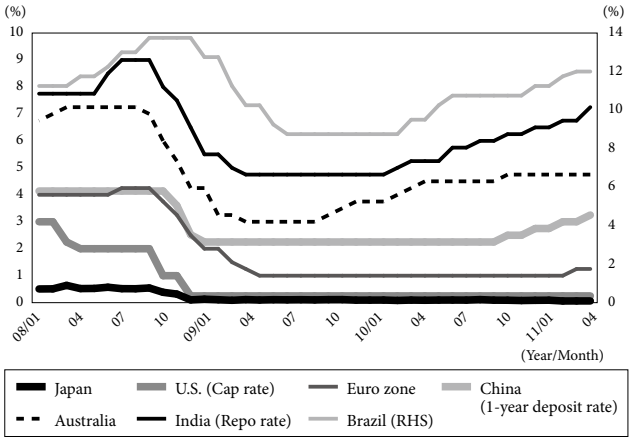
In Europe, where sovereign risks have come under the spotlight, mainly in Southern European countries, as a result of massive fiscal spending to prop up economic activi-

Figure I – 10 Leading economic indicators of major countries/regions



Source: Composite leading indicator (OECD).

Figure I – 11 Trends of policy interest rates of major countries/regions



Sources: Materials provided by the central banks of countries/regions.

ties in the wake of the financial crisis, Greece, Ireland and Portugal successively sought assistance from the IMF and the European Union (EU) in and after May 2010, further heightening pressure for fiscal reconstruction. The shift to the tightening of both monetary and fiscal policies at a time when the economy is decelerating gives rise to concern over even greater downward pressure on the economy. Furthermore, inflationary pressure stemming from rising international commodity prices, unless swept away, could increase the risk of stagflation. Mr. Olivier Blanchard, the IMF's Economic Counsellor, pointed out that while developed countries are unlikely to face the stagflation seen in the 1970s because of their lower dependence on crude oil and the beneficial effects of monetary policy, developing countries may find themselves in a severer situation than developed countries due to higher Engel's coefficients and also because the effectiveness of monetary policy is not secured sufficiently relative to developed countries. The IMF, in the revised World Economic Outlook released in June 2011, revised down the world's real economic growth for 2011 by 0.1 percentage point to 4.3% from the 4.4% estimated in April 2011.

Japan should establish the basis for growth by overcoming the earthquake

As the world economy got back on a recovery trajectory since 2009, the Japanese economy was also about to mark the beginning of the recovery process, albeit at a moderate pace, but that process was hampered by the severe damage caused by the Great East Japan Earthquake on March 11, 2011. Japan's real GDP in January-March 2011 dwindled at an annual rate of 3.5%, posting negative growth for the second consecutive quarter. The IMF also revised Japan's growth estimate for 2011 sharply downward from 1.4% in April to negative growth of 0.7% in June. Furthermore, Japan's exports in April-May 2011 (denominated in yen) plunged 11.4% from the same period of 2010, and the trade balance for May 2011 suffered a deficit of 853.7 billion yen, the first substantial trade deficit in two years and four months since January 2009. However, the Japanese economy is moving steadily toward a recovery from the earthquake, with exports in May 2011 (seasonally adjusted) posting a rise of 2.5% over the preceding month to show signs of bottoming out and the industrial production index in the same month recovered to over 90% of the pre-earthquake level in February. However, no optimism is warranted going forward, as concerns over "Japan abandoning" moves and the hollowing out of Japanese industry linger on, with the earthquake prompting some Japanese companies to accelerate the shift overseas and the persistently strong yen since before the earthquake.

The first and foremost task for Japan is to reconstruct earthquake-afflicted areas and to restore control over the nuclear power plants. In order to put Japan's post-earthquake revival on a firmer basis from the medium- and long-term perspective, Japan also needs to develop a growth strategy that includes restructuring of not only domestic businesses but also overseas businesses.

Through "projects to promote the siting of high-value-added facilities in Japan and promote Japan's position as an 'Asian base'" and other initiatives, the Japanese government has been stepping up efforts to ensure sustainable growth of the Japanese economy by maintaining and strengthening high-value-added business bases in Japan through the promotion of activities to attract and accumulate high-value-added functions conforming to Japan's strengths. For the revitalization of the Japanese economy going forward, it is crucial to further strengthen location competitiveness, maintain and expand employment opportunities, and realize the enhancement of productivity.

On the other hand, with Japan being confronted with the population decline ahead of other countries, it is true that the rebuilding of the domestic economy alone offers only limited prospects for medium- and long-term growth. Moreover, the Japanese economy itself has yet to fully break away from the oversupply structure, and had a deflationary gap equivalent to about 3.8% of GDP, or about 20 trillion yen, as estimated by the Cabinet Office, in the first quarter of 2011. Considering this, it will become more important than before, not only in corporate strategies but also for the Japanese economy as a whole, to bring in the dynamism of emerging countries with high economic growth in Asia and other regions by further accelerating the globalization of both trade and investment. Taking in the growth of overseas markets through such overseas strategies and by effectively utilizing assets held within Japan should help mitigate deflationary pressure through the elimination of the oversupply structure.

The Great East Japan Earthquake has subjected not only the directly devastated Tohoku region but also the entire Japanese economy to an ordeal by damaging supply chains and disrupting the supply of electric power. However, in modern times, Japan has a history of having overcome natural disasters and crises countless times. Indeed, following the latest earthquake, the severed supply chains began to be restored much sooner than expected, impressing the entire world anew with the underlying strength of Japan's industrial infrastructure.

Will Japan get through the latest earthquake and establish the basis for medium- and long-term growth? This will depend on whether Japan can develop the next growth strategy which sees through the post-reconstruction period by leveraging its experiences with the past disasters and drawing lessons from the latest earthquake.

Column I - 1

◉ The earthquake demonstrated the close linkage between Japan and the Asian economies

The Great East Japan Earthquake of March 11, 2011, affected not only the Japanese economy but also the Asian economies to a certain extent, but it also drew renewed attention to the close linkage between Japan and the Asian economies. Take a look at the interdependency between Japan and Asian countries and regions in terms of trade and investment. In trade, while exports to Japan of Asian countries and regions account for between around 4% and 15% of their total exports, the share of imports from Japan in their total imports ranges from 7% to over 20%, with imports by Hong Kong, Taiwan and Thailand reaching levels in excess of 10% of GDP. Looking into direct investments as well, the ratio of direct investment from Japan to the total balance of direct investment goes into double figures in many countries and regions, with direct investment from Japan reaching around 10% of GDP in Hong Kong, Thailand and Singapore (see Table 1).

The computation of the trade intensity index (exports and imports) [Note 1] and the "direct investment intensity index" [Note 2] to measure the strong trade and investment linkages between Japan and Asia relative to the whole world shows that the trade intensity index is greater than 1 for both exports and imports (see Figure 1). The index shows high figures not only for the member states of the ASEAN where production bases of Japanese manufacturers have been accumulated but also for South Korea, Taiwan and China where local companies procure large quantities of intermediate goods from Japan. The intensity index of inward direct investment from Japan is greater than 1 in almost all countries and regions (see Figure 2).

Overall, this suggests that Asian countries and regions have been affected significantly by the earthquake in Japan relative to other regions because their trade and direct investment structures are highly dependent on Japan.

Table 1 Japan's trade and investment relationships with countries/regions in Asia, Europe and North America

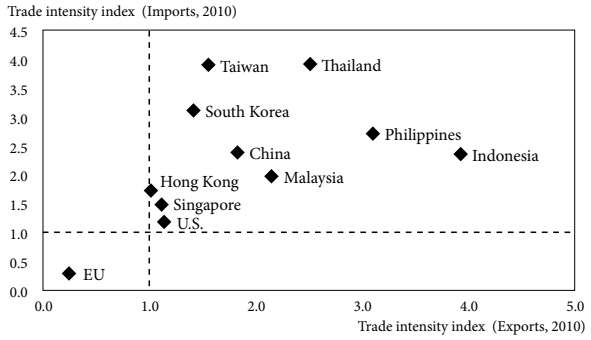
(US$ million, %)

	Trade (2010)						Balance of direct investment (2009)						% of GDP (Trade/investment with Japan)			
	To Japan				To World		In Japan				In World					
	Exports	(Share)	Imports	(Share)	Exports	Imports	Outward	(Share)	Inward	(Share)	Outward	Inward	Exports	Imports	Outward	Inward
China	120,262	(7.6)	176,304	(12.6)	1,578,444	1,393,909	*197*	*(0.1)*	*55,087*	*(10.4)*	*353,056*	*530,057*	2.0	3.0	0.0	0.9
South Korea	28,176	(6.0)	64,296	(15.1)	466,384	425,212	2,563	(2.1)	27,091	(23.0)	120,441	117,732	2.8	6.4	0.3	2.7
Hong Kong	16,552	(4.1)	42,963	(9.7)	401,023	442,035	2,658	(0.4)	20,940	(2.5)	721,462	830,920	7.4	19.1	1.3	9.3
Taiwan	16,958	(6.5)	52,115	(20.7)	262,017	251,794	*2,001*	*(10.4)*	*9,356*	*(23.7)*	*19,223*	*39,499*	3.9	12.1	0.5	2.2
Singapore	16,416	(4.7)	24,455	(7.9)	352,076	310,973	*10,641*	*(8.6)*	32,404	(9.5)	*123,365*	*339,787*	7.4	11.0	5.8	14.6
Thailand	20,417	(10.5)	38,306	(20.8)	195,297	184,519	-30	(-0.2)	37,277	(33.5)	18,891	111,109	6.4	12.0	-0.0	11.7
Malaysia	20,640	(10.4)	20,729	(12.6)	198,941	164,847	*216*	*(0.3)*	9,544	(12.1)	80,488	78,838	8.7	8.7	0.1	4.0
Indonesia	25,782	(16.3)	16,966	(12.5)	157,779	135,663	*12*	*(0.2)*	11,111	(10.3)	*6,941*	108,220	3.6	2.4	0.0	1.6
Philippines	7,826	(15.2)	6,747	(12.3)	51,432	54,721	*60*	*(8.3)*	2,885	(35.5)	721	8,117	3.9	3.3	0.0	1.4
U.S.	60,486	(4.7)	120,545	(6.3)	1,278,263	1,913,160	103,643	(3.0)	264,208	(11.4)	3,508,142	2,319,585	0.4	0.8	0.7	1.8
EU	56,987	(3.2)	85,655	(4.3)	1,786,650	1,990,454	*72,571*	*(0.8)*	*167,759*	*(2.1)*	*8,987,125*	*7,992,431*	0.3	0.5	0.4	1.0

Note: Figures for the balance of both outward and inward direct investment are, in principle, those of reporting countries/regions in IMF materials. When they are not available, figures reported by Japan or investment partner countries are used (shown in Italics).

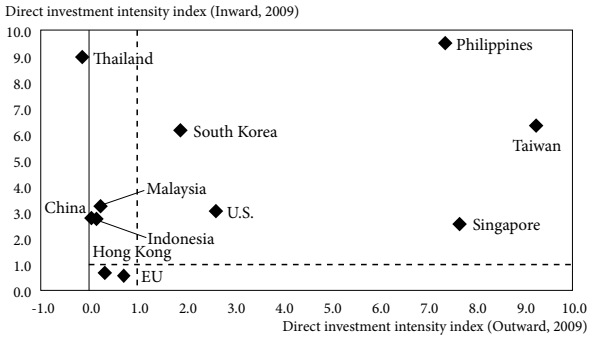
Sources: Trade statistics of countries/regions and "Coordinated Direct Investment Survey," WEO (IMF).

Figure 1 Japan's trade intensity index with countries/regions in Asia, Europe and North America



Source: DOT (IMF) and trade statistics of Taiwan.

Figure 2 Japan's direct investment intensity index with countries/regions in Asia, Europe and North America



Source: "Coordinated Direct Investment Survey" (IMF).

[1] The trade intensity index of country i and country j = (the amount of exports from country i to country j / the total amount of exports by country i) / (the total amount of exports from the world to country j / the total amount of exports by the world). An index value of above 1.0 is interpreted to mean a strong trade linkage between the two countries.

[2] In this column, the direct investment intensity index is defined as the index obtained by replacing exports in Note 1 by the balance of outward direct investment and imports by the balance of inward direct investment. Direct investment by the world as a whole is the sum of the amounts of investment reported by individual countries in the IMF document shown in Figure 1.

2. Trade of the World and Japan

(1) World trade in 2010 posts strong growth

In world trade (merchandise trade, nominal exports) in 2010, exports surged 22.2% year on year to US$15,049.5 billion, partly in reaction to the sharpest decrease since 1949 recorded in 2009 (see Figure I-12). The increase was the second largest in the past 30 years, next only to the expansion seen in 2004 amid the global economic boom (see Figure I-13). Imports also rose 21.1% year on year to US$15,469.6 billion.

The growth rate of trade can be broken down into the price factor (import and export price indices) and the volume factor (import and export volume indices, real imports and exports). In 2010, export prices increased 5.7% and import prices 6.5% (both dollar based, IMF), both showing only moderate rises apparently because manufactured products saw almost no price rises.

On the other hand, prices of primary commodities soared by 26.1%. Commodity prices, which had followed an uninterrupted uptrend since 2002, plunged in 2009 in the aftermath of the global financial crisis, but turned up again in 2010. On top of higher energy and metal prices on firming demand, prices of food and agricultural raw materials shot up from mid-2010 due to unseasonable weather (see Figure I - 14).

Real exports, from which the effect of price fluctuations is excluded, grew 16.5%, exceeding the growth of 13.4% in 2004 to register the largest increase since 23.0% in 1979. Real exports began to rise in June 2009 and surpassed the pre-financial crisis peak level of April 2008, though the growth slowed down in the second half of 2010.

To take a look at export and import patterns by major country, Figure I-15 and Figure I–16 show trends of export and import volumes against the base of August 2008 before the Lehman Shock. The volume of imports by the United States, the world's largest importer, began to trend down from November 2008, bottomed out in May 2009 and exceeded the pre-financial crisis level finally in June 2010. In the second half of 2010, however, the growth of import volume slowed and dipped below the pre-crisis level in some months. U.S. exports, meanwhile, hit bottom in March 2009, but rose above the pre-crisis level by December 2010.

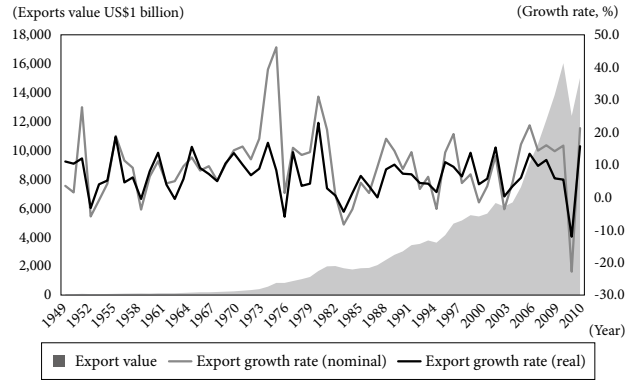
Exports by China started decreasing in November 2008 due to decreasing imports by the United States, and reached bottom in February 2009. Chinese exports recovered and stayed comfortably above pre-crisis levels only after February 2010.

The volume of imports by China, just as its exports, began to decline from November 2008 as imports of intermediate goods and raw materials dropped, but bottomed out in January 2009 and recovered the pre-crisis level as early as by June 2009. As China is taking steps to stimulate the economy, as seen in its policy to encourage Chinese consumers to purchase automobiles and home electric appliances, an expansion of domestic demand appeared to have given a boost to its imports. Furthermore, China's imports expanded rapidly over the second half of 2009 through the first half of 2010. While the pace of imports calmed down once in mid-2010, it accelerated again in the second half of the year.

While Germany brought its exports back to the pre-financial crisis level in May 2010, ahead of Japan and the United States, its imports remained at around 90% of the pre-crisis level.

As for Japan, exports turned down in Sep-

Figure I – 13 Long term trends in world trade (Export) (1949-2010)



Source: IFS (IMF).

Figure I – 14 Growth rate of commodity price indices (YoY basis) (%)

	2006	2007	2008	2009	2010
All primary commodities	20.8	11.8	27.6	-30.0	26.1
Non-fuel commodities	23.2	14.1	7.5	-15.7	26.4
Food	10.5	15.2	23.3	-14.7	11.5
Beverages	8.4	13.8	23.3	1.6	14.1
Agricultural raw materials	8.8	5.0	-0.8	-17.0	33.2
Metals	56.2	17.4	-7.8	-19.2	48.2
Energy	19.4	10.5	40.1	-36.8	25.9

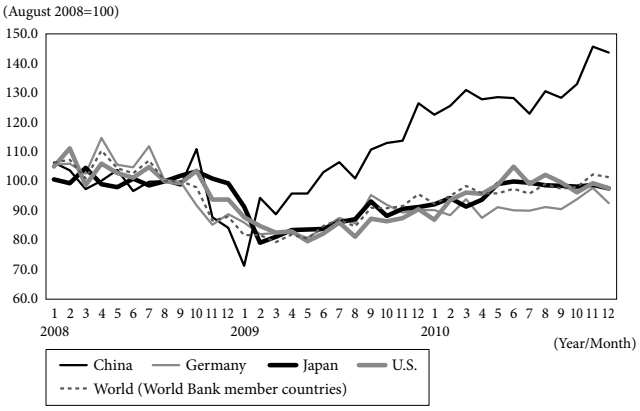
Source: IFS (IMF).

Figure I – 12 World trade indices

		Unit	2006	2007	2008	2009	2010
World merchandise trade, export basis		US$ billion	12,107	13,829	16,030	12,379	15,050
	percent change (nominal)	%	16.0	14.2	15.9	-22.8	22.2
	percent change (real)	%	11.6	5.8	5.5	-12.1	16.5
	percent change (price)	%	4.4	8.4	10.4	-10.7	5.7
World merchandise trade, import basis		US$ billion	12,261	14,131	16,310	12,530	15,470
	percent change (nominal)	%	14.8	15.3	15.4	-23.2	21.1
	percent change (real)	%	9.5	7.3	3.3	-10.3	14.6
	percent change (price)	%	5.3	8.0	12.1	-12.9	6.5
World trade in services, export basis		US$ billion	2,832	3,409	3,840	3,384	3,664
	percent change	%	13.4	20.4	12.7	-11.9	8.3
World trade in services, import basis		US$ billion	2,658	3,170	3,622	3,214	3,503
	percent change	%	12.0	19.3	14.3	-11.3	9.0
World real GDP growth		%	5.2	5.4	2.9	-0.5	5.0
Industrial production index growth (developed countries)		%	3.1	2.9	-2.4	-13.0	6.7
Crude oil	average price	US$/barrel	64.3	71.1	97.0	61.8	79.0
	quantity of demand	million bbl/day	85.0	86.4	86.0	84.7	87.4

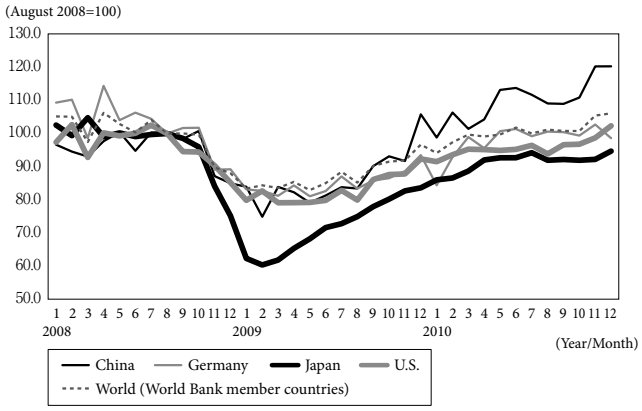
Notes: (1) 2010 trade value and growth rates are JETRO estimates.
(2) Percent change (real) = percent change (nominal) - percent change (price).
(3) Real GDP growth rates based on purchasing power parity.
(4) Definition of developed countries follows IFS classification.
Sources: IFS (IMF), WEO (IMF), WTO, BP. p.l.c and statistics of individual countries/regions.

Figure I – 15 Trends of import volumes of the world and major importers (seasonally adjusted)



Sources: The Global Economic Monitor (World Bank) and Real Exports and Real Imports (Bank of Japan).

Figure I – 16 Trends of export volumes of the world and major exporters (seasonally adjusted)



Sources: The Global Economic Monitor (World Bank) and Real Exports and Real Imports (Bank of Japan).

Figure I – 17 World trade by country/region (2010)

(US$ million, %)

	Exports				Imports			
	Value	Growth rate	Share	Contribution	Value	Growth rate	Share	Contribution
NAFTA	1,964,473	22.6	13.1	2.9	2,606,566	23.2	16.8	3.8
U.S.	1,278,263	21.0	8.5	1.8	1,913,160	22.7	12.4	2.8
Canada	387,979	22.5	2.6	0.6	391,925	21.9	2.5	0.6
Mexico	298,230	29.9	2.0	0.6	301,482	28.6	1.9	0.5
EU27	5,167,405	12.4	34.3	4.6	5,310,122	13.0	34.3	4.8
EU15	4,573,192	11.8	30.4	3.9	4,650,783	12.4	30.1	4.0
Germany	1,268,890	13.2	8.4	1.2	1,066,723	15.2	6.9	1.1
Netherlands	573,831	15.1	3.8	0.6	517,154	16.6	3.3	0.6
France	520,889	7.5	3.5	0.3	605,919	8.2	3.9	0.4
Italy	447,418	10.0	3.0	0.3	484,000	16.7	3.1	0.5
Belgium	412,408	11.5	2.7	0.3	390,767	11.0	2.5	0.3
UK	419,399	18.2	2.8	0.5	588,070	14.4	3.8	0.6
Spain	245,721	8.0	1.6	0.1	314,402	7.1	2.0	0.2
Austria	152,284	11.1	1.0	0.1	158,755	10.9	1.0	0.1
Japan	767,025	32.1	5.1	1.5	691,447	25.2	4.5	1.1
East Asia	3,735,585	29.7	24.8	6.9	3,448,476	34.3	22.3	6.9
China	1,578,444	31.3	10.5	3.1	1,393,909	38.9	9.0	3.1
South Korea	466,384	28.3	3.1	0.8	425,212	31.6	2.7	0.8
Hong Kong	401,023	21.6	2.7	0.6	442,035	25.3	2.9	0.7
Taiwan	262,017	35.2	1.7	0.6	251,794	44.6	1.6	0.6
ASEAN	1,027,717	29.9	6.8	1.9	935,525	31.0	6.0	1.7
Singapore	352,076	30.4	2.3	0.7	310,973	26.5	2.0	0.5
Malaysia	198,941	26.3	1.3	0.3	164,847	33.0	1.1	0.3
Thailand	195,297	28.7	1.3	0.4	184,519	37.1	1.2	0.4
Indonesia	157,779	35.4	1.0	0.3	135,663	40.1	0.9	0.3
Vietnam	72,192	26.4	0.5	0.1	84,801	21.2	0.5	0.1
Philippines	51,432	34.2	0.3	0.1	54,721	27.2	0.4	0.1
Russia	348,528	49.0	2.3	0.9	211,439	36.2	1.4	0.4
Switzerland	195,318	12.8	1.3	0.2	175,978	12.8	1.1	0.2
India	223,176	35.1	1.5	0.5	328,731	27.6	2.1	0.6
Australia	212,782	37.7	1.4	0.5	193,558	21.5	1.3	0.3
Brazil	201,915	32.0	1.3	0.4	181,649	42.3	1.2	0.4
Turkey	113,030	10.6	0.8	0.1	183,750	30.4	1.2	0.3
South Africa	81,311	30.3	0.5	0.2	80,212	23.7	0.5	0.1
World trade value (estimate)	15,049,538	22.2	100.0	22.2	15,469,552	21.1	100.0	21.1
Developed countries	9,087,362	17.6	60.4	11.0	9,612,084	17.8	62.1	11.3
Developing countries	5,962,176	30.0	39.6	11.2	5,857,468	27.0	37.9	9.8
BRICs	2,352,063	34.1	15.6	4.9	2,115,728	37.0	13.7	4.5

Notes: (1) Data for the world, EU27, developed countries and developing countries follow JETRO estimates.
(2) ASEAN stands for the following six countries: Singapore, Thailand, Malaysia, Indonesia, Vietnam and the Philippines.
(3) East Asia includes the following countries and regions: China, South Korea, Hong Kong, Taiwan and ASEAN.
(4) Definitions of developed and developing countries follow DOT (IMF) standards.

Sources: Statistics of individual countries/regions.

tember 2008, and imports went on a moderate decline from November of the year. Unlike China that saw both exports and imports began decreasing at the same time, in the case of Japan, exports started to fall ahead of imports, and imports declined after a few months' time lag. Both exports and imports came back to over 90% of the volumes before the financial crisis by the end of 2010. However, while imports recovered the pre-crisis level in May 2011, exports had yet to recoup that level as of June 2011, partly because of the impact of the Great East Japan Earthquake.

China has driven world trade in both exports and imports

In world trade (nominal exports) in 2010, exports by developed countries increased 17.6% over the previous year to US$9,087.4 billion, and exports by developing countries soared by a larger 30.0% to US$5,962.2 billion (see Figure I-17).

While developed countries maintained a considerable lead over developing countries 60.4% to 39.6% in the share of global exports, developing countries slightly outstripped developed countries 11.2 points to 11.0 points in the contribution to the 22.2% year-on-year increase in global exports, showing that the

growth of exports by developing countries largely helped boost overall world exports.

China lifted its exports by 31.3% over the previous year to US$1,578.4 billion, becoming the world's largest exporter for the second consecutive year. China's share in world exports reached 10.5%, the first double-digit share for the country. China's contribution to the overall growth of 22.2% stood at 3.1 points, far ahead of 1.8 for the United States in second place, 1.5% for Japan in third place and 1.2 for Germany in fourth place, showing China has driven the increase in world exports in 2010.

In imports as well, China recorded a high year-on-year increase of 38.9% to US$1,393.9 billion. While still short of U.S. imports amounting to US$1,913.2 billion, China also powered the overall growth of 21.1% in global imports, contributing 3.1 points compared with 2.8 for the United States.

Exports by ASEAN countries climbed 29.9%, thanks mainly to a recovery in shipments to Japan and China. Asian NIEs (Hong Kong, Taiwan, South Korea and Singapore) also substantially increased their exports chiefly due to a recovery in exports to China. Exports by EU27 rose 12.4% to US$5,167.4 billion and their imports 13.0% to US$5,310.1 billion, both showing rather moderate increases relative to the United States, Japan and other regions. Germany increased its exports by a relatively small 13.2% to US$1,268.9 billion, overtaken by the United States to place third in the world in terms of the value of exports.

Resources-rich countries expand exports

Soaring commodity prices helped primary product producers expand their exports by over 30% over the previous year across the board. Russia incurred the largest year-on-year fall in exports among major countries in 2009, but its exports in 2010 jumped 49.0% chiefly due to rising prices of crude oil, which was to blame for the previous year's plunge. Australia, a major exporter of iron ores and coal, and Brazil, whose exports of iron ores and other resources, as well as soybeans, mainly to China were strong, recorded an all-time high value of exports in 2010.

The recovery led by exports of machinery and equipment

Looking at the 2010 trade (exports) by product, exports of machinery and equipment rose 20.8% to account for 37.4% of the total growth of world exports. In particular, exports of automotive products, including automobiles and auto parts, showed remarkable growth (see Figure I-18).

Looking at automobile trade by country/region, both exports and imports by developed countries recovered rapidly over the second half of 2009 to the first half of 2010. Automobile trade is said to show the distinctive nature of "intra-industry trade" where developed countries mutually trade in products differentiated by quality and brands. Thus, both exports and imports recovered in tandem with the improvement of economic conditions in developed countries. In exports, Japan had the largest contribution of 6.2 points to the overall growth of 27.3%, leading global automobile exports together with Germany and the United States, which contributed 5.0 and 2.8 points, respectively. The contribution by BRICs was relatively small at 1.1 points.

In automobile imports, BRICs contributed 4.2 points to the overall growth of 24.7%. Though lagging far behind the United Sates that alone contributed 7.0 points, BRICs did help a recovery in global automobile imports (see Figure I-19). In particular, the value of China's imports almost doubled from 2009, with the contribution of 2.8 points.

According to the International Organization of Motor Vehicle Manufacturers (OICA), vehicle production in 2010 increased by 25.8% year on year to 77.61 million units (provisional). BRICs accounted for 34.6% of the total production, more than trebling their share in the past decade from 9.9% in 2000. On the other hand, the U.S. share was halved

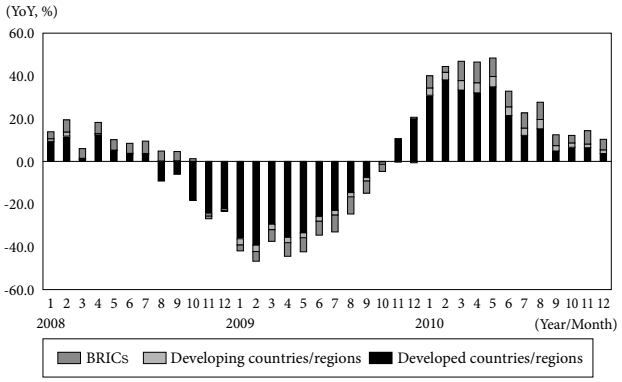
Figure I – 18 World trade (Exports) by product in 2010

(US$ million, %)

	Value	Growth	Share	Contribution
Total value	15,049,538	22.2	100.0	22.2
Machinery and equipment	5,822,590	20.8	38.7	8.1
General equipment	1,811,020	18.5	12.0	2.3
Air conditioners	32,902	24.7	0.2	0.1
Mining and construction machinery	83,867	17.7	0.6	0.1
Machine tools	26,823	25.5	0.2	0.0
Electrical equipment	1,977,202	22.6	13.1	3.0
Transport equipment	1,521,704	21.3	10.1	2.2
Automobiles	669,333	27.3	4.4	1.2
Passenger vehicles	554,203	27.0	3.7	1.0
Motorcycles	16,702	9.1	0.1	0.0
Automotive parts	325,991	30.9	2.2	0.6
Precision instruments	512,663	20.2	3.4	0.7
Chemicals	2,034,018	18.3	13.5	2.6
Industrial chemicals	1,386,857	14.8	9.2	1.4
Pharmaceuticals and medical supplies	448,189	5.2	3.0	0.2
Plastics and rubber	647,161	26.7	4.3	1.1
Foodstuffs	965,382	9.5	6.4	0.7
Seafood	80,561	13.0	0.5	0.1
Grains	76,569	4.3	0.5	0.0
Wheat	31,166	0.8	0.2	0.0
Corn	22,488	15.3	0.1	0.0
Rice	15,305	-4.7	0.1	-0.0
Processed food products	429,702	8.5	2.9	0.3
Oils, fats and other animal and vegetable products	151,354	19.1	1.0	0.2
Miscellaneous manufactured goods	425,320	12.0	2.8	0.4
Iron ore	107,990	87.6	0.7	0.4
Mineral fuels, etc.	2,225,466	33.1	14.8	4.5
Mineral fuels	2,110,331	34.6	14.0	4.4
Coal	107,807	28.4	0.7	0.2
LNG	86,785	35.1	0.6	0.2
Petroleum and petroleum products	1,739,709	33.8	11.6	3.6
Crude oil	1,102,801	33.3	7.3	2.2
Textiles and textile products	634,957	14.7	4.2	0.7
Synthetic fibers and textiles	74,442	20.1	0.5	0.1
Clothing	347,184	10.1	2.3	0.3
Base metals and base metal products	1,102,289	29.4	7.3	2.0
Steel	621,681	25.0	4.1	1.0
Primary steel products	379,727	38.3	2.5	0.9
Steel products	241,955	8.6	1.6	0.2
Copper	65,800	49.4	0.4	0.2
Nickel	14,249	54.3	0.1	0.0
Aluminum	49,597	38.2	0.3	0.1
Lead	5,131	24.8	0.0	0.0

Sources: Statistics of individual countries/regions.

Figure I – 19 Automobile imports by 23 major countries/regions (contribution to increase/decrease in US$-quoted value)



Note: 23 major countries/regions are 11 developed countries/regions (Canada, France, Germany, Hong Kong, Japan, Singapore, South Korea, Switzerland, UK, U.S. and Australia), BRICs and 8 other developing countries/regions (Argentina, Mexico, Taiwan, Malaysia, Thailand, Indonesia, the Philippines and South Africa).
Sources: Statistics of individual countries/regions.

from 21.9% to 10.0% in the same period.

Increased production in emerging countries leads to an expansion of their imports of automobile parts. In comparison of automobile parts imports between 2000 and 2010, while imports by the United States rose approximately 1.3 times from US$36.3 billion to US$48.4 billion, imports by BRICs zoomed around 8.1 times from US$4.7 billion to US$37.6 billion.

Exports of steel products improved in response to a recovery in trade in machinery and equipment, rising 25.0% after plummeting 40.3% in 2009. According to the Japan Iron and Steel Federation (JISF), steel production by major countries increased 14.8% in 2010.

Exports of pharmaceuticals and medical supplies posted a minor rise of only 5.2% in 2010. While all other products declined year on year in 2009, only pharmaceuticals and medical supplies chalked up positive growth as exports of the vaccine against the pandemic H1N1 flu virus that spread from the spring of 2009 increased. In 2010, however, exports of pharmaceuticals and medical suppliers grew only moderately, while other products posted stronger increases partly in reaction to the previous year's declines.

(2) Asia's production networks draw tighter around China

East Asia has built up the production network where countries having different degrees of production factor intensity are engaged in the inter-process division of labor and mutually trade goods they can respectively produce efficiently. Final goods produced in the region have been exported to the markets of the United States and other developed countries to realize the external demand-linked expansion of trade.

Through the expansion and closeness of such production network, the impact of the financial crisis originating in the United States immediately spread to East Asia. In the trade recovery phase from the second half of 2009 to date, trade in East Asia has also staged a rapid recovery through this production network.

Today, China is located at the center of this production network in East Asia as the supply base for the U.S. market. Figure I-20 compares the trade intensity index (exports) [Note 2] among countries/regions in East Asia, the United States and the EU15. The trade intensity with the United States from the perspective of countries/regions in East Asia has declined for all countries/regions except for China and Vietnam, and the index in 2010 fell short of the value of 1, which is interpreted to indicate a close trade relationship, for all countries/regions except for Japan, China, the Philippines and Vietnam. On the other hand, the trade intensity index with China in 2010 was above 1 for all countries/regions, an indication of a strong relationship with China.

In particular, NIEs in East Asia as a whole have increased the trade intensity with China compared with ASEAN countries. An analysis of this point by manufacturing process using the BEC classification of the United Nations [Note 3] shows that while raw materials, intermediate goods and final goods accounted for 25.3%, 51.9% and 22.8%, respectively, of China's imports in 2010, in China's imports from NIEs countries, intermediate goods accounted for 75.2% for South Korea, 77.2% for Taiwan, 76.4% for Singapore and 57.0% for Hong Kong, indicating that NIEs countries are the main suppliers of parts to China. On the other hand, in China's exports in 2010, raw materials accounted for 0.9%, intermediate goods 40.2% and final goods 58.9%, with final goods having the distinctively large share. China has the industrial structure under which it imports intermediate goods and raw materials mainly from East Asia, processes them into final goods and exports them to around the world.

Deepening China-South Korea interdependence in electric equipment

When we focus on electric equipment that accounts for about 25% of exports from East Asia, the trade intensity index with the United States for countries/regions in 2010 shows a relatively high value as against the index for the total amount of exports, but has been on the decline as a whole in the past decade. In 2010, only China, the Philippines and Thailand showed the index above 1. On the other hand, in the intensity index with China, Japan, South Korea and Taiwan showed high values, except for Hong Kong with a high share of re-exports. For the intensity index with Japan, countries/regions in East Asia had generally higher

[2] The trade intensity index shows how much the trade relationship between two countries deviates from the benchmark of the overall value of world trade. An index value above 1.0 is interpreted to mean a strong trade linkage between the two countries. The trade intensity index in exports is expressed as follows: The trade intensity with Country B from the perspective of Country A = (the value of exports from Country A to Country B / the total value of exports by Country A) / (the total value of imports by Country B / the total valule of imports by the world).

[3] The classification is based on "RIETI-TID2009" (the Research Institute of Economy, Trade and Industry), defined on the basis of the U.N. BEC (Broad Economic Categories) classification. The U.N. comparison table was used for the conversion of the BEC classification into HS codes.

Figure I – 20 Trade intensity index (total value) <2000, 2010>

2000

	Japan	China	U.S.	EU15
Japan	-	1.7	1.5	0.4
China	2.7	-	1.0	0.4
Hong Kong	0.9	9.3	1.2	0.4
South Korea	1.9	2.9	1.1	0.4
Taiwan	1.8	0.5	3.8	2.4
Singapore	1.2	1.1	0.9	0.3
Indonesia	3.7	1.2	0.7	0.4
Malaysia	2.1	0.8	1.0	0.4
Philippines	2.4	0.5	1.5	0.5
Thailand	2.4	1.1	1.1	0.4
Vietnam	2.8	2.9	0.3	0.5
U.S.	1.3	0.6	-	0.6
EU15	0.3	0.3	0.5	-

2010

	Japan	China	U.S.	EU15
Japan	-	1.9	1.1	0.3
China	1.5	-	1.3	0.5
Hong Kong	0.8	5.2	0.8	0.3
South Korea	1.2	2.5	0.8	0.2
Taiwan	1.3	2.7	0.8	0.3
Singapore	0.9	1.0	0.5	0.3
Indonesia	3.2	1.0	0.6	0.3
Malaysia	2.1	1.2	0.7	0.3
Philippines	3.0	1.1	1.1	0.4
Thailand	2.1	1.1	0.7	0.3
Vietnam	2.3	1.0	1.7	0.5
U.S.	0.9	0.7	-	0.5
EU15	0.2	0.3	0.5	-

Notes: (1) Degree of trade intensity calculated from exports data.
(2) Cells in gray indicate degree of trade intensity below 1.0.
Sources: Statistics of individual countries/regions.

Figure I – 21 Trade intensity index (electrical equipment) <2000, 2010>

2000

	Japan	China	U.S.	EU15
Japan	-	1.3	1.4	0.6
China	2.7	-	1.1	0.6
Hong Kong	1.0	7.0	1.1	0.5
South Korea	1.9	1.4	1.3	0.5
Taiwan	2.1	0.5	1.2	0.5
Singapore	1.6	0.5	0.8	0.4
Indonesia	3.2	0.2	0.9	0.5
Malaysia	2.1	0.4	1.3	0.5
Philippines	2.2	0.2	1.5	0.7
Thailand	3.3	0.5	1.2	0.6
Vietnam	7.3	0.1	0.0	0.3
U.S.	1.3	0.4	-	0.5
EU15	0.3	0.4	0.4	-

2010

	Japan	China	U.S.	EU15
Japan	-	1.6	1.0	0.4
China	1.6	-	1.2	0.7
Hong Kong	0.9	3.9	0.6	0.3
South Korea	1.3	1.9	1.0	0.3
Taiwan	1.9	1.3	1.0	0.4
Singapore	1.6	0.8	0.6	0.3
Indonesia	2.8	0.3	1.0	0.5
Malaysia	2.0	0.9	1.0	0.6
Philippines	2.8	0.6	1.1	0.9
Thailand	3.3	0.6	1.1	0.4
Vietnam	5.1	0.9	0.8	0.4
U.S.	0.7	0.5	-	0.5
EU15	0.2	0.3	0.4	-

Notes: (1) Degree of trade intensity calculated from exports data.
(2) Cells in gray indicate degree of trade intensity below 1.0.
Sources: Statistics of individual countries/regions.

index values in comparison with their indices in terms of total exports, and showed higher values than the intensity index with China, except for Hong Kong and South Korea. (Note 4)

South Korea has rapidly increased the trade intensity with China over the past decade, and it is now higher than its trade intensity with Japan. The trade intensity with South Korea from the perspective of China is also rising, indicating the growing interdependence between China and South Korea.

China's exports of electric equipment, which account for about 20% of global exports of electric equipment and maintained annual increases of over 30% since 2003, slowed down from a year-on-year rise of 32.0% in 2007 to 14.0% in 2008 mainly due to a large drop in exports to the United States. In 2009, they fell 12.0%, or by US$40.97 billion, from 2008.

In 2009, the trade intensity index with China for Japan and South Korea stood at 1.6 and 1.8, respectively, showing little change from 2008. However, Japanese and South Korea exports to China in 2009 and onward followed different trends.

China's imports of electric equipment in 2009 decreased 8.6% from the previous year, but the drop was smaller than its exports. Imports of electric equipment from Japan fell by the double-digit figure of 13.7%, but the decline in imports from South Korea was limited to a smaller 5.1%. In 2010, imports from South Korea expanded 36.3%, far faster than the 22.3% rise in imports from Japan, with the share of South Korea in China's imports of electric equipment exceeding that of Japan for the first time.

For semiconductors in particular, which take up about half of China's imports of electrical equipment, imports from Japan in 2009 decreased by 14.6%, but the drop in imports from South Korea was only 7.9%. In 2010, while imports from Japan rose 15.9%, imports from South Korea surged by 46.8%. As China's domestic demand for automobiles and electric appliances expanded in line with the Chinese government's massive economy-boosting measures, South Korea substantially increased China-bound shipments of semiconductors to be mounted in these products. An increase in exports of liquid crystal displays (LCDs) also made a big contribution.

South Korea expanded exports of electric equipment to China because the weaker won helped enhance the price competitiveness of its products in China, but South Korea companies' greater efforts toward local production and local sales also played a role in boosting exports. Consequently, South Korea's trade intensity index with China for electric equipment, which stood at almost the same level of Japan's index in 2000, rose to 1.9 in 2010, widening the lead over Japan's 1.6 (see Figure I-21). According to the Organization for Economic Cooperation and Development (OECD), the balance of direct investment in China by South Korea companies in 2009, at US$31.4 billion, still stood lower than

[4] Almost all exports of electric equipment from Hong Kong to China are re-exports, and the bulk of ASEAN exports to Hong Kong are re-exported to China. Accordingly, there is the possibility that ASEAN's trade intensity with China is being underestimated.

Figure I – 22 Quarterly trends of the world trade for 22 major countries/regions (by main products)

(US$ million, %)

	Exports						Imports					
	22 major countries/ regions' share of world total in 2010	2010				2011	22 major countries/ regions' share of world total in 2010	2010				2011
		I	II	III	IV	I		I	II	III	IV	I
Total	64.5	2,177,771 (28.4)	2,392,256 (30.5)	2,483,985 (22.2)	2,660,360 (18.9)	2,638,651 (21.2)	63.5	2,218,444 (28.3)	2,418,105 (31.9)	2,524,770 (22.2)	2,662,953 (19.0)	2,722,766 (22.7)
Machinery and equipment	78.4	1,017,419 (29.1)	1,121,758 (30.0)	1,171,824 (23.6)	1,252,550 (16.1)	1,194,209 (17.4)	69.2	894,955 (28.6)	999,371 (31.2)	1,057,124 (25.0)	1,118,679 (18.2)	1,068,488 (19.4)
General equipment	75.7	305,965 (20.5)	334,719 (28.0)	351,702 (25.0)	377,716 (18.5)	360,962 (18.0)	67.5	274,725 (20.2)	303,094 (28.2)	320,931 (27.7)	336,551 (20.3)	330,442 (20.3)
Electrical equipment	81.4	346,430 (32.5)	392,868 (29.8)	425,931 (23.9)	444,129 (15.9)	406,793 (17.4)	75.7	343,329 (33.8)	391,925 (32.2)	429,468 (26.0)	445,675 (17.0)	409,392 (19.2)
Transport equipment	76.6	270,230 (34.3)	292,164 (33.8)	286,097 (22.6)	317,398 (14.2)	318,265 (17.8)	59.9	193,455 (32.1)	213,795 (35.6)	210,763 (21.0)	234,201 (17.8)	232,042 (19.9)
Precision instruments	81.6	94,794 (31.8)	102,007 (27.4)	108,095 (20.8)	113,307 (14.5)	108,189 (14.1)	74.1	83,447 (30.2)	90,556 (27.0)	95,962 (21.0)	102,252 (17.8)	96,611 (15.8)
Chemicals	64.1	311,359 (30.1)	320,884 (23.1)	329,513 (15.0)	342,034 (14.1)	366,239 (17.6)	61.2	301,751 (31.5)	314,537 (26.2)	325,205 (17.6)	336,375 (16.0)	356,244 (18.1)
Pharmaceuticals and medical supplies	55.2	63,816 (13.6)	59,300 (4.9)	61,810 (2.2)	62,269 (-1.6)	62,027 (-2.8)	55.8	63,906 (22.8)	60,879 (11.8)	64,697 (8.9)	64,326 (-1.6)	66,151 (3.5)
Foodstuffs	53.8	117,369 (13.5)	124,855 (9.5)	131,261 (11.7)	146,025 (15.2)	142,948 (21.8)	55.9	128,581 (12.9)	136,082 (10.6)	135,681 (11.0)	152,225 (12.9)	150,348 (16.9)
Grains	76.0	13,852 (-0.5)	13,505 (-6.0)	14,301 (11.6)	16,546 (34.6)	20,068 (44.9)	41.1	8,688 (6.3)	8,537 (-0.3)	7,968 (11.7)	8,933 (23.4)	10,455 (20.3)
Iron ores	80.1	12,544 (15.0)	20,417 (94.1)	25,880 (124.0)	27,615 (141.3)	25,048 (99.7)	87.8	20,956 (36.0)	27,795 (71.6)	32,013 (66.3)	35,848 (85.5)	38,892 (85.6)
Mineral fuels	40.8	195,317 (62.3)	216,975 (61.3)	211,606 (26.4)	237,267 (28.6)	253,757 (29.9)	65.7	343,207 (51.3)	369,204 (51.6)	370,075 (21.5)	386,715 (19.2)	456,163 (32.9)
Crude oil	26.3	65,481 (79.6)	74,402 (56.5)	70,973 (18.0)	79,582 (18.3)	81,787 (24.9)	71.1	195,640 (71.1)	216,371 (52.5)	213,456 (14.2)	218,058 (12.6)	261,390 (33.6)
Textiles and textile products	62.2	83,150 (13.3)	94,863 (20.4)	110,406 (18.8)	106,584 (20.6)	102,896 (23.7)	60.6	82,850 (8.4)	84,781 (14.7)	103,785 (15.8)	98,854 (19.0)	100,844 (21.7)
Clothing	58.2	41,890 (3.6)	44,694 (13.7)	61,221 (16.3)	54,409 (20.9)	48,628 (16.1)	66.0	50,541 (0.1)	48,144 (7.6)	67,044 (12.3)	59,998 (18.8)	60,065 (18.8)
Steel	62.4	85,876 (16.0)	102,775 (43.1)	97,217 (24.0)	101,798 (20.6)	109,654 (27.7)	54.5	75,142 (11.4)	88,198 (45.4)	88,880 (34.1)	89,844 (22.1)	96,602 (28.6)

Notes: (1) Based on data available as of the end of June 2011.
(2) Together with Figure I-23, the 22 major countries/regions are Japan, U.S., Canada, Mexico, Argentina, Brazil, China, Hong Kong, Taiwan, South Korea, Singapore, Thailand, Malaysia, Indonesia, the Philipines, Australia, UK, Germany, France, Switzerland, Russia and South Africa.
(3) Figures in parentheses are YoY growth rates.
Sources: Statistics of individual countries/regions.

Japanese companies' balance of US$55.5 billion , the pace of increase in their investment was faster. If this trend is sustained, the interdependence between China and South Korea is expected to deepen further.

(3) World trade in the first quarter of 2011 shows steady growth

Exports by 22 major countries/regions, for which data is available up to the first quarter of 2011, increased 21.2% in that quarter over the corresponding quarter of 2010, showing the growth faster than the fourth quarter of 2010. The first-quarter growth is steady, though somewhat slower than the robust increase seen in the first half of 2010 in the recovery from the slump in the aftermath of the financial crisis (see Figure I-22).

Country-by-country exports underscore the strong impact of the continuing strong uptrends of commodity prices (see Figure I-23). Due to the recovery in commodity prices that plunged during the financial crisis, Russia's exports of mineral fuels, which account for some 70% of its total exports, were strong, while its imports also surged 66.3% year on year, centering on automobiles.

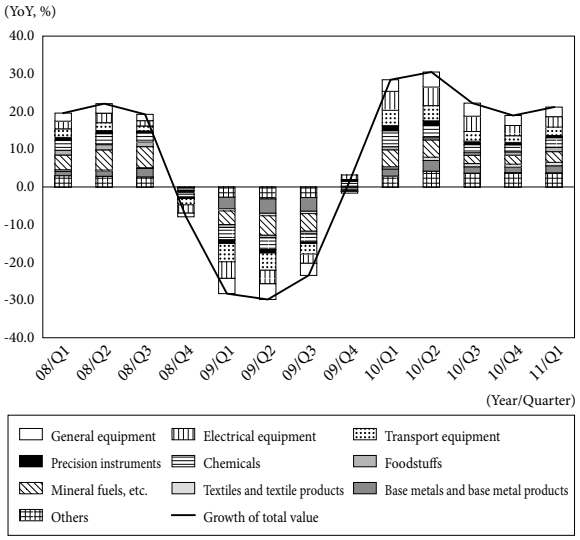
For China, meanwhile, higher prices of resources, such as mineral fuels and iron ores, pushed up the value of its imports. The value of imports of foodstuffs also increased, reflecting higher food prices resulting from unseasonable weather and an inflow of speculative funds. China's imports in the first quarter of 2011 topped US$400.0 billion to set a new record. China's trade balance turned into a deficit by US$728.14 million, the first trade deficit in seven years since the first quarter of 2004.

Exports and imports by the United States rose 18.2% and 18.8%, respectively, both moderate growth relative to other major countries. In Europe, Germany reported an increase of 18.0% in exports and 20.0% in imports.

The World Trade Organization (WTO) predicted real merchandise exports in 2011 will increase 6.5% over 2010 (a rise of 4.5% for developed countries and 9.5% for developing countries and CIS countries). (Note 5)

[5] The International Monetary Fund (IMF) predicts real merchandise exports in 2011 will grow 7.7% over 2010 (an increase of 7.3% for developed countries and 8.9% for emerging and developing countries).

Figure I – 23 Exports by 22 major countries/regions by product (contribution to increase/decrease in US$-quoted value)



Sources: Statistics of individual countries/regions.

Figure I – 25 Trade in services by country/region (2010)

(US$ million, %)

	Exports			Imports		
	Value	Growth rate	Share	Value	Growth rate	Share
World	3,663,900	8.3	100.0	3,502,700	9.0	100.0
NAFTA	597,400	8.8	16.3	470,400	8.6	13.4
U.S.	514,970	8.2	14.1	357,914	7.1	10.2
Europe	1,724,200	1.7	47.1	1,503,900	1.4	42.9
EU27	1,552,577	1.5	42.4	1,393,702	1.1	39.8
UK	227,201	-0.5	6.2	156,387	-0.7	4.5
Germany	229,861	1.8	6.3	256,289	1.5	7.3
France	139,994	-1.4	3.8	125,663	-0.3	3.6
Spain	120,846	-0.6	3.3	85,500	-1.4	2.4
Italy	97,021	3.3	2.6	108,184	1.0	3.1
Asia	962,800	21.0	26.3	960,800	20.4	27.4
China	170,200	32.3	4.6	192,200	21.6	5.5
ASEAN10	137,555	9.2	3.8	155,235	5.6	4.4
Japan	218,200	18.7	6.0	228,500	20.5	6.5
CIS	78,400	10.4	2.1	105,200	14.0	3.0
Russia	43,702	6.4	1.2	69,879	18.0	2.0
Latin America	110,900	11.0	3.0	135,100	22.7	3.9
Brazil	30,292	15.4	0.8	59,640	35.3	1.7
Middle East	103,300	9.4	2.8	185,200	8.8	5.3
Israel	24,333	10.8	0.7	17,440	3.4	0.5
Africa	85,600	11.0	2.3	141,100	11.8	4.0
Egypt	23,762	11.5	0.6	12,659	-0.8	0.4

(4) Transportation posts strong growth in trade in services

In 2010, trade in services (exports of cross-border commercial services, excluding government services) increased 8.3% year on year to US$3,663.9 billion (see Figure I-24). Trade in services plummeted 11.9% in 2009 after recording double-digit growth for six consecutive years before the financial crisis, but recovered positive growth again in 2010.

By category, transportation services grew smoothly by 14.1%, reflecting the recovery in merchandise trade. According to the International Air Transport Association (IATA), international air cargo transportation zoomed by 20.6%, while international air passenger transportation rose 8.2%.

As for travel, the United Nations World Tourism Organization (UNWTO) announced that the number of international tourist arrivals in 2010 increased 6.6% to 940 million, surpassing the pre-crisis peak level of 917 million recorded in 2008. UNWTO traced the increase to a string of international cultural and sports events, including the Winter Olympics in Vancouver, the World Expo in Shanghai and the World Cup in South Africa.

In particular, the number of travelers to the Asia-Pacific region recovered at a pace faster than other regions, recording the largest increase of 12.7% of all major regions for the entire year. The number of travelers to China ranked third, overtaking the number of travelers to Spain.

Figure I – 24 Trends of growth of world trade in services (exports)

(%, US$ million)

	2009	2010		
			Value	Contribution
Total value of world exports of services	-11.9	8.3	3,663,900	8.3
Transportation	-23.0	14.1	782,800	2.9
Travel	-9.1	7.8	935,700	2.0
Other services	-8.3	6.3	1,945,400	3.4

Source: WTO, as with Figure I-25.

By country/region, exports by the United States, the world's largest trader in services, rose 8.2% year on year to US$515.0 billion, and U.S. imports also went up 7.1% to US$357.9 billion. China exported US$170.2 billion and imported US$192.2 billion, with year-on-year increases of 32.3% and 21.6%, respectively. For the EU27, exports amounted to US$1,552.6 billion, up 1.5%, and imports to US$1,393.7 billion, up a slight 1.1% (see Figure I-25).

(5) Japan's trade in 2010 significantly increased in 2010

In Japan's trade (on a customs-clearance basis) in 2010, exports expanded 32.1% over the previous year to US$767.0 billion, while imports rose 25.2% to US$691.4 billion, both turning up significantly from the sharp falls in 2009 (see Figure I-26). Japan's trade in 2009 suffered the largest postwar shrinkage under the impact of the global recession, but bottomed out by the end of the year and improved in 2010. Comparison with 2008 shows that exports recovered to almost the same level, but imports still remained at around 90% of the 2008 level.

By quarter, the exports in the first quarter of 2010 soared 46.4% year on year and maintained double-digit growth until the fourth quarter, though decelerating from the first-quarter peak. In 2011, the growth of exports in March was squeezed by the impact of the Great East Japan Earthquake. While exports in the first quarter rose 12.5% year on year, exports in April dropped 2.4% to record the first year-on-year fall in 18 months. In May, exports turned up by 2.5% as the U.S. dollar-quoted value of trade expanded due to the stronger yen. Imports continued to post year-on-year growth of over 20% from the first quarter of 2010, as crude oil prices continued to rise from its recent bottom in early 2009. Imports maintained strong growth in 2011, expanding 22.4% in the first quarter, 21.6% in April and 28.3% in May.

As exports recovered a little sooner than imports, Japan's trade surplus in 2010 increased by US$47.0 billion

Column I - 2

◉ The Asian production network from the perspective of "value-added trade"

China remained as the world's largest exporter in 2010, keeping that position attained in 2009. The value of Chinese exports now accounts for about 10% of the total value of world exports, and China indeed is exporting "Made in China" products across the world as the factory of the world. In its trade relations with the United States in particular, China's surplus in trade with the United States expanded about 3.3 times from US$83.8 billion in 2000 to US$273.1 billion in 2010. China's growing trade surplus is prompting controversies within the United States, including calls for the revaluation of the Chinese yuan, or the renminbi.

Compared with the conventional concept of trade balance based on the records of physical movements of goods, an analysis by "value-added trade" is an attempt to shed a new light on trade in goods. The concept of "value-added trade" is an analytical framework to identify a source of value added in each process of manufacturing goods and thereby rebuild a relationship between an exporter and an importer in their trade balance.

For example, the cost of manufacturing an iPhone3GS (16GB) of Apple Inc. is estimated at US$179.0. Of the cost, the value added generated by Chinese workers assembling the smartphone is only US$6.5. The remaining US$172.5 is made up of costs of parts supplied by companies of various countries, including Japan (US$60.6), Germany (US$30.2), South Korea (US$23.0) and the United States (US$10.8). However, when the iPhone is exported from China to the United States, the total manufacturing cost of US$179.0 is accounted for as the value of Chinese exports to the United States under the conventional trade balance concept, with the value of exports bloated far larger than the actual value added generated in China.(Note 1)

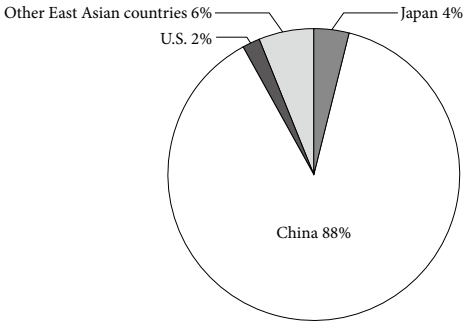
The Institute of Developing Economies, Japan External Trade Organization (IDE-JETRO) and the WTO have published the results of their joint research that analyzed the trade structure in East Asia by the "value-added trade" framework using the Asian international input-output table.(Note 2) As seen in the example of the iPhone, in modern-day production activities, a single final product receives the input of goods and services produced in various countries in the process of manufacturing. East Asia has established the mutually complementary production system where countries in the region can exert their respective comparative advantages in each process, with Japan and South Korea providing goods that require high technologies and China and Vietnam taking up labor-intensive production processes. With the use of the analytical framework of "value-added trade," the actual status of the production network that cannot be identified by trade data alone emerges with vivid clarity. For example, when we examine the sources of value added included in China's exports to the United States using this framework, the value added generated in Japan and other East Asian countries account for 10% of the total value added in the case of manufactured products (see Figure 1).

Furthermore, when looked at on the basis of value added, the Sino-U.S. trade balance presents itself in a shape completely different from that captured by the conventional concept of trade balance. In Figure 2, the Sino-U.S. trade balance based on the conventional concept of trade balance is compared against the Sino-U.S. trade balance based on value added. The value added-based U.S. trade deficit with China is shown to be much smaller than the deficit calculated under the conventional method.

The above joint research characterizes products manufactured by the production network formed by various countries as "Made in the World," and is promoting research on value-added trade with a view to establishing new trade rules given the diminishing usefulness of the "country of origin" concept for final goods.

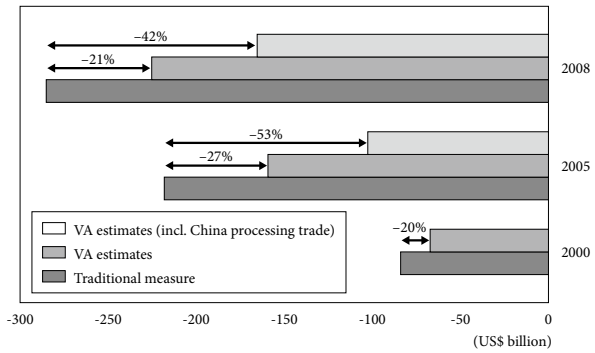
The IDE plans to complete and publish the final version of the 2005 International Input-Output Table by 2012. It is hoped that the analysis will make further progress based on the latest data.

Figure 1 Sources of value added contained in China's U.S.-bound exports of manufactured products (2005)



Source: Asian international input-output table 2005 (Preliminary version).

Figure 2 U.S.-China trade balance: Traditional statistics versus value added terms (in billions of US$)



Note: China's processing trade data not available for 2000.
Source: "Trade patterns and global value chains in East Asia: From trade in goods to trade in tasks" (IDE-JETRO, WTO).

[1] Quoted from Xing, Y., and N. Detert, "How the iPhone Widens the United States Trade Deficit with the People's Republic of China," ADBI Working Paper, NO.257, Dec. 2010. Here, the value of parts is attributed not to a country of production but to countries where the parent companies of parts suppliers are located (for example, products being produced in other countries by Japanese companies are accounted for under the entry of Japan). The purpose of this approach is to demonstrate that products being exported as "Made in China" products include a lot of value added generated by companies other than Chinese companies. This approach is different from the computing method for "value added" in value-added trade in the latter part that calculates value added generated in various countries with the use of the international input-output table.

[2] IDE-JETRO, WTO, "Trade Patterns and Global Value Chains in East Asia: from trade in goods to trade in tasks," Switzerland: WTO Secretariat, 2011. (This can be downloaded free of charge from http://www.wto.org/english/res_e/publications_e/stat_tradepat_globvalchains_e.htm)

to US$75.6 billion. However, the trade surplus in the first quarter of 2011 fell sharply to US$4.4 billion, or about one-fourth of the year-before level, as imports kept growing due to soaring commodity prices. In January in particular, Japan posted the first trade deficit of US$5.8 billion in 22 months since March 2009. The country also suffered trade deficits in April and May of US$5.7 billion and US$10.4 billion, respectively. In yen-denominated terms, exports continued to decrease in April and May, by 12.4% and 10.3%, respectively, while increases in imports were also subdued in April and May, at 9.0% and 12.3%, respectively.

In terms of volume, exports in 2010 grew 24.2% and imports also rose 13.9%, posting the first year-on-year increase in three years and four years, respectively. In the first quarter of 2011, both exports and imports were higher than year-before levels. However, affected by the Great East Japan Earthquake, exports in March turned down 3.3% for the first year-on-year decrease in 16 months, and exports continued to dip in April and May, by 11.6% and 10.8%, respectively. The yen's exchange rate continued to rise since 2008, with the yen's average exchange rate against the U.S. dollar in 2010 standing at 87.8 yen, 6.6% higher than in 2009. The yen moved at around 80-85 yen to the U.S. dollar in January-June 2011, serving as a damper on a recovery in exports.

The current account surplus widens for the first time in three years

On balance of payments basis, Japan's current account produced a surplus of US$195.9 billion, widening for the first time in three years to come closer to the all-time high of US$210.5 billion recorded in 2007. The trade surplus nearly doubled to US$90.8 billion to become the single biggest factor to enlarge the current account surplus, while the deficit in trade in services narrowed by US$4.3 billion from 2009 to US$16.1 billion (see Figure I-27).

By category in the balance of trade in services, the deficit in transportation services dwindled by US$1.3 billion to US$7.6 billion. In 2009, transportation services were stagnant, as cargo transportation decreased amid the economic sluggishness and passenger transportation also fell primarily due to the spread of the pandemic H1N1 flu virus. In 2010, however, both cargo transportation and passenger transportation turned more active again, with an increase in receipts in marine cargo transportation associated with increasing exports contributed to the narrowing of the deficit in trade in services.

In travel service, both receipts and payments rose in tandem with increases in both the number of Japanese travelers abroad and the number of arrivals of foreigners visiting Japan. The travel service balance posted a deficit of US$14.8 billion, but the deficit narrowed for the sixth straight year as the increase in credits was a little larger than that in debits. According to the Japan National Tourist Organization (JNTO), the number of Japanese overseas traveler in 2010 rose 7.7% year on year to 16.64 million for the first increase in four years, while the number of foreigners visiting Japan increased 26.8% to a record 8.61 million. The number of Chinese visitors shot up 40.5% to 1.41 million, partly due to the relaxation of conditions for tourist visa issuance for individuals in 2009, rising past Taiwan to third place in the number of visitors to Japan by country/region. The number of visitors from South Korea, which retains the top slot, climbed 53.8%, and the number of visitors from Taiwan in third place rose 23.8%, recovering from the sharp drops in 2009.

Figure I – 26 Trends of Japan's trade (2009-May 2011)

(US$ million, billion yen, %)

		2009	2010	2010				2011		
				Q1	Q2	Q3	Q4	Q1	April	May
Dollar-based	Total exports (US$ million)	580,787	767,025	176,948	184,980	196,470	208,627	199,029	62,083	58,513
	(Percent change)	-25.2	32.1	46.4	40.9	28.1	19.0	12.5	-2.4	2.5
	Total imports (US$ million)	552,252	691,447	159,030	166,418	177,722	188,277	194,623	67,779	68,931
	(Percent change)	-27.0	25.2	21.5	35.4	25.0	20.5	22.4	21.6	28.3
	Trade balance (US$ million)	28,535	75,578	17,918	18,562	18,748	20,350	4,406	-5,696	-10,419
	(Difference from same quarter, previous year)	8,703	47,043	27,996	10,168	7,602	1,278	-13,512	-13,567	-13,779
Yen-based	Total exports (billion yen)	54,171	67,400	16,028	17,066	17,031	17,274	16,421	5,157	4,760
	(Percent change)	-33.1	24.4	43.2	33.2	17.8	10.0	2.4	-12.4	-10.3
	Total imports (billion yen)	51,499	60,765	14,415	15,357	15,409	15,584	16,063	5,624	5,616
	(Percent change)	-34.8	18.0	19.2	28.1	14.9	11.3	11.4	9.0	12.3
	Trade balance (billion yen)	2,671	6,635	1,613	1,709	1,623	1,690	357	-468	-856
	(Difference from same quarter, previous year)	608	3,963	2,516	892	574	-18	-1,256	-1,197	-1,165
Export volume index		81.6	101.4	95.7	101.8	103.6	104.5	98.0	92.9	84.5
	(Percent change)	-26.6	24.2	43.7	32.8	18.5	8.6	2.5	-11.6	-10.8
Import volume index		88.2	100.5	94.8	98.0	103.5	105.8	101.6	101.0	99.3
	(Percent change)	-14.4	13.9	13.2	19.2	14.5	9.6	7.2	1.3	5.5
Crude oil import price (US$/barrel)		60.7	79.2	77.7	81.3	75.7	82.2	96.8	111.8	118.6
	(Percent change)	-40.4	30.5	75.4	54.7	7.7	9.3	24.6	40.0	39.6
Ratio of imports of crude oil		14.7	15.5	17.1	15.2	14.5	15.3	17.5	17.6	16.8
Ratio of imports of manufactured products		56.1	55.0	54.5	54.9	55.4	55.0	52.2	50.9	51.5
Average exchange rate (yen/US$)		93.5	87.8	90.7	92.0	85.9	82.6	82.3	83.4	81.2
	(yen appreciation, %)	10.5	6.6	3.2	5.7	9.0	8.6	10.1	12.0	12.9

Notes: (1) For volume indices, year 2005 = 100.

(2) The exchange rates are interbank rate averages for each period.

(3) Percent change for quarterly data are year-on-year comparisons. Figures of imports in May are nine-digit (provisional).

Sources: "Trade Statistics" (Ministry of Finance) and "Foreign Exchange Rates" (Bank of Japan).

Figure I – 27 Trends of Japan's balance of current account

(US$ million)

	2009	2010	Increase/decrease
Current Account	141,573	195,934	54,361
Goods & Services	22,800	74,683	51,883
Trade Balance	43,178	90,762	47,584
Exports	545,328	727,457	182,129
Imports	502,150	636,695	134,545
Services	-20,378	-16,079	4,299
Credit	128,261	141,826	13,565
Debit	148,639	157,905	9,266
Income	131,050	133,678	2,628
Current transfers	-12,277	-12,427	-150
Current Account/GDP	2.8%	3.6%	-

Note: Exchange rates are based on the rules in the foreign exchange transactions. Exchange rates for exports and imports are calculated by JETRO based on the exchange rates announced by the Customs and Tariff Bureau of the Ministry of Finance. regulation on Ministry of Finance.

Sources: Balance of Payments (Ministry of Finance, Bank of Japan), Foreign Exchange Rates (Bank of Japan) and National Economic Accounting (Cabinet Office).

The balance of other services in 2010 produced a surplus of US$6.3 billion, a rise of US$2.9 billion over the previous year. Among major surplus items in the balance of services, the surplus in royalties and license fees rose to US$7.9 billion, the largest surplus since this item turned positive in 2003, contributing the most to the narrowing of the deficit in the balance of trade in other services. The larger surplus in royalties and license fees resulted from an increase in credits of license fees for industrial processes, franchises, etc.. As overseas production by Japanese automakers recovered in 2011 after showing year-on-year drops in 2008 and 2009, credits of royalties increased. The surplus in construction service came to US$2.8 billion, an increase of US$1.8 billion over 2009, when it declined sharply. While both credits and debits in construction service decreased year on year, the drop in debits was larger to help widen the surplus. On the other hand, both credits and debits in other business service increased year on year, but the growth of debits was larger to cause the surplus to fall by US$0.4 billion to US$3.4 billion.

The income balance, which shows transactions such as interest and dividends received on foreign investment, was in the surplus by US$133.7 billion. Direct investment income as a whole declined from the year-before level as reinvested earnings plummeted to less than 10% of the previous year's amount, this was more than offset by an increase in portfolio investment income, resulting in an increase of US$2.6 billion in the overall income balance surplus.

Both exports to and imports from major countries/ regions rise

Japan's exports to major countries/regions fell sharply across the board in 2009, but recorded double-digit growth in 2010 in complete contrast. Compared with the value of exports in 2008, while exports to China, ASEAN, India and other countries/regions in Asia and to Central and South America surpassed the 2008 levels, exports to the United States and the EU fell short of the 2008 levels, showing differences in the speed of recovery (see Figures I-28 and I-29).

Exports to China, which became the largest destination of Japanese exports in 2010, increased 36.0% year on year to US$149.1 billion, falling just short of reaching the US$150 billion mark for a single country for the first time ever. The increase in China-bound exports accounted for over 20% of the growth of the total export value, contributing the most to the increase in Japan's exports in 2010. Among IT-related products, semiconductors and other electronic devices and semiconductor-manufacturing equipment posted large increases amid the recovering global demand. Transportation equipment accounted for over 10% of the total value of exports for the first time ever, thanks to big rises recorded by exports of automobiles and automobile parts. This came against the backdrop of the booming Chinese automobile market, with China becoming the world's leader in both automobile production and sales of new vehicles for the second consecutive year.

Exports to ASEAN zoomed 39.8% to US$112.5 billion, helped by big rises in exports to Thailand (up 53.2% to US$34.1 billion) and to Indonesia (up 69.9% to US$15.9 billion), with the contribution of 17.2%, just short of 20%, to the increase in the total value of exports, driving the growth of Japanese exports in 2010 along with China. Similar to the case of China, exports of IT-related parts such as semiconductors and other electronic devices and automobile parts were strong. Exports of steel products also grew over 50%. Exports to South Korea rose 31.3% to US$62.1 billion and those to Taiwan increased 43.3% to US$52.2 billion. As a result, the share of East Asia in the total value of exports also rose modestly to 54.5%.

Exports to the United States increased 26.2% to US$118.2 billion for the first rise in four years, recovering to the US$100 billion mark that was retained for 16 years on end until 2008. Transportation equipment, which accounts for about 40% of Japan's U.S.-bound exports, rose 31.2% to US$44.3 billion to contribute to the overall recovery of exports to the country. But the value of exports still stands at around 80% of the 2008 level and around 70% of the peak level of 2006. Exports of general machinery and electrical equipment also recovered with year-on-year increases of 33.2% and 17.1%, respectively, but like transportation equipment, the value of their exports had yet to return to the levels before the sharp falls in 2009.

Exports to the EU27 (hereinafter referred to just the EU) as a whole posted a relatively modest increase of 19.8% to US$86.7 billion. While exports to Germany and the Netherlands grew robustly, rising 21.5% to US$20.2 billion and 20.5% to US$16.3 billion, respectively, the growth of exports to France was lackluster, up only 7.5% to US$6.7 billion. Exports of transportation equipment and general machinery, each accounting for about one-fourth of overall exports to the EU, recovered, but were less than powerful, staying at around 70% of the 2008 levels.

Japan's imports also increased from almost all major countries/regions in 2010. Imports from Europe and North America became short of breath in the fourth quarter, but imports from China and other East Asian countries maintained strong growth throughout the year. East Asia ac-

Figure I – 28 Trends of Japan's trade with major countries/regions

(US$ million, %)

				2009	2010	2010				2011
						Q1	Q2	Q3	Q4	Q1
World	Exports		Total	580,787	767,025	176,948	184,980	196,470	208,627	199,029
			Percent change	-25.2	32.1	46.4	40.9	28.1	19.0	12.5
	Imports		Total	552,252	691,447	159,030	166,418	177,722	188,277	194,623
			Percent change	-27.0	25.2	21.5	35.4	25.0	20.5	22.4
U.S.	Exports		Total	93,653	118,199	26,535	27,610	30,791	33,263	29,485
			Percent change	-31.2	26.2	36.9	31.2	25.2	16.2	11.1
	Imports		Total	59,044	67,171	15,931	16,858	16,937	17,446	17,153
			Percent change	-23.3	13.8	8.0	20.6	18.8	8.7	7.7
	Export volume percent change			-35.7	21.2	31.0	28.2	18.7	12.3	6.0
	Import volume percent change			-23.1	11.0	4.8	23.5	15.6	1.8	5.9
EU27	Exports		Total	72,374	86,735	20,104	20,511	21,773	24,347	23,271
			Percent change	-33.8	19.8	21.5	22.0	22.6	14.5	15.8
	Imports		Total	59,130	66,187	15,924	15,771	17,202	17,289	18,075
			Percent change	-15.4	11.9	8.3	15.4	16.4	8.2	13.5
	Export volume percent change			-35.6	24.4	19.3	31.3	29.0	19.5	14.5
	Import volume percent change			-20.3	12.7	9.4	19.7	16.7	5.3	2.8
East Asia		Exports	Total	305,621	417,953	95,142	101,586	107,346	113,879	107,976
			Percent change	-17.7	36.8	62.1	44.9	28.7	21.9	13.5
		Imports	Total	241,916	306,468	68,479	73,963	79,610	84,416	84,999
			Percent change	-19.6	26.7	20.4	35.5	27.8	23.9	24.1
	China	Exports	Total	109,630	149,086	32,964	35,458	37,888	42,776	40,004
			Percent change	-11.6	36.0	60.1	36.7	27.3	28.4	21.4
		Imports	Total	122,545	152,801	33,104	36,874	39,791	43,032	41,592
			Percent change	-13.9	24.7	15.9	32.8	26.0	24.2	25.6
		Export volume percent change		-15.4	25.2	47.2	29.7	18.3	13.8	11.1
		Import volume percent change		-12.6	18.3	17.9	25.6	17.3	13.2	13.6
	ASEAN	Exports	Total	80,449	112,461	25,872	27,051	29,264	30,274	28,531
			Percent change	-21.7	39.8	67.7	54.9	29.8	21.1	10.3
		Imports	Total	77,936	100,619	23,293	24,163	26,213	26,950	28,639
			Percent change	-26.6	29.1	21.3	39.5	31.6	25.3	23.0
		Export volume percent change		-24.0	27.9	67.2	39.8	16.9	4.8	-1.6
		Import volume percent change		-15.1	16.9	17.0	20.4	18.2	12.3	6.5
	South Korea	Exports	Total	47,248	62,054	14,819	15,322	16,079	15,834	16,286
			Percent change	-19.9	31.3	47.0	42.0	28.5	14.2	9.9
		Imports	Total	21,997	28,542	6,192	6,838	7,161	8,350	8,750
			Percent change	-24.8	29.8	24.3	37.0	26.3	31.4	41.3
	Taiwan	Exports	Total	36,426	52,207	12,149	13,191	13,301	13,566	13,101
			Percent change	-20.3	43.3	81.0	56.9	35.7	18.0	7.8
		Imports	Total	18,339	22,992	5,469	5,718	6,090	5,716	5,591
			Percent change	-15.2	25.4	41.5	35.1	25.0	6.5	2.2
	Hong Kong	Exports	Total	31,868	42,145	9,338	10,564	10,814	11,428	10,053
			Percent change	-20.3	32.3	59.3	40.9	23.4	17.3	7.7
		Imports	Total	1,099	1,515	421	370	354	370	427
			Percent change	-28.9	37.8	53.6	26.9	27.6	44.4	1.4
Middle East	Exports		Total	21,650	25,182	6,586	6,023	6,246	6,327	6,124
			Percent change	-35.8	16.3	22.2	42.7	15.7	-4.8	-7.0
	Imports		Total	92,850	118,009	30,462	28,366	27,490	31,691	37,658
			Percent change	-43.9	27.1	61.4	55.5	4.4	7.8	23.6
South and Central America	Exports		Total	33,116	43,966	11,100	10,812	11,365	10,689	10,989
			Percent change	-18.6	32.8	31.6	57.0	40.5	10.2	-1.0
	Imports		Total	20,160	28,359	6,015	6,268	7,462	8,614	8,318
			Percent change	-26.6	40.7	21.1	42.3	44.8	52.9	38.3

Note: East Asia is the sum of China, ASEAN, South Korea, Taiwan and Hong Kong.
Source: "Trade Statistics" (Ministry of Finance).

counted for a little over 40% of the growth of Japanese imports in 2010. With crude oil prices retaining the uptrend from the bottom of early 2009, imports from the Middle East increased substantially as well (see Figure I-30).

Imports from China increased 24.7% year on year to US$152.8 billion, surpassing the previous record scaled in 2008 to top the US$150 billion mark for the first time. The contribution to the growth of overall Japanese imports also exceeded 20%, meaning that China is the country that contributed the most to the growth of both exports and imports in 2010. For electrical equipment, the major item of imports from China, communication equipment and video equipment, which maintained year-on-year growth even in 2009 when imports of all other items dropped across the board, skyrocketed 60.8% and 81.9%, respectively. Electrical equipment as a whole accounted for 40% of the increase in overall imports from China. In particular, imports of television receivers zoomed up 2.7 times over the 2009 level.

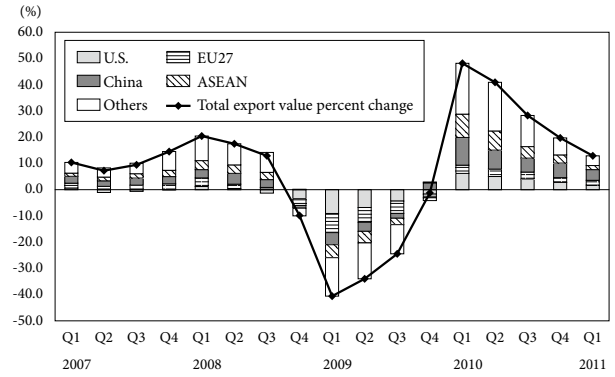
Imports from ASEAN as a whole rose 29.1% year on year to US$100.6 billion. Mainly because of higher prices of liquefied natural gas (LNG), imports from Malaysia increased sharply by 35.1% to US$22.6 billion and those from Indonesia 29.0% to US$28.1 billion. Imports from Thailand grew 30.7% to US$21.0 billion. With Nissan Motor Co. starting importing the March produced in Thailand in July 2010, imports of transportation equipment accounted for more than 10% of the increase in Japanese imports from Thailand, although the Nissan factor only affected imports in about six months.

Imports from Taiwan rose 25.4% to US$23.0 billion, pushed up by the rapid recovery of integrated circuits, which account for 30% of Japan's imports from Taiwan. Imports from South Korea increased 29.8% to US$28.5 billion, thanks to steady growth of steel products and gas oil.

Japan's imports from the United States grew 13.8% year on year to US$67.2 billion, but the U.S. share in Japan's total import value dipped to 9.7%, breaking below the 10% mark for the first time in the postwar period, due in part to the strong momentum of imports from East Asia. As a result of robust growth of integrated circuits and pharmaceuticals, electrical equipment and chemicals drove the increase in imports from the United States. Imports of transportation equipment dropped for the second consecutive year, due to slow imports of aircraft.

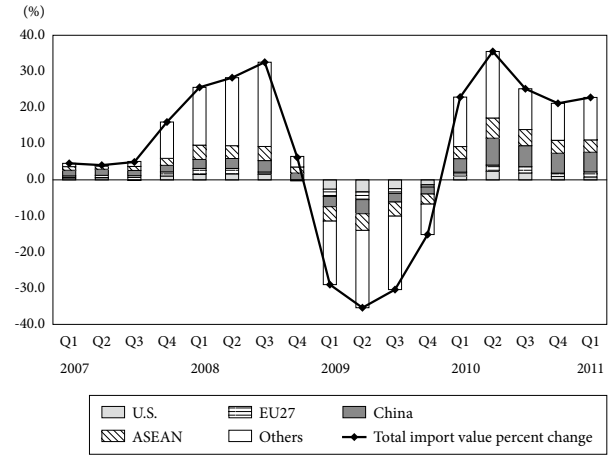
Imports from the EU rose 11.9% to US$66.2 billion. The biggest contribution to the increase came from chemicals, with imports of pharmaceuticals from Germany and France showing robust growth. Pharmaceuticals accounted for just less than 20% of the expansion of imports from the EU. Together with pharmaceuticals, transportation equipment

Figure I – 29 Japan's exports by country/region (YoY contribution)



Source: "Trade Statistics" (Ministry of Finance).

Figure I – 30 Japan's imports by country/region (YoY contribution)



Source: "Trade Statistics" (Ministry of Finance).

also contributed to the overall growth of imports, with automobile imports from Germany recouping the level seen prior to the sharp drop in 2009.

