6. Challenges for emerging countries and resource-rich countries susceptible to changes in resource and food prices

(1) Russian economy

(A) Overview of the Russian economy

(a) Russian economy supported by natural resources and personal consumption

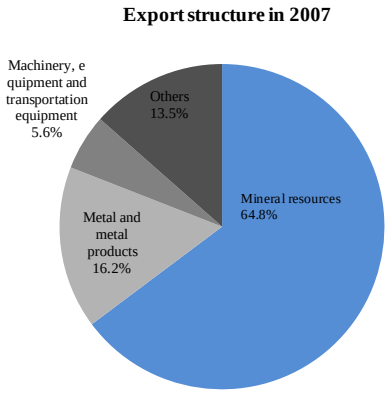
Russia is the world's largest country in area (approximately 17 million square kilometers; around 50 times as large as Japan) and the ninth largest in population (140 million people). Rich in natural resources, Russia is the world's second largest crude oil producer (with a share of 12.6%), after Saudi Arabia, and the largest natural gas producer (with a share of 20.6%), and it also has abundant reserves of other resources like iron ore, rare metals and wood. The Russian economy depends heavily on its rich reserves of natural resources, with resources accounting for around 65% of the overall value of Russian exports, and revenues related to oil and natural gas covering nearly half of Russia's federal budget (see Figure 1-2-6-1).

Figure 1-2-6-1 Natural resources-dependent Russian economy

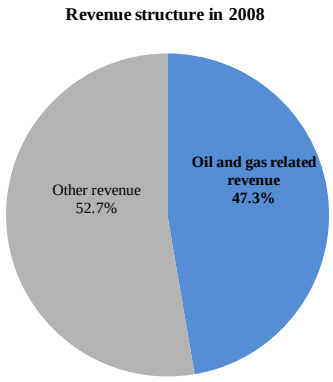
Rankings of Russia's natural resources production and reserves in 2007

Resources	Ranks
Crude oil production	2
Natural gas production	1
Iron ore reserves	1
Nickel ore production	1
Platinum ore production	2
Magnesium metal production	3
Tungsten ore	2
Mercury production	3
Uranium ore production	4
Timber production	3

Notes: Crude oil includes shale oil, sands oil and NGL.
Source: *Statistical Review of World Energy 2008* (BP), *ForesSTAT* (FAO), JOGMEC website.



Source: Russian Federal State Statistics Service website.

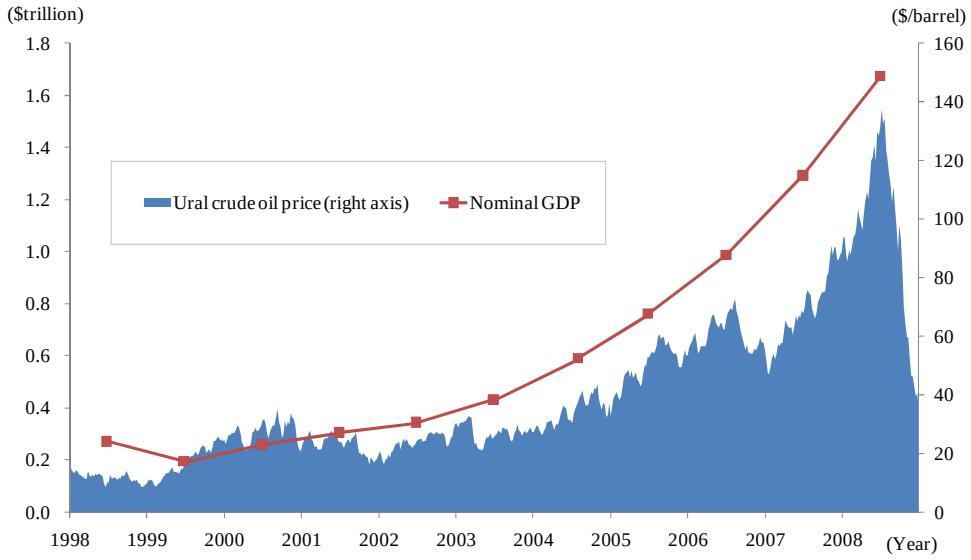


Source: Russian Federal State Statistics Service website.

After Russia's 1998 financial crisis was resolved, the Russian economy continued remarkable growth until around the summer of 2008 in line with a rise in crude oil prices (see Figure 1-2-6-2) and it is now the world's eighth largest in terms of nominal GDP, after the economies of the United States, Japan, China, Germany, France, the United Kingdom and Italy.[153] Russia's real GDP posted average annual growth of 6.9% over the 10 years from 1999 to 2008.

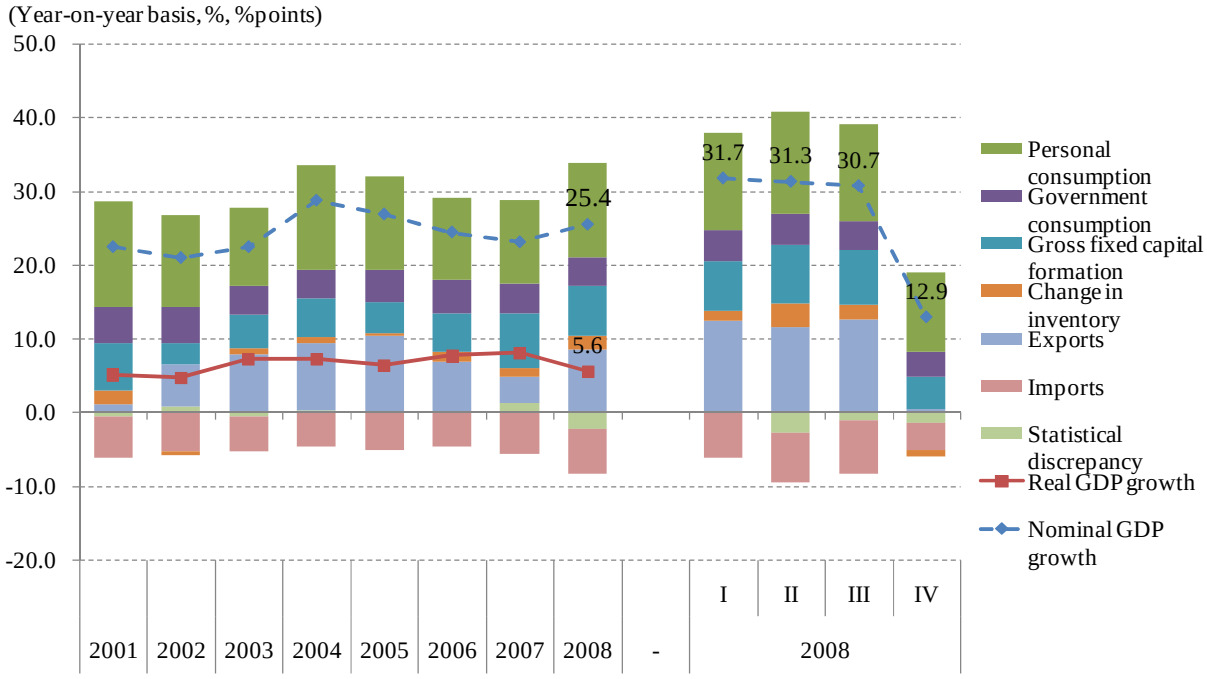
[153] IMF World Economic Outlook Apr. 2009.

Figure 1-2-6-2 Growing Russian economy fueled by rising crude oil prices



Source: U.S. Energy Information Administration website, *World Economic Outlook Apr. 2009* (IMF).

Figure 1-2-6-3 GDP growth and percentage contribution to nominal GDP by demand component



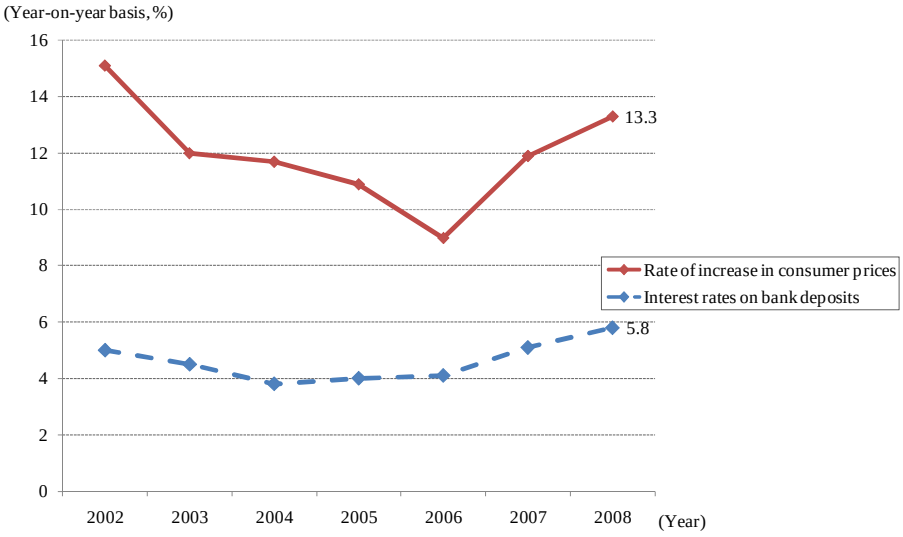
Source: Russian Federal State Statistics Service website.

Data on the contribution of each demand component to nominal GDP show that exports and personal consumption expenditures made significant contributions to Russia's economic growth (see Figure 1-2-6-3). It can be said that an increase in exports due to an upsurge in natural resources and strong

personal consumption supported the strength of the Russian economy until the summer of 2008.

The consumption propensity is strong in Russia as in many other emerging economies. One factor behind Russia's strong consumption propensity is its high inflation rate. Although the hyperinflation[154] that was seen in the first half of the 1990s receded, consumer prices have been rising more than 10% almost every year. On the other hand, as interest rates on bank deposits have stayed between 4% and 6%, real interest rates have been negative (See Figure 1-2-6-4). Since funds placed in bank accounts as deposits lose value under these circumstances, consumers tend to spend their money on consumption rather than save it[155].

Figure 1-2-6-4 Low real interest rates



Source: Central Bank of the Russian Federation website, Russian Federal State Statistics Service website.

(b) Rapid growth in Russians' income

In line with rapid economic growth, Russian people's income has increased.

The ratio of people with a monthly income of more than 15,000 rubles (around $510, or ¥46,000) has quintupled from 6.7% in 2004 to 33.1% in 2008, with the average monthly income coming to some 17,200 rubles (around $585, or ¥53,000) (see Figure 1-2-6-5). In Russia, the income gap between metropolitan and local areas is large. The average monthly income in Moscow is around 30,000 rubles (around $1,020, or ¥92,000).

As industries other than the military and natural resources industries are not well developed in Russia, the income growth is prompting Russian consumers to increase expenditures on foreign products and

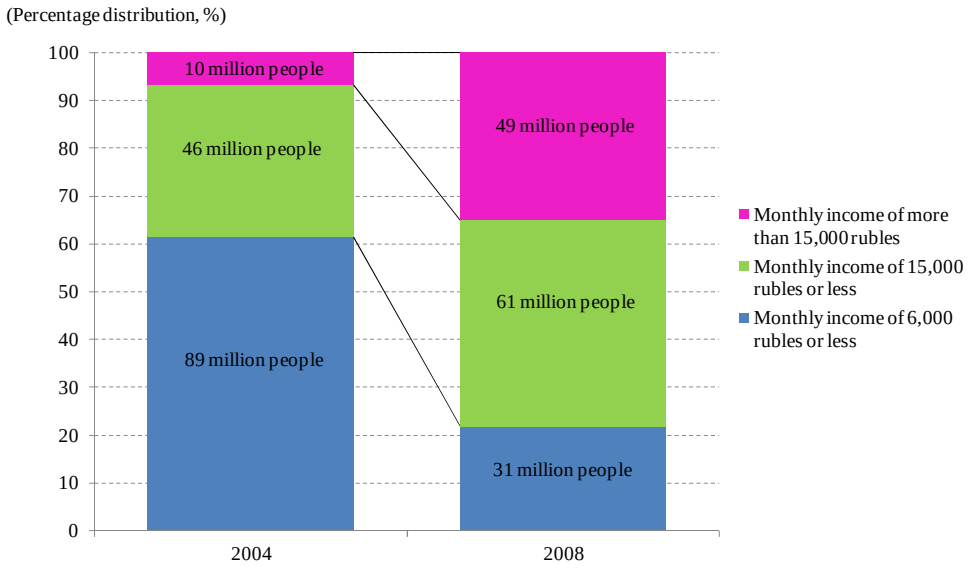
[154] As a result of a price liberalization implemented in 1992, potential inflation pressure materialized, boosting the consumer price index by 26.1-fold in 1992 and by 9.6-fold in 1993.

[155] The high consumption propensity may also be attributable to the low life expectancy for Russian people. In 2007, the life expectancy in Russia was 67.5 years old, lower than not only in Western developed countries but also in China and Brazil. In particular, the life expectancy for men was conspicuously low at 61.4 years old. Given that many Russian people retire from their working life around the age of 60, the high consumption propensity may reflect a desire to enjoy a short post-retirement life by spending money.

services in pursuit of higher quality.

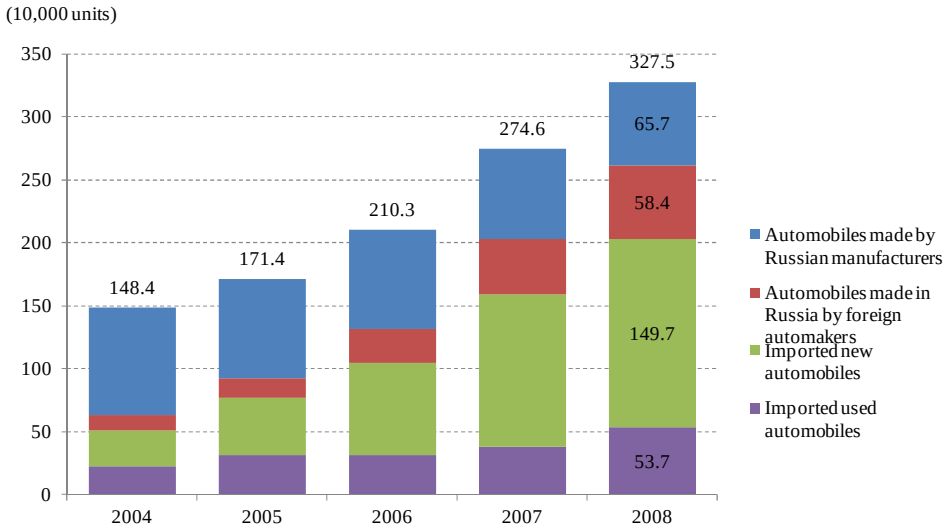
The income growth is also reflected in the trend in the auto market, with automobile sales in Russia nearly doubling between 2004 and 2008. While sales of imported automobiles and automobiles made in Russia by foreign automakers are growing, sales of automobiles made by Russian manufacturers are weak (see Figure 1-2-6-6).

Figure 1-2-6-5 Changes in the demographic structure in terms of income strata



Source: Russian Federal State Statistics Service website.

Figure 1-2-6-6 Changes in auto sales in Russia



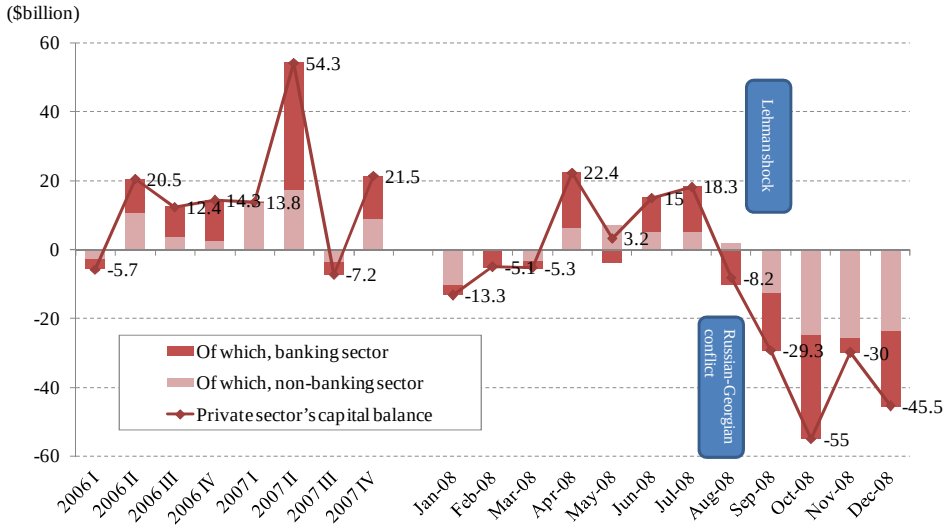
Notes: 2008 figures are estimates.
Source: ASM Holding.

(B) Impact of the financial crisis

(a) An outflow of capital and stock price drops

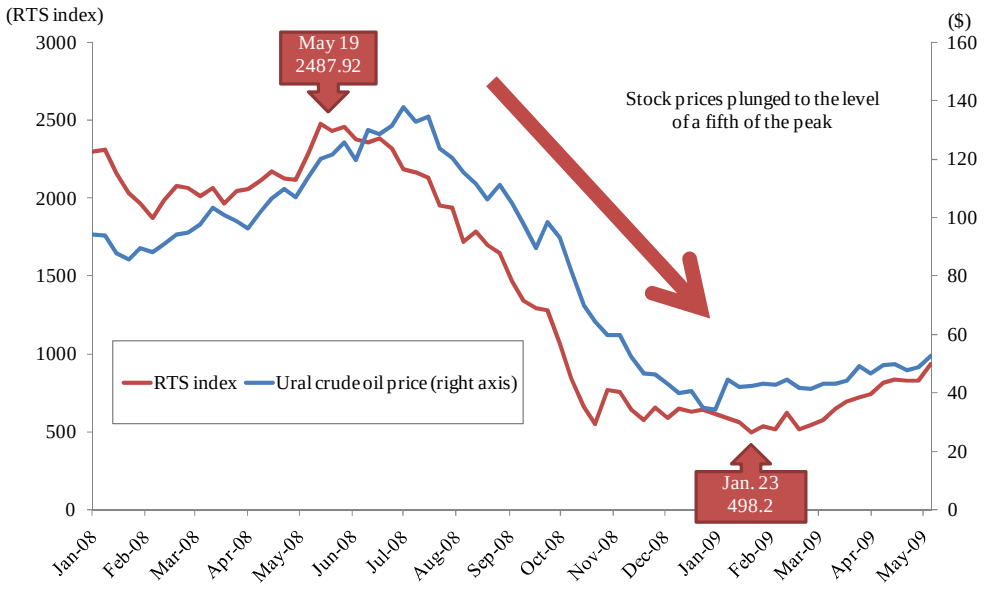
The Russian economy has rapidly deteriorated as a result of: a steep drop in natural resource prices in late July, 2008, Russia's military conflict with Georgia in August and the Lehman shock in September. In August 2008, after the outbreak of the military conflict with Georgia, more than $10 billion in capital flowed out of the banking sector, and the outflow of capital, from both the banking and non-banking sectors, continued thereafter (see Figure 1-2-6-7). In addition, after hitting a record high in May 2008, the RTS index, Russia's representative stock index, continued to decline, plunging in January 2009 to a level a fifth of the peak (see Figure 1-2-6-8).

Figure 1-2-6-7 Increasing capital outflow after Russia's military conflict with Georgia



Source: Central Bank of the Russian Federation website.

Figure 1-2-6-8 Changes in stock index and crude oil prices



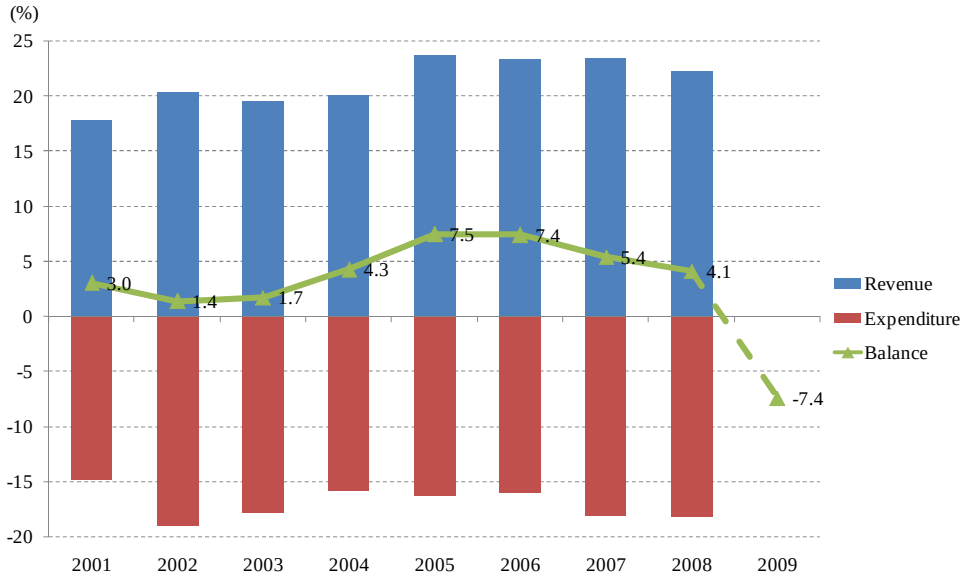
Source: U.S. Energy Information Administration website, Russian Trading System website.

(b) Deterioration of the fiscal condition

As Russia's finances depend heavily on revenues related to oil and natural gas, a drop in natural resource prices has caused a significant deterioration of the fiscal condition.

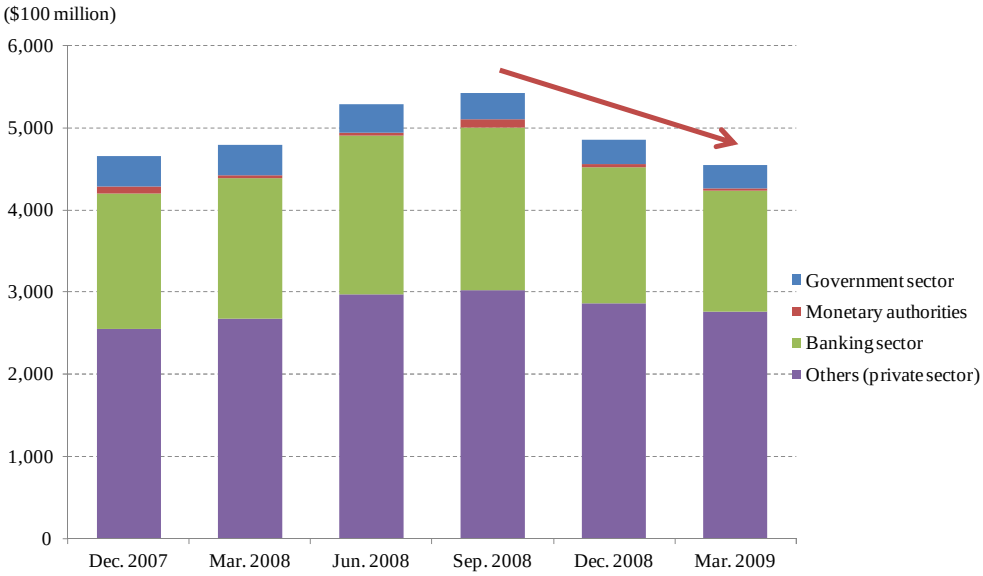
Although Russia posted a budget surplus for the duration of 2008, the fiscal condition has deteriorated rapidly since autumn of that year. According to a new budget act signed by the president on April 29, 2009, the budget deficit in 2009 is expected to be equivalent to 7.4% of GDP (see Figure 1-2-6-9). This will be the first budget deficit for Russia since 1999. This situation may evoke the memory of Russia's financial crisis in 1998, during which the country defaulted on foreign debts. However, the amount of Russia's foreign debts, which was higher than $500 billion in June to September 2008, fell back to the level seen at the end of 2007 in March 2009 (see Figure 1-2-6-10). Of the foreign debts, $91.8 billion will come due by the end of 2009 and $72.7 billion by the end of 2010. As Russia had foreign currency reserves totaling $383.9 billion as of May 1, 2009, the country is unlikely to default on foreign debts in the immediate future (see Table 1-2-6-11).

Figure 1-2-6-9 Budget balance (ratio to GDP)



Source: Ministry of Finance of the Russian Federation, Russian Federal State Statistics Service website.

Figure 1-2-6-10 Declining Russia's foreign debts



Notes: March 2009 figures are estimates.
Source: Central Bank of the Russian Federation website.

Table 1-2-6-11 Time of repayment for Russia's foreign debts

($100 million)

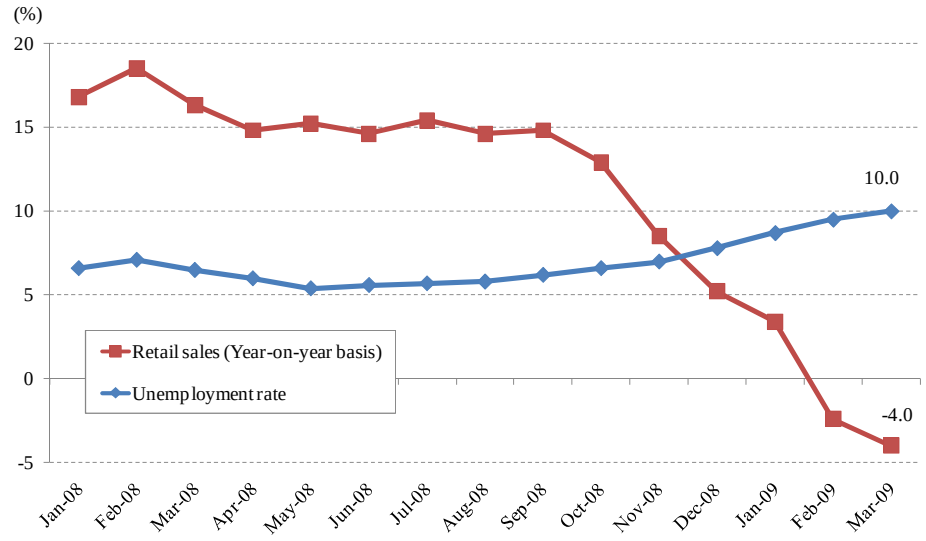
Outstanding foreign debts (as of March, 2009)			Time of repayment		Foreign currency reserves (as of May 1, 2009)
			2009 (after the second quarter)	2010	
Total		4,535	918	727	3,839
	Government sector	284	22	27	
	Monetary authorities	21	0	0	
	Banking sector	1,475	384	219	
	Others (private sector)	2,755	512	481	

Source: Central Bank of the Russian Federation website.

(c) Consumption and employment

As consumption in Russia was strong, retail sales continued to post double-digit year-on-year growth until the second half of 2008. However, retail sales started to slow down in October 2008 and declined in February 2009, marking the first drop since 1999. Sales of automobiles, which were also strong, have weakened since October 2008, with sales of passenger cars in the January-March quarter of 2009 posting a year-on-year drop of 40%. In addition, the unemployment rate has been rising gradually, and a further rise is possible (see Figure 1-2-6-12).

Figure 1-2-6-12 Changes in retail sales and unemployment rate



Source: Russian Federal State Statistics Service website.

(C) Natural resources seen as the key to Russia's economic recovery

(a) Toward strategic use of natural resources

As global energy demand is expected to continue increasing, prices of crude oil and natural gas are likely to rise in the medium to long term. Well aware of the importance of natural resources, which have brought about its economic prosperity, Russia is preparing for strategic use of natural resources.

(i) Control of natural resources

Amid the intensifying competition to secure natural resources around the world, the Russian government introduced restrictions on the investment of foreign capital in strategic industrial sectors in May 2008. The restriction is applicable not only to the nuclear and aerospace industries but also to the drilling rights for underground resources (see Figure 1-2-6-13). In addition, in order to counter moves to build pipelines that enables natural resources produced in Central Asian countries to be exported to Europe and China without going through Russia, Russia raised its purchase prices for Central Asian natural gas and is negotiating with the Central Asian countries about plans to build new pipelines. Regarding natural gas, tricky price negotiations with Ukraine have almost become an annual ritual. This is attributable to Ukraine's resistance to Russia's attempt to raise the prices of natural gas it supplies. Although Russia previously supplied natural gas to former Soviet states at prices far lower than the export prices offered to Western Europe, the price gap has gradually been narrowing (see Figure 1-2-6-14).

Table 1-2-6-13 Sectors subject to foreign investment restrictions in strategic sectors (announced in May 2008)

(1) Activities affecting climate and geophysical changes and phenomena, and activities using pathogenic organisms (Article 1 to 3)
(2) Nuclear industry (Article 4 to 10)
(3) Cryptographic and eavesdropping industries (Article 11 to 16)
(4) Defense industries, including activities related to weapons and explosives (Article 17 to 27)
(5) Aerospace industry (Article 28 to 33)
(6) Television and radio broadcasting covering a certain part of the territory (Article 34 and 35)
(7) Provision of services related to natural monopolies and telecommunication services, where a company has a dominant position in the market (Article 36 to 38)
(8) Geological research, exploration and extraction of natural resources in fields having federal importance (Article 39)
(9) Fishing industry (use of water biological resources) (Article 40)
(10) Publishing and printing, when exceeding a certain amount of copies or sheet impressions. (Article 41 and 42)

Source: JETRO SENSOR September. 2008 (JETRO).

Table 1-2-6-14 Changes in the prices of Russian natural gas exports ($/1000 m^2)

	2005	2006	2007	2008	2009
Bound for EU	250	245～285	293	369	495 (Q1)
Bound for Ukraine	50	95	130	179.5	360 (Q1)
Bound for Belarus	46.68	46.68	100	127.9	160
Bound for Georgia	63	110	230	235	
Bound for Moldova	80	110～160	170	250	315 (Q1)
Bound for Armenia	54	110	110	110	154

Source: Oil and Natural Gas Review March 2009 (JOGMEG).

(ii) High value added to natural resources

Russia, which is also a major producer of timber, decided in February 2007 to raise the export duty on round timber in four stages. The export duty, which initially stood at 4 euros per square meter, has now been raised to 15 euros.[156] The decision is presumably aimed at supporting companies that export timber processed in Russia in order to add value instead of exporting unprocessed timber.

Meanwhile, Sakhalin II, Russia's first liquefied natural gas project, started operation in February 2009. This project, in which Japanese-owned companies are involved, enables natural gas to be liquefied for transport by tanker. The first shipment to Japan was made in March 2009. The start of this project has expanded the market for Russian natural gas, which was previously limited to Europe, to the Asia-Pacific region.

(D) Japan-Russia economic relations

(a) Rapid development of Japan-Russia relations driven by the auto industry

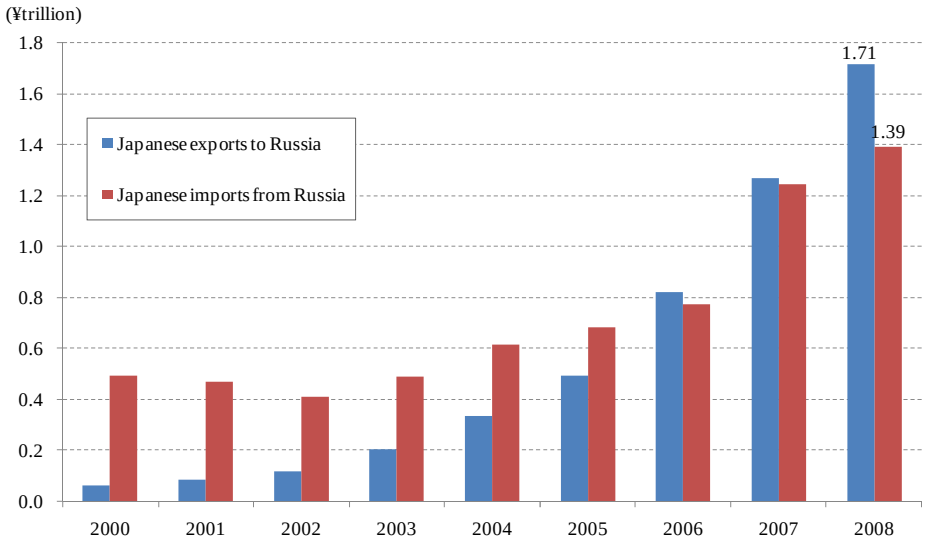
In line with the rapid growth of the Russian economy, exports of automobiles from Japan and Japanese investment in the automobile sector have increased sharply.

Trade between Japan and Russia is continuing to grow in terms of both exports and imports, with the value of trade rising 2.6-fold over the three years to 2008. The value of exports from Japan rose particularly sharply. After exceeding the value of imports in 2006, the value of exports increased to ¥1.7 trillion in 2008 (see Figure 1-2-6-15). Among Japan's export items, automobiles have continued to post the highest export value since the second half of the 1990s, accounting for 76% of the overall value of Japanese exports in 2008. Among Russia's import items in trade with the world, too, automobiles have especially increased in recent years, with imports of automobiles and auto parts accounting for about half of the overall Russian imports in 2007. However, the Russian market may be maturing given that automobile sales by some manufacturers have slowed down in Moscow and St. Petersburg since before the financial crisis. It will be necessary from now on to expand the market beyond Moscow and St. Petersburg to local cities.

As for other sectors, imports of chemical products, rubber, foods and textile products are increasing, raising hopes that imports of those products from Japan will also grow (see Figure 1-2-6-16).

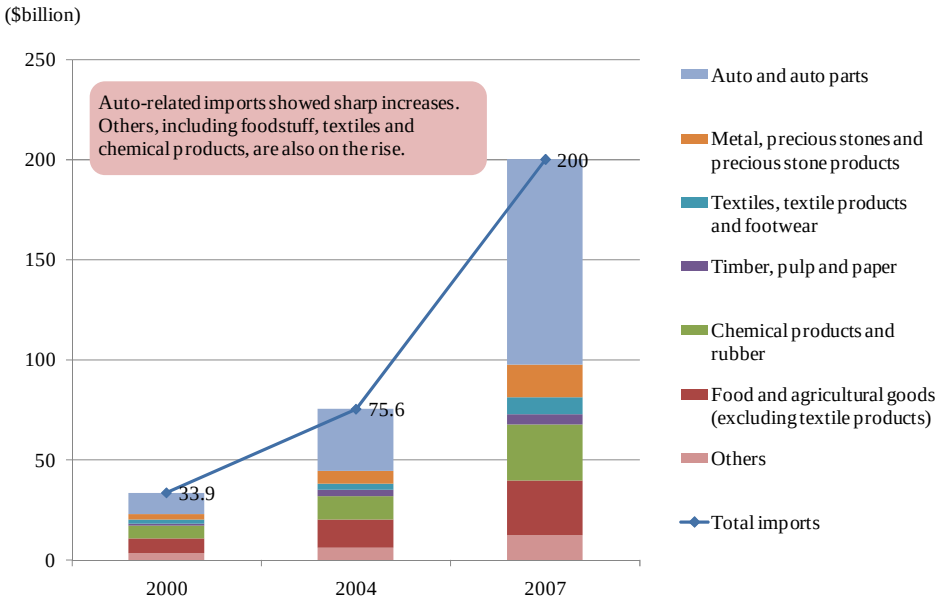
[156] The export duty was raised from 4 euros per square meter to 10 euros in July 2007and from 10 euros to 15 euros in April 2008. Although it was scheduled to be raised again in January 2009, from 15 euros to 50 euros, the hike has been postponed. White birch timber with a diameter of less than 15 centimeters, to which the export duty is no longer applicable, will be subject to a 50-euro duty starting in January 2011.

Figure 1-2-6-15 Changes in trade between Japan and Russia



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

Figure 1-2-6-16 Changes in types of products imported to Russia



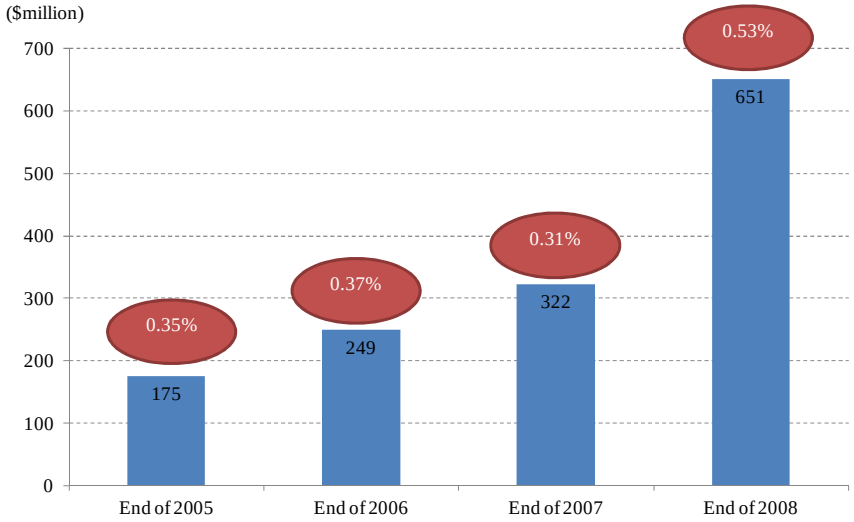
Source: Russian Federal State Statistics Service website.

In the meantime, Japanese direct investment in Russia has also been increasing in recent years, with the investment amount in 2008 more than doubling from the previous year. However, the balance of outstanding Japanese direct investment ($650 million) in Russia is less than 1% of the total balance of outstanding direct investment in the country (see Figure 1-2-6-17). Furthermore, the balance of outstanding Japanese direct investment in Russia is about one-hundredth as large as the balance of

outstanding Japanese direct investment in China.[157] Given the size of the economies of Japan and Russia, there is significant room for an expansion of Japanese investment in Russia.

Overall inward direct investment in Russia is also increasing. By sector, drilling of natural resources is attracting the largest amount of investment, indicating that various countries are making active investment in order to secure the supply of natural resources (see Figure 1-2-6-18). An increase in inward direct investment in the wholesale sector has been seen, however, this mainly reflects growing investment in the automobile repair service sector.

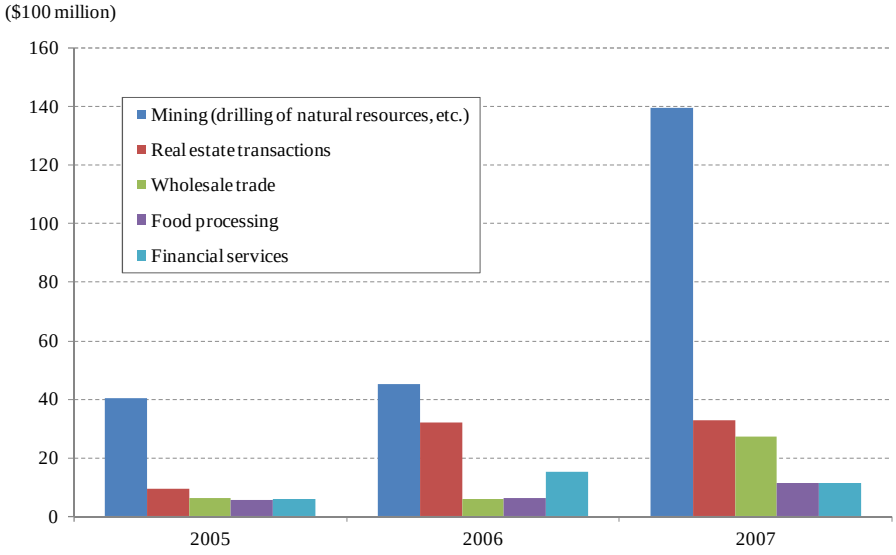
Figure 1-2-6-17 Changes in outstanding Japanese direct investment in Russia



Percentages shown atop the bars are the ratio of outstanding Japanese direct investment in Russia relative to the total outstanding foreign direct investment in the country.
Source: JETRO website, Russian Federal State Statistics Service website.

[157] As of the end of 2007, the balance of outstanding Japanese direct investment in Russia stood at $370 million, compared with the $37.8 billion invested in China.

Figure 1-2-6-18 Changes in outstanding inward direct investment in Russia by industry



Source: JETRO website.

Recent Japanese investment projects in Russia include those related to a variety of sectors, including not only automobiles but also glass, rubber, alcoholic beverages and food processing. In the apparel sector, too, there are Japanese-owned companies planning to advance business into Russia. According to the results of a Japanese government survey,[158] people who feel friendly toward Russia are a minority in Japan, while a majority of people in Russia feel friendly toward Japan. The survey also showed that Russian people's perception of Japan is a country with advanced technology as well as rich traditions and cultures.

Russia has taken protectionist measures concerning some product markets, including a tariff increase for automobiles. However, Russia probably provides huge business opportunities for the Japanese manufacturing industry, whose products are highly appreciated for their high quality and reliability.

Column 8 Japan and the Russian Far East

Although the Russian Far East[159] occupies more than a third of Russia's area, it is small as a market, as less than 7 million people live on the vast land. This region is not an attractive place even for Russian people, and most Russians never set foot there during their lifetime. Moreover, there are still many impediments to doing business in the Russian Far East because of problems related to Russia's legal systems, customs clearance procedures and transportation infrastructure.

[158] According to the Opinion Survey concerning Foreign Policy (October 2008), conducted by the Cabinet Office, 13.0% of the respondents replied that they feel friendly toward Russia and 83.4% replied that they do not feel friendly to Russia. Meanwhile, according to the Survey in Russia on Relations with Japan (August 2005), conducted by the Ministry of Foreign Affairs, the ratio of Russian people who replied that they liked Japan came to 37%, far higher than the 3% who replied that they did not like Japan.

[159] The Russian Far East as referred to herein is the Far Eastern District, one of Russia's seven federal districts.

However, the Russian Far East is geographically close to Japan and people living there are familiar with Japan and give high regard to the quality and safety of Japanese products. Therefore, a variety of business transactions have been conducted, albeit on a limited scale, between the Russian Far East and Hokkaido and other Japanese regions that face the Sea of Japan, including exports of used cars, agricultural products and daily necessities from Japan.

Japanese food products sold in Khabarovsk (photo provided by Japan Association for Trade with Russia & NIS)

It is said that 80% to 90% of automobiles in Khabarovsk, Vladivostok and Sakhalin are Japanese cars, and many of cars imported from Japan are used cars. In line with growth in Russian people's income, the trend of used cars exported from Japan to the Russian Far East is shifting from old models to more recent models with better quality. In January 2009, the Russian government raised the tariff on imported cars in order to protect the domestic auto industry.[160] As the tariff hike is a life-or-death matter for importers of used cars in the Russian Far East, several protest demonstrations have occurred there. The tariff hike led to a significant decrease in exports of used cars from Japan. However, as there are many people wishing to drive a Japanese car despite the increased tariff, Sapporo Honda decided to start business in Sakhalin. It is the first car dealer affiliated with a Japanese automaker to do business there. The company plans to export used cars to Sakhalin at reduced cost by doing away with intermediaries and also provide car repair service there.

Recently, Japanese-owned companies handling houses and building materials adapted to cold climates are also starting to do business in the Far East region. Hokkaido has long been home to companies with superior technology for cold-climate houses, and those companies have started

[160] The Russian government raised the tariff on imported automobiles for a nine-month period starting on January 12, 2009. The tariff hike is applicable to most types of automobiles. The tariff rate varies according to the size of engine displacement. The tariff rate for used automobiles that are more than five years old was raised by some 80% compared with the previous rate that was applied to used automobiles that were more than seven years old.

marketing activity in the Russian Far East, which, like Hokkaido, is a cold-climate region. In February 2009, the construction of a model house using heat-insulation panels supplied by a Hokkaido-based company was completed by a Sakhalin-based company that builds and sells single-family houses. Demand for heat-insulation panels is expected to increase in Sakhalin, as single-family houses are increasing there.

There is also a unique business catering to people visiting from the Russian Far East to Japan. Many tourists visit Hokkaido from Sakhalin, including low- and middle-income people who arrive by ship to do shopping in supermarket stores and 100-yen shops, and some people from the wealthy class go on to Tokyo by air. As the Russian Far East is rich in mineral resources, huge energy-related projects are ongoing there, including Sakhalin I and Sakhalin II, and the wealthy class is involved in these projects. According to a Hokkaido-based company that offers travel packages to Russian people, tours involving services like beauty treatments in hotel suites and comprehensive physical checkups are popular among wealthy tourists. The popularity of such tours reflects an increase in Russian people's awareness about health that has come with growth in their income and the absence of advanced medical institutions and a system of quick comprehensive medical checkup in the Russian Far East, according to the company.

On the Russky Island, off Vladivostok, an APEC meeting is scheduled to be held in 2012. This island, which is located only 600 meters from the continental coast, was used as a strategic military site in the 19th century. Before it was selected as the location of the 2012 APEC meeting, infrastructures there remained underdeveloped. Now, development is proceeding quickly. Japanese-owned companies are also starting to be involved in large-scale infrastructure projects in the Russian Far East, including the construction of a bridge linking the Russky Island and the continent. Japan dispatched a delegation comprising officials from both public and private sectors to Vladivostok in order to promote Japanese-owned companies' cooperation in the development of the region.

Construction site of a bridge to Russky Island

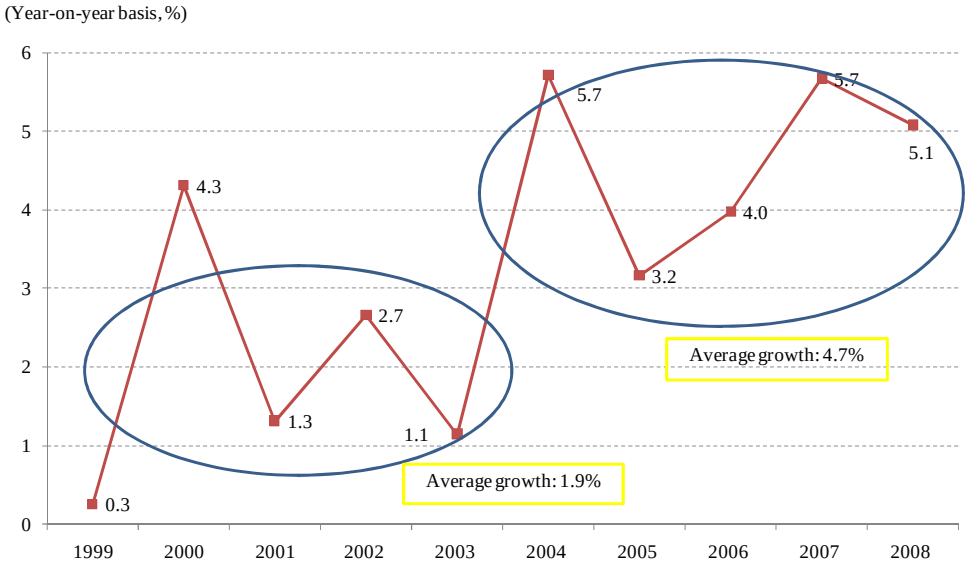
(2) Brazilian economy

(A) Growing global presence of the Brazilian economy

(a) High growth led by domestic demand

After experiencing the economic turmoil caused by an unprecedented hyperinflation[161] and a foreign debt crisis in the 1980s through the early 1990s, Brazil succeeded in containing the inflation, stabilizing the macro-economy and improving its vulnerability against external shocks over the 10-year period starting with the launch of the Real Plan[162]in December 1993. Initially after the inauguration of the government of President Lula in 2003, an outflow of foreign investment money triggered economic turmoil, as he called for a moratorium on foreign debts in his presidential election campaign. However, his government regained the confidence of the international financial market by making clear its emphasis on fiscal consolidation and finished its IMF program in March 2005. Since 2004, the Brazilian economy has almost consistently maintained growth, with the average real GDP growth over the five years between 2004 and 2008 coming to 4.7%, well above the average of 1.9% between 1999 and 2003 (see Figure 1-2-6-19).