With crude oil prices continuing their erratic fluctuations since 2008, the average arriving price in Japan of crude oil in 2009 came to US$79.2 per barrel, a sharp rise of 30.5% over 2009. Consequently, imports from the Middle East rose 27.1% to US$118.0 billion, accounting for about 20% of the increase in the value of Japan's total imports in the year.

Increased demand in Asia drove Japan's exports

Looking at Japanese exports by product, an increase in exports of automobiles, Japan's mainstay export product, had a significant impact on overall exports (see Figure I-31).

The value of automobile exports in 2010 expanded 45.5% year on year to US$103.8 billion, contributing around 20% of the increase in overall exports. Europe and North America remained as the main markets of Japanese automobiles, but the momentum of automobile exports was stronger for China. China-bound exports of automobiles in 2010 shot up 82.1% to US$70.6 billion, with the Chinese share in the total value of automobile shipments overseas rising to 6.8%. Driven by the strong growth of exports to China, the share of East Asia as a whole expanded to 13.5%, eclipsing the EU's share of 11.2%. Automobile exports to Russia, which shrank to just about 10% of the previous year's level in 2009, recovered to US$5.0 billion, approximately three times larger than the 2009 level.

Exports of general machinery rose sharply by 47.4% to US$150.3 billion. Exports of semiconductor-manufacturing equipment improved to reflect a recovery in global demand, while exports of mining and construction machinery grew strongly to emerging countries, including the doubling of shipments to China. Exports of machine tools also doubled, reflecting smooth growth in sales to Asia. According to the Japan Machine Tool Builders Association (JMTBA), order receipts for machine tools in 2010 expanded 2.4 times over the previous year to 978.6 billion yen. While both domestic and external demand increased, orders received from China showed particularly strong growth, almost trebling from 2009 to 253.0 billion yen, with the Chinese share in the total value of order receipts also rising to 25.9%. Increased orders pushed up production of machine tools in 2010, and the

Figure I – 31 Japan's exports by product (2010)

(US$ million, %)

	World		U.S.		EU27		China		ASEAN	
	Value	Growth	Value	Growth	Value	Growth	Value	Growth	Value	Growth
Total	767,025	32.1	118,199	26.2	86,735	19.8	149,086	36.0	112,461	39.8
Machinery and equipment	498,427	35.7	91,614	28.4	62,493	21.8	90,884	47.5	66,506	44.2
General equipment	150,261	47.4	24,544	33.2	20,902	30.6	33,518	73.3	23,544	55.9
Mining and construction equipment	10,018	80.7	1,186	188.9	1,208	181.3	1,832	105.5	1,699	55.8
Machine tools	7,004	103.7	1,032	84.9	657	49.4	2,507	160.2	1,020	104.2
Electrical equipment	131,404	22.5	16,140	17.1	15,022	13.0	32,208	25.6	23,802	35.8
Transport equipment	176,027	36.9	44,327	31.2	19,707	20.1	15,371	51.2	14,567	38.0
Automobiles	103,790	45.5	32,627	34.7	11,616	20.0	7,060	82.1	4,720	48.1
Passenger vehicles	90,455	44.8	32,099	34.0	11,277	18.8	6,246	77.9	2,162	35.0
Automobile parts	38,852	40.7	8,355	40.1	5,235	44.3	8,447	32.9	6,492	57.2
Precision instruments	40,734	38.6	6,603	23.4	6,862	22.3	9,786	51.1	4,593	57.0
Chemicals	98,949	28.2	11,069	25.3	10,577	21.4	22,109	27.0	12,152	38.9
Steel	51,134	31.4	3,063	35.3	1,656	18.7	10,983	16.1	12,361	54.0
Primary steel products	38,845	36.8	1,179	74.4	706	30.2	8,960	18.3	9,450	62.3
Steel products	12,289	16.9	1,885	18.6	950	11.4	2,023	7.5	2,910	32.2
(Reference) IT-related equipment (total)	142,123	32.2	19,310	26.2	16,098	15.6	31,743	35.0	23,336	41.6

Note: See Appendix: Annotation I at the end of this report for the definitions of products.
Source: "Trade Statistics" (Ministry of Finance).

value of machine tool production in Japan was the second largest in the world, moving up from the third largest in 2009 to displace Germany in the second spot. Exports of electrical equipment rose 22.5% to US$131.4 billion, as exports of integrated circuits, which account for one-fourth of the total, increased centering on shipments to Asia, including China and ASEAN.

Exports of steel products all but returned to the 2008 level, rising 31.4%, mainly to Asia. According to the Japan Iron and Steel Federation (JISF), the volume of steel products exported in 2010 increased 26.0% year on year to 43.4 million tons. Exports to South Korea, the largest destination, increased 11.5% to 10.96 million tons to top the 10-million-ton mark for the first time. Shipments to China rose 16.2% to 7.51 million tons.

The value of exports of IT-related products increased 32.2% to US$142.1 billion, with both parts and final goods growing (see Figure I-32).

Global sales of semiconductors plunged from mid-2008 at a decelerating pace seen during the IT recession period of 2001, but rapidly recovered after bottoming out in January 2009. Turning around from the 9% drop in 2009, semiconductor sales rose 31.8% to US$298.3 billion in 2010, according to the Semiconductor Industry Association of the United States. Reflecting the recovery in global demand, exports of semiconductors and electronic devices by Japan also rose 29.4% in 2010, while exports of semiconductor-manufacturing equipment zoomed up 131.0%, with sales to Taiwan, South Korea and China shooting up two to three times the 2009 levels.

On the import front, rapid fluctuations in energy prices have been significantly affecting overall imports of Japan in recent years. Energy prices soared in 2008, took a sharp downturn in 2009 and then turned sharply higher again in 2010 in reaction. Crude oil prices stayed in the US$70-80 range per barrel throughout 2010. The volume of crude oil imports by Japan in 2010 stayed almost flat from the previous year with a minor gain of 0.9% over the previous year, but the value of crude oil imports surged 31.9%, reflecting price rises. With imports of LNG also pushed up by high prices, the value of imports of mineral fuels etc. expanded 30.3% to US$198.6 billion, accounting for some 30% of the overall increase in Japanese imports in 2010 (see Figure I-33).

The second largest contributor after mineral fuels to the increase in overall imports were machinery and equipment, including electrical equipment. Imports of electrical equipment rose 33.4% to US$86.6 billion, as cell phones and television receivers maintained robust growth as well as semiconductors, the major import item. General machinery also increased 21.6% to US$55.9 billion, as imports of personal computers grew along with air-conditioning equipment, whose imports showed the growth specifically linked to changes in the eco-point system for home electric appliances. The increase in machinery and equipment accounted for nearly 30% of the overall increase in Japanese imports in 2010.

Imports of chemicals rose 26.1% to US$71.8 billion, contributing around 10% of the overall import expansion. Imports of pharmaceuticals continued to expand, as the Japanese government carried out the emergency imports of the vaccine against the pandemic H1N1 flu virus from European manufacturers and imports of major medicines against influenza rose to cover the general shortage of supply.

Imports of IT-related products expanded 33.5% to US$994.1 billion in 2010, coming to closer to the US$1 trillion mark, after registering the first year-on-year decline in seven years in 2009. Video equipment, which showed positive growth in 2009 when imports of all other IT-related products decreased across the board, stayed robust with

Figure I – 32 Japan's imports and exports of IT-related products

(US$ million, %)

	Exports			Imports		
	2009	2010		2009	2010	
	Value	Value	Growth	Value	Value	Growth
Computers and peripherals (Total)	5,469	5,806	6.2	16,438	20,758	26.3
Multifunctional digital equipment	554	490	-11.5	1,356	1,659	22.3
Computers and peripherals	2,498	2,645	5.9	11,312	14,451	27.7
Parts of computers and peripherals	2,418	2,671	10.5	3,769	4,648	23.3
Office equipment	77	51	-33.3	251	283	12.8
Telecommunication equipment	7,129	6,780	-4.9	10,731	14,299	33.3
Semiconductors and electronic components	36,563	47,322	29.4	18,769	24,319	29.6
Electronic tubes and semiconductors	9,166	12,831	40.0	2,494	3,905	56.6
Integrated circuits	27,397	34,491	25.9	16,275	20,414	25.4
Other electronic components	25,589	31,815	24.3	13,815	17,467	26.4
Flat-panel displays	5,125	5,599	9.3	3,371	4,483	33.0
Video equipment	10,974	11,596	5.7	6,259	11,061	76.7
Digital cameras	8,864	9,252	4.4	1,434	1,771	23.5
Reception apparatus for television	291	304	4.4	2,074	5,501	165.2
Audio equipment	91	151	66.9	295	563	90.4
Portable audio players	80	140	75.6	232	498	114.9
Measuring and testing equipment	13,338	19,444	45.8	6,770	8,457	24.9
Machines and apparantus for the manufacture of semiconductor devices	8,293	19,156	131.0	1,123	2,202	96.1
IT parts	66,400	85,358	28.6	36,780	47,274	28.5
Finished IT products	41,123	56,764	38.0	37,672	52,136	38.4
Total IT equipment	107,523	142,123	32.2	74,452	99,410	33.5

Note: See Appendix: Annotation I at the end of this report for the definitions of products.
Source: "Trade Statistics" (Ministry of Finance).

Figure I – 33 Japan's imports by product (2010)

(US$ million, %)

	World		U.S.		EU27		China		ASEAN	
	Value	Growth	Value	Growth	Value	Growth	Value	Growth	Value	Growth
Total	691,447	25.2	67,171	13.8	66,187	11.9	152,801	24.7	100,619	29.1
Machinery and equipment	186,647	26.8	27,516	9.0	24,303	18.7	72,328	38.9	29,033	31.0
General equipment	55,882	21.6	8,077	3.5	7,038	9.1	26,275	30.9	7,791	27.6
Electrical equipment	86,573	33.4	7,902	17.4	3,855	17.7	38,607	48.3	16,759	28.8
Transport equipment	19,534	19.6	4,381	-10.4	7,520	24.2	2,894	23.6	2,040	88.4
Automobiles	6,816	40.1	343	27.6	5,266	31.8	15	-32.4	517	349.0
Passenger vehicles	6,471	40.7	313	28.0	5,111	31.5	13	6.4	379	5,526.0
Automobile parts	5,992	38.7	539	84.0	1,436	8.8	1,868	42.5	1,311	56.0
Precision instruments	24,658	23.3	7,157	23.1	5,890	25.7	4,553	25.3	2,443	25.1
Chemicals	71,772	26.1	12,766	30.2	21,731	10.7	12,433	40.6	9,905	53.3
Foodstuffs	59,838	11.2	13,734	5.8	7,687	5.3	8,175	17.0	7,991	8.5
Iron ore	15,637	79.6	0	41.1	0	-99.6	0	-29.3	0	-97.4
Mineral fuels, etc.	198,592	30.3	1,928	83.1	222	0.2	1,805	31.5	28,419	28.1
Coal	24,180	10.0	603	216.8	0	-77.7	863	9.9	3,630	8.5
Liquefied Natural Gas	39,611	30.6	361	48.1	-	n.a.	-	n.a.	18,434	26.6
Petroleum and petroleum products	125,070	34.0	646	27.5	205	0.4	659	42.8	6,195	50.9
Crude oil	105,667	31.9	-	n.a.	-	n.a.	104	-7.2	3,583	52.4
Textiles and textile products	32,907	5.9	458	13.8	1,615	-1.6	25,467	3.8	3,131	20.7
Steel	14,172	39.1	612	24.0	666	1.5	4,562	29.0	771	19.0
Primary steel products	8,516	72.7	221	80.8	297	15.8	1,429	122.3	185	122.4
Steel products	5,656	7.6	391	5.3	369	-7.7	3,133	8.2	586	3.8
(Reference) IT-related equipment (total)	99,410	33.5	11,178	19.2	5,535	29.5	45,155	47.3	16,362	25.6

Note: See Appendix: Annotation I at the end of this report for the definitions of products.
Source: "Trade Statistics" (Ministry of Finance).

a massive increase of 76.7%. Imports of video equipment were underpinned by replacement demand for television receivers ahead of the complete shift to digital broadcasting scheduled for July 2011, in addition to changes in the eco-point system for home electric appliances, as with the case of air-conditioning equipment. Imports of video equipment from China and Malaysia trebled in 2010, with these two countries alone accounting for 90% of Japan's imports of television receivers.

Production recovery remains as an important challenge

The recovery in Japan's trade in 2010 was largely driven by Asia, particularly so for exports. This stems from the fact that intermediate goods necessary for production account for the considerable portion of Japan's exports. Japan's export composition for 2010 shows that the ratio of intermediate goods to the total value of exports stood at 55.6%, higher than the corresponding ratios of other major exporting countries, including 41.5% for China, 49.7% for the United States and 46.5% for Germany.[Note 6] One reason for the high ratio of intermediate goods is that Japan has a lot of competitive products even in the face of the yen's continuing appreciation. When competiveness is measured by increases or decreases in the volume of exports, out of a total of 2,546 items of intermediate goods, 926 items, or nearly 40% of the total, saw their export volumes keep rising in 2008 and 2009.[Note 7] The combined value of exports of these items totaled US$210.0 billion, roughly equivalent to half the total value of exports of intermediate goods. When the similar ratio is examined for final goods, 482 items, or about one-fourth of a total of 1,774 items, increased their export volumes, with the combined value of their exports coming to US$92.3 billion to account for 30% of the total value of exports of final goods. This means that intermediate goods have a greater number of items than final goods that can maintain competitiveness in the severe export environment soured by the general economic stagnation and the stronger yen. This strength of Japanese intermediate goods powered the expansion of Japanese exports in the course of the recovery in production mainly in Asia (see Figure I - 34).

However, the situation changed completely after the Great East Japan Earthquake in March 2011 caused Japan's domestic production operations to stall. Exports grew only 6.8% in March, the first single-digit growth in 16 months, and actually declined by 2.4% in April. Exports in May recovered to show a 2.5% increase. However, as the yen's exchange rate against the U.S. dollar has appreciated by nearly 10 yen from the year-before levels, the potentially significantly larger impact of exchange rate fluctuations needs to be monitored. Yen-quoted exports fell sharply in April and May, by 12.4% and 10.3%. In terms of volume as well, exports declined 3.3% in March, 11.6% in April and 10.8% in May, continuing to fall with large margins not seen since the export slump in 2009. Affected particularly significantly was transportation equipment, which turned down in March. In April, exports of electrical equipment also decreased, due mainly to the poor performance of semiconductors and other electronic devices, including integrated circuits (see Figure I-35).

On the other hand, imports continued strong, posting the high growth of 22.5% in March, 21.6% in April and 28.2% in May, largely due to continuing rises in prices of commodities as well as exchange rate swings. Reflecting these two factors, the arriving price of crude oil in March

[6] The classification of intermediate goods and final goods is based on the U.N. BEC classification (see Note 3 on Page 11).
[7] The number of items on the HS code for six-digit code that were actually exported in 2008 and onward and for which unit export prices and volumes are available.

Figure I – 34 Number of items of Japan's intermediate and final goods with larger export volumes (2010)

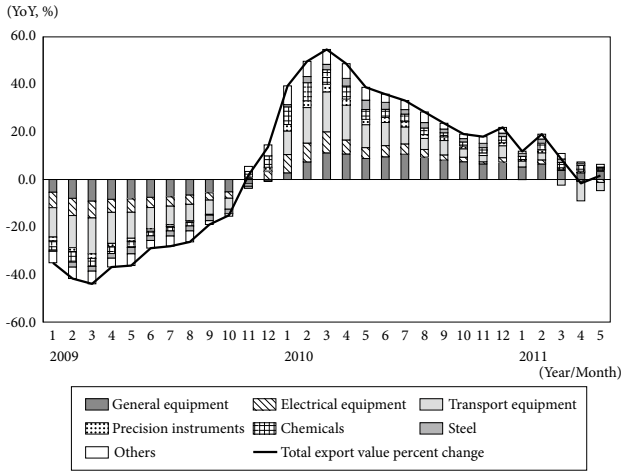
	Each product category's share in total exports (%)	No. of items (2)	Export volume rose in both 2008 and 2009		
			No. of items	Combined export value of each product (US$ million)	Ratio of the combined export value of each product category to total export value
Intermediate goods	55.6	2,546	926	210,012	49.0
Processed products	26.8	2,188	797	101,978	49.5
Parts	28.9	358	129	108,035	48.6
Final goods	41.6	1,774	482	92,290	28.8
Capital goods	24.8	642	178	79,881	41.9
Consumer goods	16.8	1,132	304	12,409	9.6

Notes: (1) See Note (3) on Page 11 for the classificaiton of goods.
(2) The number of items at the HS 6-digit-code actually exported in and after 2008 for which data on unit prices and export volumes is available.
Source: "Trade Statistics" (Ministry of Finance).

came to US$103.1 per barrel, topping the US$100 mark for the first time since October 2008. In terms of volume, import was rising 5.5% in March, 1.3% in April and 5.5% in May. Imports of chemicals and foodstuffs felt the significantly big impact of the earthquake, with their imports shooting up around 30% in April. There were moves to import chemicals to cover the shortage of domestic supply, as the earthquake forced some oil plants in Japan to suspend operations. As for foodstuffs, imports of cigarettes set new single-month records in terms of both value and volume in April as operations of some tobacco plants came to a halt in the aftermath of the disastrous earthquake. Imports of water, which fell into acute supply shortage, sharply increased from France and the United States as well as from South Korea and Taiwan, which had no significant track records of exporting water to Japan. Like cigarette imports, imports of water set all-time highs in terms of both value and volume in May (see Figure I-36).

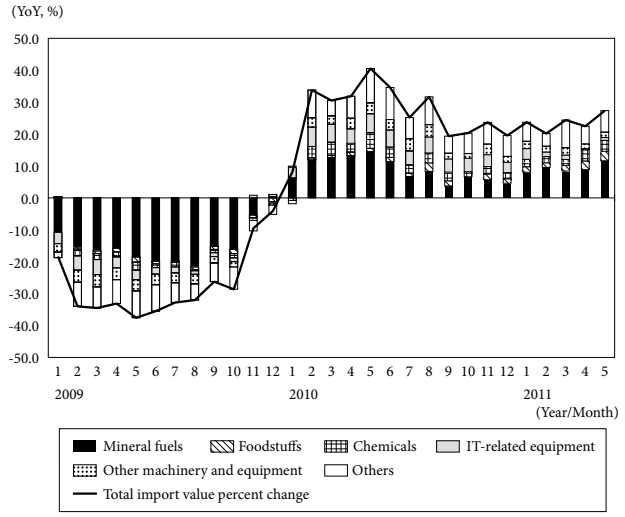
However, the impact of the Great East Japan Earthquake was observed mostly in bottlenecks on the supply side, such as sharp cutbacks on production, suspended production operations and port facilities, not in the sluggishness of global demand as seen at the time of the financial crisis. Therefore, Japan's trade can be expected to recover gradually as production activities of Japanese companies recover from the impact of the earthquake and perk up going forward.

Figure I – 35 Japan's exports by product (YoY contribution)



Source: "Trade Statistics" (Ministry of Finance).

Figure I – 36 Japan's imports by product (YoY contribution)



Source: "Trade Statistics" (Ministry of Finance).

3. Direct Investment of the World and Japan & Cross-Border M&As

(1) Global foreign direct investment dips 4.4% in 2010 FDI driven by investment in developing countries

Global foreign direct investment (on an inward FDI basis: JETRO estimates of net flows based on the balance of payments) in 2010 declined 4.4% year on year to US$1,224.9 billion for the third consecutive drop (see Figure I-37), but the decline was much smaller than in 2009.

Inward FDI showed signs of bottoming out because of 1) an increase in reinvested earnings following improved earnings of overseas subsidiaries ascribable to the recovery of the world economy, centering on emerging countries, and 2) active corporate moves to advance into overseas markets in pursuit of market expansion, as seen in the first rise in three years of global cross-border M&As (corporate mergers and acquisitions beyond national boundaries). However, global inward FDI in 2010 was still less than 50% of the peak level of 2007.

By developed and developing countries, inward FDI in developed countries (based on the classification by BOP (IMF) of 33 countries/regions) dropped 11.7% to US$730.8 billion, while inward FDI in developing countries rose 9.0% to US$494.1 billion, accounting for over 40% of the total amount of inward FDI (see Figure I-38). Companies, which went through the severe recession and faced the need to reduce costs more than ever before, accelerated their moves to transfer production and sales bases to developing countries with higher growth and lower wages.

The pace of recovery of FDI in developed countries was slow relative to FDI in developing countries. Compared with developing countries, the developed economies were recovering from the global financial crisis more slowly. Developed countries remained unable to shake off uncertainties hanging over their economic prospects, with some European countries embroiled in the serious financial crises. On the other hand, the developing economies, led by China and India, recovered more quickly and are expected to maintain stable economic growth going forward. Because of this, companies in developing countries, in addition to companies in developed countries, are beginning to step up efforts to cultivate the markets of developing countries.

Global outward FDI in 2010 fell 7.8% year on year to US$1,308.9 billion.[Note 8] Among developed countries, outward FDI by the EU and Japan declined, but that by the United States turned up. Like inward FDI, many developing countries made active outward FDI.

Figure I – 37 FDI of major countries/regions in 2010

<net flow, based on balance of payments>

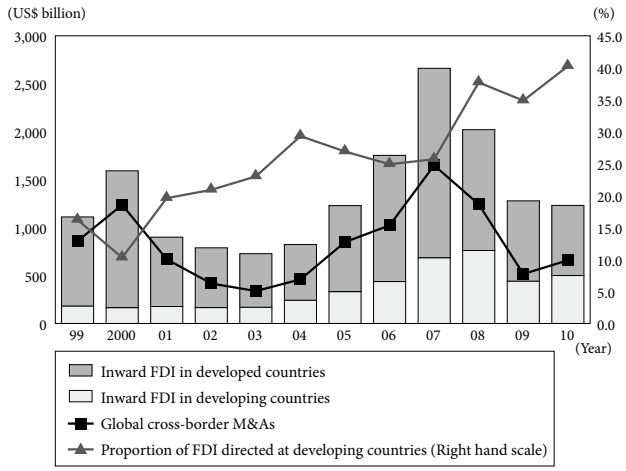
(US$ million, %)

	Inward FDI		Outward FDI	
	Value	Growth	Value	Growth
U.S.	236,226	49.0	351,350	15.7
Canada	23,413	9.4	38,585	-7.4
EU27	292,384	-43.8	407,692	-38.2
EU15	305,266	-37.2	442,451	-31.5
France	33,905	-0.4	84,112	-18.3
Germany	46,134	22.6	104,857	34.1
Italy	9,497	-52.7	21,009	-1.3
Luxembourg	152,255	-27.4	130,176	-44.4
Netherlands	-65,679	n.a.	12,267	-87.8
Spain	21,086	130.8	22,268	128.7
UK	45,908	-35.5	11,020	-75.2
12 new EU member states	-12,882	n.a.	-34,758	n.a.
Switzerland	-6,561	n.a.	58,253	75.2
Australia	32,472	26.3	26,431	63.6
Japan	-1,359	n.a.	57,223	-23.3
East Asia	325,405	62.6	208,169	26.9
China	185,081	62.0	60,151	37.0
South Korea	-150	n.a.	19,230	11.8
Hong Kong	68,904	31.5	76,077	18.9
ASEAN5	69,078	142.2	41,529	25.5
Singapore	38,638	152.9	19,739	6.9
India	24,640	-30.9	14,626	-8.2
Brazil	48,438	86.7	11,519	n.a.
Russia	42,868	17.4	52,476	20.2
Developed countries (33 countries/regions)	730,841	-11.7	1,121,295	-10.9
Developing countries	494,057	9.0	187,590	15.7
World	1,224,897	-4.4	1,308,885	-7.8

Notes: (1) JETRO estimates for "World" and "Developing countries" figures. The figure for the developed countries is the sum value.
(2) The ASEAN 5 includes Thailand, Malaysia, Indonesia, the Philippines and Singapore.
(3) "East Asia" includes China, South Korea, Taiwan, Hong Kong and the ASEAN 5.

Souces: Balance of payments statistics, BOP (IMF) and other sources.

Figure I – 38 Trends of global inward FDI and cross-border M&As



Note: Direct investment is on a basis of inward direct investment.
Sources: Balance of payments statistics of individual countries/regions, BOP (IMF) and Thomson Reuters.

Big differences emerge between developed countries

Inward FDI in developed countries continued to decline in 2010, but differences also emerged between them. While inward FDI in many EU countries gripped by serious fiscal problems decreased, inward FDI in the United States increased significantly. Outward FDI by the United States also turned up, but outward FDI by the EU remained sluggish.

[8] Though the total amount of inward and outward FDI should match theoretically, the actual numerical values differ because of differences between countries in the definition of direct investment, evaluation methods and the timing of accounting for such investment, including the lowest amount to be accounted for and treatment of reinvested earnings and subsidiaries of subsidiaries. Another factor is that in developing countries, better data is generally available for inward FDI than for outward FDI in terms of the announcement and quality.

Inward FDI in the United States soared 49.0% year on year to US$236.2 billion to mark the first rise in two years. In particular, reinvested earnings (undistributed profits internally reserved by subsidiaries on foreign companies within a region), which sank to the lowest level in six years in 2009, surged back around seven times to US$93.7 billion, significantly surpassing the previous record high of US$69.1 billion scaled in 2006. This resulted from higher earnings of U.S. subsidiaries of foreign companies that reflected a recovery of the U.S. economy as well as their larger retained earnings ascribable to reduced outflows of earnings in dividends to parent companies overseas.

Outward FDI by the United States turned up for the first time in three years, increasing 15.7% year on year to US$351.4 billion, lifted by a substantial rise in reinvested earnings. After marking a minor gain for three years on end, reinvested earnings expanded 34.9% to US$320.5 billion in 2010, registering the largest amount since 1982, when statistical data for FDI was made available for the first time. Active M&As by U.S. companies also helped push up equity capital investment to mark the first rise in three years.

Inward FDI in the EU plummeted 43.8% to US$292.4 billion (JETRO estimates). Investment plunged partly because the financial crises in Southern European countries that unfolded in 2009 deteriorated further in 2010. In the Netherlands in particular, withdrawals of funds through special-purpose entities (SPEs) became noticeable, pulling down inward FDI in the EU as a whole. Equity capital investment in the Netherlands, including reinvested earnings, marked the first net withdrawal since 1999, when statistical data for FDI was made available for the first time.

According to the Statistical Office of the European Union (Eurostat), FDI from outside the EU declined 76.0% to US$71.8 billion, a level substantially lower than the past annual average attributable in particular to a plunge of 72.1% to US$37.7 billion in FDI from the United States. FDI in the EU from offshore financial centers (38 countries/territories as defined by Eurostat) such as the Cayman Islands (British overseas territory), which showed a remarkable net inflow in 2009, marked a net withdrawal of US$5.2 billion in 2010. On the other hand, inward direct investment by countries within the EU rose 7.9% to US$192.9 billion, posting the first rise, albeit small, in three years (the total amounts aggregated by Eurostat and JETRO do not necessarily match because of differences in the timing of aggregation and other factors).

Outward FDI by the EU dropped 38.2% to US$407.7 billion (JETRO estimates). While outward FDI by many EU member states decreased, Germany posted a 34.1% rise to US$104.9 billion mainly because parent companies in Germany increased intra-company lending to provide operating funds to overseas subsidiaries.

Looking at inward FDI in major developed countries in 2010 on a quarterly basis (see Figure I-39), an inflow of equity capital into the United States fell year on year except in the third quarter. Though overall inward FDI in the United States turned up for the first time in two years, equity capital movements indicate that a full-fledged recovery may not be in the offing.

Among major European countries, inward FDI recovered for Germany and UK in the fourth quarter of 2009, but the growth in inward FDI in these countries markedly slowed down from 2010. In the fourth quarter of 2010, inward FDI in Germany, UK and France all declined year on year. Furthermore, inward FDI in major developed countries decelerated further in the first quarter of 2011, as economic uncertainties spread from Europe, where the fiscal crunch is squeezing mainly Southern European countries, to the United States.

China raises its presence in both inward and outward FDI

Both inward and outward FDI of East Asia expanded considerably in 2010. In particular, China's presence stood

Figure I – 39 Trends of inward FDI in major developed countries by quarter and by type of investment

(US$ million)

	Year	2008	2009				2010				2011
	Quarter	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
U.S.	Inward total	84,405	1,026	29,783	61,830	65,942	51,207	35,820	83,901	65,298	25,090
	Equity capital	114,857	22,800	28,891	30,168	52,453	21,664	15,370	53,509	24,172	7,584
	Reinvested earnings	-15,767	-10,727	-1,592	13,331	12,487	18,902	23,326	26,072	25,414	21,345
	Other capital	-14,685	-11,047	2,483	18,332	1,002	10,641	-2,876	4,320	15,712	-3,840
UK	Inward total	19,517	9,931	6,563	25,549	30,923	33,963	-10,257	15,306	8,017	50,773
	Equity capital	17,386	10,961	8,869	9,985	27,561	20,425	1,794	16,328	13,595	46,608
	Reinvested earnings	-3,231	1,307	-2,988	9,713	-410	7,027	-240	-52	-5,622	8,506
	Other capital	5,363	-2,337	682	5,851	3,772	6,511	-11,810	-970	44	-4,341
Germany	Inward total	-1,648	-2,392	11,838	12,065	17,237	9,820	12,086	10,321	13,875	2,474
	Equity capital	2,485	1,864	-2,192	3,862	9,209	-560	5,893	4,991	-120	-2,030
	Reinvested earnings	-7,061	-376	291	1,629	475	5,145	-2,374	4,066	463	5,357
	Other capital	2,927	-3,881	13,739	6,575	7,553	5,235	8,567	1,264	13,532	-853
France	Inward total	1,926	-5,001	20,308	-396	19,991	9,876	6,772	15,957	1,151	-795
	Equity capital	9,859	594	11,115	2,640	6,762	2,668	5,761	2,953	3,082	311
	Reinvested earnings	572	413	430	454	482	4,450	4,056	4,161	4,330	3,237
	Other capital	-8,507	-6,009	8,766	-3,490	12,750	2,760	-3,042	8,844	-6,257	-4,342
Japan	Inward total	6,380	3,912	2,872	4,635	420	535	-186	-64	-1,643	-2,328
	Equity capital	6,700	3,656	1,678	4,416	979	4,993	343	1,604	573	-3,008
	Reinvested earnings	819	830	691	292	-619	-641	-896	-1,146	-226	-209
	Other capital	-1,138	-578	503	-71	59	-3,816	367	-521	-1,988	888

Note: The country's balance of payments was converted to US dollars using the IFS quarterly average rate. Figures for Japan were converted to US dollars using Bank of Japan quarterly average interbank rates.

Source: Balance of payments statistics of individual countries.

out in both inward and outward investment.

Inward FDI in East Asia grew 62.6% year on year to US$325.4 billion, led by direct investment in China.

Inward FDI in China increased by a substantial 62.0% to US$185.1 billion. Thus, China became the second largest recipient of inward FDI by country in 2010, only next to the United States, surpassing Luxembourg, which usually receives a large amount of pass-through investment (see Figure I-40).

The Chinese Ministry of Commerce cites the upgrading of the industrial structure of foreign companies operating in China and the higher share of the service sector as the key characteristics of inward FDI in 2010. These characteristics signify the qualitative change of inward FDI from investment primarily focusing on the utilization of cheap labor to investment targeted at the Chinese market and the provision of services to Chinese companies. Furthermore, as foreign-affiliated companies, which have thus far set up operations mostly in coastal regions, moved to push into inland regions in pursuit of new markets, the ratio of investment in central and western China increased. Local governments are also stepping up efforts to invite foreign capital, hoping that the advance of foreign-affiliated companies will help the development of local economies. For example, the City of Chongqing in Sichuan Province in August 2010 announced a new 33-point policy to ease restrictions on the advance of foreign-affiliated companies to facilitate their investment in the city. The city allowed foreign companies to set up joint ventures with Chinese individual proprietors and also relaxed conditions for the establishment of investment companies (umbrella companies) by foreign investors on their own or in joint ventures with Chinese investors.

Outward FDI by China in 2010 zoomed 37.0% to US$60.2 billion, surpassing Japan in amount for the first time to rank sixth in the world, up from ninth in 2009. In recent years, Chinese companies have continued to actively acquire overseas assets in a broad range of countries and industries. In December 2010, the Ministry of Commerce came up with a policy to accelerate Chinese companies' forays into overseas markets. In this policy, the Chinese government set out the direction of outward investment to secure the supply to China by continuing to promote Chinese cooperation in significant energy, mineral resources and agricultural projects and to support economic development, employment expansion and improvement of people's living in countries in which China makes investments.

Inward FDI in the ASEAN 5 shot up 142.2% to US$69.1 billion, with Singapore leading the pack with US$38.6 billion, up 152.9%. Inward FDI in Singapore fell steeply in 2008 under the heavy impact of the global financial crisis, but turned up in 2009 onward. Since the second quarter of 2009, investment in Singapore has maintained an increasing trend.

Inward FDI in Vietnam in 2010, though not shown in Figure I-37, dropped 13.4% year on year to US$18.6 billion on an approval basis, according to an announcement made by the Ministry of Planning and Investment. By country, direct investment from Singapore, the Netherlands, Japan and South Korea (ROK) stood out. By industry, robust investment was made in processing/manufacturing, construction and retail/distribution industries. As a case example of investment from Japan, an investment of US$1.0 billion by Kobe Steel, Ltd. in Nghe An Province was approved. While Vietnam is attracting keen attention as an emerging economy, several problems began to surface in the country's investment environment in recent years, including pressure for higher wages, a shortfall of workers and a shortage of power supply.

Inward FDI in India declined 30.9% to US$24.6 billion. The Indian economy was among the first to recover from the financial crisis, but India has not been successful in enticing foreign investment while other Asian countries have seen smooth growth in inward FDI. In response, the Department of Industrial Policy & Promotion (DIPP) of the Ministry of Commerce and Industry on March 31, 2011, announced a revised policy on inward FDI. The revised policy includes measures for flexible issuance of convertible shares and corporate bonds and the abolition of no-objection certificate (NOC) regulations. Under NOC regulations, when a foreign company with joint venture and other capital tie-up agreements and/or technical cooperation contracts with existing Indian companies concluded prior to January 12, 2005, wanted to establish a new company in the same industry in India, or to conclude capital and/or technical tie-up agreements with other companies, it was required to obtain prior approval of the Foreign Investment Promotion Board (FIPB). In practice, the FIPB required such a foreign company to obtain NOCs from its existing business partners as a key condition for its approval. As NOC regulations had been a factor to constrain Japanese companies' investment in India, how things will develop following the abolition of the regulations is being closely watched.

Latin America drawing increasing attention

According to the United Nations Economic Commission for Latin America and the Caribbean (ECLAC), inward FDI in the region in 2010 surged 40.1% to US$112.6 billion for the first rise in two years. Direct investment in Latin America and the Caribbean started rebounding in the

Figure I – 40 Global top 10 countries/regions for FDI

(US$ million)

	Inward FDI				Outward FDI			
	2009		2010		2009		2010	
1	Luxembourg	209,746	U.S.	236,226	U.S.	303,606	U.S.	351,350
2	U.S.	158,581	China	185,081	Luxembourg	234,295	Luxembourg	130,176
3	China	114,215	Luxembourg	152,255	France	102,949	Germany	104,857
4	UK	71,140	Hong Kong	68,904	Netherlands	100,571	France	84,112
5	Hong Kong	52,394	Belgium	52,803	Germany	78,200	Hong Kong	76,077
6	Germany	37,627	Brazil	48,438	Japan	74,650	China	60,151
7	Russia	36,500	Germany	46,134	Hong Kong	63,991	Switzerland	58,253
8	Saudi Arabia	36,458	UK	45,908	UK	44,381	Japan	57,223
9	India	35,649	Russia	42,868	China	43,898	Russia	52,476
10	France	34,027	Singapore	38,638	Russia	43,665	Canada	38,585

Sources: Balance of payments statistics by country/region and BOP (IMF).

fourth quarter of 2009 and maintained the expanding trend throughout 2010. The aggregate amount of investment in 2010 was large relative to the past average, an indication that multinational companies regard Latin America and the Caribbean as an important region for them. By industry, investment was robust in such manufacturing industries as metals, foodstuffs, automobiles and electronic parts, and by country, many companies made direct investment in countries with strong domestic demand, including Brazil, Chile, Mexico and Peru. Another factor behind the increasing FDI was that foreign-affiliated companies pushing ahead with cost reductions are setting up bases of operations in the region for outsourcing purposes. It is not only extra-regional companies that are focusing on the advantages of Latin America. Intra-regional investment is also robust. Latin America-based international companies are making active investment, from Mexico to Brazil and from Brazil to Colombia, for example.

Inward FDI in Brazil, the largest recipient of investment in Latin America, shot up 86.7% to US$48.4 billion. Targets of investment are mainly interests in natural resources and manufacturing industries, but in recent years, the high-tech sector's presence is growing by drawing an increasing amount of investment. China is a major investor in Brazil. China's increase in the country apparently reflects its growing interest in Brazil, which remained relatively unaffected when demand stagnated in Europe and North America due to the financial crisis and serious concerns over their fiscal conditions. China, mainly through state-owned enterprises, is running strategic business operations in Brazil to cater to the country's expanding domestic demand, on top of its strong interest in Brazil's natural resources.

According to ECLAC, Chinese companies' direct investment in Latin America and the Caribbean was insignificant during the period from 2006 to 2009. In 2010, however, China accounted for 9% of the total amount of investment in the region, raising its presence to just behind the United States and the Netherlands. At present, Chinese investment in the region is flowing mainly into areas related to natural resources. In the medium term, however, China's direct investment is expected to spread to infrastructure and manufacturing industries. The rapidly expanding trade relations between China and the region are also playing a role in the background of the recent momentum of China's investment. Stronger trade ties are fueling an inflow of investment. However, China's investment offensive, particularly active investment in the agricultural sector, is spawning a sense of vigilance in Latin American countries due to concerns over foreigners' possible control of land and also in terms of food security.

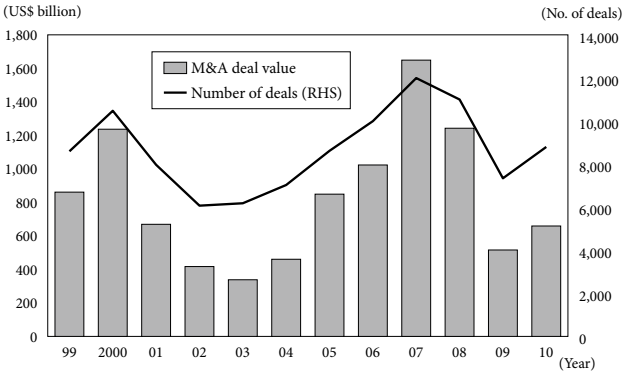
Expanding investment opportunities offer good chances

Inward FDI decreased in 2010 primarily because investment in developed countries lost steam. The picture remained the same in the first quarter of 2011. Thus, the trend of direct investment going forward will likely be determined by the extent of the recovery of developed economies, particularly European countries with significant downside risk, and an inflow of equity capital into these countries as well as stable growth of developing economies. After the global financial crisis, companies sold off businesses for restructuring and also for securing cash on hand. States are moving forward with the privatization of state-owned enterprises. With investment opportunities expanding, companies that have been cautious about using their surplus funds are highly likely to take a strong interest in such opportunities for the sake of proactive business expansion, which may lead to an increase in M&As and, by extension, direct investment.

(2) Global cross-border M&As up by 27.8%

The total value of global cross-border M&As completed in 2010 came to US$659.1 billion, an increase of 27.8% year on year, and the number of such M&As also rose 19.9% to 8,795, both turning up for the first time in three years [Note 9] (see Figure I-41). Conspicuous developments in 2010 included the doubling of acquisitions by U.S. companies and an increase in natural resources-related M&As following surges of resources prices. Big-ticket M&As are on the rise again, as large-scale acquisitions valued at US$1 billion or more (so-called mega deals) increased from 99 in 2009 to 139, and acquisitions valued at US$100 million or more from 618 to 892. On a quarterly basis, the combined value of M&As has continued to grow from the second quarter of 2010 through the second quarter of 2011. Conducive to the recovery of M&A activity are the increase of enterprise

Figure I – 41 Trends of global cross-border M&A value and the number of deals



Source: Thomson Reuters.

[9] Thomson Reuters (as of July 1, 2011). While FDI statistics on an international balance of payments basis represent the difference between outflows and inflows (net figures), M&A figures are calculated by aggregating the value of each M&A upon completion (gross figures). M&A transactions in which the nationality of the ultimate parent company differs from that of the company invested in are defined as cross-border M&As. Under this definition, some M&As between residents or between nonresidents, not recorded in FDI statistics may be included in cross-border M&As. In addition, FDI statistics include only investment for an equity stake of 10% or more, and some cases, in which funds were raised in the country where the acquisition took place, may not be included. In cases such as these, definitions and categories of FDI statistics and M&A data may differ, leading to discrepancies between the two sets of data, though they could still approach each other. In all cases in this chapter, "M&As" refer to cross-border M&As unless otherwise stated.

value on the stock markets following a recovery of the global economy and the easier access to acquisition funds than at the time of the financial crisis for companies with good financial standing.

Twenty percent of acquiring companies were American

Looking at the value of M&As by country/region of acquired companies, among developed countries, M&As targeting U.S. companies rose 5.2% year on year to US$122.6 billion, while those aimed at EU companies increased 16.2% to US$233.6 billion. The number of M&As acquiring U.S. companies, at 1,129, recovered the 1,000 mark for the first time in two years. There was no super mega deal worth more than US$10 billion in 2010, and the biggest-ticket deal was the acquisition of U.S. life science concern Millipore Corp. by Germany's major pharmaceutical firm Merck KGaA, with a price tag of US$6.9 billion (see Figure I-42). Amid intensifying competition over generic drugs (pharmaceutical products intended to be interchangeable with innovator products, which are manufactured without licenses from innovator companies and marketed after the expiry date of the patent or other exclusive rights), M&As targeted at U.S. firms in the pharmaceutical industry continued active, including the purchase of U.S. biotechnology-based drug developer Genzyme Corp. by major French pharmaceutical firm Sanofi-Aventis SA for US$20.9 billion to beef up its development of new drugs.

M&As of EU companies increased substantially as a whole. In particular, M&As to buy British companies doubled, with a rise of 101.1% to US$97.6 billion, leading the overall activity. M&As involving British companies accounted for three of the 10 largest cross-border M&As in the world in 2010. Included in the 10 largest M&As were the US$21.4 billion acquisition of Cadbury PLC of UK by Kraft Foods Inc. of the United States and the purchase of the power distribution business in UK of Electricite de France (EDF) by a group of investors, including Cheung Kong Infrastructure Holdings Ltd. headed by a person of wealth

Figure I – 42 10 largest cross-border M&As (2010 and January-June 2011)

2010 (US$ million)

	Acquiring company			Target company			Value	Ownership % after transaction
		Country	Industry		Country	Industry		
April	Kraft Foods Inc	U.S.	Foodstuffs	Cadbury PLC	U.K.	Foodstuffs	21,418	100.0
June	Bharti Airtel Ltd	India	Telecommunications	Zain Africa BV	Nigeria	Telecommunications	10,700	100.0
September	Telefonica SA	Spain	Telecommunications	Brasilcel NV	Brazil	Telecommunications	9,743	100.0
October	Investor Group	Hong Kong	Investor Group	EDF Energy PLC-UK Power Distribution Business	U.K.	Electric, Gas and Water Distribution	9,056	100.0
August	Newcrest Mining Ltd	Australia	Mining (gold ore)	Lihir Gold Ltd	Papua New Guinea	Mining (gold ore)	8,578	100.0
April	Orange PLC	France	Telecommunications	T-Mobile(UK)Ltd	U.K.	Telecommunications	8,496	100.0
February	Abbott Laboratories	U.S.	Drugs	Solvay Pharmaceuticals SA	Belgium	Drugs	7,603	100.0
April	Heineken	The Netherlands	Foodstuffs	FEMSA-Beer Op	Mexico	Foodstuffs	7,325	100.0
December	China Petrochemical Corp {Sinopec Group}	China	Oil and Natural Gas	Repsol YPF Brasil SA	Brazil	Oil and Natural Gas	7,111	40.0
July	Merck KGaA	Germany	Drugs	Millipore Corp	U.S.	Precision Machinery Manufacturing	6,869	100.0

January-June 2011

	Acquiring company			Target company			Value	Ownership % after transaction
		Country	Industry		Country	Industry		
February	International Power PLC	France	Electric, Gas and Water Distribution	GDF Suez Energy Europe & International	Belgium	Electric, Gas and Water Distribution	25,056	100.0
April	VimpelCom Ltd	The Netherlands	Telecommunications	Weather Investments Srl	Italy	Telecommunications	22,382	100.0
April	Sanofi-Aventis SA	France	Drugs	Genzyme Corp	U.S.	Drugs	20,856	100.0
May	Ensco PLC	U.K.	Oil and Natural Gas	Pride International Inc	U.S.	Oil and Natural Gas	8,685	100.0
June	Barrick Canada Inc	Canada	Mining (gold ore)	Equinox Minerals Ltd	Australia	Mining (gold ore)	7,460	100.0
April	PPL Corp	U.S.	Electric, Gas and Water Distribution	Central Networks PLC	U.K.	Electric, Gas and Water Distribution	6,505	100.0
April	TD Bank NA	Canada	Banking	Chrysler Financial Corp	U.S.	Finance	6,300	100.0
March	Banco Santander SA	Spain	Banking	Bank Zachodni WBK SA	Poland	Banking	5,629	95.7
June	Telecommunicacoes de Sao Paulo SA	Spain	Telecommunications	Vivo Participacoes SA	Brazil	Telecommunications	5,524	100.0
March	Vodafone Group PLC	U.K.	Telecommunications	Hutchison Essar Ltd	India	Telecommunications	5,000	100.0

Notes: (1) Year and month indicate the completion date of the transaction.
(2) Country of the acquirer is that of its ultimate parent company.
(3) The definition of M&A follows Thomson Reuters.
(4) The ranking is based on the value of a single transaction.
(5) If the acquirer is a single purchasing unit of a business corporation, the business corporation name is cited; if there is more than one business corporation.
(6) The Investor Group consists of Cheung Kong Infrastructure Holdings Ltd., Hong Kong Electric Holdings Ltd. and Li Ka Shing Foundation Ltd.
(7) "FEMSA-Beer Op" stands for Fomento Economico Mexicano SAB de CV {FEMSA}-Beer Operations.
Source: Thomson Reuters.

from Hong Kong, for US$9.1 billion. M&As for acquiring companies in such major countries as France (up 548.7% to US$22.1 billion) and Germany (up 23.9% to US$26.6 billion) also turned up. On the other hand, M&As involving companies in some other European countries were lackluster to pull down the overall M&A activity in the EU, including Spain (down 47.4% to US$19.3 billion), the Netherlands (down 42.0% to US$16.5 billion) and Belgium (down 35.6% to US$13.0 billion), partly because the European fiscal crisis made it difficult for acquiring and target companies to reach agreement on acquisition prices.

The United States stood out as a major player on the acquiring side, with the acquisitions by U.S. companies increasing 125.7% to US$139.2 billion. M&As by U.S. companies in 2010 were higher than the previous year in terms of both the number of acquisitions and value. The U.S. share in the combined value of M&As in the world stood at 21.1%, exceeding the 20% mark for the first time since 2006. The acquisition cost per M&A nearly doubled over the previous year to a little over US$80 million in 2010, and came close to US$100 million in the first half of 2011.

M&As by emerging countries active in Europe and North America

Looking at M&As targeting companies in emerging countries by major country/region, M&As in East Asia in 2010 increased 22.1% to US$53.1 billion. While M&As in China decreased 23.5% to US$13.7 billion, M&As in India turned up by 34.0% to US$11.9 billion and those in Brazil more than trebled, expanding 245.0% to US$38.3 billion. Among individual transactions, the largest deal was the additional investment (US$9.7 billion) in Brazilian telecommunications firm Brasilcel NV by Telefonica SA, Spain's major telecommunications company. Major deals continued to take place in Brazil in 2011. Norsk Hydro ASA, a Norwegian aluminum manufacturer, purchased the aluminum operations of major mining concern Vale SA for US$4.9 billion.

M&As for Chinese companies in 2010 were small in scale compared with deals made in the past few years, with the only one mega deal concluded in the year being the capital participation in China CITIC Bank by major Spanish bank Banco Bilbao Vizcaya Argentaria (BBVA). Nevertheless, M&As targeting Chinese companies remained active, with the total number of M&A deals and the number of M&As worth over US$100 million both surpassing the 2009 levels.

M&As by companies in emerging countries were even more active. M&As by Chinese companies rose 45.6% to US$39.2 billion, while M&As by Indian companies shot up nearly 25 times to US$27.2 billion. China and India both made the top 10 list in terms of the value of M&As by country on the acquiring side. Among other emerging countries, Brazil raised its presence, with M&As by Brazilian companies zooming 141.9% to US$11.0 billion. Major deals included the acquisition of the African operations of the Zain Group, Kuwait's cell phone operator, by major Indian cell phone company Balti Airtel Ltd. for US$10.7 billion and major Chinese state-owned petrochemical company Sinopec Group's purchase of the Brazilian operations from Repsol YPF, Spain's major oil company, for US$7.1 billion.

Comparison of M&A trends by region between the periods of 2001-2005 and 2006-2010 clearly shows the animated M&A activity by regions other than Europe and North America (see Figure I-43). Middle East and African countries, backed by the abundance of oil money, and countries in the Asia-Pacific region and Central Asia, powered by remarkable economic growth, are stepping up M&As in developed countries in Europe and North America.[Note 10] For example, direct investment from the Middle East and Africa included a Qatari sovereign wealth fund's investment of US$9.6 billion in major German automaker Volkswagen in 2009, and among major M&As by Asia, Shining Prospect Pte. Ltd., a subsidiary of Aluminum Corporation of China (Chinalco), invested US$14.3 billion in major British resources concern Rio Tinto PLC in 2008. In 2010, the value of M&As by companies of the Asia-Pacific region and Central Asia accounted for more than 20% of the global total for the first time ever.

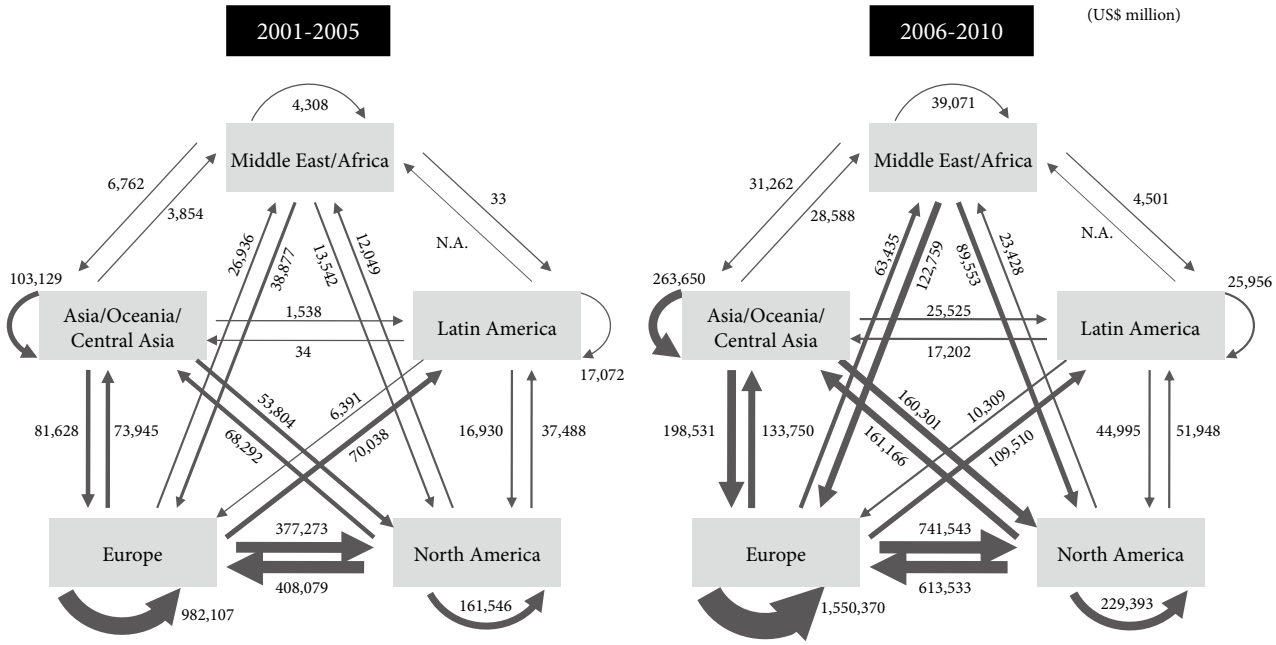
Surging resources prices affecting M&As

Looking at M&As in 2010 by industry of acquired companies, many major industries saw more M&As than in 2009. The oil and gas industry had the largest value of M&As, which rose 36.4% year on year to US$71.6 billion. M&A activity in the industry turned very animated as soaring prices of natural resources accelerated moves among companies to secure profits. The oil and gas industry accounted for 10.9% of the overall M&A value in 2010, getting back to the top slot in M&As by industry for the first time in five years since 2005. Among individual deals, investment by China's Sinopec was the largest. In 2011, Ensco PLC, a major offshore drilling service concern of UK, acquired Price International Inc. of the United States in a major M&A deal (see Figure I-44). Soaring resources prices also helped boost investment in the mining industry. Investment in the industry expanded 86.6% to US$53.7 billion, including many M&As involving stock swaps. Stock swaps accounted for over 20% of M&As in the mining industry, while the ratio of stock swaps to the total value of M&As in 2010 stood only at 9.5%.

In the electricity, gas and water supply industry, where the reorganization of electric power companies within the EU accelerated M&A activity in 2009, the gross value of M&As in 2010 saw a reactionary sharp fall of 56.8% to US$34.3 billion, with the industry's share in the total value of global M&As slipping from 15.4% in 2009 to 5.2%. By contrast, M&As in the food and tobacco industry expanded 111.3% to US$53.9 billion, increasing the share from 4.9% to 8.2%. The largest M&A deal in the industry was the acquisition of Cadbury PLC of UK by Kraft Foods Inc. of the United States, followed by the US$7.3 billion purchase of

[10] The African share in direct investment by the Middle East and Africa in Europe and North America in 2006-2010 was 20.8% and 2.7%, respectively, bringing the low level of Africa's direct investment in North America into sharp relief.

Figure I – 43 Trends of M&As by region



Note: Nonpublic figures are noted as N.A.
Source: Thomson Reuters.

the beer operations of major Mexican beverage concern FEMSA by major Dutch beer brewer Heineken.

China introduced the security review system for M&As

Large-scale M&As associated with industry reorganization transform the competitive environment. Major countries/regions adopted new policies on M&A activity and also moved for the strict application of existing laws and regulations to M&A deals.

Japan's policy is moving in the direction of encouraging corporate realignment. The Japan Fair Trade Commission (JFTC) in March 2011 officially announced a draft plan to amend the business combination review regulations, including the key proposal to abolish the informal prior consultation system. The new rules integrate the combination review procedures into the statutory review and enhance the procedural transparency. This frees companies involved from the repeated submissions of documents and materials required under the prior consultation system, making it easier for them to get a reasonable idea about the review period needed, which is expected to be shortened. The amendment apparently reflects the JFTC's stance of giving priority to helping strengthen the international competitiveness of Japanese companies.

Other countries moved to develop new policies from the perspective of consumers and also introduced security-oriented legal systems.

In the United States, the Department of Justice (DOJ) and the Federal Trade Commission (FTC) in August 2010 jointly announced the guidelines for horizontal mergers under federal antitrust laws. The new guidelines, which represent the revised version of the 1992 guidelines, are one of the Obama administration's moves to strengthen competition laws in response to criticism that the preceding Bush administration was less than strict in the enforcement of antitrust laws. The key points in the new guidelines include an analysis of the anticompetitive effects of mergers between competing firms using various methods, including a variety of economic analyses, and the collection of information not only on directly affected markets and industries but also on surrounding markets and industries from the standpoint of attaching importance to empirical rules and results-oriented evidence. While the new guidelines are expected to have the effect of deterring mergers that could lessen competition, there are also concerns that the tougher screening of mergers would impose heavier administrative work loads on companies involved.

Cases of the strict application of competition laws were evident in Europe as well. In January 2011, the European Commission decided not to approve the merger between Aegean Airlines and Olympic Air of Greece, concluding that the merger would hamper competition in the country's market for domestic flights and disadvantage the consumer. Since the Commission tends to approve of corporate acquisitions and mergers by attaching some conditions if they raise concerns over possible competition law violations, its decision on the airline merger came as the first case of prohibition since 2007. In the case of the acquisition of major British electric power firm International Power PLC (IP) by major French energy company GDF Suez S.A., the European Commission required IP's divestment of its shareholding in T-Power, its thermal power plant, out of concern over competition law violations within the EU. In order to obtain the Commission's approval, IP sold over one-third of its shareholding in T-Power to Itochu Corp. of Japan.

On February 12, 2011, China's State Council announced

Figure I – 44 10 largest M&As by major industry (2010 and January-June 2011)

	Month/Year of M&A completion	Acquiring company	Country	Target company	Country	Value (US$ million)	Ownership % after transaction
Oil and gas	May-11	Ensco PLC	UK	Pride International Inc	U.S.	8,685	100.0
	December-10	Sinopec Group	China	Repsol YPF Brasil SA	Brazil	7,111	40.0
	May-10	Investor Group	India	Republic of Venezuela-Carabobo	Venezuela	4,848	40.0
	March-11	BHP Billiton Ltd	Australia	Chesapeake Energy Corp-Asts	U.S.	4,750	100.0
	July-10	Royal Dutch Shell PLC	Netherlands	East Resources Inc	U.S.	4,700	100.0
	June-10	Sinopec Intl	China	Syncrude Canada Ltd	Canada	4,650	9.0
	April-11	Total SA	France	Novatek	Russia	4,000	12.1
	October-10	Apache Corp	U.S.	BP PLC-Wstn Canadian Upstream	Canada	3,250	100.0
	May-10	CNOOC Ltd	China	Bridas Corp	Argentina	3,100	50.0
	April-11	Sinochem Group	China	Peregrino Project,Campos Basin	Brazil	3,070	40.0
Telecommunications	April-11	VimpelCom Ltd	Netherlands	Weather Investments Srl	Italy	22,382	100.0
	June-10	Bharti Airtel Ltd	India	Zain Africa BV	Nigeria	10,700	100.0
	September-10	Telefonica SA	Spain	Brasilcel NV	Brazil	9,743	100.0
	April-10	Orange PLC	France	T-Mobile(UK)Ltd	UK	8,496	100.0
	April-10	Vimpelkom	Russia	Kyivstar GSM	Ukraine	5,589	100.0
	June-11	Telecommunicacoes de Sao Paulo	Spain	Vivo Participacoes SA	Brazil	5,524	100.0
	January-10	Orange Participations SA	France	Egyptian Co for Mobile Svcs	Egypt	5,207	51.0
	October-10	CVC Capital Partners Ltd	UK	Sunrise Communications AG	Switzerland	3,269	100.0
	January-11	Deutsche Telekom AG	Germany	Polska Telefonia Cyfrowa Sp	Poland	2,777	100.0
	March-11	Portugal Telecom SGPS SA	Portugal	LF Tel SA	Brazil	2,656	35.0
Mining	August-10	Newcrest Mining Ltd	Australia	Lihir Gold Ltd	Papula New Guinea	8,578	100.0
	June-11	Barrick Canada Inc	Canada	Equinox Minerals Ltd	Australia	7,460	100.0
	February-11	Norsk Hydro ASA	Norway	Vale SA-Aluminum Operations	Brazil	4,948	100.0
	May-11	Cliffs Natural Resources Inc	U.S.	Consolidated Thompson Iron	Canada	4,340	100.0
	April-11	Rio Tinto PLC	UK	Riversdale Mining Ltd	Australia	3,661	100.0
	December-10	Goldcorp Inc	Canada	Andean Resources Ltd	U.S.	3,311	100.0
	April-11	Walter Energy Inc	U.S.	Western Coal Corp	Canada	2,889	100.0
	December-10	All Glorious Ltd	China	Album Resources Pte Ltd	Australia	2,818	100.0
	August-10	Adani Mining Pty Ltd	India	Linc Energy-Galilee Basin Coal	Australia	2,740	100.0
	April-10	Vale SA	Brazil	BSG Resources Guinea Ltd	Guernsey (UK)	2,500	51.0
Electricity, gas, water	February-11	International Power PLC	France	GDF Suez Energy Europe	Belgium	25,056	100.0
	October-10	Investor Group	Hong Kong	EDF Energy-UK Power Distn Bus	UK	9,056	100.0
	April-11	PPL Corp	U.S.	Central Networks PLC	UK	6,505	100.0
	April-11	Iberdrola Energia do Brasil	Spain	Elektro Eletricidade e Servico	Brazil	2,897	100.0
	February-10	TenneT Holding BV	Netherlands	transpower stromuebertragungs	Germany	1,649	100.0
	March-10	China Investment Corp{CIC}	China	AES Corp	U.S.	1,581	15.8
	December-10	Electricity Supply Board	Ireland	Northern Ireland Electricity	UK	1,566	100.0
	February-10	TenneT Holding BV	Netherlands	E.ON AG-High Voltage Network	Germany	1,490	100.0
	June-10	MT Falcon Hldg Co SAPI de CV	Japan	Gas Natural-Combined Cycle Pow	Mexico	1,465	76.0
	March-11	TRUenergy Pty Ltd	Hong Kong	EnergyAustralia Pty Ltd-Retail	Australia	1,459	100.0
Pharmaceuticals	April-11	Sanofi-Aventis SA	France	Genzyme Corp	U.S.	20,856	100.0
	February-10	Abbott Laboratories	U.S.	Solvay Pharmaceuticals SA	Belgium	7,603	100.0
	August-10	Teva Pharmaceutical Industries	Israel	Ratiopharm International GmbH	Germany	4,931	100.0
	June-11	Grifols SA	Spain	Talecris Biotherapeutics Hldg	U.S.	4,016	100.0
	June-10	Ruby Acquisition Inc	Japan	OSI Pharmaceuticals Inc	U.S.	3,838	100.0
	September-10	Abbott Laboratories	U.S.	Piramal Healthcare Ltd-	India	3,713	100.0
	February-10	Sanofi-Aventis SA	France	Chattem Inc	U.S.	2,107	100.0
	June-10	Cinven Ltd	UK	Sebia SA	France	1,094	-
	February-11	Greenback Acquisition Corp	Netherlands	Martek Biosciences Corp	U.S.	996	100.0
	April-11	Daiichi Sankyo Co Ltd	Japan	Plexxikon Inc	U.S.	935	100.0

Notes: (1) Deals completed in 2010-June 2011.
(2) Abbreviated names are used for some companies.
Source: Thomson Reuters.

the "Notice of the General Office of the State Council on Launching the Security Review System for Mergers and Acquisitions of Domestic Enterprises by Foreign Investors." The system is designed to review if there are any national security problems in mergers and acquisitions of Chinese companies by foreign companies, including those from Hong Kong, Macao and Taiwan. The review system also covers acquisitions of Chinese companies producing agricultural products and providing transportation services. The Notice defines the scope of security review as cases where "foreign investors might acquire the actual controlling right" in "M&As of military industrial enterprises or military industry related supporting enterprises, enterprises located near key and sensitive military facilities, and other entities relating to national defense; foreign investors' M&As of key domestic enterprises in areas such as agriculture, energy and resources, infrastructure, transport, technology, assembly manufacturing, etc." While the Notice cites key industries, it does not specify all the industries to be covered by the security review, leaving some uncertainties about the system's enforcement. In recent years, there are an increasing number of cases where Japanese companies invest in Chinese companies in their efforts to expand sales in the Chinese market. Therefore, there are many Japanese companies that are concerned about the impact of the security review system introduced by China. Tougher investment regulations and strict law enforcement may constrain business expansions by Japanese companies bent on catering to demand on overseas markets.

M&As increase in the first half of 2011

Global M&As turned up in 2010, and maintained the increasing trend in the first half of 2011 as well, rising 42.6% year on year to US$428.9 billion. There were several super mega deals in excess of US$20 billion in such sectors as public utility services, telecommunication and pharmaceuticals.

By country, acquisitions of U.S. companies increased 100.1% to US$96.7 billion, accounting for the largest portion of the global M&A value and involving companies in a variety of industries, including pharmaceuticals, finance, and oil and gas. M&As in emerging countries remained generally robust, with deals in Brazil, India and China posting increases over the first half of 2010. By country of acquiring companies, the United States also came out as the largest M&A investor.

With uncertainties looming over the future of the world economy, M&A activity is unlikely to increase substantially going forward. Yet, there may be some room for more M&As as both companies becoming selective in their business operations and governments pressured by swelling fiscal deficits are expected to proceed with the sell-off of more of their asset holdings.

(3) Japan's outward FDI showing recovery

Japan's outward FDI (net flows based on the balance of payments) in 2010 declined 23.3% year on year to US$57.2 billion for the second consecutive drop (see Figure I-45). The decline is attributable mainly to the continued contraction of reinvested earnings due to deteriorating profitability of overseas subsidiaries, as in 2009, and the lack of capital increases via special purpose entities (SPEs) seen in 2008 and 2009.

In a gross outflow of assets that represents overseas advances by Japanese companies, credit of reinvested earnings turned to negative in September 2009 for the first time in 109 months and remained until August 2010.(Note 11) Though reinvested earnings moved back to positive in September 2010, reflecting a recovery in corporate earnings, they decreased to US$2.0 billion for the full year, just one-sixth of the previous year's US$12.2 billion. With equity capital dropping by 12.2% to US$72.3 billion and other capital by 21.5% to US$62.5 billion, the total outflow declined by US$37.3 billion to US$136.7 billion. A gross inflow of assets, which represents withdrawals of Japanese companies from overseas markets, fell by 19.9 billion from 2009 to US$79.5 billion, roughly matching the 2008 level, as both equity capital and other capital decreased by 29.6% to US$17.6 billion and by 16.8% to US$62.0 billion, respectively.

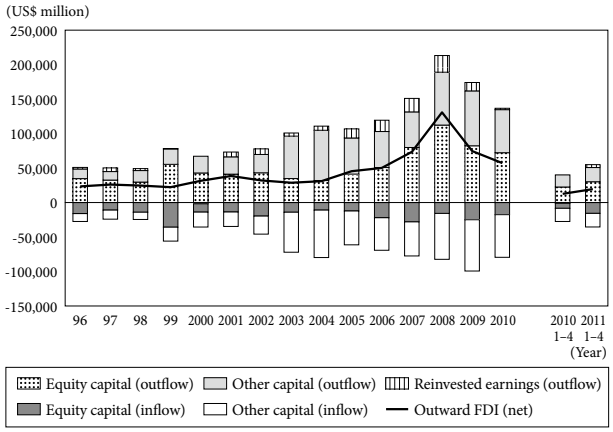
On a quarterly basis, Japan's outward FDI in the fourth quarter of 2010 posted the first year-on-year rise in five quarters, thanks in part to a recovery of reinvested earnings, and rose 0.9% in the first quarter of 2011. Reflecting a large-scale investment in the United States in April, outward FDI for January-April 2011 expanded 51.1% year on year to US$19.0 billion.

Increased investment in Asia

By country/region, Japan's outward FDI in Asia in 2010 rose 7.2% year on year to US$22.1 billion. But outward FDI in all other regions declined across the board, including Latin America (down 69.3% to US$5.3 billion), North America (down 17.2% to US$9.0 billion), Europe (down 15.6% to US$15.0 billion), and Oceania (down 16.0% to US$6.4 billion) (Figure I-46).

In Asia, the only major region to receive increased investment, FDI in Singapore continued robust, rising 33.5% to US$3.8 billion. Investment in the food sector registered a sharp increase of US$1.4 billion primarily because of a US$1.0 billion investment made by Kirin Holdings Co. Ltd in Fraser & Neave Ltd (based in Singapore), the top bever-

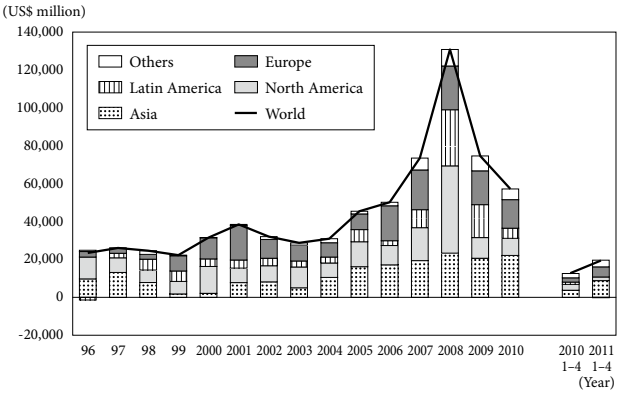
Figure I – 45 Trends of Japan's outward FDI by type



Note: The yen-based value is converted to dollars by quarter, using the average quarterly Bank of Japan interbank rate, and the annual sum is then calculated.

Source: "Balance of Payments Statistics" (Ministry of Finance and Bank of Japan).

Figure I – 46 Trends of Japan's outward FDI by region (net)



Note: The yen-based value is converted to dollars by quarter, using the average quarterly Bank of Japan interbank rate, and the annual sum is then calculated.

Source: "Balance of Payments Statistics" (Ministry of Finance and Bank of Japan).

[11] As for reinvested earnings in the balance of payments statistics, one-twelfth of increases/decreases in retained earnings of overseas subsidiaries are accounted for about six months after the closing of the accounting year of parent companies. As there are many parent companies that close the accounting year at the end of March, reinvested earnings, in many cases, are accounted for in statistics in or after September of the same accounting year.

age business operator in Singapore and Malaysia. Investment in China, the largest recipient of Japanese FDI in Asia, increased up 5.1% to US$7.3 billion, setting a record high for two straight years. Among manufacturing industries, investment in transportation equipment and general machinery remained robust with US$1.0 billion each, and investment in wholesale/retail and finance/insurance sectors was also firm. Investment in India dropped 21.9% to US$2.9 billion for the second consecutive contraction. Though there were no large-scale M&As or large equity participation as seen in 2008 and 2009, some sectors show sharp rises in investment, including major steelmaker JFE Steel Corp.'s US$1.0 billion investment in JSW Steel Ltd. in an effort to build a business foothold in emerging countries.

In North America, Japan's outward FDI in the United States decreased for the second consecutive year, falling 13.8% to 9.2 billion. Affected by lower reinvested earnings amid deteriorating profitability, investment in transportation equipment posted the second consecutive net withdrawal of US$6.1 billion, and investment in the wholesale/retail sector also marked net withdrawal of US$1.2 billion. On the other hand, investment in the chemicals and pharmaceuticals sector amounted to US$5.9 billion due to large-scale M&As for business expansion in the United States, including Astellas Pharma Inc.'s acquisition of OSI Pharmaceuticals, Inc. for US$3.8 billion and the purchase of Bare Escentuals, Inc. by Shiseido Co. for a total of US$1.8 billion. Investment in the telecommunication sector also amounted to US$6.1 billion, including KDDI Corp.'s acquisition of equity stakes in Jupiter Telecommunications Co. held by a group of companies under the aegis of major U.S. media concern Liberty Global Inc. for US$4.0 billion. These investments offset the decreases in investment in transportation equipment and other sectors.

The sharp decline in Japan's outward FDI in Latin America was largely affected by the absence of Japanese banks' large-scale acquisitions of participation certificates issued by SPEs in the Cayman Islands seen until 2009.(Note 12) Investment in the Cayman Islands amounted to US$12.9 billion, making it the largest recipient of Japan's outward FDI. In 2010, however, investment in the Cayman Islands turned to net withdrawal of US$1.8 billion, becoming the biggest factor behind the contraction of Japan's outward FDI in the year. But investment in Brazil posted a steady increase of 15.0% to US$4.3 billion due to big rises in investment in the mining and finance/insurance sectors. Contributing to the smooth growth was Sumitomo Corp.'s purchase of iron ore mining stake, worth US$1.9 billion, from major steelmaker Mineracao Usiminas.

The impact of deteriorating profitability was apparent in Europe as well. After turning in a strong performance in 2009, investment in the Netherlands fell by a steep 50.9% to US$3.3 billion and investment in Luxembourg turned to net withdrawal of US$108 million. Investment in Germany also shifted to net withdrawal of US$321 million, suffering the first net withdrawal since 1987, the most recent year for which data is available. Investment in Britain doubled to US$4.6 billion. This apparently stems from the acquisition by Nippon Telegraph and Telephone Corp. (NTT) of Dimension Data Holdings Plc, South Africa's major ICT service company listed on the London Stock Exchange (LSE), for US$2.7 billion.

In Oceania, investment in Australia decreased 10.7% to US$6.4 billion, in reaction to a string of M&As carried out by major beverage manufacturers in 2009. But investment for the purpose of acquiring natural resources-related interests remained firm, with investment in the mining sector increasing 62.2% to US$4.2 billion. Sumitomo Chemical Co. Ltd's US$546 million investment in major farm chemicals manufacturer Nufarm Ltd lifted investment in the chemicals and pharmaceuticals sector by about 25 times to US$662 million.

Deteriorating profitability adversely affected investment in the manufacturing sector

By industry sector, Japan's outward FDI in the manufacturing sector in 2010 plunged 45.9% to US$17.8 billion and FDI in the non-manufacturing sector dipped 5.5% to US$39.4 billion. Investment in the manufacturing sector marked the lowest level since 2005, the most recent year for which sector-by-sector data is available.

The biggest reason for the sluggish investment in the manufacturing sector in 2010 is that investment in the transportation equipment industry turned to net withdrawal of US$3.6 billion following the previous year's sharp decline. In the United States, transportation equipment-related investment registered net withdrawals for six straight quarters from the third quarter of 2009 due to poor earnings, suffering net withdrawal of US$6.1 billion for the whole of 2010. In contrast, investment in the transportation equipment in Asia rose 17.6% to US$2.8 billion, reflecting increases in Thailand and Malaysia. Investment in the foodstuff industry plummeted 77.5% to US$2.0 billion in 2010, in reaction to the massive expansion of investment in 2009 due to large-scale M&A deals by major beverage manufacturers. Investment in the chemicals and pharmaceuticals industry, meanwhile, stayed at a high level, rising 6.7% to US$7.9 billion, thanks to the growth of investment in the United States, including the high-value acquisitions by Astellas Pharma and Shiseido as mentioned above. Investment in the general machinery and steel/nonferrous Iron/non-ferrous/metals industries came to US$4.4 billion and US$3.9 billion, respectively, maintaining the previous year's levels on the back of large-scale M&A deals.

In the non-manufacturing sector, investment in the finance/insurance sector declined 26.3% to US$11.4 billion, but recorded the largest amount by industry for the fourth straight year. Though there were no large-scale capital increases by Japanese financial institutions via SPEs in the Cayman Islands as seen in the previous year, investment in other tax havens rose sharply. Investment in the commu-

[12] Purchases by Japanese securities firms of particiation certificates issued by special purpose entities (SPEs) established by Japanese financial institutions in the Cayman Islands, etc., are accounted for as Japan's outward direct investment in countries/regions where SPEs are set up.

nications industry grew 2.5 times to US$9.9 billion, thanks to KDDI's acquisition of the Jupiter Telecommunications stake and NTT's acquisition of the South African company. Investment in the mining industry also increased 39.8% to US$9.1 billion, as moves to secure natural resources continued strong, including Sumitomo Corp.'s purchase of iron ore mining stake in Brazil, acquisitions of coal mine stake in Australia by JFE Steel, and Nippon Steel Corp. Nonferrous metal makers, Toho Zinc Co.'s US$218 million dollar effort to turn CBH Resources Ltd. of Australia into a wholly owned subsidiary.

Japanese companies' outward M&As show a sharp rise in 2010

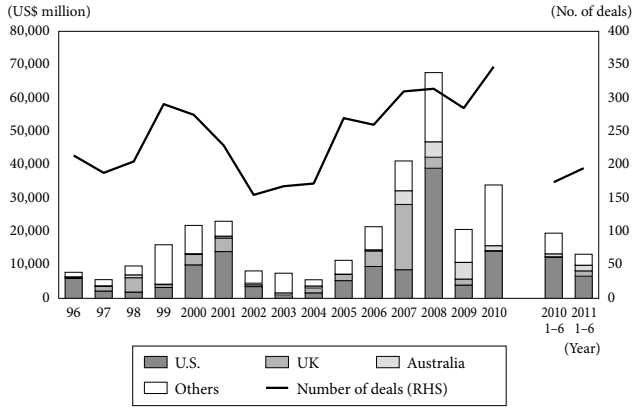
The value of outward M&As by Japanese companies in 2010 rose by a sharp 64.5% to US$34.0 billion [Note 13] (see Figure I-47). Overseas M&As by Japanese companies in 2009 slumped, as did cross-border M&As around the world, but staged a comeback in 2010. The number of deals continued to follow a moderate uptrend since 2005, and that number in 2010 reached 347, the second largest after a record 427 deals made in 1990.

Outward M&As in January-June 2011 amounted to US$13.2 billion. While the amount is lower than the year-before level of US$19.5 billion, M&As concluded in the first half of 2011 include such large-scale deals as Terumo Corp.'s purchase of CaridianBCT Holding Corp., a major U.S. blood-transfusion service provider, for US$2.6 billion, NTT Data Corp.'s US$1.3 billion acquisition of U.S. IT service concern Keane International, Inc. and Dai-ichi Life Insurance Co.'s US$1.2 billion initiative to turn Australian insurer TOWER Australia Group Ltd. into a wholly owned subsidiary. The number of M&A transactions, at 195, came close to the half-year peak of 200 deals in 1990, an indication of Japanese companies' proactive interest in M&As (see Figure I-48).

Looking at Japan's outward M&As by nationality of acquired companies, the value of M&As was the largest for U.S. companies, expanding 3.6 times to US$14.2 billion in 2010. The United States was followed by South Africa with US$2.7 billion, Brazil with US$2.0 billion and India with US$1.7 billion, in that order, with the M&A values all pushed up by the consummation of large-scale deals. In contrast, M&As of Australian companies, which kept renewing the record amount in the past three years, plunged by 70.5% to US$1.5 billion in 2010, slipping to fifth place from the previous year's top slot.

By industry, M&As in pharmaceuticals scored the largest amount of US$4.1 billion, up 28.4% year on year, followed by computer-related services and other business services with US$4.0 billion for a tenfold jump, and

Figure I – 47 Trends of value and number of deals of Japan's outward M&As



Source: Thomson Reuters.

mining with US$3.8 billion, an increase of nine times, all industries where higher-ranking M&As in terms of value took place.

In the pharmaceuticals industry, patents on bread-and-butter products that have underpinned the growth of major manufacturers are expiring around 2010 one after another. Faced with "the year 2010 problem," pharmaceutical companies find it urgent to acquire profit-yielding areas of business, but the development of new drugs that can make up for revenues generated by widely-used patented products requires a lot of time and money. Accordingly, major pharmaceutical manufacturers are proactively pursuing strategies to acquire venture firms that have already succeeded in developing new drugs and turn them into the new pillars of earnings. Astellas Pharma's acquisition of OSI Pharmaceuticals has completed an expected round of large-scale M&As by major pharmaceutical companies. Quasi-major and middle-standing drug makers, such as Dainippon Sumitomo Pharma Co. and Hisamitsu Pharmaceutical Co., have been also on the hunt for M&A targets since 2009.

M&As in the pharmaceutical industry have two distinctive objectives. One is the reinforcement of cancer-related drugs, regarded as the most critical area. M&A deals concluded by Eisai Co. (MGI Pharma, Inc. of the United States) and Takeda Pharmaceutical Co. (Millennium Pharmaceuticals, Inc. of the United States) in 2008 and by Astellas Pharma in 2010 (OSI Pharmaceuticals) all involved the acquisitions of companies with strong track records in the cancer field.

Another objective is the cultivation of emerging markets. According to the IMS Institute for Healthcare Informatics, a U.S. research firm, while the growth of the world's pharmaceuticals market in 2011-2015 is estimated at 3-6%, the pharmaceuticals markets in emerging countries can be expected to see the much stronger growth of 13-16%.[Note 14] The size of emerging markets is expected to grow from US$150.5 billion in 2010 to US$300.0 billion in 2015, rank-

[13] Because of data constraints, the amount includes the US$4.0 billion transaction in which a group of subsidiaries of major U.S. media concern Liberty Global Inc. sold their stakes in Jupiter Telecommunications Co., Ltd, a major cable TV operator in Japan to KDDI Corp. Since the transaction actually involves an equity investment in a company in Japan, precisely speaking, it is not considered to be an outward M&A deal.

[14] IMS Institute for Healthcare Informatics, "The Global Use of Medicines: Outlook Through 2015" (May 2011). The emerging markets referred to in this report are 17 countries, including China, Brazil, India and Russia.

Figure I – 48 Japan's top 10 outward M&A transactions (2010-June 2011)

Month/Year of M&A completion	Acquiring company		Target company			Value (US$ million)	Ownership % after transaction
		Industry		Country	Industry		
June-10	Astellas Pharma Inc.	Pharmaceuticals	OSI Pharmaceuticals Inc.	U.S.	Pharmaceuticals	3,838	100.0
December-10	NTT	Telecommunications	Dimension Data Holdings	South Africa	Business services (computer related)	2,730	100.0
April-11	Terumo	Healthcare Equipment	CaridianBCT Inc.	U.S.	Healthcare Equipment	2,625	100.0
December-10	Sumitomo Corporation	Trading	Mineracao Usiminas	Brazil	Mining	1,930	30.0
March-10	Shiseido Co Ltd	Soap and cosmetics products	Bare Escentuals Inc.	U.S.	Soap and cosmetics products	1,522	86.9
May-10	Mitsui Oil Exploration Co.,Ltd.	Oil and natural gas	Anadarko Petro Corp-Shale Assets (2)	U.S.	Oil and natural gas	1,500	32.5
June-10	Mitsui & Co./ Tokyo Gas & Co., Ltd	-	Natural Gas Thermal Power Plant of Gas Natural (Spain) (3)	Mexico	Electric, gas and water distri-bution	1,465	76.0
January-11	NTT DATA	Telecommunications	Keane International Inc	U.S.	Business services (computer related)	1,368	100.0
May-11	Dai-ichi Life Insurance	Insurance	Tower Australia Group	Australia	Insurance	1,203	100.0
June-11	Itochu	Trading	Kwik Fit Ltd	U.K.	Retail sales (tires)	1,040	-

Notes: (1) Rankings are based on the amount of single transaction.
(2) Acquired a 32.5% stake in Anadarko Petroleum's shale gas project in Marcellus Shale Area, PA. (Shale gas refers to natural gas contained in mudstone, an unconventional natural gas.)
(3) Five natural gas thermal power companies and natural gas pipeline companies.
(4) The transaction wherein KDDI acquired (for US$4 billion) from a subsidiary group of Liberty Global (U.S.) shares of Jupiter Telecom (J:com), a major cable TV provider, is regarded as an investment in a domestic company, and hence is excluded.
Source: Thomson Reuters.

ing with the world's largest U.S. market. However, the presence of Japanese pharmaceutical companies still remains mediocre in emerging countries where demand is strong for generic drugs and vaccines.

Daiichi Sankyo Co., Ltd. was among the first to enter the emerging markets. In 2008, Daiichi Sankyo acquired Ranbaxy Laboratories Ltd., the largest Indian pharmaceuticals manufacturer, to gain a foothold in the Indian market and also took control of its sales channels in Eastern Europe and Africa, where Ranbaxy has a strong presence. In 2009, the company commenced the sale of Daiichi Sankyo products in Romania and South Africa through Ranbaxy, and began to launch mainstay products on these markets in 2010.

Moves to cultivate the emerging markets through M&As are spreading in 2011. Daiichi Sankyo purchased U.S. biotech venture Plexxikon Inc., which is strong in anticancer agents, for US$935 million in April, and Takeda Pharmaceutical also announced in May that it will purchase major Swiss pharmaceuticals firm Nycomed International Management GmbH for over 1 trillion yen. With Nycomed already making active inroads into emerging countries such as Russia, East European countries and Brazil, the acquisition should help Takeda Pharmaceutical, Japan's top drug maker, make a full-fledged entry into emerging countries.

M&As broadening into various industries

Not limited to the pharmaceutical industry, the "cultivation of emerging markets" has become the keyword for M&As in a wide array of industries. The number of M&A deals is increasing in regions with many emerging countries, particularly in Asia (see Figure I-49). In the beverage industry, a string of M&As was carried out by major beverage manufacturers in Asia and Oceania in 2009, and the trend is continuing from 2010 onward. They are continuing efforts to expand their business bases in Asia, with Kirin Holdings, on top of its acquisition of Fraser & Neave of Singapore, making major Vietnamese soft drink producer Interfood Shareholding Co. its subsidiary with an undisclosed amount of investment, and Asahi Breweries, Ltd. making an investment of US$500 million in Ting Hsin Group, China's largest food distributor.

The proactive forays into the emerging market by pharmaceutical companies and beverage manufacturers is being fueled by the expectation that domestic demand in Japan is less likely to expand significantly in the future. Over-

Figure I – 49 Number of outward FDI by Japanese companies (by country of target company)

(No. of deals)

	2007	2008	2009	2010	2011 (January-June)
Total	310	314	285	347	195
U.S.	91	109	72	87	37
EU15	10	-	7	9	3
Asia	75	79	86	129	81
China	12	13	13	31	12
Singapore	15	7	5	10	7
Thailand	8	9	10	10	13
Malaysia	9	3	5	10	5
Indonesia	7	-	6	5	10
Philippines	3	5	5	4	-
Vietnam	4	5	7	10	7
India	7	11	12	17	8
South and Central America	11	9	13	14	3
Brazil	7	6	5	5	3
Middle East/Africa	1	3	-	5	5
South Africa	-	3	-	3	3
Russia/Eeastern Europe	4	-	10	4	2
Russia	3	-	10	-	1

Note: Only completed M&A deals accounted for in the month of the year of completion.
Source: Thomson Reuters.

seas advances by companies in domestic demand-oriented industries became noticeable from around 2009, and the scope of aspiring industries is beginning to broaden in 2011, including services industries such as retail, food service and transportation. For example, Yamato Holdings Co., Japan's top door-to-door parcel delivery service, faced with the slowing growth of the number of parcels delivered in Japan, commenced the parcel delivery service in China and other Asian countries in 2010, striving to cultivate demand for the Japanese way of fine-tuned delivery services mainly among wealthy people.

Another characteristic of recent M&As by Japanese companies is that they are showing signs of spreading to such regions as India, Russia, Eastern Europe and Latin America. China has the largest number of M&As by Japanese companies among emerging countries, but M&As by Japanese firms are gradually increasing in other emerging countries/regions. For example, Rakuten, Inc., a major Internet-based shopping mall operator, which has already advanced into the Chinese market, acquired a Brazilian company as the next move to enter the emerging markets (see Figure I-50).

In addition, some Japanese companies are purchasing foreign firms because of their strong business bases in emerging countries. NTT's acquisition of the South African company was prompted by the acquired entity's network of businesses in over 50 countries. Takeda Pharmaceutical's acquisition of the Swiss drug maker also represented a strategic move for its advance into emerging countries. In a move to expand global business bases, NTT Data purchased Italian information system concern Value Team S.p.A. for US$340 million in June 2011, considering the Italian firm's business bases in such countries as Turkey, Brazil and Argentina as valuable.

These M&As of foreign companies with well-established business networks often involve targets that are already large companies requiring hefty acquisition costs. NTT's acquisition of the South African firm was the second largest M&A transaction in value in 2010. Takeda Pharmaceutical's planned purchase of Nycomed of Switzerland is expected to become the second most expensive acquisition of a foreign business by a Japanese company, next only to the acquisition of major British tobacco maker Gallaher Tobacco Ltd. by Japan Tobacco, Inc. (JT) for US$18.8 billion in 2007.

(4) Asian countries active in inward FDI in Japan

Inward FDI in Japan (net flows based on the balance of payments) in 2010 fell steeply for the second consecutive year, showing a net outflow of US$1.4 billion. Gross inflow of capital rose 59.4% to the third largest record of US$59.4 billion, but the outflow of capital was larger. The negative growth in 2010 was chiefly attributable to a large-scale

Figure I – 50 Examples of overseas expansion of Japanese companies in emerging countries (since 2010)

Industry	Target country	Overview
Food services	China, India, Thailand, etc.	The soba and udon noodle chain, Kazokutei, established joint venture companies first in China and then subsequently in India and Thailand. The company plans to extend overseas business centered on Asia through franchise outlets. In 2010 opened two soba and udon restaurants in Shanghai, China, one in Singapore and four in Thailand, and has a plan to set up a business in India in 2011. Is also considering an extension into Russia, Vietnam, Indonesia, Canada and Australia.
Transport	China, Hong Kong, Singapore, Malaysia	The major small parcel delivery service, Yamato Holdings, bought a 65% stake of a Chinese government related logistics company, Shanghai Bus Logistics, for US$37.0 million, and began parcel delivery service in January 2010. Aims to capture demand from wealthy consumers in conjunction with the growth in online shopping. Has already started services in Singapore and Hong Kong and has plans for starting in Malaysia as well in the second half of 2011.
Retail	China	Yamada Denki, a major home appliances retailer, opened its first overseas store in Shenyang, China in December 2010 and China's second outlet in Tianjin in June 2011. Aims to differentiate itself from Chinese mass retailers by Japanese-style retail service characterized by separate sales areas for each type of product. Plans to open five stores in China within three years and launching online sales covering whole China by the end of 2011.
Insurance	Malaysia	Mitsui Sumitomo Insurance concluded a capital tie-up agreement with Malaysia's major financial group Hong Leong and invested US$300 million in the Malaysian company. Hong Leong's nonlife insurance business was integrated into Mitsui Sumitomo Insurance's Malaysian subsidiary, with Hong Leong focusing on life insurance business (October 2010).
Industrial gas	India	Taiyo Nippon Sanso, Japan's largest industrial gases supplier, acquired the Indian industrial gases company, K-Air India Gases (acquisition value not disclosed). Plans to start producing industrial gas in 2012. This is the first case of a Japanese industrial gas manufacturer starting business in India (March 2010) .
Ceramics	India	Krosaki Harima, a refractory manufacturer, acquired for US$100 million shares in India's largest refractory manufacturer, Tata Refractory. Krosaki has been exporting products from its manufacturing site in China but with the growth of the Indian market moved to establish a production base. Aims to expand sales to neighborhood regions including the Middle East (May 2011).
Insurance	Turkey	Sompo Japan Insurance Inc. acquired the mid-size Turkish non-life insurance company Fiba Sigorta for US$343 million. Turkey is seen as an up-and-coming market next to BRICs (November 2010).
Foodstuffs	Russia	Sanyo Foods acquired a 49.99% stake (acquisition value not disclosed) in KL Sanyo Foods (headquarters in Cyprus), the holding company for Russia's third ranking instant noodle manufacturer, King Lion Group. Ultimately looking into local sales of "Sapporo Ichiban" and other brands (April 2011).
Foodstuffs	Poland	Lotte Holdings (the holding company for the confections Lotte) acquired a Polish chocolate maker Wedel from Kraft Foods of the U.S. (acquisition value not disclosed). In addition to securing a foothold for entering the markets of Middle and Eastern Europe, aim is to strengthen overall European business (September 2010).
Chemicals (fragrance)	Brazil	Takasago International bought from Givaudan, the largest Swiss fragrance manufacturer, a flavor and fragrance plant in Brazil for US$10 million. Together with existing plants, this strengthens the company's manufacturing base for Central and South America. Plans to export to neighboring countries as well (July 2010).
Online sales	Brazil	Rakuten bought a stake (75% of outstanding shares, acquisition value not disclosed) in Ikeda, a leading Brazilian electronic commerce servicing company. Aims to startup a virtual shopping mall business some time in 2011. With Brazil's online sales sharply growing, expansion in the market ahead of the leading U.S. and European competitors (June 2011).

Notes: Values are from Thomson Reuters. The dates shown in parentheses are the dates transactions were completed.
Sources: Thomson Reuters, company press releases and news reports.

Column I - 3

◉ Overseas divisions underpin an earnings recovery for Japanese companies

Operating income earned overseas account for over half of the total

According to JETRO's tabulation of corporate earnings overseas, based on brief notes on the settlement of consolidated accounts released by 375 listed companies whose fiscal year ended between December 2010 and March 2010, sales of overseas divisions of Japanese companies (not including exports from Japan) and their operating income accounted for 42.4% and 53.1%, respectively, of total sales and operating income, with operating income earned overseas surpassing operating income generated in Japan (see Table 1). The "Accounting Standard for Disclosures about Segments of an Enterprise and Related information" (Statement of the Accounting Standards Board of Japan (ASBJ)) and the "Guidance on the Accounting Standard for Disclosures about Segments of an Enterprise and Related information" (Guidance of the ASBJ) became applicable from the consolidated accounting years beginning on or after April 1, 2010, and this substantially narrowed down the scope of companies for tabulation. Accordingly, on a basis of 362 listed companies for which data for FY2010 can be compared with the previous accounting year's data, sales and operating income of overseas divisions accounted for 41.8% and 57.9%, respectively, of total sales and operating income in FY2009, and for 42.9% and 54.7%, respectively, in FY2010, with the ratio of operating income earned overseas showing a slight drop. This decline stems from the domestic divisions of the machinery and transportation equipment sectors swinging back into the black and the marked improvement of earnings of the domestic division of the electric equipment sector, whose operating income showed a steep year-on-year increase of 71.7% compared with a 50.6% rise in operating income of the overseas division. At any rate, these numbers clearly point to the ever-growing importance of overseas divisions for Japanese companies (see Table 2).

Earnings in Asia/Oceania regain the pre-financial crisis level

By region, sales and operating income in Asia/Oceania continued firm, rising 27.0% and 43.5%, respectively. Operating income earned in Asia/Oceania pushed up the overall operating income by 12.4%, indicating that the region is getting a firm foothold as an important source of income for Japanese companies. Out of 29 industries covered, 20 industries chalked up higher operating income or returned to profitability, with metallic products, machinery, electric equipment and transportation equipment showing marked improvement. Operating income in the Americas and Europe grew 75.3% and 143.8%, respectively, both owing chiefly to the return to profitability or large increases achieved by the transportation equipment industry. The number of industries swinging back into the black or posting growth in operating income came to 18 in the Americas and 17 in Europe, with industries in the red numbering two and one, respectively. Until FY2009, both regions eked out operating income by reducing operating expenses while sales remained stagnant. With declines in sales coming to a halt in FY2010, they managed to monetize business operations. In both regions, however, the levels of operating income have yet to return to the pre-financial crisis FY2007 levels, lagging behind Asia/Oceania (see Figure 1).

The rate of increase in operating income in this tabulation, after consolidated adjustment, stood at 67.1%, higher than 47.2% for all companies listed on the Tokyo Stock Exchange (1,551 firms for the accounting year ended in March 2011), underscoring the strong resilience of companies with overseas divisions.

Table 1 Proportion of operating income overseas of listed Japanese companies

(%)

Fiscal Year (Number of companies)	Sales share by region					
	Domestic	Overseas	Americas	Europe	Asia/ Oceania	Other
FY1997 (582)	71.4	28.6	11.3	5.4	5.8	6.1
FY1998 (593)	71.1	28.9	13.4	6.0	4.9	4.6
FY1999 (643)	72.5	27.5	12.4	5.4	5.5	4.2
FY2000 (668)	71.9	28.1	12.6	5.2	6.4	3.9
FY2001 (715)	69.7	30.3	13.7	5.5	6.7	4.4
FY2002 (728)	68.0	32.0	13.7	6.0	7.8	4.6
FY2003 (738)	67.9	32.1	12.9	6.1	8.2	4.9
FY2004 (774)	67.3	32.7	12.2	6.4	8.8	5.3
FY2005 (804)	66.1	33.9	12.5	6.3	10.1	5.0
FY2006 (832)	66.2	33.8	12.6	6.9	10.3	4.1
FY2007 (866)	63.1	36.9	13.0	8.5	12.0	3.5
FY2008 (890)	63.8	36.2	11.0	7.0	14.8	3.4
FY2009 (887)	65.0	35.0	11.1	6.9	13.3	3.7
FY2010 (375)	57.6	42.4	15.3	7.3	15.0	4.8

(%)

Fiscal Year (Number of companies)	Operating income share by region					
	Domestic	Overseas	Americas	Europe	Asia/ Oceania	Other
FY1997 (582)	76.6	23.4	9.8	3.4	4.8	5.3
FY1998 (593)	73.4	26.6	13.8	4.8	4.4	3.6
FY1999 (643)	75.0	25.0	14.1	2.1	5.0	3.7
FY2000 (668)	79.9	20.1	10.4	0.7	6.0	3.0
FY2001 (715)	76.0	24.0	12.4	0.6	6.7	4.2
FY2002 (728)	72.9	27.1	13.0	2.8	7.2	4.1
FY2003 (738)	73.3	26.7	11.1	4.3	7.5	3.7
FY2004 (774)	71.8	28.2	10.9	4.7	8.6	4.0
FY2005 (804)	70.8	29.2	10.8	4.7	10.0	3.7
FY2006 (832)	73.5	26.5	9.1	4.1	8.3	5.1
FY2007 (866)	67.1	32.9	8.7	6.8	12.2	5.2
FY2008 (890)	47.5	52.5	1.9	3.6	39.4	7.6
FY2009 (887)	56.5	43.5	9.5	3.0	23.8	7.1
FY2010 (375)	46.9	53.1	14.1	3.4	24.6	11.1

Notes: (1) Companies covered are listed companies closing their accounting year between December and March (excluding banks, securities houses and insurance companies) that make segment information by region of operations available.
(2) For FY2010, companies covered are those that announced brief notes on the settlement of accounts by May 31, 2011, and those that announced financial reports by June 27, 2011.
(3) Sales include internal sales between segments.
(4) Since companies covered include listed subsidiaries, there may be some overlapping.
(5) "Others" include combined items of multiple regions (for example, "North America" and "Overseas").
(6) Year-on-year percent changes are calculated only for companies for which comparison with the previous year is possible.
(7) Shares by region are the shares in the sum before consolidation adjustment.

Sources: Tables 1 and 2 and Figures 1 and 2 are compiled based on Toyo Keizai Corporate Financial Carte CD-ROM (up to FY2005) and brief notes on the settlement of accounts and financial reports (FY2006-FY2010) of individual companies.

Table 2 Percentage change in operating income overseas of listed Japanese companies

(Year-on-year, %)

Fiscal Year (Number of companies)	Sales percent change						
	World	Domestic	Overseas	Americas	Europe	Asia/ Oceania	Other
FY1998 (556)	-7.0	-7.5	-5.8	10.9	3.0	-21.6	-29.3
FY1999 (576)	-3.6	-2.9	-5.3	-7.9	-9.6	11.5	-10.1
FY2000 (620)	4.2	3.0	7.5	7.4	1.2	22.2	-3.8
FY2001 (650)	-2.7	-6.0	5.8	7.6	4.8	1.2	9.1
FY2002 (683)	2.4	0.0	7.7	2.3	11.3	16.8	6.4
FY2003 (694)	-0.4	-0.9	0.9	-4.9	5.4	3.6	7.5
FY2004 (710)	7.4	6.1	10.0	2.9	11.7	17.1	15.1
FY2005 (748)	10.3	7.8	15.4	13.7	10.5	28.0	4.2
FY2006 (773)	13.9	14.3	13.0	10.3	18.7	16.7	3.9
FY2007 (786)	7.9	6.4	10.5	7.5	19.1	15.0	-8.5
FY2008 (841)	-13.0	-12.3	-14.2	-18.8	-16.0	-11.1	-7.4
FY2009 (854)	-12.8	-12.5	-13.4	-12.8	-22.0	-8.0	-15.2
FY2010 (362)	8.3	6.2	11.1	4.9	-0.4	27.0	8.1

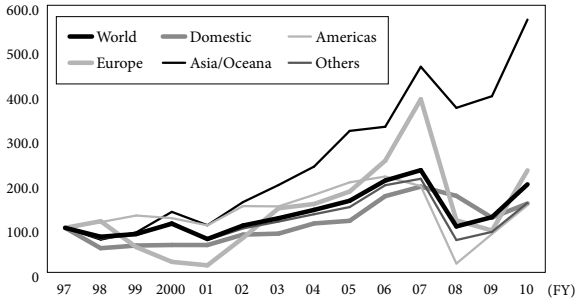
(Year-on-year, %)

Fiscal Year (Number of companies)	Operating income percent change						
	World	Domestic	Overseas	Americas	Europe	Asia/ Oceania	Other
FY1998 (556)	-20.0	-23.7	-8.0	12.9	14.9	-26.4	-45.7
FY1999 (576)	7.8	9.7	2.7	13.1	-50.6	22.0	10.9
FY2000 (620)	26.8	34.8	2.9	-4.7	-58.5	51.4	2.1
FY2001 (650)	-31.3	-35.6	-14.6	-13.2	-33.0	-22.1	-0.2
FY2002 (683)	40.2	35.7	54.0	40.8	389.8	49.0	38.1
FY2003 (694)	15.5	15.7	15.2	-0.4	86.3	24.4	2.6
FY2004 (710)	15.4	14.4	18.0	17.6	6.7	21.1	26.3
FY2005 (748)	14.6	12.4	20.3	16.1	18.2	33.7	5.4
FY2006 (773)	28.2	33.4	14.9	6.5	38.2	2.9	47.8
FY2007 (786)	11.3	7.4	20.3	-10.0	55.0	41.2	12.5
FY2008 (841)	-55.0	-65.5	-38.7	-89.8	-69.9	-20.0	-10.8
FY2009 (854)	20.1	25.2	14.1	335.5	-19.7	7.1	-28.4
FY2010 (362)	59.5	71.7	50.6	75.3	143.8	43.5	25.9

Overseas divisions contributing to Japanese firms' enhanced profitability

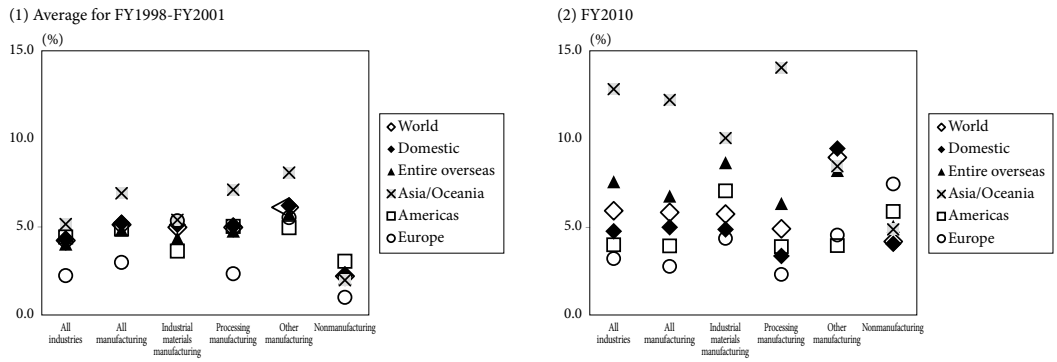
The overseas divisions, including those in Asia/Oceania, are increasing their contribution to the profitability of Japanese companies. Here, we use the return on asset (ROA; operating income/total assets at the end of the accounting year) as an indicator of profitability to make comparison between FY2010 and the past (the average for FY1998-2001). The ROA for the domestic divisions did not show much change, only inching up from 4.3% to 4.8%, while the ROA for the overseas divisions significantly increased from 4.0% to 7.6%, securing a higher profitability than the domestic divisions (see Figure 2). In particular, the ROA for the overseas divisions in Asia showed a remarkable growth from 5.2% to 12.9%, with this trend particularly noticeable for industrial materials and processing manufacturers. Overall profitability did not show much improvement in the Americas or Europe, but the nonmanufacturing sector's profitability did improve significantly, pushing up the ROA for the overseas divisions from 2.1% to 5.1%, higher than 4.1% for the domestic divisions. The overseas sales ratio for the nonmanufacturing sector (73 companies, excluding the mining and construction industries) in FY2010 stood at 15.8%, far lower than 46.4% for the manufacturing sector (260 companies), and the overseas sales ratio for Asia/Oceania was also low at 8.3%. In Asia, some segments of services industries have yet to fully develop, and restrictions on the entry of foreign companies are maintained in not a few fields from the standpoint of protecting and fostering domestic industries. On the other hand, the rising income levels are expected to increase the needs for various services and restrictions on foreign capital are being relaxed gradually in recent years, raising hopes for an expansion of business opportunities over the medium and long term. If nonmanufacturers actively expand into Asia and other overseas markets and build business structures to earn income overseas, their profitability can be expected to improve.

Figure 1 Trends of operating income of listed companies by region (FY1997=100)



Note: Figures are indices against 100 for operating income of FY1997 based on Table 2.

Figure 2 Return on asset (ROA) by major industry/region



Notes: (1) Companies covered are those for which figures for operating income by region and total assets are available for each fiscal year, and the average for each fiscal year was used for FY1998-FY2001.
(2) The ratio of operating income to total assets = operating income/total assets at fiscal year-end.
(3) The industry classification follows the Securities Identification Code Committee (SICC) and the Survey of Corporate Behavior (Cabinet Office).

withdrawal from the finance sector in Japan in 2009, which were accounted for in the 2010 statistics. Given the sheer size of the withdrawal, the massive outflow of capital is assumed to have stemmed from the withdrawal of Citigroup of the United States from the Nikko Cordial group.(Note 15) Another adverse impact came from the negative growth of reinvested earnings (equivalent to increases/decreases in retained earnings of Japanese subsidiaries of foreign companies) reflecting the downward trend since the financial crisis of corporate earnings of foreign affiliates based in Japan. The net withdrawal for the full year was recorded for the first time since 2006, when Vodafone Group PLC sold off its Japanese unit to the Softbank group.

By type of investment, equity capital, including acquisitions of new shares and sales of equity shares, registered a net inflow of US$7.5 billion, while reinvested earnings saw a net outflow of US$2.9 billion and other capital, which mainly covers the lending and borrowings between parent companies and subsidiaries, also posted a net outflow of US$6.0 billion (see Figure I-51). Reinvested earnings turned to the net withdrawal for the first time in 10 years since 2000. The net outflow of other capital appears to reflect the frequent collection of funds from Japanese subsidiaries by parent companies overseas.

Statistics as of April 2011 show that inward FDI in Japan recorded a net outflow of US$700 million, affected mainly by the withdrawals of U.S. companies in the telecommunications and finance/insurance sectors.

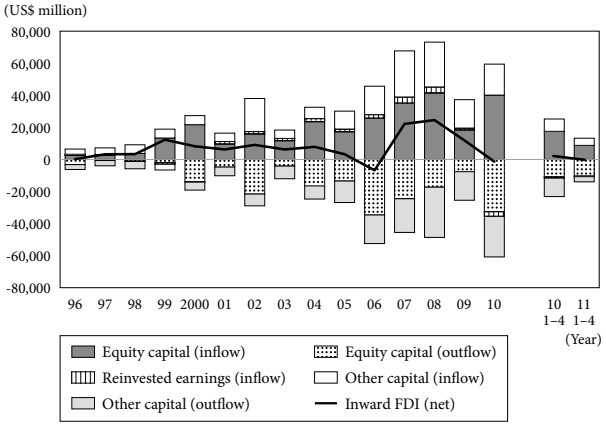
By region, Asia is the largest investor in Japan

Looking at inward FDI in Japan in 2010 (see Figure I-52), Latin America showed net withdrawal of US$7.7 billion, with Mexico and Bermuda (British overseas territory) posting particularly large net withdrawals of US$7.3 billion and US$1.0 billion, respectively. Mexico's balance of direct investment in Japan stood at only US$6 million at the end of 2009. This can be explained that Mexico in 2010 purchased financial claims on Japan held by other countries and then withdrew its investments in Japan during the first quarter.(Note 16) The Mexican move is believed to be related to Citigroup's capital withdrawal described earlier. A net outflow of capital to Bermuda was also concentrated on the finance sector.

Europe's inward FDI in Japan plummeted 97.5% to US$204 million, affected by the Netherlands' net withdrawal of US$7.7 billion. An outflow of capital to the Netherlands, where holding companies of many multinational corporations are located, stems, in many cases, from the withdrawal of foreign companies from Japan or the business restructuring between foreign companies. In the second quarter of 2010, for example, the chemicals and pharmaceuticals industry posted a capital outflow of US$2.5 billion, which apparently reflects the consolidation of subsidiaries in Japan following the merger of U.S. pharmaceutical companies. The Netherlands also registered net withdrawal of US$3.6 billion for the telecommunications industry in the fourth quarter of 2010.

For Europe, Germany and the UK made sizable direct investment in Japan. An inflow of US$2.2 billion from Germany was ascribable largely to Volkswagen's investment in Suzuki Motor Corp. to raise its equity stake to 19.9%. An inflow of US$4.8 billion from the UK is believed to have stemmed mainly from the purchase by an investment company based in UK of shares in Mizuho Financial Group, Inc. offered for public subscription overseas. A similar transac-

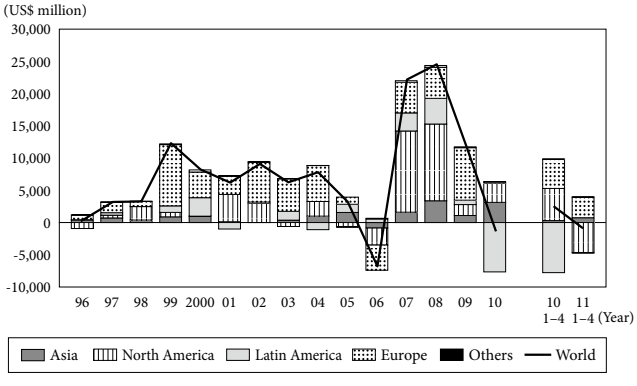
Figure I – 51 Trends of Japan's inward FDI by type



Note: The yen-based value is converted to dollars for each quarter, using the average quarterly Bank of Japan interbank rate, and the annual sum is then calculated.

Source: "Balance of Payments Statistics" (Ministry of Finance and Bank of Japan).

Figure I – 52 Trends of Japan's inward FDI by region



Note: The yen-based value is converted to dollars for each quarter, using the average quarterly Bank of Japan interbank rate, and the annual sum is then calculated.

Source: "Balance of Payments Statistics" (Ministry of Finance and Bank of Japan).

[15] According to the public notice posted and financial statement reports filed by Citigroup Japan Holdings Corp., the company reduced its equity capital and capital reserves by a combined amount of approximately 1 trillion yen in August 2010.

[16] When financial claims on Japan are traded between nonresidents, such transactions are not reflected in flow statistics and recognized in balance statistics. Accordingly, countries that bring in capital and countries that withdraw capital do not necessarily match in flow statistics. Flow statistics account for accrual and disappearance of financial assets and liabilities ascribable to foreign countries, while balance statistics record end-year figures after country-by-country reclassification of existing assets.

tion was conducted in 2009 between a Japanese financial institution and a European investment bank. Since financial claims purchased by overseas investment companies are often resold after short periods of holding, they are highly likely not to be included in the balance of direct investment in Japan.

Direct investment from the United States amounted to US$3.0 billion, recovering somewhat from the low of US$1.8 billion in 2009. However, a net outflow of US$4.2 billion was recorded in the third quarter of 2010, apparently reflecting the withdrawal of funds by a U.S. financial institution.

Direct investment from Asia showed a jump of about threefold to US$3.1 billion, the largest amount among major regions. Singapore led with US$1.6 billion, followed by Hong Kong with US$700 million, and China and South Korea with roughly US$300 million each. Investment in real estate in Japan by Asian government-affiliated enterprises, which was very active around 2008, showed signs of reactivation, with a subsidiary of Temasek Holdings Pte. Ltd., a Singapore government-affiliated investment firm, purchasing distribution facilities and warehouses one after another in Japan. A large-scale investment in the general machinery industry is believed to have come from Hong Kong.

China made the largest amount of direct investment in Japan since 1987, the year when statistical data on its direct investment began to be made available. In the second half of 2010, an inflow of US$100 million each was seen in such industries as wholesale/retail and wood/pulp, including an investment of 4 billion yen in Renown, Inc. by major textile maker Shandong Ruyi Science & Technology Group Co. While China is said to have made active investment in real estate in 2010 (see Column I-4), no significant real estate transactions could be confirmed in statistics on direct investment. China is believed to have made not a few investments in Japan through Hong Kong and tax havens.

An inflow of nearly US$300 million came from South Korea mainly for nonmanufacturing industries, such as finance and wholesale/retail.

Investment in the manufacturing sector firm, while a big outflow seen in the nonmanufacturing sector

By sector, the manufacturing sector had a net direct investment inflow of US$1.8 billion, while the nonmanufacturing sector saw a net outflow of US$3.1 billion.

The manufacturing sector posted a net inflow of over US$1 billion for four years on end since 2007 to show a relatively firm trend, though the net inflow in 2010 was down a sharp 49.4% from the previous year. The transport machinery and equipment industry had the largest net inflow among all industries, mainly due to Volkswagen's investment in Suzuki Motor. The general machinery and equipment industry followed suit with a net inflow of US$1.1 billion, apparently reflecting investment from Hong Kong. The precision instrument industry also recorded a net inflow of US$300 million due largely to Hoya Corp.'s sale of its hard disk glass media manufacturing operation to a U.S. company.

In the nonmanufacturing sector, the finance/insurance and telecommunications industries recorded large net outflows, while the services industry had the largest net inflow of US$900 million, mainly reflecting investment from the United States.

Massive investments seen in the automobile industry

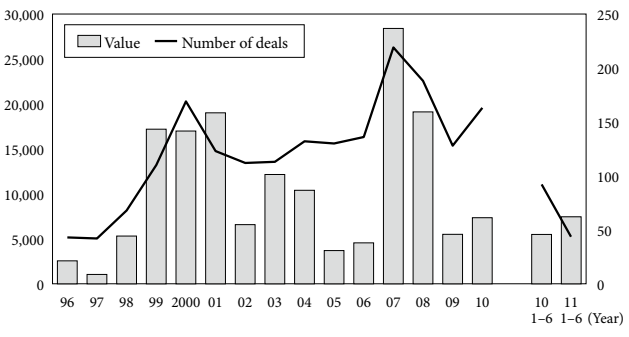
M&As of Japanese companies by foreign companies in 2010 increased 33.6% to US$7.3 billion to post the first year-on-year rise in three years (see Figure I-53). M&As by German companies, at US$3.9 billion, accounted for over half of the total, including Volkswagen's investment in Suzuki Motor and Daimler AG's investment in Nissan Motor Co (US$778 million for an equity share of 3.2%; considered to be securities investment). Germany ranked first for the first time in M&A value in Japan by country.

M&As of Japanese companies by U.S. companies amounted to US$1.7 billion, the smallest since 1997. The United States ranked second in terms of value, slipping from the top slot it had maintained since 2002. In terms of the number of M&A deals, however, the United States retained the top position with 43 deals in 2010.

The number of M&As of Japanese companies by Chinese companies reached a record 19 deals, putting China in second place after the United States. Cases of Chinese companies acquiring or making investment in Japanese manufacturers with high technological competence were noticeable, including the acquisition of solar cell-related equipment manufacturer Evatech Co. by Liaoning GaoKe Energy Group Co. (A-Power Energy Generation Systems, Ltd.) for US$49.90 million and Shandong Ruyi Science & Technology Group's investment in Renown.

The value of M&As of Japanese companies by foreign companies in the first half of 2011 reached US$7.4 billion, already surpassing the M&A value for the entire 2010, lifted mainly by the acquisition by Prudential Financial Inc. of the United States of AIG Star Life Insurance Co., a group company of American International Group, Inc. (AIG) (see Figure I-54). The transaction, which represents the transfer of business between U.S. companies in the same industry, is assumed to have no impact on statistics on inward direct investment in Japan. Among other cases, ON Semiconductor Corp. of the United States acquired Sanyo Semiconductor Co., a subsidiary of Sanyo Electric Co., for US$665 million. Sanyo Electric pulled out of the semiconductor business.

Figure I – 53 Trends of values of Japan's inward M&As



Source: Thomson Reuters.

Figure I – 54 Japan's top 10 inward M&A transactions (2010-June 2011)

Month/Year of M&A completion	Target company		Acquiring company			Value (US$ million)	Ownership % after transaction
		Industry		Country	Industry		
February-10	AIG Star Life Insurance	Insurance	Prudential Financial	U.S.	Insurance	4,800	100.0
January-10	Suzuki Motor	Tarnsport equipment	Volkswagen AG	Germany	Tarnsport equipment	2,527	19.9
April-10	Nissan Motor	Tarnsport equipment	Daimler AG	Germany	Tarnsport equipment	778	3.2
January-11	Sanyo Semiconductor	Electronic/electric equipment	ON Semiconductor Corporation	U.S.	Electronic/electric equipment	665	100.0
March-11	Fuji Fire & Marine Insurance	Insurance	American International Group (AiG) Inc.	U.S.	Insurance	536	97.7
March-11	Tsubaki Nakashima	General equipment (bearings)	Carlyle Group	U.S.	Investment company, securities business, trust	469	96.6
July-10	Intelligence	Business services (temporary staffing)	Kohlberg Kravis Roberts & Co. (KKR)	U.S.	Investment company, securities business, trust	369	100.0
January-11	Mitsubishi Fuso Truck & Bus	Tarnsport equipment	Daimler AG	Germany	Tarnsport equipment	360	89.3
April-10	SS Pharmaceutical	Pharmaceuticals	Boehringer Ingelheim GmbH	Germany	Pharmaceuticals	302	93.8
October-10	Socrates specual purpose company (UNIQLO flagship outlet)	Retail (apparel)	Deutsche Bank Group	Germany	Banking, bank holding company	237	100.0
June-10	HOYA (hard disk glass media manufacturing operations and related assets)	Precision instruments	HOYA Western Digital Corporation	U.S.	Electronic/electric equipment	234	100.0
January-11	Invoice	Telecommunication services	Investor group, including management	South Korea	Investor group	199	76.7

Note: Industry classificaiton by Thomson Reuters. The name of an acquiring company is the name of the ultimate parent company of an acquiring company.
Source: Thomson Reuters.

The balance of inward FDI in Japan drops by 1 trillion yen

The balance of inward FDI in Japan at the end of 2010 fell 5.0% year on year to 17,502.0 billion yen.(Note 17)

By region, the balance of direct investment from Asia surged 18.8% to 1.9 trillion yen. The share of investment from Asia also rose 2.1 points to 10.8%, the first double-digit share since 1997. By country, the balance of direct investment increased for such countries as Singapore, Malaysia, China and South Korea. Pushing up the balance was investment in finance and other nonmanufacturing industries for Singapore, investment in the steel/nonferrous/metals industry for Malaysia, and investment in wood/pulp and other manufacturing industries for China.

The decline in the overall balance is ascribable almost entirely to the United States, whose balance fell steeply from some 7 trillion yen at the end of 2009 to some 6 trillion yen at the end of 2010, contributing nearly 100% to the overall drop of about 1 trillion yen, largely due to the withdrawal of capital by Citigroup.

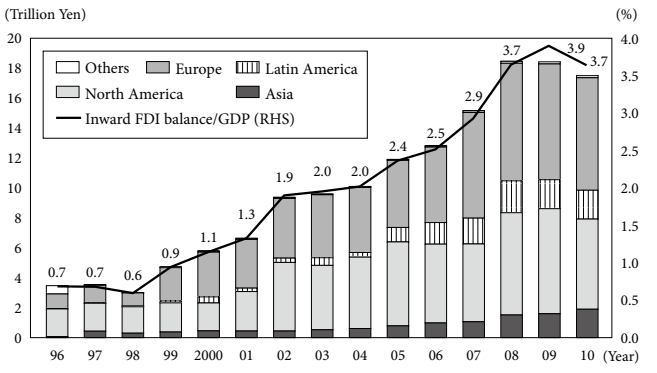
The ratio of the balance of direct investment in Japan to nominal gross domestic product (GDP) came to 3.7%, registering the first drop since 1998 (see Figure I-55).

Direct investment in Japan may be pump-primed by Japan's industrial accumulation and markets

Inward FDI in Japan can be broadly divided into (1) cases where investment is pump-primed by Japan's industrial accumulation and the attractive points of Japanese companies, and (2) cases where investment is pump-primed by the Japanese markets. Cases in (1) include investment prompted by moves to strengthen the global alliance as seen in the automobile industry, investment for the purpose of acquiring brands and technologies as seen in Shandong Ruyi Science & Technology Group's capital participation in Renown, and investment in response to the sell-off of noncore businesses by Japanese companies as seen in Hoya's sale of its glass media manufacturing operation. Recent cases in (2) include the expansion of retail stores by European and North American fashion retailers and the inauguration of services by low-cost carriers (LCCs).

Regarding active inward FDI in Japan by Asian companies in 2010, from the perspective of Japan's industrial accumulation, many Chinese and Taiwanese manufacturers advanced into Japan for the purpose of acquiring technologies and knowhow from Japanese companies (see Figure I-56).

Figure I – 55 Trends of Japan's inward direct investment position



Sources: "Direct Investment Balance Statistics" (Ministry of Finance and Bank of Japan) and the Economic and Social Research Institute of the Cabinet Office.

[17] The US$-denominated balance of inward FDI in Japan rose 7.4% year on year due to the yen's appreciation. Given the large discrepancy with the yen-quoted balance, we made the year-on-year comparison in terms of yen. While the balance of direct investment is shown on a book value basis (flow statistics is marked to market), the market to market balance of direct investment in Japan, released by the Bank of Japan for reference, stood at 19.2 trillion yen at the end of 2010, a decrease of about 1.5% from a year before.

In terms of Japan's markets, there were many acquisitions of real estate assets, such as those by the Singapore government-affiliated investment company and Hong Kong firms, and Asian LCCs launched flights to and from Japan, including Air Busan Co. of South Korea and AirAsia of Malaysia.

Figure I – 56 Major investment cases by Asian companies in Japan in 2010

Country	Company	Industry	Investment value (Estimates)	Investment form	Overview
China	Liaoning Hi-Tech Energy Group (A Power Energy)	Wind power generator manufacture	4.8 billion yen	M&A	Acquired Evatech (Kyoto), an LCD manufacture and sales company. Evatech's facilities will survive as R&D center.
	Shandong Ruyi Group	Textiles	4.0 billion yen	M&A	Acquired 41.25% share of Renown, an apparel and textile manufacture and sales company.
	CITIC Group	Investment fund	4.1 billion yen	M&A	Acquired HYNT, an industrial film production company through funds established in Belgium.
Taiwan	AUO	Liquid crystal panel manufacture	15.0 billion yen	M&A	Acquired M.SETEK (Tokyo), which manufactures silicon wafer for solar batteries.
	Motech	Solar battery manufacture	270 million yen	Venture	With Itogumi Construction (Hokkaido), a general contractor, established a joint company, Itogumi Motech. Manufactures photovoltaic modules.
Singapore	Mapletree	Real estate investment fund	1.0 to 4.8 billion yen	M&A	A subsidiary company of Temasek Holdings, a government investment corporation. Acquired six facilities in 2010, including an industrial warehouse in Kashiwa-city, Chiba.
	Parkway Life REIT	Real estate investment fund	7.0 billion yen	M&A	From 2008, acquired domestic nursing homes. In 2010, acquired eleven facilities.
Malaysia	YTL Hotels & Properties	Hotels	6.0 billion yen	M&A	YTL, a Malaysian conglomerate, acquired Niseko Village (facilities such as Hilton Hotel, Hokkaido).
	AirAsia	Airlines	-	Flight services	AirAsia X, long-flight division of AirAsia (LCC), the largest discount airline in East Asia, introduced a new route between Kuala Lumpur and Haneda.
South Korea	Air Busan	Airlines	-	Flight services	Introduced Busan - Kansai Airport route and Busan - Fukuoka Airport route. Fukuoka mayor looks forward to the "construction of cross-border economic sphere."
	NHN	Software services	6.3 billion yen	M&A	Acquired all shares of Livedoor. NHN is the operating company of "Naver," the largest portal site in South Korea.

Sources: JETRO SENSOR (May 2011), company press releases and news reports.

Column I – 4

◉ Acquisition of land by foreign capital and international rules

It has been pointed out that foreign investors, particularly Asian companies, are very actively acquiring land in Japan, including forests. The Forestry Agency's announcement on the results of "Survey on the Buyout of Forests by Foreign Capital" in December 2010 indicates the growing interest in Japan in the status of land acquisitions by foreign capital. According to the survey, there were a total of 25 cases of forest acquisitions by foreign corporations or foreign nationals in the four years between 2006 and 2010. Of these, 10 transactions were concluded by Hong Kong-based companies and four acquisitions were made by individuals of Singaporean nationality, suggesting the high ratio of land acquisitions by Asian firms or individuals. Though it still remains difficult to judge whether or not the acquisition of land in Japan by foreign capital is increasing, it appears certain that cases of land acquisitions by foreign investors are not rare in recent years.

One of the reasons for this trend may be that Japan has not imposed particularly rigid restrictions on the acquisition of land by foreigners under international commitments of the World Trade Organization (WTO) and other international organizations.

Under WTO rules, relevant provisions are included in the General Agreement on Trade in Services (GATS). As one of the four modes of trade in services, GATS refers to the supply of a service "by a service supplier of one Member, through commercial presence in the territory of any other Member" (the third mode of services). As legal restrictions on the acquisition of land work as barriers to the establishment of commercial presence by foreign companies, countries need to abide by their commitments concerning the third mode of services when they set up restrictions on the acquisition of land.

Under commitment schedules of GATS (based on the Uruguay Round agreement), WTO members, along with restrictions on each service sector, can specify restrictions on market access and national treatment principles common for each mode in all service sectors (cross-sector commitments). If a member country specifies restrictions on the acquisition of land as the cross-sector commitment for the third mode of services on its commitment schedule, it can set up such restrictions under domestic law without causing any legal problems under WTO rules.

For example, China, in its GATS commitment schedule, includes the restriction of 40 to 70 years on the use of land by foreigners in its cross-sector commitment, maintaining that "The land in the People's Republic of China is State-owned. Use of land by enterprises and individuals is subject to the following maximum term limitations." On the other hand, Japan does not specify restrictions on the use of land in its GATS commitment schedule. Consequently, Japanese laws and regulations that restrict the acquisition of land are not allowed to be restrictive to foreigners under GATS.

However, since GATS provides for general exceptions under Article XIV, Japan can set up restrictions to that extent. In relation to the acquisition of land, important provisions are "measures necessary to protect public morals or to maintain public order" (Article XIV(a)) and "security exceptions" (Article XIV:1).

When a member country imposes exceptional restrictions on the supply of services (including the establishment of commercial presence on acquired land) by foreign companies or individuals to "maintain public order," GATS rules limit such exceptional restrictions to "only where a genuine and sufficiently serious threat is posed to one of the fundamental interests of society." Security exceptions are applicable when they are necessary for the protection of essential security interests "relating to the supply of services as carried out directly or indirectly for the purpose of provisioning a military establishment" and "relating to fissionable and fusionable materials or the materials from which they are derived." These provisions are in conformity with provisions for exceptions under the OECD Code of Liberalization of Capital Movements of 1960. At the Organization for Economic Cooperation and Development (OECD), Japan, as sectors with restrictions on foreign capital under the OECD Code, specifies electric power, gas and water service as well as railroads for public order-related exceptions, and nuclear power, aircraft and space development for security-related exceptions. However, GATS Article XIV and the OECD Code only provide rules for exceptional circumstances and do not serve as the basis for broad restrictions on the acquisition of land by foreign capital. The above are currently applicable rules.

Then, what about ongoing negotiations on trade in services under the WTO Doha Round? In its initial requests made in 2002, Japan sought the "abolition of restrictions on the acquisition of land and other real estate" as cross-sector commitments of other member countries. The Japanese government has made the request presumably bearing the abolition of restrictions on foreign direct investment by Japanese companies in mind.

In the initial requests, Japan has also sought the "abolition of all measures listed as most-favored-nation-treatment exemptions." While GATS Article II provides for obligations of member countries to accord most-favored-nation treatment, member countries can list exemptions to Article II obligations, or the principle of most-favored-nation treatment under Annex on Article II Exemptions. For example, the United States lists exemptions on the acquisition of land across all service sectors. In contrast, as Japan has not listed any exemptions, it is not allowed to restrict the acquisition of land against any specified WTO member country.

As described above, Japan's basic policy on the acquisition of land in WTO-related service sectors has been open overall. Currently, land-related rights of foreigners are regulated under the Act on Foreign National' Rights in Relation to Land written during the Taisho Period, but this law is not effectively functioning because of the absence of corresponding government ordinances. Furthermore, Japan's obligations under GATS and its negotiating stance in the WTO Doha Round indicate that measures the Japanese government can take regarding the acquisition of land by foreigners are limited.

Among other international agreements, some bilateral investment agreements have provisions concerning the acquisition of land by foreigners. For example, under the Japan-ROK investment agreement, South Korea (ROK), in Annex I listing "exceptional sectors and matters," cites "foreign acquisition of land" as Item 9. On the other hand, as Japan does not list any exception related to the acquisition of land, Japan cannot take measures for restricting the acquisition of land that do not conform to national treatment or the principle of most-favored-nation treatment as prescribed in Article 2 of the bilateral investment agreement, except as measures "for the protection of its essential security interests" or "for the maintenance of public order," as provided for under the agreement's Article 16.

(Reference) Kazuhiro Nakatani, "Recent Issues Concerning Restrictions on Foreign Capital," March 2011, Jurist No.1418 (Yuhikaku Publishing Co., Ltd.)

II World Trade Rules under the New Economic Environment

1. WTO Rules: Significance and Issues

(1) The prospects of the Doha Round and the role of the WTO

The Doha Round reaches a turning point 10 years after negotiations commence

10 years have passed since the launch of the Doha Development Agenda (the Doha Round) at the WTO's Fourth Ministerial Conference in November 2001. During this time, irreconcilable gaps in values relating to trade liberalization and development have caused talks to breakdown and restart on several occasions, illustrating that challenges persist and still no prospects for an agreement are in sight. Essentially, the history of the Doha Round has been marked by China, which joined the WTO at around the same time as the Doha Round began, and other developing nations increasing their influence in conjunction with their economic growth, which has made developed nations-led consensus building impossible. For example, immediately prior to the WTO's Fifth Ministerial Conference held in Cancun, Mexico in 2003 where talks broke down, the U.S. and EU had largely reached an agreement on the key issue of agricultural subsidies. This agreement reached between the two poles of the U.S. and EU should have held the sway to rapidly accelerate later negotiations.

Although there are various reasons behind the rift in negotiations, agriculture and non-agricultural market access (NAMA) are the two major issues. Article 24 of the Hong Kong Ministerial Declaration adopted at the WTO's Sixth Ministerial Conference in 2005 mentions a "balance between agriculture and NAMA." This was seen as recognition of need for the reduction of tariffs on NAMA by developing nations, which was of strong interest to developed nations, and the reduction of developed nation subsidies, in particular domestic support, for agricultural products, which was the topic of concern for developing nations. However, in contrast to the conventional focus of the 47-year old GATT system (the system prior to the establishment of the WTO known as the General Agreement on Trade and Tariffs [GATT]) to reduce tariffs on industrial products, for many years the system essentially did not extend its regulations to agriculture, with full-fledged tariff negotiations only beginning later with the Uruguay Round. The commitment outlined in this declaration to secure the same level of ambition regarding market access for these two differing trade areas has become a factor behind the difficulty of negotiations seen today.

Another factor that has made the Doha Round complicated has been the single undertaking principle where "nothing is agreed until everything is agreed." This same principle is seen as a reaction against the fact that differences had occurred in the rights and obligations between GATT member nations, since the various agreements reached at the Tokyo Round of the GATT in the 1970s (Tokyo Round "codes") were voluntary in nature (for example, only 32 countries signed an agreement that would become the agreement on technical barriers to trade [TBT agreement]). On the other hand, the fact cannot be denied that the single undertaking principle has made negotiations rigid and delayed rule making in the WTO.

In light of the current situation in which progress seems not to be expected in negotiations on the main issues of agriculture and NAMA, WTO Director-General Pascal Lamy proposed an early harvest program for negotiating certain matters focused on those relating to least-developing countries (LDC) at the Trade Negotiations Committee meeting held at the end of May 2011 (Figure II-1). This can be viewed as a major turning point for the Doha Round. However, Item 47 of the Doha Ministerial Declaration of 2001, although based on the single undertaking principle, also has leeway for an early harvest program in consideration of the balance of overall negotiations, meaning the content of this proposal does not totally deviate from that of the ministerial declaration. As of the end of June 2011, it appears that adjustments on what should be covered in this early harvest

Figure II – 1 The Doha Round early harvest proposal

Classification	Main issues	Target
First Track (for LDCs)	• In principle duty-free and quota-free market access for LDC products and related rules on the country of origin • Waiver of obligations for LDCs (liberalization of services, etc.) • Cotton issue (reduction of subsidies by developed countries)	Early harvest at the December 2011 WTO Ministerial Conference.
Second Track (LDC-Plus)	• Trade facilitation • Agricultural export subsidies • Some non-tarrif barriers to non-agricultural market access • Fisheries subsidies • Implementation issues (relaxation and waiver of existing obligations of developing countries under WTO agreements) • Special and different treatment (strengthening and review of consideration given to developing countries) • Reduction of duties on environmental goods or agreement to maintain present tariff rates	Aim to reach a first agreement on the possible scope at the December 2011 WTO Ministerial Conference. Developing countries hesitant toward a LDC+ framework. Some sectors likely to clash over making rules for fisheries subsidies.
Third Track	• Non-agricultural market access (tariff reductions, elimination by sector, etc.) • Agricultural market access and domestic subsidies • Liberalization of services • Review of rules on subsidies, countervailing measures and anti–dumping • Intellectual property rights (expansion of protections for certain geographic indications, etc.)	Clarify roadmap at the December 2011 WTO Ministerial Conference.

Sources: WTO Secretariat materials, WTO Reporter (BNA) and Inside U.S. Trade (Inside Washington Publishers).

◉ The WTO Doha Round – aiming to reduce tariffs on environmental goods

The early harvest program, which was proposed as a result of a shift in policy of the WTO Doha Round, seeks to push forward first with addressing certain issues centered on matters related to least-developing countries (LDC). Discussions are underway regarding what other issues can be added to the program as part of a LDC+ framework, with the reduction of tariffs on environmental goods one such possibility. WTO member nations are looking to significantly reduce tariffs on eco-friendly products and products with smaller environmental impact compared to other non-agricultural goods or to completely eliminate these tariffs.

This issue has been brought up not only in the WTO but also by APEC, having been cited at a trade ministers' meeting held in May 2011 as one of the specific green growth objectives to be achieved in the run up to the APEC Summit meeting in November 2011. Since it holds the APEC chairmanship in 2011, the U.S., which is seeking to double its exports, is strongly pushing this agenda forward. China, however, is the only country against holding discussions through APEC because it believes this issue should be negotiated at the WTO.

This does not mean, however, that negotiations will progress smoothly at the WTO. Even at the WTO, China has stated that it will not work to reduce tariffs as long as technology transfers are not guaranteed. As will be discussed below, China is the world's largest exporter of environmental goods, but it remains against these negotiations because it has taken a stance that focuses more on protecting its exports rather than battling it out with other countries by reducing tariffs. In addition, most of China's core exports already are subject to zero tariffs in developed nations, so the current scheme lacks an incentive for the country to participate in the negotiations.

Which specific items will appear on the list has yet to materialize. The U.S. has wanted to expand the number of items by as much as possible, as it initially advocated for 153 items. The 43 six-digit HS items designated by the World Bank as "clearly environmentally friendly" represent one springboard for discussions. However, the potential exists that items not necessarily used with the purpose of protecting the environment, or so-called dual use items from six-digit HS, will be included, and so developing nations are alarmed about the prospects that the scope of non-tariff items will be expanded beyond what is necessary. In addition, a variety of other proposals have also been brought to the table, including one to first start with 25 items and another that keeps applied tariff rates below the current level.

East Asia centered on China sees rise in exports

Below, global trade involving environmental goods is reviewed based on the World Bank's list of 43 items. In 2010, global trade value (exports) rose 27.4% year on year to US$235.3 billion (see figure), which marked a pace that outstripped overall global trade at 20.7%. Most countries saw a rise in imports thanks to the recovery seen off the figures for 2009 when the world was in the midst of an economic recession. Among these, China's exports increased approximately 1.7 times, as it raced past Germany to become the world's largest exporter of environmental goods. In addition, not just China, exports from Taiwan and the ASEAN5 also grew significantly, as the East Asia region is making leaps forward as an export base for environmental goods.

Roughly 60% of China's environmental goods exports are solar power generation devices that fall under the "semiconductor devices and light-emitting diodes (HS8541.40)" category. However, China is not the only country to see its exports of these goods slanted toward solar power generation devices. The percentage that solar power generation devices accounted for in terms of total exports of environmental goods was 80% for Taiwan, 41% for the ASEAN5 and 41% for South Korea, as exports of these products have increased at a large pace for nearly every country in the region. Among the ASEAN5, Malaysia in particular saw robust growth, as exports in 2010 increased 2.3 times over figures for 2009. This figure was also driven by the rise in exports of solar power generation devices, with major importing countries including Germany, China and France. Bosch of Germany also announced plans in June 2011 to establish a new factory in Malaysia for solar power generation devices, as the country is expected to see future growth as a manufacturing base.

The rise in China's exports of solar power generation devices has continued into 2011, as the trade value of HS8541.40 items in the January to May period rose 72% over the same period of 2010 to US$12.9 billion, which has already exceeded the annual figure initially planned in 2009. Germany, which was the largest importer of these items over the previous two years, saw its share of imports decline year on year. In its place, exports to Italy, the Netherlands and the U.S. have doubled across the board. Similarly, exports to Spain, which had accounted for a 35% share in 2007, dropped to only around 2% in 2010. The solar power promotion measures of each country have caused major upheavals in the top importers of these items. In particular, exports to the U.S. nearly tripled year on year in 2010, while for the 2011 (January to May) exports have risen 3.5 times over the same period last year.

Figure Export value of environmental goods by major country/region (43 item basis)

(US$ million, %)

	2007	2008	2009	2010	
	Value	Value	Value	Value	Growth
NAFTA	24,849	27,585	25,605	30,644	19.7
U.S.	17,119	18,630	17,645	21,064	19.4
EU15	76,205	94,882	75,777	84,816	11.9
Germany	28,796	36,792	28,282	32,530	15.0
Italy	10,497	12,456	10,048	9,903	-1.4
Japan	17,440	19,750	15,854	19,316	21.8
East Asia	32,919	47,527	43,498	72,318	66.3
China	16,174	27,371	24,397	42,572	74.5
South Korea	4,389	5,744	6,738	9,241	37.1
Taiwan	4,141	5,820	5,145	9,403	82.8
ASEAN-5	8,214	8,592	7,218	11,102	53.8
World (JETRO estimates)	173,843	218,820	184,659	235,273	27.4

Notes: (1) The ASEAN-5 countries are Indonesia, Malaysia, the Philippines, Singapore and Thailand.
(2) The figures for East Asia include the total of China, South Korea, Hong Kong, Taiwan and the ASEAN-5 countries.
Source: Trade statistics from individual countries/regions.

program, with the exception of LDC matters, are proceeding with difficulty. For example, trade facilitation has been raised as a topic. The negotiation seeks to clarify Articles V, VIII and X of the GATT on trade rules and other matters, with the process expected to raise the transparency of trade operations. In addition, the reduction of tariffs on environmental goods is also a theme of great interest primarily among developed nations (Column II-1).

The importance of the WTO as a rules-driven institution

Thus, the focus has become more on how the Doha Round will avoid the worst case scenario of a breakdown in talks, indicating that hope is fading on an ambitious agreement on trade liberalization regarding the main issues at hand. Yet, the trouble faced by the Doha Round does not necessarily call into question the very existence of the WTO. Corrective measures can be sought in response to trade practices that do not follow with WTO rules through the WTO's Dispute Settlement Body and various committees. There is little doubt that settlements of disputes through the WTO's dispute settlement procedures have helped to resolve trade disputes through the interpretation of existing WTO rules. While it remains hard to say that the WTO functions as a platform for agilely developing new trade rules, in terms of managing its established rules, the WTO will continue to play an important role as a multilateral trade organization.

Although the use of free trade agreements (FTA) as a means to trade liberalization is growing more prominent, there remain trade issues that are difficult to settle without a multilateral framework. Specifically, in most cases seen to date disciplinary rules on subsidies have not been included in FTA. As a disciplinary rule on financial assistance, including export subsidies, granted to domestic industries by governments, the WTO's Agreement on Subsidies and Countervailing Measures (ASCM) stands as the most effectively functioning trade rules today.

Still, there are issues which the WTO today does not cover sufficiently, nevertheless are issues that require multilateral consensus building. Trade rules on exports can be cited as a representative example. The GATT and WTO system has functioned mostly as disciplinary rules on countries' import restriction measures, including mainly tariffs on imports. Today, however, given the backdrop of soaring resource prices, cases have become more obvious of countries laying down border measures on exports, with attention focusing on the application of export rules in the WTO. Other future issues relating to multilateral trade rules include government procurement, the protection of intellectual properties and stepped up crackdowns against counterfeit goods.

Below, the current situation of and issues facing primarily WTO trade rules will be examined from two contexts: (1) trends in subsidy rules and conflicts and (2) issues relating to WTO rules, such as disciplinary rules on export restrictions.

(2) Trends and arguments of WTO disputes concerning subsidies

Scope of disciplinary rules in the WTO's ASCM

Governments and public institutions around the world are providing public assistance in a variety of forms to domestic industries and companies that belong to specific industries located within a country under the goal to boost the competitiveness of domestic industry. For example, in recent years public institutions from various countries have aggressively launched export promotion measures (Column II-2).

Understanding which assistance measures fall under the rules set out in the WTO ASCM is essential for a company looking to expand operations internationally to assess whether or not it stands at a competitive disadvantage to companies located in countries that provide these domestic subsidies. Local governments and public institutions must also verify whether the various business assistance measures they provide are in conflict with WTO rules on subsidies.

The definition of subsidies that fall under the ACSM (Figure II-2) states that a subsidy exists when there is a financial contribution as well as any form of income or price support by a government or any public body that confer

Figure II – 2 Overview of subsidies covered under the WTO ASCM

Type	Overview	Clause
Subsidy	There is a financial contribution by a government or any public body or any form of income or price support and a benefit is thereby conferred.	Article 1.1
A subsidy has specificity	The subsidy is granted to a specific enterprise or industry or group of enterprises or industries. A prohibited subsidy is deemed to have specificity.	Article 2
Prohibited ("red") subsidies	If the Dispute Settlement Body finds the subsidy to be a prohibited subsidy, the subsidizing country shall withdraw the subsidy without delay.	Article 3
Export subsidy	Subsidy contingent, in law or in fact, upon export performance.	1(a)
Subsidy favoring the use of domestic goods	Subsidy contingent upon the use of domestic over imported goods.	1(b)
Actionable ("yellow") subsidies	In the case of subsidies found to have adverse effects to the interests of other countries, either the adverse effect shall be removed or the subsidy eliminated. Or if injury to the domestic industry of the importing country is found, countervailing duties can be imposed.	Article 5
Injury to domestic industry	The effect on domestic market of importing country by the subsidy. Selection of either remedy based on dispute settlement proceedings or implementation of a countervailing measure.	(a)
Nullification or impairment of benefits under GATT	In particular, the invalidation of concessional benefits (tariffs) based on Article II of the GATT.	(b)
Serious prejudice	Cases, for example, in which the subsidy displaces the imports of another member country in the market of the subsidizing country or of a third country market, impedes a rise in market price or significantly reduces sales in the same market.	(c)
Non-specificity	A non-specific subsidy is not subject to the disciplinary rules of the Agreement on Subsidies and Countervailing Measures.	Article 1.2

Source: WTO Agreement on Subsidies and Countervailing Measures.

benefit for a company (Article 1). The issue of financial contributions by a government represents perhaps the biggest problem, as this includes not only direct funding or lending, but also when the government gives up its right to collect revenue it should collect.

Next, a subsidy must retain specificity for it to fall under the disciplinary rules of the ASCM (Article 2). Here the term specificity refers to a subsidy provided to a specific company or industry, or an industry group. Article 2 is widely recognized because it includes instances when this specific quality can be confirmed on the basis of positive evidence.

The scope of rules in the ASCM includes prohibited subsidies (Article 3; hereinafter referred to as Red Subsidies) and subsidies subject to actionable subsidies (Article 5, hereinafter referred to as Yellow Subsidies). Prohibited subsidies include two types: export subsidies and subsidies contingent upon the use of domestically produced goods. Export subsidies include not only directly granted subsidies, but also are categorized in Annex 1 of the ASCM, with the scope extending to a wide range of government practices including exemptions on direct charges related to exports. Subsidies that prioritize the use of domestically produced goods are also referred to as local content subsidies. Red Subsidies are considered to be specific subsidies.

Subsidies which fall under the scope of actionable subsidies include subsidies that adversely affect the interests of another WTO member nation. Adverse effects are broken down into three types: (1) injury caused to the domestic industry of another Member (Article 5, [a]), (2) nullification or impairment of benefits or indirectly to other Members under the GATT (Article 5, [b]) and (3) serious prejudice to the interests of another Member (Article 5, [c]).

Although there are instances when countervailing measures are understood as being subject to the same disciplinary scope as actionable subsidies, countervailing measures are used as one form of remedy when a subsidy damages the domestic industry of the importing country (Article 5, [a]), while actionable subsidies in the context of the ASCM also include the right to seek the withdrawal of the subsidy or the removal of its adverse effects as well as countervailing duties. When a subsidy damages the domestic industry of the importing country, the country being affected can either enact a countervailing measure to counteract this adverse effect after conducting an investigation domestically on the countervailing measure, or seek remedy through the WTO's dispute-settlement procedures (Figure II-3).

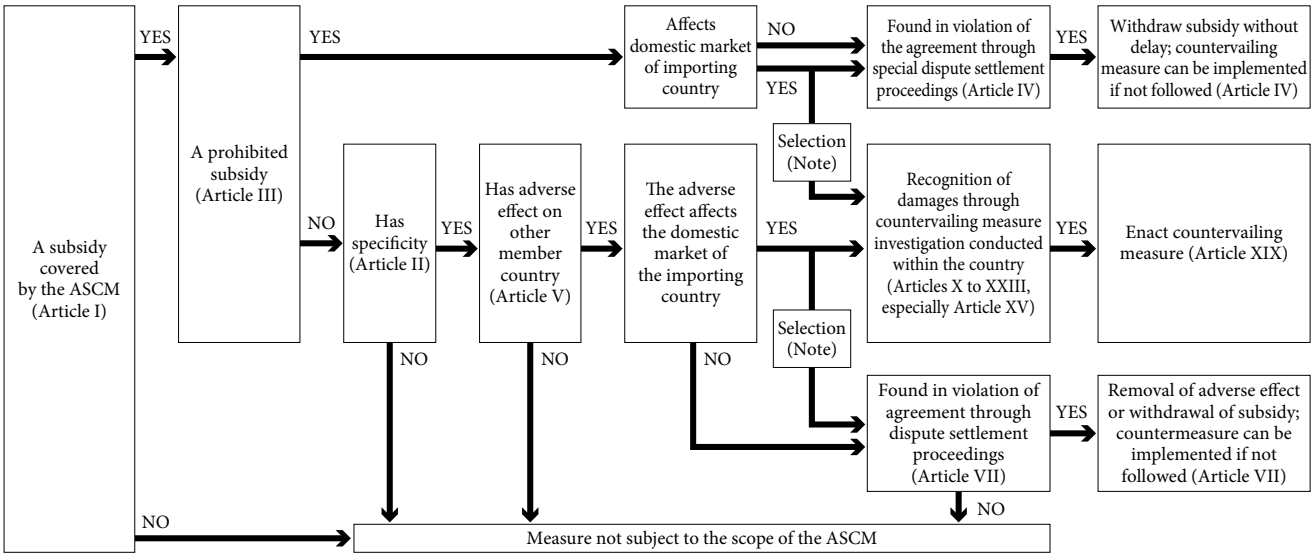
More disciplinary rules for non-red subsidies in WTO disputes

Most disputes focused on subsidies that violate WTO rules have centered mainly on red subsidies, or export subsidies and subsidies that give preference to the use of domestically produced goods. On the other hand, the recent rise in the number of WTO decisions on yellow subsidies has increased the breadth of WTO subsidy disputes.

Of the adverse effects caused by yellow subsidies, when damage is caused to the domestic industry of the importing country, this country can levy a countervailing measure as long as it follows Article 7 and Articles 10 to 23 of the ASCM. Disputes related to yellow subsidies in most cases have led to the enactment of a countervailing measure.

What type of remedies can be taken when a country other than the importing country is affected, such as the case of an adverse effect on competition in the market of a competing third country? Or, what happens when the market price of a product receiving a subsidy is distorted in the market of the country providing the subsidy? These adverse effects fall under the category of "serious prejudice" as stipulated in Article 5 (c) of the ASCM. In this instance, the country can seek the elimination of the applicable subsidy or the removal of the adverse effect caused by the subsidy. Although official finding as "serious prejudice" had been

Figure II – 3 Overview of remedy process stipulated in the WTO ASCM



Note: Can only use a countervailing measure or seek a remedy according to Article IV or Article VII of the ASCM against applicable subsidies.
Source: WTO Agreement on Subsidies and Countervailing Measures.

Column II－2

◉ Developed nations flocking to assist exports to emerging nations

In considering that emerging nations represent promising export markets thanks to their robust economic growth, governments of developed nations around the world are each vigorously pushing forward with export assistance measures. These same governments are also attempting to gain support domestically by explaining that such measures will help to prop up employment in the country. Although these assistance measures are not necessarily covered under the ASCM, understanding the trade policy trends of major countries will likely be beneficial for Japanese companies to maintain a fair environment of competition.

Following its National Export Initiative (NEI), the U.S. is aiming to double exports before the end of 2014 and will continue to position export assistance at the core of its trade policies. In 2010, exports of goods and services from the U.S. recorded an increase of 16.6% year on year, which U.S. Trade Representative Ron Kirk praised as evidence, "We are steadily moving toward our target." However, it can also be pointed out that figures for 2010 only saw large increases because they were coming off sharp lows from the downturn seen in 2009.

Governments that are providing export assistance are also facing fiscal troubles. The federal budget of the U.S. is also facing a crunch, as fiscal 2011 (October 2010 to September 2011) expenditures were cut by US$40 billion year over year, or 3.8%, across both mandatory and discretionary spending. As a result, many government programs have also been slashed or cut, as evidenced by the fact that the budget was completely cut for a preliminary study on a high speed railway system that was one of the Obama administration's featured policies.

Despite such difficulties, the budget for export assistance has been allocated constantly. In the U.S., export assistance programs are covered by the International Trade Administration (ITA) of the Department of Commerce. The Department of Commerce's budget for fiscal 2011 was slashed by 17% over fiscal 2010, but the budget appropriated for export assistance was only reduced by 1.1% to US$450.99 million. As a striking point regarding the progress of the NEI, the Export-Import Bank of the United States is assertively providing assistance through doubling the volume of export finance it provides, with deals involving the environmental sector and emerging markets being taken up frequently. In particular, competition seen in 2009 between the Export-Import Bank of the United States and China for providing finance to exports destined for Pakistan garnered much attention and became a motivational factor for the U.S. to launch full-fledged export assistance measures. Competition with China, which has provided favourable conditions for its exporters such as interest rates lower than the market rate, has also become a topic of debate in negotiations on the Trans-Pacific Partnership (TPP) agreement, from the standpoint of "organizing competitive conditions with state-owned enterprises."

UK Trade & Investment, which is responsible for promoting exports from the UK, announced its five-year plan in May 2011 in which it announced a policy to provide assistance so that more small and medium sized enterprises that are posting robust growth can export their goods and services as well as promote the market entry of existing export companies in emerging nation. Among emerging nations, the UK has placed specific emphasis on China. UK Prime Minister David Cameron led a business mission to China in November 2011 where he announced that the UK would "increase UK-China trade by US$100 billion each year, effectively doubling it by the year 2015." In conjunction with this, the UKTI appointed 32 persons as UK Business Ambassador, giving them the role of supporting export promotion for primarily small and medium sized enterprises.

The French Trade Commission (UBIFRANCE) is aiming to find and assist 10,000 new export companies before the end of 2011. UBIFRANCE has a network of 66 offices in 46 countries, and provides trade fairs over the Internet and assists companies with market research. In order to facilitate assistance for trade and investments, Germany established as a limited liability company Germany Trade & Invest (GTAI) in 2009, with interests focused mainly on markets in emerging nations. In January 2011, GTAI cited Australia, Finland, Kazakhstan, Kuwait, Colombia, South Korea and South Africa as focus markets for German exports in 2011, indicating it has a strong interest in a wide range of markets. In addition, it also launched a Germany business portal site online as part of its integrated approach to attracting investments.

In addition, in May 2011 Trade Minister Craig Emerson of the Australian Trade Commission (Austrade) announced a comprehensive reform package, stating that "More of Austrade's operations will more than likely be conducted in emerging nations going forward." This package includes establishing new offices in Mongolia and Central Asia as well as expanding existing offices in South America, China and Africa. Explaining the importance of promoting trade with markets in emerging nations as, Emerson stated, "Understanding how business is undertaken in emerging nations involves costs that are hard for a single company to cover. This is where the experience of Austrade can be applied." In this manner, the focal points of trade organizations in developed nations around the world can be found in export assistance and promotion, with most if not all aiming to promote trade with markets in emerging nations.

extremely rare, as this happened on only two occasions between 1995 and 2009, the number of cases has increased since the second such case that occurred—the 2002 United States Upland-cotton dispute (below, "cotton dispute").

The cotton dispute involved Brazil referring to the WTO the issue of domestic assistance provided by the U.S. to its cotton industry in the form of various subsidies and financing under the Agricultural Act as well as export subsidies. The outcome saw the U.S. recognized as violating WTO rules and through arbitration proceedings Brazil was allowed to enact a countermeasure in the amount of US$150 million. Both countries agreed in August 2010 to a framework for an U.S.-led assistance program for Brazilian cotton producers, and Brazil announced that as long as this agreement was kept, it would not implement the countervailing measure. Many in the U.S. have voiced criticism toward the continuation of this program, with future developments concerning this case likely to be in the spotlight.

It is important to note here that the 2005 WTO Appellate Body report on the cotton dispute recognized the string of domestic assistance provided by the U.S. as one form of a yellow subsidy, or "serious prejudice." Specifically, this assistance was found to bring about "serious prejudice" in causing "significant price suppression in the same market

(global market in this instance)" based on Article 6, Item 3 (c) of the ASCM. The recognition of a market where competition exists is an important concept in terms of competition law, and generally speaking, competition law affirms that a "global market" exists as a single market. Prior to the cotton dispute, the hurdles in being recognized as "serious prejudice" were seen as extremely high because it was difficult to prove a causal link between domestic subsidies and existing prejudice. It can be pointed out, however, that opportunities for complaining countries to prove "serious prejudice" have expanded since the broad concept of a global market was recognized by the WTO.

Furthermore, the cotton dispute also shed light on the differences between the recognition of "serious prejudice" and countervailing measure investigations. A countervailing measure investigation is undertaken by the authorities of the importing country which use a quantitative method of calculating the amount of the countervailing measure. In contrast, the WTO panel for the cotton dispute and Appellate Body found that an accurate calculation of the subsidy provided was not always necessary in recognizing "serious prejudice" existed. Instead it found that in finding "serious prejudice" there was leeway not for a quantitative calculation but a qualitative calculation, which it can be pointed out, has increased the number of disputes concerning yellow subsidies that can be brought before the WTO.

Indeed, in the dispute between the EU and U.S. over commercial aircraft subsidies that occurred after the cotton dispute, "serious prejudice" was found in both complaints filed by the US and EU respectively.

Furthermore, the Airbus Dispute Panel (June 2010) in which the US filed a complaint against the EU indicated that hurdles to the recognition of "serious prejudice" were lowered compared to the cotton dispute. In the Airbus Dispute Panel, the U.S. claimed there was damage against U.S. domestic industry (Article 5 [a]) and serious prejudice in the EU market and third countries (Article 5 [c]), but only one of these complaints, Article 5(c), was recognized by the panel. Damage from (a) refers, in other words, to the calculation of damage in the countervailing measure investigation. That is, it can be inferred based on the decision by the panel that there are instances when it is easier to prove "serious prejudice" in (c) rather than the damage of the countervailing measure. Although the WTO Appellate Body, which acts as a higher appeals court, overturned the panel's decision in favour of "serious prejudice" existing in certain third country markets in a report on the dispute in May 2011, it did recognize that "serious prejudice" existed in the EU market and China market where Boeing commercial aircraft exports would be replaced by Airbus aircraft due to subsidies.

The report of the Boeing Dispute Panel (March 2011), where the EU filed a complaint against the U.S., also recognized certain complaints made by the EU regarding the existence of "serious prejudice," and found that assistance provided to Boeing impeded exports of Airbus aircraft to third countries.

From these series of disputes, the potential exists for the number of disputes regarding not only red subsidies, such as export subsidies, and yellow subsides, or mainly countervailing measures, but also other forms of domestic assistance not provided necessarily to benefit exports, to increase going forward.

Are subsidy disputes set to increase?

What types of subsidies are more easily subject to WTO disputes? Needless to say, subsidies involving large sums of money represent one example. In particular, because monetary amounts are quite large when the relevant industry receiving the subsidy is the key industry of a country, these instances can easily lead to a WTO dispute as seen in the commercial aircraft dispute noted above.

Moreover, as with the relationship between Boeing (leader) and Airbus (follower), subsidies are often given to the follower to catch up with the leader or to a comparatively weaker industry of a country to catch up with a comparatively dominant industry in another country. The prospects that this leads to is the possibility that the structure where the leading developed country attempts to seek remedy from the competitiveness of a company from a developing nation on the basis of subsidies will become more evident, given the fact that companies in developing nations including China have rapidly strengthened their industries in recent years.

Even if more subsidy disputes are brought before the WTO, however, these disputes will likely involve a limited number of sectors. Since it takes several years to resolve after a dispute has been formally referred to the WTO, in most instances the countervailing measure investigation represents a more agile means of remedy if the dispute involves damage domestically.

One industry whose subsidies may easily be brought before the WTO in a dispute is the automotive industry. Previously, subsidies that give preference to the use of domestically produced goods for the automotive industry in India and Indonesia have become an issue in the WTO. Since it encompasses a wide range of sectors, the automotive industry occupies an important position in the industrial policy of developing nations, from the perspective that it helps cultivate many domestic industries. There is the potential for China, much like India and Indonesia, to be the subject of similar automotive disputes. The steel and semiconductor industries are known as process industries that require huge amounts of upfront investments, and because structurally they require subsidies in most cases, these industries are susceptible to disputes. On the other hand, over the previous 10 years M&A has accelerated consolidation in these same process industries, which has made it more complicated to recognize how certain companies are affected by certain markets, and how the market is affected, making it difficult to prove prejudice. In this sense, compared to the era when steel and other process industries were the core industries in many countries, today there is a lower possibility of a dispute at the WTO concerning subsidies provided to these industries.

In terms of other manufacturing industries, the ship-

building industry is a sector subject to long-term slowdowns structurally because of the nature of its one-off orders and extended supply-demand cycle, and as such, is considered to be an industry that requires government assistance. The commercial aircraft industry is very similar in this respect. Outside of certain countries that have a comparative advantage, subsidies for agriculture are essential for the industry's survival. The WTO Agricultural Agreement defines in great detail the process for reducing export subsidies, but in actuality this agreement has not necessarily been followed in the past. The fact that referrals of disputes concerning agricultural subsidies were frozen until the end of 2003 due to the principle of "due restraint" (or the "peace clause") from Article 13 of the WTO Agricultural Agreement has had an influence. As negotiations on the reduction of agricultural subsidies have stalled at the Doha Round, there is sufficient possibility developing nations that are dissatisfied with the agricultural subsidies of developed nations, much like the cotton dispute involving Brazil and the U.S., will choose the WTO to settle their dispute.

In general terms, there are many cases when products for which the market price is easy to determine in international markets involve subsidies that are subject to a WTO dispute. Viewed by industry, the same can also be said for sectors with an advanced market oligopoly internationally. This validates the general structure in which developed nations target industrial product related subsidies of developing nations that were used to rapidly enhance their competitiveness and developing nations target the agricultural subsidies implemented by developed nations.

Regarding the potential for subsidy disputes to increase at the WTO, there appears to be more leeway going forward for targeting not only prohibited subsidies but also yellow subsidies that adversely affect WTO members, from the perspective that a legal judgement has been formed. The standard for recognizing "serious prejudice" in the cotton dispute was lowered further in the Airbus-Boeing dispute, and as a result, the number of countries claiming adverse effects from yellow subsidies in future subsidy disputes is likely to grow. However, the relationship between Airbus and Boeing is rather unique in that the two are on equal footing in the market where one company can substitute the imports of the other, and so the same standards cannot be applied as those used generally for product markets where multiple competitors exist.