Figure 1-2-6-19 Changes in Brazil's real GDP growth



Source: Brazilian Institute of Geography and Statistics.

Brazil's economic growth has been led by strong domestic demand. Of Brazil's nominal GDP of 2.9 trillion real (around ¥134.3 trillion[163]), personal consumption accounted for 1.8 trillion real (around ¥83.3

[161] Consumer prices rose at an annual rate of 2,947% in 1990 (IMF "World Economic Database, Oct. 2008").

[162] This plan, which was announced by then Minister of Finance Fernando Henrique Cardoso, was a package of anti-inflation measures implemented in three stages: the balancing of the budget, the use of a system under which prices are indicated in both cruzeiro real and a new currency unit called URV (Unidade Real de Valor) and after the URV the introduction of a new currency called the real and a shift to price indication in the real (Shoji Nishijima (1994), "Can the Real Plan Contain Inflation?").

[163] Based on an exchange rate of ¥46.31 to the real (as of May 22, 2009).

trillion), or 60.7%, and fixed capital formation accounted for 500 billion real (around ¥23.2 trillion), or 19%. Personal consumption and fixed capital formation posted average annual growth of 11.5% and 14.7%, respectively, in nominal terms on a year-on-year basis between 2003 and 2008.

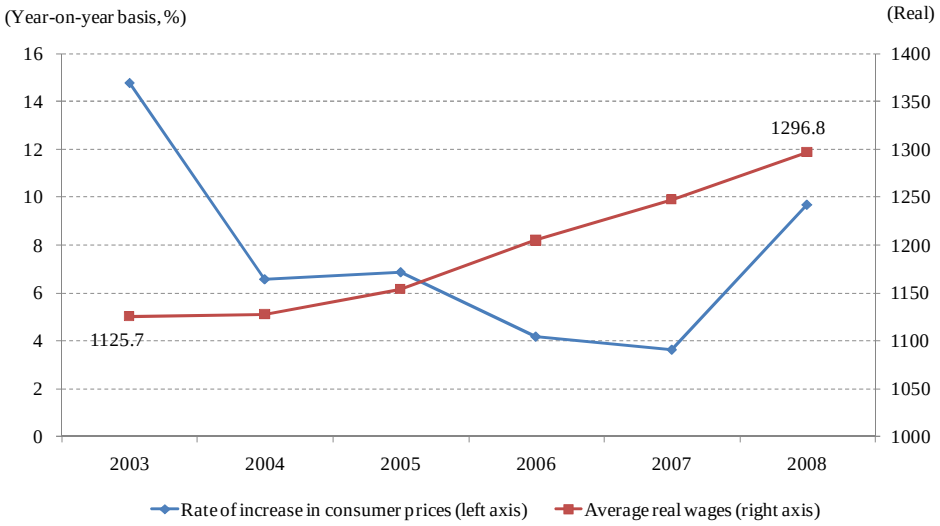
Behind the strong domestic demand is an expansion of the middle-income class due to a rise in the average wage, which is attributable to restrained inflation, a series of minimum wage increases by the government,[164] robust corporate earnings (see Figure 1-2-6-20) and an increase in disposable income due to a living expense subsidy scheme for the poor called Bolsa Familia (Family Fund)[165] (see Figure 1-2-6-21). According to a survey conducted by the Getulio Vargas Foundation, a major Brazilian research and educational institution specializing in economics and business administration, the middle-income class, with a monthly income of $462 to $1,995, accounted for 53.8% of Brazil's population as of December 2008, up from 42.2% in April 2004, when Bolsa Familia was launched. The ratio of high-income earners, with a monthly income of $1,996 or more, also rose, from 11.6% to 15.5%. Correspondingly, the ratio of poor people, with a monthly income of $333 or less, fell from 37.2% to 25.1%[166]. A rise in purchasing power due to the growth of the middle-income class has led to a significant expansion of Brazil's consumer market, with per-capita consumption expenditures increasing 4.1-fold between 2003 and 2008 (see Figure 1-2-6-22). As an expansion of personal consumption has led to an improvement in corporate earnings, wages have risen and employment stability has grown. In addition, robust overseas economic conditions have increased the provision of credit to individuals through an inflow of foreign capital and the growth of the credit market, thereby expanding personal consumption further. The balance of outstanding loans to individuals (excluding mortgage loans) stood at 408.7 billion real as of March 2009, increasing 4.1-fold from 100.3 billion real in January 2004.

[164] The Brazilian government revises the minimum wage every year between March and May. The minimum wage after the most recent revision (in February 2009) stood at 465 real per month, up 1.9-fold from the minimum wage after the revision made in April 2003.

[165] Bolsa Familia is an income subsidy scheme introduced by the Lula government in 2003. This was created through the integration of the government's "Zero Hunger" program with three existing daily life-support schemes, namely a fund for school children, gas subsidies and food stamps. It is applicable to a household with a per-capita income of 137 real or less (the web site of the Ministry of Social Development). The number of eligible households stood at 11.2 million, which translated into around 44 million people, or 23% of Brazil's population of 190 million people. (Lindert (2006), "Bolsa Familia Program – Scaling up Cash Transfers for the Poor.")

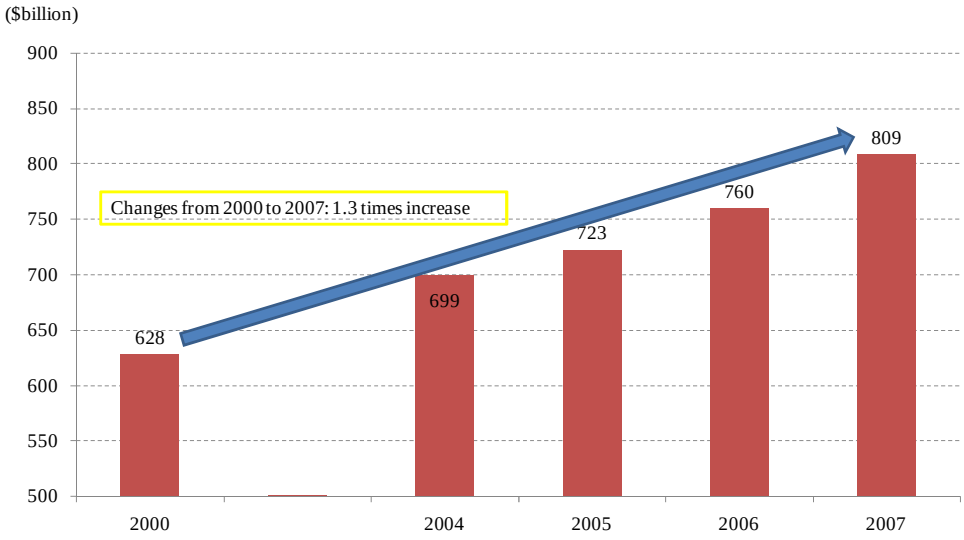
[166] The figures are based on data compiled by the Japan Bank for International Cooperation. In November 2008, the World Bank published a report proposing policy measures that should be taken by developing countries in light of the impact of the global financial crisis on them ("Global Financial Crisis: Responding Today, Securing Tomorrow") and cited Bolsa Familia as one the most successful safety net programs in the report.

Figure 1-2-6-20 Changes in the rate of increase in consumer prices and average real wages in Brazil



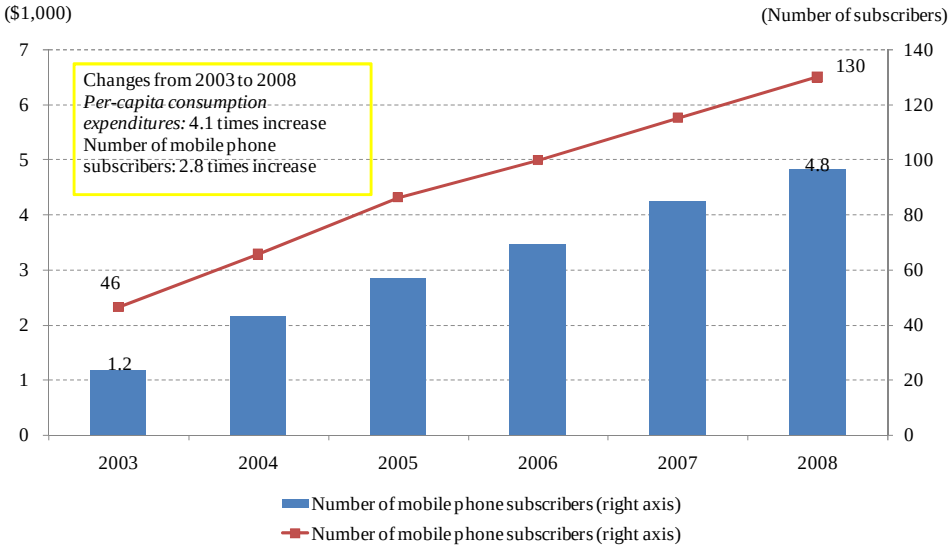
Notes: Rate of increase in consumer prices is a comparison of the consumer price index of the year with the figure in the previous year.
Source: Consumer price index from International Financial Statistics (IMF), average real wages from CEIC Database.

Figure 1-2-6-21 Changes in real disposable income in Brazil



Source: *Statistical Yearbook for Latin America and the Caribbean 2008* (U.N. Economic Commission for Latin America and the Caribbean).

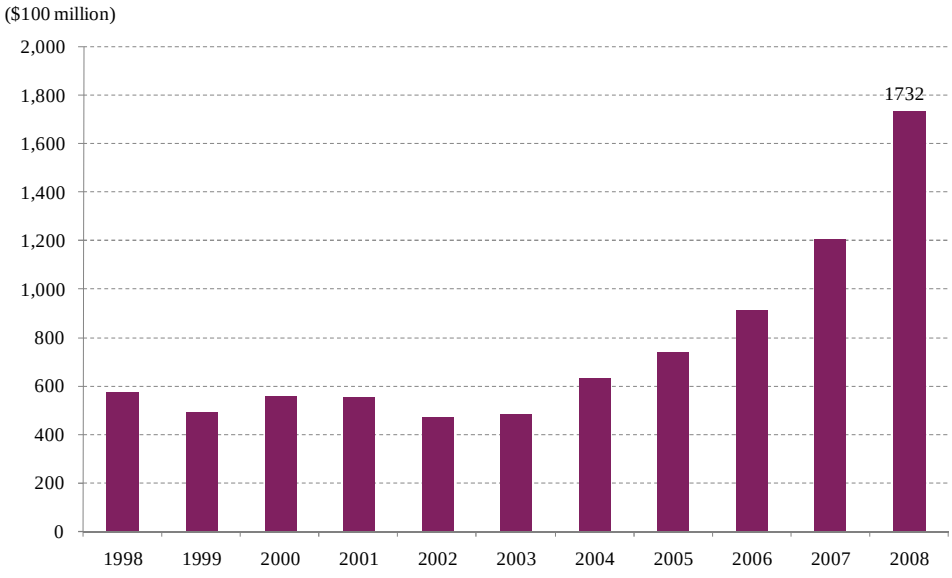
Figure 1-2-6-22 Growing Brazil's consumer market



Notes: *Per-capita consumption expenditures are based on nominal figures.*
Source: Euromonitor.

The strong domestic demand has also led to an increase in imports, boosting the value of imports in 2008 by 43.6% from the previous year to a new record high of $173.2 billion (see Figure 1-2-6-23).

Figure 1-2-6-23 Changes in Brazilian imports



Source: CEIC Database.

(b) Diversified industrial structure

Amid growing global demand for natural resources and foods, Brazil's presence as a major exporter of these items is growing around the world. In the natural resources sector, Brazil is the world's largest producer of iron ore with annual production of 340 million tons in 2007, equivalent to a global share of

21%. It is also rich in other resources, including coal, aluminum, nickel, manganese and titanium.[167] In the agriculture sector, Brazil is the world's second largest exporter of agricultural products[168] after the United States as it is No. 1 globally in terms of the production volume of oranges, sugar and coffee and No. 2 in terms of the production volume of soybeans and beef.

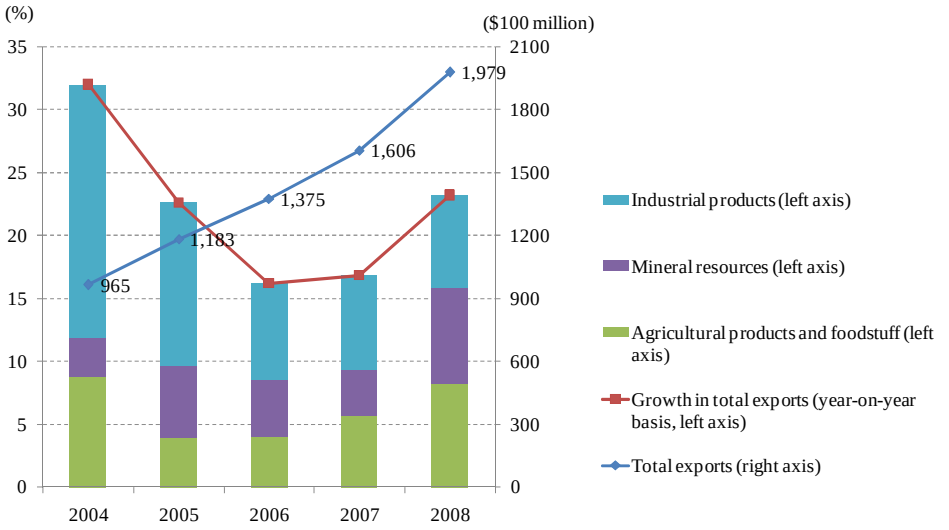
As for the contributions of individual export items to the overall growth value of Brazilian exports, mineral resources, agricultural products and industrial products make almost equal contributions to the growth (see Figure 1-2-6-24). Meanwhile, data on the contribution of each industry to nominal GDP growth shows that the services industry makes a significant contribution (see Figure 1-2-6-25). The agricultural industry employs 17.6% of all workers, the manufacturing industry 22.2% and the services industry 60.2%, indicating that the Brazilian economy depends primarily on the services industry.[169] As for direct investment from abroad, although the mining industry attracted the most investment, investment is spread among a broad range of industries, such as: the service industry, including financial, commercial and real estate services; and, the manufacturing industry, including metal processing and automotive engine manufacturing (see Figure 1-2-6-26). Thus, Brazil's industrial structure is diversified and not dependent entirely on natural resources.

[167] As of 2007, Brazil had proven crude oil reserves totaling 12.6 billion barrels and its crude oil self-sufficiency ratio was 84% (BP, "Statistical Review of World Energy, June 2008"). In addition, there are estimated reserves totaling 5 billion to 8 billion barrels in terms of light oil in subsalt deposits off the Atlantic coast. If these are confirmed as proven reserves, Brazil's proven crude oil reserves will total a maximum of 20 billion barrels (Mitsubishi UFJ Research and Consulting (2009), "Rising Brazilian Economy"), which is equivalent to around 23% of Venezuela's proven reserves which total 87.6 billion barrels (above-cited BP statistics).

[168] In 2007, Brazil was the world's second largest exporter of agricultural products, with an overall export value of $42.1 billion, after the United States, whose overall export value came to $87.6 billion (WTO, "International Trade Statistics 2008").

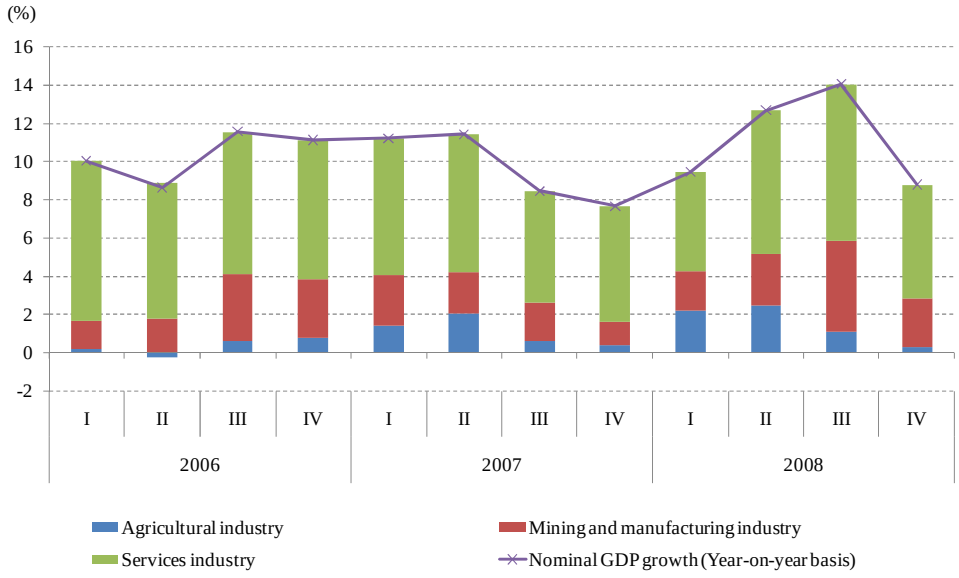
[169] These are the figures for 2007 (U.N. Economic Commission for Latin America and the Caribbean, "Statistical Yearbook for Latin America and the Caribbean 2008").

Figure 1-2-6-24 Total Brazilian exports and percentage contribution by type of product



Notes: Figures for industrial products are the sum of goods classified under HS Codes 1–24, mineral resources are the sum of Codes 25–27, and industrial products are the sum of Codes 28–97.
Source: World Trade Atlas.

Figure 1-2-6-25 Brazil's nominal GDP growth and percentage contribution by industry (year-on-year basis)



Source: Brazilian Institute of Geography and Statistics.

Table 1-2-6-26 Breakdown of inward direct investment in Brazil by industry

($million, %)

Industry	Amount	Percentage distribution
Metal ore mining	10,645	23.9
Financial services	5,109	11.5
Basic metallurgy	4,984	11.2
Commerce (excluding auto sales)	2,564	5.8
Food manufacturing	2,226	5.0
Real estate	1,721	3.9
Coal, petroleum derivatives, biofuel manufacturing	1,568	3.5
Construction	1,386	3.1
Oil and gas drilling	1,339	3.0
Automotive engine manufacturing	964	2.2
Electricity and gas supplier	909	2.0
Chemical products manufacturing	859	1.9

Source: Central Bank of Brazil.

(c) International financial market's growing confidence in Brazil and inflow of foreign capital

As described above, Brazil's economic fundamentals have improved in recent years, and external demand has been growing. Brazil maintained a trade surplus from 2001 onward as a result of an increase in exports caused by rises in natural resource and food prices around the world, increased demand from Asia and Europe and a recovery in export competitiveness following a shift to a floating foreign exchange rate system. Led by the trade surplus, Brazil also maintained a current account surplus from 2003 onward (Figure 1-2-6-27).[170] Its foreign currency reserve also grew, totaling $202.5 billion as of the end of March 2009,[171] higher than the balance of its outstanding foreign debts (Figure 1-2-6-28).[172] In December 2005, two years earlier than scheduled, the Brazilian government fully repaid the IMF loan provided in 1998, following an improvement in the degree of the country's vulnerability to external shocks. As a result of increased confidence in the Brazilian economy, direct investment and portfolio investment have also grown. In particular, a massive inflow of funds, including those related to the carry-trade,[173] occurred in 2007 due to the high interest rates in Brazil and the appreciation of the real at a time when interest rates in Japan, the United States and Europe stayed at very low levels (see Figure 1-2-6-29). In April 2004, Standard & Poor's, a U.S. rating agency, upgraded the rating assigned to Brazil's foreign currency-denominated long-term debts to "BBB minus," an investment-grade level.

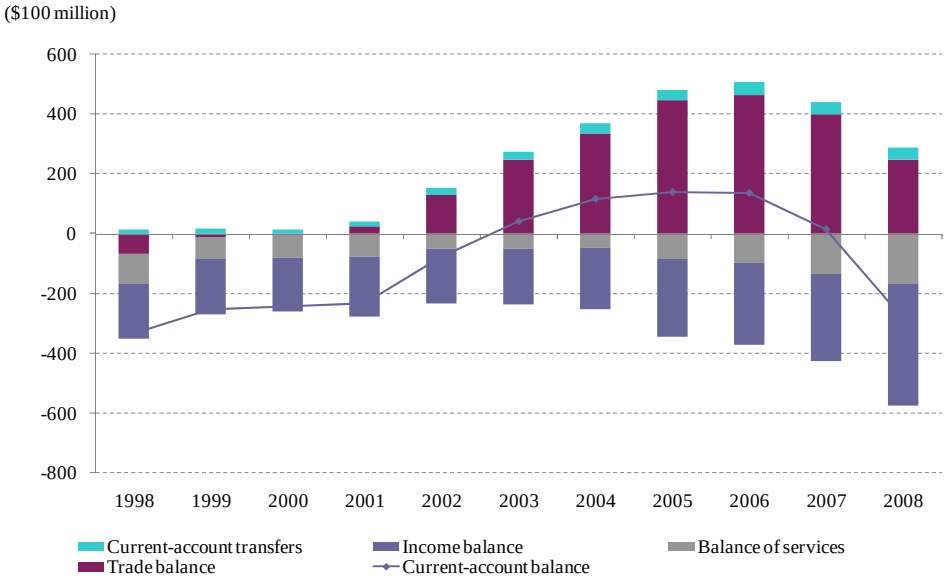
[170] However, Brazil swung into a current account deficit in 2008 as a result of an outflow of foreign capital triggered by the Lehman shock (to be mentioned later).

[171] This figure includes the balance of outstanding repo transactions and foreign currency-denominated loans.

[172] The balance of outstanding foreign debts owed by Brazil as of March 2009 was down to $192.6 billion, equivalent to 13% of GDP.

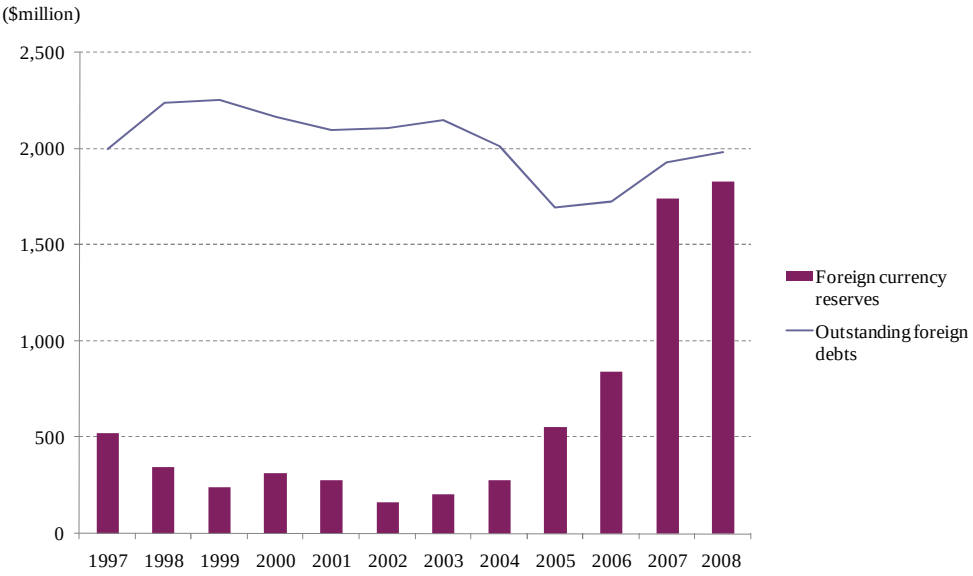
[173] The carry trade refers to raising funds in a low-interest currency and using the funds to make investments in assets denominated in a high-interest currency. If the currency in which the investment assets are denominated appreciates, it increases the return on the investment (Keiichi Nakatani (2006)), "Assessment of the Economic Stabilization Policy after the Real Plan and Challenges").

Figure 1-2-6-27 Changes in Brazil's current account balance



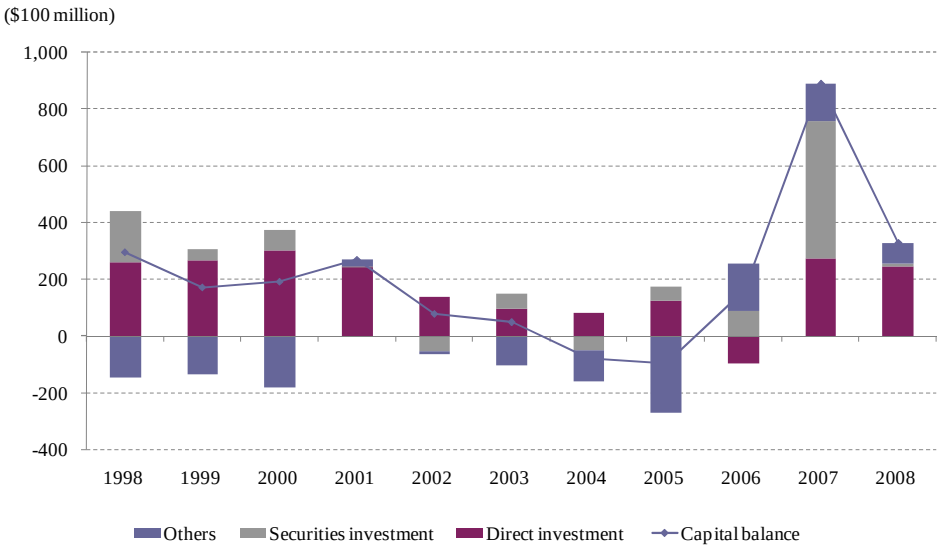
Source: CEIC Database.

Figure 1-2-6-28 Changes in Brazil's outstanding foreign debts and foreign currency reserves



Source: CEIC Database.

Figure 1-2-6-29 Changes in Brazil's capital balance and capital inflow



Notes: Others include other investments, excluding financial derivatives and securities loans.
Source: CEIC Database.

(d) Growing clout in the international community and increasing cooperation with other South American countries

Brazil is the world's fifth largest country in terms of both area and population,[174] and its GDP is the world's 10th biggest at $1.6 trillion, 50% larger than Australia's GDP and also larger than the combined GDP of the 10 ASEAN countries. As a result of its economic growth and the increased confidence of the international financial market in Brazil in recent years, its clout as a major emerging country is also growing in the international community. Brazil is actively participating in the Doha Round of trade liberalization negotiations under the WTO as a major player, and it hosted a meeting of finance ministers and central bank governors from the G-20 countries in Sao Paulo in November 2008. At the G-20 summit held in Washington in the same month, Brazil issued a joint statement with China, India and Russia, which was the first joint statement by the BRICs countries, calling for an increase in loans to emerging economies, a review of the IMF quotas and more say for emerging economies at the IMF. In addition, President Lula pledged $10 billion in contributions to the IMF when he attended the London Summit (Second Summit on Financial Markets and the World Economy) that was held in April 2009.

In the meantime, Brazil's economic relations with its Mercosur[175] partners have become closer. The ratio of Brazilian exports to the Mercosur countries to its overall exports rose from 10.4% in 2002 to 19.3% in 2008. Three of the 10 largest export destinations for Brazil are full or associate members of the

[174] Brazil's population totals 190 million people and its area is 8.51 million square kilometers, 22.5 times as large as Japan. (U.N. Economic Commission for Latin America and the Caribbean, "Statistical Yearbook for Latin America and the Caribbean 2008.")
[175] Mercosur is a customs union established in 1995. Its full members are Argentina, Brazil, Paraguay, and Uruguay. Procedures to admit Venezuela as a full member are underway. Chile, Bolivia, Peru, Ecuador and Colombia are associate members.

Mercosur group (see Table 1-2-6-30). In particular, in May 2008, Brazil agreed with Argentina on full liberalization of automobile trade[176] in 2014. In September 2008, the two countries' leaders also signed an agreement on a new system that allows the use of local currencies, instead of the U.S. dollar, for the settlement of payments for bilateral trade transactions.

At an extraordinary summit meeting in Brasilia in June 2008 of the Union of South American Nations (UNASUR), which was comprised of 12 South American nations, the UNASUR Constitutive Treaty was adopted. This treaty sets forth 21 objectives, including enhancement of political dialogue and cooperation in economic and social issues, and provides for the future establishment of a South American parliament.[177] President Lula has expressed an intention to aim for the establishment of an advanced regional community like the EU. If the community is realized, it would create a market with an economic size of $2.4 trillion.[178]

Table 1-2-6-30 Brazil's major export trading partners

2002		2008	
Country	Percentage	Country	Percentage
U.S.	25.4%	U.S.	13.9%
Netherlands	5.3%	Argentina	8.9%
Germany	4.2%	China	8.3%
China	4.2%	Netherlands	5.3%
Mexico	3.9%	Germany	4.5%
Argentina	3.9%	Japan	3.1%
Japan	3.5%	Venezuela	2.6%
Belgium	3.1%	Chile	2.4%
Italy	3.0%	Italy	2.4%
UK	2.9%	Russia	2.4%
Mercosur	10.4%	Mercosur	19.3%

Notes: Mercosur includes associate member countries.
Source: Created by the Ministry of Economy, Trade and Industry using data from World Trade Atlas.

(B) Impact of the financial crisis and a future outlook

(a) The impact of the credit crunch on production and consumption activity

The global financial crisis triggered by the Lehman shock of September 2008 and the ensuing global recession have produced no small impact on the Brazilian economy, which until then maintained strong growth. After peaking in May 2005, Brazilian stock prices, as measured by the Bovespa index, continued

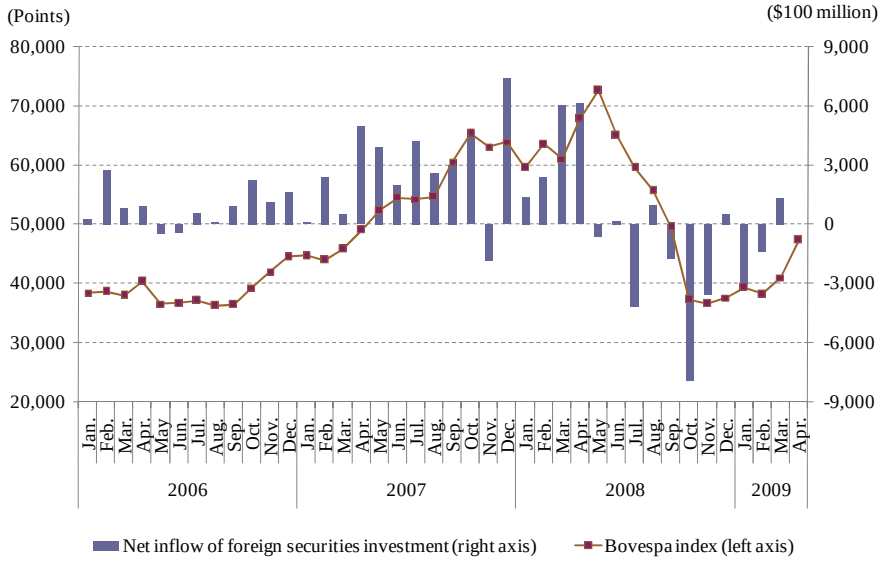
[176] Automobile trade between Brazil and Argentina is governed not under the framework of the Mercosur but by ACE (Economic Complementation Agreement) No. 14 of the Latin American Integration Association. Since 2000, ACE No. 14 has prescribed the export/import coefficient of exports in order to maintain the export-import balance in automobile trade between the two countries. (JETRO, World Trade News, June 6, 2008).

[177] The UNASUR Constitutive Treaty stipulates that the South American parliament be seated in Cochabamba, Bolivia.

[178] The figure is the combined nominal GDP of the 12 member countries in 2007. According to the ASEAN Secretariat, the combined GDP of the 10 ASEAN member countries stood at $1.3 trillion in 2007.

to decline in line with a drop in natural resource prices because stocks of resource-related companies such as Vale (formerly known Rio Doce) and Petrobras accounted for most of the market capitalization, and the stock price drop accelerated due to a rapid withdrawal of funds from emerging economies caused by profit-taking by investors in September and thereafter (see Figure 1-2-6-31). The real, the Brazilian currency, also depreciated (see Figure 1-2-6-32). Consequently, stock prices and the value of the currency at the end of 2008 were down 57.6% and 23.1%, respectively, from the end of 2007.[179] Personal consumption, which had grown strongly due to an expansion of the consumer credit market,[180] slowed down because the provision of credit was restrained by a liquidity crunch that hit Brazilian financial institutions. As a result, corporate production activity and capital expenditures also shrank, causing real GDP to post negative growth of 3.6% in the fourth quarter of 2008 on a quarter-to-quarter basis. Compared with the same period of the previous year, growth was positive but had fallen to 1.3% (see Figure 1-2-6-33). In line with a slowdown in production activity, the employment situation is deteriorating. After falling to between 6% and 7% due to economic growth, the unemployment rate started to rise in late 2008 and stood at 9% in March 2009.

Figure 1-2-6-31 Changes in Brazil's stock prices and net inflow of foreign portfolio investment

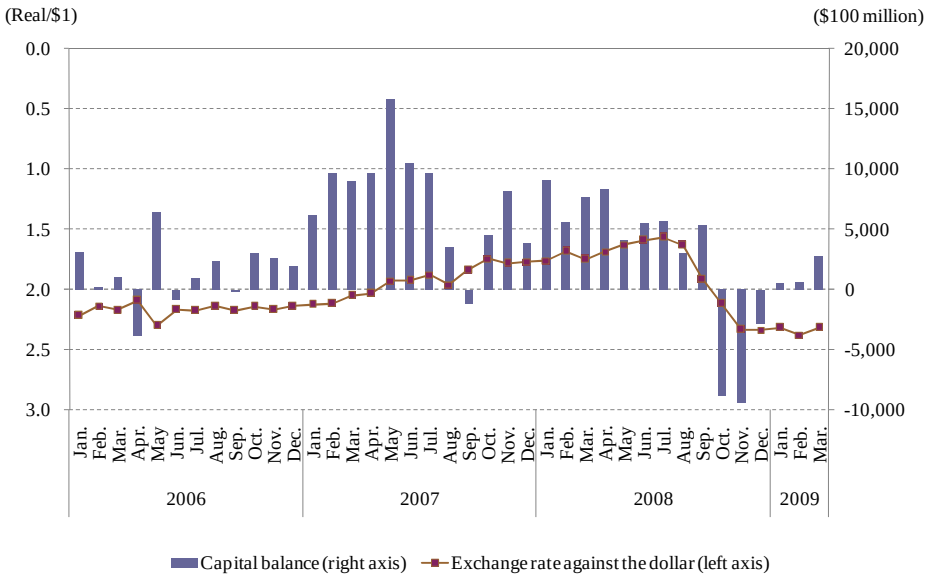


Source: CEIC Database.

[179] IMF (2009), "Global Financial Stability Report, Apr. 09." However, the Bovespa index recovered to the pre-Lehman shock level in May 2009.

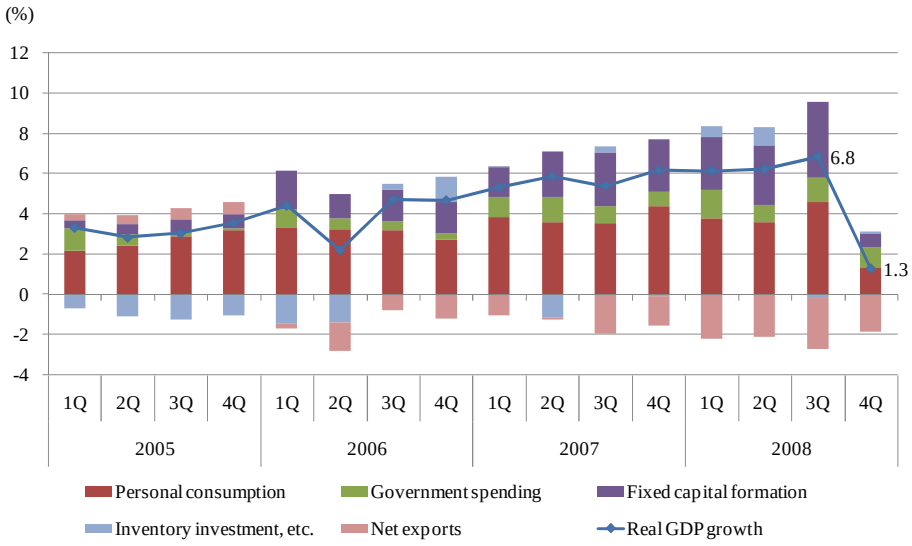
[180] In a research paper published in January 2009, Professor Nobuaki Hamaguchi of Kobe University argued that an increase in loans to Brazilian consumers triggered the favorable cycle that drove the growth of the domestic market (Hamaguchi (2009), "Role of Consumer Loans in Brazil's Economic Growth."

Figure 1-2-6-32 Changes in Brazilian real exchange rate and capital balance



Source: CEIC Database.

Figure 1-2-6-33 Brazil's real GDP growth and percentage contribution by demand component



Notes: Year-on-year basis.
Source: CEIC Database.

(b) Response of the Brazilian Government and Central Bank to the Financial Crisis

After the Lehman shock, the Brazilian Central Bank quickly announced a liquidity supply measure intended to expand the money supply amount by 360 billion real (around ¥14 trillion)[181] and a plan for

[181] The figure is based on materials distributed at a symposium of the heads of industry divisions of the Brazilian chamber of commerce and industry in Japan (February 2009).

stabilizing exchange rates in an effort to ease the credit crunch. As concerns over inflation have receded as a result of the global economic recession and drops in international commodity prices, the Brazilian Central Bank also reduced its policy interest rate in January, March and April 2009, for total cuts of 3.5 points.

In the meantime, the government announced a 8.4-billion real (around ¥340 billion)[182] economic stimulus package, including cuts in financial transaction and income taxes, in order to moderate the slowdown in domestic demand due to weak personal consumption and capital expenditures. Moreover, in order to prop up personal consumption, it implemented the annual minimum wage hike for 2009 in February, whereas the annual hike is usually implemented at some time between March to May, and the margin of the hike was 12% — far above the inflation rate. In March 2009, the government announced a plan to build one million houses for low-and-middle-income people (see Table 1-2-6-34). It expanded the amount of infrastructure development projects[183] under the Program to Accelerate Growth (known by its Portuguese acronym, PAC), which was adopted in January 2007, by 142.1 billion real (around ¥5.6 trillion) from $503.9 billion real (around ¥20 trillion) through additional investment, thereby making clear its stance of achieving economic recovery through fiscal pump-priming.

Table 1-2-6-34 Brazilian government and central bank's major economic stimulus measures after the financial crisis

[Monetary policy]
●Capital injection through state-controlled banks (Capital injection into auto, construction, agriculture and export sectors. 100 billion real was injected into Petrobras through the National Bank for Economic and Social Development to shore up the company's investment projects.)
●Cuts in reserve requirement ratio
●Dollar-selling intervention in the exchange market
●Currency-swap agreement (agreement on currency-swaps of up to $30 billion between the Central Bank of Brazil and the Fed)
●Dollar loans to help refinance foreign debts
●Expansion of export trade financing
●Policy interest rates cut (13.75%→12.75%→11.25%→10.25%)
[Fiscal policy]
●Individual income tax cuts
●Industrial products tax (IPI) and financial transactions tax (IOF) breaks (Exemption of IPI tax on the purchase of cars with engine displacement of around 1,000 c.c. until June 2009) * Tax cuts worth 8.4 billion real ($3.6 billion) in combination with individual income tax cuts
●Extension of tax payment deadlines (to help companies' financing)
●Investment in infrastructure, including roads (6 billion real)
●Increasing the credit line for housing loans
●Building one million houses for low- and middle-income people (34 billion real)
●Minimum wage hike (February 2009, 12% in nominal terms)

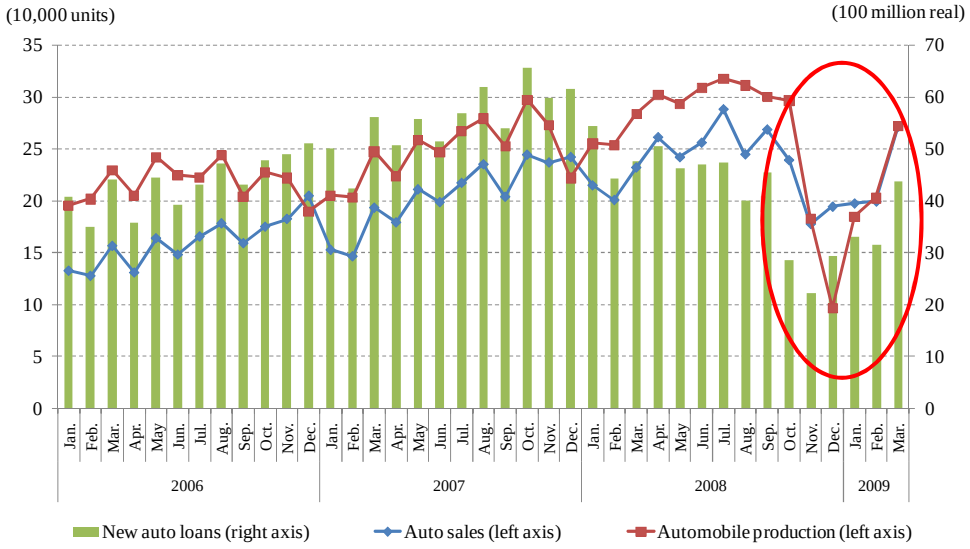
Source: Created by the Ministry of Economy, Trade and Industry using various data.

[182] Toru Nishihama (2009), "Economic Situation in Brazil".

[183] The figure represents the total amount of expenditures over the four years from 2007 to 2010. Of the amount, 58.3 billion real are allocated to spending on the transport/traffic sector, including roads and railways; 274.8 billion real to spending on the energy sector, including oil refining and power generation and transmission; and, 170.8 billion real to spending on the social sector, including housing for low-income people and waterworks/sewage (Ryohei Konta (2008), "Current State of the Brazilian Economy and Future Outlook").

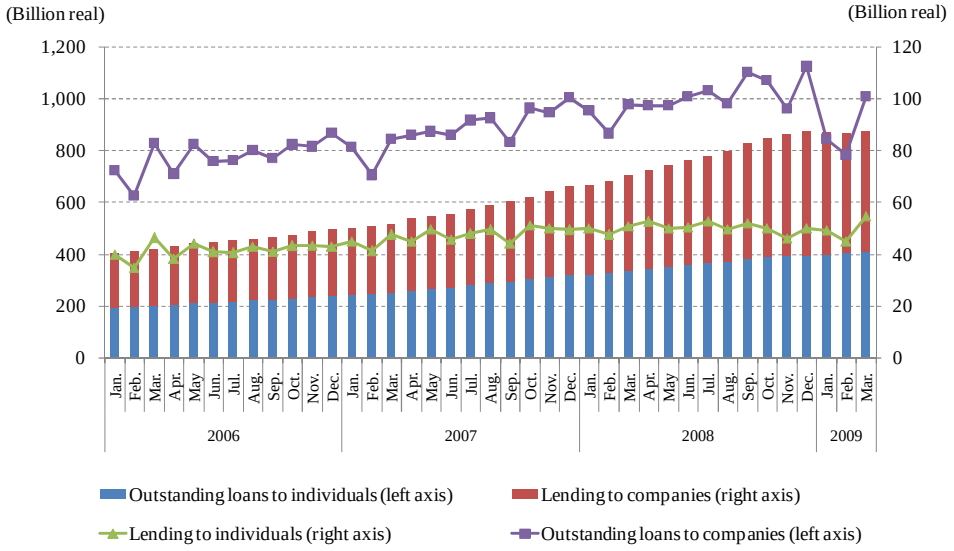
The measures taken by the government and the central bank have already brought about some benefits. For example, sales of automobiles have been recovering since hitting bottom in November 2008 as a result of reduction of the tax on the purchase of small passenger cars with engine displacement of around 1,000 c.c. and the provision of funds for auto loans (see Figure 1-2-6-35). Accordingly, production of automobiles has been picking up since hitting bottom in December 2008 (see Figure 1-2-6-36). In addition, the provision of liquidity by the central bank has prevented major disruptions in the credit market (see Figure 1-2-6-36). In its report on the global economic outlook published in March 2009, the OECD praised the measures taken by the Brazilian government and the central bank after the outbreak of the financial crisis as quick and appropriate and predicted that they would provide solid support for the recovery of the Brazilian economy in late 2009 through 2010.

Figure 1-2-6-35 Changes in auto loans, sales and production in Brazil



Source: Figures for new auto loans are from the Central Bank of Brazil, ANFAVEA (National Association of Motor Vehicle Manufacturers; Brazil).

Figure 1-2-6-36 Changes in Brazilian financial institutions' outstanding loans and monthly lending



Notes: Outstanding loans are those provided to any borrowers under a general credit line.
Source: Central Bank of Brazil.

(c) Firm personal consumption and signs of economic recovery

In the meantime, the firmness of personal consumption in Brazil is conspicuous amid the global recession. The retail sales index has never declined since November 2003 on a year-on-year basis, continuing to grow even after the Lehman shock. On a month-on-month basis, the retail sales index dropped in October and thereafter but rebounded in January (see Figure 1-2-6-37). As already mentioned, sales of automobiles have recovered since hitting bottom in late 2008, rising to a record high of 668,000 units in the first quarter of 2009 due to last-minute demand induced by the prospect of an imminent expiration of the tax cut for industrial products, including automobiles.[184]

The firm consumption is attributable to structural factors such as the employment situation that has generally been stable despite the recent deterioration, a rise in real wages due to the reduced inflation, the annual hike in the minimum wage by the government and an expansion of the middle-income class attributable to Bolsa Familia as well as Brazilian consumers' tendency to prefer spending money on the purchase of products over saving it because of a lack of trust in their own country's currency, which stems from their experience of the past hyperinflation.

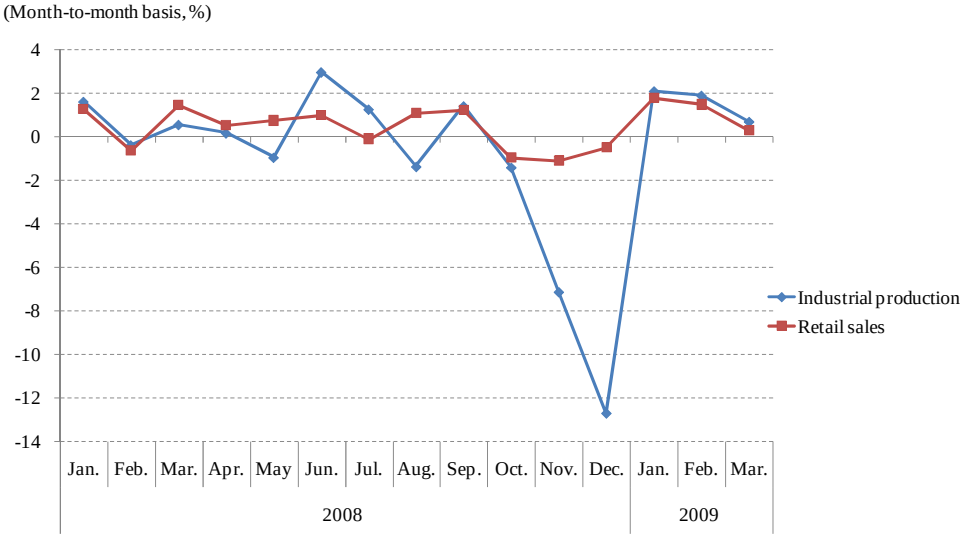
Due to an improvement in personal consumption, corporate production activity is also starting to improve. In December 2008, the industrial production index plunged 12.67% from the previous month (on a seasonally adjusted basis) mainly because of a drop in production of consumer durable goods, including automobiles, but it has maintained growth since January (see Figure 1-2-6-37).

As shown above, the Brazilian economy is already showing signs of recovery, led by firm personal consumption and the government's economic stimulus measures. In its report on the global economic

[184] Although the tax cut for industrial products was initially introduced as a provisional measure to remain in effect until March 2009, its period was extended to June 2009.