As illustrated in Figure II-4, in terms of disputes between specific countries, those between the U.S. and China stand out. The 2011 report of the WTO Appellate Body on the U.S. anti-dumping duty and countervailing measure levied on China recognized that China's state-owned commercial banks correspond to "public body," as stipulated in Article 1, Item 1 of the ASCM. Essentially, this recognized that low interest loans extended by state-owned commercial banks correspond to subsidies. This means that if it is cited as subject to a WTO dispute, there is a possibility that export credit extended by the Export-Import Bank of China will be

Figure II – 4 Major disputes in recent years at the WTO relating to subsidies

Case name (Year) (WTO Dispute No.)		Summary of the dispute (Judgment of the WTO Dispute Settlement Body or Nature of the Complaint)	Current status
Respondent	Complainant		
EU Export subsidies on sugar (2002) (DS265, 266, 283)		The export refund system based on the EU's Common Organisation of the Market (CMO) corresponds to an export subsidy that exceeds the EU's Schedule of Concessions, and as such violates Article 3:3 and Article 8 of the WTO Agreement on Agriculture.	Panel and Appellate Body reports adopted
EU	Australia, Brazil, Thailand		
U.S. Subsidies on Upland cotton (2002) (DS267)		There exists "serious prejudice" as a result of increases in the market price of cotton being impeded due to various domestic subsidies provided for under U.S. laws relating to agriculture, and some of the subsidies fall under subsidies favoring the use of domestic products.	Panel and Appellate Body compliance reports adopted
U.S.	Brazil		
South Korea's subsidies on trade in vessels (2002) (DS273)		Debt waivers, etc., granted by the South Korean government correspond to export subsidies. "Serious prejudice" was not found to exist in this case. South Korea filed a complaint about the EU's shipbuilding subsidies, but these were not found to violate the ASCM.	Panel report adopted
South Korea	EU		
Commercial aircraft (Airbus) (2004) (DS316, 347)		Various subsidies by the EU have given rise to "serious prejudice" by causing substitution of Boeing exports in EU and third-country markets. The Appellate Body reversed the findings of the Panel in regard to the correspondence to export subsidies.	Panel and Appellate Body reports adopted
EU	U.S.		
Commercial aircraft (Boeing) (2004) (DS317, 353)		The Panel found Boeing's profits resulting from tax exemptions on offshore income corresponded to an export subsidy and also found "serious prejudice" due to export substitutions of Airbus aircraft in third country markets.	Proceedings by Appellate Body
U.S.	EU		
China preferential tax treatment (2007) (DS358, 359)		Assertion that preferential tax treatment (refunds, reductions, exemptions, etc.) in regard to products including steel, lumber and paper, fall under export subsidies. A memorandum of understanding was signed with China agreeing to abolish the treatment.	Agreement on withdrawal of proceedings
China	U.S., Mexico		
China's anti-dumping and countervailing measures (2008) (DS379)		The imposition of a countervailing duty on Chinese made welded steel pipes by the U.S. violated the requirements for appropriate amount of countervailing measures. China's state-owned commercial banks were found to correspond to a "public body" under the ASCM.	Panel and Appellate Body reports adopted
U.S.	China		
China's brand development subsidies (2008) (DS387, 388, 390)		Assertion that government support for home appliances, textile products, etc., aimed at the development of domestic brands was given contingent upon export performance, and thus corresponded to export subsidies. A memorandum of understanding was concluded among the concerned countries.	Panel proceedings frozen
China	U.S., Mexico, and others		
Province of Ontario feed-in tariff program (2010) (DS412)		Japan asserted that the added value requirement for procurement of materials in Ontario as a condition for participation in the province of Ontario's renewable energy feed-in tariff program correponds to subsidies favoring the use of domestic goods.	Panel established
Canada	Japan		
Chinese wind power equipment (2010) (DS419)		The U.S. asserted that preferential measures granted by the Chinese government to companies establishing wind power plants in China are subsidies favoring the use of domestic products. In June 2011 China agreed to rectify the situation.	Termination foreseen under bilateral consultations
China	U.S.		

Note: The year shown in parentheses is the year in which the request for consultation was made. Only disputes regarding the illegality of subsidies are included.
Sources: WTO Secretariat materials and *Case Book - WTO Law* (Yuhikaku Publishing Co., 2009).

found to be in violation of the ASCM. Moreover, there is also a possibility that Chinese government assistance, such as low-interest lending for orders of infrastructure exports, regardless of industry, will become an issue in the WTO, and so the response of the U.S. government and industry circles will come under the spotlight going forward.

Rise in the number of WTO disputes over environmental-related subsidies

Governments around the world are providing prioritized assistance to environmental industries, which are expected to grow moving forward. As was seen when subsidies in China and Canada for renewable energy production were brought before the WTO, the number of environmental subsidy disputes is expected to rise (Figure II-4).

In June 2011, Japan requested establishment of a WTO panel be set up regarding a subsidy for renewable energy power generation implemented by the province of Ontario in Canada. Japan requested consultations in September 2010 based on the complaint that Ontario's feed-in tariff (FIT) program for renewable energy corresponded to a prohibited subsidy, but bilateral talks broke down. This marked the first time in three years—not since its dispute over the classification of EU tariffs on IT products in 2008—Japan had taken procedures to set up a WTO dispute settlement panel as a party in a dispute. Ontario's FIT program guarantees that electricity produced using renewable energy, such as hydroelectric, wind or solar power, will be bought back at a fixed price over an extended period if the producer sources a significant portion of their raw materials or equipment from within the province. Japan filed a complaint that this measure corresponds to a subsidy that gives preference to the use of domestically produced products over its products. After Japan's request for consultation, Ontario further raised the ratio of local content under question. The WTO panel was set up in July the same year.

In December 2010, the U.S. also requested consultation at the WTO concerning a subsidy China was providing to wind power equipments. The argument for this dispute, similar to the one in Canada noted above, was that this subsidy was a prohibited subsidy that gave preference to the use of domestically produced goods. In June 2011 China promised to eliminate the subsidy in question and the dispute ended.

Subsidies relating to environmental conservation, or commonly known as "green subsidies," were given favorable standing until the applicable rule expired at the end of 1999. Until this rule expired, even if it had a specificity, a green subsidy was not subject to an actionable subsidy. Today, however, a subsidy with a specificity, even if it is for conserving the environment, is subject to an actionable subsidy. There are those that point out the possibility exists a country will seek to justify a subsidy that is meant to conserve the environment according to a different rule or based on Article XX of the GATT. Some have pointed out that the granting of free emissions allowances to specific industries in a for-profit emissions trading system, such as the one that the EU is planning to implement, can be considered as one example of this environmental related subsidy. (For more information on this system, please refer to Part 4 in Chapter 2 of the 2010 JETRO Global Trade and Investment Report.)

Discussions have been at odds over the theories regarding whether Article XX in the GATT, which is a general exemption clause to the stipulations of the GATT, can be a basis for justifying measures that violate stipulations of the WTO rules outside the GATT. The WTO Dispute Appellate Body report of 2009 that reviewed claimed violations of China's obligation to provide trading rights for published works and other materials recognized that, despite various restrictions, the possibility that China could invoke Article XX of the GATT in response to a violation of Article 5, Item 1 of the protocol of accession for China's membership in the WTO. This was the first time that Article XX was applied to rules outside the GATT. Out of context from this dispute, experts have pointed out "Adequate prudence is required concerning the application [of Article XX] in other situations such as whether it can be used to justify environmental subsidies that are not in conformity with the ASCM" (Nagoya University Professor Fujio Kawashima), but affirmative interpretations also exist toward invocating Article XX of the GATT to the ASCM.

Subsidy disputes and trade remedies

Although WTO disputes over the legality of a subsidy itself have stood out in recent years, a large percentage of these WTO subsidy disputes have focused on whether a countervailing measure implemented by an importing nation when the effect of a subsidy affects its domestic market is in conformity with the ASCM. Amidst such trade remedy disputes, the WTO issued a ruling of particular interest concerning one of the frequent subsidy disputes involving the U.S. and China because of its interpretation of the ASCM.

In the anti-dumping duty and countervailing measure levied on China by the U.S. noted above, one contention was over whether the imposition of an anti-dumping duty on the same import product as the countervailing measure corresponded to a "double remedy." The WTO Appellate Body overturned the report of a WTO panel that said the U.S. action did not violate the ASCM and ruled that the U.S. did violate the condition of "appropriate amounts" for a countervailing measure stipulated in Article 19, Item 3 of the ASCM.

Both an anti-dumping duty and countervailing measure are accepted as a remedy for the industry of the importing country concerning unfairly priced exports. In principle, an anti-dumping duty is a tax to make up the difference between the domestic price (normal value) in ordinary course of trade and the export price. When the price of a certain product is held down by the effect of the subsidy, the subsidy element is deducted in the calculation of the normal value and export price. In contrast, a countervailing measure is a tax that offsets the effect of a subsidy on an imported product up to an amount equal to the subsidy.

Since the target of each remedy differs, even if an anti-dumping duty and countervailing measure were imposed on the import of a product, theoretically a "double remedy" that redundantly compensates for the same situation

should not occur. When China joined the WTO, however, its membership was accepted with the precondition that it was difficult to calculate the normal value in China's domestic market (Article 15 of the protocol of accession in effect states that China is recognized as a non-market economy country). In an anti-dumping investigation of a non-market economy country, the difference between the export price and the sales price of a third country is applied, and not the domestic price. In countervailing measure investigations of non-market economy countries as well, adjustments can be made in the calculation of benefits realized from the subsidy in consideration of the situation of a third country. The WTO Appellate Body for this dispute determined that because the U.S. employed a calculation method for a non-market economy country, there was no clear distinction between the effect of the countervailing measure and the anti-dumping duty, and so in the sense that part of the anti-dumping duty had counteracted the effect of the subsidy, the amount of the countervailing measure did not qualify as an appropriate amount.

The interpretation of Article VI:5 of the GATT also became a point of contention. Article VI:5 stipulates that a countervailing measure against an "export subsidy" cannot be combined with another measure in order "to compensate for the same condition." This is what led the lower appeals panel to determine that a "double remedy" in response to a domestic subsidy was not prohibited according to the ASCM because the target of export subsidy was limited in nature. In contrast, the WTO Appellate Body concluded that it could not approve this type of "double remedy" if it redundantly compensated for the same condition by imposing both an anti-dumping duty and countervailing measure on a domestic subsidy because avoiding compensation for the same condition is the central requirement of Article VI:5. It should be noted that the Appellate Body did not mention that imposing both an anti-dumping duty and countervailing measure at the same time was a violation.

In May 2011, the EU announced that for the first time it would impose an anti-dumping duty and countervailing measure on the same product, Chinese made coated paper. The EU's announcement included an explanation that the measure did not correspond to a "double remedy."

Going forward, increased attention should be seen on trade remedies taken against exports from developing countries, including not only China, but also Vietnam, which has the same non-market economy country clause in its protocol to accession, and Russia, which is expected to join the WTO soon. In addition, the non-market economy country clause stipulated in the protocol to accession is set to expire at the end of 2016 for China and 2018 for Vietnam.

Subsidy clause in FTAs

In bilateral FTAs concluded to date, on top of the fact that few stipulations have been made concerning subsidies, there have also been many cases where even if a provision is present the remedy carries no effectiveness. However, the EU-South Korea FTA, which came into force provisionally in July 2011, contains a provision on export subsidies, subsidies that give preference to domestically produced products and prohibited subsidies as a subsidy clause in addition to WTO rules in the ASCM. Specifically, it prohibits either (1) subsidies that guarantee the liabilities of a company regardless of amount or time period and (2) subsidies provided to a bankrupt company that has not submitted a business restructuring plan, which have an adverse effect on trans-border commerce. The FTA also includes a provision on settlement procedures for arbitrator-led subsidy disputes.

Will the subsidy clause in the EU-South Korea FTA become a model for future FTAs? Generally, the granting or elimination of subsidies is not conducted based on a bilateral relationship alone, and as such, there is a limit to making comprehensive rules on subsidies in FTAs or establishing a cap on the amount of subsidies granted. Such clauses will likely include other restrictions, as indicated by the fact that fishing and agricultural subsidies are not subject to the subsidy clause in the EU-South Korea FTA.

(3) The future of WTO rules – A closer look at disciplinary rules for export restrictions

Points of contention regarding export restrictions based on WTO agreements

While the GATT and WTO are systems that have developed with a focus on disciplinary rules on imports, the GATT, since 1947, does contain provisions on exports. First, Article I of the GATT clearly states that most favoured nation principle can be applied to both imports and exports. General prohibitions on quantity restrictions in Article XI:1 can also be applied to either imports or exports. In addition, "fees and formalities and fees connected with exportation and importation" from Article VIII and "state trading enterprises" status from Article XVII can be applied exports much like they are to imports.

However, there are also many exceptions. First, Article XI:2 provides for an exception to the prohibition on quantity restrictions. Specifically, 2 (a) of the Article contains an exception focused on exports that allows for a restriction on "Export prohibitions or restrictions temporarily applied to prevent or relieve critical shortages of foodstuffs or other products essential to the exporting contracting party." In addition, general exceptions found in Article XX and exceptions applied under the premise of national security in Article XXI can also be applied to exports. Since there are a great many exceptions centered on Article XX, it has been pointed out that the prohibitions of export restrictions in the GATT essentially have no effect.

Although interest has grown in society about the finite nature of natural resources since the oil crises of the 1970s, debates on trade liberalization have concentrated on opening the markets of each country. Needless to mention the GATT era, there were few cases where restrictions on exports became an issue at the WTO. In recent years, however, prices of mineral resources and foodstuff have skyrocketed, and as the importance of finite natural resources and food crops grows in national policies, more countries have begun to recognize the need for and importance of rule-making against measures that restrict exports.

Following the financial crisis of 2008, the WTO has regularly monitored protectionist measures implemented by countries around the world, and in a report it points out that the number of export restrictions are on the rise. From October 2008 to October 2009, new export restriction measures (export duties, export bans, export quotas, etc.) instituted by WTO member nations and observer nations totalled 15, but from November 2009 to mid-October 2010 this same number was 35. In the most recent report spanning mid-October 2010 to April 2011, this number was 30 in just the space of a little over six months, indicating that that the number of these measures is rising markedly.

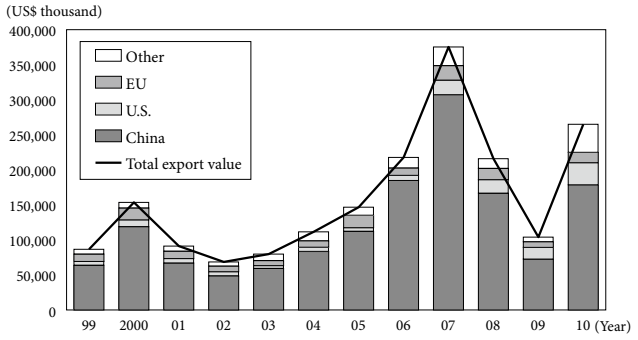
Around the same time as a collision involving Japanese patrol boats and a Chinese fishing boat occurred in September 2010, a problem arose where exports of rare earth from China were disrupted. With countries exporting raw materials, including rare earth, concentrated on specific few (Figure II-5), it has become essential for Japan, which must depend heavily on imports for its raw materials, to secure a stable supply. Therefore, companies must actively report questionable export restriction practices based on WTO rules to the national government.

Overview and points of contention regarding China's raw material export restriction dispute

In the sense of clarifying the limit and nature of current disciplinary rules in the WTO, decisions made by the WTO Dispute Settlement Body, which have been few and far between to date, regarding export restrictions have become a focus of attention. China's export restrictions on natural resources had been disputed in the WTO even prior to the rare earth incident, with a panel report released in July 2011. This dispute garnered much attention because it was the first panel decision on Article XI:2(a) of the GATT, and was the first time the WTO ruled on the application of Article XX to export restrictions.

In 2009, the United States, EU and Mexico requested a consultation at the WTO regarding China's export restriction measures (export duties, export licensing, export quotas, and minimum export price, etc.) on nine raw materials, including coke, bauxite, fluorite, magnesium, manganese, silicon carbide, metallic silicon, yellow phosphorous, and zinc. A dispute settlement panel was set up later in the same year.

Figure II – 5 Share of world's rare earth export value by country



Note: Rare earth metals, defined as HS code 2805.30, is a collective term for the 17 rare earth metals including yttrium, lanthanum, europium, neodymium and others.
Sources: Trade statistics from individual countries/regions.

Regarding export duties, in Article 11.3 of its WTO Accession Protocol (below, the Protocol) China had promised to "eliminate all taxes and duties imposed on export products," with the exception of items noted in Annex 6 of the Protocol or cases that correspond to export charges in conformance with Article VIII of the GATT. As of 2009, China had imposed export duties of between 10% and 70% on these items, with the exception of silicon carbide, but of these only yellow phosphorous was mentioned in Annex 6. In other words, with the exception of yellow phosphorus, export duties placed on the remaining seven items were in violation of Article 11.3 of the Protocol. Moreover, despite the export duty ceiling for yellow phosphorous, which was the only item to be mentioned in Annex 6, being set at 20%, China had levied an export duty of 70% in 2009 (as of January 2011 China reduced this to 20%). China did not refute this violation of the Protocol, but rather claimed that these export duties could be justified as exceptions according to Article XX (b) and (g) of the GATT.

China's export licensing, export quotas and minimum export price systems explicitly violated Article XI:1 of the GATT that prohibits import or export licenses and export quotas besides tariffs or specific surcharges. Together with claiming it was justified according to Article XX of the GATT, China also argued that these systems were justified according to Article XI:2 (a) as well. Article XI:2 (a) item stipulates restrictions "temporarily applied to prevent or relieve critical shortages of foodstuffs or other products essential to the exporting contracting party" are not subject to Article XI:1, which means such measures are justified as exceptions.

The WTO panel found that China was in violation of Article 11.3 of the Protocol and Article XI:1 of the GATT, and also did not recognize its justification for its measures according to Article XI:2(a) and Article XX of the GATT.

This first WTO interpretation of Article XI:2(a) of the GATT found that China did not fulfill the requirements for "temporary" restriction and "critical shortages" stipulated in the same provision. On the other hand, regarding the provision "foodstuffs or other products essential to the exporting contracting party," Japan, which had participated as a third country, stated that this should be applied only to "famine and other such situations," but the panel determined that essential products would be determined according to the situation of the contracting party that takes the measure. This interpretation has left leeway for Article XI:2 to be used as a basis for justifying export restrictions on a variety of natural resources going forward.

Regarding Article XX of the GATT, China cited (b) "[measures] necessary to protect human, animal or plant life or health" and (g) " [measures] relating to the conservation of exhaustible natural resources" as the basis of its argument, but in either instance the WTO panel found that China's measures did not correspond with the purpose of each. As for (b), the panel cited that the existence of alternative measures not restricting trade, such as limits on

production domestically or restrictions on waste products, was reason why China's export restrictions did not fulfill the requirements for "necessary measure." Next, with regards to (g), the panel found that as an exceptional clause this was limited to instances "if such measures are made effective in conjunction with restrictions on domestic production or consumption." In other words, the condition for export restrictions to be implemented under the purpose of (g) is that some type of restriction be taken on production or consumption of the applicable product domestically and not on exports. Starting in 2010, China instituted a limit on the total amount of extracted bauxite and phosphorous, but these measures were implemented after the issue was referred to the WTO, so the panel did not accept China's argument based on the exception noted in (g). In addition, the panel stated that even if a limit on total extraction amounts is present, if the ceiling of this amount is actually higher than the production amount, it cannot be called an effective restriction, and cannot be considered a measure that fulfills the requirement of (g) indicating that "if such measures are made effective in conjunction with restrictions on domestic production or consumption." It has been pointed out that there is a high probability this ruling will function as a precedent if for example China's rare earth export quota system is disputed at the WTO in the future.

Going forward, there is the possibility that other items from Article XX of the GATT will be points of contention in WTO disputes on exports. For example, Article XX (j) states as a reason for an exception, "[measures] essential to the acquisition or distribution of products in general or local short supply." Although several conditions are present in (j), depending on the interpretation, this provision can be read to cover a wide range of export restrictions.

Rules on export restrictions in FTAs

As has been discussed above, although WTO trading rules include exports by nature, as it was indicated by the first examination of Article XI:2(a) of the GATT in China's raw material export restriction dispute, even if the WTO Dispute Settlement Body's ruling was sufficiently clear, it remains hard to say that disciplinary rules on exports have been adequately stipulated in WTO rules (Figure II-6).

As one point of contention regarding non-tariff barriers in non-agricultural market access (NAMA) negotiations in the Doha Round, proposals have been made about clarifying disciplinary rules on exports. As representative proposals, there is an EU proposal on export duties and the proposal on enhanced transparency of export restrictions, primarily proposed by Japan. For example, the EU proposed that procedures be added and further details included in the imposi-

Figure II – 6 Principal export regulations and exceptions under WTO rules

	Item	Description / Applicable conditions	Clause
Principle	General most-favored-nation treatment	Shall be granted immediately and unconditionally to like products directed to the territory of all treaty countries in respect to the method of collection of export duties and surcharges and all related rules and procedures.	GATT Article I:1
	General prohibition of quantitative restrictions	In regard to sales for export or for import, no prohibitions or restrictions other than tariffs and surcharges shall be established or maintained, whether quotas, export licenses or other procedures.	GATT Article XI:1
Exception	Prevention of critical shortages of foodstuffs, etc.	Temporarily applied export prohibitions or export restrictions for the purpose of preventing or relieving critical shortages of products essential to the exporting country.	GATT Article XI:2(a)
	Establishment of prohibitions or restrictions of exports of foodstuffs	When establishing export prohibitions or restrictions, adequate consideration shall be given to the food security of importing countries and provide necessary information as requested.	WTO Agreement on Agriculture Article 12.1
	Protection of life or health	Export prohibition, etc., of materials harmful to the health of humans and animals.	GATT Article XX:(b)
	Exportation of gold or silver	Restriction measures on the export of gold or silver.	GATT Article XX:(c)
	Protection of artistic works	For the protection of national treasures of artistic, historic or archaeological value.	GATT Article XX:(f)
	Conservation of exhaustible natural resources	Only to be implemented in conjunction with restrictions on domestic production and consumption. For example, a measure that restricts exports of a specific resource when restricting the extraction of said resource in order to conserve a scarce resource.	GATT Article XX:(g)
	Measures under an intergovernmental commodity agreement	Only when not disapproved between WTO member countries.	GATT Article XX:(h)
	Maintenance of essential quantities pursuant to a stabilization plan by the government	Measures to impose restrictions on the export of raw materials needed domestically in order to ensure essential amounts for domestic processing industries. However, such measures shall not operate to increase the afforded protection to the domestic industry and shall follow the provisions of non-discrimination.	GATT Article XX:(i)
	Maintenance of products for which there are supply shortages	Essential measures for the acquisition or distribution of products for which there are supply shortages either generally or locally. Provided that such measures be consistent with the principle that all contracting parties are entitled to an equitable share of the international supply of such products.	GATT Article XX:(j)
	Important security interests	The taking of necessary measures for maintaining national security shall not be precluded.	GATT Article XXI
(Reference) Examples of FTA rules	Prohibition in principle of export duties	No export duties whatsoever shall be established or maintained.	Japan-Switzerland EPA Article 16, etc.
	Quantitative export restriction clause	The export quantity shall not as a result of the export restriction be lower than the exporting country's share of the supply over the past three years.	NAFTA Article 315:(a)
	Export price clause	An export price higher than the domestic price at the time of export shall not be imposed by means of export licenses, tariffs or other surcharges or establishment of a minimum export price.	NAFTA Article 315:(b)

Sources: WTO agreements and Mitsuo Matsushita, "Export Controls on Natural Resources and Foodstuff in the Context of the WTO/GATT System" (*Trade and Tariffs*, November 2008).

tion of export duties in the current GATT stipulations, such as most-favoured nation treatment, tariff evaluations, export charges, state trading enterprises, and others. In the Doha Round, however, NAMA is the most controversial area, and so a quick settlement cannot be expected. Although it is preferred to have stable trading rules on a multilateral basis, this represents a difficult challenge over the short term.

For this reason, supplementing export rules with FTAs should also be eyed. As a way of clarifying WTO rules, FTAs have included some provisions that prohibit the imposition of export duties as well as disciplinary rules that exceed the stipulations of the GATT. In most cases Japan's economic partnership agreements (EPA) prohibit export duties. For example, Article 16 of the Japan-Switzerland EPA stipulates that for products exported to the other party, the exporter "must not establish new or maintain any export duties." Notably, because Japan is a nation that depends on imports of natural resources, the "Energy Chapter" in Japan's EPA with Indonesia and Brunei, from which it imports large quantities of crude oil and natural gas, includes detailed provisions such as the obligation to promptly notify the other party in case of implementing export or import restrictions and the requirement to conduct talks when requested to do so by the other party.

Examining FTAs not including Japan as a contracting party shows that the North American Free Trade Agreement (NAFTA) includes detailed mention of rules on exports that exceed those in the GATT. NAFTA Article 314 and Article 604, relating to energy goods, not only prohibits the imposition of export duties, but Article 315 and Article 605 also includes restrictions on using Article XI:2 and Article XX of the GATT to justify export restrictions. Article 315 Item 1 (a) is the provision on export quantities. This stipulation recognizes that the GATT can be used to justify export restriction measures only when the restriction does not reduce the proportion of the total export shipments of the specific good made available to that other Party relative to the total supply of that good of the Party maintaining the restriction as compared to the proportion prevailing in the most recent 36-month period. Article 315 Item 1 (b) is the provision on export prices. This stipulates, as a condition for applying the GATT, the Party does not impose a higher price for exports of a good to that other Party than the price charged for such good when consumed domestically, by means of any measure, such as licenses, fees, taxation and minimum price requirements. Article 315 Item 1 (c) stipulates as a condition that the restriction does not require the disruption of normal channels of supply to that other Party or normal proportions among specific goods or categories of goods supplied to that other Party. NAFTA Article 605 on energy-related goods is the same stipulation as Article 315. Japan's EPAs only stipulate that Article XX of the GATT or Article XXI concerning national security can be applied as a reason for justifying export restrictions, as is the case with Article 22 of the Japan-Switzerland EPA.

NAFTA provisions form a point of reference for strengthening disciplinary rules to guarantee the stable supply of natural resources through a bilateral FTA. On the other hand, experts have also pointed out that strengthening these rules serves to benefit the national interest of the importing country only, and from the standpoint of a country in possession of the natural resources, the possibility exists for the position to be reversed (Professor Kawashima). For example, if Japan is an importer of natural resources and at the same time considers the future export of a specific resource such as water, there are instances when seeking stronger export rules limited to a specific area such as the "Energy Chapter" is closer to being in conformity with national interests compared to strengthening rules on exports as general provision.

Work continues on expanding disciplinary rules in government procurement agreements

The strengthening of government procurement rules can be cited as one of the many challenges surrounding WTO rules in the post-Doha Round international trade. Although no accurate estimate on the ratio of government procurement to GDP for countries around the world exists, this ratio is said to be between 10% and 20% and higher in developing nations.

Mainly developing nations are hesitant about creating rules for government procurement, while the Government Procurement Agreement (GPA) within the WTO, which bases its rules on the single undertaking principle, is irregularly a plurilateral agreement that does not require membership. Only 14 WTO member countries and regions (including the EU) are party to the agreement (Armenia is scheduled to join the GPA soon). The Doha Round sought to launch negotiations by lowering the hurdles rather than strengthening disciplinary rules on government procurement, such as promoting greater "transparency of government procurement." In the end, however, a consensus was not reached and talks have been deferred.

Within the framework of the current GPA reviews have been continuing since 1997 on a separate track from the Doha Round. These reviews have focused primarily on (1) simplifying procedures including electronic procurement; (2) strengthening rules to eliminate discriminative measures; and (3) and expanding the scope of procurement subject to the agreement. A provisional agreement was reached in December 2006 on the revised text of the GPA, and with the exception of certain final provisions, the new rules have been nearly finalized. As for (1) noted above, Article 14 of the amended GPA stipulates provisions for electronic auctioning, while other revisions were made to the entire GPA with consideration placed on electronic procurement. In (2), the revised text clarified the guarantee of fairness within the provisions, as illustrated by the new general principle included in Article 4 Item 4, "a procuring entity shall conduct covered procurement in a transparent and impartial manner that avoids conflicts of interest and prevents corrupt practices." As for (3), work continues among member countries to finalize the review of thresholds for applicable government procurement bidding by area. A new agreement might be adopted at the WTO Ministerial Conference in conjunction with the results of the Doha Round in December 2011.

The participation of developing nations is essential to raise the effectiveness of government procurement rules. At present, nine countries including China are in negotiations to be member to the GPA. At the time it joined the WTO China expressed its intent to become party to the GPA, but negotiations have made little headway. In the open offers to date, China has not clearly specified the scope of local government organizations and government-affiliated organizations that would be subject to the government procurement rules of the GPA. The U.S. and Europe have included a broad scope, and so have requested China to set the same level of threshold as existing member countries. Therefore, reaching an agreement with China will be no easy task. It appears, however, that China will submit a new revised proposal in December 2011 that includes local government organizations.

Text of the Anti-Counterfeiting Trade Agreement (ACTA) finalized

The recognition that strengthening the protection of existing intellectual property rights is an essential issue to trade growth is high among mainly developed nations. However, it has been pointed out that enforcement provisions, such as civil claims and criminal charges against infringement of intellectual property rights, are insufficient in the WTO's Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS).

The 2009 WTO Panel on China's measures affecting the protection and enforcement of intellectual property rights reviewed a dispute over whether China's crackdown on counterfeited and pirated goods violated TRIPS. Although it sided with the U.S. claim that China's protection of copyrighted properties violated "compliance with the provisions of the Berne Convention" stipulated in Article 9 of the TRIPS, the panel did not determine that China's violation relating to criminal prosecution, which the U.S. had favored. For example, the interpretation of the Chinese authorities at the time of the incident was that an offender found with over 500 pirated DVDs would be subject to prison for no more than three years. The U.S. claimed that this violated Article 61 of the TRIPS, which establishes criminal charges for the illegal reproduction of copyrighted work. However, in response to the fact that the scope of Article 61 of the TRIPS includes only "commercial-scale" acts, the WTO panel found that the U.S. was unable to sufficiently prove the existence of "commercial-scale" intellectual property rights infringements in the Chinese market, and ruled against the U.S. complaint.

This dispute illustrated the limits of the current TRIPS, such as its provisions on criminal charges. Given such circumstances, developed nations are attempting to supplement the TRIPS with a protection of intellectual property rights in a multilateral framework or FTAs. The ACTA represents such of pluralist initiative. 11 countries and regions centered on developed nations such as Japan, the U.S. and the EU pushed discussions forward since 2008, reaching an overall agreement in 2010 and finalizing the text. The ACTA is expected to be signed and take effect soon.

The ACTA is an agreement that focuses on the enforcement of intellectual property right violations. It mainly covers (1) criminal procedures and charges relating to infringements; (2) enforcement in civil law; (3) border measures such as cracking down on counterfeit products at customs, (4) and intellectual property rights in digital environments. As a TRIPS-plus provision on criminal charges, the ACTA makes the import of counterfeited labels subject to criminal prosecution (Article 23 Item 2) in order to prevent counterfeiters importing counterfeit products and labels separately. Also, regarding "commercial-scale" acts, which are stipulated in Article 61 of the TRIPS and became a point of contention in the China intellectual property rights WTO panel, the ACTA defines such scale of criminal actions to "include at least those carried out as commercial activities for direct or indirect economic or commercial advantage" (Article 23.1). In terms of enforcing civil law, the ACTA includes a provision (Article 9.2) where the right holder can seek damages from the offender that equal the amount the offender realized in profits from the act. Regarding such damages, Article 45 of the TRIPS stipulates "an adequate amount to compensate for the injuries," and so the difficult nature of calculating these damages has been seen as a problem.

In order for the ACTA to function effectively after it has taken force, participation is essential not only from the current 11 countries and regions, but also from developing countries that have been hesitant toward joining the ACTA to date. In addition, friction regarding the protection of intellectual property rights exists not only between developing nations and developed nations. During ACTA negotiations, the U.S. and EU intensely opposed one another especially in terms of the definition of geographic indications, which once again illustrated the difficulty of incorporating the protection of intellectual property rights into trade rules.

2. Overview of FTAs around the World

(1) FTA networks around the world

Currently 199 FTAs in the world in effect

As of June 1, 2011, there were a total of 199 free trade agreements (FTA) in effect around the world, including custom unions. (Based on WTO reports; see reference "World and Japanese Trade Statistics" for a list of FTAs around the world.) (Note 1)

The number of FTAs in effect, which was only 16 before 1990, increased by 51 in the 1990s and again by 120 in the next decade since the year 2000, indicating that FTAs have grown by around 200 over the last 20 years (Figures II-7 and II-8). In particular, the Asia and Oceania region saw a recent spike in this number, as 60% of the FTAs in these regions have come into effect after 2005. This rapid increase comes from two contributors, including the full completion of ASEAN+1 FTAs in 2010, namely FTAs involving ASEAN and its neighboring countries of Japan, South Korea, China, Oceania (Australia and New Zealand), and India respectively, and the steady promotion of Japan's bilateral FTAs with ASEAN countries.

Figure II – 7 Number of FTAs worldwide by year

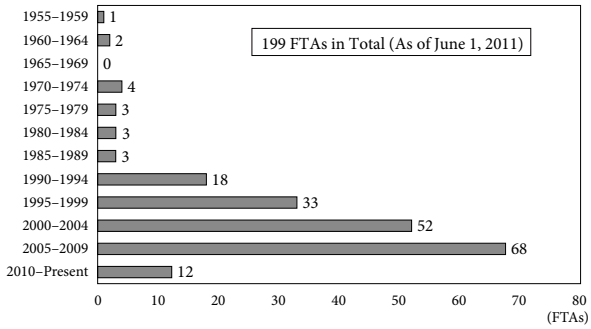


Figure II – 8 Number of world's FTAs by period and region

(FTAs)

	Europe	Russia / CIS	Middle East / Africa	Americas	Asia / Oceania	Cross-Regional	Total
1955–1959	1						1
1960–1964	1			1			2
1965–1969							0
1970–1974	1			1		2	4
1975–1979					2	1	3
1980–1984				1	2		3
1985–1989				1		2	3
1990–1994	4	5	2	2	3	2	18
1995–1999	3	17	2	5		6	33
2000–2004	8	4	5	8	9	18	52
2005–2009	5	2		7	20	34	68
2010–Present	5				4	3	12
Total	28	28	9	26	40	68	199

Source: Both figures II-7 and II-8 were compiled based on a list published on the WTO website.
(http://rtais.wto.org/UI/PublicAllRTAList.aspx : As of June 1, 2011)

[1] Although the government of Japan defines an FTA as an agreement used in the trade of goods and services and agreements involving broader areas from investment to government procurement as economic partnership agreements (EPA), the term FTA is uniformly used in this chapter which also includes EPA.

Two types of FTAs in particular have seen a rise in number recently: cross-regional FTA and FTA between major trading nations. As FTAs between small trading countries are already in effect for the most part, FTAs between countries doing large scale trading have become more prominent among each country in recent years. The FTA between the EU and South Korea, which provisionally took effect in July 2011, and the FTA between the U.S. and South Korea, which is yet to be approved by the legislature of both countries, represent noteworthy examples. The Economic Cooperation Framework Agreement (ECFA: not notified to WTO) between China and Taiwan took effect in 2010.

Given the fact that intra-regional FTA networks have been completed to a certain extent, the number of cross-regional FTAs involving countries from different regions has been on the rise in recent years. One example of this is the Trans-Pacific Partnership (TPP) where negotiations are currently moving forward. Other example FTAs that took effect in 2010 includes the followings; Turkey enacted three FTAs with Chile, Jordan and Serbia respectively, in order to extend its economic partnerships outside of the EU.

Recently, the South America common market (MERCOSUR: Argentina, Brazil, Paraguay, Uruguay) has been actively undertaking cross-regional FTA negotiations, as many countries have approached it. Although negotiations with the EU had been shelved for many years, they were officially restarted in October 2010. The EU side has positioned MERCOSUR as one of priority countries for FTA in its new trade policy strategy known as "Global Europa." In addition, MERCOSUR has completed negotiations with the Southern African Customs Union (SACU) and Egypt and negotiations with Morocco and Turkey likely to accelerate (some of them are preferential agreement rather than FTA). MERCOSUR has also completed a joint study with South Korea with an eye toward entering negotiations. Japan, at the 41st MERCOSUR Summit meeting held in June 2011, also proposed the launch of "Japan-Mercosur Dialogue for Closer Economic Relations."

(2) Trends surrounding Japan's FTAs

While Japan increased its FTA coverage ratio, other countries moving faster

The FTA coverage ratio (the percentage of how much a country or region' trade is with FTA partners), illustrated in Figure II-9, serves as a measurement of the country or region's FTA progress. Japan's most recent coverage ratio was 18.2%, which marked a 1% increase over the previous year, boosted by the Japan-India FTA that took effect in August 2011. The fact that Japan's share of trade with ASEAN, with which it has already concluded an FTA, rose from 14.0% in 2009 to 14.6% also contributed to this increase in coverage ratio. In addition, the signing has already taken place for the Japan-Peru FTA as of May 2011, with both countries working to enact the agreement before the end of 2011.

However, Japan's coverage ratio will only increase slightly to 18.4% once the Japan-Peru FTA takes effect. Japan continues to negotiate with Australia on an FTA, while it postponed a decision regarding TPP negotiations originally planned for

Figure II – 9 FTA coverage rate in major countries/regions

(%)

	FTA Coverage Rate			Top countries/regions for trade value (Exports + Imports)		
	Exports + Imports	Exports	Imports	1st	2nd	3rd
Japan	18.2	18.4	18.0	ASEAN (14.6)	India (1.0)	Switzerland (1.0)
U.S.	34.9	40.8	31.0	NAFTA (28.8)	DR-CAFTA (1.5)	Singapore (1.5)
Canada	68.2	77.5	59.0	NAFTA (65.9)	EFTA (1.2)	Peru (0.5)
Mexico	80.9	92.6	69.4	NAFTA (67.2)	EU (7.8)	Japan (2.8)
Chile	89.0	87.6	90.9	China (20.6)	EU (16.2)	U.S. (13.2)
Peru	69.0	69.2	68.7	U.S. (17.7)	China (16.2)	CAN (8.7)
EU Total Trade Value	74.8	77.4	72.2	EU (65.0)	Switzerland (2.4)	EEA (1.6)
External Trade	26.4	29.5	23.6	Switzerland (6.6)	EEA (4.0)	Turkey (3.6)
South Korea	25.2	26.9	23.4	ASEAN (10.9)	EU (10.3)	India (1.9)
China	16.6	12.0	21.7	ASEAN (9.8)	Taiwan (4.9)	Chile (0.9)
India	17.9	21.0	15.7	ASEAN (9.3)	South Korea (2.4)	Japan (2.3)
Singapore	66.1	66.3	65.9	ASEAN (27.3)	China (10.6)	U.S. (8.7)
ASEAN	60.1	57.9	62.3	ASEAN (25.6)	China (13.6)	Japan (10.6)
Australia	26.5	18.1	35.6	ASEAN (14.2)	U.S. (7.2)	New Zealand (3.4)
New Zealand	48.7	48.1	49.3	Australia (20.6)	China (13.5)	ASEAN (12.3)

Notes: (1) "FTA coverage rate" shows how much a country's trade is done with trading partners with which the country has an FTA (as of August 1, 2011). The rate is calculated based on 2010 Trade Statistics.
(2) DR-CAFTA: the U.S. FTA with the Dominican Republic and Central American countries / EEA: the European Economic Area.
(3) China excludes the ratio for Hong Kong (7.7%) and Macau (0.1%).
(4) Some countries have yet to enforce ASEAN-related FTAs, but trade amounts for all countries involved have been added to the calculation above.
Sources: Government documents, DOT (IMF), trade statistics of individual countries.

Figure II – 10 Status of FTAs by Japan and South Korea

(%)

		Japan	Share of Imports and Exports	South Korea	Share of Imports and Exports
Asia Pacific	ASEAN	In effect	14.6	In effect	10.9
	Singapore	In effect	2.3	In effect	2.6
	Malaysia	In effect	2.8	In effect (ASEAN)	1.8
	Thailand	In effect	3.8	In effect (ASEAN)	1.2
	Indonesia	In effect	3.0	In effect (ASEAN)	2.6
	Brunei	In effect	0.3	In effect (ASEAN)	0.2
	The Philippines	In effect	1.3	In effect (ASEAN)	1.0
	Vietnam	In effect	1.1	In effect (ASEAN)	1.5
	India	In effect	1.0	In effect	1.9
	Australia	Under negotiations	4.2	Under negotiations	3.0
	New Zealand	-	0.3	Under negotiations	0.2
	Japan / South Korea	Negotiations suspended	6.2	Negotiations suspended	10.4
North America / Latin America	U.S.	-	12.7	Signed	10.1
	Canada	-	1.4	Under negotiations	0.9
	Mexico	In effect	0.9	Under negotiations	1.2
	Chile	In effect	0.7	In effect	0.8
	Peru	Signed	0.2	In effect	0.2
	Colombia	-	0.1	Under negotiations	0.2
Europe	EU	Preliminary talks	10.5	In effect (provisional)	10.3
	EFTA	-	1.2	In effect	1.0
	Switzerland	In effect	1.0	In effect (EFTA)	0.3
Other	Turkey	-	0.2	Under negotiations	0.5
	Trans-Pacific Strategic Economic Partnership Agreement (TPP)	Domestic discussion over participation	24.6 (17.4)	-	20.4 (13.6)
	Gulf Cooperation Council (GCC)	Under negotiations	8.4	Under negotiations	8.9
FTA coverage rate		Total in effect	18.2	Total in effect	25.2

Notes: (1) Percentages are calculated based on 2010 Trade Statistics.
(2) Top figure for the TPP indicates the share for the nine countries, while the bottom figure indicates the share of countries with which either country has yet to conclude an FTA.
Sources: Compiled based on data from the Ministry of Foreign Affairs, Ministry of Economy, Trade and Industry, South Korea's Ministry of Foreign Affairs and Trade and trade statistics from each country.

June 2011 because the government is focusing on the Great East Japan Earthquake recovery effort. As for the Japan-China-South Korea FTA, at a summit meeting held in May 2011 it was decided that "in consideration of Japan's current situation, industry-government-academia joint study will be concluded before the end of the year." Although the process is accelerated from original plans, the current situation suggests that negotiations will likely not begin immediately. As for the Japan-South Korea FTA, where negotiations have been suspended, ministry's director-general level discussions have been started aimed at reopening negotiations, with the second such meeting taking place in May 2011.

Yet, the progress of neighboring country FTAs has been significant. First, South Korea, as will be discussed below, overtook Japan in terms of its FTA coverage ratio in the time since its FTA with the EU took effect in July 2011 (Figure II-10). All of the ASEAN+1 FTAs took effect in 2010, and the ASEAN's ratio boosted by 6.1% due to new FTAs with India and Oceania. China's coverage ratio rose to 16.6% since the ECFA between Taiwan took effect, which is roughly on par with Japan. Countries around the world are rushing to negotiate and enact FTAs.

Trends of FTAs with major trading nations and cross-regional FTAs mentioned above represent similar issues for Japan. That is, by concluding these types of FTA, a country will be able to increase its FTA coverage ratio substantially, indicating that the time has come for Japan to consider FTAs with major trading nations and cross-regional FTAs.

Preliminary talk begins on the Japan-EU FTA

Interest is rising on an FTA involving Japan and the EU, which is expected to be Japan's next counterparty in a large-scale FTA. Since the government of Japan has continued discussions aimed at beginning negotiations for a Japan-EU Economic Integra-

tion Agreement (EIA), an agreement was reached at the Japan-EU Summit held in May 2011to begin preliminary talks on the scope of this agreement, or scoping work. If this scoping work is completed successfully over months of consultation, formal negotiations would then be set to begin. This would mark an FTA involving countries with huge trading volumes exceeding US$130 billion annually, and there is great significance to promoting the creation of trade rules amid a stall in multilateral negotiations.

Expanding the economic partnership between Japan and the EU began with the establishment of an EIA review task force in 2007 that included members of the business communities of both countries. The joint report issued by this same task force in July 2008 issued a recommendation that as the next step discussions should begin on areas of shared interests and involve more senior government officials and government authorities. The Japan side proposed the four pillars (inclusive of trade tariffs), namely cooperative initiatives to: 1) "build innovative societies of the world's highest level," 2) "build new dimensional environment-friendly societies," 3) "develop a safe social infrastructure" and 4) "undertake mutual efforts to improve trade and investment," while it was confirmed that EU has a strong interest on Japan's regulations and non-tariff barriers.

Since voices arose from Japanese companies requesting a review of more specific agreement details, the Japan-EU EIA Study Group was launched in January 2009 (Secretariat: JETRO) as a platform for FTA study on the Japan side. The group had six meetings and released a report in June 2009 that found EU interest in Japan in particular focused on medical devices, lumber products, services and government procurement. These four areas were mentioned at the 2009 Japan-EU Summit meeting discussions as "several specific non-tariff matters." In addition, the report also included feedback that requested the promotion of Japan-EU cooperation in areas other than tariffs, such as sharing information prior to the implementation of environmental regulations, harmonizing various product standards and technical standards, creating rules on intellectual property rights, and concluding an investment agreement. Based on their Mutual Recognition Agreement (MRA), Japan and the EU have already reached mutual approval on four fields (telecommunications equipment, electronic products, good laboratory practice [GLP] for chemicals and good manufacturing practice [GMP] for pharmaceuticals), but this recommendation called for these areas to be expanded.

In 2010, the European Commission, in the newly established Joint High Level Group (HLG), launched a public hearing involving various industry groups and summarized the views of interested parties. Several opinions were raised from the EU side since the Japan-EU EIA Research Committee released its report questioning the effectiveness of a Japan-EU FTA because Japan's tariffs on industrial products are already low. Among EU industry, food and beverage, IT and chemicals industries had a positive stance, while automakers and automotive parts manufactures were hesitant, marking a divergence. As a result of the HLG, in July 2010 the European Commission cited "27 examples of non-tariff measures faced by European companies doing business with Japan," and provided a clearer requests for Japan's non-tariff barriers on trade such as regulations. The 27 items cover a wide range of areas, from items questioning transparency and conformity with international standards to regulations on individual businesses such as financial services and cosmetics, among others. For example, the international departure and arrival time is currently permitted late at night at Haneda International Airport and it is included in the area of air transport.

In order to meet these requests, the government of Japan is reviewing several of its existing regulations. First, given its mention during the 2009 Japan-EU Summit meeting discussions, in December 2010 Japan announced its commitment to take specific actions on four areas, providing access at a single location to information in English on government procurement information for government-affiliated organizations including local governments, safety and technical guidelines for advanced automobiles, lumber standards for building materials, and medical devices. Specifically on government procurement information, the Japanese government agreed to provide primary procurement information in English on not only central government but all prefectural, major cities governments through the JETRO website by the end of March 2011.

In addition to this, Japan, in the Regulatory and Systems Reform Subcommittee set up within the Government Revitalization Unit, incorporated a wide range of review, including loosening conditions for alcoholic beverage distributor licenses, simplifying and speeding up approval protocol for food additives, lifting the ban on imports of beef, lamb and rennet from goat (compound used to manufacture cheese) from EU countries, and promoting mutual approval of commercial airliners and crew certification in developed nations, with cabinet approval received on the policy at the end of March 2011. For most of these items, a review and decision is supposed to be made before the end of fiscal 2011, and as a result these actions by the government of Japan are interpreted to have helped improve the stance of the EU.

The EU Council Meeting (EU Summit meeting) held on March 24 and 25, 2011 emphasized the strategic importance of the Japan-EU relationship, announcing that "Looking to the future, the European Council reiterates the strategic importance of the EU/Japan relationship. The forthcoming summit must be used to strengthen this relationship and bring forward our common agenda, including through the potential launch of negotiations for a free trade agreement on the basis that Japan is willing to tackle inter alia the issue of non-tariff barriers and restrictions on public procurement." The conclusion served as the basis for an agreement to start scoping work in May 2011.

EU side has high hopes for effects from the elimination of non-tariff barriers

Although not the official view of the European Commission, Copenhagen Economics, a private sector economic consulting firm, conducted a study in February 2010 entitled "Study on the Barriers to Trade and Investment be-

tween the EU and Japan" based on a request from the Trade Department of the European Commission to examine the effect a Japan-EU FTA would have on imports and exports.

The study estimated that in the event tariffs on all goods were eliminated EU exports (total of goods and services) to Japan would increase by 14.1 billion euro. This corresponds to a 23.1% rise over the figure for 2008, which is the base year in the study. Although there was somewhat of a range, the study found that the effect of eliminating non-tariff barriers would increase EU exports by up to 29.4 billion euro, or 48.2%. The sector benefiting the most from the elimination of tariffs was processed foods, 4.8 billion euro increase, while for the elimination on non-tariff barriers it was the chemicals including pharmaceuticals sector at 10 billion euro. The report also calculated the increase in Japanese exports bound for the EU. If all tariffs were eliminated, the study estimated that Japanese exports would increase by 25.2 billion euro, or 28.4% from the elimination of tariffs (28.4% increase), and 28.5 billion euro, or 32.2% from the elimination of non-tariff barriers. The sector from the Japan side that would benefit this most was automotive, which accounted for more than half of the 27.2 billion euro increase when combining the effect of eliminating both tariffs and non-tariff barriers to trade.

The effect will largely be influenced by the surrounding environment, such as the results of negotiations, what other FTAs have taken effect, and others. In particular, the report did not consider the effect of the EU-South Korea FTA, which at the time of compilation had yet to be signed, and these figures should not be considered to be entirely accurate. However, it is worth noting that the elimination of non-tariff barriers is estimated to have a significantly larger effect than the elimination of tariffs, as well as the estimate that EU exports to Japan would largely increase despite Japan's already low tariffs on industrial products.

Examining Japan-EU trade value distribution by tariff level

On bilateral goods trade, there is a point of how much goods have duty-free access, low tariffs access or high tariffs access in EU-Japan trade. The following section breaks these goods and services down by the lowest HS code, or tariff line, and categorizes these into tariff levels (Figures II-11 and II-12) based on 2010 import statistics for the EU from Japan and from the EU to Japan. There are approximately 6,100 tariff lines for Japan's imports from the EU, while EU imports from Japan there are approximately 6,600. The tariff range was categorized into duty free, 0.1% to 5%, 5.1% to 10%, 10.1% to 15%, 15.1% to 20%, more than 20% and quantity-based tariffs.

The figure illustrates the percentage for each tariff level when the total import value is set to 100.There is a discussion of whether trade liberalization, in light of eliminating barriers for "substantially all trade" from GATT Article XXIV, which forms an important condition of an FTA, be measured based on the tariff line number or trade value, here the measurement will be on a trade value basis in order to examine the share of both parties in terms of total trade. As for the definitions of items, agricultural goods will include items covered under the WTO's Agricultural Agreement [(Note 2)] as well as marine produce (HS03 category) and lumber (HS44 category), while all other items will be considered as non-agricultural goods.

A glance indicates that while the Japan side has a large percentage of duty free items, imports with a greater than 15% tariff rate occupies 1.8% for both agricultural goods and non-agricultural goods. In contrast, the EU side had a small number of items that were duty free, while many non-agricultural goods had around a 10% tariff rate, as nearly all imports were found in categories up to 15% tariff rate. Few items exist with a tariff rate of higher than 15% for both agricultural and non-agricultural goods.

First, Japan's exports to EU totalled US$66,187 million in 2010, with agricultural goods accounting for 14.6% and non-agricultural goods 84.5% (the remaining 0.9% includes re-imports that cannot be classified for purposes of this study). Although varying by year, typically Japan's imports of agricultural goods from around the world average around 11% of its total imports, so imports of agricultural goods from the EU were slightly above this mark. Among agricultural goods imports, around 25% is tobacco (HS24), 17% for beverages and alcoholic beverages (HS22), 14% for swine (HS02) and 13% for lumber (HS44). As for tariffs, nearly all tobacco products are duty-free, swine has differential tariffs (difference between the import price and benchmark price) or 4.3%, while for most lumber items the tariff is under 5%. Swine and lumber accounts for some 70% of the 0.1% to 5% tariff category for agricultural goods. Denmark accounts for a 70% share of EU swine exports to Japan with the highest share, and in recent years Hungary has increased its share to 10%. Combining both agricultural goods and non-agricultural goods, 68.4% of Japan's imports from the EU are duty free. Including the 0.1% to 5% tariff category would boost this total to 88%, indicating that a huge percentage of Japan's import trade value from the EU is either duty free or subject to low tariffs. This also proves that the Japan has little room for further tariff reduction.

Agricultural goods in the 5.1% to 10% tariff category account for 1.2% of the total, and mainly encompass tomato preparations, proteins (protein, corn starch, albumin and casein) and lumber. In addition, agricultural goods in the 10.1% to 15% tariff category account for 1.3% of the total, with most originating from beverages and alcoholic beverages (HS22), which included wine (15% or 125 yen per liter, whichever is lower) and water with fruit juice and added sugar (13.4%), as some items in the beverage category were seen to have a rather high tariff rate. Other processed food items including herbal teas (15%) are also included in this tariff category. With regards to wine, in the Japan-Chile FTA tariffs are set to be eliminated in stages over a 12-year period, with the tariff rate having been reduced to 9.2% as of 2011. Cheeses (22.4% to 40%) accounted for half of all agricultural goods in the more than 20% tariff category, which

[2] Subject items: HS01 to HS24 (excluding fish and marine produce), 2905.43, 2905.44, 3301, 3501 to 3505, 3809.10, 3823.60, 4101 to 4103, 4301, 5001 to 5003, 5101 to 5103, 5201 to 5203, 5301to 5302.

Figure II – 11 Distribution of Japan's import value with EU by tariff level (2010)

Japan's imports from the EU (US$ million): 66,187

	Duty free	0.1-5%	5.1-10%	10.1-15%	15.1-20%	20%-	Non-ad valorem	Unclassifiable	Total
Agricultural products	5.5%	4.5%	1.2%	1.3%	0.2%	0.8%	1.1%		14.6%
Non-agricultural products	63.2%	14.9%	4.9%	0.8%	0.2%	0.5%	0.1%		84.5%
Total	68.7%	19.3%	6.2%	2.0%	0.4%	1.3%	1.2%	0.9%	100.0%

Figure II – 12 Distribution of EU's import value with Japan by tariff level (2010)

EU's import from Japan (US$ million): 85,564

	Duty free	0.1-5%	5.1-10%	10.1-15%	15.1-20%	20%-	Non-ad valorem	Unclassifiable	Total
Agricultural products	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%		0.4%
Non-agricultural products	35.8%	37.9%	24.3%	0.7%	0.0%	0.0%	0.1%		98.8%
Total	35.9%	37.9%	24.4%	0.8%	0.0%	0.0%	0.1%	0.9%	100.0%

Notes: (1) "Agricultural products" are products defined in the WTO Agreement on Agriculture, plus fishery products (HS03 etc.) and lumber (HS44 etc.). "Non-agricultural products" are the remaining products.
(2) "Non-classifiable" refers to re-imports and others.

Sources: Both figures II-11 and II-12 are from Trade Statistics of Japan, Customs Tariff Table of Japan, Trade Statistics of the EU, Customs Tariff Table of the EU and WTO Tariff Analysis Online.

also includes wheat gluten (21.3%), olive oil (21.3%) as well as sweets such as candy, caramel and chocolate (each 25%).

To summarize, imports of agricultural goods from the EU primarily include preparations, beverages and alcoholic beverages, which contrasts with agricultural goods imports from Australia and the U.S. that typically are primary products such as beef, wheat and soy beans.

Conversely, EU imports from Japan (Japanese exports to the EU) totalled US$85,640 million in 2010, virtually all with non-agricultural goods. Particularly large portion of non-agricultural goods are subject to duties, with only 35.8% duty free. When including the 0.1% to 5% tariff category, this figure totals 73.8%, which is lower compared to the 88.0% figure noted above for Japan's import from EU. The share of the 5.1% to 10% tariff category is large share of 24.3% since the EU's tariff on automobiles is generally 10%. This contrasts greatly with the fact that the same category for EU imports to Japan only accounted for a 4.9% share of the total. Two thirds of automobiles and parts (HS87) fall under this 5.1% to 10% tariff category, while the remaining one third, which is primarily auto parts, is included in the 0.1% to 5% tariff category because the tariff rate is typically lower than vehicles at between 3% and 4.5%. For other items, most chemical products (HS28 to 40) generally has a 6.5% tariff rate, which was also another factor that increased the share of this tariff rate category.

The 10.1% to 15% tariff category for non-agricultural goods mainly included non-computer monitors (HS8528.49 and 8528.59) and other video camera recorders (HS8525.8099), with the tariff rate set at 14% for both, or among the highest for industrial products. However, items included in this tariff category only accounted for 0.7% of the total. China accounts for nearly a 70% share of EU imports of non-computer monitors (for TV use), followed by Japan at around 10%. The share of South Korea is behind the U.S. and Taiwan at 3.4%. Although the effects of the EU-South Korea FTA on Japan's export are frequently pointed out, this does not necessarily mean that only Japan and South Korea are in a competitive relationship.

The tariff rate for certain models of cargo vehicles (HS8704: trucks), such as those with engines larger than 2500cc, is 22%, and the export value of Japanese trucks bound for the EU has fallen from US$678 million down to US$380 million and then US$256 million over the previous three years since 2008. Although the share for the high tariff rate category is small, this can be interpreted high tariff prevents the product from being imported to the EU, thereby keeping the share relatively small.

(3) Cross-regional FTA Initiatives in Asia and Oceania

TPP as a vital initiative for United States in doubling exports

The Trans-Pacific Strategic Economic Partnership Agreement (TPP) is a multilateral free trade agreement, which is gathering an excessive attention in Japan because of the arguments over whether to join the negotiation. It is an important agreement from the perspective of establishment of trade rules in Asia and Oceania, so it is necessary to keep abreast of the latest trends in the TPP negotiations regardless of whether Japan will join it or not.

Initially, the TPP was an agreement established by Singapore, New Zealand, Chile and Brunei, but negotiations expanded as other countries joined the process. In October 2010 Malaysia officially joined negotiations for the TPP, bringing the number of countries engaged in TPP negotiations to nine (the four original members plus Australia, Peru, the U.S., Vietnam and Malaysia). The negotiations were launched in March 2010, and as of June 2011 seven formal rounds have been held. There are 24 working groups (WGs) in the TPP negotiations that deliberate on specific topics (see Figure II-13).

The Asia-Pacific Economic Cooperation (APEC) has established the concept of a Free Trade Area of the Asia-Pacific (FTAAP) as its long-term objective, and TPP, ASEAN+3 (Japan, China, and South Korea) and ASEAN+6 (Japan, China, South Korea, India, Australia, and New Zealand) are the process to achieve it. Among these processes, negotiation round has already started for TPP, and TPP is a step ahead toward achieving a FTAAP. Each initiative is aiming to build a unified framework for Asia and Oceania under the understanding that a simple accumulation of bilateral FTAs is not sufficiently comprehensive. If we compare their global share, in terms of population, ASEAN+6 stands high at 49.2% as it includes Japan, China and India, while TPP is

Figure II – 13 Areas of negotiations in the TPP

Areas of Negotiations	
Discussions of chief negotiators	
Market access (goods)	Services (cross-border services)
Market access (textiles / apparel)	Services (finance)
Market access (agriculture)	Services (telecommunications)
Rules of origin	Services (movements of business officials)
Trade facilitation	E-commerce
Sanitary and phytosanitary measures (SPS)	Investment
Technical barriers to trade (TBT)	Environment
Trade remedies (safeguards, etc.)	Labor
Government procurement	Institutional issues
Intellectual property rights	Dispute settlement
Competition policy	Cooperation
Cross-cutting issues	

Sources: The Ministry of Foreign Affairs, Ministry of Trade, Economy and Industry and governments of participating countries.

relatively low at 7.4%. In terms of GDP, however, the TPP, which includes the U.S., exceeds ASEAN+6. In other words, the scale of the GDP of the U.S., a single country, exceeds the sum of Japan, China, and India.

There are three factors that underlie the interest of the U.S. in the TPP. First, all negotiating parties are APEC member countries, and the process of negotiations can be positioned as a step toward establishment of a FTAAP. Second, the ruling Democratic Party of the U.S. prefers multilateral agreement and does not aspire to work on bilateral FTAs. Third, the TPP is a trade framework that does not include China, and also Myanmar, with which the U.S. scarcely engage in bilateral relation. Regarding the third factor, in particular, the U.S. enhancing trade relations with ASEAN whole is currently unlikely because ASEAN includes Myanmar. In this respect, the TPP is a framework that includes only part of the ASEAN member countries. As for China, the U.S. has a priority in first establishing trade rules that will become leverage when the FTAAP becomes a reality in the future and China considers to join it.

Since the U.S. announced in November 2009 that it would enter the TPP negotiations, the U.S. is leading the negotiations and its discussion. With the stalemate of WTO Doha Round in establishing multilateral trade rules, TPP represents a trade initiative of utmost importance over the next few years for the U.S. The U.S. places priority on intellectual property protection and labor and environment clauses, and is expected to pose high-level demands in the upcoming rounds of negotiations. Under the objectives of doubling exports by 2014, the U.S. government intends to attract the TPP to the American people as a "model for a 21st century regional trade agreement," and, aiming to garner the support of various groups domestically by claiming that the TPP will facilitate creation of employment and will contribute to more exports. By giving the TPP a distinctive image from that of existing FTAs, the U.S. government is working to gain the support of small and medium-sized enterprises (SMEs), labor unions and other groups that traditionally have maintained a low support for FTAs. An unprecedented discussions working group includes "cross-cutting issues," which had never been part of any FTA in the past, upon the strong insistence of the U.S. The group deals with various schemes that have cross-sectional impact on business, and they cover different angles, such as harmonization of regulations, efficiency of supplier chains, and promotion of SMEs trade.

The framework of the TPP on goods remains unsettled

The most significant point of contention that will have an impact on the completed framework of the TPP is the existence of numerous FTAs among the negotiating countries (see Figure II-14). The relevance is not yet clear between these existing trade agreements and the ongoing TPP, in terms of the tariff elimination schedule. Some U.S. negotiating officials are claiming the general rules that TPP will require that all products are subject to eventual tariff elimination, but on the other hand the U.S. itself has exempted several products from trade liberalization in its existing FTAs. For instance, in the Australia–United States Free Trade Agreement (AUSFTA), which came into force in 2005, sugar and some dairy goods were excluded from the U.S. liberalization list. In fact, a review of existing agreements reveals that each country has numerous sensitive products (see Figure II-15). The approach of existing FTAs regarding liberalization of trade in services also differs, as some uphold the method of determining the sectors that will be subjected to liberalization (positive list), while others determine only the sectors that will be exempted from liberalization (negative list). Another difference is whether the agreements include chapter on government procurement. For instance, Malaysia and Vietnam have not concluded a single FTA that contains government procurement chapters.

The U.S. approaches on the TPP negotiations intends to maintain the conditions it has achieved under the existing FTAs and keep them in the TPP. To put it the other way around, it has no intention to eliminate tariffs beyond the level of existing trade agreements. Based upon this premise, the TPP negotiating countries will engage in negotiations only with countries with which they have no FTAs, while following the tariff elimination schedule determined in existing agreements. In the case of the U.S., that means negotiations only with New Zealand, Malaysia, Vietnam, and Brunei.

Australia and New Zealand, on the other hand, believe that the right approach is to "paint over" the existing agreements and aim to reach a new consensus on a unified tariff elimination schedule among the TPP negotiating countries. In other words, Australia expects the U.S. to open its sugar market, while New Zealand harbors the same expectations regarding the U.S. dairy goods markets. At present, the negotiating countries have shelved such issues on the overall framework of negotiations in order to maintain the momentum of negotiations, but at some time countries would choose the style. The completed structure of the TPP is expected to vary greatly depending on the way these issues are solved.

Aiming to establish trade rules for the Asia-Pacific region

The TPP tends to attract the greatest amount of attention for its clauses concerning the elimination of tariffs on goods, but in fact the goal pursued by the U.S. is to establish

Figure II – 14 Existing FTAs among TPP negotiating countries

		Participating Countries									Non-member
		Singapore	New Zealand	Chile	Brunei	U.S.	Australia	Peru	Vietnam	Malaysia	Japan
Participating Countries	Singapore		●	●	●	●	●	●	●	●	●
	New Zealand	●		●	●		●		●	●	
	Chile	●	●		●	●	●	●	Negotiations concluded (bilateral)	+ (Bilateral)	●
	Brunei	●	●	●			●		●	●	●
	U.S.	●		●			●	●			
	Australia	●	●	●	●	●			●	●	Under Negotiations (Bilateral)
	Peru	●		●		●					+ (Bilateral)
	Vietnam	●	●	Negotiations Concluded (Bilateral)	●		●			●	●
	Malaysia	●	●	+ (Bilateral)	●		●		●		●
Non-member	Japan	●		●	●		Under Negotiations (Bilateral)	+ (Bilateral)	●	●	

● FTA in effect　+ FTA signed (not yet in effect)　New negotiations under the TPP

Source: TPP negotiating governments documents.

Figure II – 15 Major areas excluded from liberalization in existing FTAs among TPP negotiating countries

Area	Country	FTA	Items	Measures
Tariff	U.S.	U.S.-Australia	Sugar, dairy products, etc.	Maintain the current tariff-quota system.
		U.S.-Peru	Sugar	Maintain the current tariff-quota system.
	Chile	Chile-Malaysia (not yet in effect)	96 items such as wine, alcoholic beverages, rice, tobacco, wheat, sugar, honey and used tires	Excluded from liberalization.
	Malaysia	ASEAN-Australia-NZ (AANZFTA)	Meat (including pork, chicken)	Maintain the current tariff-quota system.
			Some passenger cars, cargo vehicles, and motorcycles	Maintain the 5% tariff even 10 years after the FTA into force.
			Steel products (rolled steel plates)	Maintain the 10% tariff even 10 years after the FTA into force.
		Chile-Malaysia (not in effect yet)	138 items such as fireworks, explosives, alcoholic beverages, rice and tobacco	Excluded from liberalization.
	Vietnam	AANZFTA	Some passenger cars, cargo vehicles, and motorcycles	Maintain the 5-50% tariff even 12 years after the FTA into force.

Area	Country	FTA	Measures
Government Procurement	U.S.	U.S.-Australia	Excluded from the Buy American Act
	Australia	All FTAs	• U.S.-Australia FTA: Requires competitive bidding from a total of 80 federal government agencies and organizations as well as state-level organizations, and gives non-discriminative treatment to U.S. companies (subject to certain restrictions) • Australia-Singapore FTA: Only includes central (national) government procurement"
Investment (Dispute Settlement)	Australia	U.S.-Australia and Australia-New Zealand	Does not include provisions on dispute settlement (However, included in other FTAs such as Australia-Thailand, Australia-Singapore, AANZFTA, and Australia-Chile, etc.)
	New Zealand	Australia-New Zealand	Does not include provisions on dispute settlements (However, included in other FTAs such as Malaysia-New Zealand and AANZFTA)

Area	Details of Measures	FTA
Government Procurement	Containing the chapter	U.S.-Australia, U.S.-Singapore, U.S.-Chile, U.S.-Peru, Australia-Singapore, Australia-Chile, Singapore-Peru, Singapore-New Zealand, P4
	Not containing the chapter	Australia-New Zealand, Malaysia-New Zealand, Malaysia-Chile (not yet in effect), AANZFTA, Chile-Peru
Services	Negative list	U.S.-Australia, U.S.-Singapore, U.S.-Chile, U.S.-Peru, Australia-Singapore, Australia-Chile, Australia-New Zealand, Singapore-Peru, P4
	Positive list	Singapore-New Zealand, Malaysia-New Zealand, AANZFTA

Note: P4: Current TPP agreement.
Sources: Each agreement and related documents.

trade rules for the Asia-Pacific Region. Having set a target of doubling exports by the end of 2014, the U.S. is focusing efforts on formulation of rules for nontariff areas with the objective of eliminating regulations and systems that hinder U.S. exports. Their idea is that when new member countries join the TPP in the future, already established rules will be applied to the new member. That is why some of the rules under negotiations are being offered specifically with China in mind.

One of the points of contention in the investment sec-

tor is whether to include rules and regulations for settlement of investor-state disputes. Such rules and regulations represent a framework for settlement of disputes between companies doing business in foreign markets and the local governments by referring the disputes to international judicial institutions. Australia and New Zealand are against the inclusion of such rules in fear of possible litigation, while the U.S. views positively the inclusion, and this difference of opinions attracts attention. Still, both Australia and New Zealand have included these regulations in other existing FTAs, so they do not oppose in every FTAs. In fact, New Zealand successfully included the dispute settlement rules in the New Zealand–China FTA. As for the U.S., despite its generally positive attitude to such rules and regulations, some domestic circles vehemently oppose them claiming that having third-party judicial institutions issue decisions that transcend national laws represents outsourcing of the constitution.

As for the issue of competition provisions for state-owned enterprises, the U.S. industrial circles are strongly pushing for the establishment of regulations that will prevent state-owned enterprises from taking advantage of their position in order to gain the upper hand over their private competitors. The U.S. is conscious of Malaysia, Vietnam, and Brunei among the TPP negotiating countries, because of the relatively high level of involvement of the public sector in their national economies. For instance, the U.S. is mindful of possible cases in which state-owned enterprises backed by government subsidies may enter bidding competitions under conditions that are no match for private companies. The U.S. efforts in this matter are seen as a strategic move that envisions the day further down the road when China joins the TPP and aims to impose rules that will govern possible competition disputes.

The "rule of origin" is seen as the most difficult issue in the non-tariff area negotiations. Most observers believe that eventually the conflicting opinions will be drawn together into a single set of rules, but because of the large number of existing FTAs and the fact that for each product the standard for meeting the rules of origin differs depending on the FTA, the work to unify them will take quite some time. The rules of origin are a point of contention that is related to the framework mentioned above. In the event that a single set of rules is not established and the agreement cannot accumulate added value, manufacturing processes between multiple countries will not necessarily qualify for using TPP, and, some observers say such a TPP will be meaningless as a multilateral FTA.

The TPP negotiations are proceeding at a pace set by the U.S., but even if an agreement is reached, the U.S. Congress is not likely to easily approve the pact. For the U.S., the passage of several pending FTAs (with Colombia, Panama, and South Korea) comes as the top priority, and the serious discussion between the Congress and the administration on the U.S. stance in the TPP negotiations comes afterwards. On top of that, year 2012 will be the next presidential elections. The TPP negotiations will continue during the election campaign, but even if an agreement is reached in 2012, the U.S. Congress can proceed with its ratification no sooner than 2013. Normally, the Trade Promotion Authority (TPA) of the U.S. President, also known as the "Fast Track Negotiating Authority," is granted to the administration in order to avoid amendments to the content of an agreement or rehashing arguments in the process of Congressional approval, but this authority currently is expired. In the event that the TPP negotiations come close to an agreement, the discussions over reinstating the TPA will intensify. In that case, conditions under which such an authority will be granted to the President and the authorities that the Congress may receive in exchange are expected to consume a significant amount of time.

Initially, the U.S. had set a schedule for reaching an agreement in the TPP negotiations by November 2011, when the U.S. will host the APEC Leaders Meeting as the chair country, but it is becoming increasingly difficult to meet this target. Still, the U.S. is set on using the APEC Leaders Meeting to demonstrate to the world's leaders that the negotiations have reached a certain end point.

Of the TPP negotiating countries, Japan already has FTAs with the ASEAN countries (Singapore, Malaysia, Vietnam and Brunei) and with Chile, and has concluded negotiations with Peru. Therefore, Japan's participation in the TPP negotiations means that it has to start fresh negotiations with the U.S., Australia (with which bilateral negotiations are now under way), and New Zealand. Many of the negotiating countries wish to see Japan join the negotiations, as some hope Japan's participation will put a brake on the process which is proceeding at a pace set unilaterally by the U.S. The U.S. itself upholds the position that Japan's participation will dramatically enhance the significance of the agreement and in principle welcomes Japan into the negotiations.

If more countries join the negotiations, it will become necessary to start them from the beginning. From this perspective, the U.S. does not envision new participants at least until November. In the event that more countries join the negotiations after November, one of the most probable points of contention will be whether they will have to accept some already settled, to a certain degree, content, or there will be still room left for making new proposals.

(4) South Korea advances FTAs with large trade partners

EU–South Korea FTA provisionally in force since July; focus on automobiles

The spotlight in the 2011 FTA initiatives in the Asia and Oceania region is on South Korea. The country made significant progress toward putting into force two large-scale FTAs. First, the European Union–South Korea Free Trade Agreement came provisionally into force on July 1, 2011, raising the coverage rate to 25.2%, above Japan's rate of 18.2%. The FTA is provisional because ratification of the agreement by each of EU member countries will take time, and therefore it was put into force provisionally under the EU authority, eliminating tariffs for those products for which the FTA could be applied, and will formally come into force later. As for the FTA with the U.S., re-negotia-

tions were successfully concluded at the end of 2010, and the agreement is expected to pass its largest obstacle, the formal approval by the U.S. Congress, in tandem with the pending trade deals with Colombia and Panama by the end of this year.

The impact of the FTAs concluded by South Korea on Japanese exports is an issue of great interest. The EU imposes an import tariff of more than 10% on some electric appliances and passenger vehicles, but under the EU–South Korea FTA, South Korean products will be exempt from tariffs for up to five years after the agreement comes into force. There is a possibility that this may put some products exported from Japan at a disadvantage. An examination of the shares held by Japan and South Korea in the major EU imports and their tariff rates demonstrates that automobiles are the one area in which tariffs are high and Japan and South Korea compete as rivals. Automobiles made in Japan account for 33.3% of the value of EU import of passenger vehicles in 2010, while South Korean automobiles account for 11.1%, but should the EU–South Korea FTA come into force, there is a possibility that exports from South Korea may take over a portion of the share held by Japanese exports. The following measures can be considered in order to enable Japan to adequately respond to these developments: firstly, conclude an FTA with the EU, and obtain the benefit of tariff elimination measures identical to those applied for South Korean products; secondly, switch from exports from Japan to local production in Europe; and thirdly, switch to production in third countries that have concluded FTAs with the EU.

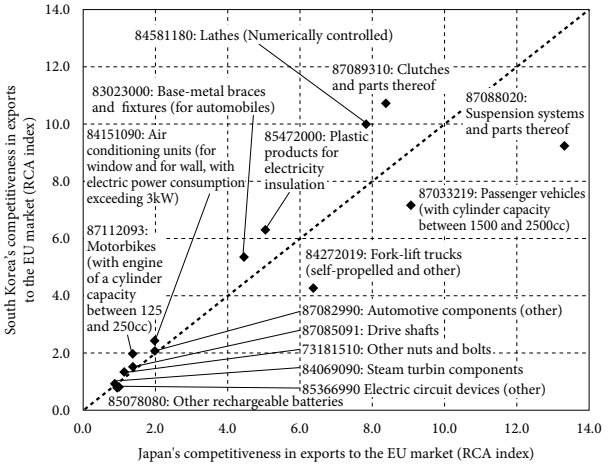
Some observers note that since local production of vehicles by Japanese companies in the EU has advanced significantly and is already approximately double the export volume, the EU–South Korea FTA may not have a significant impact on Japanese exports. According to the results of the FY 2010 Survey on the International Operations of Japanese Firms carried out by JETRO between November and December 2010 (1,002 respondents), when asked about the impact of the EU–South Korea FTA, 42.4% (the largest share) of the respondents stated that they feel no particular impact, exceeding the 18.3% share of respondents who envisioned a possible drop in exports to the EU and saw the impact of the FTA as negative. This distribution is maintained even when the respondents are narrowed down to companies in the automotive industry and the electric and electronics industry.

We here analyze what Japanese and South Korean products are likely to compete on the EU markets. Based on the comparative advantage concept, we calculated the revealed comparative advantage (RCA) index (Note 3) using EU import statistics, and compared the competitiveness of Japanese and South Korean exports to the EU. Regarding products with an eight-digit HS code, we selected those that met the following two conditions: to feature particularly strong competition (the difference between the indices of the two countries to be less than double), and the export amount to reach a certain level (above 10 million euro) (see Figure II-16). The results were characterized by a large number of competitive products in the field of automobiles and automotive components.

In the electric and electronics industry, it is often pointed out that at 14% the tariff on TV receivers (HS8528.71–8528.72) is quite high. However, Turkey and China each hold about 40% of the TV import share to the EU, and Japan with 0.3% and South Korea with 2.9% are hardly rivals in that field. Also, South Korean enterprises are already advancing local production in Eastern Europe. Rather than TV receivers, South Korea holds a significant share of about 30% of the imports of TV components (HS8529). The tariff rate there is not so high at up to 5%, so South Korean products are expected to compete with products made in China, which holds an approximately 40% share. As for the sectors of mobile phones (HS8517) and semiconductors (HS8542), where South Korea holds a share of the EU markets, they have already become tariff-free based on the WTO's Information Technology Agreement (ITA), so the EU–South Korea FTA does not have any particular effect in boosting exports in these areas.

From the perspective of the EU–South Korea FTA's impact on Japan's exports, looking just at the EU markets is not enough. South Korea imposes an 8% tariff to most products in the categories of general machinery (HS84), electrical equipment (HS85), and automobiles and parts (HS87), and a 6.5% tariff on most plastic products (HS39), but these tariffs will be eliminated immediately once the EU–South Korea FTA comes into force. Japan, too, exports to South Korea products that fall under the above categories. This means that the possibility for Japanese products to be exposed to competition by EU products on the South Korean market is higher than the possibility for them to compete with South

Figure II – 16 Competitiveness of Japan and South Korea's exports for EU (2010, HS code: 8 digits)



Note: We picked up products in which the competition is particularly intensifying, and Japanese exports value exceeds 10 million euro.
Source: EU Trade Statistics.

[3] The global RCA index for Commodity i of Country A is calculated according to the following formula: (Country A's export amount of Commodity i/Total amount of exports of Country A)/(World export amount of Commodity i/Total amount of world exports) – 1.

Korean products on the EU markets. Furthermore, should a U.S.–South Korea FTA come into force in the near future, we can expect escalation of competition with products made in the U.S. on the South Korean market.

South Korea wins extension of visa validity under the KORUS FTA

Negotiations for the Republic of Korea-United States Free Trade Agreement (also known as the KORUS FTA) were concluded in April 2007, and the agreement was signed soon after. It took four years for the U.S. Congress to begin work on ratifying the agreement. The agreement, as concluded by the previous Bush administration, did not garner the support under a Democrat-controlled U.S. Congress, so for years it was left to gather dust on the shelf, until the end of 2010, when the two governments renegotiated it and reached a consensus on revising the schedule for elimination of tariffs on automobiles, clearing the path to ratification. Strongly aware of the provisional enactment of the EU–South Korea FTA, the U.S. Congress is speeding the ratification of the KORUS FTA in order to ensure equal conditions for competition. The South Korean side, too, is working to achieve an early ratification with view to the next National Assembly elections in April 2012.

The Japanese export product that is most feared to suffer the impact of the KORUS FTA is automobiles. Japan holds more than a quarter of all automobile exports to the U.S., while South Korea's share is only 6%. Against this backdrop, some believe that the agreement, like the EU–South Korea FTA before it, will result in an expansion of the share of South Korean automobiles. Let's not forget, however, that at 2.5% the U.S. tariff on automobiles is lower than that the tariff imposed by the EU. Furthermore, in the renegotiations of the agreement in 2010, the two sides reached a consensus to maintain the current tariffs on automobiles for four years, effectively delaying tariff reductions for South Korean automobiles for five years. Therefore, for the time being Japanese automakers will continue to compete with their South Korean rivals under the same conditions. Also, the local production volume of Japanese automakers in the U.S. is 1.5–1.9 times the volume of their exports to the same market, so considering the tariff and export structure, it is safe to say that the KORUS FTA is unlikely to have such a significant impact on Japanese exports.

As for other industrial products, tariffs exceeding 5% are imposed on the following items: bearings (up to 9.9%), electric motors and engines (up to 6.7%), plastic products (6.5%), synthetic textile and fabrics (7.5% to 14.9%), etc. The KORUS FTA stipulates a schedule for their phased elimination. It is possible that the share of such products made in South Korea in exports to the U.S. will expand.

Apart from tariffs, another issue that was included in the renegotiated agreement and will offer significant benefits to South Korean expatriate employees in the U.S. is the extension in the validity of non-immigrant visas.

The L-1 visa that employees of international companies with offices both in their home country and the U.S. usually use (intra-company transferee visa) has validity of three years, but the KORUS FTA extends this period to five years. The application procedure for visa renewal requires more than just submission of documents. In order to receive a visa stamp in the passport, each visa applicant must leave the U.S. for a period of three–four days and attend an interview at a U.S. consulate or embassy. The process is extremely time-consuming and troublesome. The travel expenses, application fees and attorney fees add up to a sum in the range of US$10,000 for a family of four. If the initial period of validity is set at five years, many companies will make sure that the term of their expatriate employees is within this period, and thus will eliminate the necessity to go through the renewal procedures. From the perspective of South Korean companies, this is extremely beneficial as it reduces the burden of office work costs and monetary expenses.

In South Korea, the promotion of the KORUS FTA was backed by the provision of compensations to domestic agriculture and the implementation of measures for its strengthening. The launch of negotiations for an FTA with Chile prompted the establishment of a medium to long-term plan for financial investment and loans in the fields of agriculture and rural communities for the period from 2004 through 2013, and allocated 119 trillion won for the implementation of the plan. It incorporates support measures for improvement of competiveness, expansion of the traceability system, and establishment of a system for income stability. The above amount was enhanced to 123.2 trillion won after the conclusion of the KORUS FTA.

The advancement of FTAs by South Korea is not without impact on the activities of Japanese firms. Recently, many companies, particularly in the chemical industry, are announcing large-scale entries into the South Korean market or expansion of existing bases. Such corporate activities are explained as a way to take advantage of South Korea as an export base or to provide intermediary commodities to South Korean companies, but in some cases they result in outflow of processes that should be carried out in Japan to production bases abroad. Such outflow may have a significant impact on employment in Japan, and from this perspective as well it is imperative that Japan advances FTA efforts.