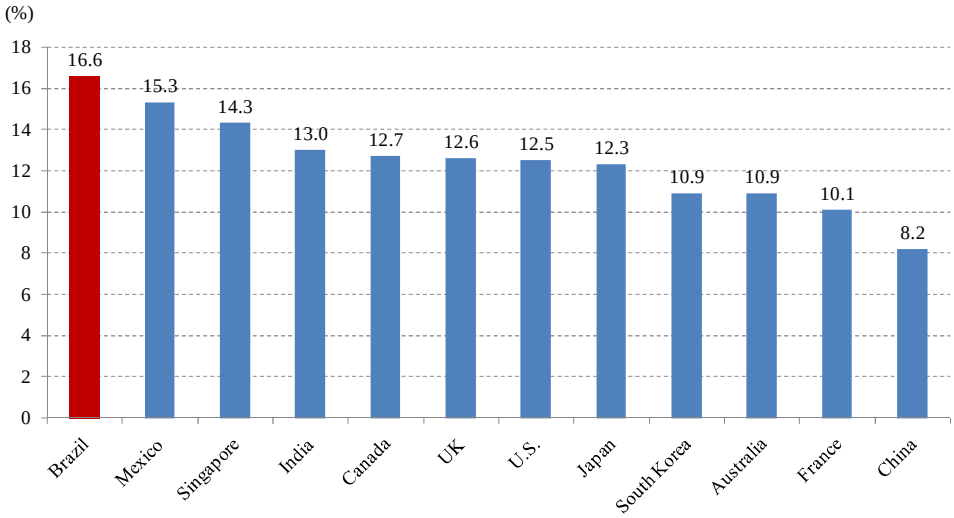
outlook published in late March, the OECD mentioned the possibility of the Brazilian economy bottoming out.[185] Furthermore, the impact of the financial crisis on Brazil is expected to be small compared with the impact on other countries, because Brazilian financial institutions maintain financial soundness as exemplified by their high capital adequacy ratios compared with their counterparts in other countries (see Figure 1-2-6-38) and also because the Brazilian economy, whose growth is led by domestic demand, does not depend heavily on exports (see Figure 1-2-6-39).

Figure 1-2-6-37 Brazil's industrial production and retail sales (month-to-month basis)



Notes: Figures are index numbers, with a base value of 100 for industrial production in 2002 and a base value of 100 for retail sales in 2003.
Source: CEIC Database.

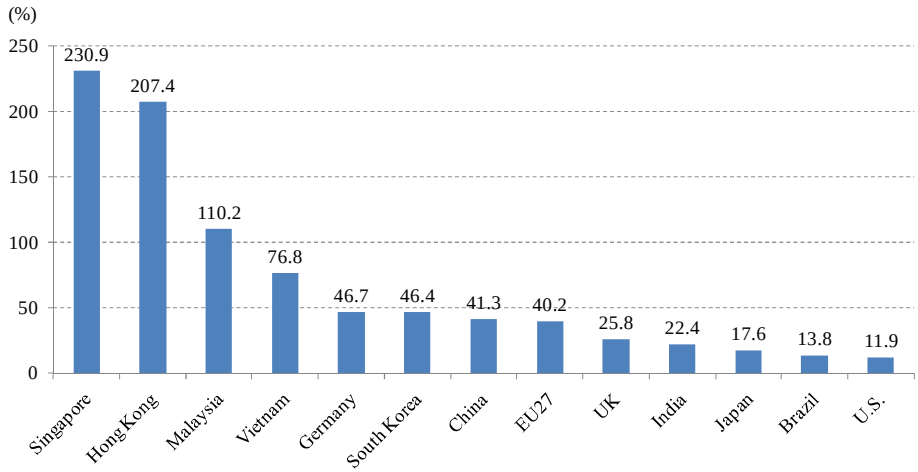
Figure 1-2-6-38 Financial institutions' capital adequacy ratios in major countries in 2008



Notes: Figures for UK and France are based on 2007 data.
Source: *Financial Stability Report, Apr. 09* (IMF).

[185] OECD (2009), "Economic Outlook Interim Report, March 2009".

Figure 1-2-6-39 Major countries' dependence on exports (Ratio to GDP in 2007)



Notes: Export dependency = goods and services exports divided by nominal GDP in 2007.
Source: *National Accounts Main Aggregates Database* (UN).

(d) "Brazilian costs"

On the other hand, it should be kept in mind that several structural problems faced by Brazil have been overlooked amid the country's strong economic growth in recent years.

Based on the lesson of the past hyperinflation, Brazil has maintained high interest rates in order to contain inflation. The Brazilian Central Bank's policy interest rate currently stands at 10.25% and the average interest rate on loans to corporations and individuals comes to 39.2%.[186] These rates are particularly high compared with interest rates in other countries. The high interest rates, coupled with the complex tax system and the heavy tax burden (see Figure 1-2-6-40), is dampening corporate capital expenditures (see Figure 1-2-6-41), leading to weak growth in labor productivity (see Figure 1-2-6-42). The effective labor productivity declined 0.02% between 2001 and 2006, a far worse figure than productivity growth in China and other emerging economies.[187] The heavy tax burden not only drags down corporate earnings but also encourages the employment of non-regular workers.

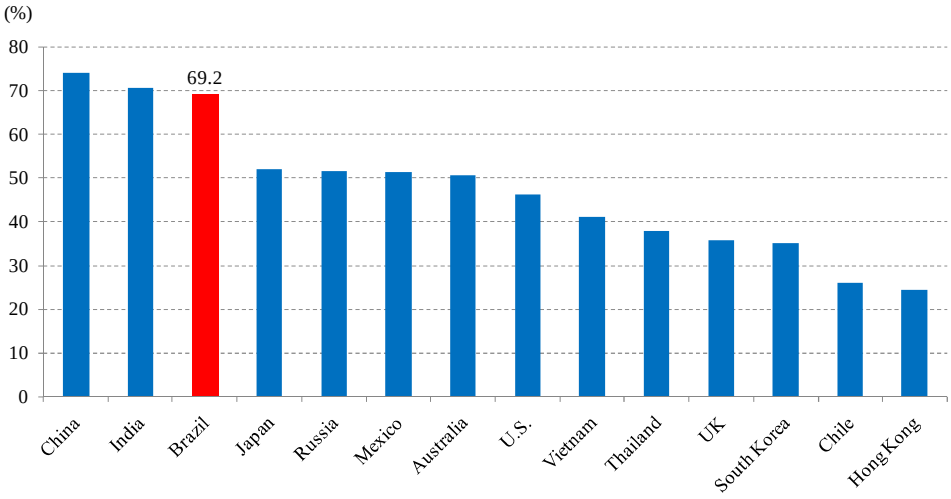
Although Brazil's budget surplus has grown in recent years on a primary balance basis due to an increase in tax revenues, the government is still struggling under the heavy load of interest payments on its debts, which, together with the generous expenditures for Bolsa Familia and other social security benefits, has prevented the country from swinging into a surplus on an overall budget balance basis (see Figure 1-2-6-43). As the ratio of total public-sector debts to GDP remains high at 62%,[188] there are concerns that the budget balance could deteriorate again as a result of the expenditures for the economic stimulus

[186] These figures, which represent the rates that were effective as of March 2009, are based on "Monetary Policy and Financial System Credit Operations" by the Brazilian Central Bank.
[187] Japan Productivity Center for Socio-Economic Development, "International Comparison of Labor Productivity 2008."
[188] The figure represents the ratio as of March 2009 and is based on fiscal policy statistics compiled by the Brazilian Central Bank.

measurers implemented since the Lehman shock.

Moreover, the rigid labor practices and the labor laws that provide excessive protection to workers[189] are responsible for an increase in corporate investment costs. In the rankings of countries in terms of investment environment compiled by the World Bank,[190] Brazil was placed 125th in overall performance among the 181 countries covered, as it was ranked low with regard to the employment environment (121st) and with regard to the tax system (145th). The factors that increase investment costs for companies are referred to as the "Brazilian costs," and companies in and outside Brazil have been calling for reduction of the costs for many years. As Brazil has overcome the hyperinflation and its macro-economic fundamentals have improved remarkably, now is the time for the country to achieve further economic growth by implementing structural reforms, including reforms of the security situation, the intellectual property system, the legal system and the administrative system, and by advancing its industries through increased private investment.

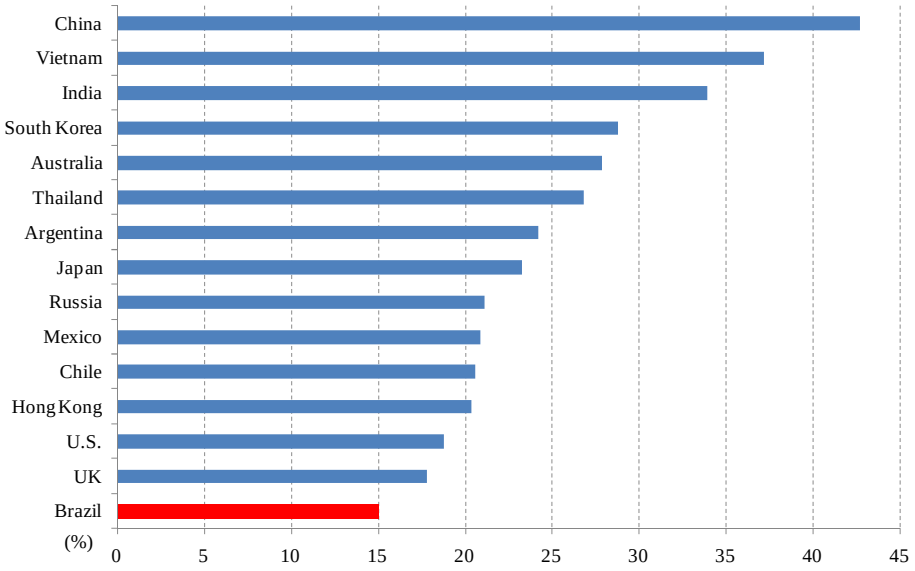
Figure 1-2-6-40 Rate of tax burden on companies in major countries in 2007



Notes: Ratio of overall tax burden imposed on companies, including corporate tax, payroll tax, fixed asset tax, financial transaction tax, and car and road tax, relative to pretax income (defined by the World Bank).
Source: *World Development Indicators 2008* (World Bank).

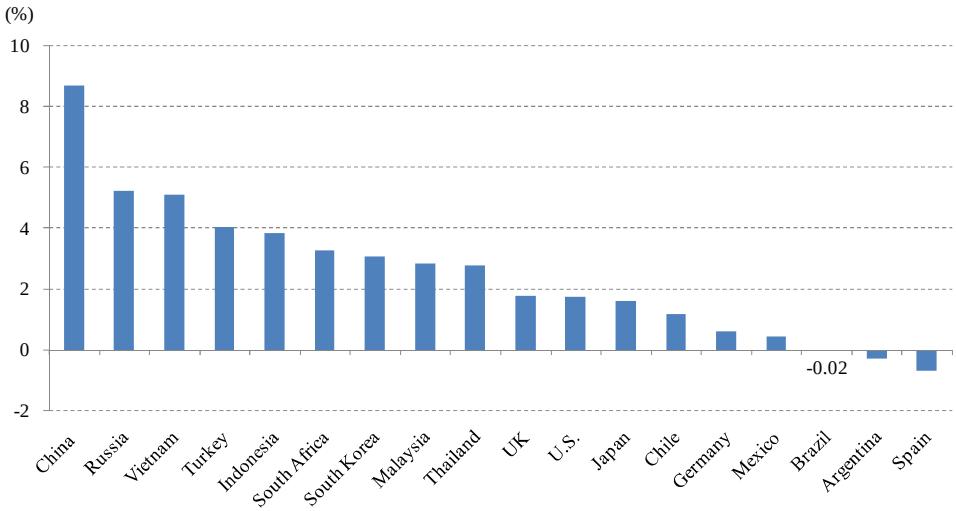
[189] Brazil's labor law prescribes in detail the obligations that companies owe to workers, and the amount of non-wage costs incurred by companies in relation to workers' rights, including social security-related costs such as holiday pay and pension reserves as well as retirement benefits reserves is equivalent to 65% of the amount of wages (Yasushi Ninomiya (2007), "Basic Knowledge concerning the Brazilian Economy").
[190] The World Bank (2009), "Doing Business 2009."

Figure 1-2-6-41 Major countries' gross domestic fixed capital formation (Ratio to GDP in 2007)



Source: *International Financial Statistics, March 2009* (IMF).

Figure 1-2-6-42 Labor productivity growth in major countries from 2000 to 2006



Notes:
1. Based on purchasing power parity provided by the World Bank.
2. Because Brazil's data for 2000 is missing, its growth is that between 2001 and 2006.
Source: 2008 International Comparison of Labor Productivity (Japan Productivity Center) (2008).

Figure 1-2-6-43 Changes in Brazil's budget balance

Source: *Fiscal Statistics* (Central Bank of Brazil).

(C) Relations with Japan

(a) Japanese investment in Brazil growing again

Japan's economic relations with Brazil deepened during the era of high economic growth known as the "Miracle of Brazil," as around 500 Japanese-owned companies advanced into Brazil to participate in such national projects as iron ore development, paper and pulp resource development, agricultural development in the Cerrado region, and aluminum smelting in the Amazon. However, after Brazil was hit by hyperinflation and the foreign debt crisis in the 1980s, many Japanese-owned companies left the country.[191] Thereafter, investment by Japanese-owned companies remained weak, resulting in a period called "two lost decades." However, after Brazil overcame the hyperinflation, reduced its foreign debts and achieved strong economic growth amid the burgeoning global demand for natural resources, investment in Brazil by Japanese-owned companies is growing again (see Table 1-2-6-44). In particular, in 2008, which marked the centennial of the start of mass Japanese immigration to Brazil, a series of large-scale investment projects in such sectors as steel making and automobile manufacturing were launched, boosting the value of Japanese investment in the year by 11-fold from 2000 and increasing the Japanese share of the overall direct investment by six-fold (see Table 1-2-6-44).

[191] Makoto Tanaka (2006), "History of Japanese Companies Doing Business in Brazil." According to this research material, around 200 companies withdrew from Brazil in the 1980s to 1990s.

Table 1-2-6-44 Recent major direct investment in Brazil by Japanese-owned companies

Company	Time announced	Investment details
Toyota Motor Corporation	Jul-08	Construction of a second plant
Five iron & steel giants, including Nippon Steel	Oct-08	Acquisition of an iron ore mine in a joint project with a South Korean company
Sumitomo Mitsui Banking Corporation	Oct-08	Establishment of a CDM consulting subsidiary firm
INPEX Corporation	Nov-08	Acquisition of interests in oil fields
Rinnai Corporation	Dec-08	Expansion of the production line for gas hot-water appliances and establishment of plants for the production
Casio Computer Co., Ltd.	Jan-09	Establishment of a sales subsidiary
Nippon Steel Corporation	Jan-09	Raising stake in Brazilian steel company Usiminas
Mitsubishi Corporation	Feb-09	Joint ownership of an ultra-deepwater Drillship with Brazil's state-controlled oil company Petroleo Brasileiro
Nippon Oil Corporation	Feb-08	Establishment of a company for the sales of lubricant for two- and four- wheel vehicles

Source: Created by the Ministry of Economy, Trade and Industry using press releases from each company.

Table 1-2-6-45 Changes in inward direct investment in Brazil by investing country

($million, %)

2000			2008		
Country	Amount	Percentage	Country	Amount	Percentage
Spain	5,173	21.3	U.S.	7,047	15.9
U.S.	5,007	20.6	Luxemburg	5,937	13.4
Portugal	2,564	10.6	Netherlands	4,639	10.4
France	1,993	8.2	Japan	4,099	9.2
Netherlands	1,740	7.2	Spain	3,851	8.7
Cayman Islands	1,725	7.1	France	2,880	6.5
Luxemburg	1,050	4.3	Cayman Islands	1,556	3.5
Germany	490	2	Canada	1,442	3.2
Italy	451	1.9	Australia	1,154	2.6
UK	415	1.7	Bahamas	1,101	2.5
Belgium	374	1.5	Germany	1,086	2.4
Japan	364	1.5	Portugal	1,051	2.4
Others	2,907	12	Others	8,614	19.4
Total	24,253		Total	44,457	

Source: Central Bank of Brazil.

(b) Presence of Japanese-owned companiess

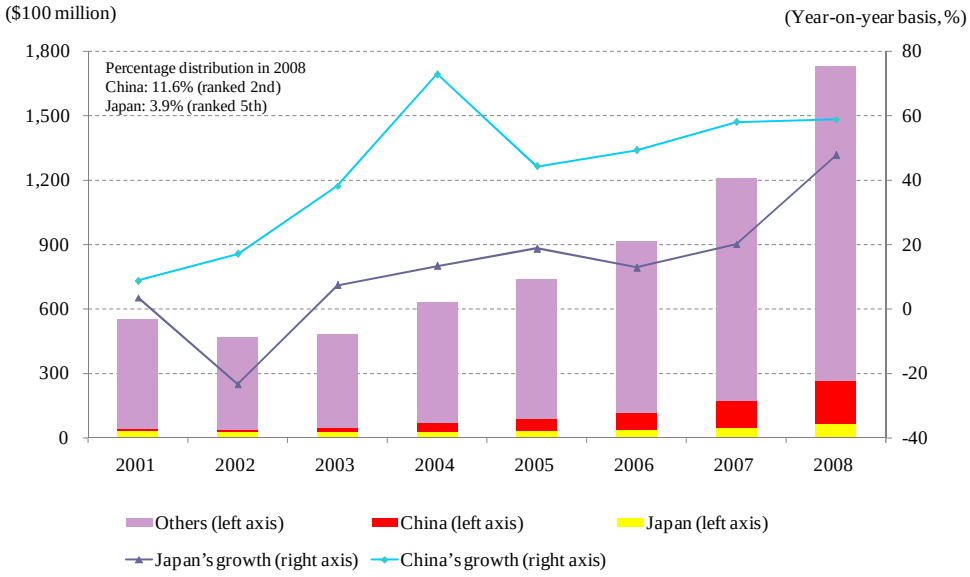
While the value of Japanese exports to Brazil has been continuing to grow, the ratio of imports from Japan to Brazil's overall imports has been declining. Meanwhile, Chinese exports to Brazil have been increasing faster than Japanese exports, making China the second largest source of imports for Brazil (see Figure 1-2-6-46).

In addition, individual Japanese-owned companies have not captured substantial market shares in the Brazilian consumer market. For example, Japanese cars had a market share of only 9% in Brazil in 2008

in terms of sales volume, lower than U.S. and European cars (see Figure 1-2-6-47).[192]

Moreover, there are only nine Japanese-owned companies among the 500 largest companies in Brazil in terms of sales.[193] A breakdown of retail sales in Brazil by product shows that a variety of products, including office and telecommunications equipment and foods, have continued to grow at a faster pace than last year even after the Lehman shock (see Figure 1-2-6-48). However, direct investment outstanding by Japanese-owned companies is concentrated in a limited range of business sectors, such as transportation equipment and steel products, compared with investments by U.S. and European companies, which cover a broad range of business sectors (see Figure 1-2-6-49). U.S. and European companies have a strong presence in Brazil because of geographical and historical factors, while Chinese companies are price-competitive in sales of low-priced home electric appliances and light industrial products, making the business environment for Japanese-owned companies difficult. However, there will probably be room for Japanese-owned companies to increase their sales in Brazil, a rare country where a population as large as 190 million is actively spending money on consumption.

Figure 1-2-6-46 Changes in Brazilian imports and year-on-year growth in Brazilian imports from Japan and China

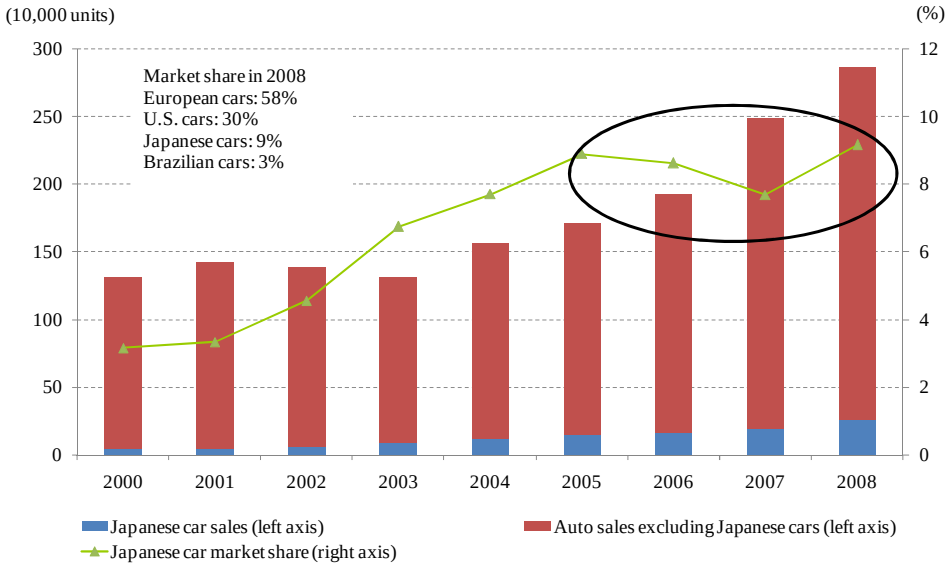


Source: CEIC Database.

[192] According to Fenabrave (National Federation of Automobile Dealers of Brazil), Japanese cars occupied the first and second places in the sales ranking for the medium-size sedan segment in 2008, and Japanese cars' share in this segment came to 60%. However, Japanese cars' share in Brazil's overall car market is not large, as the lineup of Japanese models available in the small car segment for 1,000 c.c.-class cars, which accounts for more than 60% of the overall market, is limited (Fenabrave, "Informativo 2008").

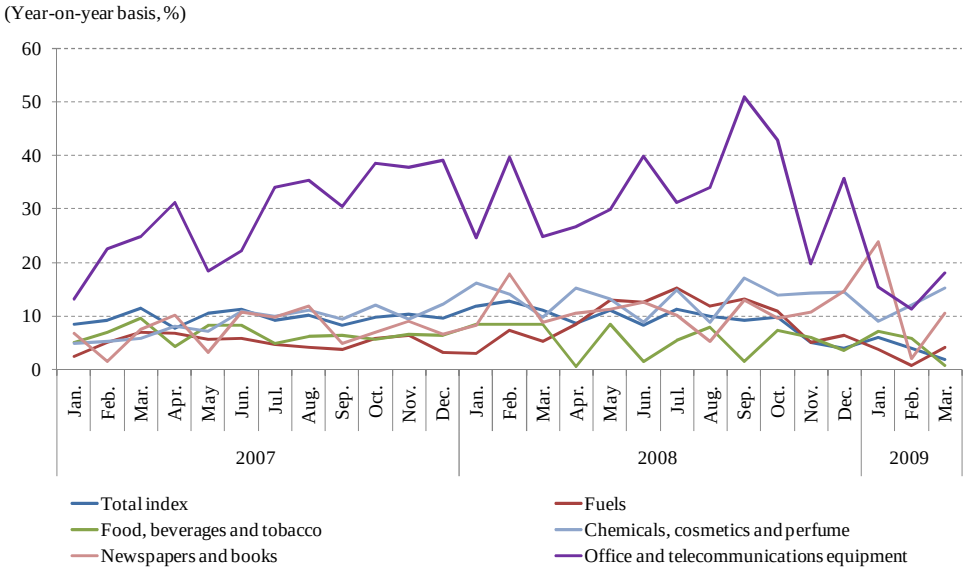
[193] According to "Melhores e Maiores" (2008), compiled by the EXAME magazine, the highest-ranked Japanese-owned company, Moto Honda, was placed 43rd, while six U.S. and European companies were among the top 10, including Volkswagen, which was ranked third.

Figure 1-2-6-47 Changes in auto sales and Japanese car market share in Brazil



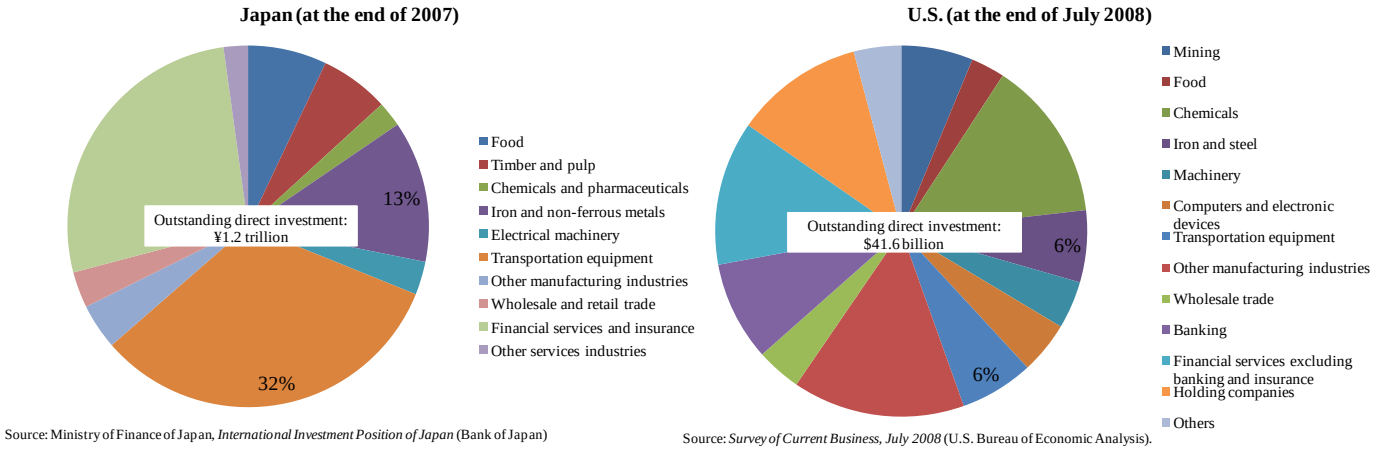
Notes: Figures are the sum of passenger vehicles, mini-commercial vehicles, trucks and buses.
Source: ANFAVEA (National Association of Motor Vehicle Manufacturers; Brazil).

Figure 1-2-6-48 Changes in retail sales in Brazil (year-on-year basis)



Source: CEIC Database.

Figure 1-2-6-49 Comparison of direct investment outstanding in Brazil by Japanese and U.S. companies



Source: Ministry of Finance of Japan, *International Investment Position of Japan* (Bank of Japan)

Source: *Survey of Current Business, July 2008* (U.S. Bureau of Economic Analysis).

(c) Possibility of building new relations

For Japan, Brazil is no longer not only a supplier of abundant natural resources and foods produced from its vast land, but it has also grown important as a consumer market in recent years. Moreover, there are green shoots of a new relationship between the two countries.

For example, in June 2006, Brazil became the first non-Japanese country to adopt a digital TV system based on the Japanese format (Japanese-Brazilian format). The public and private sectors of Japan and Brazil have been working together to persuade other South American countries to adopt the Japanese-Brazilian format, and in April 2009, Peru decided to adopt it.[194] In addition, amid the growing worldwide awareness about global environmental problems, Japan and Brazil confirmed the need for cooperation in the biofuel sector in July 2008 when then Japanese Minister of Economy, Trade and Industry Amari visited Brazil. The possibility is growing that Japan will both implement CDM (clean development mechanism)[195] projects with Brazil,[196] which is actively engaging in such projects, and cooperate with Brazil in other fields related to the global environment. Moreover, as Brazil is implementing large-scale infrastructure development projects based on the Program to Accelerate Growth, as mentioned above, there are growing hopes that Japanese-owned companies will participate in them on the strength of their know-how.

While Japanese investment in Brazil is growing, Brazilian companies' investment projects in Japan are also beginning. For example, Petrobras, Brazil's state-run oil corporation, acquired Nansei Sekiyu, a Japanese oil refiner which has a refining facility in Okinawa, in April 2008, with a view to a future expansion of refining capacity, thereby establishing a foothold in the Asian market.

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194 A press release issued by the Ministry of Internal Affairs and Communications on April 24, 2009.

195 The CDM enables a developed country to invest in a greenhouse gas reduction project in a developing country and use the reduction due to the project as an emission reduction credit in order to meet its own reduction target (Kyoto Mechanism Information Platform).

196 As of March 30, 2008, CDM projects registered with the United Nations totaled 1,530 — 156 of which are hosted by Brazil (Kyoto Mechanism Information Platform).

Japan is also cooperating with Brazil, which is promoting industrial advancement and pursuing high-value-added business, in starting business in a third country and manufacturing products for exports to a third-country market. INPEX Corporation is operating crude oil and natural gas development projects with Petrobras in Ecuador, Mexico and Venezuela. Meanwhile, Nippon Steel is strengthening its technical support to Usiminas, a Brazilian steel maker affiliated with it, not only as a measure to secure a share in the growing Brazilian market but also as stepping stone for future advance into the North American, European and African markets.

(d) Toward strengthening Japan-Brazil relations

As described above, Brazil holds diverse potential from the standpoint of Japan, including as a supply source of natural resources and foods, as a consumer market, as a hub for business operations in the entire South America and as a base for exports to the United States and Europe. Moreover, from the standpoint of Brazil, Japan is a base for advance into the Asian market and an investment target. Thus, the potential of economic relations between Japan and Brazil is becoming increasingly diverse. The relations may be strengthened further by taking advantage of the valuable human connection between the two countries in the form of people of Japanese descent living in Brazil, who are said to number 1.5 million.[197]

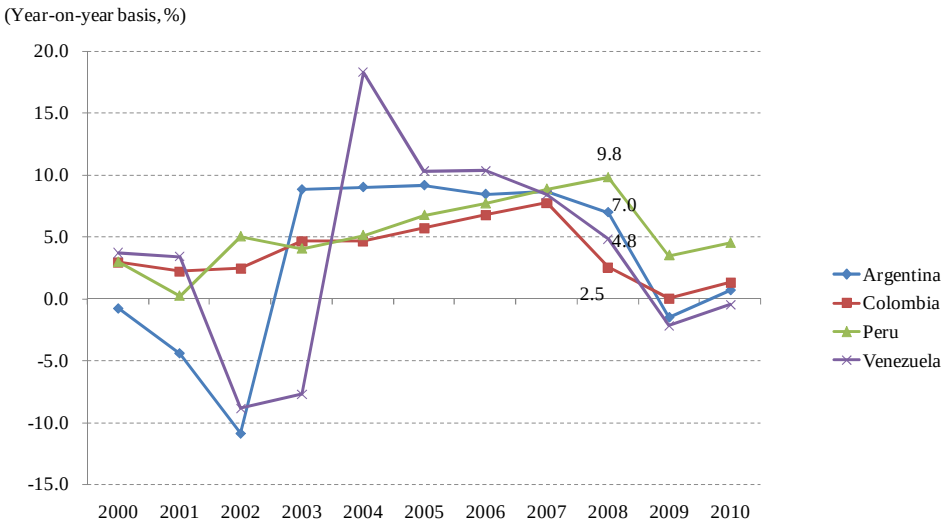
On the other hand, the above-mentioned "Brazilian costs," including structural problems, such as the country's complex tax system and rigid labor laws, and security problems, are impeding Japanese-owned companies' business activities in the country. For both Japan and Brazil to enjoy economic growth by further deepening their economic relations, the two countries need to work together to resolve impediments to trade and investment[198] through such forums as the Japan-Brazil Joint Committee on Promoting Trade and Investment, which was set up jointly by the Japanese and Brazilian governments and which held its first meeting in February 2009.

Column 9 Latin American countries with various attractive aspects

Brazil is not the only Latin American country that has maintained high growth based on a unique growth structure. Below, we will provide an overview of Argentina, which has high growth potential in the agricultural sector; Colombia, which is turning into a promising investment target following a rapid improvement in its security situation; Peru, which continues to post the strongest growth in South America due to robust domestic demand; and, Venezuela, the largest oil-producing country in the region (see Figure 9-1 of this column).

[197] Masato Ninomiya (2008), "Japan's Presence in Brazil and Future Outlook".
[198] In response to a request made by the Japanese side at the first meeting, the procedures for the screening of imports of used capital goods was simplified as desired by Japanese-owned companies operating in Brazil.

Column Figure 9-1 Real GDP growth of Argentina, Colombia, Peru and Venezuela (Year-on-year basis)



Notes: Figures for 2008 and before are actual figures. 2009–2010 figures are estimates.
Source: *World Economic Outlook, Apr. 2009* (IMF).

Argentina: High growth potential in the agricultural sector despite the pending foreign debt problem

Argentina,[199] which is the world's eighth largest country in terms of area, the highest-income country in South America and No. 2 in economic size in the region, plunged into a serious economic crisis in 2001 through 2002 as it declared a default on foreign debts. However, since 2003, it has achieved remarkable growth. Argentina's annual economic growth averaged more than 7% for six consecutive years from 2003 to 2008. Although the country's capital and foreign exchange markets were disrupted by the Lehman shock of September 2009, as well as the nationalization of the pension fund system, households consumption remains strong despite a slowdown in its growth. For example, supermarket store sales have been growing 20% on a year-on-year basis.[200]

One factor that has driven Argentina's economic recovery is an expansion of exports of agricultural products due to increased global demand for foods. The country, whose agricultural land takes up around 48% of the entire national land, is endowed with an appropriate amount of rainfall, mild weather and fertile temperate-zone plains known as Pampas, which occupy about a quarter of the national land. As a

[199] Argentina's per-capita GDP in 2007 stood at $9,396, the highest in South America. Nominal GDP totaled $262.5 billion, the second largest in the region, after Brazil's nominal GDP of $1,300 billion. (U.N. Economic Commission for Latin America and the Caribbean (2008), "Statistical Yearbook for Latin America and the Caribbean 2008.")

[200] The average growth in supermarket store sales over the seven months between September 2008 and March 2009 came to 19.5% (National Institute of Statistics and Censuses (INDEC)). However, it should be kept in mind that there is an argument that Argentina's inflation rate is actually higher than the official figure (IMF (2009), "World Economic Outlook, Apr.2009").

result of an improvement in productivity realized by the introduction of advanced agricultural equipment and technologies such as no-tillage cultivation[201] using genetically engineered crops, Argentina has become a major producer of agricultural product in recent years: it is the world's third largest producer of soy beans, the seventh largest producer of corn and the 13th largest producer of wheat.[202] Exports of foods, including processed foods, have been posting average annual growth of more than 20% since 2003 (see Figure 9-2 of this column) and accounted for 51% of the overall value of Argentina's exports in 2008.[203] Production of bio-diesel derived from soybeans has also been growing.[204] There are short-term risks for Argentina, including the fall in prices of primary products, which came after a sharp rise that continued until the first half of 2008,[205] and a major drought that hit the country in 2008 through early 2009. However, demand for foods is expected to stay strong in the medium to long term due to the growing global population and the economic growth of emerging economies, and Argentina has high growth potential in the agricultural sector in light of its vast spare land for crop planting.[206]

Column Figure 9-2 Changes in Argentine food exports

Notes: Total exports of goods classified under HS Codes Chapter 1 to 24.
Source: World Trade Atlas.

[201] The no-tillage cultivation is a technology for sowing seeds without cultivating paddies or tilling the soil. It is deemed to be efficient and very economical in energy use (Aichi Agricultural Research Center (1989), "New Agricultural Technologies").
[202] USDA , Production Supply & Distribution (2009.5) (estimated figures for fiscal 2008/09).
[203] National Institute of Statistics and Censuses (INDEC), trade statistics.
[204] Argentina's production capacity for biodiesel, which stood at 155,000 tons in 2006, is estimated to reach 4 million tons in 2011 (Mitsubishi UFJ Research and Consulting, "Is Argentina's Economic Revival Real?").
[205] The international wheat price in April 2009 stood at $5.2 per bushel, far below the record high of $10.9 per bushel posted in March 2008 (the price for the nearest future contract on the first Friday of the month on the Chicago Board of Trade; the web site of the Ministry of Agriculture, Forestry and Fisheries).
[206] In Argentina, nearly 9,000 hectares of plains are used exclusive for ranching (Takahiro Shidara (2008), "Current State of Business in Argentina and Future Outlook").

In addition, Argentina has rich reserves of mineral resources, including copper, lead, zinc, gold, silver and lithium, in the Andes mountain range located along the border with Chile.[207] As the country has had difficulty raising funds since declaring a default on foreign debts in 2001, the development of those resources has not proceeded and sufficient exploration work has not been implemented in many regions. In addition, there is significant room for improvement of infrastructures, including subways, ports, railways and power facilities, raising hopes for future opportunities for investment in infrastructure development.[208] Although there are still uncertainty factors concerning Argentina, including the pending foreign debt problem, the government's increasing intervention in the economy as shown by the above-mentioned nationalization of the pension system and the government's erratic policy management as exemplified by an increase in the export duty on agricultural products,[209] there will be a significant business opportunity in the country in the medium to long term.

Colombia: Transformation into a promising investment target following an improvement in the security situation

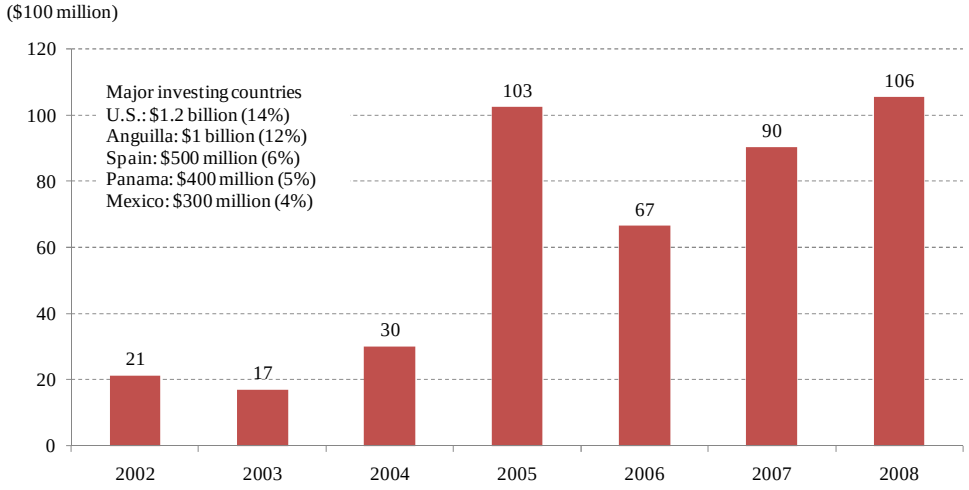
The security situation in Colombia, which used to be described as the worst in the world, is rapidly improving, as President Uribe, who took office in 2002, made strenuous efforts to restore domestic order by strengthening a crackdown on outlawed armed forces such as FARC (Revolutionary Armed Forces of Colombia). The numbers of terrorist attacks fell to 347 in 2008 from 1,645 in 2002, the year when President Uribe took office, the number of abductions dropped to 425 from 2,882 and the number of murders declined to 16,140 from 28,837.[210]

In line with the improvement in the security situation, investors' confidence in the country has recovered. According to the rankings of countries in terms of investment environment that was announced by the World Bank in September 2008, Colombia is cited as one of the 10 countries where the greatest improvement was made.[211] Moody's, a U.S. rating agency, upgraded the credit rating assigned to foreign currency-denominated long-term debts issued by the Colombian government from Ba2 to Ba1, one notch below investment grade. Colombia has the potential to attract investment, as it is rich in natural resources[212] and has a population of 46 million people, the third largest population in Latin America. It also has favorable geographic features as a distribution base: it is the only South American country that

[207] Koji Hirai (2007), "Status of the Mining Industry in Argentina".
[208] Mizuho Information and Research Institute (2009), "Report on Projects for the Promotion of Pan-East Asian and Other External Economic Policies 2008".
[209] The plan for a hike in the export duty on agricultural products, introduced by the Fernandez government in March 2008, provoked nationwide protests and was eventually rejected as Julio Cobos, Vice President of the country and the leader of the Senate, joined the opponents of the plan to vote it down (Koichi Usami (2009), "Can Argentina Regain Investors' Confidence?". It is presumed that the plan to hike the export duty reflected the government's wish to expand tax revenues in order to finance the repayment of public debts (Takahiro Shidara (2008), "Current State of Business in Argentina and Future Outlook").
[210] JETRO, "World Trade News" (February 10, 2009).
[211] The World Bank (2009), "Doing Business 2009".
[212] Colombia is rich in natural resources such as nickel (the world's eighth largest production volume in 2007), platinum (the sixth largest) and coal (the 11th largest) (the production rankings for nickel and platinum are based on a database created by JOGMEC Mineral Resources Information Center and the ranking for coal is based on "Statistical Review of World Energy, June 2008" by BP (2008)).

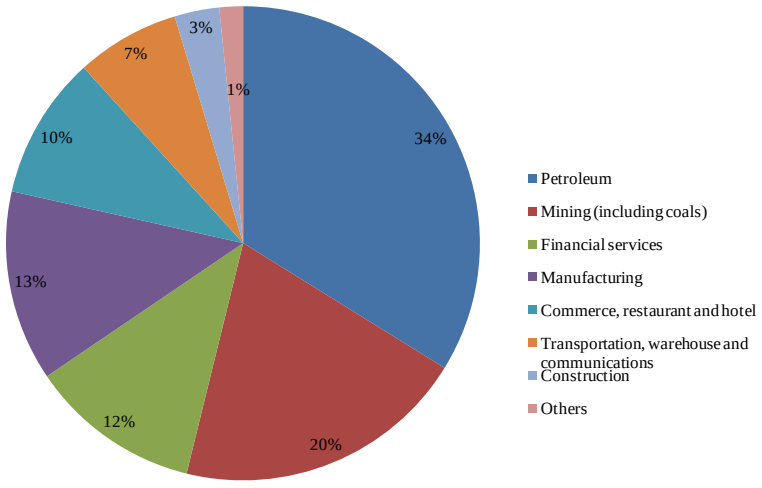
has ports on both Pacific and Atlantic coasts. Colombia offers preferential treatment to direct investment from abroad as shown by the establishment of free trade zones.[213] Therefore, following an improvement in the security situation, which constituted the greatest impediment to foreign investment in the country, inward direct investment has been growing in recent years (see Figure 9-3 of this column). Investment is made in a diverse range of sectors, including financial services, manufacturing and commercial services (see Figure 9-4 of this column).

Column Figure 9-3 Changes in inward direct investment in Colombia



Notes: Country-by-county figures are the value of investment made from January to September 2008, excluding reinvestment and investment in oil-related fields.
Source: Central Bank of Colombia.

Column Figure 9-4 Inward direct investment in Colombia by industry



Notes: Others include agriculture, forestry and fisheries, public services and utilities.
Source: Central Bank of Colombia.

[213] In Colombia, there are 10 free trade zones, in which industrial users are eligible for a preferential income tax rate (15%) and such preferential treatments as exemption from the tariffs on imports of raw materials and the value added tax (JETRO (2008), "FY 2007 Survey on the Investment Environment in Colombia").

Although investment by Japanese-owned companies amounted to only ¥3.4 billion (around 0.4% of the overall amount of inward direct investment in Colombia[214]) between January and September 2008, Japanese interest in Colombia is gradually growing in line with an improvement in the investment environment, as shown by moves to open new branches in the country and station representatives there. In 2008, which marked the centennial of the establishment of diplomatic relations between Japan and Colombia, the Japan and Colombia Wise Men's Group (chaired by Mr. Yorihiko Kojima, President of Mitsubishi Corporation, on the Japanese side) was established, and, in order to invigorate bilateral economic relations, the council adopted a report listing a set of proposals, including starting negotiations about an investment agreement and a tax treaty and making efforts toward starting negotiations about an Economic Partnership Agreement in the future. The proposals cited automobiles, machinery, medical care, biofuels, financial services, petrochemicals and agriculture as promising investment targets for Japan. In response to the report, Japan and Colombia started negotiations about a bilateral investment agreement, raising hopes for the strengthening of economic relations between the two countries.

Peru: Continuing to post highest growth in South America due to robust domestic demand

Peru's foreign debts have decreased sharply[215] and its fiscal condition has improved[216] as a result of the liberal economic policy and sound macro-economic policy pursued by successive governments since the government of President Fujimori, which was inaugurated in the 1990s. Because of Peru's increased allure as an investment target due to an improvement in the security situation and the upsurge in resource prices in recent years, inward direct investment in the country is estimated to have grown to $6.5 billion in 2008 from $1.6 billion in 2004.[217] In July 2008, Standard & Poor's, a U.S. rating agency, upgraded the rating assigned to foreign currency-denominated long-term bonds issued by the Peruvian government to "BBB minus," an investment grade. In November 2008, Peru signed an investment agreement with Japan, and the two countries are implementing procedures to put it into effect. In addition, in April 14, 2009, the two countries' leaders made a formal decision to start negotiations about a bilateral EPA, and the first round of negotiations was held on May 25 to 30 in Peru.

While Peru is rich in metal resources as exemplified by its status as the world's largest producer of silver and the third largest producer of copper, zinc and tin, it has achieved high growth led by domestic demand (see Figure 9-5 of this column) in recent years as a result of the growing investment in the country due to the above-mentioned inflow of overseas funds as well as its relatively stable inflation rate and unemployment rate,[218] which are attributable to the stabilization of its macro-economic condition and

[214] The ratio was calculated by dividing the amount of investment in the January-March quarter of 2008 as reported in the Balance of Payments statistics by the Ministry of Finance and the Bank of Japan by the amount of inward direct investment in Colombia in the same period converted into yen terms based on an exchange rate of ¥100 to the dollar.

[215] According to an IMF Article IV report published in February 2009, the ratio of Peru's foreign debts to GDP was estimated to drop from 44.8% in 2004 to 29.2% in 2008 (IMF (2009), "Peru: Staff Report for the 2008 Article IV Consultation").

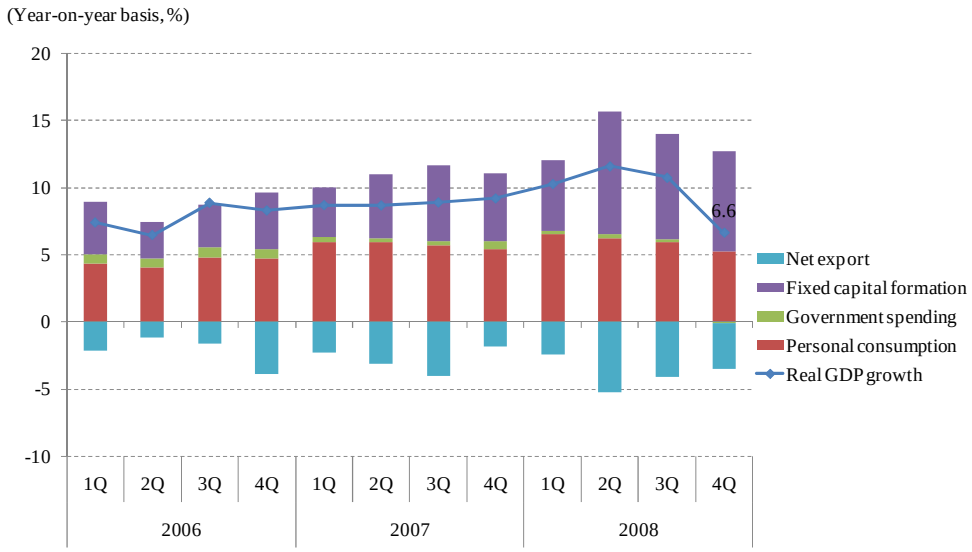
[216] According to the above-cited IMF report, the ratio of Peru's public debts to GDP was estimated to drop from 44.3% in 2004 to 24.80% in 2008.

[217] These figures are based on the above-cited IMF report.