The domino effect of FTA by neighboring countries

South Korea's next goal appears to be the conclusion of an FTA with Australia that is currently under negotiation. Australian Prime Minister Julia Gillard visited South Korea in April 2011, and at the summit meeting the two leaders confirmed their intention to conclude negotiations on a bilateral agreement by the end of 2011. Further ahead in the future, South Korea seems to be eyeing the possibilities to launch negotiations for an FTA with China. The Institute of Developing Economies JETRO carried out in October 2010 a research project on the potential impact of South Korea–China and Japan–China FTAs. According to the results of the research project, it has been calculated that if an FTA between South Korea and China comes into force, the volume of South Korean exports to China will increase by US$27.76 billion. This effect is immense even in comparison with

the effect of the KORUS FTA, which is calculated to result in an increase of US$6.4 billion – 6.9 billion in the volume of South Korean exports to the U.S. (Source: United States International Trade Commission). In its exports to China, South Korea is expected to take over a share equivalent to US$17.293 billion from third countries, and Japan, respectively, is expected to see its exports to China, which currently amount to US$5.336 billion, dwindle.

Figure II – 17 Share of South Korea and Taiwan in Chinese imports and general tariff rates (HS85 products with import value over US$1 billion)

HS Code	Product name	Import total (US$ million)	General tariff (%)	Import share		
				South Korea	Taiwan	(Ref.) Japan
8507.8020	Lithium ion batteries	4,625	12	37.0%	4.1%	38.1%
8538.9000	Switches, fuses and other components	4,362	7	9.5%	8.0%	26.5%
8529.9049	Components (for digital cameras, etc.)	2,029	12	13.8%	5.8%	29.5%
8525.8013	Other TV cameras	1,602	35	32.9%	0.8%	9.7%
8529.9042	Components (camera modules)	1,400	12	14.1%	1.2%	21.3%
8501.1099	Electric motors (output below 37.5W)	1,186	9	3.4%	4.4%	11.0%

Sources: China Trade Statistics and Economic Cooperation Framework Agreement (ECFA).

One of the factors that could explain why South Korea is so sensitive regarding a possible FTA with China is the Economic Cooperation Framework Agreement (ECFA), a cross-strait trade agreement between the governments of the People's Republic of China (mainland China) and the Republic of China (Taiwan) which came into force in September 2010. A reduction and elimination of tariffs on the "early harvest" list of products under ECFA started in January 2011. The early harvest list of tariff concessions covers 539 Taiwanese products, such as chemical goods, automobile parts, and textile products, and 267 mainland Chinese goods, and envisions elimination of tariffs within up to three years. The concern that this trade agreement may give Taiwanese products a competitive edge in terms of prices on the Chinese market is pointed out by some observers as the driving factor behind South Korea's intent to advance an FTA with China. Thus, FTAs between third parties accelerate the establishment of FTAs between yet other third parties, and this creates an overall trend in which such FTAs threaten to affect the exports of countries that have yet to establish FTAs with their trade partners, as exemplified by the case of ECFA and its possible impact on Japan's exports. In order to prevent such developments, all countries strive to advance the establishment of FTAs, thus creating a true domino effect.

Integrated circuits (HS8542) and mobile phones (HS8517), which constitute major export items for Taiwan, have already been freed of tariffs under WTO's ITA, so they are not included in the early harvest list on the Taiwanese side, but the category of other electric equipment (HS85) contains products for which Taiwan competes with South Korea. Figure II-17 shows the import shares held by South Korea and Taiwan and the general tariff rates for a list of HS85 products whose amount of imports into China exceeds US$1 billion. The list includes several types of electronic components, such as switches, lithium ion batteries, etc., for which the general tariff rate in China is relatively high, and the implementation of tariff reduction measures will have an impact.

ECFA has established an early harvest list for trade in services as well. The two sides have reached an agreement that China will ease investment regulations in 11 service sectors, and Taiwan in nine. The policies for investment liberalization stipulated in the early harvest list, which are now in the second stage of implementation launched in January 2011, enabled further easing of measures. For instance, the number of years of operating representative offices in mainland China, which constitutes one of the conditions for opening of branches by Taiwanese banks, was reduced from three years to one year. In the hospital services, too, the establishment of hospitals by foreign-affiliated companies was previously limited to China-Taiwan joint ventures, but under ECFA it became possible for Taiwanese companies to set up wholly owned hospitals in some areas of China (Shanghai Municipality, Jiangsu Province, Fujian Province, Guangdong Province and Hainan Province). ECFA incorporates clauses allowing the establishment of wholly-owned enterprises by Taiwanese service suppliers in the fields of software implementation services, research and experimental development services on natural sciences and engineering, and convention services. The quota limiting the import of Chinese language motion pictures produced by production companies in Taiwan to ten movies per year was removed.

China is advancing measures for enhancement of economic partnership under the so-called "WTO-Plus" obligations for liberalization measures exceeding those required by WTO agreements not only with Taiwan, but also with Hong Kong, Macau, and other neighboring countries and regions. The 7th Supplement to the Closer Economic Partnership Agreement (CEPA VIII), which came into force in January 2011, added two new areas—technical testing and product testing—to the 19 areas and 35 categories subject to measures for trade liberalization, thus expanding the number of service areas that have been opened to 44. Hong Kong travel agents and tour operators with branch offices in Beijing or Shanghai were permitted on an experimental basis to operate tours departing from Beijing or Shanghai and bound for Hong Kong or Macau. CEPA also incorporates a provision that permits branches and subsidiaries of Hong Kong banks in China to issue RMB bonds to Hong Kong companies in China provided that the respective branch or subsidiary has been operating in China for more than one year and is profitable.

(5) Utilization status of ASEAN+1 FTAs

Utilization value of ASEAN FTAs soars in 2010

An increasing number of Japanese companies take advantage of FTAs or at least consider the possibilities to do so. According to the results of the FY 2010 Survey on the International Operations of Japanese Firms carried out by JETRO between November and December 2010, the companies that take advantage of major FTAs enacted by Japan

(with Mexico, Malaysia, Chile, Thailand, Indonesia, Philippines, ASEAN, Switzerland, and Vietnam) have reached 35.2% of all surveyed companies engaged in trade with FTA parties (673 companies). The share rises to 48% or almost half of the surveyed companies, if the number of potential FTA users is included. An examination of the utilization by industry shows that in the field of exports, the petrochemical industry, transportation machinery industry, and steel industry boast the greatest utilization rate, while in the field of imports the food and beverage industry and textile industry are among the industries in which FTAs are utilized the most. The ranking in the utilization rate by FTA for exports is topped by the Japan–Chile Economic Partnership Agreement (36 out of 102 companies, or 35.3%), followed by the Japan-Thailand Economic Partnership Agreement (29.1%). Chile imposes a flat general tariff rate of 6% on all imported products, so the results demonstrate the significance of utilizing FTAs.

In the Asia and Oceania region, all ASEAN+1 FTAs (bilateral free trade agreements between ASEAN and Japan, China, South Korea, Oceania, and India) had come into effect as of January 2010. The first ASEAN+1 FTA to come into force was the ASEAN–China Free Trade Agreement (ACFTA) (2004), which covered various agricultural and fisheries products. It was followed by the ASEAN–South Korea Free Trade Agreement (AKFTA) in 2007, and the ASEAN-Japan Comprehensive Economic Partnership Agreement in 2008. In January 2010, the ASEAN-Australia-New Zealand Free Trade Agreement (AANZFTA) and the ASEAN–India Free Trade Agreement (AIFTA) came into force. Although some agreements are yet to come into effect in some of the ASEAN countries, in 2010 the process of building an FTA network in the Asia and Oceania region made significant progress. Furthermore, the percentage of tariff-free products in these FTAs increased greatly. In the ASEAN Free Trade Area (AFTA) established within the ASEAN region, the original member states (Thailand, Indonesia, Malaysia, Philippines, Singapore, and Brunei) eliminated tariffs on 99% of all products subject to trade from January 2010. This means that now trade of goods within the ASEAN region is almost entirely tariff-free. Moreover, under the stipulations of ACFTA and AKFTA, which have already come into effect, from January 2010, China, South Korea and the ASEAN founding members have eliminated tariffs on approximately 90% of all products subject to trade, thus advancing greatly the process of tariff elimination in a manner similar to AFTA and boosting the FTA utilization value. It is interesting to see the change in the FTA utilization using 2010 as the base year for comparison.

Large increase in the number of Japanese companies that conduct trade between ASEAN and China

First, let's examine the FTA utilization status at Japanese companies. We observed the changes in the status of utilization of ASEAN+1 FTAs by comparing the results of the FY 2010 Survey on the International Operations of Japanese Firms with the results of the survey carried out in the previous fiscal year (see Figure II-18). The rate of utilization by Japanese companies was calculated by using the number of companies that conduct trade between ASEAN countries and their FTA partners in Asia and Oceania as the denominator, and dividing it by the number of companies that take advantage of the FTAs.

The first thing that becomes obvious from the results of the FY 2010 survey is that the number of companies that conduct trade between third countries has increased significantly from the previous fiscal year. This trend is visible in the increase of the parameter n, which has expanded almost 1.5 times for AFTA, ACFTA, and AKFTA. Moreover, the increase in the utilization rate is particularly prominent in ACFTA and AKFTA. The numbers clearly demonstrate that Japanese companies proactively utilize FTAs between third countries. The rate of utilization of AFTA remains almost unchanged from the previous year, but the parameter n has increased which means that the number of users is on the rise.

As for the trends in the ASEAN+1 FTAs, after the enactment of AIFTA in January 2010, the number of companies that conduct trade among the parties to the agreement increased 1.3 times from the previous year. The FTA utilization rate exceeded 20% as early as the first fiscal year after the agreement came into effect, making AIFTA the most utilized ASEAN+1 agreement. As for other FTAs that India is party to, the Thailand–India FTA, which covers an early harvest list of 82 items, came into force in 2004 and boasts a utilization rate in the range of 20%. It is interesting to see what changes occurred in the utilization of the Thailand–India FTA as AIFTA came into effect, and whether users have switched to AIFTA as an alternative to the bilateral agreement. The results showed that the utilization rate of the Thailand–India FTA remained almost unchanged. This could be interpreted as a sign that companies continue to take advantage of it, while using the newly enacted AIFTA, too. The share of companies that responded that they were exploring the possibilities to use AIFTA was relatively high

Figure II – 18 ASEAN+1 FTA utilization status by Japanese companies (based on number of companies)

(%)

FTA	Status	FY 2009		FY 2010
AFTA	existing user	33.3		32.3
(n= 135→198)	potential user	18.5		23.7
ASEAN-China	existing user	15.9		19.5
(n= 189→287)	potential user	22.8		23.3
ASEAN-South Korea	existing user	13.2		16.4
(n= 114→165)	potential user	17.5		18.8
Thailand-India	existing user	21.3	→	19.1
(n= 80→94)	potential user	18.8		25.5
ASEAN-India	existing user	-		21.4
(n= 79→103)	potential user	46.8		29.1
Thailand-Australia	existing user	24.2		27.1
(n= 65→70)	potential user	12.9		14.3
ASEAN-Australia-NZ	existing user	-		17.5
(n= 77→80)	potential user	33.8		18.8

Notes: (1) Percentage is per (n), which is the number of companies engaged in trade in respective FTA participating countries.
(2) ASEAN-India and ASEAN-Australia-NZ FTAs were not in effect in FY 2009, so there is no data for that period.
(3) The number of companies that responded to the survey is 935 in FY 2009 and 1,002 in FY 2010.

Source: "FY 2009/2010 Survey on the International Operations of Japanese Firms" (JETRO).

at 30%, so it seems likely that the utilization by Japanese companies will expand in the future.

Combining the two answers regarding the utilization of AIFTA and the Thailand–India FTA gives an idea of the way these two agreements are utilized. Eleven companies responded that they use AIFTA when conducting trade between Thailand and India, and eight of these eleven companies responded that they also use the Thailand–India FTA. (Two companies did not use the bilateral agreement, and one is currently exploring the possibilities for utilization.) These results demonstrate that for companies, the two agreements do not substitute but rather complement each other.

Next, let's examine from what bases Japanese companies use FTAs between third countries and AFTA in particular. If we envision a process in which components and materials exported from Japan are processed in ASEAN member countries, and then are again exported to the ASEAN market using AFTA, then the distribution of companies that responded positively to the question whether they export from Japan to ASEAN countries will serve as a reference. We examined the answers of the 64 companies that responded that they use AFTA to the questions which countries they export to from Japan and whether they take advantage of FTAs in their export activities (see Figure II-19).

Thailand was the most often selected destination of exports from Japan, as 56 out of the 64 companies that use AFTA, or approximately 90%, responded that they export to Thailand. The ratio of companies that use FTA and export to Thailand is also high. Vietnam, Indonesia, Malaysia, and Philippines follow Thailand as preferred export destinations. Also, and it is not obvious from the figure, 10 out of the 64 companies responded that they export from Japan to all five ASEAN countries using FTAs. In other words, this indicates that companies that use FTAs take full advantage of them.

The gap between large enterprises and SMEs in their utilization of Japan's FTA depends on the partner country (see Figure II-20). For instance, among the 470 companies that export from Japan to Thailand there is almost no difference in the percentage of large enterprises (45.2%) and SMEs (41.1%) that responded that they utilize or are examining the possibilities to utilize preferential taxation under trade agreements. In the case of exports to the Philippines, however, large enterprises boast a utilization rate of 33.5% against only 16.3% for SMEs. The number of SMEs is particularly high among the companies that respond that they do not take advantage of FTAs because they are not familiar with the FTA system, and this suggests that the utilization rate may increase if the FTA system becomes widely known.

Figure II – 19 Trade relation of Japanese companies that use AFTA with Japan (Multiple answers. N=64)

(number of companies)

Partner country	Companies exporting from Japan	Companies that use FTAs in exports from Japan
Thailand	56	40
Malaysia	44	23
Indonesa	44	28
Philippines	36	16
Vietnam	46	22

Source: "FY 2010 Survey on the International Operations of Japanese Firms" (JETRO).

Figure II – 20 Japanese companies FTAs utilization by FTA partners and company size (the share that responded that they are using or considering the possibility of using FTAs)

(%)

Partner country	Overall		
		Large enterprises	SMEs
Thailand	43.2	45.2	41.1
Malaysia	28.9	35.0	22.7
Indonesia	33.0	41.0	23.4
Philippines	26.1	33.5	16.3
Vietnam	32.7	36.2	28.7

Source: "FY 2010 Survey on the International Operations of Japanese Firms" (JETRO).

Many of ASEAN+1 FTAs utilization rate exceed 30%

Not many countries keep statistics of their FTA utilization rate, and statistics released by the governments of Thailand and Malaysia provide a clear picture of the FTA utilization status in the region of Asia and Oceania. An analysis of the trade statistics in terms not of number of utilizing companies but of trade value reveals what imports and exports have been carried out using FTAs. Figure II-21 shows the monetary value of exports from Thailand and Malaysia that utilize FTAs and the utilization rate in relation to the total amount of exports.

In 2010, the rate of utilization of FTAs in the Asia and Oceania region in exports from Thailand increased substantially. The AFTA utilization rate within ASEAN exceeded 30%, and the rate of utilization of ASEAN+1 FTAs skyrocketed. The rate of utilization of the ASEAN–China Free Trade Agreement (ACFTA) soared to 34.4%, surpassing the AFTA utilization rate. The ACFTA utilization rate surpassed the AFTA rate in exports from Malaysia as well. The enactment of the Second Protocol to Amend the Framework Agreement officially recognized intermediary trade from 2011, and as a result it has become possible to utilize ACFTA for trade activities that use a third country as intermediary between the country from where the exports originate and their destination country. Thus ACFTA has enabled companies to concentrate their financial functions and settlement mechanisms in a third country as their regional base, boosting the utilization value of the agreement. It is expected that the utilization rate of ACTFA will further increase in the future.

It is interesting to see for what products companies take advantage of ACFTA. In exports from Thailand, the ranking of products for which the trade agreement is used most often is topped by cassava, compounded rubber, and chemical goods, and remains mostly unchanged from the previous year (see Figure II-22). This demonstrates that the FTA comes to be utilized not in wider range of products, , but in higher degree in existing same products. In contrast, the utilization rate of ACFTA for imports into Thailand (from China) remains relatively low at 7.5%. Traditionally, the ranking of products for which ACFTA is used most often is topped by combine harvesters, ceramic products, and apples, but recently textile products and video recorders

Figure II – 21 FTA utilization status in Thailand and Malaysia (exports)

(US$ million, %)

Country	Partner country/ region	FTA	Exports value that use FTA					Utilization rate in relation to the total exports				
			2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Thailand	ASEAN	AFTA	5,509	7,865	10,735	9,671	14,015	20.2	22.6	26.8	29.9	31.6
	China	ASEAN-China	1,450	1,769	1,691	3,990	7,387	12.3	11.1	10.4	24.8	34.4
	South Korea	ASEAN-South Korea	-	-	-	-	881	-	-	-	-	24.4
	India		328	399	418	352	1,466	18.1	14.0	12.3	11.0	33.4
		ASEAN-India	-	-	-	-	900	-	-	-	-	20.5
		Thailand-India (an early harvest list of 82 items)	328	399	418	352	566	89.1	98.3	83.4	69.0	74.1
	Oceania		2,746	4,067	4,944	4,316	5,640	62.6	66.3	61.9	50.5	55.5
		ASEAN-Australia-New Zealand	-	-	-	-	28	-	-	-	-	0.3
		Thailand-Australia	2,746	4,067	4,944	4,316	5,613	62.6	66.3	61.9	50.5	59.9
	Japan	Japan-Thailand, ASEAN-Japan	-	642	4,507	4,281	4,831	-	18.1	22.4	27.3	23.7
Malaysua	ASEAN	AFTA	3,069	3,922	4,809	5,186	8,833	7.4	8.7	9.4	12.8	17.5
	China	ASEAN-China	1,042	1,628	1,896	2,381	4,426	9.0	10.6	10.0	12.5	17.7
	South Korea	ASEAN-South Korea	-	403	4,286	4,195	4,941	-	10.9	55.3	70.0	65.8
	India	ASEAN-India	-	-	-	-	703	-	-	-	-	10.8
	Oceania	ASEAN-Australia-New Zealand	-	-	-	-	861	-	-	-	-	10.3
	Japan	Japan-Malaysia, ASEAN-Japan	850	1,948	2,503	2,344	3,038	10.4	12.0	11.6	15.2	14.7
Total	AFTA		8,578	11,786	15,544	14,856	22,848	12.4	14.8	16.9	20.4	24.1
	ASEAN-China		2,492	3,397	3,587	6,371	11,813	10.6	10.8	10.2	18.1	25.4
	With India		-	-	-	-	2,169	-	-	-	-	19.9
	With Japan		-	-	7,011	6,624	7,869	-	-	17.0	21.3	19.2

Notes: (1) The category "Oceania" includes Australia and New Zealand for 2010. For all other prior periods, the category includes only Australia.
(2) The Japan-Thailand figures for 2007 are for the period November-December; the Japan-Malaysia figures for 2006 are for the period July-December, the ASEAN-South Korea figures in relation to Malaysia for 2007 are for the period June-December.

Sources: Ministry of Commerce of Thailand, the Ministry of International Trade and Industry of Malaysia, and trade statistics of each country.

Figure II – 22 Major exports from Thailand that take advantage of FTAs

FTA	Products
AFTA	Passenger vehicles, commercial vehicles, automobile components, air conditioning machines
ASEAN-China	Cassava, compounded rubber, organic chemicals, plastic goods
Thailand-India, ASEAN-India	Organic chemicals, alluminum alloys, air conditioning machines, engines, plastic goods
Thailand-Australia, ASEAN-Australia-NZ	Passenger vehicles, commercial vehicles, prepared seafood products (tuna), air conditioning machines, washing machines.
Japan-Thailand, ASEAN-Japan	Prepared chicken producs, shrimps, plastic products, fish, steel springs

Source: Ministry of Commerce of Thailand.

and players have newly ascended to the top of the ranking. However the import amounts remain small, so observers are waiting to see whether the utilization rate will increase and how the spread of products for which the FTA is used will change from next year onward.

As for the ASEAN–India Free Trade Agreement (AIFTA), which came into force in 2010, its utilization rate for exports from Thailand has exceeded 20% in the first year of enactment of the agreement. Combined with the utilization rate of the existing India-Thailand Free Trade Agreement, the overall utilization rate exceeds 30%. In terms of access to the Indian market, the India-Thailand Free Trade Agreement covers only 82 products, so AIFTA is utilized as a means to supplement the bilateral agreement. Regarding access to the Australian market, there is already an existing Thailand-Australia Free Trade Agreement (TAFTA), which covers a wide range of products. Already six years have passed since TAFTA came into force, so the utilization rate of the newly enacted ASEAN-Australia-New Zealand Free Trade Agreement (AANZFTA) remains low at 0.3%. This indicates that AANZFTA is not much used in Thailand. The utilization rate of AANZFTA for exports from Malaysia has reached 10.3%, probably due to the fact that Malaysia does not have a bilateral trade agreement with Australia.

As for the ASEAN–South Korea Free Trade Agreement (AKFTA), its utilization rate for exports from Malaysia exceeds 60%. It is exceptionally high compared with the utilization rate of other FTAs concluded by Malaysia or with the 25% utilization rate of the same agreement in Thailand. It is probably because, 40% of the Malaysia exports to South Korea are composed of fossil fuels (HS27) and the FTA is seemingly used in these products, thereby contributing to the high utilization rate. The South Korea's general tariff imposed on natural gas (HS2711.11.0000) and crude oil (HS2709.00.1010), both key export products, is 3%, but use of AKFTA eliminates tariffs. In other words, from the perspective of importing natural gas and crude oil to South Korea, the FTA is utilized in order to secure low-cost supply of energy.

Significant progress in the integration of Asia and Oceania

Trade in 2009 decreased due to the global economic stagnation, but bounced back in 2010 when most countries significantly expanded their trade volume. Furthermore, all ASEAN+1 FTAs came into effect in 2010, and the liberalization of the flow of goods through Asia and Oceania advanced greatly. As a result, the ratio of intra-regional trade went up.

The intra-regional trade ratio of ASEAN+6 (adjusted for re-exports) in 2010 was 45.9%, up 2.1 points from the 43.8% of the previous year (see Figure II-23). Japan's exports to ASEAN+6 account for 45.6% of its global export volume, and keep expanding every year. The same trend is visible in South Korea and Australia. Such expansion in the intra-regional trade ratio of the big trade powers contributes to the further integration of ASEAN+6.

Figure II – 23 Intra-regional trade ratio in the world's major regions

(%)

		1980	1990	1995	2000	2005	2008	2009	2010
Asia	ASEAN+6 (Re-export adjusted)	-	-	-	41.9	44.1	43.1	43.8	45.9
	ASEAN+6	33.2	33.0	40.3	40.6	43.0	42.5	43.0	45.0
	ASEAN+3	28.9	28.6	36.9	37.4	39.1	37.4	37.8	39.6
	ASEAN	15.9	17.0	21.0	22.7	24.9	25.0	26.1	25.6
	ASEAN+China	14.9	15.8	19.1	20.1	20.7	20.4	20.3	22.0
	ASEAN+India	15.1	16.5	20.7	22.3	23.8	24.2	24.7	24.4
	ASEAN+Japan	23.4	21.7	27.4	26.4	26.0	26.0	27.0	27.3
	ASEAN+6+Taiwan	35.1	36.2	43.7	44.9	47.7	46.4	46.8	49.0
	ASEAN+3+Taiwan	30.9	32.0	40.4	41.9	44.2	41.7	42.0	44.0
	ASEAN+Taiwan	15.8	17.4	21.7	23.8	25.1	25.3	26.3	25.9
Americas	NAFTA	33.2	37.2	42.0	46.8	43.0	40.0	39.5	40.4
Europe	EU27	57.5	65.4	65.4	65.1	65.0	64.8	65.1	65.0
APEC		57.5	67.5	71.6	72.3	69.3	64.7	66.8	66.9
TPP (Trans-Pacific Strategic Economic Partnership)		10.5	12.1	15.1	13.0	12.6	12.4	12.9	12.8

Notes: (1) ASEAN+6 includes ASEAN, Japan, China, South Korea, Australia, New Zealand, and India.
(2) ASEAN+3 includes ASEAN, Japan, China, and South Korea.
(3) APEC includes Australia, Brunei, Canada, Chile, China, Hong Kong, Indonesia, Japan, South Korea, Malaysia, Mexico, New Zealand, Papua New Guinea, Peru, Philippines, Russia, Singapore, Taiwan, Thailand, the U.S., and Vietnam.
(4) TPP includes the U.S., Singapore, Brunei, New Zealand, Chile, Australia, Peru, Vietnam, and Malaysia.
(5) The share of intra-regional trade (export+import) is calculated as follows: (intra-regional exports + intra-regional imports) / (exports to the world + imports from the world) *100.
(6) In calculating "ASEAN+6 (Re-export adjusted)", adjustments are made to exclude re-exports which would cause double counting, using the methods below.
- For Singapore's export, domestic-export value is used in order to exclude re-exports.
- For Singapore's import, import minus re-export is used as a "net import."
- Hong Kong's trade imported from an ASEAN+6 country and re-exported to a ASEAN+6 country is added in intra-regional trade, although trade flow from China to China via Hong Kong is regarded as China's domestic trade, and hence is excluded.

Sources: DOT (IMF), trade statistics of Taiwan, Hong Kong and Singapore.

Column II – 3

◉ How do countries take advantage of FTAs in their exports to the U.S.

U.S. import statistics keep track of FTA utilization rates. In other words, they are a source of indicators that demonstrate the extent to which various countries take advantage of FTAs in their exports to the U.S.

The North American Free Trade Agreement (NAFTA), which is considered the pioneer U.S.-style trade agreement, boasts a stable utilization rate of around 50% every year. More than 15 years have passed since the agreement came into force, and the tariff elimination schedule is already completed, so there are no more changes in the products that have utilization value and those that do not. In other words, products that are tariff-free under the most-favored nation status do not bring the necessity to use FTA. This is believed to be the underlying factor for the stable utilization rate.

Utilization of the U.S.–Jordan FTA soared in 2010 as exporters of textile products to the U.S. switched from using the non-tariff benefits under Qualified Industrial Zone (QIZ) agreements to the advantages provided by the U.S.–Jordan FTA. The bilateral trade agreement, which came into effect in December 2001, is now in its tenth year, and tariff elimination is well under way, so exporters switch to using it instead of QIZ agreements. Textile products account for 80% of Jordan's exports to the U.S. and the lineup of fashion brands such as Levi's and Ralph Lauren features textile products made in Jordan.

Figure FTA utilization status in the U.S. (imports)

(US$ million, %)

Partner country/region	Year of coming into force	Amount of imports that utilize FTAs					Utilization rate in relation to the total amount of imports				
		2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Canada (NAFTA)	Jan-94	159,062	157,284	159,892	108,905	141,938	52.4	50.2	47.6	48.4	51.3
Mexico (NAFTA)	Jan-94	117,820	120,757	115,587	91,604	118,458	59.4	57.3	53.5	51.9	51.6
Australia	Jan-05	3,134	3,117	3,902	2,712	2,654	38.2	36.2	36.9	33.8	30.9
Singapore	Jan-04	869	903	972	824	1,056	4.9	4.9	6.1	5.3	6.0
Chile	Jan-04	5,486	4,988	4,443	3,345	4,277	57.4	55.4	54.3	56.2	61.1
Peru	Feb-09	-	-	-	976	2,130	-	-	-	23.3	41.8
Dominican Republic – Central America Free Trade Agreement (DR-CAFTA)	Mar-2006 to Jan-2006 (varied by the partner)	3,929	8,112	9,326	8,923	10,385	21.2	43.3	48.2	47.4	43.7
Bahrain	Aug-06	47	199	288	258	274	7.4	31.8	53.4	55.6	65.3
Israel	Aug-85	2,768	2,750	3,162	2,493	2,725	14.5	13.2	14.2	13.3	13.0
Jordan	Dec-01	309	313	280	240	606	21.7	23.4	24.6	26.0	62.2
Morocco	Jan-06	116	136	161	114	163	22.2	22.3	18.3	24.5	23.8
Oman	Jan-09	-	-	-	456	335	-	-	-	50.3	43.4
African Growth and Opportunity Act (AGOA)		21,215	23,652	27,936	12,737	15,276	37.6	36.6	34.4	29.4	25.1
Andean Trade Preference Act (ATPA)		10,963	10,489	12,872	5,908	6,598	49.3	50.5	46.0	28.4	23.4

Source: United States International Trade Commission (ITC).

III International Business for Disaster Recovery

1. The Great East Japan Earthquake Influences on Goods Flow

(1) The Japanese economy as seen by post-disaster economic indicators

Seriously worsening economic confidence

On 11 March 2011, a massive magnitude 9.0 earthquake occurred off the Sanriku Coast of Japan in the Pacific Ocean, sparking a tsunami that caused extensive damage to the Tohoku and Kanto regions and put significant downward pressure on Japan's economy. The Cabinet Office estimates that the disaster destroyed 16.9 trillion yen in social infrastructure, housing, private sector corporate facilities and other capital stock.

Post-disaster economic indicators markedly worsened across the board. On the Economy Watchers Survey, released in March to inquire about the economic confidence of people that are able to assess subtle movement in economic trends, the sentiment diffusion index for the current situation dropped by 20.7 points on the previous month to 27.7, marking the largest decrease in history. Furthermore, in the Tohoku region the index dropped to 16.8, a decrease by 32.1 points, which is larger than the national average. The supply shortages and deterioration in consumer confidence caused by the disaster have weakened individual consumption. In March, real consumption expenditures for households of two or more people sank greatly by 8.5% over the previous year. Corporate sentiment also experienced significant worsening. The March Short-Term Economic Survey of Enterprises in Japan (the Tankan), which separated and recalculated answers from before and after the disaster, indicated worsening business sentiment forecasts for the ensuing three months for both major corporations and small and medium-size enterprises (SME), but gloomy outlooks were particularly visible for SMEs.

Impact on the domestic and foreign supply chain

The disaster temporarily decreased domestic supply capacity to a significant degree. As production plants were rendered inoperable and rolling power outages continued to hinder economic activity, the industrial production index in March dropped by 15.5% on the previous month, marking the largest decrease since 1953. Damage caused to electronic and automobile-related parts plants, which are largely concentrated in the Tohoku region, fragmentized the national supply chain, making for a particularly large decrease in transport machinery. Indeed, the number of four-wheel vehicles produced domestically in March more than halved, sinking by 57.3% over the previous year.

The decrease in production also spread to exports. The March export volume index sank by 3.3% over the previous year, registering a year-on-year drop for the first time in 16 months. Moreover, the index sank again in April by 11.6%, further increasing the scale of decrease. The halt of operations at Tohoku plants not only halted domestic production, but also severed supply of finished products and parts to other countries. In terms of individual items, the volume index for transport equipment fell by 43.4% in April, a larger decrease than the 19.3% fall in March. The electric parts IC also dropped by 17.7%, showing a larger rate of decrease than in March.

The decrease in exports has a major negative impact on the economy of Japan, a trading nation. Exports in 2010 accounted for 15.2% of Japan's nominal GDP, which may not seem like much compared to the 58.6% accounted for by private consumption. However, looking at the production inducement coefficient (an index that shows how much production is induced when final demand increases by one unit) by final demand, exports are 2.2 while private consumption is 1.5, and if combined with the ripple effect, the impact of exports on the overall economy is by no means small (from an 2005 input-output tables for Japan released by the Ministry of Internal Affairs and Communications).

(2) Tohoku and Kanto corporations support global industry

Japan's materials sector retains high global shares

The disaster caused extensive damage to corporations in the Kanto region as well as the Tohoku region. Corporations in these regions ship out large amounts of materials such as nonferrous materials, paper, and pulp, as well as food and electronic components. In 2009, for instance, the industries that take the top three spots in terms of shipment value in Miyagi Prefecture, which was one area greatly damaged by the disaster, were food (20.4% of overall prefectural shipping value; same applies hereinafter); electronic components, devices, and circuits (11.7%); and pulp, paper, and paper processed goods (7.0%), in that order. The top three in Fukushima Prefecture were information communications equipment (16.5%); electronic components, devices, and circuits (10.4%); and chemicals (9.7%).

Looking at shipments by industry for the combined totals for Aomori, Iwate, Miyagi, Fukushima, Ibaraki, and Chiba, which all suffered great damage, a large amount of materials products are shipped from these areas, led by oil and coal products. In other words, this region carries great weight in Japan in terms of the production of parts and materials that are used as the foundation for finished goods (Figure III-1).

Many of the corporations affected in the Tohoku and Kitakanto regions produce parts and materials that maintain a large share of the market not only in Japan, but internationally as well. For instance, in the materials sector, the region is host to businesses that occupy nearly 50% of the global share for materials and parts used to produce lithi-

Figure III - 1 Share of shipped value of 6 prefectures in Tohoku/ Kanto among the nation by industry

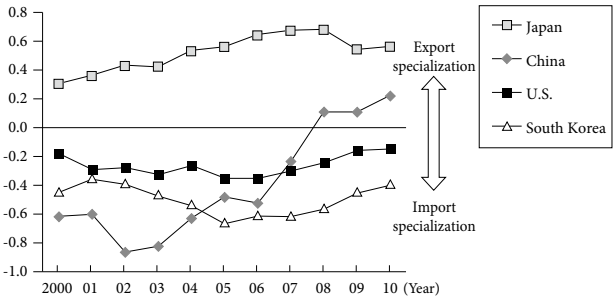
(%)

Product/Industry	Share
Petroleum and coal products	28.9
Non-ferrous metals and products	20.6
Chemical and allied products	17.7
Iron and steel	17.0
Beverages, tobacco and feed	16.7
Lumber and wood products except furniture	16.4
Food	16.0
Fabricated metal products	13.9
Ceramic, stone and clay products	13.1
Plastic products except otherwise classified	13.0
Business oriented machinery	13.0
Electronic parts, devices and electronic circuits	12.7
Pulp, paper and paper products	12.7
Information and communication electronics equipment	12.3
Total manufacturers	12.5

Note: The six prefectures are Aomori, Iwate, Miyagi, Fukushima, Ibaraki and Chiba.

Source: "Census of Manufactures (2009, final version)" (Ministry of Economy, Trade and Industry).

Figure III - 2 Trends in the specialization coefficient for silicon wafers by country



Note: The trade specialization coefficient is calculated as follows: [exports - imports] / [exports + imports].

Source: Trade statistics of various countries.

um-ion batteries, as well as plants that produce 40% of the global share of ITO target materials used in electrodes for liquid crystal panels. The regions even possess international competitiveness in terms of intermediate materials. The regions host plants that produce 20% of the world's lithium-ion batteries as well as 30% of the world's automobile semiconductors, or, "microcomputers". In this way corporations in these regions are producing products that are vital to industries around the world.

It is not only major corporations that are producing highly competitive items. In the Pacific Ocean coastal areas, where damage was most severe, there are a large number of medium-sized enterprises and small enterprises that garner global attention for their unique technologies. For example, Toadenka, located in Morioka City, Iwate Prefecture, possesses a strongly competitive technology that directly joins metals such as copper and aluminum with plastic without using an adhesive agent. The company's technology is used for electronic components such as ultra-precision motors and digital cameras, as well as mobile phones and laptop computers.

Horio Seisakusho, in Ishinomaki City, Miyagi Prefecture, has realized high precision molding using zinc die-casting, which has conventionally been thought difficult to achieve. The company currently accounts for approximately 30% of the global share of optical pickup parts.

In addition to securing large global shares, items produced in the affected areas of Tohoku and Kanto boast high export competitiveness. For instance, in terms of silicon wafers, which are an essential material in the production of semiconductors, Japan's high export competitiveness is clear even compared to China, South Korea, and the U.S. (Figure III-2). Major silicon wafer producer Shin-Etsu Chemical temporarily stopped operations at its plant in Fukushima Prefecture directly after the disaster, and this impacted places throughout the world, not only Japan. Countless corporations feared that the halt in supply would last for the long term, including South Korea's Samsung Electronics and Hynix, which heavily rely on Japan for semiconductor parts, as well as manufacturers in Taiwan.

The Renesas Electronics Corporation, a major semiconductor corporation, possesses a large number of plants in the affected areas. Of those, the Naka Plant in Ibaraki Prefecture produces automobile semiconductors that are said to maintain a top global share. These are essential to improving fuel efficiency through engine control, and the company receives a large amount of inquiries from automobile manufacturers in Japan and abroad. In terms of general-purpose products, automobile manufacturers will not face problems if they change their procurement source, but the halt in production of customized products such as automobile semiconductors caused great confusion in the supply network, as manufacturers are unable to quickly look for alternative procurement sources. The Naka Plant in fact suspended production of automobile semiconductors until June. The lack of these products as well as other Japanese automobile parts created an impact around the world, including forcing operations to stop at the Louisiana plant of major U.S. automobile manufacturer General Motors (GM).

Tohoku exports account for approximately 2% of overall Japanese exports

The Tohoku and Kitakanto regions produce materials and parts important to production; however, the direct shipment value from these regions is by no means great on a national scale. If one combines the 2010 export values of the 15 major ports and airports in prefectures facing the Pacific Ocean in the Tohoku region (here this refers to Aomori, Iwate, Miyagi, Fukushima, and Ibaraki Prefectures), where production bases suffered major damage, for which trade statistics are available, one would find that amounts total 1,275.3 billion yen, approximately 2% of Japan's total export value (Figure III-3). By destination, while each port and airport present special characteristics, particularly large export values are seen from Kashima Port (Ibaraki Prefecture) to South Korea, and from Hitachi Port (Ibaraki Prefecture) and Shiogama Port (Miyagi Prefecture) to the U.S.

Looking at the ratio that each product accounts for in the total export value of Japan by individual port, at Sen-

Figure III - 3 Export values for major ports and airports in Tohoku and Kitakanto (2010)

Prefecture	Port/Airport (customs point) name	Export value		Share in Japan's total exports (%)
		US$ million	Million yen	
Aomori	Hachinohe	1,726	151,688	0.23
	Aomori	105	9,244	0.01
	Aomori Airport	0	0	0.00
Iwate	Kamaishi	119	10,387	0.02
	Ofunato	96	8,461	0.01
	Miyako	0	40	0.00
Miyagi	Shiogama	3,413	298,790	0.44
	Ishinomaki	360	31,424	0.05
	Sendai Airport	210	18,367	0.03
	Kesennuma	7	588	0.00
Fukushima	Onahama	443	38,808	0.06
	Soma	159	13,915	0.02
	Fukushima Airport	1	65	0.00
Ibaraki	Kashima	4,010	350,020	0.52
	Hitachi	3,960	343,457	0.52
15 port/airport total		14,610	1,275,254	1.90
Japan's total export value		767,025	67,399,627	100.00

Source: "Trade Statistics" (Ministry of Finance).

Figure III - 4 Regional breakdown of consumers of goods from Tohoku in major industries (intra-regional production basis)

(%)

	Hokkaido	Tohoku	Kanto	Chubu	Kinki	Chugoku	Shikoku	Kyushu
Agriculture, forestry and fishery	4.5	55.9	24.9	2.9	7.5	1.0	0.9	2.3
Beverages and foods	5.2	45.4	34.3	4.6	5.9	1.2	1.0	2.5
Pulp, paper, paperboard, building paper	2.1	47.8	33.1	4.1	10.6	0.8	0.4	1.0
Non-ferrous metals	1.0	45.2	39.0	4.8	5.3	3.6	0.1	1.0
Metal products	2.7	43.9	38.2	6.2	4.6	1.9	0.5	2.0
General machinery	1.3	44.0	34.5	6.6	5.8	2.4	0.7	4.7
Household electronics equipment	2.3	26.7	42.1	6.0	10.4	3.3	2.0	7.2
Computers and accessory devices	1.1	54.2	27.6	6.9	3.6	3.8	0.8	2.0
Electronic components	0.9	61.0	26.4	5.0	2.7	1.0	0.8	2.2
Motor vehicle parts and accessories	0.0	28.8	55.1	6.6	2.6	0.9	0.0	5.9

Notes: (1) The top ten categories in sales value are shown.
(2) "Kyushu" includes Okinawa.
Source: "2005 Inter-Regional Input-Output Table" (Ministry of Economy, Trade and Industry).

dai Shiogama Port, which has the highest export value of the four Tohoku prefectures, products such as frozen fish and shellfish (HS0303), paper and pulp (HS48), and steel bars (HS7213-7214, 7227) account for over 30% of all exports in Japan. Kashima Port, which is known for its accumulation of chemical, steel, machinery, ceramics and earth industries, accounts from between 10% to 40% of Japan's total exports of organic chemicals (HS28-29) as well as flat rolled steel products (HS7208-7209, 7219, 7255) used in automobiles, home appliances, and others. In addition, other regional ports maintain a high ratio of overall Japanese exports of mainly industrial materials; steel bars (HS7213) at Kamaishi Port, steel (HS72) at Hachinohe Port, paper and paper board (HS48) at Ofunato Port, plastic materials, tire, and copper products at Onahama Port, and plywood, paper, and paper board at Ishinomaki Port. Hitachi Port, which possesses production sites for heavy machinery, shows high export ratios of trucks and bulldozers (HS8704), in addition to chemicals, electric wires, and other products.

The impact of Tohoku production stoppages spread from the Kanto region to the world

The destruction of production sites in the Tohoku and Kanto regions not only directly impacted exports from these regions, but they caused significant indirect impact via the domestic supply chain. Because it was difficult to move goods from the Tohoku region to other areas in Japan, the impact on the exports of places where Tohoku goods were supposed to travel spread widely. According to the 2005 Inter-Regional Input-Output Table, produced by the Ministry of Economy, Trade and Industry, the value of goods exporting outward domestically from the Tohoku region (Aomori, Iwate, Miyagi, Akita, Yamagata, and Fukushima Prefectures) is approximately five times the export value. Furthermore, the intermediate input from the Tohoku region to industries in other regions mainly comprises primary and intermediate commodities.

Items produced in the Tohoku region – mainly materials – are used by major consumers in the Kanto region, not only the Tohoku region. For example, more than half of the automobile parts and accessories, and over 40% of communications equipment and related devices are being used in the Kanto region. In this way, a large amount of materials are being used as parts and materials for products in the Kanto region (Figure III-4). In addition, the Chubu region uses nearly 20% of certain transport machinery. We can see that the supply chain for Tohoku products is spread rather widely while the region's exports remain low. It is therefore not possible to say that the impact of the disaster on the world was limited, but rather that it impacted the world through other regions such as Kanto.(Note 1)

(3) Goods flow through trade

Marked fall in passenger car exports

Following the disaster exports from Japan declined significantly. In particular, exports of transportation machinery such as automobiles presented a striking drop, followed by major falls in exports of electrical equipment such as recording and playback equipment and electronic components.

In terms of automobiles, it was impossible to procure sufficient amounts of the materials and parts necessary for

[1] The 2011 White Paper on International Economy and Trade (Ministry of Economy, Trade and Industry) presents an analysis that shows that the Tohoku region has a markedly high ratio of indirect exports of automobile parts, more than 60%, which are processed in other regions.

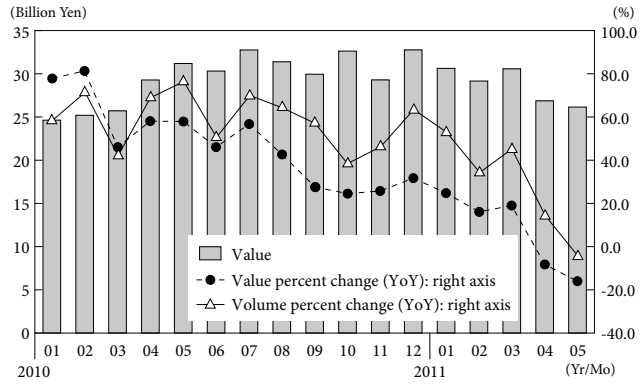
manufacturing because operations were suspended at plants in the affected areas, making the effects of the severed supply chain spread to other areas. Indeed, looking at the total of global exports from Japan for March and April by item and four-digit HS code, the item showing the largest decrease in level in contribution to total export value is the 46.9% decrease to 734.7 billion yen for passenger vehicles (HS8703) (Figure III-5). By country, significant decreases in exports were seen for the United States (222.6 billion yen; 51.5%), Australia (46.6 billion yen; 53.3%), and China (50.9 billion yen; 46.2%). Due to the impact of the disaster on the plants of major manufacturers of automobile semiconductors, an essential part of passenger cars, in terms of quantity, exports of microcontrollers (HS8542.31-992) dropped by 11.7% in March, 27.8% in April, and 38.7% in May, presenting a growing rate of decline. Silicon wafers (HS3818.00), a fundamental material in semiconductors, saw a loss on the previous year in terms of yen-based exports in April, the first such loss in 17 years, and the first decrease in terms of numbers on the previous year in 20 months. Delays in the foreign supply chain are thus becoming apparent via exports (Figure III-6).

Figure III - 5 Twenty items that largely contributed to the decrease in exports

Rank of negative contribution	HS code	Category	Share of Japan's total exports (%)
1	8703	Passenger vehicles	11.7
2	8542	Integrated circuits	4.5
3	8704	Cargo vehicles	1.3
4	8525	Visual apparatus	1.2
5	8708	Automobile components	4.6
6	8901	Vessels	3.3
7	8443	Printing machines, parts and accessories	2.0
8	2710	Oil and bituminous oil other than crude-oil, preparation for such products and waste oil	1.5
9	8407	Piston-type internal combustion engines	0.7
10	8517	Communication devices	0.7
11	8529	Audio and visual device components	0.7
12	7403	Refined copper and copper alloys ingot	0.5
13	8429	Construction and mining machinery	1.2
14	9001	Optical fibers and other optical goods	0.7
15	8541	Diodes, transistors and other similar semiconductor devices	1.6
16	9018	Medical and veterinary devices	0.5
17	7210	Iron and non-alloyed steel flat-rolled products	0.7
18	4011	Rubber pneumatic tires	0.9
19	8532	Fixed, variable or adjustable condensers	0.7
20	8536	Switching, protective or connection devices for electric circuits	1.0

Notes: (1) Categories are listed in order of minus contribution, with the sum of March-April 2011 compared by YoY.
(2) "Share of Japan's total exports" is for 2010.
(3) The product categories listed here have shares in excess of 0.5% of 2010 exports.
Source: "Trade Statistics" (Ministry of Finance).

Figure III - 6 Trends in silicon wafer export value



Source: "Trade Statistics" (Ministry of Finance).

In terms of items other than passenger vehicles, the contribution by electrical equipment to overall exports has also considerably fallen, including integrated circuits and video equipment (HS8525). Looking at the share of imports from Japan in the statistics of major importers from Japan, the presence of Japanese products had decreased mainly for IT products by April. In terms of IT final commodities (see Attachment 2 for JETRO classifications), Japan's share of imports in South Korea sank to 16.4% from 27.5% in April 2010. This was largely due to the reduction in digital camera imports (US$ 12.08 million; 59.7% decline). The affected areas host a large number of plants that manufacture items related to such devices, so it is apparent that the impact from the disaster has manifested itself in a clear decline in imports from Japan. China's imports of IT final commodities from Japan in April did not change greatly on the previous year. Meanwhile, however, Japan's share parts showed a decline; 6.5% to 5.1% for computer parts, 10.1% to 9.7% for semiconductor-related electronic components, and from 21.2% to 19.5% for other electronic components. In China, the decline in imports of Japanese IT parts will significantly impact the supply chain of companies active in China, as international corporations including those from Japan assemble a large share of IT products.

Looking at the share of major imports of Japanese products by China, Japan's largest importer, by the six-digit HS quantity base, figures in April showed between a 10% and 20% drop in shares of meters instruments (HS9032.89), internal combustion engines (HS8409.91), semiconductor machinery (HS8486.20), passenger vehicles (HS8703.23), and construction and mining machinery (HS8429.52).

In terms of imports by the United States of Japanese products, passenger vehicles (HS8703.22) and watches (HS9102.11) both experienced major drops in shares. By item, there was a prominent decline in imports of transportation machinery-related items, including engines and other parts, while drops in the share of materials such as organic chemicals (HS2933.79) and silicon wafers also stood out.

By product, several parts used to make smartphones, for example, are produced in the affected areas. As Japanese companies occupy a large ratio of these types of products in the global market, it is not easy to locate substitutes. In fact, many exports of such parts and materials began to show

slower growth, or even declines, in April, impacting a large number of Japanese and foreign companies (Figure III-7). The export of binder resin for lithium-ion batteries has continued to decline since March. Lithium-ion batteries, also an intermediate good, continued a trend where export numbers were lower than the previous year between March and May. Some smartphone parts are used overseas while the final commodity is imported into Japan. If the supply chain remains sluggish for the long-term, it is forecasted that there will actually be a delay in the supply of mobile phones, the final commodity.

Importers of Japanese products begin to consider alternative procurement

The disaster and the ensuing power shortages caused changes in the production and procurement strategies of Japanese companies. Companies are beginning to consider overseas production in addition to production in other areas in Japan based on their own will or requests from their clients. For instance, a major materials manufacturer decided to establish a manufacturing line in another part of Asia with the purpose of providing backup supply, as the company's production of materials for use in mobile phones, the company's core product, was temporarily halted due to the rolling power shortages following the disaster.

Furthermore, one engineering manufacturer is planning to transfer a portion of their operations based on requests from foreign clients.

In addition to overseas expansion based on strategies established by Japanese companies, there is the possibility that efforts by foreign governments to attract Japanese companies will encourage the overseas expansion of Japanese companies. For instance, local governments in South Korea engage in active PR activities, including the dispatch of groups to attract investment in South Korea to Japan. These local governments also implement a preferential taxation system and have expanded their investment consultations with the intention of encouraging the spread of Japanese companies in South Korea. Similarly, other Asian countries, such as the Guangdong Province of China, Thailand, and Viet Nam, have also been working aggressively to attract Japanese companies with the aim of boosting domestic industries (Figure III-8).

Japanese companies located overseas are also beginning to show signs that they have learned from the recent disaster and are working to prepare against breaks in the supply chain. A major automobile manufacturer that has expanded into China, for instance, is considering securing secondary suppliers for individual parts and intends to include Asian countries other than Japan as procurement sources. A major electronics manufacturer that has expanded into Singapore is even considering revising their structure, where they rely on a single domestic supplier that provides special design technology, and change the specifications of their company's own products, and then ordering parts from another company.

Disruptions in the supply chain have also impacted foreign companies. There is a possibility that foreign manufacturers that have relied on Japanese parts in the past have learned from this disaster and are considering substitute procurement sources other than Japan. Of the items China imports from Japan, looking at the items for which Japanese products have greatly declined in share as well as items that have notably increased in import share from other countries and for which there is no major divergence in price between Japan and the other country, there are vehicle engines (HS8409.91), construction and mining machinery (HS8429.52), batteries such as nickel and hydrogen batteries as well as lithium-ion batteries (HS8507.80), and others. China's import shares for vehicle engines have dramatically increased from Germany, while the same can be said for construction and mining machinery as well as batteries from South Korea. In particular, in April, follow-

Figure III - 7 Export trends of smartphone related parts

(Year-on-year, %)

		2011			
		Feb	Mar	Apr	May
Materials	ITO target materials	17.4	-10.2	-4.1	-19.1
	Silicon wafers	34.3	45.0	14.4	-4.3
	Binders (adhesive)	15.7	-13.9	-25.1	-28.1
Intermediate goods	Lithium-ion batteries	0.8	-13.2	-11.1	-19.4
	Semiconductors (DRAM)	-29.5	-49.5	-68.6	-70.2
Final goods	Mobile phones (imports)	40.4	123.6	13.0	17.4

Notes: (1) Volume base.
(2) HS codes are used for each part and material; however, the codes do not necessarily only cover parts and materials for smartphones alone.

Source: "Trade Statistics" (Ministry of Finance).

Figure III - 8 Examples of policy measures to attract Japanese corporations by foreign and local governments

	Policy measure
China	In order to increase foreign capital inflow, China has worked to attract Japanese companies that were expected to move their offices following the disaster. Keeping in view the industrial transformation of Japanese companies following the disaster, some cities even advance measures to attract Japanese corporations by using infrastructure and human resource qualities to appeal.
South Korea	Some municipal governments work to attract investment by exempting foreign companies from corporate taxation for three years or income tax for seven years, or use the Korea Trade-Investment Promotion Agency (KOTRA) as an intermediary.
Taiwan	President Ma Ying-jeou has ordered the Executive Yuan to establish a special office to promote partnerships with Japan. Government officials work to attract Japanese corporations while keeping in mind post-disaster risk dispersion as an extension of enhancing partnerships, and believe that bringing Japanese technologies to Taiwan through such efforts will contribute to raising the level of the Taiwanese economy.
Thailand	The Board of Investment (BOI) provides assistance for Japanese companies that were affected by the disaster. Specifically, the BOI supports the activities of Japanese corporations in Thailand by easing procedural requirements and taking other measures to make the import of machinery easier.
Vietnam	The Saigon Investment Group (SIG) intends to support the expansion into Vietnam of SMEs impacted in the disaster. SIG aims to attract Japanese SMEs with high technological capabilities in order to strengthen its own domestic supply chain.

Sources: Various news sources.

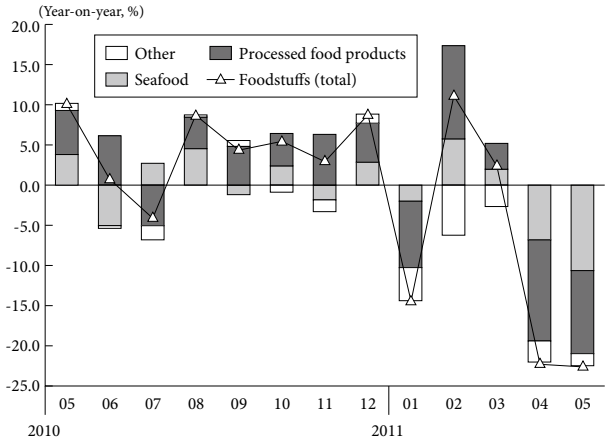
ing the disaster, it was clear that import levels from South Korea for batteries had surpassed levels from Japan. South Korea's share had risen from 33.7% in April 2010 to 43.8% in April 2011, while Japan's share had declined from 39.5% to 30.8%. It is possible to conceive that companies in China had selected South Korea as a substitute import source. In May, as well, the increase in South Korea share continued. A look at shipment trends shows that during the first quarter of 2011 the global shipment share of lithium-ion batteries from South Korea was generally on par with Japan. As shipment levels of lithium-ion batteries from South Korea were on an upward trend from before the disaster, this can be interpreted to mean that the disaster potentially accelerated this rising trend.

Drastic decline in food exports following the disaster

The export of foods was also impacted by the disaster. Exports of food products (see Attachment 1 for JETRO classifications) in April sank by 21.9% to 29.7 billion yen, the biggest drop since August 2009 (Figure III-9). This was not only due to infrastructure damage at port and other facilities as a result of the disaster and harmful rumors spread abroad related to radioactive substances; apparently, the impact of import restrictions by foreign countries concerned about the possibility for radioactive substances being mixed in food products negatively influenced exports. Between March and April, directly following the disaster, there was a marked drop in fish products, mainly comprising frozen fish, to China, Russia, and the United States. Concerning non-fish products, there was a prominent decline in the export of processed foods, including leaf tobacco and baby food. Individual nine-digit HS items that displayed a particularly large drop were frozen Pacific Ocean salmon (not including sockeye salmon) (HS0303.19-000), frozen saury (HS0303.79-100), cigarettes (HS2402.20-000), baby food (HS1901.10-000), and scallops (HS1605.90-920).

The lack of supply power was one cause for the decrease in export of food products, and this not only affected foreign countries, but also served to choke domestic supply

Figure III - 9 Japan's Foodstuff exports (contribution year on year, yen-based)



Note: "Foodstuffs" are defined based on JETRO classifications.
Source: "Trade Statistics" (Ministry of Finance).

for Japan. Of the items listed above, the export of cigarettes sank by 57.0% in volume, while imports jumped by 42.2%, led by imports from the United States and the Netherlands. This marks the largest important volume since 1995. This contrasting trend between imports and exports can also be seen in baby foods. In April, Japan began to rely on Brazil for baby food imports. There were some items for which foreign imports increased in order to make up for the drop in Japanese supply. However, this trend only lasted for a short amount of time. In May, the ratio of increase in import levels of cigarettes began to show signs of slowing down and imports of baby foods were reduced to zero.

Impact of foreign import restrictions

Food exports not only face problems spawning from the lack of infrastructure in the affected areas; they are also impacted by restrictions imposed by importing countries. Following the incident at the Fukushima Daiichi Nuclear Power Station after the earthquake and tsunami, some countries and regions strengthened their regulations, including some countries starting radiation-related screenings on food imports from Japan (Figure III-10). There were a total of 41 countries or regions that introduced regulatory measures (as of 15 July). On 22 March in the United States, a major importer of food products from Japan, the Food and Drug Administration (FDA) commenced an immediate halt without screening on processed foods made from milk, dairy products, fruits, and vegetables from Fukushima, Gunma, Ibaraki, and Tochigi Prefectures. Later, on 12 April the FDA amended their import warning and began the immediate halt without screening on milk, dairy products, fruits, and vegetables from Chiba and Saitama Prefectures as well, in addition to the previous four prefectures.

In Taiwan, the Department of Health made an official announcement on 25 March that starting from midnight on 26 March it would be temporarily suspending the receipt of import quarantine applications on food products produced or manufactured in the five prefectures of Fukushima, Ibaraki, Tochigi, Gunma, and Chiba. Concerning food products from other prefectures, radiation testing would be conducted on food products when imported, a complete lot inspection would be carried out on fruits, vegetables, fishery products, seaweed products, dairy products, beverages including mineral water, and baby food, and a sample inspection would be carried out on processed foods.

(4) Supply networks restored first

Following the disaster, it was forecasted that it would take a long time to restore the supply chain. However, in May the industrial production index returned to 90%, the level it was before the disaster in February. Efforts to restore corporations were being carried out fast. In March, Renesas Electronics Corporation had aimed to restore production of its microcomputer system LSI and analogue power semiconductors, which are produced at the Naka Plant (Hitachinaka City, Ibaraki Prefecture), by July 2011; however, in May they announced that they planned to restart production of their 200 mm line by 1 June and their

Figure III - 10 Restriction of agricultural/fishery products from Japan in major countries/regions

	Local authority	Targeted prefectures	Products	Measures	Other information
U.S.	FDA	Kanagawa, Gunma and Chiba	Tea leaves	Imports suspended	
		Fukushima, Tochigi and Ibaraki	Products for which domestic sale and exports are restricted: some vegetables, milk, mushrooms, bamboo shoots, greens and sand lance from Fukushima, spinach from Tochigi and tea leaves from Ibaraki and Tochigi		
			Milk and dairy products and vegetable, fruits and their processed products	Radiation inspection certificate required	Radiological inspection certificate may be issued by U.S. inspection agency.
			Products other than those listed above	Inspection of samples in U.S.	
		Other prefectures (including Kanagawa, Gunma and Chiba)	Foodstuffs and feed		
EU	European Commission	Fukushima, Gunma, Tochigi, Ibaraki, Miyagi, Nagano, Yamanashi, Saitama, Tokyo, Chiba, Kanagawa and Shizuoka (12 prefectures)	All foodstuffs and feed	Government-issued radiation inspection certificate required and inspection of samples in importing countries	Production date certificate required for foodstuffs and feed produced or processed before March 11.
		Other prefectures	All foodstuffs and feed	Government-issued certificate of origin required and inspection of samples in importing countries	
China	AQSIQ	Fukushima, Gunma, Tochigi, Ibaraki, Miyagi, Niigata, Nagano, Saitama, Tokyo, Chiba (10 prefectures)	All foodstuffs and feed	Imports suspended	• Foreign exporters of Japanese foodstuffs or their agents are required to register. • Import and sale record system imposed on Chinese importers of Japanese foodstuff.
		Other prefectures	Vegetables and such products, milk and dairy products, fishery products and aquatic animals, tea leaves and such products, fruits and fruit products and medical plant products	Government-issued radiation inspection certificate and certificate of origin	
			Foodstuffs, food crops and feed other than those listed above	Government-issued certificate of origin	
Taiwan	Department of Health, Executive Yuan	Fukushima, Gunma, Tochigi, Ibaraki, Chiba (5 prefectures)	All foodstuffs (shipped March 26, 2011 or later)	Imports suspended	
		Other prefectures	Fruits, vegetables, fishery products (live, chilled, frozen), dairy products, baby foods, mineral and other water and seaweed	Inspection of all lots	
			Processed food (produced March 12, 2011 or later)	Inspection of samples	

Note: Restrictions shown here are based on reports as of July 12.
Sources: Reports from JETRO overseas offices and documents from Ministry of Agriculture, Forestry and Fisheries.

300 mm line by 6 June. In this way the company was able to achieve recovery earlier than initially expected.

Toyota Motor, a manufacturer of finished cars, forecasted in April that it would normalize domestic production by between November and December, but in June the company announced that it would restore domestic production to normal levels by October. The company was able to achieve recovery earlier, as the restart of production at parts companies took place sooner than expected. The recovery of automobile supply networks presents itself in improvements in exports, and the export volume index for automobiles in May had reduced its rate of decline compared to April.

Foreign countries' response to food product exports is also beginning to show signs of relaxing with time. For instance, on 17 May in the United States, the FDA amended its import warning and removed Gunma, Saitama, and Chiba Prefectures from the regions subject to measures where imports of milk, dairy products, fruits, and vegetables were to be immediately halted without inspection. This amendment also shrank the region subject to strengthening sample inspections. In addition, on 13 June, Canada became the first country to remove its import restrictions on food products. On 1 July, Malaysia decided to ease its regulatory measures, lightening the paperwork burden required by Japan when exporting products to the country. These efforts to ease regulations by foreign countries are beneficial for Japan's food products industry.

For Japan, there is tremendous meaning in achieving early recovery and having the importance of its materials industry reconfirmed. While Japanese automobile manufacturers expanding overseas are considering substitute procurement sources for their parts, they continue to favor Japanese parts with high added value for the majority of their core parts. From the perspectives of preventing the outflow of expertise and maintaining domestic employment in Japan, a trend is apparent where companies tend to accept user requests from among parts manufacturers and hesitate to make unilateral expansions overseas. The early recovery of the supply chain and the presence of Japanese materials to support global industries are expected to again make companies aware of the importance of locating offices domestically.

2. Reaffirming Japan's Strengths in Reconstruction Process

(1) Japanese strengths that attracted attention following the disaster

The Great East Japan Earthquake created extensive damage and, as seen in the previous section, caused a massive and widespread impact on the business activities of Japanese firms. However, at the same time, the disaster drew attention to Japan's strengths.

Following the disaster, foreign media covered stories on how people remained calm and maintained order without any instances of looting. For instance, in a contribution to the May issue of Forbes magazine, Lee Kuan Yew, former Minister Mentor of Singapore, spoke about the response of Japanese people following the Earthquake, commenting, "The Japanese people's comportment under such severe stress has been remarkable. No panic, no looting. A calm, disciplined and stoic manner has prevailed, with people caring for one another. Few societies could maintain such order and solidarity during a catastrophe of this magnitude." Indeed, it goes beyond the scope of this paper to cover the entire list of cases where Japan's spirit of mutual help was observed. In the industrial arena, there were also many such instances as providing boats for fisheries in disaster-struck areas from other parts of Japan, and supplying necessary equipment to rebuild plants by firms of the same industry located far away from the area. There is no question that the discipline and sense of solidarity laid the foundation for reconstruction from the disaster.

Moreover, as observed in the previous section, the fact that the disrupted production of materials and parts has impacted the global supply chain has reconfirmed, in Japan and the world, the significant roles Japanese firms are playing. Furthermore, there are technologies that attracted attention as a result of the disaster due to their advanced level, including early earthquake warning, as well as technologies that present new potential if refined during reconstruction, such as energy conservation technologies.

It is vital that Japan utilizes its own strengths in order to achieve reconstruction and pursue a new path of prosperity. Let us now review the strengths of Japan and Japanese companies by looking at mid-term trends before the disaster.

(2) Local production and development capacity that generate high-quality products

The high level of local production capacity for intermediate goods

The high-quality products created by Japan's manufacturing industry form the core of the diverse Japan's strengths. From the periods of post-WWII reconstruction and rapid economic growth until present, Japan has grown by manufacturing and exporting high-quality products at reasonable prices. Moreover, it is safe to say that the "Japan brand", comprising safe and trustworthy products and services, has been nurtured by companies steadily supplying high-quality products to consumers in Japan and throughout the world. Japan also maintains a firm position as a supply source for important intermediate goods such as materials and parts.

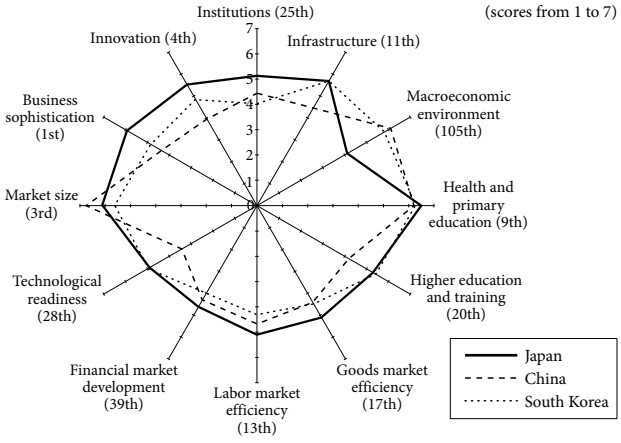
It is technological development capacity and local production capacity that support these high-quality products. The Global Competitiveness Report, which is released annually by the World Economic Forum, provides a similar view. The report compares the competitiveness of countries from various aspects based on the results of questionnaire surveys carried out on experts as well as statistical data. The 2010 report ranked Japan highly, at the sixth in the world, due to its "business sophistication," which was ranked first, and its "innovation," ranked fourth (Figure III-11).

A detailed look at "business sophistication" shows that high scores are given to "local supplier quantity" (ranked first) and "local supplier quality" (ranked fourth), as well as "state of cluster development" (ranked second), which are formed by the local suppliers, in addition to "production process sophistication" (ranked first). It can be said that the report highly evaluates Japan's strong foundation of "monozukuri" (creative manufacturing) underpinned by rich production networks of SMEs with robust technological skills.

Parts, materials, and other intermediate goods produced from this foundation maintain a strong level of competitiveness in production networks of Asia, which are currently expanding and deepening at a rapid pace.

First, let us look at a situation of intraregional trade in Asia. Figure III-12 presents shares of exports and imports for intraregional trade in East Asia by trade goods category based on the RIETI-TID database of the Research Institute of Economy, Trade & Industry (REITI). Here, East Asia is defined as Japan, China, South Korea, Taiwan, and the ASEAN-5 (Indonesia, Singapore, Malaysia, Philippines, and Thailand). Import statistics of each country are used here so that exports through a third country can be calculated as exports from their country of origin to their final destination. As for exports, Japan accounts for approximately one

Figure III - 11 Evaluation on Japan in Global Competitiveness Report (6th place overall)



Note: Numbers in parentheses show Japan's rank among 139 countries/regions.

Source: The Global Competitiveness Report 2010-2011 (World Economic Forum).

Figure III - 12 Export and import shares in East Asia by traded good and type (based on import statistics)

(%)

RIETI-TID Classification		BEC title		Shares of Asian intraregional exports (upper level) and imports (lower level) in 2010 (rate of increase over 2007 in parentheses)				
Category	Sub-category			Japan	China	South Korea	Taiwan	ASEAN
Primary goods	-	Food and beverages, primary, mainly for industry Industrial supplies, n.e.s., primary Fuels and lubricants, primary	Export	8.6 (30.6)	9.7 (-25.4)	2.3 (17.8)	1.6 (5.7)	77.8 (51.8)
			Import	23.2 (13.0)	32.2 (73.0)	17.9 (29.2)	6.3 (7.7)	20.4 (32.3)
Intermediate goods	Processed goods	Food and beverages, processed, mainly for industry Industrial supplies, n.e.s., processed Fuels and lubricants, processed	Export	26.5 (25.4)	17.2 (18.1)	15.7 (36.9)	10.2 (16.9)	30.5 (38.4)
			Import	14.5 (12.5)	32.1 (26.9)	13.3 (15.6)	8.9 (16.7)	31.2 (52.1)
	Parts & components	Parts and accessories of capital goods, except transport equipment Parts and accessories of transport equipment	Export	23.6 (29.9)	15.8 (32.6)	16.3 (43.2)	17.3 (24.7)	27.0 (22.8)
			Import	10.8 (7.1)	41.8 (25.5)	9.2 (17.1)	8.1 (190.4)	30.1 (29.1)
Final goods	Capital goods	Capital goods, except transport equipment Other industrial transport equipment	Export	29.8 (29.2)	29.3 (40.3)	12.6 (22.0)	9.5 (0.3)	18.8 (19.9)
			Import	15.9 (19.7)	39.7 (30.7)	11.3 (26.9)	7.7 (46.4)	25.5 (17.7)
	Consumption goods	Food and beverages, primary, mainly for household consumption Food and beverages, processed, mainly for household consumption Passenger motor cars Other non-industrial transport equipment Durable, semi-durable, non-durable consumer goods n.e.s.	Export	14.6 (40.8)	49.8 (21.5)	5.1 (46.6)	4.9 (33.2)	25.6 (43.6)
			Import	46.3 (25.1)	14.4 (63.5)	9.6 (5.3)	5.5 (78.4)	24.1 (32.2)
Total amount			Export	23.9 (24.7)	21.8 (21.8)	13.7 (28.4)	11.5 (15.5)	29.2 (26.2)
			Import	17.5 (16.0)	34.3 (29.7)	11.2 (17.9)	7.9 (18.1)	29.1 (26.3)

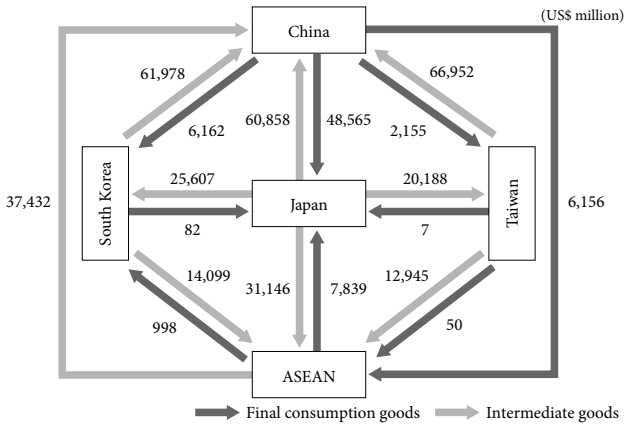
Notes: (1) Based on a correspondence table of BEC and HS codes of the United Nations Statistics Division, and the Total amount is not equal to the sum of the breakdowns.
(2) ASEAN here refers to Indonesia, Singapore, Malaysia, Philippines and Thailand.
Sources: "RIETI-TID2010" (Research Institute of Economy, Trade and Industry) and import statistics of various countries and regions.

fourth of all regional trade in East Asia and maintains particularly strong shares for intermediate goods (processed goods and parts) and capital goods. With regards to capital goods, China has expanded exports to a level generally on par with Japan, but at the same time China is the largest importing country of capital goods in the region: China accounts for approximately 40% of regional imports and shows an excess of imports for the goods in the region. ASEAN shows high shares for most of goods, partly because its amounts include the trade among member countries, but strong growth in primary goods, intermediate goods, and final goods suggests increasing presence of ASEAN in the intraregional production network. Please note that the natural gas exported to the region from Indonesia and Malaysia is classified in the Broad Economic Category (BEC) as "fuels and lubricants, primary", and liquefied natural gas as "fuels and lubricants, processed", which brings ASEAN's export shares high in these categories.

Let us look at the trade relations in East Asia in a more detailed manner. Figure III-13 shows the trade balances between countries and regions of East Asia in 2010 in terms of intermediate goods (processed goods and parts) and final consumer goods. The main flow of goods in East Asia is as follows: Intermediate goods are exported from Japan, South Korea, and Taiwan to China and ASEAN countries, and China and ASEAN, in turn, export the final consumer products back to these countries. Japan, South Korea, and Taiwan have trade surpluses of intermediate goods, but Japan also has an export surplus to South Korea and Taiwan. Furthermore, comparing export amounts to China in 2010, Japan exported US$117.3 billion to China, which exceeded the export of US$104.8 billion by South Korea, and US$90.3 billion by Taiwan. These figures indicate that Japan maintains a predominant position in terms of intermediate goods in the East Asian production network.

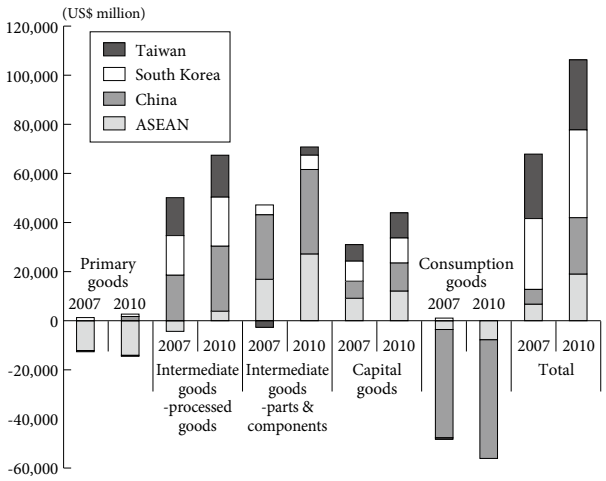
The trade balances between Japan and other countries and regions by commodity type show that Japan earns foreign currency by intermediate goods in East Asia (Figure III-14). In the intraregional trade, Japan has secured a position where it imports primary goods mainly from Southeast Asia and exports processed intermediate goods and parts as well as capital goods, and then importing consumer goods from China. This structure has allowed Japan to maintain an overall trade surplus on each country and region, and this surplus has expanded from the levels in 2007. Japan is using its edge in parts, industrial processed materials, and

Figure III- 13 Trade flow in East Asia (intermediate goods and final consumption goods) (2010, trade balance)



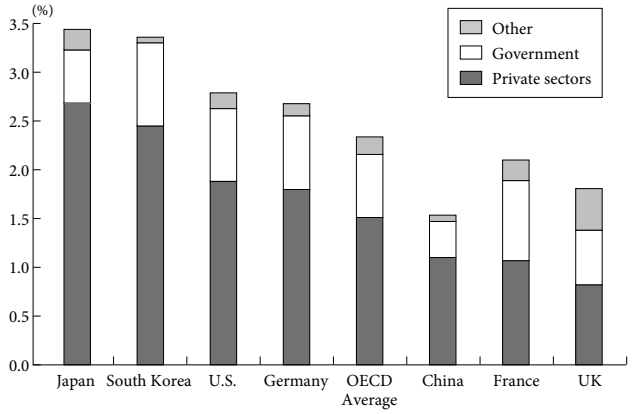
Notes: (1) Definition of trade goods classification is by RIETI-TID.
(2) ASEAN here refers to the same as defined for Figure III-12.
Source: Import statistics of the countries and regions.

Figure III - 14 Japan's trade balance with East Asia (2007 and 2010)



Note: Same as Figure III-13.
Source: Same as Figure III-13.

Figure III - 15 R&D expenditure in major countries by funding source as a percentage of GDP



Notes: (1) The figures for UK are from 2010 and the rest are from 2008.
(2) The financial sources for "Other" are higher education institutions, private nonprofit institutions, foreign sources, etc. Figures for OECD Average and China were calculated backward from total.
Source: Main Science and Technology Indicators, Vol. 2010/2 (OECD).

other intermediate goods to maintain its competitiveness amidst the growing Asia. Even taking into accounts that the export from Japan includes internal transactions of Japanese firms that have expanded into the East Asian region, it is fair to say that there is no change in the superior technological level of Japan in intermediate goods production.

Research and development underlies high-quality products

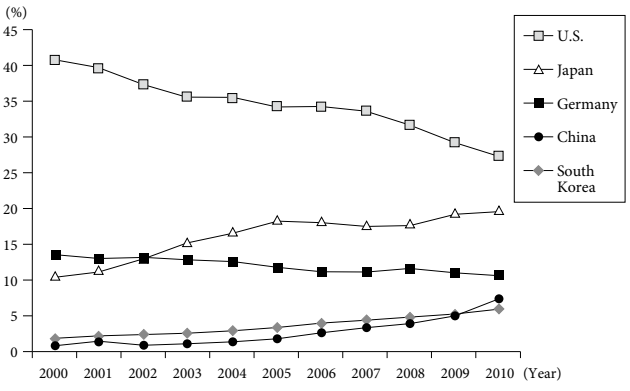
Along with local production capacity, another source of high-quality products is research and development, R&D, capacity. Japan retains its position among the global top class in this area as well.

Comparing R&D expenditures as a percentage of GDP in major countries shows that Japan has remained the world highest investor in R&D since 1986. In recent years, South Korea has gave increasing focus on R&D and has achieved rapid growth, but Japan has also shown a continuous growth in R&D expenditure.(Note 2)

One of Japan's most prominent characteristics is that the R&D expenditures are lead by its private sector. Breaking down R&D expenditures by financial sources shows that the average in OECD countries is 0.65% of GDP for the public sector and 1.51% for the private sector. In Japan, while public sector is just 0.54%, private sector invested as high as 2.69% of GDP for research and development (Figure III-15).

Part of the success of investment in R&D makes itself evident in the number of patent applications (Figure III-16), where Japan maintains a top level globally. China is advancing rapidly in total application, submitting approximately 390,000 applications in 2010 mainly domestically, an increase of 24% over the previous year. Japan submitted 344,598 applications in 2010, a 1.1% drop over the previous year, falling into third place behind the United States and China.(Note 3) However, Japan greatly outranks China in international patent applications based on the Patent Cooperation Treaty (PCT). According to statistics by the World Intellectual Property Organization (WIPO), Japan has ranked second globally since 2002, accounting for nearly 20% of all applications, a number that has been increasing steadily since 2008. From January and March 2011, Japan filed 10,630 applications on par with the United States figures, 10,868. In monthly basis, Japan's applications surpassed that of US in February and March. Every year there are a large amount of applications filed by Japan between January and March, while the Untied States tends to file less application during this period. However, this is the first time that Japan has surpassed the United States in terms of monthly PCT international patent applications since WIPO began publishing

Figure III - 16 Trends in the top five countries filing international patent applications under PCT



Note: Ratio of countries' application numbers compared to the total number of patent applications filed under the Patent Cooperation Treaty.
Source: World Intellectual Property Organization (WIPO) database (as of May 2011).

[2] Main Science and Technology Indicators, Vol. 2010/2, Organisation for Economic Co-operation and Development.

[3] Japan Patent Office Annual Report 2010, Japan Patent Office.

statistics in January 1985.

As for the field of technology by WIPO category, large numbers of patents are applied from Japan in optical equipment, audio and video technology and semiconductors, which make up nearly half of total patent application. This is apparent in Figure III-17 which compares application numbers filed by major countries between January 2009 and September 2010. Japanese share in the above mentioned categories in 2000 was just around 20%, which means a more than two-fold increase in a decade. Japan, however, trails far behind the United States in medical technology, biotechnology, and pharmaceuticals.

Figure III - 17 PCT international patent application share by major industry in major countries (total of 2009 and 2010)

(%)

	Japan	U.S.	Germany	China	South Korea	Global Total (2009)
Optics	47.4	21.8	7.6	2.2	4.0	6,165
Audio-visual technology	45.5	18.3	5.5	3.4	6.4	6,368
Semiconductors	43.2	29.2	7.9	1.8	5.1	7,601
Electrical machinery, apparatus, energy	32.7	20.6	16.0	4.2	4.1	11,420
Telecommunications	24.7	22.8	3.3	9.5	13.4	9,346
Transport	21.5	15.4	23.4	2.6	2.4	7,418
Measurement	21.3	25.7	14.6	1.9	2.5	9,088
Basic materials chemistry	21.1	34.4	15.1	1.9	2.1	7,176
Computer technology	19.5	41.0	4.8	3.5	4.2	12,579
Organic fine chemistry	15.7	29.1	12.1	2.9	2.8	8,832
Digital communication	13.0	25.0	2.9	20.5	7.4	10,460
Medical technology	11.6	45.3	7.8	1.6	2.2	12,097
Biotechnology	11.5	39.7	7.1	2.1	3.4	7,448
Pharmaceuticals	10.1	38.2	6.4	2.7	2.4	12,167

Notes: (1) Extracted the fields having at least 6,000 applications in 2009 from WIPO's 35 technical field classifications.
(2) Figures for applications by field in 2010 are totals up to September.
(3) Applications that belong to multiple fields are counted in each field.
Source: Same as Figure III-16.