[218] According to Peru's National Statistics Institute (IENI), consumer prices rose 7.3% in 2008, while the

the moderation of its vulnerability to external shocks. Personal consumption and fixed capital formation accounted for 67% and 28%, respectively, of real GDP. In the fourth quarter of 2008, after the Lehman shock, domestic demand remained strong as personal consumption and fixed capital formation grew 8% and 30%, respectively on a year-on-year basis. Whereas there were signs of an economic slowdown in many emerging economies due to the impact of the global financial crisis, Peru's real GDP grew 9.8% in 2008. The IMF estimates that Peru will achieve economic growth of 3.5% in 2009, higher than the estimated average for emerging economies[219] even if future risk factors, including a slump in demand for resources due to the global recession, the deterioration of the terms of trade resulting from a drop in export prices and a decrease in the inflow of funds from abroad, are taken into consideration[220].

Column Figure 9-5 Peru's real GDP growth and percentage contribution by demand component



Source: National Statistics Institute of Peru (INEI)

Venezuela: Problems arising from oil price drop and signs of strengthening of relations with Japan

The Venezuelan economy, which enjoyed record high growth on the back of an upsurge in crude oil prices, has abruptly plunged into a difficult situation as a result of a slump in crude oil prices triggered by the global financial crisis. Venezuela, which depends on crude oil and oil products for 93% of its overall exports,[221] suffered a 67% drop in the value of its exports in the fourth quarter of 2008 from the previous quarter. Consequently, its current account balance swung into a deficit for the first time since the fourth quarter of 2001. In 2009, crude oil exports continued to be weak and the current account balance remained

unemployment rate in December 2008 to February 2009 stood at 9.3%.

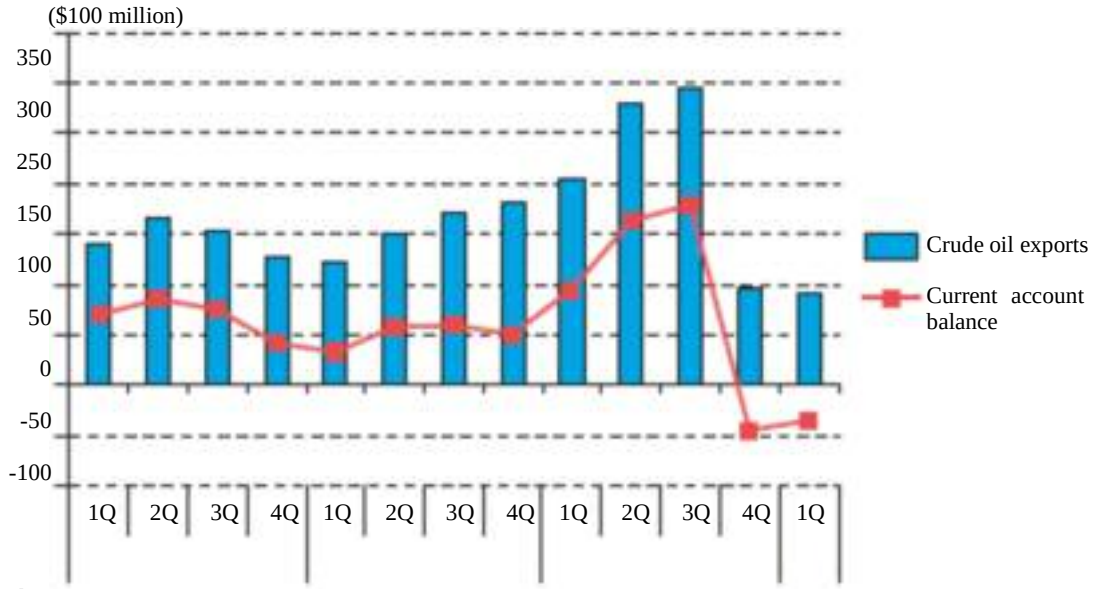
[219] The IMF forecasts average economic growth of 1.6% for emerging economies in 2009 (IMF (2009) "World Economic Outlook, Apr. 2009").

[220] The estimate is included in the above-cited IMF report.

[221] Of the overall export value of $93.5 billion, exports of crude oil and oil products accounted for $87.4 billion (Central Bank of Venezuela, international balance of payments statistics).

in a poor state (see Figure 9-6 of this column).

Column Figure 9-6 Changes in Venezuelan crude oil exports and current account balance



Source: Central Bank of Venezuela.

As oil-related revenues account for 56% of the Venezuelan government's fiscal revenues,[222] the drop in the crude oil price has hit the country's finances hard. Initially, the Venezuelan government compiled the budget for fiscal 2009 based on an assumed crude oil price of $60 per barrel. However, after the drop in crude oil price, it was forced to lower the assumed crude oil price to $40 per barrel and reduce the national budget by 6.7%. Moreover, as funds established outside the scope of the national budget to carry out social development projects related to infrastructure, energy, the environment, agriculture, medical care and housing, including the National Development Fund (FONDEN) and the Economic and Social Development Fund, are operated based mainly on oil-related revenues such as contributions from Petroleos de Venezuela, S.A. (PDVSA), the drop in crude oil prices has fueled concern over whether such projects can be implemented in the future.

Under these circumstances, the Chavez government has turned attention to Asia as a new source of investment. In February 2009, Venezuela and China agreed on the launch of a joint project to assess the amount of reserves, an increase in financial contributions to their joint fund for infrastructure development in Venezuela and a supply of 80,000 to 200,000 barrels per day of crude oil from Venezuela to China.[223] When President Chavez visited Japan in April 2009, he agreed with Prime Minister Aso to strengthen the two countries' cooperation in energy resource development through such measures as establishing a joint

[222] According to the Venezuelan Ministry of Finance, oil revenues accounted for 79 trillion bolivares of the overall tax revenues of 141 trillion bolivares in 2007.

[223] Miwako Funaki (2009), "Venezuela: The Way Paved for Continued Rule of President Chavez But Oil Price Drop Puts Oil Industry in Difficulty."

working group to study the development of the Orinoco oil field in an inland region of Venezuela, which is one of the largest oil fields in the country, and the way to secure funds for the development. In addition, JOGMEG and private-sector Japanese-owned companies signed 12 memorandums of understanding concerning the promotion of cooperation with PDVSA, indicating the growing eagerness to develop the two countries' economic relations. However, there are also worrisome factors related to the business environment, such as the Venezuelan government's announcement in May 2009 of the nationalization of companies in the steel making sector, including a Japanese-owned company, and an improvement need to be made in this regard.

(3) Economies of the Middle East and African Countries

The Middle East and Africa forms a huge economic zone with a total population of some 1.1 billion people (2005).

In particular, since 2003, when the global economy was hit by an upsurge in resource prices, Middle East and African countries have attracted attention from around the world for their rich reserves of crude oil, rare metals and other natural resources (see Tables 1-2-6-50 and 1-2-6-51).

The income level in the region as measured by per-capita nominal GDP widely varies from country to country (see Table 1-2-6-52).

The population growth rate is high across the region, with most countries continuing to post annual growth of around 2%. The employment situation in the region is severe, and the unemployment rate is far above 10% in most African countries and in some oil-producing Middle East countries.

Among the countries in the region, those belonging to the Gulf Cooperation Council (GCC), whose per-capita nominal GDP is relatively high due to their crude oil export revenues, are promoting industrial diversification. A major objective of this move is to provide job opportunities to the growing population. Countries where the ratio of native workers to the overall workforce is high are trying especially hard to create job opportunities.[224]

Meanwhile, in African countries, whose main industry used to be agriculture, the amount of per-capita crop production was low compared with the rest of the world despite the fact that a majority of African people lived in rural areas; consequently, their economic growth remained slack.[225] However, since the upsurge in resource prices, not only developed countries but also emerging economies like China and Russia have made active investment in resource development in Africa and, as a result, an increasing number of African countries have shifted from an economic structure dependent on agriculture to one centering on the development and export of natural resources and achieved rapid economic growth.

Yet, the plunge in resource and food prices and the global financial crisis since the latter half of 2008 have posed a serious challenge for the economies of Middle East and African countries, which had been developing steadily, by shrinking the inflow of foreign capital and causing a drop in export revenues.

Below, we will examine the outlook for future expansion of business opportunities for Japanese-owned companies in Middle East and African countries while looking at an overview of the

[224] Japan is providing support for industrial diversification efforts, which will be mentioned in Section 2, Chapter 3.

[225] Katsumi Hirano (2001), "International Comparison of African Agriculture"

current state of the economies of those countries amid the drastic changes in the economic environment.

Figure 1-2-6-50 Share of proven oil and natural gas reserves by region

	Crude oil		Natural gas	
Middle East	**61.0%**		**41.3%**	
Europe (includes Russia/CIS)	**11.6%**		**33.5%**	
Africa	**9.5%**		**8.2%**	
Latin America	**9.0%**		**4.4%**	
North America	**5.6%**		**4.5%**	
Asia	**3.3%**		**8.2%**	
Major African Countries	Libya	3.3%	Nigeria	3.0%
	Nigeria	2.9%	Algeria	2.5%
	Algeria	1.0%	Egypt	1.2%
(Reference)	Saudi Arabia	21.3%	Russia	25.2%

Source: *BP Statistical Review of World Energy* (BP)

Figure 1-2-6-51 Share of output of rare mineral resources by country

	1st place	2nd place	3rd place	4th place	5th place	Percentage of African countries
Platinum	South Africa	Russia	U.S.	Canada	Other	88
Manganese	South Africa	Ukraine	Gabon	India	China	82
Cobalt	Democratic Republic of the Congo	Cuba	Australia	U.S.	Zambia	41
Gold	South Africa	Australia	Peru	China	U.S.	40
Vanadium	China	South Africa	Russia	U.S.	Other	32
Cesium	Canada	Zimbabwe	Namibia	—	—	29
Aluminum	Australia	Guinea	Jamaica	Brazil	China	26
Titanium	China	Australia	South Africa	India	Norway	17
Chromium	Kazakhstan	South Africa	India	U.S.	Other	11

Source: Maeda, T. (2008), "AFRICA NI OKERU SHIGENKAIHATSU NI MUKETA SENRYAKUTEKITORIKUMI HENO SHISHIN"

Figure 1-2-6-52 Key economic indicators for Middle East/African countries

	Country	Nominal GDP in 2007 ($ bn)	Per Capita GDP in 2007 (dol.)	Per Capita GDP World Ranking	Population in 2007 (Unit: mill.)	Estimate of Population in 2050 (Unit: mill.)	Population Growth Rate (%)	Ratio of Compatriots (%)	Unemployment Rate (%)
Oil-producing country of Middle East	Saudi Arabia	381.9	15,724	40	24.3	43.7	2.12	73.0	9.8(2008)
	UAE	180.2	40,147	19	4.5	8.3	2.82	17.0	3.0(2004)
	Kuwait	111.8	33,760	23	3.3	5.2	2.44	32.0	4.4(2005)
	Qatar	71.0	76,374	3	0.9	2.3	10.65	Approx.30.0	0.6(2008)
	Oman	40.4	14,725	42	2.7	4.9	2.08	73.0	15.0(2004)
	Bahrain	18.4	24,138	30	0.8	1.3	2.08	51.0	Approx.6.6(2003)
African country	South Africa	283.4	5,922	69	47.9	56.8	0.98	-	21.7 (2008)
	Nigeria	167.4	1,164	129	143.9	289.1	2.33	-	-
	Algeria	135.3	3,934	88	34.4	49.6	1.51	-	12.9 (2008)
	Egypt	130.3	1,772	119	73.6	129.5	1.81	-	8.7 (2008)
	Morocco	75.1	2,423	109	31.0	42.6	1.20	-	10.0 (2008)
	Libya	69.9	11,475	50	6.1	9.8	2.00	-	30.0 (2004)
	Angola	59.3	3,629	95	16.3	42.3	2.67	-	50以上(2001)
	Tunisia	35.1	3,434	97	10.2	12.7	0.98	-	14.0 (2008)
	Cameroon	20.7	1,097	131	18.9	36.7	2.26	-	30.0 (2001)
	Ethiopia	19.4	252	176	77.2	173.8	2.59	-	-
	Ghana	15.0	684	152	22.0	45.2	2.09	-	11.0 (2000)
	Botswana	12.3	7,005	64	1.8	2.8	1.45	-	7.5 (2007)
	Zimbabwe	12.0	55	181	11.7	22.2	0.27	-	80.0 (2005)
	Gabon	11.6	8,076	60	1.4	2.5	1.84	-	21.0 (2006)
	Zambia	11.4	939	138	12.2	29.0	2.43	-	50.0 (2000)
	Namibia	8.7	4,296	85	2.0	3.6	1.93	-	5.0 (2008)
	Congo	7.7	2,159	113	3.5	6.9	1.91	-	-
	Guinea	4.2	417	160	10.0	24.0	2.26	-	-
	Mauritania	2.8	952	135	3.0	6.1	2.40	-	30.0 (2008)

Notes: 1. Population growth rate is the average growth rate from 2005 to 2010.
2. The unemployment rate in Saudi Arabia is for Saudi Arabians and foreign laborers are not included.

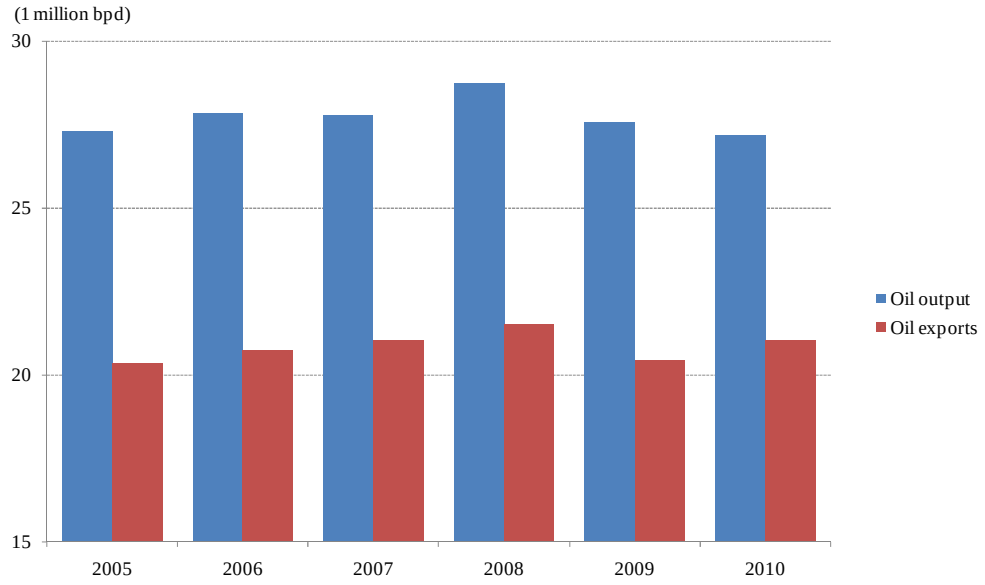
Source: World Economic Outlook Database (IMF), World Population Prospect (UN), World Fact Book (CIA), Ministry of Foreign Affairs Website, HENKAKUKI NI ARU CHUUTOU NI TAISURU WAGAKUNI NO TORIKUMI NI KAKARU HOUKATSUTEKICHOUSA (Japanese Institute of Middle Eastern Economies Center, The Institute of Energy Economics

(A) Current state of the economies of Middle East and African countries (Impact of the financial crisis)

(Trade)

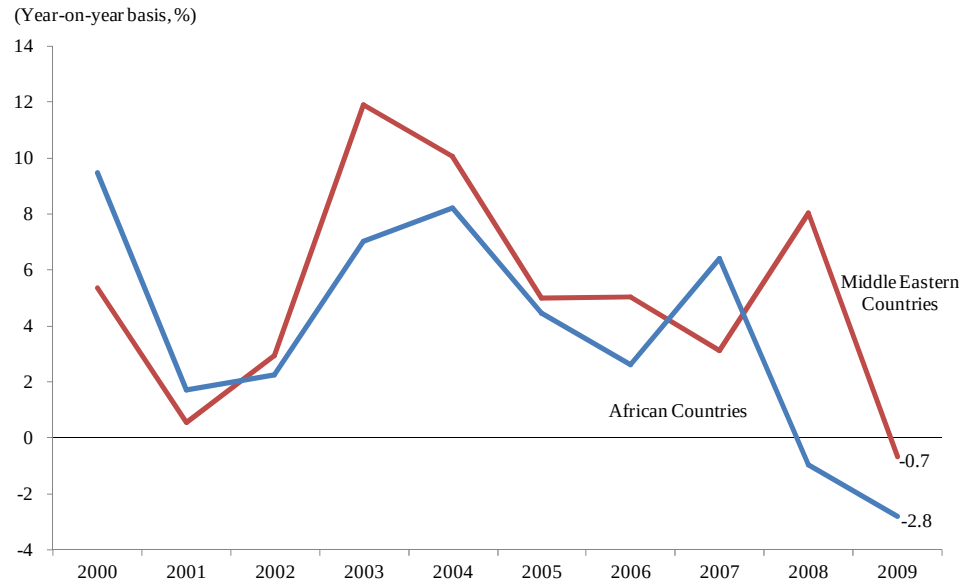
The global financial and economic crisis has also had a significant impact on Middle East and African countries. A slump in demand due to the recession in developed countries and a drop in prices of resources and foods, including crude oil and crops, is expected to considerably slow down growth all throughout 2009 in the overall value of exports from Middle East and African countries by reducing exports of those products which stand as their main export items (see Figures 1-2-6-53 and 1-2-6-54).

Figure 1-2-6-53 Changes in output and exports of oil of Middle Eastern oil-producing countries



Source: *World Economic Outlook Apr. 2009* (IMF)

Figure 1-2-6-54 Changes in goods exports by Middle Eastern countries and African countries



Source: *World Economic Outlook Apr. 2009* (IMF)

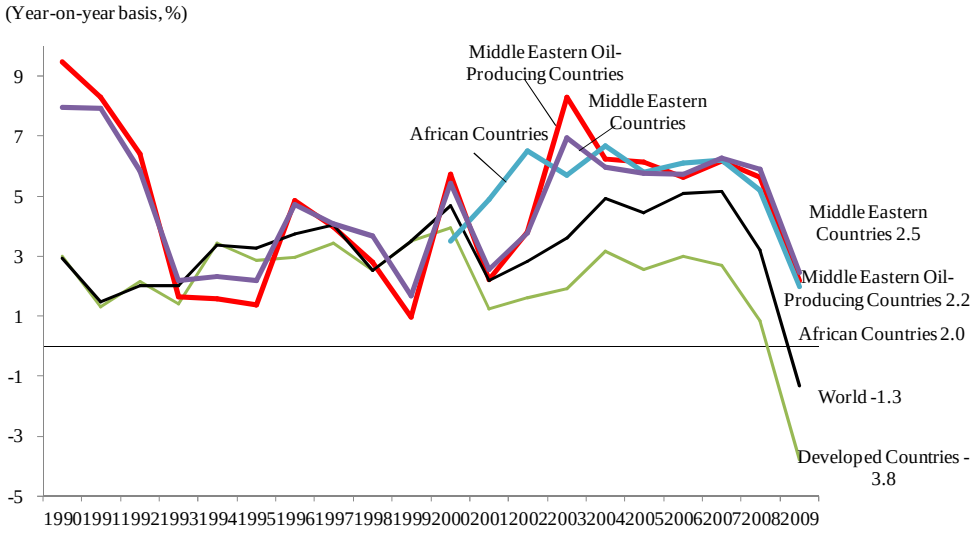
(Economic growth rate)

According to the IMF, real GDP growth in 2009 is projected to slow down sharply: to 2.5% for the entire Middle East, including non-oil-producing countries; to 2.2% for oil-producing Middle East countries; and, to 2.0% for African countries (see Figure 1-2-6-55).

It is notable that the economies of Middle East and African countries, as well as China and other emerging economies, are projected to maintain positive growth, albeit at a slower rate, while the

economies of developed countries are expected to contract sharply in 2009. IMF forecasts that the economies of Middle East and African countries will recover from the slowdown in 2010.[226]

Figure 1-2-6-55 Real GDP growth rate greatly decelerates in Middle Eastern and African countries



Note: "Middle Eastern oil-producing countries" refers to the nine countries of Bahrain, Iran, Kuwait, Libya, Oman, Qatar, Saudi Arabia, UAE, and Yemen.
Source: *World Economic Outlook Apr. 2009* (IMF)

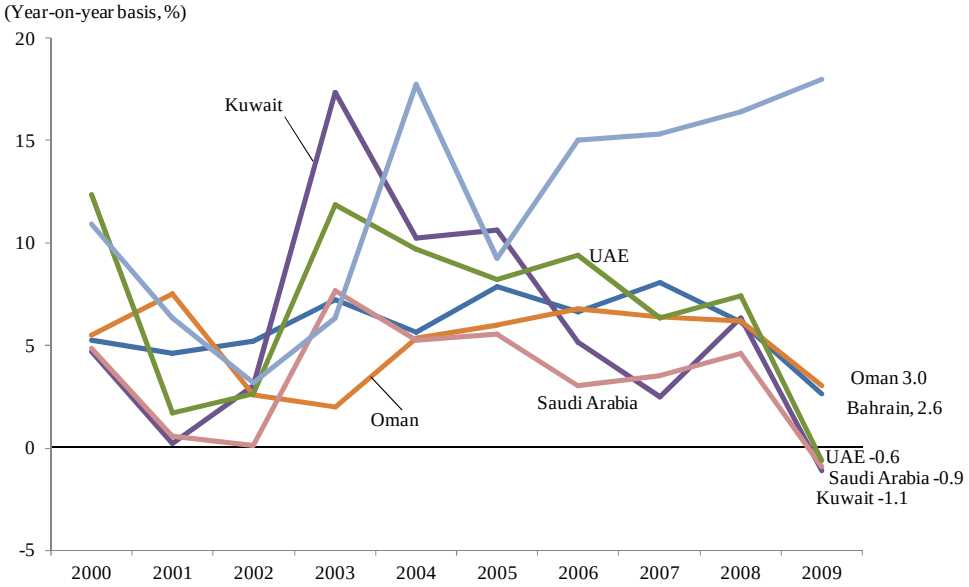
However, the economic impact of the global financial and economic crisis varies from country to country.

According to the IMF's forecasts of the real GDP growth of individual countries in the region in 2009, oil-producing Middle East countries are divided into two groups on the basis of economic performance, with the UAE, Saudi Arabia and Kuwait posting negative growth and Oman, Bahrain and Qatar maintaining positive growth. In particular, the economic growth of Qatar is projected to accelerate to 18.0% in 2009 as the country doubles production of liquefied natural gas, providing a sharp contrast to the economic performance of other oil-producing countries (see Figure 1-2-6-56).[227]

In Africa, the wide growth gap between oil-producing countries and non-oil-producing countries is expected to be almost eliminated because of a sharp slowdown in Angola and other oil-producing countries (see Figure 1-2-6-57 and 1-2-6-58). It is notable that among non-oil-producing countries, South Africa is projected to swing to negative growth.

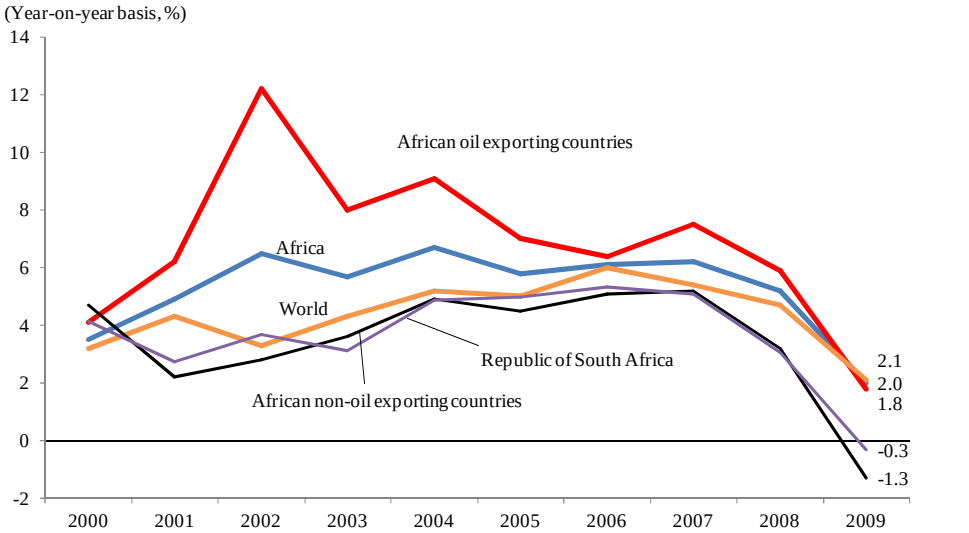
[226] IMF, "World Economic Outlook, Apr. 2009"
[227] The impact of the drop in crude oil prices on Qatar has been relatively small presumably because liquefied natural gas, traded on the basis of long-term contracts with user countries, accounts for the bulk of the country's export revenues.