Among individual applicants, Panasonic claims a top share. In 2008, Panasonic lost its number one spot to Huawei Technologies, a Chinese digital communications company, but in 2009 reclaimed the top spot with 1,891 applications and again in 2010 with 2,154 applications (ZTE, another major Chinese communications device manufacturer, took second in 2010 with 1,868). In addition, other Japanese corporations that placed in the top 20 list in patent applications in 2010 were Sharp (eighth), NEC (tenth), Toyota (eleventh), Mitsubishi Electric (fourteenth), and Fujitsu (nineteenth).

The number of applications filed by China in the field of digital communications is rapidly increasing; starting from a mere five applications filed in 2000, this number grew so much that in 2009 the country accounted for 20% of the world's total international patent applications in the field. This massively large number of applications is apparently filed by Huawei Technologies and ZTE.

However, Japan also faces a challenge in R&D. The R&D capacity of Japanese private firms, which is evident in the number of applications, is not necessarily contributing to increases in sales and profits. In order to address the demand of growing markets overseas, Japan must increase efforts to use its advanced technologies to customer-oriented product development.

(3) Further advances expected in Japan's energy conservation and other environmental technologies

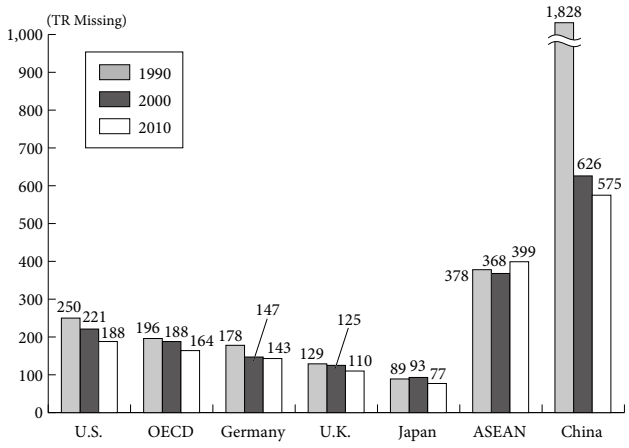
With regard to the efficient use of energy, Japan successfully survived two oil shocks through joint efforts by the public and private sectors. Comparing how much energy is consumed for a given added value in industrial sector, Japan uses energy in a more efficient manner than other countries, and the level is even improving (Figure III-18).

The power supply shortage as a result of the recent nuclear power plant accident increased the necessity to conserve electricity during the summer of 2011. Power supply shortages are not limited to the jurisdiction of the Tokyo Electric Power Company alone, but are spreading to other regions as well, significantly impacting the industrial sector and citizens lifestyles.

However, conversely, this is an opportunity for Japan to further enhance the energy-conserving technologies that lead the world. As shown in Figure III-18, while China's figures are improving, it still has a great room to improve the efficiency. The efficiencies in ASEAN countries have worsened in recent years as they expand production. As such, energy conservation is a common challenge for Japan and other countries. If Japan is able to overcome the energy-saving challenge it now faces, there will be more and more opportunities for those technologies to assist in resolving challenges overseas.

Regarding renewable energies, while Japan possesses

Figure III - 18 Total energy consumption per US$1 million of added value in industrial fields



Note: Total industry consumption of energy (including non-energy use) per value added in industry (constant 2000 US$).
Source: Energy Balances of OECD Countries, Energy Balances of Non-OECD Countries (IEA, 2010) and World Development Indicators (World Bank).

advanced renewable energy technologies, it has not necessarily used those technologies for actual generation as much as other countries. Japan has several constraints including limited locations suitable for wind, solar and other renewable energy generation. However, as efforts are underway to expand the use of renewable energies after the recent disaster, technological innovation is expected to be advanced to overcome these challenges. Renewable energies are promoted around the globe to mitigate climate change, which is the shared and common challenge across countries. Furthermore, there are many locations where renewable energies are suitable to use as small-scale power sources to respond to local conditions, such as electrification in remote areas. There is great potential for Japanese technologies once Japan overcomes the current challenge.

(4) Common challenge of creating societies resilient to natural disasters

Issues faced by emerging Asian economies and the experience of Japan

Considering the issues that Japan faces in achieving reconstruction from the disaster, as well as the mid- to long-term issues it will face in the future, just like the aforementioned energy conservation and renewable energies, Japan shares many challenges with other countries, including the emerging economies of Asia.

For instance, many Pacific Rim countries including Japan face the major issue of how to reduce damage resulting from earthquakes and tsunamis. It is also forecasted that aging of a society, which is also a major issue that Japan faces, is to rapidly progress in countries such as China, South Korea, and Singapore.

Japan, in a sense, has an advanced position in addressing these issues. If Japan finds solutions to these common global issues, it will be able to contribute to resolving problems of other countries while also expanding business opportunities overseas. In order to effectively exploit its position, it will be important for Japan not to consider local responses tailored only to Japan but to consider business solutions in view of expansion to foreign markets.

In addition to the aforementioned environmental technologies, let us first have a look at disaster prevention technologies, followed by the countermeasure to aging society.

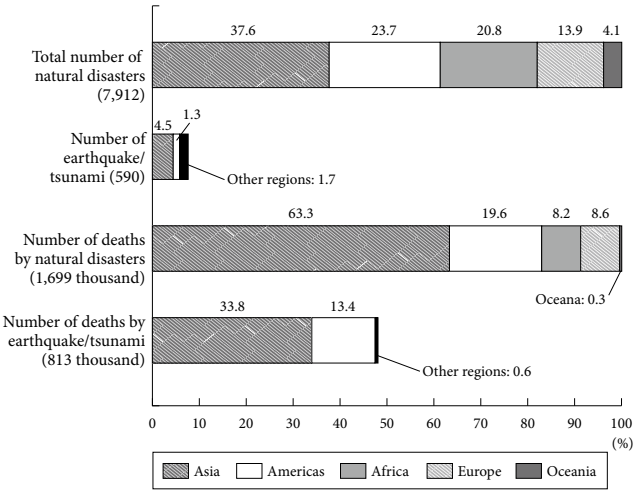
Frequent natural disasters in Asia

As was seen in the recent disaster, how to tackle natural disasters has been a challenge that Japan has faced since before its recorded history. This is a common issue for other countries as well, and particularly in Asia with frequent earthquakes.

According to the United Nations International Strategy for Disaster Reduction (ISDR), in 2010 alone, a total of approximately 300,000 people were killed by natural disasters and economic loss amounted to US$109 billion. Three-fourths of the deaths in 2010 were caused by the major earthquake in Haiti, but in the long term, Asian countries have suffered a significant amount of damage.

Looking at natural disasters occurring from 1990 to May 2011 using statistical data, EM-DAT by the Centre for Research on the Epidemiology of Disasters at the Université Catholique de Louvain, 38% of disasters and 63% of deaths are concentrated in Asia (Figure III-19; Asia includes the Middle East eastward of Israel). Of those disasters, earthquake and tsunami were limited in number of occurrences, but took the lives of many people. The number of deaths caused by earthquakes and tsunami in Asia since 1990 amounted to approximately 580,000 people. This figure accounts for one-third of the total number of deaths caused by all natural disasters in the world during that period. This shows the sheer massiveness of damage caused by earthquakes in Asia.

Figure III - 19 Natural disasters by region between 1990 and May 2011



Source: "EM-DAT: The OFDA/CRED International Disaster Database – www.emdat.be – Université catholique de Louvain – Brussels – Belgium" as of May 10, 2011.

Japan's earthquake resistance and disaster prevention technologies draw global attention

The recent disaster, especially the tsunami, caused an extensive amount of damage. However, there is also the view that the damage caused by the earthquake alone was incommensurate with the 9.0-magnitude quake, one of the largest in history. For example, in an interview on June 8 by JETRO Overseas Office, Ms. Françoise Nicolas, the head of the Asia Center, the French Institute of International Relations, commented, "The earthquake resistance of Tokyo's infrastructure proven in this earthquake has indicated the high technological level of Japan's earthquake-resistant architecture. Japan's advanced earthquake resistance technology is to become a strength as an exporting industry." Maria Constanza Garcia, the Vice Minister of Transport for Colombia, also commented at an interview by JETRO Office on May 30 that, "I highly commend the overall strength of Japan's infrastructure, which can be inferred from how fast recovery work is being carried out in response to the disaster."

Moreover, there were no deaths involving Japan's Shinkansen (bullet train) as a result of the earthquake, which has

been praised for its high level of safety since the start of operations. In addition to its reinforced earthquake-resistant structure, it is believed that its early earthquake detection system contributed to preventing casualties. It is said that this system activated the emergency brake and began reducing speed nine seconds before the first shaking started, and one minute and ten seconds before the largest shaking. It is also believed that this is due to improvements made on the system following the derailing accident of a Shinkansen during the 2004 Chuetsu earthquake. The Shinkansen is highly praised in foreign countries for its safety, including the CEO of California High-Speed Rail in the United States who applauded the earthquake response of the East Japan Railway Company.

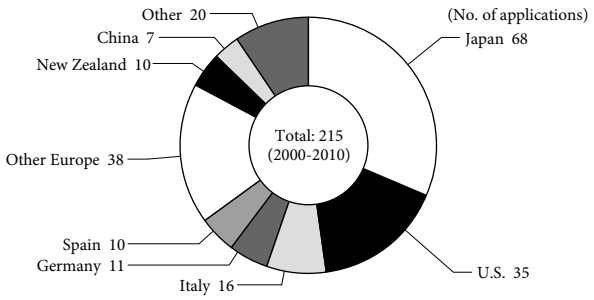
The earthquake early warning system uses the same principles as the Shinkansen's system. The system, which was launched by the Japan Meteorological Agency in October 2007, uses seismic measurements taken at approximately 1,000 locations to detect the initial tremors, estimates the epicenter and magnitude, predicts its intensity, and issues an alert. Even though the accuracy of warnings has decreased due to the frequency of aftershocks, many foreign media praised the system for the benefit it provides in issuing warning before people feel the tremor of earthquake.

According to Professor Richard Allen of the University of California at Berkeley, earthquake warning systems are being used in Mexico, Turkey, Taiwan, and Romania in addition to Japan. However, the systems other than Japan either cover only limited areas or not issuing public warning. Professor Allen commented that Japan's system is the most advanced in the world. He is pressing for a full-fledged trial and early implementation of the same system in California, as Japan's alert system produced successful results in the March 11 earthquake.

The earthquake early warning system is gathering a great amount of attention in Chile as well. Interests began to grow following an 8.8-magnitude earthquake that struck Chile in February 2010. Chilean media reported with surprise how the warning system worked using interviews of Chileans living in Japan. Chile adopted the same terrestrial digital broadcasting system as Japan, and anticipates starting consideration on implementing a public warning system using special attributes of the system. However, in order to construct a comprehensive earthquake alert system it is necessary to combine a diverse range of systems, such as detecting seismic waves, relaying those to a governmental organization, and using communication satellites. Japanese corporations with related technologies are currently working to provide those technologies to the Chilean Government.

These disaster prevention-related technologies can be considered the result of efforts to gather and apply knowledge in Japan, a country with frequent earthquakes, in order to prevent disasters as much as possible. Japan's advancement of research and development efforts in this field is also apparent in the number of patent applications it has filed. The Japan Patent Office analyzes patent application trends in important technological fields, and in April 2010 released

Figure III - 20 Breakdown of international patent applications for earthquake-resistance and seismic-isolation-related technologies by country



Note: Number of applications under the Patent Cooperation Treaty (PCT) with the attached International Patent Classifications (IPC) number of E02D 27/34 (foundations for sinking or earthquake territories) and E04H 9/02 (structures withstanding earthquake or sinking of ground). There were 37 applications for E02D 27/34 and 178 applications for E04H 9/02; however, applicatons with both IPC numbers might be counted twice.

Source: Data provided by the WIPO Statistics Division.

a report on "Versatile Vibration-Prevention, Control, and Elimination Systems." According to this report, the number of patent applications filed in this field between 1997 and 2007 in Japan, the United States, Europe, China, and South Korea amounts to 9,162 applications, of which 7,860 were filed by Japanese (figures include control and reduction technologies for vibrations resulting from wind and construction). Japan outnumbers other countries, including the United States in second (375) and Germany in third (240), accounting for approximately 85% of all applications. Figure III-20 shows the number of PCT international applications which were attached with classification numbers that are strongly related to earthquake resistance and seismic isolation technologies. It does not extract data as rigorously as the report above, but the number of applications by Japan between 2000 and 2010 amounted to 68. This is the largest number, accounting for one-third of the overall number of applications, making it clear that Japan maintains a superior level of technology over other countries.

Nevertheless, the ratio of one-third is still limited compared with the overall number of patent applications, and likely indicates the significant untapped potential for expanding overseas. In the aforementioned report by the Japan Patent Office it is pointed out that most of the applications submitted by Japanese were filed in Japan, while only around 3% of that amount was filed in foreign countries. Especially in the area excluding mechanical equipment, architecture and civil engineering, the ratio of patent applications filed overseas is less than 1%. Moving forward to reconstruction from the Great East Japan Earthquake, it will be necessary to mobilize all advanced technologies related to disaster prevention to construct a society resilient to disasters. Furthermore, if these technologies are actively put to use overseas, business opportunities for Japanese companies are expected to expand. In particular, in emerging countries, the need to retrofit transportation infrastructure and public facilities to make them earthquake-resistant will grow in the future. If Japan exploits its technologies in these

areas it will be able to contribute to the common challenges of protecting life and property from disasters. For that purpose, it will be important to keep foreign markets in view more than ever when applying disaster prevention technologies.

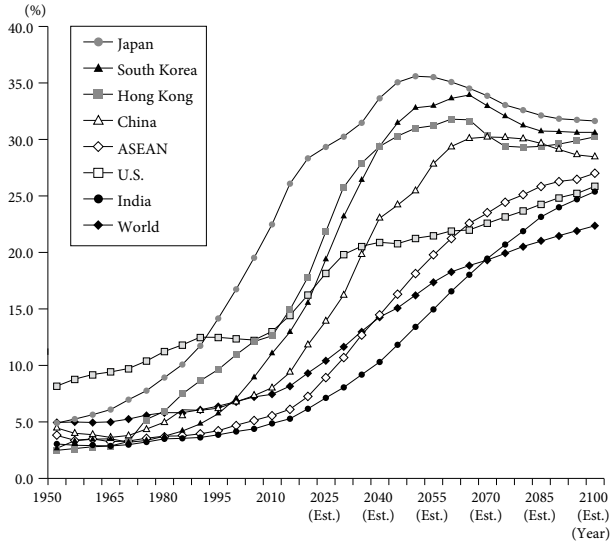
(5) Exploiting Japan's strengths as a nation with advanced aging experience

The anticipated growth of Asia's elderly market

Aging is to rapidly advance in Asia. Aging is a major problem that Japan faced from before the disaster; however, the issue can be a Japan's strength when entering the growing overseas elderly market.

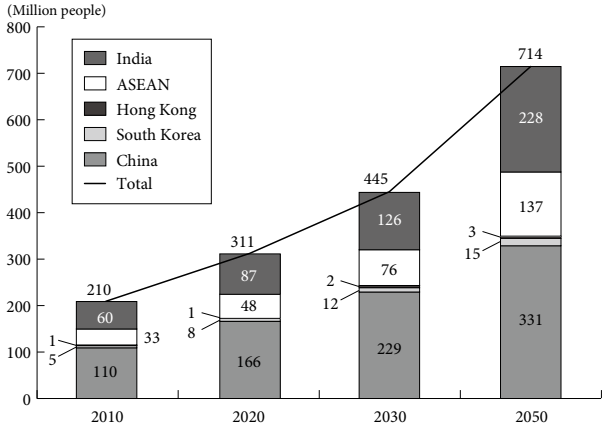
According to population statistics by the United Nations (2010; median variant), the elderly population ratio (ratio of people aged 65 years or older compared to the total population) as of 2010 was 22.7% in Japan, 8.2% in China, and 11.1% in South Korea, presenting particularly large numbers for Japan. By the year 2050, China and South Korea are forecasted to reach 25.6% and 32.8%, respectively, thus approaching Japan's predicted level of 35.6%. Furthermore, predictions have been presented that indicate that ASEAN and India are to surpass the global averages by 2040 and 2070, respectively (Figure III-21). According to the same prediction, the population of those age 65 years or older in China, ASEAN, Hong Kong, South Korea, and India is expected to grow from 209.58 million in 2010 to 311.38 million in 2020, and then to 713.93 million in 2050 (Figure III-22).

Figure III - 21 Elderly population ratio in the world's major countries/regions



Source: World Population Prospect: The 2010 Revision, the United Nations (May 2011).

Figure III - 22 Elderly population of major Asian countries and regions



Source: Same as Figure III-21.

Rising healthcare and leisure-related needs in Japan

The progression of aging is anticipated to impact various areas, including economic growth, social security systems, and public finance. However, from a business perspective, the change in consumption structure garners attention. Changes in the consumption structure of Japan, where aging has advanced ahead of other countries can be used as a reference for such business interests.

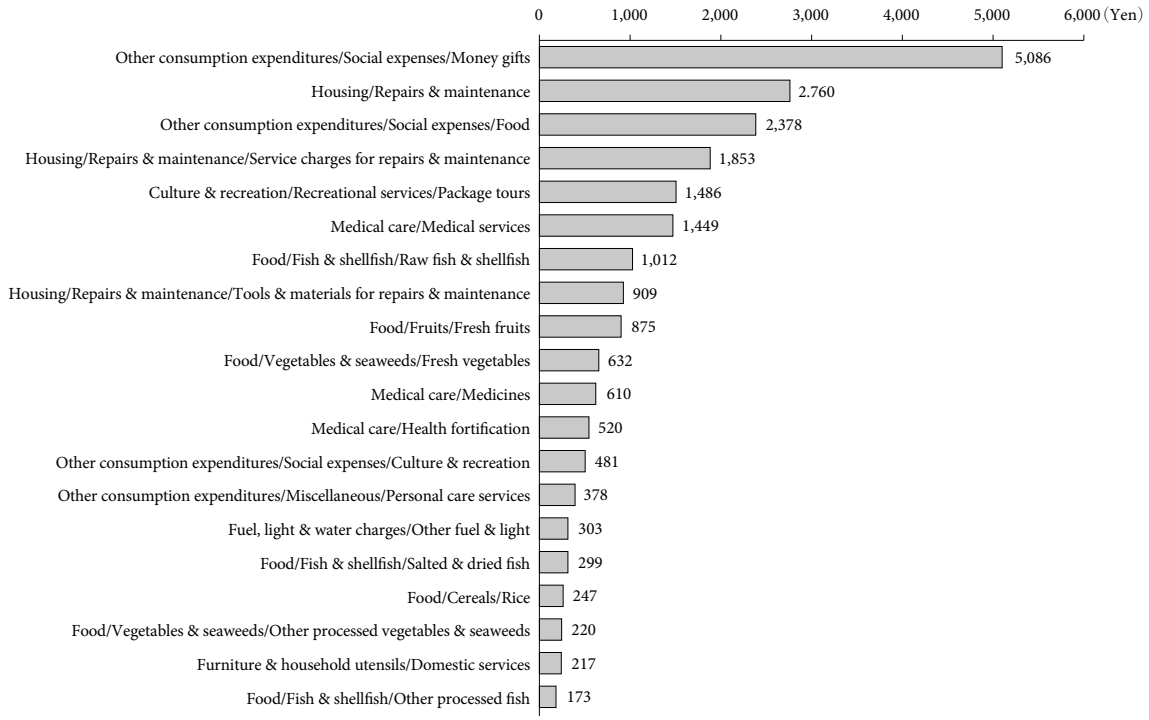
Aging in Japan is progressing faster than anywhere else in the world, and according to United Nations statistics as of 2010 Japan had the highest elderly population ratio in the world, while predictions (median variant) show that that level is to stay the same until 2050. Japan can thus be considered to have a head start compared to other nations in terms of aging. Expenditure items of household by age group in Japan in 2010 show that elderly households (households where the household head was 65 years or older) spent more than average households on "lighting, heating, and water," "healthcare," "learning and entertainment," and "other expenditures," while they spent less on "transportation and communications" and "education." For more detailed items, elderly households spend more than average on social expense-related items such as "donations," "food expenses," and "package travel expenses," on housing renovation-related costs such as "facility refurbishments and maintenance," on items related to "health and medical" such as "health maintenance supplements," as well as on raw food products (Figure III-23).

Among many characteristics of the living environment and consumer behavior of the elderly population, the first thing that can be pointed out is the growing discretion for consumption. The generation is growing in size who receives retirement allowances in addition to financial assets accumulated during working period. Many households possess houses and have finished repaying their housing loans.

The next point that can be made is the large amount of time that can be spent for leisure activities. According to the Survey on Time Use and Leisure Activities released by the Ministry of Internal Affairs and Communications (FY2006), leisure activities begin to grow more vigorous from around the 50s, and as people grow older, the amount of time they spend on using media such as watching television and on resting and relaxation increases.

According to the Public Opinion Survey Concerning People's Lifestyles, released by the Cabinet Office in 2010, the most frequent response to "Things I want to particularly focus on in my future lifestyle" was leisure activities

Figure III - 23 Items to which elderly households (household headdd by age 65 or older) spend more than average (difference with total household averages; 2010)

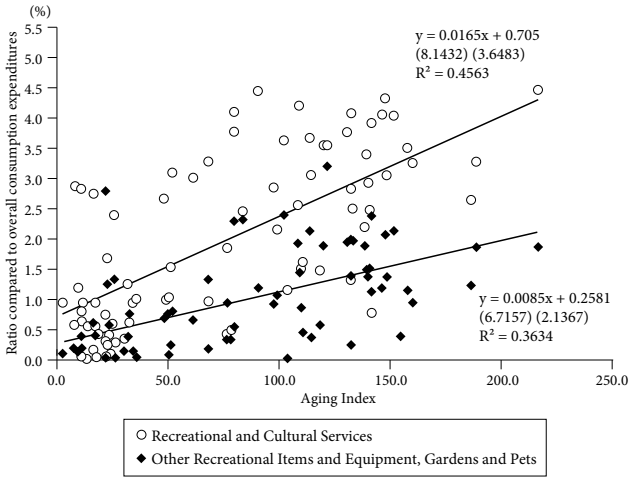


Note: The top 20 small to medium categories that were not broken down any further and had the largest disparity with the overall household average were listed.
Source: "Family Income and Expenditure Survey (Two-or-more-person Households, Nationwide)" (Ministry of Internal Affairs and Communications).

(33.3%), with particularly high figures for males between the ages of 60 and 69 (42.2%).

The experience of Japan suggests the possibility of increasing presence of elderly people in the consumer markets in Asia, and of expanding business opportunities of goods and services that allow this generation to spend quality leisure time, in addition to areas directly connected to aging, such as medical care and nursing.

Figure III - 24 Items with a strong correlation between aging index and ratio compared to overall consumption (2010)



Source: "World Population Prospects: the 2010 Revision" (United Nations; May 2011), "International Marketing Data and Statistics 2011" (Euromonitor International).

Now let us look at trends in foreign countries. Looking at the aging index (the ratio of the elderly population (age 65 and older) to the youth population (age 15 and younger)) and expenditure items that maintain a large share of total expenditures, there is a strong correlation between "recreational and cultural services " (cost to enter, view, or use various entertainment facilities) and "other recreational items and equipment, " (games and other toys, outdoor products, gardens, and pet products) in "leisure and recreation" category. This correlation can be understood as showing the same consumption patterns of Japan (Figure III-24).

Using Japan's experience in Asia's elderly market

One tool in advancing into the Asian market, which is anticipated to age at a rapid pace, is experience and expertise that have been accumulated domestically by Japanese corporations. Several Japanese corporations have already begun expanding overseas in the areas of sanitary ware, food products for elderly persons, food delivery services, and paid elderly homes. In addition, there is also believed to be potential for expansion into Asia for areas that have already started disseminating domestically, such as household appliances and mobile phones for elderly people, as well as barrier-free housing. Moreover, as can be seen in Japan's experience, goods and services that allow for spending richer life are expected to be a growing market in the future.

The consumption structures of countries and regions of course do not only depend on age levels. They also differ depending on industrial structure, household composition, savings rates, social security systems, and cultural back-

ground. In China, a decline in fertility rate and progression of aging has led to a transfer of income between generations and growth in a market for high-end goods and services for children. As an impact of aging on consumption behavior depends on country and region, thorough consideration should be made before an actual market entry. However, an effective mid- to long-term strategy would be to make the most of assets that Japan is steadily accumulating to expand into future Asian market.

(6) Japan's strengths attract direct investment from abroad

When considering reconstruction from the disaster, it is crucial to gain economic vitality from foreign markets. In addition to exports from Japan, another method for exploiting the dynamism of other countries is by receiving direct investment from abroad.

Foreign direct investment to Japan is tremendously small compared with the size of its economy. According to the 2010 World Investment Report, released by the United Nations Conference on Trade and Development, of the 198 countries and regions with recorded ratios of GDP to inward FDI, Japan ranked 195th as of the end of 2009 (Japan was ranked 20th in terms of absolute amount). Due to the reasons such as continuing economic growth and the relatively low level of corporate tax ratio in other Asian countries, it was pointed out that Japan's location competitiveness is deteriorating. According to the Survey on Attitudes of Foreign-Affiliated Companies toward Direct Investment in Japan, which was implemented by the Ministry of Economy, Trade and Industry, in fiscal 2007 the largest number of corporations selected Japan as regional center and R&D center in the Asian region. However, in the fiscal 2009 survey, while maintaining second place as Asia's R&D center, Japan fell far below other Asian countries such as China as a regional center.

Amidst such a situation, it is the strengths of Japan, outlined thus far, that are the key to attract direct investment to Japan.

The accumulation of advanced technology industries sparks investment in Japan

On April 28, 2011, the Ministry of Economy, Trade and Industry selected projects under the Subsidy Program for Promoting Site Location in Japan. This promotional project was created to subsidize from half (for SMEs) to one third of all project costs (companies other than SMEs) for companies to set up high value added locations in Japan, such as the R&D centers of foreign company (upper limit of 1 billion yen). Of the companies that applied for this subsidy between February 9 and March 29 2011, which coincidentally covered the time of the disaster, the decision was made to adopt projects by the five corporations listed in Figure III-25.

Figure III - 25 Businesses adopted by the Project Promoting Asian Site Location in Japan

Company Name	Industry	Country of Global HQ
Dyesol Japan	Next generation solar batteries	Australia
Zydus Pharma Japan	Pharmaceutical	India
salesforce.com	IT services	U.S.
Eurocopter Japan T&E	Specialized Helicopter	France
Dou Yee International Pte. Ltd.	Liquid Crystal Display	Singapore

Source: Press release by the Ministry of Economy, Trade and Industry.

One of these companies, Dou Yee aims to establish a manufacturing and R&D site for film liquid crystal displays in Shobara City, Hiroshima Prefecture. Dyesol Japan also plans to establish an R&D base related to dye sensitized solar cells. Both corporations aim to develop more advanced products by forming partnerships and conducting joint research with related manufacturers and research institutes in Japan.

There are other examples where the domestic industrial accumulation in Japan has served to stimulate investment to Japan. Umicore, a company based in Belgium, is the case in point. Umicore, a global manufacturer of nonferrous metals, officially announced in April 2004 that it would establish an R&D and manufacturing center for positive electrode materials for lithium-ion batteries in Kobe City. Umicore maintains the second highest global share of the manufacturing of positive electrode materials. Japan is the largest market for lithium-ion batteries, and by establishing a manufacturing and R&D base near the company's Japanese manufacturer clients, it strives to develop and supply products that fit the needs of its clients. The Ministry of Economy, Trade and Industry's Employment Generating Low Carbon Enterprise and Regional Development Subsidy was used for the investment.

In accordance with the opening of its Kobe Plant, from April 19 to 21, 2011 Umicore held a board member's meeting for their group in Kobe City where the company confirmed that its investment strategy for Japan remain unchanged after the disaster. Umicore also announced on June 22, 2011 that it would establish a design, development, and manufacturing base for a platinum glass melting system in Yokohama City. Platinum systems are used in the manufacture of liquid crystal and optical glass, and such manufacturers are agglomerated in Japan. The purpose for this investment is for "an even closer learning and development with our local customers" (Umicore Japan press release).

On May 16, 2011, TEVA Pharmaceutical Industries Ltd., the world's largest generic drug corporation (hereinafter referred to as "TEVA"; headquarters in Israel), announced that it would purchase Taiyo Pharmaceutical Industry Co., Ltd. (Nagoya City), Japan's third largest generic drug manufacturer. TEVA would purchase 57% of all issued stock of Taiyo, a private company, for approximately US$460 million. According to a joint press release by TEVA and Taiyo, the two aim to achieve new growth by infusing global management resources with Japan's management foundations. On July 14, TEVA announced that it acquired effectively all of the company's issued shares for US$934 million. There are also many more examples of investment to Japan, some of which are presented in Figure III-26.

Industrial agglomeration would attract new firms and enhance production networks while also facilitating the further advancement of technology via partnerships and

Figure III - 26 Major investment cases to Japan after the earthquake

Company/ Industry	Industry	Country of Global HQ	Overview
Dou Yee International Pte. Ltd.	Liquid crystal display	Singapore	On June 21 it was announced that the company would establish a manufacturing and R&D base for film LCDs in Shobara, Hiroshima Prefecture. Selected as a beneficiary of Subsidy Program for Projects Promoting Asian Site Location in Japan by the Ministry of Economy, Trade and Industry, as seen in Figure III-25. Total amount of initial investment expected to be roughly one billion yen.
Umicore	Nonferrous metal	Belgium	In April 2011, the company opened a plant in Kobe for the manufacture of cathodes for lithium ion batteries. Utilized the Employment Generating Low Carbon Enterprise and Regional Development Subsidy, which is made available by the Ministry of Economy, Trade and Industry. The planned investment amount is 4 billion yen. On June 22 announced plans to open a design, R&D and manufacture base for platinum glass melt systems in Yokohama.The purpose for this investment is for "an even closer learning and development with our local customers"
Teva Pharmaceutical Industries	Generic drugs	Israel	On May 16, announced acquisition of Taiyo Pharmaceutical (Nagoya) for US$460 million. Aims to achieve new growth by combining global management resources with Japan's management foundation. On July 14 announced that it had completed the acquisition of effectively 100% of outstanding shares.
Prologis	Logistics	U.S.	On June 2, construction of a logistic facility in Tomiya, Kurokawa-gun, Miyagi was completed. Being constructed since August 2010, the facility has a favorable location in the inland portion of Miyagi Prefecture and thanks to prompt and careful responses of related parties, effects of the disaster were able to be reduced to a minimum and construction was completed as initially scheduled. The facility is used for distribution bases in six Tohoku prefectures as a specialized facility of the Miyagi Co-op.
Mexichem	Chemicals manufacture	Mexico	On May 9, plans to expand investment in Japan and South Korea were reported to the Mexican Stock Exchange. With a total investment of US$150 million, it plans to produce refrigerants (fluorine compounds) in Japan and hydrofluoric acid in South Korea.
Microsoft	IT services	U.S.	Toyota Motors agreed to strategic alliances with Microsoft, in April, and salesforce.com, in May. Toyota Motors intends to utilize this strategic alliance to strengthen services for its next-generation eco-friendly cars by connecting customers with cars and houses and providing driving information tailored to each customer via in-car informational devices. The three firms plan to invest one billion yen in total in a Toyota affiliate, where Toyota will provide 442 million yen, while Microsoft and salesforce.com will provide 335 and 223 million yen, respectively.
salesforce.com	IT services	U.S.	
LaSalle Investment Management	Real estate investment	U.S.	On April 26, announced that it had acquired land in the Tokyo Metropolitan inland area for a major logistics facility. The land will be developed as a large multi-tenant logistics facility by the fall of 2012; total investment of over 10 billion yen estimated. LaSalle states that thie acquisition is a testament to the unwavering investment stance and long-term commitment to Japan.
Amazon Japan Logistics	Logistics	U.S.	On April 1, opened a new logistics center Amazon Tokoname Fulfillment Center in Tokoname, Aichi, to support increasing scale of distribution of Amazon.co.jp and to provide prompt delivery service. This is the first fulfillment center in the Chubu region.
Mapletree	Real estate fund	Singapore	On March 25 announced that it had acquired a logistics facility in Hiroshima for 7.3 billion yen. With this deal, the fund's investment in Japan covered 15 facilities for a total of around 65.2 billion yen. In a press release the company stated that it perceived that Japan was steadily moving foward to reconstruction and that it believed Japan to be an important market from a long-term perspective.
Qingdao Jinlong Plastic Compound Color Printing Co., Ltd.	Packing material manufacture	China	On March 1, signed agreements for establishing a plant with Tottori Prefecture and the town of Daisan-cho. The plant will be established at a closed school. Preparing to establish a local affiliate, with the goal of constructing a system for the full production of plastic bags and other goods for the Japanese domestic market. Because the company imports raw materials from Japan, a major reason for its expansion to Japan is to achieve a significant cost-cut by maintaining its base in Japan.

Source: Press releases and news reports.

Figure III - 27 Trends in flights to Japan by low-cost carriers in Asia following the disaster

Company	Headquarters	Flight service, etc.
Spring Air	China	Established a flight between Shanghai and Ibaraki in July 2010 (regular charter flight). In May 2011 announced that a regular charter fight between Shanghai and Takamatsu would start from July 15. The opening had been scheduled for the end of March, but it was postponed due to the Great East Japan Earthquake. Flights are twice a week, on Tuesdays and Fridays.
Eastar Jet	South Korea	A regular flight between Seoul and New Chitose started on May 5, 2011. This is the first LCC flight to Hokkaido. The first flight was initially scheduled for March 27, however they were later postponed due to the earthquake. Flights are twice a week, on Thursdays and Sundays. A weekly flight between Seoul and Narita started on July 1, 2011.
Jin Air	South Korea	On May 23, 2011 the Ministry of Land, Infrastructure, Transport and Tourism gave permission to Jin Air to establish a regular flight between New Chitose Airport and Incheon Airport, South Korea starting July 15. Jin Air is a subsidiary of Korean Airlines.
Air Busan	South Korea	Flights between Busan and Fukuoka started in March 2010, and between Busan and Kansai International Airport in April 2010. On June 12, 2011 flights started between Busan and Narita (one round-trip flight per day). Air Busan's largest shareholder is Asiana Airlines.
First Eastern Investment	Hong Kong	All Nippon Airways and First Eastern Investment, an investment firm in Hong Kong, established an LCC in February 2011 together with other domestic investors. On May 25, 2011 it was announced that the new company was named Peach Aviation and the new brand labeled the "Peach" brand, and that the company would use a peach-colored motif for its design.

Source: Press releases and various news sources.

competition. This mechanism appears to be important for maintaining and boosting Japanese competitiveness. Well-established business environment for investment would attract more foreign direct investment which could facilitate the mechanism even further. The Government of Japan decided its New Growth Strategy in June 2010 in which it aims to double the flow of people, goods, and money into Japan over the ensuing 10 years. As one effort to encourage foreign firms to station their Asia regional offices in Japan, "International Comprehensive Strategic Zones" was selected as a national strategy project. Revisions were made to the progression of the strategy in response to the impact of the

disaster, but it is still expected that efforts will be made to advance policies that promote location of foreign companies in Japan. On June 22, the Act on Comprehensive Special Zones, which allows creating International Comprehensive Strategic Zones, was passed and put into law at a plenary session of the House of Councillors. These policy measures are expected to promote foreign direct investments that benefit Japan through job creation and further technological improvements.

(7) The flow of people awaited to revitalize

There are also signs of improvement in terms of the flow of people. According to the Japan National Tourism Organization (JNTO), the number of people visiting Japan from abroad has decreased since the disaster. During the period from March 12 to 31, the number of foreign visitors dropped significantly by 73% over the previous year. In April numbers fell by 62.5%, and then again by 50.4% in May. While the rate of decline did begin to recovered, foreign visitor were still below half of numbers from the previous year.

Nevertheless, travel tours originating from other Asian countries to Japan have gradually restarted. The first to restart such operations was EGL Tours, a major tour agency for tours to Japan from Hong Kong. The company restarted tours on April 16 under the condition that it would return tour money to customers if a major earthquake took place during the tour. The system stipulated that tour participants that subscribe to the company's overseas insurance beforehand would be reimbursed in the event that an earthquake of intensity six degree or more occurred during the tour. The company introduced this system as it wanted to send tourists from Hong Kong to Japan as soon as possible. In addition, the company set lower tour prices than normal upon restarting services. Thanks to these efforts, the company receives a favorable amount of requests mainly for Hokkaido and Okinawa.

Opening flight routs by Asian low-cost carriers, which had been temporarily delayed following the disaster, are steadily beginning to start up again (Figure III-27). This evidenced that Japan is still recognized as an attractive tourism market in Asia. According to statistics of JNTO released on July 14, the number of foreign tourists to Japan in June was decreased by 36.0% over the previous year. It is still a decrease of over one-third, but the rate of decline continues to improve.

In achieving reconstruction from the disaster, the flow of people from abroad is of tremendous importance. If visitors actually witness that people live a normal life and production activities are being carried out just like before the quake, as well as the strong recovery in the affected areas, it is sure to improve the image and assessment of Japan. This will in turn add impetus to investment and the flow of tourism to Japan. The creation of such a virtuous cycle will play a big role in steady recovery.

3. Contribute to Reconstruction through Expanding Overseas Business with Japan's Strengths

(1) Unchanged priority - capturing overseas demands especially in emerging countries

Markets in emerging countries continue to expand

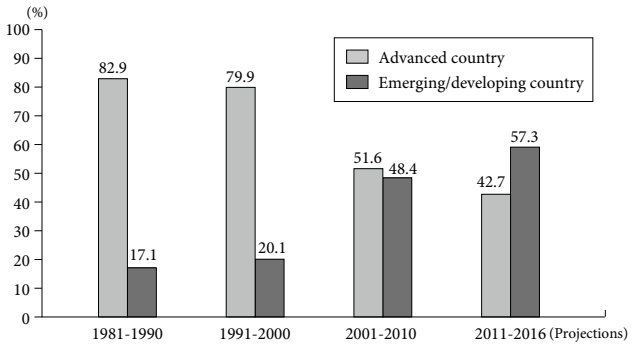
In carrying out reconstruction, it will surely prove to be crucial to capture overseas demand by leveraging strengths of Japan which are laid out in the preceding section. The emerging countries, especially in Asia, are increasing their presence in the global economy, so as their importance for Japan.

Emerging and developing countries such as China and India have consistently achieved economic growth that surpasses that of advanced nations since 2000, and these countries are gradually extending their share in the global economy. Today, these countries face such challenges as the price of natural resources and the resulting inflation. These short-term fluctuations will keep happening in the future, but from a long-term perspective, it is safe to say that these emerging and developing countries are headed toward a trend of continued economic growth.

Looking back at the 1980s and 1990s, global economic growth was generated mostly by advanced countries (Figure III-28). However, in the first decade of 2000s, emerging and developing countries expanded their presence as their economic growth accounted for just under half of the global total growth. Furthermore, according to a prediction by the IMF, approximately 60% of global economic growth between 2011 and 2016 will be brought by emerging and developing countries, making their role as a driving force of the global economy even more evident.

As their economies grow, the purchasing power of emerging economies has grown steadily and their markets continue to grow. With regard to household consumption expenditures in emerging and developing countries, comparing with Japan by setting its size at 100, in the mid-1990s even if the all countries and regions were put together, the total would still only slightly exceed the figure of Japan. However, these figures rapidly grew from the middle of the first decade of the 2000s, and the total is more than triple

Figure III - 28 Ratio of contribution by advanced, emerging and developing nations to global economic growth (nominal)



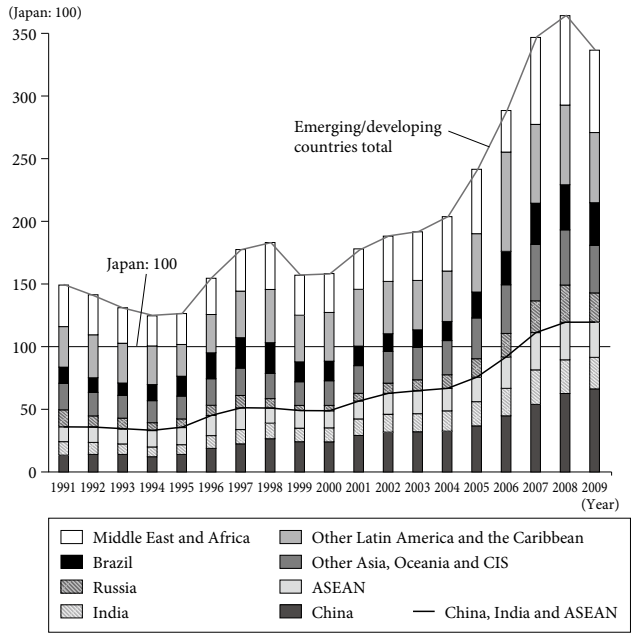
Source: "WEO" (IMF).

that of Japan (Figure III-29). In Asia, where China alone had already surpassed Japan in terms of GDP in 2010, the combined total household consumption for China, India and ASEAN members has also surpassed Japan since 2007. In 2009, that total of Asian countries had reached 1.2-fold more than Japan, while the Middle East and Africa together amounted to 65% and Central and South America including Brazil reached 89% of Japan's consumption expenditure.

The difference in population size, of course, contributed these figures, but income levels of each individual are steadily rising in many regions. For instance, looking at the annual disposable income (PPP) in China by household numbers, in 1995 only 2.4% of households exceeded US$15,000, while in 2010 the ratio had increased to 27.4%.[Note 4] In India, the same figure increased from 3.4% to 37.5%, and income levels in many other emerging economies are also increasing along with economic growth. It means that so-called middle class is steadily growing, and as a result, the types of goods and services being consumed are also changing, indicating that the target market for Japanese firms is expanding.

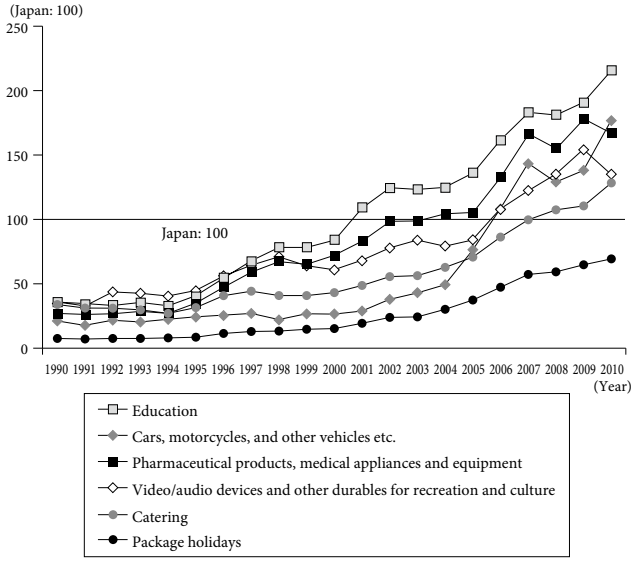
For more detailed analysis, let us look at the scale of consumption by purpose in China, India and ASEAN member states (Figure III-30). Comparing household expenditure with Japan, by setting it at 100, shows that the expenditure on education, cars, motorcycles and other vehicles, and video and audio devices and other durables have grown rapidly and exceeded respective expenditure of Japan since 2000. Luxurious spending such as package holidays, although still below Japanese level, has also been increasing

Figure III - 29 Scale of household expenditure in emerging/ developing countries (nominal)



Note: "Emerging/Developing Countries" here are the countries as classified by the UN for statistical convenience, plus Russia and the CIS countries.
Source: National Accounts Main Aggregate Database (UN).

Figure III - 30 Scale of expenditure in Asian region (total of China, India and ASEAN) by purpose



Source: Consumer Asia Pacific and Australasia 2011 (Euromonitor International).

Room for growth for Japanese presence in emerging economies

Amidst these circumstances, exports from Japan to Asia and other emerging economies are increasing. However, compared with China and South Korea, the growth in export levels is not enough and Japanese presence is still considered limited.

Looking at exports from Japan, China and South Korea, we see that Asia is the largest export destination for the three nations (Figure III-31). The majority of Japanese exports were once toward Europe and the United States, but exports to Asian countries are gradually growing and in 2009 that ratio rose to 54.1%, and again to 56.1% in 2010, meaning that the majority of Japanese exports are now directed to Asia. Japanese export shares to China (19.4%) and ASEAN (14.7%) are particularly high. Furthermore, exports to emerging economies other than China and ASEAN are also growing, although their shares compared to other export destinations are still relatively low. Comparing export amounts in 2000, while overall exports had increased by 1.6-fold, exports to Russia and CIS states, India and Brazil present high rates of growth, at 11.6-fold, 3.6-fold and 2.5-fold, respectively. This was in contrast with the 0.9-fold increase to the European Union, United States and Canada. It is obvious that Japan has increased its exports to the emerging countries as with market growth in these countries.

Nevertheless, exports by China and South Korea to emerging countries are growing at a rapid rate that dwarfs Japan's expansion.

The overall rate of export growth of China during the ten-year period between 2000 and 2010 was 6.3-fold. Chinese export to India grew 26.0-fold, while its expansion was 20.0-fold for Brazil, and more than 10-fold to other regions like Central and South America, Russia and CIS, the Middle

[4] "World Consumer Income and Expenditure Patterns 2011" (Euromonitor International). Same source for figures in India.

Figure III - 31 Japan, China and South Korea's exports by country/region (2010, export basis)

	Export destination composition ratio (%)			Increase from 2000 (multiple)			Shares of Japan, China and South Korea at destinations (%)		
	Japan	China	South Korea	Japan	China	South Korea	Japan	China	South Korea
Asia	56.1	40.5	54.2	2.2	5.1	3.1	9.9	14.6	5.8
China	19.4	-	25.1	4.9	-	6.3	11.9	-	9.3
ASEAN	14.7	8.8	11.4	1.6	8.0	2.6	12.0	14.7	5.7
India	1.2	2.6	2.5	3.6	26.0	8.6	2.8	12.7	3.6
Latin America	4.5	4.7	5.9	2.2	12.7	3.9	5.8	12.5	4.6
Brazil	0.8	1.5	1.7	2.5	20.0	4.5	3.4	13.3	4.2
Russia and CIS	1.2	3.4	2.4	11.6	16.9	8.5	2.6	14.9	3.1
Middle East	3.6	4.7	5.6	2.6	10.3	3.4	4.5	12.0	4.2
Africa	1.6	3.8	3.3	2.4	11.9	4.7	3.0	15.1	3.9
Europe and America	27.9	39.1	23.0	0.9	6.4	1.7	2.9	8.2	1.4
World	100.0	100.0	100.0	1.6	6.3	2.7	5.2	10.7	3.1

Notes: (1) With respect to "Shares of Japan, China and South Korea", the figures are based on the value of exports from countries where custom statistics were available. Hence, there may be discrepancies with other figures in this report.
(2) The figures for "Europe and America" are the aggregate of those for U.S., Canada and EU.
Source: Trade Statistics of individual countries/regions.

East, and Africa. As a result, the 12.7% export value to India and 13.3% to Brazil were from China, and each greatly increased from their 2000 figures, which were only 3.1% and 2.2%, respectively.

Although not on the same level as China, South Korea is also increasing its presence in these regions. South Korea increased export to India, Brazil and Africa more than its overall growth rate and surpassed Japan's share in these region.

In the area of direct investment as well, Japan is increasing investmen to emerging economies, but the growth is eclipsed by China and South Korea.

Looking at regional shares of outward direct investment, Japan is increasing its ratio to areas other than North America and Europe, such as Asia and Central and South America (Figure III-32). For instance, the share of Japan's outward direct investment to Asia at the end of 2003 stood at 19.1%, but that had risen to 25.6% by the end of 2010. Although they do not invest as much as Japan in total, South Korea and China are also focusing more investment towards emerging economies. More than 50% of South Korea's outward direct investment is to Asia, mostly directed to China. China itself has invested large amount in Africa, and that share reached 11.1% at the end of 2009, it means that absolute amounts surpassed Japan at approximately US$9 billion (regional classifications used here are those used in international balance statistics by the Ministry of Finance and Bank of Japan).

Both in trade and investment, Japan is expanding into emerging markets, but the expansion lacks impetus compared to China and South Korea, suggesting Japan has a room to expand.

Expanding overseas business further by using Japanese strengths

In order to expand business in global markets, including emerging economies, Japan must revisit and use its own strengths outlined in the previous section. The damage on the "Japan Brand", safe and reliable image of Japanese goods and services, is undeniable as a result of the disaster, especially dumping radioactive substances. Nevertheless, there are many firms developing their overseas businesses by exploiting strengths that they have conventionally possessed. Let us have a look at some examples with a particular focus on SMEs.

(2) Developing sales channels using product development and on-site production capacity

As described in the previous section, the foundation of Japan's strengths is the high-quality products supported by R&D and production capabilities. This goes beyond major companies, as many SMEs use their product development capabilities to meet the needs of customers, create "only one" products using their high level of on-site production capacity, and sell those products to other countries. In a questionnaire carried out on JETRO Member firms, SMEs presented a noticeably positive stance on future exports (Figure III-33). Following the disaster, local governments are working together with local firms to support promoting industrial products to foreign markets, and this year JETRO has received more applications than previous years for its overseas exhibitions.

As small- and medium-sized enterprises develop their overseas business, their capabilities of product development and production would improve even more and there would be ripple effects such as expanding business opportunities with companies in Japan as well. In this sense, expanding overseas sales will be of increasing importance.

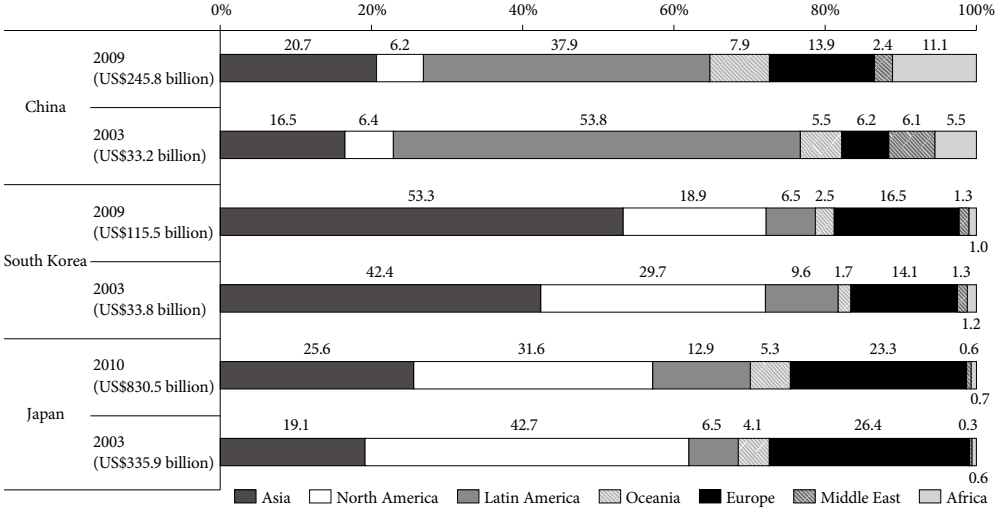
Below, several examples of SMEs will be introduced that are working to develop overseas markets by leveraging their own technologies.

Putting unique technologies on the global market

Asia Giken Co., Ltd., a venture company in Kitakyushu City, Fukuoka Prefecture, offers a full range of products and services for stud welding, from the studs (pins) itself to welding machines and contract construction. Stud welding is a technique where a part such as a stud, which is a type of bolt, is melted with pressure to weld with a metal plate of steel or aluminum. The technique is used in various industries, including construction, electrical equipment, industrial equipment and automobiles. Asia Giken was the first in the world to successfully conduct instantaneous stud welding with magnesium alloy. In 2007, this technology received an award of excellence at the Monodzukuri Nippon Grand Awards. It was thought to be difficult to weld magnesium, as the metal has a low melting point; however, the company was able to develop this technology with technical assistance from the Kyushu Institute of Technology and the Fukuoka Industrial Technology Center using a subsidy from Fukuoka Prefecture.

Asia Giken was founded in 1994 by current CEO Junichi Mizoguchi, and it started full-fledged exports in 1998, be-

Figure III - 32 Japan, China and South Korea's outward FDI stocks (breakdown by region)

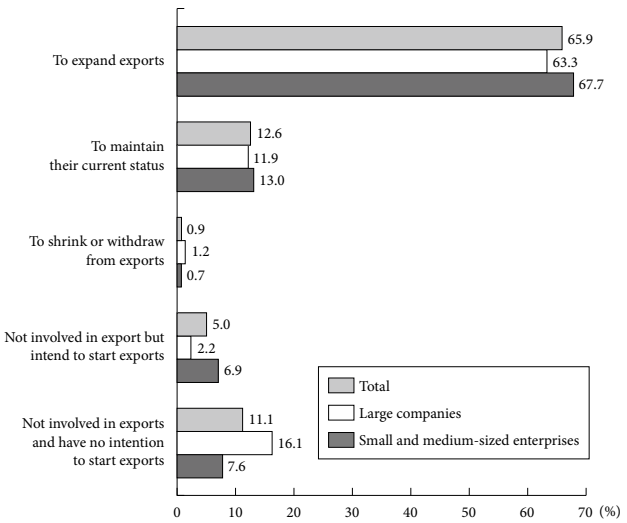


Notes: (1) Figures in parentheses are total world position.
(2) In calculating share by region, excluding investments by China in Hong Kong and by South Korea in unspecified countries.
(3) Classification of regions are based on Balance of Payments Statistics of Japan (Ministry of Finance and Bank of Japan).

Source: Japan: "Direct Investment Position, breakdown by Region and Industry" (Bank of Japan), South Korea: OECD International direct investment database, China: "2009 Statistical Bulletin of China's Outward Foreign Direct Investment" (China's Ministry of Commerce).

ginning with Southeast Asia, where demand for machinery and processed metals was increasing. After exporting approximately 500 stud welding machines to Malaysia and Indonesia via trading companies, the company began to gradually expand to Taiwan and China, as well as other Southeast Asian counties. In Taiwan and China, the company strives to employ an expansion campaign based on its original sales strategy by concluding distributor's agreements with local companies. In their overseas expansion, the company has demonstrated success in its efforts to create broad-spanning human networks by actively participating in overseas missions, business talks and exchanges, in addition to exploiting its sophisticated technologies.

Figure III - 33 Future export plans (for the next three years or so)



Source: "FY 2010 Survey on the International Operations of Japanese Firms" (JETRO, March 2011).

The company also receives trainees from China and aims to further increase its international sales by taking advantage of IT. As a member of the Kitakyushu League of International IT Companies, Asia Giken has partnered with other IT software-related companies in implementing an original system that can manage products in remote locations. Despite being in Japan, Asia Giken is working to provide customers with a sense of reassurance by comprehensively managing its machinery around the world in real-time and offering tailored post-purchase maintenance services. Currently, the company has its sights set on developing new products that use the characteristics of magnesium alloy, which elicits a minimal burden on the environment, and entering the United States market, while it also aims to increase its sales in the rapidly growing Chinese market.

TRINC.ORG also aims to expand overseas by using their advanced technologies to develop breakthrough products. Located in Hamamatsu City, Shizuoka Prefecture, TRINC.ORG started as a company commissioned to develop communication equipment and other products in 1991. The company, having produced mechanical units of fax machines and other products, received an inquiry concerning countermeasures to static electricity in 1998, and began to develop static electricity removal devices. The neutralization devices that had been sold until then had not sufficiently met user's needs, as they used wind to blow ions which resulted in the scattering of dust. That is when CEO Makoto Takayanagi adopted a direct-current model, which had been deemed too difficult to use for such purpose. The direct-current model produces a large amount of ions and the ions react against each other, allowing them to fly far enough without using an air blower. This breakthrough allowed for a device that removed the static electricity from products and dust and thus preventing the object in question from getting dusts. The company has used this original technology to develop many apparatuses that service various purposes, and the company has already acquired approximately 130 patents. CEO Takayanagi also puts focus on PR and educational activities, and has written books in both English and Japanese.

TRINC.ORG has also aimed to develop the Asian market in parallel with its sales activities in Japan. In 2002, a

Japanese trading firm in Singapore introduced TRINC. ORG's products to a Toyota plant in the Philippines. Thanks to a Japanese expatriate staff working at the plant who expressed interests in the product, TRINC was invited to provide a sample machinery to a Toyota plant in Toyota City. The company's neutralization device demonstrated excellent performance at a test conducted at an automobile paint line by Toyota. Toyota's high praise on the product then spread to other companies, and now manufacturers in various industries have adopted the product. They are spreading reputation about it even further as it has dramatically reduced product defectiveness.

The company has also begun to receive an increasing number of orders from overseas, and is now embarking on an overseas market strategy. In particular, the country is aiming to expand to China, South Korea, Thailand and Vietnam, where industrial production continues to grow. In January 2010, the company established an office in Dalian with stationed representatives. Moreover, in November 2010, the company launched LOHEN, a brand specializing in foreign markets such as Asia, and is now making a full-fledged effort to develop foreign markets with products using different specifications from those sold in Japan.

Tanaka Electric Laboratory, a company with headquarters in Setagaya-ku, Tokyo, is searching for business opportunities in foreign markets exploiting its product development abilities that take into account the views of the customer. The company, a manufacturer of environmental measurement devices, has a plant in Nasukarasuyama City, Tochigi Prefecture, and strives to export a dust density monitor that can continuously measure soot dust contained in emitted gas in factory chimneys. Assisted by JETRO under the Project to Assist the Development of Promising Exporting Companies, Tanaka Electric Laboratory has already reached a tentative agreement for delivery to a coal-fired thermal power station in Thailand. In late June, the company also had productive business negotiations with a foreign cement company in Vietnam.

The dust density monitor of Tanaka Electric Laboratory irradiate light in a chimney for reflection by dust and then measure a density of dust by converting reflected light into an electrical signal. The device can carry out continuous measurements even in high temperature and pressure environments, and is able to measure low-density dust with superior precision. When developing the product, company CEO Toshifumi Tanaka placed particular emphasis on ensuring that the product could be easily maintained. The detectors placed in chimneys, for example, avoid collecting dust by blowing out air from carefully placed holes. Expendable parts such as light bulbs are set to use everyday products that can be purchased at less expensive prices. These measures take into consideration cutting running costs of customers. In Thailand and Vietnam, this aspect of the product has been well received. The attitude of putting the user first in developing products has served as an asset when deploying the product overseas.

Another case is Amaike Textile Industry. The company has used its original technology to produce the world's thinnest and lightest fabric. The company was in business since 1956 and officially founded in 1965 and has handled a diverse range of materials, from clothing and accessory goods to industrial materials. They have used technologies accumulated over many years in their operation to develop a technology that weaves a fabric made of microfiber polyester. The technology makes use of a thread developed by a thread manufacturer that had initially planned to sell the material as industrial material. However, because the company went bankrupt, Amaike made use of the thread's feel and sense of transparency in apparel, ultimately commercializing it under the brand name, Amaike Super-Organza.

As sales did not progress successfully in the domestic market, where purchasing is price oriented, CEO Mototsugu Amaike began to look abroad. In February 2007, the company set out on its first overseas undertaking by participating in a textile business conference held by JETRO in Milan. Later, utilizing the unique product to his advantage, he actively participated in exhibitions and held negotiations with foreign buyers while engaging in consistent sales activities such as sending samples and proposing new products. Thanks to his efforts, the value of Amaike Super-Organza was well recognized, and he received bulk orders from several influential fashion brands in Europe. Amaike has received high praise for his unparalleled material, and he is now working to address new challenges, such as enhancing sales capabilities by enhancing company's operation systems of overseas business and improving the development capacity for new materials.

Using cutting-edge medical equipment technology to promote Fukushima

Robust actions have also been took place in the disaster struck area. One example is a endeavor to promote medical devices "made in Fukushima".

An R&D team lead by Mr. Takahashi, Vice-President of Fukushima University, introduced medical technologies from Fukushima Prefecture at the MD&M East medical device exhibition held in New York from June 7 to 9, 2011. The cutting-edge technologies which can be used in high-functionality endoscopes have been developed in cooperation with local SMEs for two years.

Fukushima Prefecture has had well developed medical device production. According to the Survey on Trends in Pharmaceutical Production released by the Ministry of Health, Labour and Welfare, the production of medical devices in Fukushima Prefecture amounted to 80.1 billion yen, ranking eighth in Japan with a 5.1% nationwide share in 2009. Fukushima has maintained the first position nationally in terms of commissioned production over the past several years. Its share stood at 14.8% (18.7 billion yen) in 2009. Moreover, on the Census of Manufactures, which is released by the Ministry of Economy, Trade and Industry, Fukushima ranks second for production of "Medical device parts, attachments and accessories," with a national share of 13.4%, or 11.5 billion yen. These results show the important position that Fukushima's corporations maintain in the production network of medical devices. The government of

Fukushima Prefecture has kept a keen eye on the high potential of the medical industry, and is implementing "Utsukushima's project to encourage the next-generation medical industry" to support the development of the medical device manufacturing industry.

The prototype endoscope exhibited by Fukushima University at the June 2011 MD&M East incorporated a diverse range of highly advanced technologies. These include a three dimensional cam that eliminates wobbliness and has a wide range of movement, a high transmission powered reducer that creates no backlash and is compact in size, and the worlds thinnest angular sensor. The three dimensional cam and reducer were developed in cooperation with Tokyo's Namiki Precision Jewel, Associate Professor Hiroyuki Sasaki of Yamagata Prefecture's Tsuruoka National College of Technology and Atom, a precision processing manufacturer located in Bandai Town, Fukushima Prefecture. The cam and reducer are currently being screened for an international patent, and the angular sensor jointly developed with Matsuo Industries in Aichi Prefecture has already received a domestic patent. These efforts have increased the level of freedom for the endoscope and have allowed for realizing refined operations by eliminating disparity and backlash in the refraction parts.

At the exhibition numerous global medical device manufacturers and precision device manufactures contacted them with concrete business inquiries. Showing participants of the exhibition that Fukushima Prefecture is steadily reconstructing itself can be seen as a significant achievement.

In January 2011, Fukushima Prefecture had announced that it would support universities and companies in the prefecture in setting up booths at MEDICA, the world's largest international medical device exhibition to be held in Germany in November 2011. The prefecture government had considered suspending participation due to the disaster, but it reconsidered and decided to take part in MEDICA and began accepting applications for corporate booths. This endeavor deserves attention, as Fukushima will be globally promoting the medical device technologies it has accumulated over the years, contributing to the reconstruction of the region.

The United States maintains the largest market for global medical devices, with a size over four times that of Japan according to a report.(Note 5) The markets in emerging economies are predicted to grow rapidly in the future. Asia, in particular, especially China and India, is expected to show growth between 1.5 to 2.0-fold during the years 2010 and 2015, and the overall market size will surpass Japan (total for the 12 countries listed in the report). The overseas expansion of Japanese medical device manufacturers lags behind manufacturers in Europe and the United States, but many countries maintain solid trust in Japanese products. Many distributors from emerging countries participate in exhibitions such as MEDICA, and these opportunities can be used to boost recognition and develop overseas markets.

Conventional technologies responding to new needs

There are a lot of cases where technologies for conventional products that have been passed down over the years have found new area in overseas markets and prospered by utilizing their traditional technologies.

Hosoo, a Nishijin brocade manufacturer with over 300 years of history in Kyoto, successfully sold a high-quality interior material created with manufacturing technologies cultivated from tradition to contract markets in Europe and the United States. The company had been processing traditional woven cloth into cushion covers and other products and developing sales channels in Europe and the United States, and with assistance from JETRO the company exhibited itself at the International Contemporary Furniture Fair, ICFF, in New York. Hosoo successfully sold its products as high-quality interior materials to a high-end contract market. Currently, the materials are used as interior materials at the stores and showrooms of famous fashion and jewelry brands in the United States and Europe.

Another example is Oigen, a manufacturer of Nambu Iron in Oshu City, Iwate Prefecture. They have used traditional technologies of a craftwork passed down from the mid 17th century to develop new products and are now exploring foreign markets. While continuing to produce traditional products such as iron kettles, the company is actively developing new iron products. Moreover, they have improved the traditional methods through a joint research project with Iwate University, developing an iron pan that is non-rust and non-stick. The method used requires no surface coating or other chemical substances, and the company has named the frying pan the "Naked Pan" and has commenced sales activities. They received inquiries from a company in Australia, with which in February 2011 they concluded an agency contract and began sales in earnest. The company's other products are being sold as iron kettles in China, while its teapots are gradually widening sales channels in Europe. Following the disaster, clients in Europe demanded certificates of proof on radioactive substances, and thanks to mediation by JETRO the products were screened at the Iwate Industrial Research Institute. While the company was able to avoid damage from the tsunami, it was severely affected by the earthquake. Nevertheless, the company continues to expand its business activities under the direction of CEO Kuniko Oikawa. She exclaims that companies such as hers in the inland part of the prefecture must work hard until the coastal area companies recover.

At the ICFF held in May 2011, all companies that exhibited their products held tremendously successful business negotiations (Column III-1). The concerns of buyers about the disaster and nuclear power station incident were not as strong as initially suspected, allowing for vibrant business negotiations. Interest was reaffirmed for Japan's products, which offer high-quality, exceptional design backed by tradition.

[5] "Medistat Worldwide Medical Market Forecasts to 2015" (Espicom Business Intelligence).

Column III - 1

◉ Construction materials and interior-related companies that received active business inquiries at exhibitions after the disaster

At the International Contemporary Furniture Fair, ICFF, held in New York from May 14 to 17, 2011, following the disaster, a large number of companies exhibited their products and many received inquiries. In the end, the number of business negotiation inquiries increased on the previous year and many negotiations resulted in contracts, making for results that surpassed anticipation. The following is the results from interviews conducted with eight of the exhibiting companies.

Koyo Seiga, manufacturer of traditional Ibushi tiling, Himeji City, Hyogo Prefecture

Interest in the Great East Japan Earthquake and nuclear power station incident was said to be strong overseas, and anticipated that we would be asked about these events, we prepared materials in English to explain them before the exhibition. However, visitors did not ask about the incident at all, and we actually received concrete requests for business negotiations and inquiries. The nuclear incident had absolutely no impact; to the contrary, we actually sensed the strong level of interest in Japanese products.

Shiborian, producer and distributor of products using kanoko shibori dye materials, Kyoto City, Kyoto Prefecture

We received many inquiries from hotel-related personnel and retail shops. Also, we received inquiries about using our product for automobile seat covers. In all, we conducted negotiations with over 70 different companies, which were far more than expected. Our materials are expensive but are well received as high-quality items with a sophisticated design. In response to the large number of inquiries we are now considering holding an exhibition in New York within the year.

AKI, producer and distributor of cardboard three-dimensional models, Kunisaki City, Oita Prefecture

This is the first time that we exhibited our cardboard robots outside of Japan. The robots received a particularly large amount of inquiries from retailers, department stores and designers. We were able to find buyers for almost all of our products, and things went so well that we had little to bring back to Japan with us. There were even people that wanted to purchase the display case made from cardboard. We sensed strong market interest and a good response from exhibiting.

Momentum Factory Orii, producer and distributor of interior products using Takaoka Copper, Takaoka City, Toyama Prefecture

We received quite a few inquiries for using construction materials rather than interior products. We also received numerous requests from designers of hotels, residential housing and furniture. We realized that we could target the U.S. market to sell construction materials, as we reconfirmed the demand.

Yoshizaki Wooden Industry, manufacturer of wooden fixtures and interior products, Tokushima City, Tokushima Prefecture

We received more inquires from buyers than last year, including an offer to purchase 100 of our US$200 wooden speaker sets. This is not an inexpensive product but we are able to sell it at the prices by adding a design that depicts the whirling waves of Naruto, from our region. We received a good response from the U.S. market.

Seishin Tougei Corporation, producer and distributor of interior products using ceramics, Seto City, Aichi Prefecture

Our major field of focus is interior products but we have established a speaker division with the aim of expanding a new business. This was the first time that we exhibited our artisan hand-made ceramic speakers overseas. While they are priced rather high at US$10,000, their innovative design drew interest and we received many inquiries. This was the first time we exhibited overseas but we sensed good prospect for the U.S. market.

NAGAE, producer and distributor of metallic processed interior design products, Takaoka City, Toyama Prefecture

We design and develop various interior products using copper and other metals. During this exhibition we received the most inquiries about our 99% pure tin plates that are flexible and can change its shape. They gathered great interest from many buyers and we received a high number of concrete business inquiries. Our oxidized copper containers were also very popular because of their stylish design. In fact, we received so many inquiries for orders that we nearly sold everything on exhibit.

DCS, producer and distributor of interior lighting fixtures, Fujieda City, Shizuoka Prefecture

This is the second time that we exhibited our products at ICFF. We exhibited lighting products which can quickly be changed to U.S. specifications and sold in the U.S. market. We received a good number of inquiries for lighting fixtures and were able to actually sell some during the exhibition period. We received more inquiries than last year. I sensed the great importance in continuing to exhibit our products.

(3) Continued strong interest in Japan's energy conservation technologies

As interest increases in renewable energies as climate change countermeasures and due to the nuclear power plant accident, related business markets are expected to grow as well. However, renewable energies are forecasted to require policy-related assistance such as subsidies for the foreseeable future. Attentions must be paid to the policy trends of countries when companies expand their businesses overseas.

Conversely, energy conservation could contribute to cut costs and improve revenues at many production sites. Numerous Japanese companies have developed experience and technologies for energy conservation of manufacturing facilities, and many foreign business opportunities have been explored using these technologies.

In China, there are cases where companies combine their diverse technical skills related to energy conservation in an effort to enter the Chinese market. One example is the Green Group Members, GGM, consortium established in November 2009. GGM was launched by 10 electrical equip-

ment manufactures that handle energy-saving products and energy conservation consulting companies, and is chaired by Mr. Sun Ji Xin, from an energy conservation consulting firm Shanghai Brian Power-Saving Technology Co., Ltd. The number of participating companies increased to over 30 in just under one year following its launch.

Even if Japanese companies possess superior energy conservation technologies in individual areas, it is still difficult to provide a comprehensive service. GGM works to facilitate entry into the Chinese market by allowing participating companies to bring their technologies together and creating a structure that provides comprehensive assistance including funding. GGM's business scheme is that of a so-called Energy Service Company, or ESCO. They provide energy conservation devices free of charge and then have the money saved as a result of the devices' use returned to the company. As of March 2011, the company had worked on 123 projects, with a profit margin of 35%. 6,588 tons of CO2 was estimated to be reduced due to these efforts.

However advanced a company's technology is, there are cases where it still may not be enough to meet customer needs. GGM's provision of comprehensive energy conservation services – from an accuracy diagnosis to proposals, design, facility installation and fund procurement – can be considered a strong competitive edge. It appears that efforts to exploit individual technologies by team players may provide significant implications in other fields as well.

Figure III - 34 Business negotiations at the China International Environmental Protection Exhibition & Conference (CIEPEC)

	CIEPEC 2009	CIEPEC 2011
Period	June 3-6, 2009	June 7-10, 2011
Participating Japanese companies/organizations	11	24
No. of negotiations	322	1,096
No. of tentative contracts	41	137
Amount of tentative contracts	US$2.64 million	US$5.81 million

Note: The number and amount of tentative contracts includes those that were concluded during the event.
Source: Interviews.

Unwavering interest in Japanese environmental technologies

There are also examples indicating that the high reputation of Japan's environmental technologies has not changed before and after the disaster.

The China International Environmental Protection Exhibition and Conference, CIEPEC, which is held biyearly in China, is an exhibition on energy conservation and environmental technologies where a total of approximately 500 companies and organizations exhibit their products, and draws over 50,000 visitors. At this year's CIEPEC 2011, which was held from June 7 to 10, 24 companies and organizations participated in the Japan Pavilion organized by JETRO. Despite being held directly following the disaster, this year produced a larger number of business inquiries than the previous year (Figure III-34). Crowds gathered around booths that exhibited solar collectors and simple water analysis instruments. It confirmed that there is still a strong interest in Japanese technologies in China, where interest is growing over energy conservation and environmental technologies.

Two companies from Fukushima Prefecture participated in this year's CIEPEC. Fumin exhibited a thermal barrier coating named Fumin Coating. This technology evenly applies a clear coat of a substance to a glass surface that absorbs and reduces infrared and ultraviolet rays, cutting ultraviolet rays by approximately 90% and infrared by approximately 50%, while also allowing for securing 80% visible light transmission. In Singapore, the Housing and Development Board has already decided to adopt Fumin Coating for public housing. The vibrant business negotiations at this year's CIEPEC indicate the tremendously great possibility for expanding Fumin Coating's business in China.

Another example is Watara Engineering, a company that offers a broad range of products regarding soil, water and air pollution. The company has acquired numerous prospects for contracts following active negotiations with customers, and it is anticipated that the company's business chances will grow in the future.

Using Japanese technology to deliver electricity to unelectrified communities in developing countries

Numerous companies are also entering the market of renewable energies. In particular, Japanese companies maintain a large share of geothermal power generation turbines. Three companies control over 70% of the global shares in this field; Mitsubishi Heavy Industries (24.6%), Toshiba (23.6%) and Fuji Electric (20.1%).(Note 6)

Furthermore, there are SMEs that are working to spread activities overseas using their advanced technologies. One example is A-Wing International. Exploiting an original approach, this company is attempting to supply electricity with small wind power generation to unelectrified communities in developing countries. The company has delivered over 1,300 small wind power generators mainly to public sector organizations, including for streetlights and educational institutions in Japan. The product's strength comes from its high level of power generation efficiency, as it can generate power from a small 1.0-meter/second breeze. The technology was developed in efforts to deliver light to communities without electricity in Mongolia.

During interactions with Mongolian exchange students at the Miyakonojo National College of Technology in Miyazaki Prefecture, some people voiced that they would like to bring electricity to homes of Mongolian students, where there is no access to electricity. Research began with focus on wind power generation by the head of the school's Technical Support Center, Keiichi Kawasaki, and after numerous improvements the team successfully developed a wind power generator that can efficiently produce power even with weak wind. This is the prototype generator that A-

6 "Geothermal Power Generation in the World, 2005–2010 Update Report," (Ruggero Bertani).

Wing, for which Mr. Kawasaki serves as a technical advisor, is currently working on.

The company has produced favorable results domestically due to the high efficiency of power generation, and the sophistication of the technology has allowed the company to deliver its products in the United States as a recreation-use power generator. However, in the markets of advanced countries, the company has been told by some clients that they installed a generator just to show their environmental consciousness, so they were just interested in displaying the turbine spinning. A-Wing maintains that the primary role of their small wind power generator is not for such purpose, but for communities without electricity in developing countries. For that reason, the company has established a manufacturing plant that targets the Mongolian market in Ulan Bator, and is currently working on constructing a manufacturing plant in the outskirts of Bangkok, for products to Thailand and surrounding countries.

A major issue when bringing products to developing country markets is controlling the cost, and the company has been successful in significantly reducing the number of parts compared to products used in Japan while also maintaining performance. The company anticipates cutting costs by 80% compared to when made in Japan by lowering the specifications. Another characteristic of A-Wing is that it actively recruits exchange students from Asian countries that study at Ritsumeikan Asia Pacific University in Beppu City, Oita Prefecture. While utilizing their knowledge of society and human networks in their home countries, they are working to construct a manufacturing and distribution network in Asia.

Energy conservation grows more appealing in consumer goods markets

In consumer markets too, energy conservation will be more attractive, because energy conservation consciousness is increasing in emerging markets such as Asia, in addition to advanced nations that have conventionally been very environmentally conscious. This was backed by a survey conducted by JETRO between December 2010 and January 2011 in Beijing, Bangkok, Delhi and surrounding regions (Figure III-35). The ratio of respondents that answered, "When buying electronic appliances, I choose energy efficient products" was 96% in Thailand, and over 80% in China and India. Even higher percentage of people intended to do so in the future.

In Japan, as a result of the power supply shortages during the summer season, further refinements to energy conservation technologies can be expected at manufacturing plants and in the development of consumer products. These efforts will allow companies to acquire business opportunities overseas.

(4) High quality Japanese products reaching people in the BOP

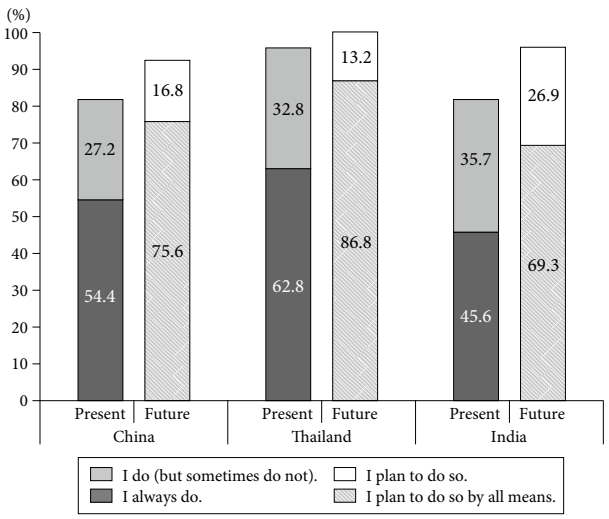
The target markets of A-Wing, as mentioned earlier, are the communities without electricity in Asia. While Asia is growing at a rapid rate, marked differences between countries exist in terms of economic level and living environment, and there is even disparity inside a country. If Sub-Saharan Africa is also taken into account, there is still a large amount of people suffering from poverty around the world.

The base of the pyramid (BOP) concept looks at markets comprising the world's poorest populations. Using a population pyramid to represent the world's population, the BOP is named for the lower tier of the pyramid. There are various definitions of what types of people comprise the BOP, but in many cases it is considered to be the class of people whose annual income in purchasing power parity is US$3,000 per capita or less. If this definition is applied, approximately 4 billion people make up the world's BOP.

Traditionally, international organizations, aid agencies of the governments of advanced countries and NPOs were the only type of institutions that provided assistance for the BOP; however, the concept of "BOP business" provides an idea that the people in BOP offer tremendously large business opportunities for private enterprises. Some also believe that many issues faced by poor populations could be resolved by the business activities of private companies.

One challenge faced by these people is called BOP penalty. In areas suffering from poverty in developing countries, there are instances where the BOP purchases more expensive products than the wealthy classes living in urban areas due to such reasons as undeveloped logistics networks. Furthermore, the quality of those products is often inferior, as many lack sufficient nutrition and include large amounts of additives. The BOP can be considered a large market overall, as the class is so large in number, regardless of its per capita purchasing power. If private sector corporations can efficiently supply those markets it will be possible for the people in BOP to acquire quality products and services. In

Figure III - 35 Energy saving awareness in China, Thailand and India
Among the people who answered "When buying electronic appliances, I choose energy efficient products"



Source: Survey on "Energy Saving Awareness and Purchase Behavior (in China, Thailand and India)" (JETRO, March 2011).

addition, involving the people in BOP as a player for production and distribution, not just for a buyer, could expand the scope of corporate business and provide the BOP with stable employment opportunities.

There are various reasons for private firms to engage in businesses related to poor populations in developing countries. There are companies that chose business methods with an objective of resolving issues faced by poor populations in developing countries from the onset. Other companies focus on long-term investment for securing future markets or boosting their corporate image. There are also cases where companies end up approaching the BOP as a result of usual marketing to make the most of the value of their company's products and technologies.

Companies such as Ajinomoto, a global brand famous for their "umami" flavoring, and Yamaha Motor, who supplies outboard motors to over 200 countries, have conducted business for foreign clients including the BOP business before the term BOP was coined.

The Mandom Corporation is a similar case. This company embarked on its first overseas business activities in 1958 in the Philippines, and established a local company in Indonesia in 1969. The company has carried out thorough product development in view of local markets from an early stage under the philosophies of "with consumers, for consumers" and "products to make consumer lives easier." In foreign market, the company requires that consumer surveys are carried out that includes actually entering the homes of consumers and viewing their sinks and bathrooms.

Many companies provide their products in smaller packages as an approach for the BOP. This allows to reduce costs and makes it easy to distribute to rural retail shops and other areas. Mandom also provides hair styling products in sachets in the Philippines. When creating their strategy for distributing the packets to Sari-Sari Store, a traditional small retailer in the Philippines, it is said that one of the company's Japanese employees sat in a Sari-Sari Store for a full day and observed customer behavior. Using this intimate style of local marketing, the company is working to efficiently deliver quality products to customers.

One of Fumakilla Limited's management principles is "Protecting the lives of people" from dengue fever, malaria and other diseases in tropical areas. The company expanded to Indonesia in 1990. Indonesia, a country with a tropical climate, differs from Japan in that pests are a problem residents must face throughout a year. The company began surveying the country in 1988 because of its large population and relative ease in entry for foreign corporations. The company decided to enter the market when they found that the quality of mosquito coils made by local manufacturers was inferior to their own product, and due to sufficient profit prospects owing to the ability to reduce production costs. Despite the high quality of Fumakilla's mosquito coils, it took time for consumers to acknowledge their products. The company's products contained a larger ratio of drug agents, but consumers were unable to experience the difference in quality and thus continued to purchase the mosquito coils produced by their competitor, which consumers were accustomed to buying. It was an especially difficult in Java, where the capital Jakarta lies. That is when the company thought of approaching a small retail chain called Warung, where people go to purchase everyday items. In order to cover the 1.5 million Warung shops in Java Island, the company deployed a sales team it dubbed the "Camper Van Unit." The three-person team is visiting each of the Warung shops, one at a time, in their assigned area to sell the company's product. These efforts have led to significantly boosting awareness of the company's products. Other feature of Java is that many customers buy the product by a single package, not by a box. Fumakilla sold their products in an individually wrapped coil so as to increase awareness of their brand even when the product was separated into a coil. Such efforts have been successful in steadily boosting the sales of their local company in Indonesia, which reached 4.3 billion yen in 2010 (an 11.5% increase on 2007), while current profits jumped by 4.2-fold in 2007 to 454 million yen.

There are some BOP business models that can be better employed by large firms, such as ones that are based on mass production and supply and ones that incorporate long-term payout plans. Moreover, the BOP includes people living under a diverse range of conditions, and there are a large proportion of people for which it will be difficult for Japanese companies to approach in the immediate future. Nevertheless, there will be cases where they can exploit their company's products and technological strengths by considering the BOP their target customers. While demand in the domestic market has decreased for the products and technologies that have been provided by companies over many years, those might fit the needs of the people in BOP and contribute to resolving their challenges. It is appropriate to avoid sticking to certain fixed approaches to BOP business and to flexibly consider BOP business itself as a measure for exploiting company's strengths.

(5) Current situation of the Asian senior market and Japanese firm's approach

Steady growth anticipated for China's senior market

Next, let us examine the current situation of the senior market in Asia and the effort to approat to the market by Japan.

China, where aging is expected to progress at a rapid pace in the future, faces issues such as an increased burden on the working class and lack of facilities for elderly individuals, while the so-called "graying market" (consumer market of senior citizens) is anticipated to grow. According to a report released by the Chinese Research Center on Aging, "The underdeveloped graying market: opportunity and difficulty," sales from senior-oriented industries in 2010 was only 700 billion yuan, but that number is expected to increase to nearly 30% of China's GDP by 2030. According to the report, 42.8% of senior citizens living in urban areas have savings and total annual revenue of them accounts for between 300 billion and 400 billion yuan from pensions, assistance from relatives, and salaries in the case of those continued working past the retirement age. Moreover, consumption by children for the sake of their parents is also

large, meaning that it is not only senior citizens that support the senior market. Economic Weekly, May 5, 2011 also reported that in 2010 consumption by the elderly population exceeded 1.4 trillion yuan, and that number is predicted to rise to 13 trillion by 2020, making them a major actor in the market.

Lack of elderly and nursing facilities

However, the current situation remains that there is a lack of products and services to adequately meet the demand of the senior market. One example is the lagging development of facilities for elderly citizens. In Beijing, for example, the elderly population (aged 60 and over) was at 2.65 million people, accounting for 15% for the total population in a 2010 survey. According to a forecast, by 2015 the elderly population is expected to reach 3.6 million, followed by 4.5 million in 2020, with overall population ratios of 17.6% and 20%, respectively. However, in Beijing the number of elderly homes is a mere 386 with an overall maximum capacity of 61,823 people, thus only covering around 2.5% of Beijing's elderly population.(Note 7)

Public elderly homes are inexpensive and provide good services, but many people want to enter such facilities, making it difficult to accommodate them all. The Beijing City First Welfare Center located in the Chaoyang District of Beijing has a capacity of 500 people and is the closest elderly home to the city's center. In addition to nursing, the home offers medical, entertainment and other facilities, and is very popular for its reasonable price of 2,500 yuan per month. The home has indicated that it is currently full, there are 3,000 people in waiting and some have been waiting for two to three years already. The Fifth Welfare Center, located nearby with 230 people capacity, also has a waiting list of more than 200 people.

Private elderly homes provide quality facilities and services, but they come with a substantial price. The Beijing City Shoushan International Welfare Service Center for Elderly People is an elderly home with a capacity of 300 people that commenced operations in 2009. Currently, it accommodate 240 people and charges 4,900 yuan per month excluding meals in Beijing where the average monthly income is around 5,000 yuan, which is nearly twice as much as its public counterpart.

Furthermore, these facilities face the challenge of keeping up with demand in terms of human resource numbers and quality. In 2002, the "Standards for Nurses for Elderly People" were released, which state that only individuals with a certification can provide nursing; however, the actual situation is that individuals with no specialized training, or the so-called floating-population (migrant workers), take up nursing positions. Head of the China Association of Social Welfare, Jiake Fang, states that, "There is still a significant disparity between elderly care businesses in China and those in Europe and the United States. Services in China are just getting started." (Note 8)

Chinese businesses for elderly people that have started to make ground

Some people believe that products and services for elderly people in China, not only facilities for the elderly, have yet to disseminate widely and that this area has great business potential. In a survey conducted by Chinese newspaper Life Time entitled "Survey on Products for Elderly People in China",(Note 9) in response to the question "What kind of products do you want to be developed?", people gave a diverse range of answers. The list included easy-to-open canned goods, chewing gum for elderly people, flashlights with radios, a walking stick that allows one to call and communicate with the police with the touch of a single button, bifocal glasses and seated showers. In terms of clothing, in China, clothing made for senior citizens is only different in terms of design and color. In advanced countries, however, clothing for senior citizens is specially designed to make it more practical for their needs. For instance, German-made clothing being sold on shopping site Taobao.com puts shirt buttons on the shoulders so that elderly citizens with stiff shoulders can easily dress and undress. The site has numerous other similar products that meet the needs of senior citizens, including nail clippers equipped with a magnifying glass and clocks that light up when touched. Vice President of Peking University, Liu Wei, commented that, "The senior citizen industry is about to hit a major growth spurt. This will impact emerging industries such as entertainment, travel, finance and education, in addition to the traditional senior industries of medical care, nursing and insurance." (Note 10)

New companies that are actively attempting to address the growing needs of senior citizens are also beginning to appear.

In recent years, travel demand by senior citizens has drawn attention, and this is particularly true during the spring and fall seasons, where senior citizens account for over 50% of travelers. Travel companies are also working on developing products that address the needs of senior citizens. Jiahua International Travel Company established a "Parents' Club" that targets senior citizens. The company's president, Zhang Ming, claims that, "Travel by senior citizens has just started and there are still many challenges to be faced, but there are already signs of growth." Today in China, students and workers that would like to travel can rarely make the time. However, President Ming says, "Senior citizens have both time and money, so they are to become the main target in the future. What is more, senior citizens have started to change their values, and now travel has become a necessity for old-age life." (Note 11) Golden Age Travel, located in Tianjin City, is also planning tours for senior citizens and developing the senior citizen market. Company Director Lei Yanshan says that, "It is impossible to appeal to senior citizens using conventional tours and simple price reductions. It is vital to offer promotions and

[7] Beijing Civil Affairs Bureau.
[8] The *China Youth Daily*, March 11, 2011.
[9] *People's Daily*, September 18, 2010.
[10] Shanghai Stock Information Service Corporation, May 5, 2011.
[11] *Economic Weekly*, May 5, 2011.

an operational strategy with differentiating characteristics. Senior citizens have a strong sense of loneliness and want to feel that society and their families value them. Therefore, an important aspect of tours for senior citizens is thoughtfulness." Concerning the company's future operational strategy, he says, "Most travel companies focus on urban areas, and senior citizens in rural areas often cannot travel due to the lack of information. In addition to maintaining customers in urban areas, we must expand into rural areas as well." (Note 12)

Growing interest in Japanese products and services

While Chinese companies are starting efforts to enter the senior citizen market, the current situation remains that they are unable to adequately meet the needs of elderly people due to their lack of accumulated experience and expertise. There is thus great interest being drawn locally to the products and services of Japanese companies that have already been working to accumulate experience and expertise domestically in Japan.

During December 3-5, 2010, at China's largest welfare device exhibition Care & Rehabilitation Expo China 2011 (hosted by the China Disabled Persons' Federation and the Liaison Office to the Nationwide Elderly Workers' Association), JETRO set up a Japan Pavilion for the first time, allowing 18 companies and one organization that handle welfare-related products put their products on exhibit. The companies exhibited a diverse range of products, including welfare-use dishware, nursing foods, nursing bathtubs and more. Visitors displayed strong interest in the high-quality Japanese welfare products, and the Japan Pavilion received a large number of visitors.

In particular, a booth exhibiting nursing foods for senior citizens that were developed in collaboration with a nursing dishware manufacturer was immensely popular, and one visitor that sampled the foods even said, "China also has nursing foods, but there are not many that are this tasty and enjoyable. I really hope you introduce these to the Chinese market." Other products rich with Japanese originality also drew great interest, including insoles that reduce the burden on the knees when walking and a moped that can be ridden while sitting in a wheelchair.

Demand for welfare products is growing with the increase in senior citizens and people with disabilities, but supply has yet to catch up. China has few welfare-related companies and the amount of product variety on the market is overwhelmingly too small. Furthermore, many products are inferior in terms of design and quality, and China relies on imports for most of its welfare products. In terms of price, some assert that higher priced Japanese products will not be received well in China, but the concept that higher price means higher quality exists in China as well. As such, even if prices are set high, there is believed to be strong potential to acquire business opportunities by providing users with information that appeals to the superiority in quality.

[12] *Tianjin City Observer*, February 16, 2011.

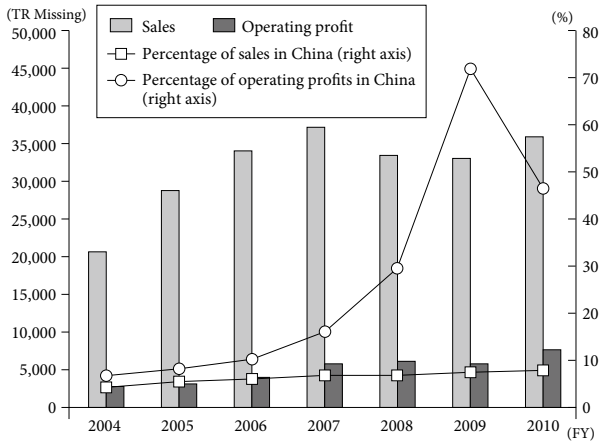
Undertakings by Japanese companies in China

Some Japanese corporations are exploiting the technologies, expertise and brand power developed domestically and beginning to work to develop the elderly market in China, a market with a great deal of potential.

Major sanitary ware manufacturer TOTO has focused on the development and sale of products that are easy to use for patients and senior citizens since it first development and released a bathtub in Japan in 1980 as a product that took into consideration the needs of elderly people. After selling sanitary ware to China in 1979 when refurbishments were made to the Diaoyutai State Guesthouse, the company expanded business into China in 1994 through a joint venture company. TOTO went on to build relationships with local distributors using showrooms as points of dissemination, and today claims the top share in the Chinese high-end sanitary ware market. In fiscal 2010, the company's sales and operating profit in China amounted to 36.1 billion yen and 7.6 billion yen, respectively. Operating profits, in particular, grew by approximately 2.6-fold over the six years since fiscal 2004, making as much as nearly half of the company's total operating profit (Figure III-36). TOTO has opened showrooms that it directly operates in four locations, namely Beijing, Shanghai, Chengdu and Guangzhou, and runs flagship showrooms in joint operations with agencies in six cities, Nanjing, Hangzhou, Ningbo, Zhengzhou, Chongqing and Shenzhen. The showroom in Shanghai is showing new developments, such as exhibiting toilets equipped with handrails. In this way, TOTO is applying the experience and expertise that it cultivated in Japan in operations in China in efforts to steadily capture the market of a country where aging is to progress in the future.

Japanese corporations and NPOs are also expanding their nursing businesses in view of Asia's senior citizen market. In November 2010, Japan Long Life, a subsidiary of major nursing company Long Life Holdings, established a joint venture company Hiking (Qingdao) Longlife Care Service Co., Ltd together with a group company of the Hik-

Figure III - 36 TOTO's business performance in China



Note: Overall sales and operating profit figures were calculated before consolidated adjustments.
Source: Brief note on the settlement of accounts and securities report by TOTO.

ing Group under the investment ratio of 34% and investment amount of US$1.02 million, thus becoming the first Japanese company to open an elderly home (168 rooms) in Qingdao. Training has been started for Chinese staff with the aim of launching operations from October 2011, and the company expects to pull in approximately 30 million yen a year in profits. Even in China, where aging is rapidly progressing, there are not many private enterprises that provide high-quality services, so the company intends to focus efforts on disseminating the services and brand that it has developed in Japan.

In addition to developments in the private sector, undertakings to bring together aging and community economic revitalization in Asia are gathering attention, and one example is the Asian Aging Business Center (AABC) based in Fukuoka City. AABC was established in March 2008 with the objectives of providing Asia with the experience and knowledge gained by Japan as an advanced aging society. It also intended to use the geographical advantage of Fukuoka City as a gateway to Asia to develop the city to be a model case of elderly-friend city as well as developing aging businesses that are needed in Asia based on a partnership among industry, academic and public. Specifically, AABC coordinates observation visits and trainings at facilities for the elderly in Japan for human resource development of Asian countries such as China and South Korea. Through these initiatives AABC also hopes to raise the profile of Fukuoka City, promote international exchange and expand tourism.

Businesses targeting elderly people in South Korea and the undertakings of Japanese companies

Just as China, in South Korea fertility is decreasing and aging is progressing at a faster pace than in Japan. The total fertility rate (number of children that one woman gives birth to during her lifespan) in 2010 was 1.22, which is one of the lowest in the world. Meanwhile, life expectancy is steadily growing. According to population forecasts released by the country's Statistics Bureau, the ratio of people age 65 and older compared to the total population was 11.0% in 2010. This is a little less than half the ratio of Japan today; however, those figures are expected to rapidly increase to 15.6% by 2020 and again to 24.3% by 2030. Furthermore, forecasts show that the ratio will reach 38.25 by 2050, which, along with Japan, will be the highest in the world. Therefore, businesses that target elderly populations are anticipated to see strong growth in the future. The South Korean Government has defined 14 different sectors as "silver industries" in the broad sense, including nursing, medical devices, leisure, which includes rest facilities for elderly people and reverse mortgages and other finance. The Government expects that the market will rapidly grow from its level of approximately 44 trillion won in 2010 to approximately 149 trillion won by 2020.

Particular attention is centered on the fact that the baby boomer generation, which was born after the Korean War and now between 55 and 63 years old, is approaching the age of retirement. The baby boomer generation is different from preceding generations in that their level of education is comparatively high and they show vibrant consumer confidence. The retirement of baby boomers is expected to create a new "silver market."

However, the industry remains so underdeveloped that some people say that there are not enough companies to support the industry, and, overall, prominent companies yet to emerge in this area.

Despite these circumstances, developments are spreading to create new businesses in view of the progression of aging. One example is "Silver Towns" (welfare housing for senior citizens). Silver Towns are group home facilities that people aged 60 and over can either purchase or rent and are equipped with medical facilities and community spaces. Certain benefits were also granted in the construction of the facilities, such as easing construction regulations. According to statistics by the Ministry of Health and Welfare of South Korean Government, in 2007 there were a total of 14 Silver Towns throughout the country, and that number rose to 22 in 2010. These figures do not include facilities that were recently constructed, so figures are thought to be even higher today. More than half of all Silver Towns are located in major cities with superior transportation convenience, such as Seoul and Busan, and it is these major cities that Silver Towns are drawing even more interest. "Seoul Seniors Tower," which operates four Silver Towns in the capital of Seoul, is run by a major hospital (Songdo Hospital) that advertises its fully equipped medical and nursing structure. Samsung-Novell County, another influential Silver Town, is operated by a foundation owned by Samsung Life Insurance, a major life insurance company. In this way, "silver" related companies have been entering the market. Local media in South Korea has recently been reporting on the rising interest in Silver Towns and increasing prices of the apartments.

In addition, in response to the increase in the senior population, a demographic with both leisure time and purchasing power, there is an increasing need for culture-oriented schools for senior citizens. According to local media, culture centers run by major department store Shinsegae have enriched programs for senior citizens, including "senior line dancing", "senior musical ballet" and "everyday English for seniors". As a result, the ratio of their customers of age 50 and older rose from 20% in 2006 to 30% in 2010. Other major stores, including Lotte and Hyundai, are also expanding their programs for senior citizens.

In entering the senior business market, some companies implement the business models of companies of Japan, where aging has advanced ahead of Korea. For instance, in 2008 major dairy products manufacturer Binggrae partnered with Japan's X-Vinn (currently "Senior Life Create") to acquire its expertise for a new food delivery service for senior citizens that Binggrae was to establish. Currently, they make home deliveries under the Yegadwon brand name and have stores at two locations.

In July 2010 total food product manufacturer Daesang began sale of its balanced food product "NuCare Toromi Perfect," a food thickener jointly developed with the Nisshin

OilliO Group. The product aims for smooth rehydration and providing nutritional support for elderly people and persons suffering from dementia with a weaker ability to swallow foods and beverages. The product is sold at hospitals, elderly care facilities, pharmacies and other locations. Writing on the outside of the box is in Katakana, Japanese phonetics, emphasizing the expertise of a Japanese company with advanced experience in aging business.

The foreign expansion of Singaporean medical institutions

In Singapore too, low fertility and aging are serious issues, much like Japan. In fact, the total fertility rate in Singapore is 1.16 in 2010, lower than the 1.37 in Japan.

Moreover, the elderly population will rapidly grow in the future as the ratio of population aged 65 or over compared to the total population is predicted to double from 10.2% in 2010 to 22.9% in 2025.

In Singapore, the ratio of medical-related expenditures compared to total household expenditures is increasing as aging progresses. The composition of medical expenses accounted for in monthly household expenditures in Singapore increased from 3.5% in 1997 to 5.3% in 2007. With an average annual growth rate of 6.2%, this is growing faster than any other items, including communications fees and housing-related expenses (Figure III-37). This rise in medical expenditures is also connected to the increase in sales at Singaporean medical institutions.

The sales of major Singaporean hospital Raffles Medical Group doubled from 112.9 million Singaporean dollars in fiscal 2005 to 239.12 million Singaporean dollars in fiscal 2010. The sales of Singaporean giant Parkway Holdings grew from 548.97 million Singaporean dollars in fiscal 2005 to 979.21 million Singaporean dollars in fiscal 2009.

Singapore's population is only 5.08 million people, making it a relatively small market. So, its major hospitals are beginning to focus their efforts on expanding operations abroad in view of the Asian market. Raffles Medical Group opened a hospital in Shanghai in 2010, thereby establishing a foothold for entry into the Chinese market. The company's reasons for expanding into the Asian market are the expected progression of aging in China and other Asian countries, and the foreseen growth in demand for high-quality medical service in parallel with rising income levels.

In the case of Parkway Holdings, it operates 16 hospitals in five countries, namely Singapore, Malaysia, Brunei, India and China, and is working to expand its business operations widely throughout Asia. Parkway Holdings was acquired by Khazanah Nasional Berhad, a Malaysian state-run investment firm, in 2010. Mitsui & Company made a capital investment to Integrated Healthcare Holdings, Malaysia, a holding company of Parkway Holdings in 2011, under the condition of investment ratio of 30% and investment amount of 3.3 million Malaysian ringgit, approximately 92.4 billion yen. Mitsui & Company began to display efforts to address the rising demand for medical services in Asia, which is growing in parallel with aging, as early as January 2010, by acquiring capital in Gleneagles CRC, Singapore, a company of the Parkway Group (investment ratio of just under 50%; investment amount of approximately 400 million yen).

Fortis Hospitals, a major hospital group in India, is also working on expanding its hospital operations in Asia, including in Singapore. The company unsuccessfully competed with Khazanah Nasional Berhad for acquiring Parkway Holdings, and later in 2011 announced that it would acquire a hospital under construction in Singapore and intended to enter the Singaporean market.

Figure III - 37 Breakdown of monthly household expenditures by good/service in Singapore

(SGD, %)

	FY1997	FY2002	FY2007	Average annual growth
Expenditures (including imputed rent)	3,628	3,738	4,388	3.3
Food	23.7	21.3	21.6	1.0
Clothing/footwear	3.9	3.4	3.3	0.2
Housing-related costs	24.2	24.6	26.6	2.9
Medical	3.5	4.7	5.3	6.2
Transportation	18.6	16.4	15.8	0.3
Communications	3.6	4.6	4.8	4.9
Entertainment	10.5	12.0	8.7	0.0
Education	4.4	5.2	5.3	3.8
Other	7.7	7.8	8.5	2.9

Notes: (1) The average annual growth rate is for between FY1997 and FY2007.
(2) "Other" includes alcohol, cigarettes, rent and other goods and services.
Source: "Household Expenditure Survey" (Department of Statistics, Singapore).

Lessons from prior Asian aging business cases

From prior cases of senior businesses in Asia conducted by Japanese corporations, we can see a strategy that links to capturing local markets by utilizing the accumulated experience and knowledge of Japan while also constructing and expanding networks either by expanding production and distribution bases, by forming joint ventures with local companies, or through M&A. The key is superiority in quality of products and services developed ahead of the rest of Asia. Some believe that high quality inevitably associated with high price, and that it will be difficult to sell such products and services in Asia, where an intense price competition is taking place. However, Asian income levels are steadily rising and the level of demand for high quality products is growing along with it. In addition, elderly people in Asia increasingly have sufficient disposable income for their consumption. If these are taken into consideration, there is ample business opportunity in the area of high-end products and services that Japanese companies have specialized in.

In other words, Asia's elderly market would be an area where Japanese corporations can fully demonstrate the strengths that they have developed. At present, Asia's elderly market is still in its nascent stages and is one of the few remaining growing markets for Japanese corporations. It is believed that it will become increasingly important for Japanese companies to work to address this growing market in their overseas strategies.

Figure III - 38 Japan's outward direct investment position by country/region at the end of 2010 (Ratio to total amount. Figures in parentheses indicate compound annual growth rates from 2005.)

(Unit: %)

	Total	Manufacturing	Non-manufacturing	Mining	Wholesale and retail	Finance and insurance	Other non-manufacturing
Global total	100 (8.2)	46.3 (2.8)	53.7 (14.7)	6.3 (36.1)	14.0 (13.5)	23.4 (15.1)	10.0 (8.3)
OECD members	61.5 (5.3)	28.5 (-0.4)	33.0 (12.3)	4.7 (31.6)	10.4 (12.3)	11.4 (12.9)	6.4 (4.4)
Non-OECD members	31.0 (13.1)	17.7 (9.6)	13.3 (19.1)	1.5 (66.4)	3.5 (17.5)	5.0 (15.4)	3.4 (18.2)
Asia	25.6 (10.8)	16.7 (9.1)	8.9 (14.7)	0.2 (57.5)	2.9 (13.9)	3.1 (14.9)	2.8 (13.7)
China	8.0 (13.3)	5.7 (11.6)	2.3 (18.3)	×	1.0 (15.5)	0.7 (25.5)	×
Asia NIEs	8.2 (7.7)	4.3 (5.6)	3.9 (10.4)	0.1 N/A	1.4 (10.3)	1.2 (10.9)	1.3 (8.4)
ASEAN	10.9 (9.2)	7.2 (6.3)	3.7 (16.6)	0.2 (57.8)	1.0 (23.2)	1.4 (11.3)	1.1 (15.4)
Central/South America	5.3 (15.5)	1.6 (3.0)	3.8 (24.8)	1.4 (85.1)	0.7 (45.3)	0.9 (3.5)	0.8 (21.6)
Middle East and Africa	1.3 (20.6)	0.6 (9.5)	0.7 (40.4)	0.1 (45.3)	0.0 (11.9)	0.4 (40.4)	0.2 (46.4)

Notes: (1) The growth rates from 2005 are calculated in yen base.
(2) "Non-OECD members" and "Central/South America" excludes the Cayman Islands.
(3) An "x" indicates that amounts have not been publically released. The total for Asia NIEs industries in 2005 was zero, so the rate of increase is represented by "N/A".

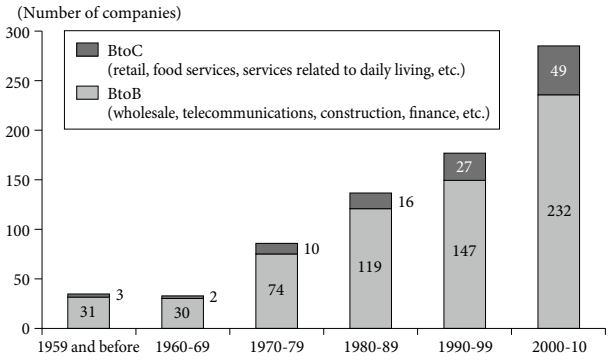
Source: "Direct Investment Position, breakdown by Region and Industry" (Bank of Japan, Ministry of Finance).

(6) Services industry continues overseas expansion

Efforts to address foreign demand by the Japanese services industry had been considered insufficient compared to the manufacturing industry, but those efforts are expanding. Looking at the stock of foreign direct investment from Japan at the end of 2010, we see that figures for non-manufacturing industries surpass 50% (Figure III-38). Finance and insurance businesses account for nearly 25%, while mining, wholesale and retail business also show large percentages; however, other non-manufacturing investment has also reached 10%. Investment in emerging economies and developing countries, non-OECD members in this case, showed particularly large growth, with an average annual growth rate of 18.2% from 2005.

The Survey on Overseas Operation Status in Service Industry implemented by JETRO also shows that the overseas development of Japan's services industry has been growing in recent years (Figure III-39). When services industry corporations with existing operations abroad were asked when they first ventured abroad, the answers revealed that a large number of companies recently expanded overseas.

Figure III - 39 Time of launching Overseas operation in service industry



Notes: (1) The chart excludes "Other service industry" and companies that did not answer on thier industry field or time of launcing overseas operation.
(2) As for 2010, the number of launches includes the companies that answered that they planned to launch. (Survey period: October-November 2010.)

Source: "Survey on overseas operation status in service industry: the fiscal year 2010" (JETRO).

Food product industry was impacted by the disaster, as radiation testing was made obligatory for food products by many countries and restrictions were placed on the import of food products manufactured in multiple prefectures. There were reports of declines in sales of Japanese foods and at Japanese restaurants in several countries. However, in countries such as UK and Russia, overseas JETRO offices reported that there was no trend to avoid Japanese foods in particular after the disaster. In Taiwan, many consumers, immediately after the disaster, were reported to check the time of shipments of Japanese food products, but since April oversensitive responses have been decreasing.

In London, the International Food & Drink Event was held from March 13 to 16, 2011, right after the disaster. Eight Japanese companies participated as planned. There was little impact from the disaster, where the companies held 160 business negotiations and concluded nearly 30 contracts (including tentative contracts), allowing them to surpass targets set before the disaster. Later, the participating companies were interviewed and it was confirmed that their negotiations are advancing smoothly.

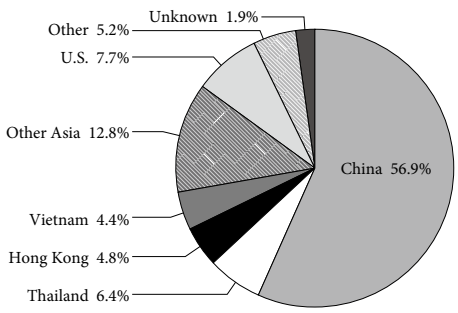
The Japanese restaurant industry also continues to expand into South Korea. Japanese food restaurants, such as ramen shops and izakaya, had been increasing in South Korea in recent years, where numbers have reached approximately 3,000 nationwide. Since the disaster, exports of food products from Japan have decreased, but there was no impact on sales and customer numbers at stores in the Japanese restaurant industry, and more and more restaurants are continuing to enter.

Capturing increasing interest in education in emerging Asian countries

The biggest destination for Japanese services industry companies when expanding abroad is Asia, and China in particular.

In the aforementioned Survey on Overseas Operation Status in Service Industry, there were a total of 860 services industry companies that have prior experience in foreign markets or plan to expand overseas in the future. More than half of these companies prioritize China as a destination country (Figure III-40). If Thailand, Hong Kong,

Figure III - 40 Countries targeted by corporations expanding overseas (services industry)



Note: Ratio with the denominator as 860 companies, including corporations that plan to expand overseas in the future.
Source: Same as Figure III-39.

Vietnam and other Asian countries are added, 85.2% of the companies emphasize expansion to Asian countries and regions.

In terms of sectors, food, beverage and education-related companies are gradually beginning to expand overseas in addition to wholesale and finance industries, which have conventionally been active abroad. As can be seen in Figure III-30 on page 85, education expenditures in Asia are rapidly increasing along with economic growth, and more and more parents are having their children attend prep schools to learn English, arithmetic and others, or such skills as music and drawing, in addition to traditional school education. There is also an increase in the number of Japanese corporations expanding into Asia in response to this growth in demand.

Yamaha Music Foundation expanded into Asian countries from a very early stage, launching music schools in Thailand in 1966, Singapore in 1968 and in Indonesia in 1971. The company has employed a so-called demand creation business model, where it uses its music schools to teach customers the fun of playing music, leading to the purchase of instruments. Recently, the company's student numbers have been increasing in response to the rise in interest in the emotional development of children. Yamaha music schools are located in more than 40 countries and regions worldwide, with 1,550 schools and 182,000 students.(Note 13)

Kumon Educational Japan has expanded to 46 countries and regions, starting with New York in 1974, and as of March 2011 has 2.93 million students overseas. The following year after its expansion into the United States, it established a local corporation in Taiwan, thereby launching its operations in Asia. It now has schools in 14 countries in the region. Its schools in Thailand and Indonesia, which were set up in 1991, have showed particularly marked growth in recent years. Kumon runs approximately 430 schools in Thailand and approximately 520 in Indonesia, and student numbers in each country have surpassed nearly 100,000.(Note 14)

Gakken Holdings also opened a science school in Jakarta in May 2010. Indonesia is like many other Asian countries in that classes tend to rely on memorization due to the lack of instruments for experiments. Gakken provides a program centered on experiments using familiar resources. In addition to the science class, the company is also working to establish arithmetic schools in order to respond to rising interest mainly by the middle and high-income classes.

Japanese foods appealing to local U.S. customers

Japanese restaurants continue to employ unique marketing strategies in the United States and other countries. Initially, Japanese restaurants in the United States targeted Japanese businesspersons living in the United States, people of Nikkei descent, other Asians, and the small population of Americans that enjoyed Japanese food. Prices were also high for the average United States citizen. The prevailing trend was for major Japanese food manufacturers or individual Japanese chefs to run such establishments. However, as Japanese food gained popularity as healthy food, it began to draw popularity from the average American and restaurant chains from Japan have now started their entry into the United States market. Recently, these restaurants employ a marketing strategy where they conduct product development tailored to the United States market targeting American customers.

In the Upper West Side, a high-end residential area in New York City, Muginoho, a company that sells cream puff products, has established its New York location of Beard Papa New York. Initially, many customers were Japanese and other Asians, but now other Americans account for 60% of their customer base. The store has grabbed the interest of customers by emphasizing the quality of Japanese foods in terms of reduced sweetness, healthiness and safety, and is now increasing its number of stores. It has already expanded to more than 20 shops in the continental United States.

In order to meet the demand of the wide-ranging demographics of the United States, the company is now tailoring its product strategy to meet local needs. In New York, caramel-flavored cream puffs called the "Dulce de Leche," a product not sold in Japan, attracts great popularity. The company developed the product for the Hispanic market, which tends to purchase sweeter products. Muginoho targets a wide range of New Yorkers by employing a strategy modified to the characteristics of locals.

Chikaranomoto Company, a corporation with approximately 60 ramen shops in Japan, including the well-known Hakata Ippudo, entered the New York market in March 2008 with the objective of spreading the taste and passion of Japanese ramen to the world.

The New York store is designed differently from the Japanese stores. It is different from many ramen shops in Japan that focus mainly on counter seating. The company aimed to create a shop that takes full advantage of its adult-centered appeal and that communicates a sense of "Japanese coolness" to the world. At nighttime, the store serves alcohol such as Japanese sake and shochu, as well as small

[13] Figures are from the FY2010 Yamaha Music Foundation business report. Excluding domestic schools in Japan.
[14] Figures are from a May 16, 2011 press release of Kumon Educational Japan. "Students" refers to the number of total subjects being taken, not the number of member.

dishes using fish and other ingredients familiar to Japanese, such as tuna, yellowtail and codfish. It then serves a bowl of authentic ramen to finish everything off. This dining style is the concept for the New York store developed through rigorous analysis and marketing.

Ninety per cent of the customers at the New York store are Americans, and there is a secret behind these figures. The company has changed services, menu items and other things that can be altered to be better in tune with trends in the United States. Many Americans put the noodles on the spoon when eating, so the company has made the spoons bigger and noodles shorter, thus displaying their careful attention to even the smaller details. Many groups of friends that visit the restaurant take time before they start eating even after the ramen is brought to the table because they are busy in talking. Restaurant staff therefore remind customers to eat it while it is hot. If one person starts eating, the group will follow. This type of mindfulness is a Japanese-like service that will help Japanese companies to gain superior positions in global markets such as the United States.

The company takes care to create an environment that United States residents are familiar with. Near the entrance there is a bar counter designed like a food stall from Kyushu. If the restaurant is full, customers can enjoy Japanese sake, shochu or beer at the counter, instead of having to wait outside for a seat to open.

Some Japanese corporations are also working to reach wider scopes of consumers in places like Hawaii, where there are a large number of Japanese visitors. Toridoll, a company known for its Marukame Seimen chain that specializes in self-service Sanuki udon noodles, with approximately 470 locations throughout Japan, opened its first shop in Waikiki, Hawaii on April 1, 2011. The new shop targets tourists visiting the area from around the world. There are a large number of Japanese restaurants in Hawaii, but they are usually priced high and only few offers less expensive casual food. Generally it would cost at least US$10 to US$15, including tip, to eat at an udon restaurant. Toridoll decided to enter the Hawaiian market with the goal of providing people with the chance to enjoy udon at a reasonable price so that tourists visiting Hawaii from around the world would be able to experience the delicious taste of Japan's Sanuki udon.

The store has employed some tactics in order to spread awareness locally about Sanuki udon. The portion of the store facing the main road is made completely of glass, allowing people outside to see into the shop, and a noodle-making machine delivered from Japan is put on display near the entrance. This allows people outside and inside to see fresh noodles being made by the machine.

The company faced trouble in the procurement of raw materials, particularly seafood, in its efforts to cut costs. For instance, if the same standard of shrimp used in Japan was simply applied, the price of the product would surely increase. The company visited shrimp farmers in Hawaii and an expert was dispatched from Japan to do menu development through trial and error. This allowed the company to discover a shrimp that can pass their quality standard with an agreeable price. This store opened after the disaster, and customer numbers are steadily increasing. Just as planned, the majority of customers are tourists from the continental United States.

As noted earlier, Japanese companies in the services industry currently tend to emphasize Asia as a destination for overseas expansion. However, just as presented in a proposal compiled on May 12, 2011 by the Public-Private Expert Panel on Creative Industries, which is carried out to foster industries under the concept of "Cool Japan," advanced countries such as the United States are not only attractive for their own markets, but also important for a branding effect for Asian market. Moving forward, the services industry is looked on to adopt an approach where it expands to a diverse range of foreign markets, including promoting the type of regional strategy described above.

(7) All-out effort to revitalize and enhance the Japan Brand

Towards accelerating foreign market development

As explained earlier, a large number of Japanese companies are exploiting their own strengths in developing foreign markets, even after the disaster. The importance of foreign markets is increasing as vigorous reconstruction from the disaster carrying out. Then what is required in order for a company to use its strengths in expanding business overseas? It is not possible to cover all relevant topics, but below are the main points that arise in case studies introduced earlier and in questionnaire surveys carried out by JETRO.

(1) Acquiring information on foreign markets

In FY 2010 Survey on the International Operations of Japanese Firms, conducted in November and December 2010 by JETRO, most companies, 67.0%, answered that gathering information concerning the preferences and needs of the export destination market was the most important topic to promote exports. Customer needs, as a matter of course, differ widely due to local culture, geography, climate, economic levels, and other various causes. This chapter earlier touched upon the case of Mandom, which conducts comprehensive surveys on consumer households and rural retail shops. There are many companies that conduct this type of local-oriented marketing and it is likely an important step for market expansion.

Information on the local regulatory structure would also be essential. In particular, many countries set regulations on the entry of foreign firms in the services industry, and attention must be paid to such regulations. The attention should not be a temporary one as these regulations are often complicated and are changed frequently. On the other hand, if information on regulatory changes is swiftly assessed and a response promptly implemented, it could offer business opportunities.

(2) Promoting products that match the target segment

People often say that Japanese products may be high quality, but that they are also too expensive. This means that it may be difficult in many cases to compete in price

alone with the products of other countries.

However, as seen in the senior citizen market, high-end products with high-quality may present adequate business opportunity in emerging Asian economies depending on the segment they target. In China, in particular, individual income levels are rapidly increasing, and Japanese companies have expressed in interviews that strong-selling products are becoming more "advanced."

For instance, customers increasingly want to purchase a single-lens reflex camera, not a compact camera, from the start, and sales for Cannon's entry-level camera are rising. Gunze's high-end leg-related products, which are produced and exported from Japan, are also experiencing favorable sales.(Note 15) Energy-conservation function appealed more customers, as explained earlier, with environmental awareness strengthened. Even in the case of intermediate goods, there are many instances where it is possible to maintain price competitiveness by working to promote differentiation using unique products that exploit development and production capacity.

On the other hand, as was seen in the cases of Mandom and Fumakilla, there are companies that boost their sales by developing products that meet local consumers' needs and providing them using a distribution method that is tailored to local conditions. In the case of Acecook, who occupies a 70% share of Vietnam's instant ramen market, a major factor in their success appeared to be their effort in providing quality products at reasonable prices that match local preferences.

In this way, markets in emerging economies and other overseas countries offer the wide variety of business chances as well as challenges, making it important to thoroughly assess the target segment for the company's product, and work to develop and sell products that meet those needs.

(3) Searching for reliable partners

It is especially vital for companies to secure reliable partners as distributors and other business partners, particularly for companies that are entering overseas business for the first time. Unfortunately, there are many unsuccessful cases caused by local partners, such as by those who produced counterfeit products after concluding a distributor contract.

Companies could have another reliable client introduce one of their own distributors or conduct a credit check, but even these measures are not panacea. Some companies indicate that the only way is for the Japanese company to gather information as much as possible and then confirm the potential partner's management and business philosophy as well as the partner's assessment of the Japanese company's goods through direct talks in person. In particular, in the case of an SME expanding abroad for the first time, it would be indispensable for the company's senior management to visit the local site and assess whether the partner is reliable by directly meeting with them.

(4) Developing human resources

While the degree differ according to the scale and depth of overseas operation, many companies face the challenge of developing human resources related to overseas business. The Hitachi Group has begun to promote a Global Human Resource Management Strategy including maintaining a database of the group's 300,000 employees located worldwide. Many other companies also work to develop their human resources, which are the key to any global expansion, by recruiting and promoting foreign employees, dispatching their Japanese employees abroad at an early stage and so on. There are also many SMEs that face troubles in securing human resources involved in the trading business. However, there are also companies where the opportunity to involve in foreign expansion contributes to boosting employee motivation. Moreover, just as with the aforementioned A-Wing and AsiaGiken, some SMEs are actively using exchange students and trainees from emerging countries in Asia and other regions. It would continue to be important to strategically secure and train human resources to carry out foreign expansions in accordance with the situation and direction of each company.

(5) Protecting intellectual property rights

The answers of the questionnaire on business environment of major Asian countries in the aforementioned JETRO survey revealed that many companies feel that protecting intellectual property rights is a particular challenge in China; 60% of the respondents answered so in the FY2010 survey. On the Japan Patent Office's FY2010 Counterfeit Damage Survey Report, a total of 1,059 companies, or 24.6% of all responding companies, answered that they had suffered some form of damage as a result of counterfeiting. Of those, the most companies, 65.9%, answered that that damage was incurred in China. In addition to China, companies indicated that they had also received damage as a result of counterfeiting in South Korea (23.0%), Taiwan (22.3%), North America (13.9%) and Europe (13.4%) (Note 16). The countermeasures such as promptly acquiring patents, trademarks and registered designs are undeniably needed in China and other countries. Moreover, for small and medium-sized manufacturers whose competitive edge is their technological development capacity, protecting intellectual property rights is important not only as a protective measure but for a proactive strategy to penetrate into foreign markets.

The future of the Japan Brand formed by individual action

As this report describes, the disaster seriously impacted Japan, and it is difficult to forecast the future repercussion of it. However, there are many cases that indicate that other

[15] For more details see "Chinese Business Strategy Report for Japanese Companies during an Era where China's GDP is Ranked Second Globally," March 2011, JETRO.

[16] The percentages in parentheses indicate the ratio with 1,059 cases as the denominator.

countries continue to show their strong trust and high praise toward Japan. This can probably be attributed to the trust in Japanese products and services built up over time through unstinting efforts of many Japanese individuals and companies. It is necessary to restore and enhance this trust in the future, but this will likely take more than a single action to achieve. As such, the "Japan Brand" can be considered a sort of public good.

It is vital for Japan to provide safe, high-quality products and services to customers when marketing and manufacturing export products, welcoming overseas visitors to Japan, offering Japanese food and content abroad, and in many other occasions. It is also essential to actively disseminate information. Synergetic results can be anticipated through the accumulation of these actions carried out by firms, individuals, and other stakeholders. The Japan Brand can be revitalized and enhanced if the sense of solidarity felt after the disaster is maintained and actions are taken by individuals.

IV International Business as a Catalyst for Japan's Reconstruction (Conclusion)

Promotion of International Business toward Reconstruction from the Earthquake

The Great East Japan Earthquake that occurred on March 11, 2011 uprooted the foundation of the Japanese economy. The areas along the Pacific Ocean in Tohoku and Northern Kanto regions that support the backbone of Japanese manufacturers, as well as the supply chains of the manufacturing industry, suffered great damage. The accident that occurred concurrently at the nuclear power plants also caused damage to the "Japan brand" underpinned by "security" and "safety," and the industry also faced restrictions in terms of electric power supply, which brought tremendous impact on Japan's production environment. Although subsequent efforts toward recovery contributed to the restoration of supply chains at a pace that exceeded expectations, a lot of challenges remain to be resolved.

In order to find a way out of this situation as soon as possible, it is necessary to take in all kinds of vitality from abroad. Specifically, it is required to improve the environment to enhance locational competitiveness within Japan, and promote investment from abroad. In this regard, there has been moves, even after the earthquake, to invest in Japan as a result of efforts such as the establishment of Projects Promoting Asian Site Location in Japan by the government. Enhancing Japan's locational competitiveness and improving the production environment through such efforts are priority challenges that must be tackled from the standpoint of preventing the hollowing-out of industry in Japan.

Aiming for Growth Together with Asia through Enhanced Economic Partnership

From the standpoint of ensuring successful reconstruction, the cultivation of overseas markets, and especially those in emerging countries that are achieving high growth, is becoming more important than ever. Companies that have bases overseas (375 companies) depend on overseas markets for approximately half of their sales and operating profits. In particular, the Asia-Pacific region accounts for 25% of their total operating profits, the level of which exceeds the peak level prior to the financial crisis.

With Asia being the growth center in the world, economic integration within the region is advancing day by day. Intra-regional trade ratio within ASEAN+6 in 2010 was 45.9%. This was higher than the 40.4% within NAFTA, for which an economic partnership was advanced ahead of ASEAN+6. In this region, an FTA network for ASEAN+1 was nearly completed in 2010, and there was significant progress in the elimination of tariffs. With regard to Japan, a certain level of progress has been seen in this field such as the coming into force of an Economic Partnership Agreement (EPA) with India and the agreement being reached on starting preliminary negotiations for a Japan-EU EPA; however, South Korea's and China's efforts have been advanced at a speed exceeding that of Japan. For example, South Korea's trade with countries with which an FTA has been signed or has come into force accounts for approximately 35% of the country's overall trade, but it is still below 20% in the case of Japan. In order for Japan to achieve sustainable growth in tandem with Asia, it is necessary to enhance the FTA network as quickly as possible, and improve connectivity in the area of tangible infrastructure as well, in fields such as transportation and communication technology.

Efforts toward "Open" Reconstruction Utilizing Japan's Strength

Since the 1990s, Japan's presence in the global economy has been showing a declining trend, with the global share of its nominal GDP dropping from 13.8% in 1990 to 8.7% in 2010. GDP per capita based on purchasing power parity, which ranked 13th in the world in 1990, also declined to 25th, falling behind other countries and regions in Asia such as Singapore (3rd), Hong Kong (8th), and Taiwan (21st), with the difference with South Korea (26th) also narrowing rapidly.

Since prior to the earthquake, as the Japanese economy faced the rapid aging of the population resulting from the decline in the birthrate, falling population, and long-term deflation, the major challenge has been how to achieve sustainable growth. In the future, it will become important to take in the vitality of emerging countries including Asia in both trade and investment. In this regard, the percentage of Japan's export volume (including goods and services) and the percentage of its balance of outward foreign direct investment to GDP in 2010 were 15.2% and 14.1%, respectively. Compared with the world average of 29.7% and 32.6%, those in Japan remain at a low level. The percentage of Japan's balance of inward foreign direct investment to GDP was 3.7%, far below the world average of 30.3%.

In order for Japan to get out of this situation and establish a medium- to long-term foundation for growth, it is essential to utilize to the maximum extent not only its "strength" that the country has fostered in the past – i.e., developmental power that supports high quality products and high level of manufacturing capacity at production sites – but also technical capabilities and expertise that contribute to tackling challenges common to the world such as energy-saving and environmental technologies, quake-resistant and disaster management/mitigation technologies, and businesses targeting the elderly, and to expand profit opportunities overseas as well. In order to achieve this, it is necessary to revive and strengthen the "Japan brand," and foster human resources in fields such as marketing and management that support the global development of corporate activities. From the perspective of avoiding the hollowing-out of domestic industry and securing and expanding employment opportunities, it is vital to attract and

foster value-added functions and globally viable talented personnel by improving Japan's locational competitiveness and accelerating investment into Japan. In other words, it is considered that revitalizing bidirectional flows in terms of investment will become an important challenge in establishing a medium- to long-term foundation for growth.

The March 11 earthquake is imposing a substantial hardship on Japan. Japan, however, has overcome a number of disasters and crises and achieved development in its history. We believe that in this difficult situation as well, it is possible for Japan to transform the hardship it is facing into a cornerstone of its next development if public and private sectors launch full-scale efforts to collect the wisdom and unflinchingly and squarely tackle the challenges the country is facing.

Appendix

World and Japan's Statistics of Trade and Investment

Annotation I: Product category definitions

1) Products

Product name	HS
Total	00 - 99
Machinery and equipment	84 - 91
General equipment	84
Air conditioners	8415
Mining and construction equipment	8429 - 8430, 8431.42 - 8431.43, 8474, 8479.10
Machine tools	8456 - 8461
Electrical equipment	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
Grains	10
Wheat	1001
Corn	1005
Rice	1006
Processed food products	16 - 24
Oils, fats, and other animal and vegetable products	12 - 15
Miscellaneous manufactured goods	64 - 67, 92 - 97
Other raw materials and products	25 - 27, 41 - 63, 68 - 83
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 bers and textiles	54 - 55
Clothing	61 - 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

Product name	HS
(1) Computers and peripherals (total)	8443.31, 8471, 8473
Multifunctional digital equipment	8443.31
Computers and peripherals	8471
Parts of computer and peripherals	8473
(2) Office equipment	8469, 8470, 9009
(3) Telecommunications equipment	8517, 8525.10, 8525.20, 8526
(4) Semiconductors and electronic components	8540 - 8542
Electronic tubes and semiconductors	8540 - 8541
Integrated circuits	8542
(5) Other electronic components	8504, 8518, 8522, 8523, 8529, 8532 - 8536
Display modules	8529.90
(6) Video equipment	8521, 8525.30, 8525.40, 8525.80, 8528, 9006
Digital cameras	8525.80
Reception apparatus for television	8528.71, 8528.72
(7) Audio equipment	8519 - 8520
Portable audio players	8519.81
(8) Measuring and testing equipment	8543, 9014 - 9015, 9024 - 9027, 9030 - 9032
(9) Machines and apparatus for the manufacture of semiconductor devices	8486
IT parts	8473, 8486.90, (4), (5)
Finished IT products	8443.31, 8471, 8486.10, 8486.20, 8486.30, 8486.40, (2), (3), (6), (7), (8)
Total IT equipment	IT parts + Finished IT products

Annotation II: Estimates of world trade value in 2010

The value of world trade in 2010 was estimated based on 53 economies' trade statistics available as of July 11, 2011, and then by obtaining a grand total of the following three categories. The trade value by product is the aggregation of (1) and (2).

(1) The total export (import) value of the 53 economies.

(2) For economies, for which statistics were not available (mainly developing economies, approximately 120 in number), the value of imports from those economies was extracted from the statistics (CIF basis) of the 53 economies and converted to FOB based figures (for imports by those areas, the export values [FOB basis] were converted to CIF based figures).

(3) For trade among economies, for which statistics were not available, data was extracted from Direction of Trade Statistics (June 2011, IMF).

The 53 economies:

Japan, U.S., Canada, Mexico, Costa Rica, Panama, Venezuela, Colombia, Peru, Chile, Argentina, Brazil, China, Hong Kong, Taiwan, South Korea, Singapore, Thailand, Malaysia, Indonesia, the Philippines, Vietnam, India, Australia, New Zealand, UK, Germany, France, Italy, Spain, Netherlands, Belgium, Denmark, Sweden, Finland, Switzerland, Austria, Poland, Czech Republic, Hungary, Romania, Greece, Ireland, Lithuania, Luxemburg, Norway, Portugal, Slovakia, Slovenia, Russia, Ukraine, Turkey, and South Africa.

Annotation III: Estimates of global direct investment value in 2010

Global inward direct investment in 2010 was estimated as described below.

(1) Figures were collected for the following 123 countries and regions for which 2010 data were available.

i) For the following 61 countries and regions, each country or region's balance of payments statistics were used: the United States, Canada, Australia, New Zealand, the United Kingdom, Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Portugal, Luxemburg, the Netherlands, Spain, Denmark, Sweden, Cyprus, the Czech Republic, Estonia, Slovakia, Slovenia, Hungary, Latvia, Lithuania, Malta, Poland, Bulgaria, Norway, Switzerland, China, Taiwan, Hong Kong, South Korea (ROK), Malaysia, the Philippines, Singapore, Thailand, Indonesia, India, Argentina, Brazil, Chile, Colombia, Mexico, Venezuela, Russia, Israel, Turkey, Iceland, and the Republic of South Africa, Ukraine, Egypt, Saudi Arabia, Albania, Armenia, Croatia, Moldova and Belarus. For countries that released two types of statistical values, i.e., one including transactions via special purpose enterprises (SPEs) and the other not including such transactions, the former was used. Data valued in local currencies were converted to US dollars using the IMF's annual average rate.

ii) For Japan, the balance of payments statistics released by the Bank of Japan were converted to US dollars at the average Bank of Japan interbank rate during the term.

iii) For the following 33 countries, data from the IMF's Balance of Payments Statistics (BOP, July 2011) were used: Romania, Albania, Azerbaijan, Bahrain, Bangladesh, Bosnia and Herzegovina, Cameroon, Gambia, Georgia, Ghana, Jordan, Kazakhstan, Kosovo, Kyrgyzstan, Macedonia, the Maldives, Lebanon, Mauritius, Montenegro, Morocco, Mozambique, Nepal, Nigeria, Pakistan, Samoa, Serbia, Sierra Leone, Sri Lanka, Sudan, Tajikistan, Tanzania, Uganda and Zambia.

iv) For the following 28 countries and regions, data from the Economic Commission for Latin America and the Caribbean (ECLAC) were used: Anguilla (a British overseas territory), Antigua and Barbuda, Peru, El Salvador, Trinidad and Tobago, Honduras, the Bahamas, Belize, Guatemala, Nicaragua, Panama, Paraguay, Ecuador, Bolivia, Costa Rica, the Dominican Republic, Guyana, Grenada, Jamaica, Suriname, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Saint Lucia, Dominica, Haiti, Barbados, Montserrat (a British overseas territory) and Uruguay.

(2) For 36 developing countries and regions, for which data for 2010 were not available, but those for 2009 were listed in the BOP (July 2011), 2009 data from the BOP were used as data for estimation purposes.

(3) As a result of the above steps, 2010 data on inward direct investment values were available for the following countries and regions: 33 developed countries and regions (corresponding to the IMF's classification of Advanced Economies: the United States, Canada, Australia, Japan, New Zealand, EU15, Iceland, Norway, Switzerland, Cyprus, Malta, Slovenia, Czech Republic, Slovakia, Israel, South Korea, Singapore, Hong Kong and Taiwan; for an aggregate sum of US$730.8 billion), and 90 developing countries and regions (countries other than the 33 developed countries and regions; for an aggregate sum of US$462.8 billion). The aggregate sum for the 90 countries and regions in 2009 accounted for 93.7% of the aggregate sum for 126 developing countries, for which data for 2009 were available.

(4) The aggregate sum for the 33 developed countries and regions was used as the inward direct investment value for developed countries in 2010, and that for the 90 developing countries and regions was divided by the percentage of 93.7% for 2009 to obtain an estimated 100% value, which was used as the direct investment value for developing countries in 2009. The aggregate sum for developed and developing countries was used as the total global inward direct investment value.

Incidentally, the same method was used for the global outward FDI value: From the 33 developed countries and regions, for which 2010 data were available (a sum of US$1.1213 trillion) and 77 developing countries, for which 2009 data were also available (US$174.6 billion, with the 2009 aggregate sum for the 77 countries accounting for 93.1% of the aggregate sum for the 121 countries and regions, for which the data for 2009 were available), the sum was estimated for developed countries, developing countries, and the world total, respectively.

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

(%)

	2007		2008		2009		2010	
	Growth rate	Contribution	Growth rate	Contribution	Growth rate	Contribution	Growth rate	Contribution
U.S.	1.9	0.4	0.0	0.0	-2.6	-0.5	2.8	0.6
EU27	3.2	0.7	0.7	0.2	-4.1	-0.9	1.8	0.4
Japan	2.4	0.2	-1.2	-0.1	-6.3	-0.4	3.9	0.2
East Asia	10.8	1.9	7.0	1.3	5.8	1.1	9.3	1.9
China	14.2	1.4	9.6	1.1	9.2	1.1	10.3	1.3
South Korea	5.1	0.1	2.3	0.0	0.2	0.0	6.1	0.1
ASEAN	6.7	0.3	4.4	0.2	1.4	0.1	7.5	0.3
Thailand	5.0	0.0	2.5	0.0	-2.3	-0.0	7.8	0.1
Singapore	8.8	0.0	1.5	0.0	-0.8	-0.0	14.5	0.1
Malaysia	6.5	0.0	4.7	0.0	-1.7	-0.0	7.2	0.0
Vietnam	8.5	0.0	6.3	0.0	5.3	0.0	6.8	0.0
India	9.9	0.4	6.2	0.3	6.8	0.3	10.4	0.5
Australia	4.6	0.1	2.6	0.0	1.3	0.0	2.7	0.0
New Zealand	2.8	0.0	-0.2	-0.0	-2.1	-0.0	1.5	0.0
Central and South America	5.7	0.5	4.3	0.4	-1.7	-0.1	6.1	0.5
Brazil	6.1	0.2	5.2	0.1	-0.6	-0.0	7.5	0.2
Central and Eastern Europe	5.5	0.2	3.2	0.1	-3.6	-0.1	4.2	0.1
Russia	8.5	0.3	5.2	0.2	-7.8	-0.3	4.0	0.1
Middle East and North Africa	6.2	0.3	5.1	0.2	1.8	0.1	3.8	0.2
Sub-Sahara Africa	7.2	0.2	5.6	0.1	2.8	0.1	5.0	0.1
World	5.4	5.4	2.9	2.9	-0.5	-0.5	5.0	5.0
For reference:								
Developed countries	2.7	1.6	0.2	0.1	-3.4	-1.8	3.0	1.6
Developing countries	8.8	3.7	6.1	2.7	2.7	1.2	7.3	3.4
ASEAN +6	8.6	2.5	5.2	1.5	3.6	1.1	8.2	2.6
BRICS including South Africa	11.1	2.4	7.5	1.7	4.8	1.1	9.0	2.2
BRICS not including South Africa	11.3	2.3	7.6	1.7	5.0	1.1	9.2	2.2

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 2009 prices and purchasing power parity weighting.
(3) East Asia includes China, South Korea, Hong Kong, Taiwan and ASEAN.
(4) ASEAN+6 includes ASEAN, Japan, China, South Korea, India, Australia, and New Zealand.
(5) Some figures may differ from those in other parts because of the revision and the difference in original statistics.
(6) Developed and developing countries are as defined in the WEO (IMF).
Source: Based on WEO (IMF) data.

Table 2 World export matrix (2010)

(US$ million)

	World	NAFTA		EU27	Japan	East Asia	ASEAN+6				APEC
								ASEAN+3			
			U.S.						China	ASEAN	
World	14,994,300	2,429,653	1,779,810	5,222,840	617,694	3,310,640	3,750,062	3,219,252	1,275,590	944,196	6,835,431
NAFTA	1,951,609	938,534	500,690	289,230	72,645	284,218	353,848	303,229	110,939	76,563	1,351,892
U.S.	1,277,630	411,515	-	240,589	60,545	250,594	305,552	261,702	91,878	70,434	770,887
EU27	4,987,300	329,372	272,179	3,351,170	50,674	288,549	364,196	286,518	130,088	73,061	818,477
Japan	771,720	139,374	120,483	87,105	-	413,970	351,583	324,764	149,626	112,868	582,698
East Asia	3,788,921	585,450	509,035	544,144	282,113	1,612,441	1,669,299	1,478,858	542,674	523,672	2,609,047
ASEAN+6	4,368,862	687,026	594,969	619,886	296,217	1,795,822	1,826,780	1,599,376	488,203	615,621	2,947,405
ASEAN+3	3,908,276	643,357	556,331	560,725	248,671	1,630,118	1,604,857	1,409,734	413,893	571,782	2,669,051
China	1,580,400	323,761	283,679	311,478	120,262	457,604	398,180	327,309	-	138,236	967,840
ASEAN	1,094,542	119,200	106,177	118,009	102,364	551,095	633,975	554,315	138,791	268,852	808,986
APEC	7,280,372	1,719,395	1,174,943	1,142,212	421,099	2,489,745	2,642,902	2,334,702	904,058	742,800	4,870,052

Notes: (1) Exports from each economy to Taiwan were converted to FOB figures by multiplying 0.9 by Taiwan's CIF imports.
(2) East Asia consists of China, South Korea, Hong Kong, Taiwan, and ASEAN.
(3) ASEAN + 6 includes ASEAN, Japan, China, South Korea, India, Australia, and New Zealand.
(4) ASEAN + 3 includes ASEAN, Japan, China, and South Korea.
(5) APEC includes Japan, Australia, Brunei, Canada, Chile, China, Hong Kong, Indonesia, South Korea, Malaysia, Mexico, New Zealand, Papua New Guinea, Peru, the Philippines, Russia, Singapore, Taiwan, Thailand, U.S., and Vietnam (21 economies in total).
Sources: Direction of Trade Statistics (IMF) and Taiwan's trade statistics.

Table 3 World trade by country and region

(US$ million, %)

	Exports						Imports					
	2008		2009		2010		2008		2009		2010	
	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate
North America	1,743,951	11.2	1,372,657	-21.3	1,666,242	21.4	2,512,550	7.5	1,881,111	-25.1	2,305,085	22.5
U.S.	1,287,442	12.1	1,056,043	-18.0	1,278,263	21.0	2,103,641	7.5	1,559,625	-25.9	1,913,160	22.7
Canada	456,509	8.6	316,614	-30.6	387,979	22.5	408,909	7.4	321,487	-21.4	391,925	21.9
Europe	6,879,535	13.2	5,240,567	-23.8	5,985,581	14.2	7,049,983	18.1	5,254,823	-25.5	5,967,892	13.6
EU15	5,302,835	10.3	4,089,174	-22.9	4,573,192	11.8	5,462,771	11.5	4,137,112	-24.3	4,650,783	12.4
Germany	1,448,973	9.6	1,120,639	-22.7	1,268,890	13.2	1,185,536	12.3	925,833	-21.9	1,066,723	15.2
Netherlands	638,503	15.7	498,503	-21.9	573,831	15.1	581,495	17.9	443,548	-23.7	517,154	16.6
France	616,909	10.2	484,367	-21.5	520,889	7.5	716,502	13.4	559,895	-21.9	605,919	8.2
Italy	544,531	8.8	406,838	-25.3	447,418	10.0	563,001	10.0	414,876	-26.3	484,000	16.7
UK	483,848	8.9	354,870	-26.7	419,399	18.2	669,882	5.3	514,217	-23.2	588,070	14.4
Belgium	473,250	9.7	369,992	-21.8	412,408	11.5	467,284	13.4	351,942	-24.7	390,767	11.0
Spain	282,395	11.4	227,460	-19.5	245,721	8.0	422,643	8.4	293,560	-30.5	314,402	7.1
Sweden	183,946	8.8	131,056	-28.8	158,309	20.8	169,026	10.1	120,297	-28.8	148,683	23.6
Austria	181,699	10.9	137,092	-24.5	152,284	11.1	184,465	13.0	143,120	-22.4	158,755	10.9
Ireland	125,616	3.4	115,579	-8.0	116,903	1.1	84,118	0.2	62,495	-25.7	60,080	-3.9
Denmark	117,097	13.3	93,964	-19.8	97,649	3.9	109,437	11.5	82,561	-24.6	84,808	2.7
Finland	96,817	7.4	62,894	-35.0	69,642	10.7	92,089	12.6	60,889	-33.9	68,525	12.5
Portugal	57,524	9.5	44,359	-22.9	48,780	10.0	94,651	15.0	71,754	-24.2	75,641	5.4
Greece	26,404	11.8	20,464	-22.5	21,423	4.7	91,032	19.4	67,664	-25.7	63,263	-6.5
Luxembourg	25,324	13.0	21,096	-16.7	19,649	-6.9	31,611	14.6	24,459	-22.6	23,994	-1.9
Poland	171,023	21.8	136,786	-20.0	155,787	13.9	209,360	26.0	149,718	-28.5	173,719	16.0
Czech Republic	147,214	19.9	113,168	-23.1	132,901	17.4	142,213	20.0	105,247	-26.0	126,167	19.9
Hungary	108,745	13.8	83,197	-23.5	95,497	14.8	109,208	14.1	77,902	-28.7	88,157	13.2
Slovakia	71,222	21.4	56,247	-21.0	65,391	16.3	73,961	21.6	55,774	-24.6	66,587	19.4
Romania	49,685	22.5	40,674	-18.1	49,383	21.4	84,291	19.4	54,465	-35.4	61,947	13.7
Slovenia	34,232	13.6	26,187	-23.5	29,446	12.4	37,124	17.4	26,529	-28.5	30,051	13.3
Lithuania	23,740	38.2	16,494	-30.5	20,821	26.2	31,260	27.8	18,340	-41.3	23,389	27.5
Switzerland	200,336	16.4	173,148	-13.6	195,318	12.8	183,200	13.6	155,995	-14.9	175,978	12.8
Norway	172,455	26.4	120,818	-29.9	130,184	7.8	90,206	12.3	69,258	-23.2	74,905	8.2
Asia	4,462,475	13.3	3,679,109	-17.6	4,788,715	30.2	4,304,855	20.1	3,469,924	-19.4	4,589,000	32.3
Japan	775,918	8.9	580,787	-25.1	767,025	32.1	756,086	21.7	552,252	-27.0	691,447	25.2
East Asia	3,429,191	57.7	2,880,305	-16.0	3,735,585	29.7	3,123,379	17.6	2,567,879	-17.8	3,448,476	34.3
China	1,428,869	17.3	1,202,047	-15.9	1,578,444	31.3	1,131,469	18.3	1,003,893	-11.3	1,393,909	38.9
South Korea	422,007	13.6	363,534	-13.9	466,384	28.3	435,275	22.0	323,085	-25.8	425,212	31.6
Hong Kong	370,654	6.0	329,738	-11.0	401,023	21.6	393,443	6.1	352,688	-10.4	442,035	25.3
Taiwan	243,233	3.6	193,815	-20.3	262,017	35.2	239,666	9.6	174,071	-27.4	251,794	44.6
ASEAN	964,428	13.2	791,171	-18.0	1,027,717	29.9	923,527	22.5	714,142	-22.7	935,525	31.0
Singapore	338,143	12.9	269,909	-20.2	352,076	30.4	319,748	21.5	245,852	-23.1	310,973	26.5
Malaysia	199,656	13.4	157,527	-21.1	198,941	26.3	156,538	7.0	123,907	-20.8	164,847	33.0
Thailand	177,846	9.0	151,793	-14.6	195,297	28.7	180,583	19.0	134,597	-25.5	184,519	37.1
Indonesia	137,020	20.1	116,510	-15.0	157,779	35.4	129,197	73.5	96,829	-25.1	135,663	40.1
Vietnam	62,685	29.1	57,096	-8.9	72,192	26.4	80,714	28.8	69,949	-13.3	84,801	21.2
Philippines	49,078	-2.8	38,335	-21.9	51,432	34.2	56,746	2.2	43,008	-24.2	54,721	27.2
India	195,070	32.2	165,202	-15.3	223,176	35.1	321,410	47.7	257,658	-19.8	328,731	27.6
Oceania	227,692	27.7	187,319	-17.7	253,941	35.6	247,158	20.5	210,731	-14.7	249,798	18.5
Australia	186,505	31.9	154,525	-17.1	212,782	37.7	190,868	20.9	159,268	-16.6	193,558	21.5
New Zealand	30,571	13.4	24,977	-18.3	31,419	25.8	32,324	11.1	24,261	-24.9	28,929	19.2
Central and South America	884,756	16.9	672,644	-24.0	858,266	27.6	890,347	21.6	667,789	-25.0	866,582	29.8
Mexico	292,666	7.6	229,621	-21.5	298,230	29.9	308,849	9.5	234,385	-24.1	301,482	28.6
Brazil	197,942	23.2	152,995	-22.7	201,915	32.0	173,197	43.6	127,647	-26.3	181,649	42.3
Argentina	70,019	25.1	55,669	-20.5	67,429	21.1	57,462	28.5	38,781	-32.5	56,186	44.9
Chile	69,580	5.8	49,974	-28.2	67,425	34.9	56,475	32.2	38,402	-32.0	52,560	36.9
Colombia	37,626	29.4	32,853	-12.7	39,552	20.4	39,669	21.7	32,898	-17.1	40,683	23.7
Peru	31,208	13.1	26,535	-15.0	34,909	31.6	29,982	46.5	21,864	-27.1	30,127	37.8
Costa Rica	9,745	1.8	8,836	-9.3	9,045	2.4	15,289	8.5	12,232	-20.0	13,920	13.8
Panama	1,125	4.3	806	-28.4	711	-11.8	8,896	32.2	7,660	-13.9	8,964	17.0
Russia, CIS	532,557	34.5	334,856	-37.1	477,330	42.5	446,957	36.2	281,350	-37.1	358,030	27.3
Russia	367,573	31.4	233,936	-36.4	348,528	49.0	255,574	34.8	155,206	-39.3	211,439	36.2
Ukraine	67,003	36.1	39,703	-40.7	51,431	29.5	85,535	41.0	45,436	-46.9	60,740	33.7
Middle East	912,005	41.9	571,123	-37.4	743,929	30.3	735,840	25.4	573,898	-22.0	680,766	18.6
Turkey	131,959	22.9	102,161	-22.6	113,030	10.6	201,709	18.4	140,932	-30.1	183,750	30.4
Africa	491,254	31.2	324,108	-34.0	421,956	30.2	443,035	27.1	375,942	-15.1	429,649	14.3
South Africa	80,208	14.8	62,380	-22.2	81,311	30.3	91,059	13.9	64,867	-28.8	80,212	23.7

Notes: (1) Estimated for regions other than North America. See Annotation II for the estimating method.

(2) ASEAN includes the following six countries: Singapore, Thailand, Malaysia, Indonesia, the Philippines, and Vietnam.

(3) East Asia includes the following 10 economies: China, South Korea, Hong Kong, Taiwan, and the six ASEAN countries.

Sources: National trade statistics.

Table 4 World exports by product (2010)

(US$ million, %)

	World		U.S.		EU15		Japan		China		ASEAN4		Asia NIEs	
	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate
Total	15,049,538	22.2	1,278,263	21.0	4,573,192	11.8	767,025	32.1	1,578,444	31.3	603,449	30.0	1,481,500	28.0
Machinery and equipment	5,822,590	20.8	593,406	17.6	1,835,697	10.8	498,427	35.7	842,965	32.0	224,574	25.6	912,176	29.7
General equipment	1,811,020	18.5	182,898	19.4	655,614	6.3	150,261	47.4	309,958	31.4	74,671	19.2	187,725	30.4
Air conditioners	32,902	24.7	2,332	21.8	7,018	0.5	1,933	55.3	10,087	42.0	4,642	36.5	2,059	24.4
Mining and construction equipment	83,867	17.7	16,083	11.4	30,040	10.4	10,018	80.7	7,450	16.8	1,622	43.7	7,850	13.1
Machine tools	26,823	25.5	1,656	23.9	9,235	-6.9	7,004	103.7	1,286	34.7	291	113.4	4,239	65.6
Electrical equipment	1,977,202	22.6	151,712	21.5	410,715	13.2	131,404	22.5	388,916	29.1	109,381	26.5	506,486	30.0
Transport equipment	1,521,704	21.3	183,935	14.3	604,878	14.2	176,027	36.9	88,881	47.9	29,560	36.3	124,531	24.8
Automobiles	669,333	27.3	55,512	36.3	292,855	16.2	103,790	45.5	6,530	31.6	14,405	67.6	37,760	37.1
Passenger vehicles	554,203	27.0	39,326	38.7	250,715	16.0	90,455	44.8	2,206	58.8	8,415	70.3	33,973	39.2
Motorcycles	16,702	9.1	1,196	2.9	5,434	-3.6	3,118	-1.5	4,392	43.5	704	12.7	598	-1.9
Automotive parts	325,991	30.9	37,277	38.1	123,417	21.1	38,852	40.7	17,568	43.1	8,328	36.5	24,120	52.0
Precision instruments	512,663	20.2	74,862	13.7	164,490	11.2	40,734	38.6	55,210	33.4	10,962	37.0	93,434	33.1
Chemicals	2,034,018	18.3	215,162	18.3	941,124	10.0	98,949	28.2	124,641	38.4	77,345	48.0	163,369	31.2
Industrial chemicals	1,386,857	14.8	149,441	15.5	696,263	7.6	56,870	24.1	75,024	38.6	27,087	37.5	83,387	28.3
Pharmaceuticals and medical supplies	448,189	5.2	40,771	0.3	296,387	4.2	3,604	4.9	4,492	31.3	854	29.0	7,960	9.7
Plastics and rubber	647,161	26.7	65,721	25.3	244,861	17.3	42,080	34.2	49,617	38.1	50,257	54.2	79,981	34.3
Foodstuffs	965,382	9.5	88,921	15.7	403,320	4.3	4,755	19.4	44,517	25.4	43,106	16.6	20,686	21.0
Seafood	80,561	13.0	4,027	14.1	18,831	8.7	1,292	19.7	8,816	29.3	5,923	18.8	3,468	21.5
Garlic	3,018	94.4	19	48.9	402	41.9	0	-99.2	2,319	113.4	4	4.6	2	48.8
Coffee	23,603	19.4	720	20.6	5,331	12.4	7	28.9	102	25.4	826	-1.5	63	46.4
Grains	76,569	4.3	20,062	15.4	15,452	7.7	29	97.0	539	-12.7	5,520	4.0	45	25.7
Wheat	31,166	0.8	6,774	25.9	8,684	10.4	-	n.a.	0	-99.9	12	79.6	0	35.1
Corn	22,488	15.3	10,084	11.3	2,439	-3.3	-	n.a.	33	5.6	153	-40.8	0	18.1
Rice	15,305	-4.7	2,337	7.3	1,499	-8.1	29	97.7	416	-20.5	5,341	6.2	44	27.4
Processed food products	429,702	8.5	31,928	15.3	199,498	2.7	2,885	18.1	19,385	20.9	24,494	19.2	11,850	22.8
Oils, fats, and other animal and vegetable products	151,354	19.1	27,294	15.6	28,609	5.4	331	11.5	3,128	13.7	34,837	36.1	1,300	15.2
Miscellaneous manufactured goods	425,320	12.0	29,356	8.7	132,387	2.1	6,785	9.2	134,267	24.2	13,094	21.7	29,959	2.2
Iron ore	107,990	87.6	1,092	206.4	5,852	102.9	0	-30.6	5	729.6	349	116.0	5	128.4
Mineral fuels etc.	2,225,466	33.1	81,523	48.1	298,078	26.6	13,010	24.3	26,720	30.8	88,993	37.5	103,557	34.8
Mineral fuels	2,110,331	34.6	78,178	49.3	241,736	29.1	12,349	24.4	25,406	31.6	87,897	36.7	102,140	34.9
Coal	107,807	28.4	9,837	63.4	4,180	-3.3	2	68.5	2,242	-5.6	18,389	32.3	2	65.5
LNG	86,785	35.1	644	134.7	532	7.2	-	n.a.	-	n.a.	22,418	37.2	0	-26.7
Petroleum and petroleum products	1,739,709	33.8	60,324	46.6	217,669	29.3	11,933	23.9	20,282	28.4	42,026	34.6	101,565	35.0
Crude oil	1,102,801	33.3	1,772	0.3	45,682	28.2	0	307.9	1,661	-25.1	21,194	29.4	22	3.6
Textiles and textile products	634,957	14.7	23,595	29.0	151,274	4.7	8,615	16.6	199,561	23.7	23,003	18.6	61,242	12.6
Synthetic fibers and textiles	74,442	20.1	3,828	25.6	17,266	8.6	3,961	21.3	18,052	33.1	6,511	31.0	11,985	21.7
Clothing	347,184	10.1	3,990	13.8	83,864	2.2	385	9.8	121,070	20.5	11,832	10.6	26,152	5.6
Base metals and base metal products	1,102,289	29.4	67,410	26.5	387,912	21.8	70,395	32.6	110,835	43.7	29,215	28.0	85,759	28.9
Steel	621,681	25.0	36,016	23.2	231,246	18.1	51,134	31.4	68,107	44.0	12,311	9.3	53,730	27.1
Primary steel products	379,727	38.3	19,828	28.4	135,617	31.7	38,845	36.8	28,937	114.7	4,599	33.9	35,889	35.4
Steel products	241,955	8.6	16,188	17.4	95,629	3.0	12,289	16.9	39,170	15.9	7,712	-1.4	17,841	13.1
Copper	65,800	49.4	719	35.5	7,414	24.0	4,028	30.2	306	-30.4	3,062	25.5	1,602	56.7
Nickel	14,249	54.3	205	1.8	1,879	33.0	232	622.4	1,155	102.3	0	617.0	1,046	75.4
Aluminum	49,597	38.2	1,088	59.9	10,857	55.1	52	-6.0	1,536	203.2	723	33.3	628	-25.5
Lead	5,131	24.8	87	4.2	1,542	29.6	133	5.1	55	26.2	93	110.4	340	12.8

<IT Equipment>

Total IT equipment	2,187,212	24.1	192,167	23.8	409,741	11.8	142,123	32.2	497,527	30.2	142,616	22.5	553,566	31.5
IT parts	1,093,925	27.0	93,301	19.5	178,056	15.9	85,358	28.6	170,520	36.2	87,168	21.1	401,254	34.9
Finished IT products	1,093,287	21.2	98,866	28.1	231,685	8.8	56,764	38.0	327,006	27.3	55,448	24.6	152,312	23.2
Computers and peripherals (total)	474,760	20.7	38,571	15.0	83,769	-3.6	5,806	6.2	180,721	34.0	47,092	14.4	76,709	31.0
Multifunctional digital equipment	21,196	25.3	531	34.4	5,060	-1.8	490	-11.5	10,301	45.8	2,144	22.0	1,304	23.1
Computers and peripherals	311,293	22.1	23,931	17.9	56,381	-5.4	2,645	5.9	139,107	36.9	28,499	15.6	27,463	27.2
Parts of computer and peripherals	142,271	17.2	14,110	9.9	22,329	0.7	2,671	10.5	31,313	19.5	16,448	11.5	47,942	33.5
Office equipment	4,056	5.4	485	2.1	719	-0.7	51	-33.3	1,201	-0.4	308	-0.2	830	24.3
Telecommunications equipment	350,608	17.8	24,920	21.5	70,938	14.6	6,780	-4.9	107,964	22.8	4,614	28.9	80,905	15.7
Semiconductors and electronic components	535,713	33.9	47,465	25.8	58,865	29.3	47,322	29.4	62,174	56.7	49,620	20.7	249,418	38.3
Electronic tubes and semiconductors	132,218	58.7	9,772	28.8	25,833	50.5	12,831	40.0	32,525	102.7	11,795	50.2	32,939	59.5
Integrated circuits	403,495	27.4	37,694	25.1	33,033	16.5	34,491	25.9	29,649	25.5	37,825	13.7	216,478	35.5
Other electric and electronic components	405,273	21.3	29,012	12.1	94,640	11.5	31,815	24.3	76,656	29.6	20,942	30.3	102,548	27.2
Display modules	58,860	21.9	2,631	-12.1	6,261	8.8	5,599	9.3	10,990	30.0	3,685	19.8	22,129	27.5
Video equipment	181,820	10.7	8,106	32.8	24,670	1.8	11,596	5.7	52,347	9.9	13,369	37.4	17,007	12.5
Digital cameras	41,343	14.1	1,925	24.2	7,474	15.0	9,252	4.4	11,397	17.5	3,141	18.7	5,855	15.8
Reception apparatus for television	84,615	15.4	2,901	47.6	7,206	-9.7	304	4.4	17,530	29.4	6,676	70.9	3,892	13.5
Audio equipment	5,059	1.1	381	-0.6	1,786	-6.6	151	66.9	995	5.1	192	-0.5	1,095	-8.6
Portable audio players	4,033	-5.4	254	-5.1	1,464	-10.8	140	75.6	720	-15.5	107	-8.2	964	-11.6
Measuring and testing equipment	178,293	25.3	30,910	22.4	63,089	13.6	19,444	45.8	14,443	42.0	6,256	48.1	19,311	52.4
Machines and apparatus for the manufacture of semiconductor devices	51,630	135.2	12,316	131.0	11,264	130.7	19,156	131.0	1,026	124.4	222	234.5	5,742	199.3

Notes: (1) See Annotation I for the definition of products.

(2) Value of world exports based on JETRO estimates.

(3) Asia NIEs include South Korea, Hong Kong, Singapore, and Taiwan.

Sources: Same as Table 3.

Table 5 World imports by product (2010)

(US$ million, %)

	World		U.S.		EU15		Japan		China		ASEAN4		Asia NIEs	
	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate
Total	15,469,552	21.1	1,913,160	22.7	4,650,783	12.4	691,447	25.2	1,393,909	38.9	539,750	35.5	1,430,015	30.5
Machinery and equipment	5,881,423	19.7	775,116	24.5	1,637,710	10.6	186,647	26.8	644,315	34.4	226,222	31.0	671,616	30.0
General equipment	1,831,114	16.8	249,719	23.0	518,794	8.1	55,882	21.6	172,403	39.2	71,313	25.3	184,046	33.7
Air conditioners	32,901	20.3	3,626	22.6	9,305	8.1	2,274	25.0	820	37.5	935	50.0	1,771	22.3
Mining and construction equipment	80,246	12.8	5,172	33.8	12,556	11.8	242	6.0	5,465	46.3	3,923	56.8	6,562	14.3
Machine tools	25,861	22.4	2,182	16.6	4,749	-13.6	351	14.4	7,520	64.7	1,587	73.9	2,409	65.2
Electrical equipment	2,126,451	22.6	258,230	20.6	465,437	17.6	86,573	33.4	314,405	29.0	109,334	34.2	393,604	28.8
Transport equipment	1,421,622	19.7	204,547	34.2	515,417	8.1	19,534	19.6	65,581	52.1	32,909	31.5	36,475	16.1
Automobiles	669,672	24.7	127,709	41.3	235,606	3.5	6,816	40.1	30,595	99.3	9,815	67.9	10,211	31.0
Passenger vehicles	549,183	24.2	115,198	41.7	202,373	1.5	6,471	40.7	28,912	101.4	6,156	70.2	8,704	29.7
Motorcycles	15,476	1.4	1,143	-36.6	6,553	-4.9	592	-5.9	12	54.5	380	9.3	240	16.8
Automotive parts	317,183	29.4	48,439	42.9	112,255	17.4	5,992	38.7	20,346	46.3	9,770	71.4	7,900	41.1
Precision instruments	502,236	18.6	62,620	17.9	138,063	8.2	24,658	23.3	91,925	34.1	12,666	36.1	57,491	36.1
Chemicals	2,088,829	17.1	214,169	17.1	773,456	9.9	71,772	26.1	173,778	35.4	67,972	37.0	135,791	35.2
Industrial chemicals	1,431,067	13.6	157,454	13.2	559,482	7.0	53,692	22.9	93,179	34.2	42,617	32.7	90,599	32.8
Pharmaceuticals and medical supplies	455,117	5.5	61,629	10.6	221,024	1.2	16,212	24.2	7,240	20.4	3,695	11.7	9,389	13.7
Plastics and rubber	657,762	25.6	56,716	29.4	213,974	18.3	18,080	36.5	80,599	36.9	25,355	44.7	45,192	40.4
Foodstuffs	989,306	8.3	89,885	11.8	401,092	2.4	59,838	11.2	24,749	43.0	34,303	26.4	52,853	20.5
Seafood	83,425	10.3	11,198	12.0	32,506	7.1	11,695	11.4	4,371	21.3	3,067	11.6	6,818	18.5
Garlic	1,652	23.0	130	95.3	477	44.5	41	84.0	-	n.a.	395	62.4	89	406.9
Coffee	22,202	11.6	4,561	21.7	11,518	15.1	1,361	24.2	70	38.1	215	38.1	516	30.1
Grains	82,973	1.9	1,850	-10.3	16,056	-3.9	6,928	5.8	1,501	71.2	6,317	23.7	5,684	17.3
Wheat	33,547	-3.1	563	-19.4	7,091	-2.7	1,663	15.0	309	50.7	2,647	-1.1	1,464	6.9
Corn	24,552	12.3	300	5.7	4,184	0.2	3,950	5.1	367	1,692.9	1,268	61.8	3,240	24.5
Rice	16,476	-4.5	574	-2.4	2,118	-13.8	506	-17.8	253	25.8	2,362	45.7	906	12.2
Processed food products	437,227	7.2	43,786	10.3	179,076	-0.1	22,648	9.7	9,608	49.8	15,270	26.3	20,411	20.8
Oils, fats, and other animal and vegetable products	156,058	16.1	6,981	11.7	42,177	5.4	6,437	11.5	36,264	25.2	5,724	38.3	5,708	16.1
Miscellaneous manufactured goods	457,229	11.0	106,020	17.9	166,077	4.7	19,568	3.7	6,720	36.2	4,666	34.9	29,071	5.3
Iron ore	132,754	69.2	703	85.8	16,228	100.5	15,637	79.6	78,911	57.3	855	85.8	9,183	99.7
Mineral fuels etc.	2,355,623	31.0	355,056	30.6	665,221	23.9	198,592	30.3	188,381	53.0	85,567	38.6	270,835	35.8
Mineral fuels	2,236,195	32.6	352,133	30.9	593,453	26.5	198,148	30.2	185,307	52.4	84,359	38.5	267,634	36.0
Coal	118,037	19.2	1,376	-3.8	23,196	2.8	24,180	10.0	17,016	60.9	3,230	28.5	20,389	21.5
LNG	105,334	33.7	2,380	0.2	21,048	28.6	39,611	30.6	3,014	138.7	0	-98.9	22,788	28.1
Petroleum and petroleum products	1,840,570	34.4	328,984	32.5	476,121	30.0	125,070	34.0	160,765	49.8	74,910	39.2	217,246	38.0
Crude oil	1,186,907	33.4	260,105	33.7	305,462	29.4	105,667	31.9	134,936	51.8	43,804	28.6	118,512	30.9
Textiles and textile products	611,430	11.5	95,450	14.7	204,354	5.3	32,907	5.9	29,565	35.7	12,733	39.5	42,733	15.9
Synthetic fibers and textiles	71,499	15.0	3,560	26.5	15,493	14.4	1,245	30.9	6,801	18.8	3,337	39.7	4,849	25.5
Clothing	341,799	7.9	72,520	12.8	141,357	3.0	25,366	5.6	2,234	35.3	1,118	25.8	22,799	11.7
Base metals and base metal products	1,107,895	26.5	94,631	31.5	362,291	28.6	32,973	51.7	102,825	19.4	57,032	46.4	95,662	33.1
Steel	627,291	20.6	48,121	31.3	200,407	24.4	14,172	39.1	34,453	-6.0	36,182	41.4	55,099	31.5
Primary steel products	381,523	32.6	21,461	73.4	125,870	38.4	8,516	72.7	25,298	-9.0	24,019	52.4	42,098	41.7
Steel products	245,768	5.8	26,659	9.8	74,537	6.2	5,656	7.6	9,155	3.2	12,163	23.7	13,001	6.7
Copper	62,456	43.9	4,338	43.9	15,777	50.1	356	63.7	22,144	39.5	4,218	63.2	7,757	31.6
Nickel	15,719	53.9	2,451	92.0	5,033	104.7	954	142.8	3,854	7.9	75	67.1	1,993	25.7
Aluminum	49,653	40.0	6,361	19.5	18,968	55.9	6,122	81.0	800	-70.8	2,782	60.4	4,607	20.8
Lead	5,187	21.8	560	36.6	1,600	33.4	38	49.5	114	-61.9	496	35.0	669	15.4

<IT Equipment>

Total IT equipment	2,332,651	25.4	316,296	23.0	505,066	15.9	99,410	33.5	355,995	32.3	117,383	30.8	461,539	33.6
IT parts	1,213,423	28.6	89,664	28.7	201,461	26.6	47,274	28.5	265,131	31.6	89,370	30.1	318,470	30.3
Finished IT products	1,119,227	22.0	226,632	20.9	303,605	9.8	52,136	38.4	90,864	34.5	28,013	33.4	143,070	41.5
Computers and peripherals (total)	475,148	20.3	98,284	28.0	131,367	6.7	20,758	26.3	46,796	30.5	19,512	8.2	60,811	26.8
Multifunctional digital equipment	19,881	15.6	4,985	6.8	7,257	7.3	1,659	22.3	655	45.8	318	24.6	1,209	33.6
Computers and peripherals	310,000	22.4	70,283	31.6	96,268	9.2	14,451	27.7	26,860	23.4	7,094	32.0	26,633	30.4
Parts of computer and peripherals	145,266	16.8	23,016	23.1	27,842	-1.2	4,648	23.3	19,281	41.2	12,099	-2.4	32,969	23.8
Office equipment	4,935	11.0	921	5.8	1,341	10.7	283	12.8	133	15.5	157	3.0	571	28.1
Telecommunications equipment	372,113	19.7	74,783	19.2	92,079	14.1	14,299	33.3	23,274	18.5	9,222	25.6	51,181	29.3
Semiconductors and electronic components	625,245	35.9	29,526	38.2	84,121	57.3	24,319	29.6	180,617	32.2	51,887	38.8	203,804	30.2
Electronic tubes and semiconductors	128,120	60.2	7,806	57.7	48,740	83.3	3,905	56.6	22,674	42.6	5,604	44.5	24,488	40.6
Integrated circuits	497,125	30.8	21,720	32.3	35,381	31.5	20,414	25.4	157,943	30.8	46,283	38.2	179,316	28.9
Other electric and electronic components	431,878	22.2	35,253	22.9	87,001	14.4	17,467	26.4	64,330	26.6	25,225	33.5	77,290	30.4
Display modules	76,479	24.8	2,228	21.6	7,901	9.4	4,483	33.0	7,112	17.5	6,516	50.5	11,190	16.9
Video equipment	182,629	13.1	46,768	5.9	56,234	2.7	11,061	76.7	5,841	20.7	2,840	36.3	14,757	16.9
Digital cameras	43,887	14.3	8,323	10.3	12,081	5.1	1,771	23.5	4,422	37.3	735	1.9	7,130	11.4
Reception apparatus for television	80,630	14.1	24,243	2.1	26,272	3.7	5,501	165.2	44	-17.7	463	90.3	1,865	23.5
Audio equipment	7,119	5.7	959	10.3	2,939	-6.9	563	90.4	42	15.1	103	29.7	1,015	0.6
Portable audio players	5,884	5.1	808	10.0	2,382	-11.1	498	114.9	41	18.2	47	35.1	956	2.1
Measuring and testing equipment	180,235	24.5	24,350	31.1	45,217	11.3	8,457	24.9	23,476	43.9	7,744	40.5	24,278	44.8
Machines and apparatus for the manufacture of semiconductor devices	53,350	125.4	5,451	80.0	4,767	90.9	2,202	96.1	11,485	138.5	692	187.4	27,833	147.3

Notes and Sources: Same as Table 4.

Table 6 FDI of major economies (net flows; balance-of-payments basis)

(US$ million, %)

	Inward FDI					Outward FDI				
	2009	2010	Growth rate	Share	Contribution	2009	2010	Growth rate	Share	Contribution
U.S.	158,581	236,226	49.0	20.4	6.1	303,606	351,350	15.7	27.1	3.4
Canada	21,406	23,413	9.4	2.0	0.2	41,665	38,585	-7.4	3.0	-0.2
EU27	519,994	292,384	-43.8	25.3	-17.8	659,970	407,692	-38.2	31.5	-17.8
EU15	486,127	305,266	-37.2	26.4	-14.1	645,894	442,451	-31.5	34.1	-14.3
Belgium	22,695	52,803	132.7	4.6	2.4	-17,016	31,055	n.a.	2.4	3.4
Luxembourg	209,746	152,255	-27.4	13.2	-4.5	234,295	130,176	-44.4	10.0	-7.3
Austria	8,967	-25,870	n.a.	n.a.	-2.7	8,220	-20,872	n.a.	n.a.	-2.0
Denmark	2,966	-340	n.a.	n.a.	-0.3	6,880	3,148	-54.2	0.2	-0.3
Finland	-4	-452	n.a.	n.a.	-0.0	3,831	4,130	7.8	0.3	0.0
France	34,027	33,905	-0.4	2.9	-0.0	102,949	84,112	-18.3	6.5	-1.3
Germany	37,627	46,134	22.6	4.0	0.7	78,200	104,857	34.1	8.1	1.9
Greece	2,436	2,188	-10.2	0.2	-0.0	2,055	1,269	-38.2	0.1	-0.1
Ireland	24,585	27,049	10.0	2.3	0.2	23,923	16,220	-32.2	1.3	-0.5
Italy	20,077	9,497	-52.7	0.8	-0.8	21,275	21,009	-1.3	1.6	-0.0
Netherlands	29,704	-65,679	n.a.	n.a.	-7.4	100,571	12,267	-87.8	0.9	-6.2
Portugal	2,706	1,452	-46.3	0.1	-0.1	816	-8,608	n.a.	n.a.	-0.7
Spain	9,135	21,086	130.8	1.8	0.9	9,737	22,268	128.7	1.7	0.9
Sweden	10,322	5,328	-48.4	0.5	-0.4	25,778	30,400	17.9	2.3	0.3
UK	71,140	45,908	-35.5	4.0	-2.0	44,381	11,020	-75.2	0.9	-2.3
12 new EU members	33,867	-12,882	n.a.	n.a.	-3.6	14,076	-34,758	n.a.	n.a.	-3.4
Czech Republic	2,870	6,721	134.2	0.6	0.3	918	1,757	91.5	0.1	0.1
Hungary	3,535	-41,037	n.a.	n.a.	-3.5	3,757	-44,249	n.a.	n.a.	-3.4
Poland	13,022	9,056	-30.5	0.8	-0.3	4,562	5,646	23.8	0.4	0.1
Slovakia	-50	526	n.a.	0.0	0.0	432	328	-24.2	0.0	-0.0
Slovenia	-586	897	n.a.	0.1	0.1	156	184	18.1	0.0	0.0
Estonia	1,908	1,534	-19.6	0.1	-0.0	1,575	129	-91.8	0.0	-0.1
Latvia	94	339	262.1	0.0	0.0	-57	15	n.a.	0.0	0.0
Lithuania	126	622	392.1	0.1	0.0	201	132	-34.1	0.0	-0.0
Cyprus	3,991	1,797	-55.0	0.2	-0.2	2,604	786	-69.8	0.1	-0.1
Malta	760	1,041	37.1	0.1	0.0	134	87	-35.3	0.0	-0.0
Bulgaria	3,351	2,170	-35.2	0.2	-0.1	-119	238	n.a.	0.0	0.0
Romania	4,846	3,453	-28.7	0.3	-0.1	-88	190	n.a.	0.0	0.0
Norway	14,074	11,857	-15.8	1.0	-0.2	28,623	12,195	-57.4	0.9	-1.2
Switzerland	26,964	-6,561	n.a.	n.a.	-2.6	33,251	58,253	75.2	4.5	1.8
Australia	25,716	32,472	26.3	2.8	0.5	16,160	26,431	63.6	2.0	0.7
New Zealand	-1,293	561	n.a.	0.0	0.1	308	-589	n.a.	n.a.	-0.1
Japan	11,839	-1,359	n.a.	n.a.	-1.0	74,650	57,223	-23.3	4.4	-1.2
East Asia	200,187	325,405	62.6	28.2	9.8	164,062	208,169	26.9	16.1	3.1
China	114,215	185,081	62.0	16.0	5.5	43,898	60,151	37.0	4.6	1.1
South Korea	2,249	-150	n.a.	n.a.	-0.2	17,197	19,230	11.8	1.5	0.1
Taiwan	2,805	2,492	-11.2	0.2	-0.0	5,877	11,183	90.3	0.9	0.4
Hong Kong	52,394	68,904	31.5	6.0	1.3	63,991	76,077	18.9	5.9	0.9
ASEAN5	28,524	69,078	142.2	6.0	3.2	33,098	41,529	25.5	3.2	0.6
Thailand	4,976	6,320	27.0	0.5	0.1	4,096	5,310	29.6	0.4	0.1
Malaysia	1,430	9,103	536.6	0.8	0.6	7,930	13,328	68.1	1.0	0.4
Indonesia	4,877	13,304	172.8	1.2	0.7	2,249	2,664	18.5	0.2	0.0
Philippines	1,963	1,713	-12.7	0.1	-0.0	359	487	35.7	0.0	0.0
Singapore	15,279	38,638	152.9	3.3	1.8	18,464	19,739	6.9	1.5	0.1
India	35,649	24,640	-30.9	2.1	-0.9	15,929	14,626	-8.2	1.1	-0.1
Argentina	4,017	6,193	54.2	0.5	0.2	710	946	33.2	0.1	0.0
Brazil	25,949	48,438	86.7	4.2	1.8	-10,084	11,519	n.a.	0.9	1.5
Chile	12,874	15,096	17.3	1.3	0.2	8,058	8,745	8.5	0.7	0.0
Colombia	7,137	6,765	-5.2	0.6	-0.0	3,088	6,562	112.5	0.5	0.2
Mexico	15,334	18,679	21.8	1.6	0.3	7,019	14,345	104.4	1.1	0.5
Venezuela	-3,105	-1,404	n.a.	n.a.	0.1	1,834	2,390	30.3	0.2	0.0
Russia	36,500	42,868	17.4	3.7	0.5	43,665	52,476	20.2	4.0	0.6
Israel	4,438	5,152	16.1	0.4	0.1	1,695	7,960	369.7	0.6	0.4
South Africa	5,365	1,553	-71.1	0.1	-0.3	1,151	450	-60.9	0.0	-0.0
Turkey	8,411	9,258	10.1	0.8	0.1	1,553	1,464	-5.7	0.1	-0.0
Developed economies (33 countries and regions)	827,648	730,841	-11.7	59.7	-7.6	1,257,906	1,121,295	-10.9	85.7	-9.6
Developing economies	453,363	494,057	9.0	40.3	3.2	162,158	187,590	15.7	14.3	1.8
World	1,281,011	1,224,897	-4.4	100.0	-4.4	1,420,064	1,308,885	-7.8	100.0	-7.8

Notes: (1) JETRO estimates used for "World" and "Developing Economies" figures (see Annotation III for methods of estimation). Figures for "Developed Economies" represent the sum total of figures for 33 countries and regions.

(2) For countries and regions which do not release dollar-based data, figures are converted to dollar values using IMF average exchange rates for corresponding years.

(3) "Developed Economies" refers to 33 countries and regions classified based on BOP (IMF) categories. "Developing Economies" is defined to include all other countries and regions.

(4) Figures for "East Asia" represent the sum total of figures for China, South Korea, Taiwan, Hong Kong, and five ASEAN nations.

Sources: National and regional balance of payments statistics, BOP (IMF), and UN Economic Commission for Latin America and the Caribbean (ECLAC) data.

Table 7 World cross-border M&As (by target and acquirer country and region)

(US$ million, %, deals)

		2007	2008	2009	2010				First half 2011			
		Value	Value	Value	Value	Growth rate	Share	No. of Deals	Value	Growth rate	Share	No. of Deals
	World	1,649,044	1,242,613	515,761	659,111	27.8	100.0	8,795	428,930	42.6	100.0	4,203
Target country or region	U.S.	326,716	320,537	116,565	122,627	5.2	18.6	1,129	96,668	100.1	22.5	573
	Canada	123,187	44,785	15,448	31,338	102.9	4.8	409	23,210	46.5	5.4	199
	EU27	805,527	482,989	201,065	233,572	16.2	35.4	3,136	150,514	25.8	35.1	1,485
	EU15	786,385	462,960	186,076	224,459	20.6	34.1	2,768	135,048	17.1	31.5	1,329
	UK	225,911	178,519	48,545	97,622	101.1	14.8	671	34,803	-24.7	8.1	334
	France	68,785	26,121	3,414	22,146	548.7	3.4	334	5,836	-33.6	1.4	134
	Germany	95,371	61,149	21,442	26,561	23.9	4.0	418	11,131	-36.7	2.6	233
	Netherlands	192,000	32,433	28,489	16,514	-42.0	2.5	186	7,275	-4.5	1.7	96
	Italy	36,735	31,703	5,201	9,753	87.5	1.5	203	28,014	339.2	6.5	111
	Spain	65,556	43,471	36,565	19,250	-47.4	2.9	249	5,024	-33.3	1.2	107
	12 new EU members	19,142	20,029	14,989	9,113	-39.2	1.4	368	15,466	260.1	3.6	156
	Czech Republic	1,449	5,860	4,375	583	-86.7	0.1	71	1,379	273.2	0.3	25
	Hungary	6,285	3,035	2,882	701	-75.7	0.1	40	2,009	186.8	0.5	11
	Poland	3,559	3,843	2,298	2,624	14.2	0.4	101	9,735	578.9	2.3	45
	Switzerland	27,845	21,603	20,845	7,517	-63.9	1.1	115	4,499	62.2	1.0	75
	Norway	10,842	19,755	2,538	9,566	276.9	1.5	151	6,399	38.7	1.5	63
	Australia	67,961	44,326	36,158	36,199	0.1	5.5	436	28,401	346.2	6.6	194
	Japan	28,393	19,113	5,496	7,343	33.6	1.1	163	7,445	35.6	1.7	42
	East Asia	69,586	113,855	43,488	53,090	22.1	8.1	1,042	28,764	25.8	6.7	555
	China	13,945	22,511	17,975	13,749	-23.5	2.1	329	9,038	58.7	2.1	158
	South Korea	3,009	5,308	3,861	2,151	-44.3	0.3	54	984	-24.0	0.2	43
	Taiwan	7,833	3,647	466	1,519	225.9	0.2	38	104	-83.7	0.0	13
	Hong Kong	12,509	49,245	4,612	16,425	256.1	2.5	171	4,621	-44.6	1.1	60
	ASEAN6	32,289	33,144	16,574	19,246	16.1	2.9	450	14,017	103.7	3.3	281
	Singapore	11,578	17,166	9,674	8,841	-8.6	1.3	133	2,964	16.3	0.7	76
	Thailand	2,769	421	536	1,117	108.5	0.2	54	1,954	209.7	0.5	34
	Malaysia	8,090	3,643	579	4,187	623.8	0.6	84	1,510	60.0	0.4	44
	Indonesia	4,441	6,788	3,648	4,027	10.4	0.6	119	6,039	193.0	1.4	85
	Philippines	4,769	4,042	1,679	780	-53.6	0.1	19	745	50.8	0.2	19
	Vietnam	642	1,083	458	294	-35.9	0.0	41	805	292.8	0.2	23
	India	25,408	16,830	8,865	11,877	34.0	1.8	229	11,121	233.6	2.6	123
	Mexico	11,581	5,893	509	12,810	2,414.6	1.9	97	231	-97.5	0.1	38
	Brazil	19,724	21,553	11,115	38,346	245.0	5.8	198	27,248	241.1	6.4	109
	United Arab Emirates	1,739	4,279	392	665	69.9	0.1	26	484	14.2	0.1	22
	South Africa	9,587	8,428	5,857	4,070	-30.5	0.6	57	3,249	237.4	0.8	34
	Russia	27,071	19,110	8,134	5,495	-32.4	0.8	502	12,339	1,958.6	2.9	174
Acquirer country or region	U.S.	315,412	158,862	61,680	139,216	125.7	21.1	1,673	79,941	-2.4	18.6	835
	Canada	68,956	55,253	31,627	43,504	37.4	6.6	569	27,304	136.2	6.4	335
	EU27	842,012	584,124	202,380	196,730	-2.8	29.8	3,472	199,447	143.9	46.5	1,573
	EU15	837,003	577,561	198,557	192,867	-2.9	29.3	2,984	198,552	144.7	46.3	1,432
	UK	327,343	144,655	37,403	51,661	38.1	7.8	764	46,022	200.6	10.7	393
	France	114,756	90,781	59,991	37,285	-37.8	5.7	434	66,380	135.2	15.5	188
	Germany	117,097	82,572	39,042	30,273	-22.5	4.6	402	13,359	36.8	3.1	209
	Netherlands	33,359	63,435	4,409	23,376	430.2	3.5	313	25,334	82.2	5.9	144
	Italy	73,036	36,503	21,960	2,956	-86.5	0.4	119	3,963	427.0	0.9	52
	Spain	61,180	34,714	6,851	21,746	217.4	3.3	147	26,597	376.3	6.2	58
	12 new EU members	5,008	6,564	3,823	3,863	1.0	0.6	488	895	38.6	0.2	141
	Switzerland	28,145	50,649	61,261	21,101	-65.6	3.2	272	11,120	-2.2	2.6	114
	Norway	12,095	9,499	1,330	2,565	92.8	0.4	103	6,895	530.1	1.6	49
	Australia	55,248	26,482	3,982	18,241	358.1	2.8	213	13,561	172.1	3.2	121
	Japan	41,162	67,625	20,646	33,971	64.5	5.2	347	13,208	-32.4	3.1	195
	East Asia	79,622	142,739	56,341	91,231	61.9	13.8	1,038	35,696	8.4	8.3	479
	China	20,040	76,210	26,896	39,168	45.6	5.9	197	14,090	-20.8	3.3	94
	South Korea	9,530	7,821	7,151	11,525	61.2	1.7	99	2,434	-18.0	0.6	45
	Taiwan	1,862	1,479	1,460	628	-57.0	0.1	46	496	33.6	0.1	14
	Hong Kong	12,477	11,715	12,597	17,941	42.4	2.7	232	11,153	136.2	2.6	122
	ASEAN6	35,714	45,514	8,236	21,969	166.7	3.2	464	7,522	6.0	1.8	204
	Singapore	28,515	29,293	3,384	11,413	237.2	1.7	274	3,151	-46.2	0.7	123
	Thailand	285	1,535	881	3,324	277.3	0.5	30	1,885	1,297.2	0.4	17
	Malaysia	5,225	13,525	3,578	6,076	69.8	0.9	129	2,166	224.9	0.5	49
	Indonesia	1,318	832	276	888	222.1	0.1	19	273	32.7	0.1	10
	Philippines	170	304	117	209	78.4	0.0	9	47	-72.1	0.0	5
	India	32,170	14,930	1,103	27,245	2,370.8	4.1	177	5,291	-74.0	1.2	80
	Mexico	19,976	746	5,371	3,644	-32.1	0.6	34	3,516	318.6	0.8	21
	Brazil	10,697	5,703	4,533	10,967	141.9	1.7	53	3,716	-45.1	0.9	23
	Saudi Arabia	16,729	4,544	303	1,534	406.1	0.2	14	256	-45.8	0.1	9
	United Arab Emirates	26,735	27,938	19,889	4,649	-76.6	0.7	58	332	-89.8	0.1	22
	South Africa	5,217	5,459	1,827	1,732	-5.2	0.3	59	5,150	731.2	1.2	23
	Russia	22,031	20,729	9,928	10,575	6.5	1.6	127	5,154	-23.1	1.2	56

Notes: (1) Data as of July 1, 2011.

(2) ASEAN 6 consists of Singapore, Thailand, Malaysia, Indonesia, the Philippines, and Vietnam.

(3) East Asia figures represent totals for China, South Korea, Taiwan, Hong Kong, and ASEAN6.

Source: Thomson Reuters.

Table 8 World cross-border M&As (by industry)

(US$ million, %, deals)

	2007	2008	2009	2010				First half 2011			
	Value	Value	Value	Value	Growth rate	Share	No. of Deals	Value	Growth rate	Share	No. of Deals
All industries	1,649,044	1,242,613	515,761	659,111	27.8	100.0	8,795	428,930	42.6	100.0	4,203
Primary industries	125,441	144,290	82,618	132,093	59.9	20.0	1,071	92,815	87.3	21.6	553
Oil and Gas: Petroleum Refining	82,457	77,989	52,513	71,631	36.4	10.9	330	45,902	51.2	10.7	175
Agriculture, Forestry, and Fishing	3,763	3,010	1,334	6,776	408.1	1.0	106	3,449	176.7	0.8	50
Mining	39,221	63,291	28,772	53,686	86.6	8.1	635	43,464	142.1	10.1	328
Manufacturing	519,358	413,667	174,529	191,502	9.7	29.1	2,581	103,404	0.9	24.1	1,181
Food, Tobacco	72,369	157,874	25,499	53,871	111.3	8.2	316	12,094	-68.8	2.8	150
Food and Kindred Products	50,225	108,849	24,544	53,798	119.2	8.2	313	12,082	-68.8	2.8	147
Tobacco Products	22,144	49,025	955	73	-92.3	0.0	3	12	-83.8	0.0	3
Textile and Apparel Products	13,590	4,176	838	6,726	702.9	1.0	94	1,282	-69.7	0.3	38
Wood and Paper Products	13,851	8,096	5,886	4,303	-26.9	0.7	127	1,427	-56.8	0.3	68
Wood Products, Furniture, and Fixtures	5,135	2,223	697	504	-27.7	0.1	55	226	0.0	0.1	29
Paper and Allied Products	8,716	5,873	5,188	3,799	-26.8	0.6	72	1,201	-61.0	0.3	39
Stone, Clay, Glass, and Concrete Products	49,496	31,896	3,858	5,579	44.6	0.8	75	737	-82.3	0.2	37
Chemicals	139,821	97,600	88,279	53,137	-39.8	8.1	621	51,269	99.2	12.0	277
Chemicals and Allied Products	27,947	34,862	11,485	6,085	-47.0	0.9	223	11,395	304.4	2.7	117
Drugs	98,795	51,056	75,155	34,660	-53.9	5.3	268	34,262	69.7	8.0	102
Metal and Metal Products	113,248	29,253	3,872	8,949	131.1	1.4	234	8,223	414.2	1.9	130
Machinery and Equipment	94,273	77,693	45,401	52,630	15.9	8.0	993	27,178	32.0	6.3	415
Machinery	25,704	16,194	4,229	10,032	137.2	1.5	260	5,621	290.8	1.3	124
Electronic and Electrical Equipment	23,614	21,746	15,971	12,100	-24.2	1.8	258	10,741	142.5	2.5	109
Computer and Office Equipment	4,560	465	962	1,306	35.7	0.2	43	1,154	82.2	0.3	16
Communications Equipment	4,082	1,951	2,611	6,536	150.4	1.0	53	257	-94.5	0.1	13
Transportation Equipment	9,035	13,545	17,438	9,941	-43.0	1.5	154	3,961	-36.4	0.9	59
Aerospace and Aircraft	13,779	3,680	320	123	-61.6	0.0	15	727	489.9	0.2	9
Measuring, Medical, Photo Equipment; Clocks	13,500	20,113	3,870	12,592	225.4	1.9	210	4,716	53.1	1.1	85
Printing, Publishing, and Allied Services	20,076	5,023	482	5,709	1084.0	0.9	69	487	-87.7	0.1	44
Miscellaneous Manufacturing	2,633	2,056	415	598	44.2	0.1	52	707	632.2	0.2	22
Service	1,004,245	684,641	258,614	335,515	29.7	50.9	5,143	232,711	56.4	54.3	2,455
Electric, Gas, and Water Distribution	152,917	100,624	79,497	34,329	-56.8	5.2	313	47,621	201.3	11.1	140
Transportation	42,421	40,171	11,542	16,168	40.1	2.5	324	16,380	643.7	3.8	170
Transportation and Shipping (except air)	36,158	31,453	5,128	15,839	208.9	2.4	278	14,016	636.0	3.3	155
Air Transportation and Shipping	6,263	8,718	6,414	329	-94.9	0.0	46	2,364	692.9	0.6	15
Telecommunications	67,324	76,972	21,314	53,628	151.6	8.1	169	46,958	26.8	10.9	70
Construction Firms	16,497	4,571	13,007	10,432	-19.8	1.6	167	2,491	163.6	0.6	75
Commerce	81,433	46,705	13,298	26,554	99.7	4.0	712	17,161	24.7	4.0	341
Wholesale Trade	24,212	25,719	7,521	8,511	13.2	1.3	415	10,586	265.5	2.5	191
Retail Trade, Eating and Drinking Places	57,221	20,986	5,777	18,044	212.3	2.7	297	6,575	-39.5	1.5	150
Real Estate; Mortgage Bankers and Brokers	112,681	54,146	19,610	26,869	37.0	4.1	301	9,102	-33.6	2.1	133
Finance, insurance	367,988	235,131	60,403	84,375	39.7	12.8	1,048	57,512	77.2	13.4	458
Commercial Banks, Bank Holding Companies	183,213	124,177	22,242	21,928	-1.4	3.3	184	15,821	14.0	3.7	49
Investment & Commodity Firms, Dealers, Exchanges	131,021	62,800	12,236	34,991	186.0	5.3	470	11,293	8.0	2.6	200
Insurance	45,902	38,040	17,652	14,478	-18.0	2.2	148	18,693	299.3	4.4	98
Hotels and Casinos	20,572	6,814	1,438	6,325	339.7	1.0	111	2,197	-1.9	0.5	43
Other service	142,412	119,508	38,506	76,834	99.5	11.7	1,998	33,289	8.7	7.8	1,025
Advertising Services	2,942	577	1,076	765	-28.9	0.1	62	1,348	732.6	0.3	34
Broadcasting Services (radio, television)	35,820	10,249	7,182	12,675	76.5	1.9	52	3,491	-65.8	0.8	23
Leisure related Services	5,750	1,712	706	2,018	185.8	0.3	67	2,655	362.6	0.6	32
Film related Services	2,743	389	186	324	74.4	0.0	32	3,999	1597.3	0.9	31
Business Services (such as computer-related services)	50,330	60,849	17,749	29,582	66.7	4.5	1,111	14,100	23.9	3.3	585
Prepackaged Software	16,816	36,062	6,965	17,291	148.3	2.6	362	4,123	-14.1	1.0	190
Others	0	0	0	0	n.a.	0.0	0	0	n.a.	n.a.	0
IT (for reference)	163,899	160,364	63,551	117,026	84.1	17.8	1,314	71,004	10.0	16.6	660

Notes: (1) Data as of July 1, 2011.

(2) Based on industries of target company.

(3) IT includes hardware such as computers and peripherals, telecommunications equipment, software services, and telecommunications services.

Source: Same as Table 7.

Table 9 Japanese trade by country and region

(US$ million, %)

	Exports						Imports					
	2008		2009		2010		2008		2009		2010	
	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate
Asia	382,658	11.5	314,406	-17.8	430,499	36.9	307,169	14.7	246,431	-19.8	313,185	27.1
China	124,035	13.7	109,630	-11.6	149,086	36.0	142,337	11.5	122,545	-13.9	152,801	24.7
South Korea	58,985	8.8	47,248	-19.9	62,054	31.3	29,248	7.3	21,997	-24.8	28,542	29.8
Taiwan	45,708	2.1	36,426	-20.3	52,207	43.3	21,637	9.2	18,339	-15.2	22,992	25.4
Hong Kong	39,988	3.0	31,868	-20.3	42,145	32.3	1,545	6.7	1,099	-28.9	1,515	37.8
ASEAN	102,799	18.2	80,449	-21.7	112,461	39.8	106,118	22.1	77,936	-26.6	100,619	29.1
Thailand	29,253	14.5	22,254	-23.9	34,092	53.2	20,627	12.9	16,036	-22.3	20,953	30.7
Singapore	26,425	21.3	20,696	-21.7	25,146	21.5	7,829	11.3	6,113	-21.9	8,120	32.8
Malaysia	16,329	8.7	12,863	-21.2	17,571	36.6	23,027	32.6	16,755	-27.2	22,629	35.1
Indonesia	12,508	38.3	9,334	-25.4	15,859	69.9	32,293	22.1	21,825	-32.4	28,149	29.0
Philippines	9,902	4.7	8,233	-16.9	11,012	33.8	8,355	-4.0	6,402	-23.4	7,903	23.4
Vietnam	7,767	36.9	6,518	-16.1	8,148	25.0	9,027	47.4	6,962	-22.9	8,144	17.0
India	7,850	27.6	6,336	-19.3	9,020	42.4	5,215	25.6	3,733	-28.4	5,658	51.6
Oceania	21,069	17.8	15,126	-28.2	20,364	34.6	51,658	45.4	37,989	-26.5	49,305	29.8
Australia	17,162	20.9	12,180	-29.0	15,812	29.8	47,280	51.7	34,780	-26.4	45,003	29.4
New Zealand	2,501	0.5	1,509	-39.7	1,891	25.3	2,892	7.7	2,121	-26.7	2,690	26.8
North America	146,891	-4.6	101,400	-31.0	127,484	25.7	89,780	11.0	68,313	-23.9	78,151	14.4
U.S.	136,200	-5.0	93,653	-31.2	118,199	26.2	77,018	8.7	59,044	-23.3	67,171	13.8
Canada	10,691	1.6	7,746	-27.5	9,284	19.9	12,680	27.4	9,180	-27.6	10,902	18.8
Central and South America	40,684	16.0	33,116	-18.6	43,966	32.8	27,448	13.8	20,160	-26.6	28,359	40.7
Panama	10,851	26.3	12,851	18.4	15,372	19.6	18	35.4	181	905.2	421	132.9
Mexico	9,880	-3.3	6,836	-30.8	9,541	39.6	3,783	20.0	2,799	-26.0	3,473	24.1
Brazil	5,878	47.4	4,236	-27.9	6,172	45.7	9,068	51.6	6,369	-29.8	9,842	54.5
Chile	2,727	72.5	1,347	-50.6	2,715	101.5	7,852	-3.5	5,307	-32.4	7,725	45.6
Europe	118,411	5.3	81,460	-31.2	98,372	20.8	79,053	9.0	67,732	-14.3	75,517	11.5
EU27	109,383	3.9	72,374	-33.8	86,735	19.8	69,915	7.6	59,130	-15.4	66,187	11.9
Germany	23,796	5.4	16,658	-30.0	20,245	21.5	20,702	6.8	16,775	-19.0	19,216	14.6
Netherlands	20,923	13.0	13,518	-35.4	16,285	20.5	3,790	35.4	3,461	-8.7	3,945	14.0
UK	16,309	0.3	11,825	-27.5	14,180	19.9	7,410	-1.5	5,690	-23.2	6,347	11.6
France	8,922	6.7	6,191	-30.6	6,652	7.5	10,561	5.5	9,132	-13.5	10,248	12.2
Belgium	8,415	6.6	5,343	-36.5	6,670	24.8	2,047	6.3	1,833	-10.5	2,332	27.3
Italy	6,754	0.7	4,804	-28.9	5,555	15.6	7,897	9.2	6,370	-19.3	6,771	6.3
Spain	4,363	-21.7	2,561	-41.3	3,176	24.0	2,487	26.2	2,348	-5.6	2,603	10.8
Sweden	2,183	11.3	1,447	-33.7	1,831	26.5	2,072	-7.3	1,692	-18.4	2,067	22.2
Finland	2,325	-7.7	852	-63.3	989	16.1	1,891	12.6	1,152	-39.1	1,560	35.4
Austria	1,239	-4.1	790	-36.2	968	22.5	1,544	-3.3	1,355	-12.3	1,499	10.6
Ireland	1,268	-20.7	752	-40.7	895	19.0	4,133	1.0	4,647	12.4	4,285	-7.8
Greece	1,211	-6.9	689	-43.1	535	-22.3	101	79.8	59	-41.4	61	3.1
Portugal	759	-7.3	398	-47.6	479	20.3	219	29.6	223	2.0	271	21.3
Denmark	727	-5.1	391	-46.3	414	6.0	2,428	20.2	2,181	-10.2	2,253	3.3
Luxembourg	176	-8.9	51	-70.8	197	284.0	43	-6.3	37	-15.2	52	41.3
Poland	1,962	19.9	1,389	-29.2	2,393	72.3	477	25.7	373	-21.7	562	50.5
Hungary	2,599	9.2	1,730	-33.5	1,928	11.5	717	15.7	645	-10.1	815	26.3
Czech Republic	2,992	14.3	1,696	-43.3	1,762	3.9	523	9.0	426	-18.5	535	25.5
Slovakia	460	5.2	367	-20.2	575	56.6	215	5.4	125	-41.9	129	3.6
Romania	445	74.1	225	-49.4	278	23.4	216	-3.3	220	1.9	297	35.1
Bulgaria	139	3.9	75	-46.5	74	-0.1	56	5.2	58	3.2	59	2.4
Norway	1,321	17.9	1,047	-20.8	1,101	5.2	2,055	23.6	1,642	-20.1	1,936	17.9
Switzerland	4,313	42.9	6,283	45.7	7,770	23.7	6,393	22.7	6,268	-2.0	6,765	7.9
Turkey	3,070	11.9	1,597	-48.0	2,551	59.7	417	11.3	399	-4.2	399	-0.2
Russia, CIS	19,139	53.3	4,129	-78.4	9,157	121.8	14,743	28.0	9,659	-34.5	17,167	77.7
Russia	16,374	52.5	3,295	-79.9	8,027	143.6	13,281	25.8	8,853	-33.3	16,097	81.8
Middle East	33,722	28.8	21,650	-35.8	25,182	16.3	165,445	45.4	92,850	-43.9	118,009	27.1
United Arab Emirates	10,793	34.0	6,498	-39.8	7,306	12.4	46,415	43.7	22,727	-51.0	29,183	28.4
Saudi Arabia	7,824	16.6	5,395	-31.0	6,459	19.7	50,470	42.8	29,203	-42.1	35,763	22.5
Oman	3,912	55.0	2,354	-39.8	3,104	31.8	5,519	54.2	3,325	-39.8	4,496	35.2
Iran	1,889	42.1	1,650	-12.6	2,074	25.7	18,095	42.7	9,319	-48.5	11,127	19.4
Qatar	2,010	9.1	1,630	-18.9	1,137	-30.3	26,233	54.8	15,940	-39.2	21,627	35.7
Kuwait	2,088	25.4	1,247	-40.3	1,414	13.4	15,121	52.3	8,997	-40.5	10,250	13.9
Israel	2,166	14.2	1,145	-47.1	1,761	53.8	916	1.8	816	-10.9	833	2.1
Africa	13,344	15.0	9,498	-28.8	12,001	26.4	20,768	40.6	9,107	-56.2	11,749	29.0
South Africa	4,598	0.0	2,613	-43.2	3,820	46.2	8,920	15.7	4,989	-44.1	7,246	45.3
Liberia	1,203	1.2	1,473	22.4	1,920	30.4	46	33,134.7	1	-98.0	0	-46.2
Egypt	1,859	44.5	1,360	-26.9	1,462	7.5	1,576	87.9	299	-81.1	460	54.1
Nigeria	923	26.2	564	-38.9	668	18.4	1,749	159.4	535	-69.4	552	3.0
World	775,918	8.9	580,787	-25.2	767,025	32.1	756,086	21.7	552,252	-27.0	691,447	25.2
APEC	567,769	7.7	432,529	-23.8	584,223	35.1	468,213	16.4	365,838	-21.9	462,057	26.3
NAFTA	158,368	-4.6	109,911	-30.6	138,873	26.4	94,765	11.1	72,530	-23.5	83,144	14.6
Mercosur 4	7,085	42.2	4,968	-29.9	7,240	45.7	9,977	44.4	7,121	-28.6	10,952	53.8

Note: Exchange rates are converted to US$ based on applicable customs rates.
Source: Based on "Trade Statistics"(Ministry of Finance).

Table 10 Japan's exports by products (2010)

(US$ million, %)

	World		U.S.		EU27		China		ASEAN		Asia NIEs	
	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate
Total	767,025	32.1	118,199	26.2	86,735	19.8	149,086	36.0	112,461	39.8	181,552	33.3
Machinery and equipment	498,427	35.7	91,614	28.4	62,493	21.8	90,884	47.5	66,506	44.2	91,320	37.0
General equipment	150,261	47.4	24,544	33.2	20,902	30.6	33,518	73.3	23,544	55.9	31,797	55.0
Air conditioners	1,933	55.3	195	60.1	794	59.7	283	52.9	185	51.4	156	32.1
Mining and construction equipment	10,018	80.7	1,186	188.9	1,208	181.3	1,832	105.5	1,699	55.8	1,308	15.1
Machine tools	7,004	103.7	1,032	84.9	657	49.4	2,507	160.2	1,020	104.2	1,210	108.7
Electrical equipment	131,404	22.5	16,140	17.1	15,022	13.0	32,208	25.6	23,802	35.8	40,003	24.5
Transport equipment	176,027	36.9	44,327	31.2	19,707	20.1	15,371	51.2	14,567	38.0	9,538	29.6
Automobiles	103,790	45.5	32,627	34.7	11,616	20.0	7,060	82.1	4,720	48.1	2,581	34.1
Passenger vehicles	90,455	44.8	32,099	34.0	11,277	18.8	6,246	77.9	2,162	35.0	2,032	29.4
Motorcycles	3,118	-1.5	635	-37.1	1,444	9.9	1	45.1	67	30.6	78	21.1
Automotive parts	38,852	40.7	8,355	40.1	5,235	44.3	8,447	32.9	6,492	57.2	2,340	45.7
Precision instruments	40,734	38.6	6,603	23.4	6,862	22.3	9,786	51.1	4,593	57.0	9,983	49.8
Chemicals	98,949	28.2	11,069	25.3	10,577	21.4	22,109	27.0	12,152	38.9	34,341	32.8
Industrial chemicals	56,870	24.1	6,759	16.5	6,644	15.4	12,424	20.9	6,438	37.4	21,236	31.7
Pharmaceuticals and medical supplies	3,604	4.9	1,382	-3.9	907	0.3	300	30.6	132	28.0	441	9.6
Plastics and rubber	42,080	34.2	4,310	42.4	3,933	32.8	9,685	35.8	5,714	40.6	13,105	34.7
Foodstuffs	4,755	19.4	642	-1.7	193	12.4	533	30.0	640	31.3	2,407	21.0
Seafood	1,292	19.7	155	-15.9	27	-5.9	320	35.4	253	47.9	381	18.0
Grains	29	97.0	0	-10.9	1	50.8	1	218.2	2	97.8	5	25.2
Processed food products	2,885	18.1	445	4.3	141	14.5	175	23.7	262	18.0	1,710	22.4
Oils, fats, and other animal and vegetable products	331	11.5	61	-0.2	47	9.5	44	29.0	32	2.6	110	8.8
Miscellaneous manufactured goods	6,785	9.2	1,688	-0.5	1,318	0.0	1,044	14.9	683	27.8	1,287	16.7
Other raw materials and products	120,642	32.1	7,722	37.4	7,462	17.5	27,477	21.1	27,775	40.5	40,574	33.5
Mineral fuels etc.	13,010	24.3	714	114.9	589	-9.6	2,057	7.4	4,240	7.3	6,095	19.6
Mineral fuels	12,349	24.4	694	110.1	588	-9.6	1,873	3.5	4,230	7.4	5,653	20.8
Petroleum and petroleum products	11,933	23.9	596	80.5	518	-16.2	1,871	3.8	4,202	7.6	5,516	21.3
Textiles and textile products	8,615	16.6	574	23.3	755	26.1	3,363	13.4	1,505	25.2	1,407	13.9
Synthetic fibers and textiles	3,961	21.3	204	27.4	449	36.9	1,446	19.2	641	32.1	442	14.8
Clothing	385	9.8	26	3.5	41	-2.4	62	-1.4	38	35.6	213	14.8
Base metals and base metal products	70,395	32.6	4,480	35.6	2,799	21.3	17,195	19.1	16,851	55.8	21,325	31.6
Steel	51,134	31.4	3,063	35.3	1,656	18.7	10,983	16.1	12,361	54.0	15,807	29.3
Primary steel products	38,845	36.8	1,179	74.4	706	30.2	8,960	18.3	9,450	62.3	14,184	30.7
Steel products	12,289	16.9	1,885	18.6	950	11.4	2,023	7.5	2,910	32.2	1,623	18.2
Copper	4,028	30.2	44	92.1	9	-17.1	1,865	13.8	883	85.0	1,174	28.3
Nickel	232	622.4	2	149.4	17	-0.3	191	3,951.8	4	158.4	16	145.8
Aluminum	52	-6.0	4	53.3	2	699.2	9	-33.3	23	35.2	10	43.9
Lead	133	5.1	-	n.a.	0	n.a.	22	-50.8	70	38.3	40	40.5
IT products												
Computers and peripherals	5,806	6.2	1,871	-4.5	1,086	7.8	672	1.9	716	36.2	1,260	19.4
Multifunctional digital equipment	490	-11.5	277	-10.0	117	-24.2	18	35.8	8	-14.7	36	2.9
Computers and peripherals	2,645	5.9	1,019	-2.9	649	16.9	273	-5.2	198	100.9	427	20.4
Parts of computer and peripherals	2,671	10.5	575	-4.5	321	7.4	381	6.4	509	22.1	796	19.7
Office equipment	51	-33.3	16	-61.8	11	3.7	2	264.3	11	3.0	8	28.8
Telecommunications equipment	6,780	-4.9	1,378	13.4	1,332	29.7	1,500	-14.6	631	-16.3	1,572	-13.3
Semiconductors and electronic components	47,322	29.4	3,050	35.9	3,497	25.2	11,924	31.6	11,426	38.2	19,614	26.6
Electron tubes and semiconductors	12,831	40.0	1,012	23.0	2,074	25.1	2,585	46.8	2,872	57.3	4,143	37.6
Integrated circuits	34,491	25.9	2,038	43.5	1,423	25.2	9,339	28.0	8,554	32.7	15,471	23.9
Other electric and electronic components	31,815	24.3	3,583	18.2	3,412	11.7	7,867	25.6	5,779	36.8	9,227	28.1
Display modules	5,599	9.3	374	-19.0	737	-12.6	1,336	5.9	1,042	35.9	1,036	0.6
Video equipment	11,596	5.7	3,089	17.1	2,804	-15.5	2,019	20.0	721	12.7	2,027	10.9
Digital cameras	9,252	4.4	2,303	12.3	2,186	-19.3	1,896	21.4	557	15.5	1,649	14.9
Reception apparatus for television	304	4.4	33	56.4	12	-61.8	5	151.4	28	4.5	95	-18.4
Audio equipment	151	66.9	110	127.3	21	-22.1	1	34.1	6	41.4	9	11.9
Portable audio players	140	75.6	106	147.4	16	-30.4	1	36.2	5	37.2	8	6.6
Measuring and testing equipment	19,444	45.8	3,452	32.5	3,071	24.5	4,281	47.6	2,543	76.3	4,980	67.5
Machines and apparatus for the manufacture of semiconductor devices	19,156	131.0	2,762	81.7	864	287.4	3,477	193.1	1,503	145.1	11,229	125.6
IT parts	85,358	28.6	8,380	27.3	7,474	19.8	20,442	29.3	17,975	37.5	31,347	29.7
Finished IT products	56,764	38.0	10,931	25.3	8,624	12.2	11,301	46.8	5,361	57.0	18,579	66.1
Total IT equipment	142,123	32.2	19,310	26.2	16,098	15.6	31,743	35.0	23,336	41.6	49,926	41.2

Notes: (1) See Appendix, Annotation I for product-category definitions.

(2) Singapore figures are included under both ASEAN and Asia NIEs statistics.

(3) "0" indicates an amount of less than one million US dollars; "-" indicates no exports/imports recorded during the corresponding period.

Source: Same as Table 9.

Table 11 Japan's imports by products (2010)

(US$ million, %)

	World		U.S.		EU27		China		ASEAN		Asia NIEs	
	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate	Value	Growth rate
Total	691,447	25.2	67,171	13.8	66,187	11.9	152,801	24.7	100,619	29.1	61,169	28.7
Machinery and equipment	186,647	26.8	27,516	9.0	24,303	18.7	72,328	38.9	29,033	31.0	28,882	22.4
General equipment	55,882	21.6	8,077	3.5	7,038	9.1	26,275	30.9	7,791	27.6	6,167	22.8
Air conditioners	2,274	25.0	23	59.2	19	2.8	1,825	22.7	373	34.7	28	36.2
Mining and construction equipment	242	6.0	62	58.6	71	-10.3	54	-5.2	11	32.7	33	-5.0
Machine tools	351	14.4	21	-35.0	101	-19.5	83	152.7	41	56.3	96	59.0
Electrical equipment	86,573	33.4	7,902	17.4	3,855	17.7	38,607	48.3	16,759	28.8	19,539	21.8
Transport equipment	19,534	19.6	4,381	-10.4	7,520	24.2	2,894	23.6	2,040	88.4	1,071	19.8
Automobiles	6,816	40.1	343	27.6	5,266	31.8	15	-32.4	517	349.0	36	-10.2
Passenger vehicles	6,471	40.7	313	28.0	5,111	31.5	13	6.4	379	5,526.0	18	-31.4
Motorcycles	592	-5.9	148	-22.8	96	3.3	121	-5.1	82	104.2	143	-18.7
Automotive parts	5,992	38.7	539	84.0	1,436	8.8	1,868	42.5	1,311	56.0	609	47.0
Precision instruments	24,658	23.3	7,157	23.1	5,890	25.7	4,553	25.3	2,443	25.1	2,105	29.8
Chemicals	71,772	26.1	12,766	30.2	21,731	10.7	12,433	40.6	9,905	53.3	7,858	40.9
Industrial chemicals	53,692	22.9	10,509	28.2	19,921	8.9	7,766	55.8	3,967	54.5	4,652	44.9
Pharmaceuticals and medical supplies	16,212	24.2	2,801	29.8	8,825	16.6	247	9.4	834	310.5	915	224.1
Plastics and rubber	18,080	36.5	2,257	40.5	1,810	35.0	4,667	21.0	5,938	52.4	3,207	35.5
Foodstus	59,838	11.2	13,734	5.8	7,687	5.3	8,175	17.0	7,991	8.5	3,384	27.0
Seafood	11,695	11.4	1,214	4.5	374	-20.9	1,110	13.9	2,196	15.5	1,488	38.2
Grains	6,928	5.8	4,995	-0.4	37	10.9	102	-2.9	181	53.4	0	-93.0
Wheat	1,663	15.0	991	15.3	2	36.3	-	n.a.	-	n.a.	-	n.a.
Corn	3,950	5.1	3,510	-3.1	9	-50.4	6	7.3	2	-25.1	0	-43.8
Processed food products	22,648	9.7	3,528	1.8	5,117	2.7	5,000	15.7	3,932	8.5	1,481	23.5
Oils, fats, and other animal and vegetable products	6,437	11.5	2,003	5.3	446	11.2	476	8.8	809	24.4	117	1.2
Miscellaneous manufactured goods	19,568	3.7	858	8.9	1,600	5.3	13,216	2.3	2,547	8.6	795	-1.7
Other raw materials and products	337,460	30.5	9,005	34.7	10,127	12.0	45,141	12.7	46,664	29.9	15,076	41.0
Iron ore	15,637	79.6	0	41.1	0	-99.6	0	-29.3	0	-97.4	3	-20.5
Mineral fuels etc.	198,592	30.3	1,928	83.1	222	0.2	1,805	31.5	28,419	28.1	4,389	43.5
Mineral fuels	198,148	30.2	1,755	74.2	221	0.3	1,746	29.6	28,338	28.4	4,197	47.0
Coal	24,180	10.0	603	216.8	0	-77.7	863	9.9	3,630	8.5	1	17.4
LNG	39,611	30.6	361	48.1	-	n.a.	-	n.a.	18,434	26.6	-	n.a.
Petroleum and petroleum products	125,070	34.0	646	27.5	205	0.4	659	42.8	6,195	50.9	4,125	46.7
Crude oil	105,667	31.9	-	n.a.	-	n.a.	104	-7.2	3,583	52.4	-	n.a.
Textiles and textile products	32,907	5.9	458	13.8	1,615	-1.6	25,467	3.8	3,131	20.7	997	18.7
Synthetic bers and textiles	1,245	30.9	71	14.3	140	7.3	291	40.4	359	41.7	337	40.4
Clothing	25,366	5.6	141	0.2	1,034	-5.3	21,200	4.8	2,019	17.1	257	6.5
Base metals and base metal products	32,973	51.7	1,634	15.2	2,080	25.4	8,185	42.4	4,964	53.2	6,172	48.6
Steel	14,172	39.1	612	24.0	666	1.5	4,562	29.0	771	19.0	4,717	48.0
Primary steel products	8,516	72.7	221	80.8	297	15.8	1,429	122.3	185	122.4	3,620	62.3
Steel products	5,656	7.6	391	5.3	369	-7.7	3,133	8.2	586	3.8	1,097	14.5
Copper	356	63.7	1	167.4	3	-11.5	3	187.8	15	52.1	16	177.4
Nickel	954	142.8	1	52.9	87	61.1	19	57,521.0	2	n.a.	4	317.6
Aluminum	6,122	81.0	12	-50.6	54	47.3	835	190.7	335	32.4	90	7.5
IT products												
Computers and peripherals	20,758	26.3	885	2.2	613	-11.8	13,914	34.5	3,421	15.3	2,479	23.4
Multifunctional digital equipment	1,659	22.3	0	17.0	1	440.4	1,046	31.9	577	9.4	34	-3.3
Computers and peripherals	14,451	27.7	663	-2.0	501	-13.6	10,315	36.1	2,354	18.0	1,147	26.1
Parts of computer and peripherals	4,648	23.3	221	17.0	110	-3.9	2,553	29.1	489	10.1	1,298	21.9
Office equipment	283	12.8	6	-58.5	1	46.8	213	9.6	24	61.0	39	34.0
Telecommunications equipment	14,299	33.3	925	-7.0	776	87.6	8,899	60.8	1,589	-5.0	1,808	-4.4
Semiconductors and electronic components	24,319	29.6	4,264	33.7	813	18.9	3,111	46.4	4,693	26.5	12,343	25.7
Electron tubes and semiconductors	3,905	56.6	239	-2.0	135	17.0	1,355	79.2	1,157	39.4	1,016	77.0
Integrated circuits	20,414	25.4	4,025	36.6	678	19.3	1,756	28.3	3,536	22.8	11,327	22.5
Other electric and electronic components	17,467	26.4	1,275	13.2	711	15.8	8,585	32.0	3,173	18.5	3,546	28.1
Display modules	4,483	33.0	292	43.3	42	6.0	2,482	42.2	625	5.6	1,053	35.3
Video equipment	11,061	76.7	112	11.3	115	6.0	8,053	81.9	2,258	91.7	453	13.7
Digital cameras	1,771	23.5	47	0.9	68	17.1	959	17.6	598	34.6	79	48.3
Reception apparatus for television	5,501	165.2	9	42.2	2	8.7	3,944	172.9	1,360	204.9	182	5.2
Audio equipment	563	90.4	5	12.1	3	2.8	505	128.8	36	-36.9	10	18.5
Portable audio players	498	114.9	3	-4.1	1	-23.3	450	164.0	33	-32.2	7	8.3
Measuring and testing equipment	8,457	24.9	2,724	11.3	1,903	25.2	1,769	40.4	1,011	45.7	680	29.6
Machines and apparatus for the manufacture of semiconductor devices	2,202	96.1	983	54.5	600	155.3	107	172.3	158	202.5	434	145.3
IT parts	47,274	28.5	6,167	30.3	1,705	15.7	14,314	34.6	8,446	23.2	17,436	26.8
Finished IT products	52,136	38.4	5,011	7.8	3,830	36.8	30,841	54.1	7,917	28.4	4,357	12.1
Total IT equipment	99,410	33.5	11,178	19.2	5,535	29.5	45,155	47.3	16,362	25.6	21,793	23.6

Notes and Source: Same as Table 10.

Table 12 Japan's outward/inward foreign direct investment by country and region (net flows; balance-of-payments basis)

(US$ million, %)

Outward FDI	2008	2009	2010	Share	Growth rate
Asia	23,348	20,636	22,131	38.7	7.2
China	6,496	6,899	7,252	12.7	5.1
Hong Kong	1,301	1,610	2,085	3.6	29.5
Taiwan	1,082	339	-113	n.a.	n.a.
South Korea	2,369	1,077	1,085	1.9	0.7
ASEAN10	6,309	7,002	8,930	15.6	27.5
Thailand	2,016	1,632	2,248	3.9	37.7
Indonesia	731	483	490	0.9	1.4
Malaysia	591	616	1,058	1.8	71.8
Philippines	705	809	514	0.9	-36.5
Singapore	1,089	2,881	3,845	6.7	33.5
Vietnam	1,098	563	748	1.3	33.0
India	5,551	3,664	2,864	5.0	-21.9
Oceania	6,060	7,629	6,407	11.2	-16.0
Australia	5,232	7,136	6,371	11.1	-10.7
New Zealand	635	237	-61	n.a.	n.a.
Guam	5	-2	1	0.0	n.a.
Marshall Islands	72	209	65	0.1	-69.0
North America	46,046	10,889	9,016	15.8	-17.2
U.S.	44,674	10,660	9,193	16.1	-13.8
Canada	1,372	229	-177	n.a.	n.a.
Central and South America	29,623	17,393	5,346	9.3	-69.3
Mexico	315	211	688	1.2	226.0
Brazil	5,371	3,753	4,316	7.5	15.0
Cayman Islands (GB)	22,550	12,903	-1,848	n.a.	n.a.
Panama	807	114	999	1.7	775.9
Bermuda (GB)	185	24	577	1.0	2,309.0
British Virgin Islands	138	24	161	0.3	569.1
Peru	32	60	55	0.1	-8.8
Argentina	101	-3	-56	n.a.	n.a.
Europe	23,068	17,830	15,043	26.3	-15.6
Western Europe	22,418	17,073	14,450	25.3	-15.4
Germany	3,905	2,089	-321	n.a.	n.a.
UK	6,744	2,126	4,624	8.1	117.5
France	1,703	1,161	551	1.0	-52.5
Netherlands	6,514	6,698	3,288	5.7	-50.9
Italy	177	110	372	0.7	239.5
Belgium	2,196	423	-166	n.a.	n.a.
Luxembourg	527	3,279	-108	n.a.	n.a.
Switzerland	165	221	143	0.2	-35.3
Sweden	570	160	-623	n.a.	n.a.
Spain	210	162	38	0.1	-76.5
Norway	37	275	77	0.1	-72.1
Denmark	23	54	81	0.1	50.5
Ireland	-158	311	138	0.2	-55.7
Austria	27	-20	-4	n.a.	n.a.
Cyprus	12	98	215	0.4	120.8
Turkey	25	92	321	0.6	247.9
Malta	-	17	-	n.a.	n.a.
Eastern Europe, Russia, etc.	650	757	593	1.0	-21.7
Russia	306	391	350	0.6	-10.6
Poland	53	-6	74	0.1	n.a.
Hungary	106	87	-34	n.a.	n.a.
Czech Republic	98	156	122	0.2	-21.5
Middle East	1,138	575	-348	n.a.	n.a.
Saudi Arabia	892	378	117	0.2	-69.0
United Arab Emirates	194	139	-498	n.a.	n.a.
Egypt	63	40	47	0.1	16.5
Africa	1,518	-301	-372	n.a.	n.a.
South Africa	648	143	104	0.2	-26.8
Liberia	-4	40	136	0.2	241.2
Mauritius	772	-359	-646	n.a.	n.a.
(Reference) EU	22,939	17,039	8,359	14.6	-50.9
World	130,801	74,650	57,223	100.0	-23.3

Inward FDI	2008	2009	2010	Growth rate
Asia	3,381	1,093	3,128	186.3
China	37	-137	314	n.a.
Hong Kong	257	-81	698	n.a.
Taiwan	66	57	21	-62.8
South Korea	279	255	274	7.5
ASEAN10	2,740	985	1,810	83.8
Thailand	6	24	9	-64.5
Indonesia	0	0	43	12,703.4
Malaysia	13	203	184	-9.5
Philippines	3	-	-1	n.a.
Singapore	2,716	756	1,575	108.3
India	1	14	4	-69.6
Oceania	258	50	-17	n.a.
Australia	53	40	-6	n.a.
New Zealand	204	4	-12	n.a.
North America	12,005	1,712	3,014	76.1
U.S.	11,792	1,831	2,961	61.7
Canada	213	-119	53	n.a.
Central and South America	4,020	690	-7,724	n.a.
Mexico	-	-	-7,321	n.a.
Brazil	-	-8	2	n.a.
Cayman Islands (GB)	3,592	965	616	-36.2
Panama	7	5	4	-30.6
Bermuda (GB)	189	-329	-1,000	n.a.
British Virgin Islands	137	24	-3	n.a.
Europe	4,867	8,211	204	-97.5
EU	4,861	8,210	198	-97.6
Germany	1,185	389	2,206	467.2
UK	-1,289	5,629	4,817	-14.4
France	177	371	1,128	203.8
Netherlands	2,692	2,584	-7,733	n.a.
Italy	33	-18	163	n.a.
Belgium	-2,040	14	-479	n.a.
Luxembourg	477	543	381	-29.9
Switzerland	1,873	-990	51	n.a.
Sweden	92	-97	9	n.a.
Spain	66	9	28	210.6
Ireland	1,524	-252	-406	n.a.
Austria	42	41	36	-10.2
Eastern Europe, Russia, etc.	5	1	6	709.6
Russia	1	0	-	n.a.
Middle East	-2	23	-0	n.a.
Saudi Arabia	-	10	-	n.a.
United Arab Emirates	-0	0	0	31.9
Iran	-1	1	-0	n.a.
Israel	0	7	-0	n.a.
Africa	21	61	36	-41.2
South Africa	-	-	-	n.a.
Mauritius	-	0	-	n.a.
(Reference) EU	2,943	9,207	132	-98.6
World	24,550	11,839	-1,359	n.a.

Notes: (1) Figures released in yen were converted to the US dollar at the average quarterly Bank of Japan interbank rate.
(2) Negative figures indicate withdrawal.
(3) "0" indicates an amount of less than one million US dollars; "-" indicates no investment recorded during the corresponding period.
(4) Growth rates are yoy.
(5) Europe shows the sum of Western Europe and Eastern Europe, Russia, etc. Western Europe for 2010 was calculated by subtracting Eastern Europe, Russia, etc. from Europe.
(6) As figure recorded under "World" included the undisclosed item, "World" figures are not necessarily equal to the sums of regional components.

Sources: Balance of Payments Statistics (Ministry of Finance) and Foreign Exchange Rates (Bank of Japan).

Table 13 Japan's outward/inward foreign direct investment by industry (net flows; balance-of-payments basis)

(US$ million, %)

	Outward FDI					Inward FDI			
	2008	2009	2010	Share	Growth rate	2008	2009	2010	Growth rate
Manufacturing (total)	45,268	32,934	17,803	31.1	-45.9	2,261	3,490	1,766	-49.4
Food	3,601	8,954	2,017	3.5	-77.5	-86	421	220	-47.6
Textile	716	477	377	0.7	-21.0	-3	-8	-95	n.a.
Wood and pulp	734	1,207	1,068	1.9	-11.5	-5	-1	87	n.a.
Chemicals and pharmaceuticals	11,647	7,407	7,902	13.8	6.7	245	307	-2,859	n.a.
Petroleum	652	-51	-837	n.a.	n.a.	300	-19	-144	n.a.
Rubber and leather	771	445	634	1.1	42.4	4	6	5	-5.7
Glass and ceramics	1,417	2,042	377	0.7	-81.5	212	-90	-138	n.a.
Iron, non-ferrous and metals	3,152	3,738	3,873	6.8	3.6	124	287	233	-19.1
General machinery	3,726	4,411	4,385	7.7	-0.6	721	115	1,089	843.7
Electrical equipment	5,675	2,505	1,361	2.4	-45.7	642	1,705	-281	n.a.
Transport equipment	10,924	566	-3,582	n.a.	n.a.	-55	469	3,359	616.6
Precision instruments	953	609	51	0.1	-91.6	113	94	291	209.0
Non-manufacturing (total)	85,533	41,717	39,420	68.9	-5.5	22,289	8,349	-3,125	n.a.
Agriculture and forestry	59	10	145	0.3	1,380.5	1	-5	9	n.a.
Fishery and marine products	119	36	47	0.1	28.8	-2	1	0	-50.6
Mining	10,518	6,482	9,061	15.8	39.8	-	-1	64	n.a.
Construction	389	499	302	0.5	-39.5	-60	16	-1	n.a.
Transportation	2,283	2,894	2,294	4.0	-20.7	43	-90	197	n.a.
Communications	1,675	3,870	9,899	17.3	155.8	-1,028	619	-3,244	n.a.
Wholesale and retail	13,319	8,418	1,946	3.4	-76.9	1,160	1,057	-229	n.a.
Finance and insurance	52,243	15,463	11,397	19.9	-26.3	19,823	5,205	-1,503	n.a.
Real estate	162	463	765	1.3	65.2	581	-71	216	n.a.
Services	2,721	2,163	1,596	2.8	-26.2	473	1,343	875	-34.9
Total	130,801	74,650	57,223	100.0	-23.3	24,550	11,839	-1,359	n.a.

Notes: (1) Figures released in yen were converted to the US dollar at the average quarterly Bank of Japan interbank rate.
(2) Negative figures indicate withdrawal.
(3) "0" indicates an amount of less than one million US dollars; "-" indicates no investment recorded during the corresponding period.
(4) Growth rates are yoy.
Sources: Same as Table 12.

Table 14 Japan's outward/inward foreign direct investment position by country and region

(US$ million, %)

	Outward FDI (assets)				Inward FDI (liabilities)			
	2008-end	2009-end	2010-end	Share	2008-end	2009-end	2010-end	Share
Asia	159,570	175,645	212,708	25.6	16,769	17,336	23,279	10.8
China	49,002	55,045	66,478	8.0	225	197	399	0.2
Hong Kong	11,716	13,048	15,542	1.9	3,203	2,656	4,044	1.9
Taiwan	8,830	9,349	10,351	1.2	1,892	1,999	2,255	1.1
South Korea	12,180	12,603	15,043	1.8	1,235	1,444	1,933	0.9
ASEAN10	67,654	75,746	90,749	10.9	10,193	11,004	14,596	6.8
Thailand	20,529	22,748	27,789	3.3	61	79	100	0.0
Indonesia	8,528	9,491	11,946	1.4	12	12	60	0.0
Malaysia	7,743	8,017	9,972	1.2	7	216	460	0.2
Philippines	7,800	8,186	8,687	1.0	61	60	68	0.0
Singapore	19,511	23,608	27,502	3.3	10,047	10,632	13,901	6.5
Vietnam	3,307	3,353	4,501	0.5	0	0	0	0.0
India	9,440	8,982	13,558	1.6	18	32	40	0.0
Oceania	21,624	36,175	43,865	5.3	1,075	1,095	1,245	0.6
Australia	19,107	32,557	39,856	4.8	838	853	983	0.5
New Zealand	1,440	2,039	2,273	0.3	231	230	248	0.1
North America	234,957	240,246	262,339	31.6	75,680	76,184	73,900	34.4
U.S.	226,611	230,948	251,805	30.3	74,344	75,003	72,497	33.8
Canada	8,346	9,298	10,533	1.3	1,336	1,181	1,403	0.7
Central and South America	90,794	99,056	106,978	12.9	23,576	20,990	23,593	11.0
Mexico	2,097	1,718	2,755	0.3	6	6	261	0.1
Brazil	16,492	21,337	27,038	3.3	40	32	38	0.0
Cayman Islands (GB)	61,531	65,353	62,623	7.5	17,363	16,965	18,784	8.7
Europe	165,435	179,052	193,499	23.3	86,978	83,945	92,203	42.9
Western Europe	161,649	174,939	188,861	22.7	86,915	83,883	92,126	42.9
Germany	11,992	15,096	15,316	1.8	6,592	7,166	10,009	4.7
UK	32,576	31,282	37,956	4.6	6,750	7,318	9,386	4.4
France	14,920	16,811	16,212	2.0	16,233	15,208	19,193	8.9
Netherlands	72,172	77,470	75,995	9.2	36,510	36,034	36,890	17.2
Italy	882	1,100	1,410	0.2	719	694	909	0.4
Belgium	14,009	14,503	14,120	1.7	1,362	934	94	0.0
Luxembourg	4,332	7,235	9,632	1.2	4,000	4,262	4,842	2.3
Switzerland	1,332	1,555	1,861	0.2	7,150	4,913	5,271	2.5
Sweden	3,054	2,565	1,987	0.2	901	731	827	0.4
Spain	1,276	1,568	1,562	0.2	175	168	223	0.1
Eastern Europe, Russia, etc.	3,786	4,112	4,638	0.6	63	63	77	0.0
Russia	668	954	1,220	0.1	61	60	68	0.0
Middle East	4,164	4,453	4,928	0.6	29	51	59	0.0
Saudi Arabia	3,481	3,650	3,905	0.5	4	13	15	0.0
United Arab Emirates	303	338	377	0.0	1	1	3	0.0
Iran	6	6	7	0.0	-2	-1	-2	n.a.
Africa	7,325	5,734	6,145	0.7	275	342	387	0.2
South Africa	1,673	1,730	2,291	0.3	0	0	0	0.0
(Reference) EU	161,783	174,881	182,194	21.9	75,600	74,832	82,236	38.3
(Reference) OECD	433,482	466,630	510,489	61.5	160,743	158,446	164,867	76.8
Total	683,872	740,364	830,464	100.0	204,433	199,991	214,722	100.0

Notes: (1) Figures first released in Japanese yen were converted to US dollars using Bank of Japan year-end interbank rates.
(2) For inward FDI, negative figures indicate net outflow.
(3) "0" indicates an amount of less than one million US dollars; "-" indicates no investment recorded at the end of corresponding year.
(4) OECD member countries include the EU15, Australia, Canada, Iceland, New Zealand, Norway, Switzerland, Turkey, U.S., Mexico, Czech Republic, Hungary, South Korea, Poland, Slovakia, Chile, Slovenia, Israel and Estonia (33 countries in total). Chile, Slovenia, Israel and Estonia were included beginning with data as of the end of 2010.
(5) Europe shows the sum of Western Europe and Eastern Europe, Russia, etc. Western Europe for 2010 was calculated by subtracting Eastern Europe, Russia, etc. from Europe.

Sources: Based on Japan's Balance of External Assets & Liabilities statistics by Ministry of Finance and Bank of Japan, and Bank of Japan foreign exchange rates.

Table 15 Worldwide FTA list (202 agreements)

Area	Name	Effective date
Asia and Oceania	Asia-Pacific Trade Agreement (APTA)	1976.6.17
	Papua New Guinea-Australia Trade and Commercial Relations Agreement (PATCRA)	1977.2.1
	South Pacific Regional Trade and Economic Cooperation Agreement (SPARTECA)	1981.1.1
	Australia/New Zealand Closer Economic Relations Trade Agreement (ANZCERTA)	1983.1.1
	Laos-Thailand	1991.6.20
	ASEAN Free Trade Area (AFTA)	1992.1.28
	Melanesian Spearhead Group (MSG)	1994.1.1
	New Zealand-Singapore	2001.1.1
	India-Sri Lanka	2001.12.15
	Japan-Singapore	2002.11.30
	India-Afghanistan	2003.5.13
	ASEAN-China (Framework Agreement)	2003.7.1
	Singapore-Australia	2003.7.28
	Pacific Island Countries Trade Agreement (PICTA)	2003.11.30
	China-Macao	2004.1.1
	China-Hong Kong	2004.1.1
	Thailand-India	2004.9.1
	Thailand-Australia	2005.1.1
	Pakistan-Sri Lanka	2005.6.12
	Thailand-New Zealand	2005.7.1
	India-Singapore	2005.8.1
	South Asian Free Trade Area (SAFTA)	2006.1.1
	South Korea-Singapore	2006.3.2
	Japan-Malaysia	2006.7.13
	India-Bhutan	2006.7.29
	South Korea-ASEAN	2007.6.1
	China-Pakistan	2007.7.1
	Japan-Thailand	2007.11.1
	Pakistan-Malaysia	2008.1.1
	Japan-Indonesia	2008.7.1
	Japan-Brunei	2008.7.31
	China-New Zealand	2008.10.1
	Japan-ASEAN	2008.12.1
	Japan-Philippines	2008.12.11
	China-Singapore	2009.1.1
	Japan-Vietnam	2009.10.1
	India-Nepal	2009.10.27
	ASEAN-Australia-New Zealand	2010.1.1
	ASEAN-India	2010.1.1
	India-South Korea	2010.1.1
	Malaysia-New Zealand	2010.8.1
	Economic Cooperation Framework Agreement (ECFA)	2010.9.12
	Hong Kong-NZ	2011.1.1
Europe	European Union (EU; formerly European Community [EC] under Treaties of Rome)	1958.1.1
	European Free Trade Association (EFTA)	1960.5.3
	EU-Switzerland	1973.1.1
	EU-Andorra	1991.7.1
	EFTA-Turkey	1992.4.2
	Faroe Islands-Norway	1993.7.1
	European Economic Area (EEA)	1994.1.1
	Faroe Islands-Switzerland	1995.3.1
	EU-Turkey	1996.1.1
	EU-Faroe Islands	1997.1.1
	Turkey-Macedonia	2000.9.1
	EFTA-Macedonia	2001.1.1
	EU-Macedonia	2001.6.1
	EFTA-Croatia	2002.1.1
	EU-Croatia	2002.3.1
	EU-San Marino	2002.4.1
	Turkey-Bosnia and Herzegovina	2003.7.1
	Turkey-Croatia	2003.7.1
	Faroe Islands-Iceland	2006.11.1
	EU-Albania	2006.12.1
	EU-Montenegro	2008.1.1
	Turkey-Albania	2008.5.1
	EU-Bosnia and Herzegovina	2008.7.1
	EU-Serbia	2010.2.1
	Turkey-Montenegro	2010.3.1
	Turkey-Serbia	2010.9.1
	EFTA-Serbia	2010.10.1
	EFTA-Albania	2010.11.1
Russia and the CIS	Armenia-Russia	1993.3.25
	Kyrgyzstan-Russia	1993.4.24
	Ukraine-Russia	1994.2.21
	Georgia-Russia	1994.5.10
	Commonwealth of Independent S tates (CIS) economic union	1994.12.30
	Kyrgyzstan-Armenia	1995.10.27
	Ukraine-Turkmenistan	1995.11.4
	Kyrgyzstan-Kazakhstan	1995.11.11
	Armenia-Republic of Moldova	1995.12.21
	Ukraine-Uzbekistan	1996.1.1
	Georgia-Ukraine	1996.6.4
	Armenia-Turkmenistan	1996.7.7
	Georgia-Azerbaijan	1996.7.10
	Ukraine-Azerbaijan	1996.9.2
	Kyrgyzstan-Republic of Moldova	1996.11.21
	Armenia-Ukraine	1996.12.18
	Eurasian Economic Community (EAEC)	1997.10.8
	Kyrgyzstan-Ukraine	1998.1.19
	Kyrgyzstan-Uzbekistan	1998.3.20
	Ukraine-Kazakhstan	1998.10.19
	Georgia-Armenia	1998.11.11
	Georgia-Kazakhstan	1999.7.16
	Georgia-Turkmenistan	2000.1.1
	Armenia-Kazakhstan	2001.12.25
	Ukraine-Tajikistan	2002.7.11
	Single Economic Space	2004.5.20
	Ukraine-Republic of Moldova	2005.5.19
	Ukraine-Belarus	2006.11.1

Area	Name	Effective date
Americas	Central American Common Market (CACM)	1961.10.12
	Caribbean Community (CARICOM)	1973.8.1
	Latin American Integration Association (ALADI)	1981.3.18
	Andean Community (CAN)	1988.5.25
	Common Market of the South (Mercosur)	1991.11.29
	North American Free Trade Agreement (NAFTA)	1994.1.1
	Colombia-Mexico	1995.1.1
	Costa Rica-Mexico	1995.1.1
	Canada-Chile	1997.7.5
	Mexico-Nicaragua	1998.7.1
	Chile-Mexico	1999.8.1
	Mexico-El Salvador	2001.3.15
	Guatemala-Mexico	2001.3.15
	Honduras-Mexico	2001.6.1
	Chile-Costa Rica	2002.2.15
	Chile-El Salvador	2002.6.1
	Canada-Costa Rica	2002.11.1
	Panama-El Salvador	2003.4.11
	U.S.-Chile	2004.1.1
	DR-CAFTA (FTA between the U.S. and the Dominican Republic and the four Central American countries)	2006.3.1
	Chile-Panama	2008.3.7
	Panama-Costa Rica	2008.3.7
	Panama-Honduras	2009.1.9
	U.S.-Peru	2009.2.1
	Chile-Colombia	2009.5.8
	Canada-Peru	2009.8.1
The Middle East and Africa	Economic Community of West African S tates (ECOWAS)	1993.7.24
	Common Market for Eastern and Southern Africa (COMESA)	1994.12.8
	Pan-Arab Free Trade Area	1998.1.1
	CEMAC (Economic and Monetary Community of Central Africa)	1999.6.24
	Western African Economic and Monetary Union (WAEMU/UEMOA)	2000.1.1
	East African Community (EAC)	2000.7.7
	Southern African Development Community (SADC)	2000.9.1
	Gulf Cooperation Council (GCC)	2003.1.1
	Southern African Customs Union (SACU)	2004.7.15
Cross-Regional	EU-OCTs (Overseas Countries and Territories)	1971.1.1
	PTN (Protocol relating to Trade Negotiations among Developing Countries)	1973.2.11
	EU-Syria	1977.7.1
	U.S.-Israel	1985.8.19
	GSTP (Global System of Trade Preferences among Developing Countries)	1989.4.19
	Economic Cooperation Organization (ECO)	1992.2.17
	EFTA-Israel	1993.1.1
	Canada-Israel	1997.1.1
	Turkey-Israel	1997.5.1
	EU-Palestinian Territories	1997.7.1
	EU-Tunisia	1998.3.1
	EFTA-Palestinian Territories	1999.7.1
	EFTA-Morocco	1999.12.1
	EU-South Africa	2000.1.1
	EU-Morocco	2000.3.1
	EU-Israel	2000.6.1
	EU-Mexico	2000.7.1
	Israel-Mexico	2000.7.1
	EFTA-Mexico	2001.7.1
	Ukraine-Macedonia	2001.7.5
	U.S.-Jordan	2001.12.17
	EFTA-Jordan	2002.1.1
	EU-Jordan	2002.5.1
	EFTA-Singapore	2003.1.1
	EU-Chile	2003.2.1
	EU-Lebanon	2003.3.1
	Panama-Taiwan	2004.1.1
	U.S.-Singapore	2004.1.1
	South Korea-Chile	2004.4.1
	EU-Egypt	2004.6.1
	EFTA-Chile	2004.12.1
	U.S.-Australia	2005.1.1
	Japan-Mexico	2005.4.1
	EFTA-Tunisia	2005.6.1
	Turkey-Palestinian Territories	2005.6.1
	Turkey-Tunisia	2005.7.1
	Jordan-Singapore	2005.8.22
	EU-Algeria	2005.9.1
	Turkey-Morocco	2006.1.1
	U.S.-Morocco	2006.1.1
	Trans-Pacific Strategic Economic Partnership Agreement (P4)	2006.5.28
	Panama-Singapore	2006.7.24
	U.S.-Bahrain	2006.8.1
	EFTA-South Korea	2006.9.1
	China-Chile	2006.10.1
	Turkey-Syria	2007.1.1
	EFTA-Lebanon	2007.1.1
	Turkey-Egypt	2007.3.1
	Central European Free Trade Agreement (CEFTA)	2007.5.1
	EFTA-Egypt	2007.8.1
	India-Chile	2007.8.17
	Japan-Chile	2007.9.3
	Nicaragua-Taiwan	2008.1.1
	Honduras-Taiwan	2008.3.1
	EFTA-SACU	2008.5.1
	Turkey-Georgia	2008.11.1
	EU-CARIFORUM	2008.11.1
	EU-Cote d'Ivoire	2009.1.1
	U.S.-Oman	2009.1.1
	Australia-Chile	2009.3.6
	Mercosur-India	2009.6.1
	EFTA-Canada	2009.7.1
	Peru-Singapore	2009.8.1
	Japan-Switzerland	2009.9.1
	EU-Cameroon	2009.10.1
	Peru-China	2010.3.1
	Turkey-Chile	2011.3.1
	Turkey-Jordan	2011.3.1

Sources: Based on the list on the WTO website (http://rtais.wto.org/UI/PublicAllRTAList.aspx) as of June 1, 2011, to which Thailand-India, Malaysia-New Zealand and China-Taiwan (ECFA) have been added.