Figure 1-2-6-56 Real GDP growth rate of Middle Eastern oil-producing countries



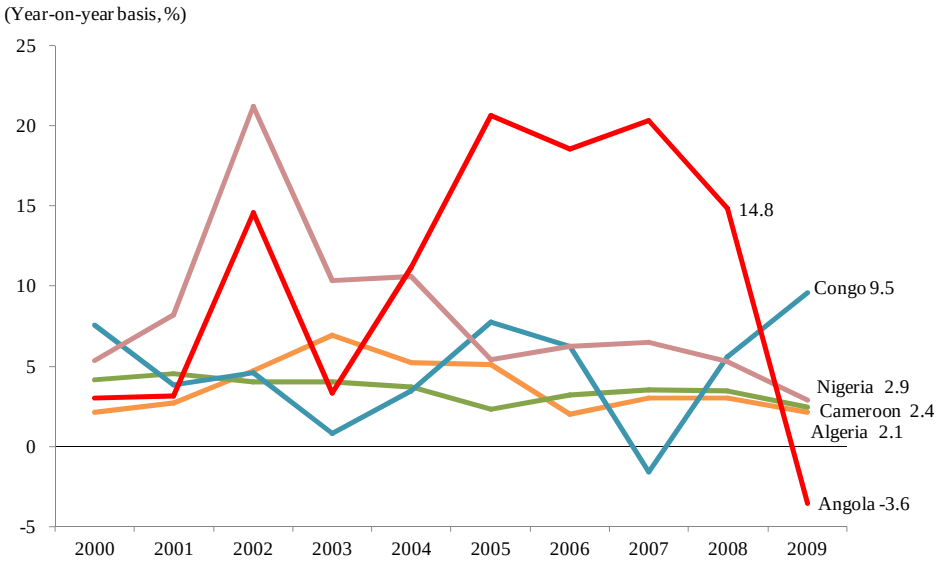
Note: Rates for 2008 and onward are predicted rates.
Source: *World Economic Outlook Apr. 2009* (IMF)

Figure 1-2-6-57 Real GDP growth rate of African countries (including oil exporting countries and non-oil exporting countries)



Notes: 1. "African oil exporting countries" refers to the nine countries of Algeria, Angola, Cameroon, Chad, Congo, Equatorial Guinea, Gabon, Nigeria, and Sudan.
2. "African non-oil exporting countries" refer to the 11 countries of Burkina Faso, Burundi, Democratic Republic of Congo, Guinea, Guinea-Bissau, Malawi, Mali, Mauritania, Mozambique, Namibia, and Sierra Leone.
Source: *World Economic Outlook Apr. 2009* (IMF)

Figure 1-2-6-58 Real GDP growth rate of African countries (for Oil exporting Countries)



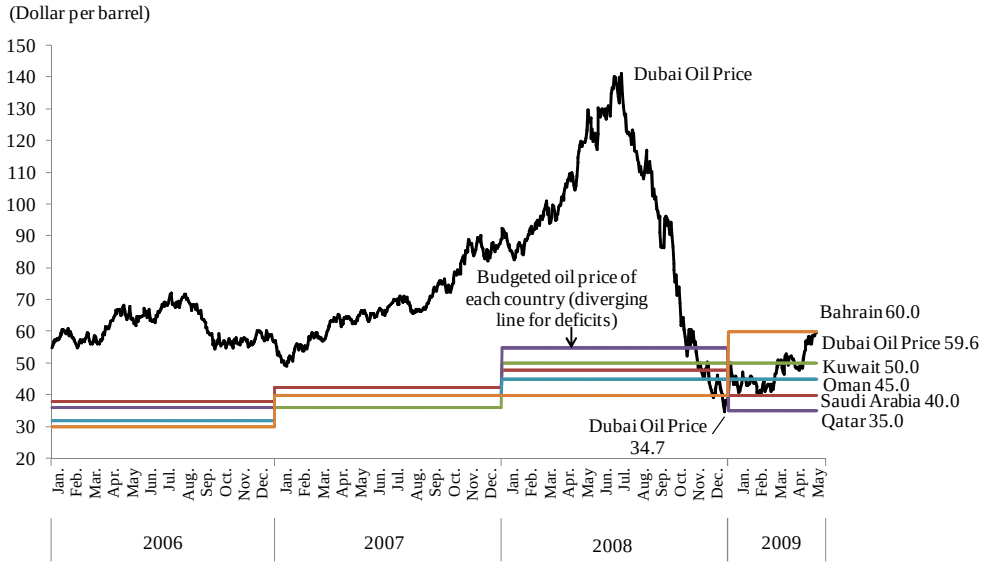
Note: Rates for 2008 and onward are predicted rates for Algeria, Congo, and Nigeria.
Regarding Angola and Cameroon, rates for 2007 and onward are predicted rates.
Source: *World Economic Outlook Apr. 2009* (IMF)

(Fiscal balance)

Drops in crude oil prices and crude oil export revenues due to weak overseas demand lead to the deterioration of oil-producing countries' fiscal balance. Figure 1-2-6-59 provides a comparison of the assumed crude oil prices for the coming year that were used in the compilation of the annual budgets of oil-producing Middle East countries and the actual price trend of Dubai crude over the past years. This shows that the actual oil prices are far below the prices assumed by the oil-producing countries because of the price plunge since 2008. Consequently, those countries are believed to have tapped internal reserve funds accumulated during the period of high oil prices to cover the cost of administrative services and ongoing development projects,[228] and some companies are expected to post a budget deficit in 2009. However, crude oil prices recovered somewhat by May 2009, approaching the assumed prices that constitute the basis of the budgets.

[228] IMF, "World Economic Outlook, Apr. 2009, chap. 2"

Figure 1-2-6-59 Changes in Middle Eastern oil-producing countries' budgeted oil prices and actual oil prices

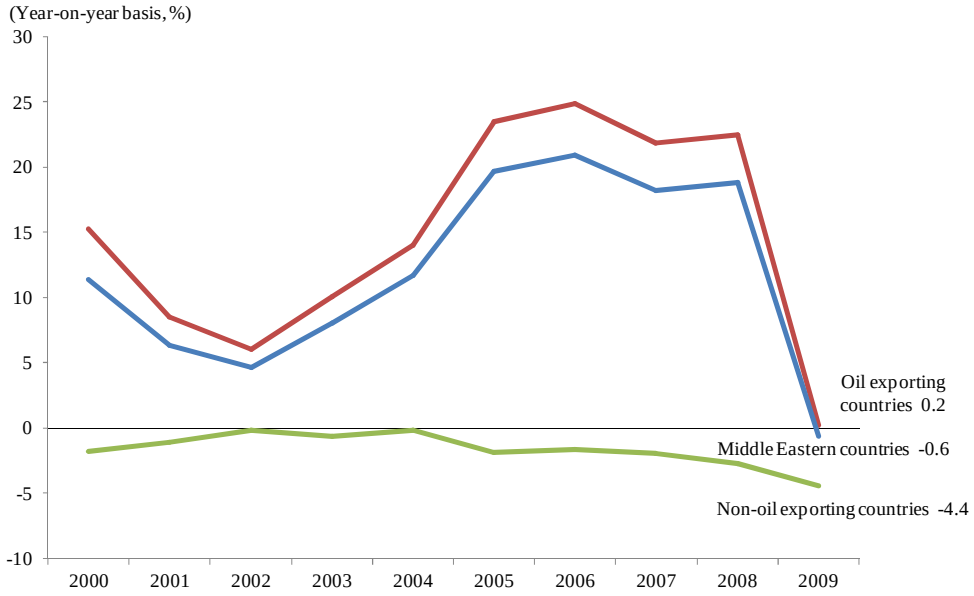


Notes: Saudi Arabia's prices for 2006 to 2008 are estimated by MEES and that for 2009 is the average of prices estimated by banks in Saudi Arabia. The draft budget is used for Kuwait's prices for 2006 and 2008 and Qatar's prices for 2009.
Source: (Jan. 26, 2009) *MEES*, Bloomberg

(Current account balance)

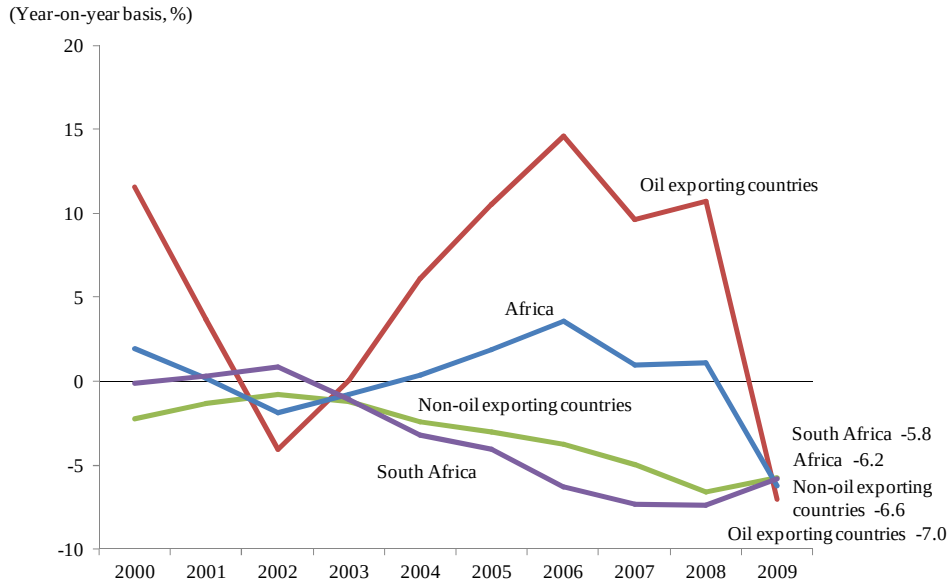
According to a forecast by the IMF (2009), Middle East and African countries will suffer a significant deterioration in their current account balance in 2009 (see Figures 1-2-6-60 and 1-2-6-61). In particular, the current account balance of oil-producing countries is expected to swing from a significant surplus into a deficit because of the drop in oil export revenues. The current account balance of non-oil-producing countries is also expected to deteriorate due to a drop in resource and foods prices.

Figure 1-2-6-60 Changes in current account balance of Middle Eastern countries



Source: *World Economic Outlook Apr. 2009* (IMF)

Figure 1-2-6-61 Changes in current account balance of African countries



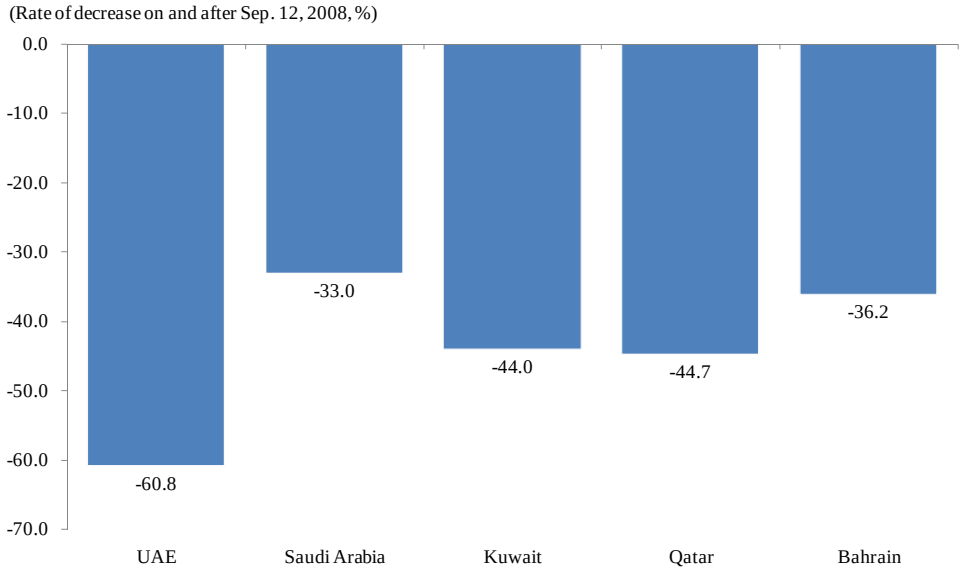
Source: *World Economic Outlook Apr. 2009* (IMF)

(Financial and capital markets)

The financial crisis has also had an impact on the financial and capital markets of Middle East and African countries. As a result of the withdrawal of foreign capital from the UAE and other countries, stock and real estate prices dropped sharply, causing financial markets in many countries to malfunction due to a shortage of liquidity. Many sovereign wealth funds (SWFs) managed by Middle East countries incurred

huge losses on their investments in foreign markets.[229]

Figure 1-2-6-62 Stock prices in Middle Eastern oil-producing countries



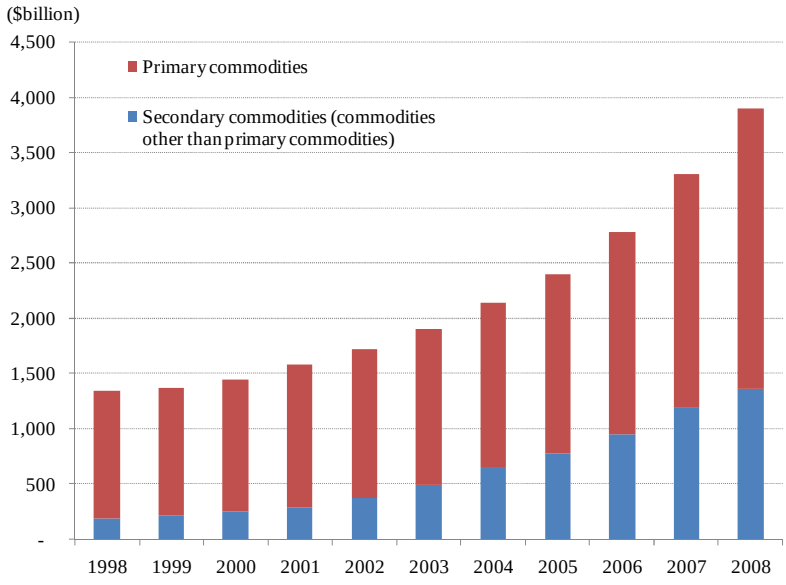
Source: *World Economic Outlook Apr. 2009* (IMF)

Despite the losses, sovereign wealth funds still hold a vast amount of assets.

According to International Financial Services, London (IFSL), the amount of assets managed by SWFs around the world at the end of 2008 was up 18% from the end of 2007 despite the financial crisis (see Figure 1-2-6-63). A region-by-region breakdown of the assets managed by SWFs shows that the share of SWFs in the Middle East increased slightly, from 45% at the end of 2007 to 46% at the end of 2008 (see Figure 1-2-6-64).

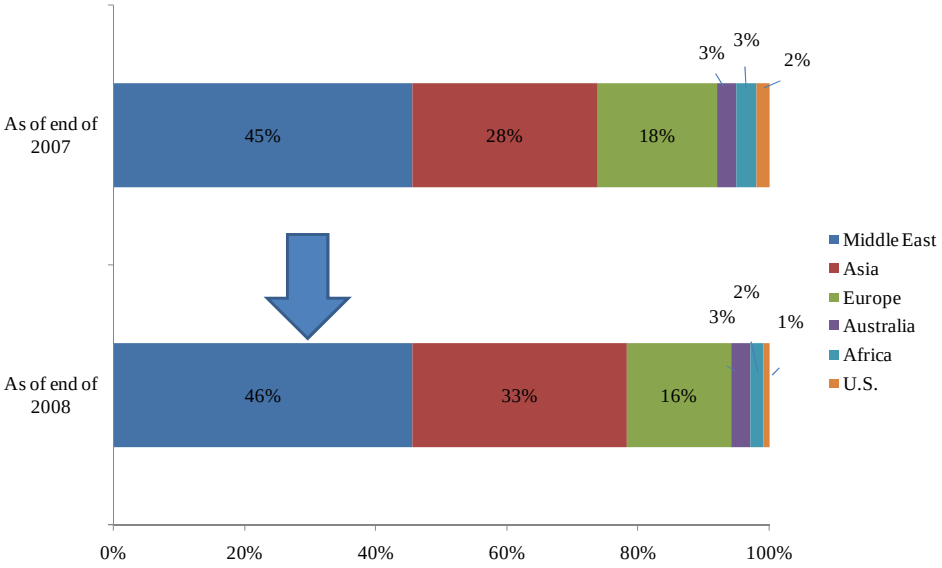
[229] IMF, "World Economic Outlook, Apr.2009, chap. 2"

Figure 1-2-6-63 Changes in outstanding managed assets of sovereign wealth funds in the world (classified by major funds)



Source: (2009) *Sovereign Wealth Funds 2009* (IFSL Research)

Figure 1-2-6-64 Market share of sovereign wealth funds by region



Source: (2009) *Sovereign Wealth Funds 2009* (IFSL Research) and (2008) *Sovereign Wealth Funds 2008* (IFSL Research)

The balance of outstanding assets managed by SWFs around the world ($3.9 trillion) is far higher than both the balance of assets managed by hedge funds (around $1.7 trillion) and the balance of assets managed by private equity funds (around $700 billion).[230] The presence of SWFs is expected to grow

[230] IFSL(2009), "Sovereign Wealth Funds 2009"

further after the financial crisis.

Abu Dhabi, which owns the Abu Dhabi Investment Authority, regarded as the world's largest SWF, also manages other SWFs, with each fund managed for its own purpose, and the country is continuing active investment activity after the outbreak of the financial crisis (see Table 1-2-6-65).[231]

Figure 1-2-6-65 Main results of investing activities of sovereign wealth funds in Abu Dhabi

Abu Dhabi Investment Council	Feb. 2008	Established together with UBS a fund of $500 million called "ADIC-UBS Infrastructure Investment Fund" intended for projects in GCC and North Africa.
International Petroleum Investment Company (IPIC)	Apr. 2009	Affiliated company Abbar Investment acquired AIG Private Bank for $253 million and changed the name to Falcon Private Bank.
		Raised its stake in CEPSA, a Spanish oil/petrochemical company, from 9.5% to 47%.
	Mar. 2009	Affiliated company Abbar Investment acquired 9.1% share of Daimler AG of Germany for 1.95 billion euros and became the largest shareholder.
		Affiliated company Abbar Investment invested 49.8 million euros in Unicredit Bank in Italy.
		Purchased Papua New Guinean government bonds for $1.1 billion and entered the LNG business.
	Feb. 2009	Bought out NOVA Chemicals, a major petrochemical company in Canada for $2.3 billion.
	Sep. 2008	Established a $1 billion fund for the energy sector in Kazakhstan.
	Sep. 2007	Acquired 20% share of COSMO OIL Co., Ltd. for \890 billion and became the largest shareholder.
Mubadala Development Company	Feb. 2009	Reached an agreement to establish a joint venture for defense equipment development with Sikorsky Aircraft Corporation in the U. S.
	Sep. 2008	Affiliated company Abu Dhabi Future Energy Company (ADFEC) invested 120 million euros in WinWinD Oy, a wind turbine manufacturer in Finland.
	July 2008	Reached an agreement to establish a joint venture for jet engine maintenance with Rolls-Royce plc, UK.
		Entered into a comprehensive partnership with General Electric Company (GE) of the United States. Mubadala purchased GE shares in the market and jointly established an $8 billion investment fund.
	May 2008	Affiliated company Abu Dhabi Future Energy Company (ADFEC) invested $2 billion in production of thin-film solar panels to be carried out in Germany and Abu Dhabi.

Source: Various press releases (Compiled by METI)

[231] The importance of attracting such investment money will be explained in Chapter 3.

(B) Business opportunities in Middle East and African countries

Despite the global financial and economic crisis, resource-rich Middle East and African countries provide many attractive markets for Japanese-owned companies in sectors such as resource development, industrial diversification and urban and infrastructure development projects. In addition, the potential of these countries as consumer markets is growing as a result of an expansion of the middle-income class due to a rise in the income level in recent years. Under these circumstances, Japan has been conducting FTA negotiations with the GCC countries, with the fourth round of negotiation held in March 2009.

Below, we will examine business opportunities for Japanese-owned companies in the region with a focus on the role of Middle East and African countries as markets.

(Middle East countries)

In Saudi Arabia, although consumption has weakened since the outbreak of the financial crisis, the purchasing power of Saudi people is expected to remain strong in the medium to long term. This is because Saudi people are unlikely to face a significant drop in their living standards given the country's crude oil export revenues and because the country's population – in particular the population of young people – is increasing.

A breakdown of employees in Saudi Arabia by wage level[232] shows that as well as employees with wages of $1,000 or less, those with wages of $5,000 or more account for more than 20% of the overall labor force (see Table 1-2-6-66). As the latter class of employees has relatively strong purchasing power, for people living in an emerging country, we can say that Saudi Arabia is a relatively attractive consumer market.

Figure 1-2-6-66 Ratio of employees by wage bracket (Saudi Arabia)

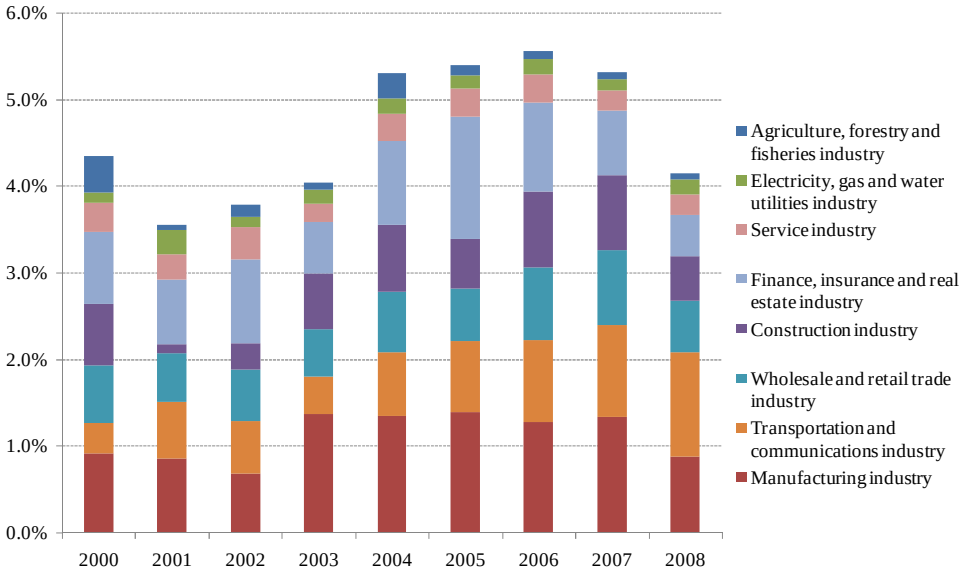
Monthly Salary: Over $10,000	4%
Monthly Salary: $5,001-$10,000	17%
Monthly Salary: $3,001-$5,000	18%
Monthly Salary: $2,001-$3,000	19%
Monthly Salary: $1,001-$2,001	22%
Monthly Salary: $500-$1,000	10%
Monthly Salary: Less than $500	10%

Source: (2009) *Salary Survey January 2009* (bayt.com)

Moreover, non-oil sectors, including manufacturing, transportation and communications, have been growing steadily in Saudi Arabia regardless of fluctuations in crude oil prices (see Figure 1-2-6-67). Consequently, the diversification of the country's industry has been gradually proceeding (see Figure 1-2-6-68), indicating that business opportunities for Japanese-owned companies are spreading to non-oil sectors, too.

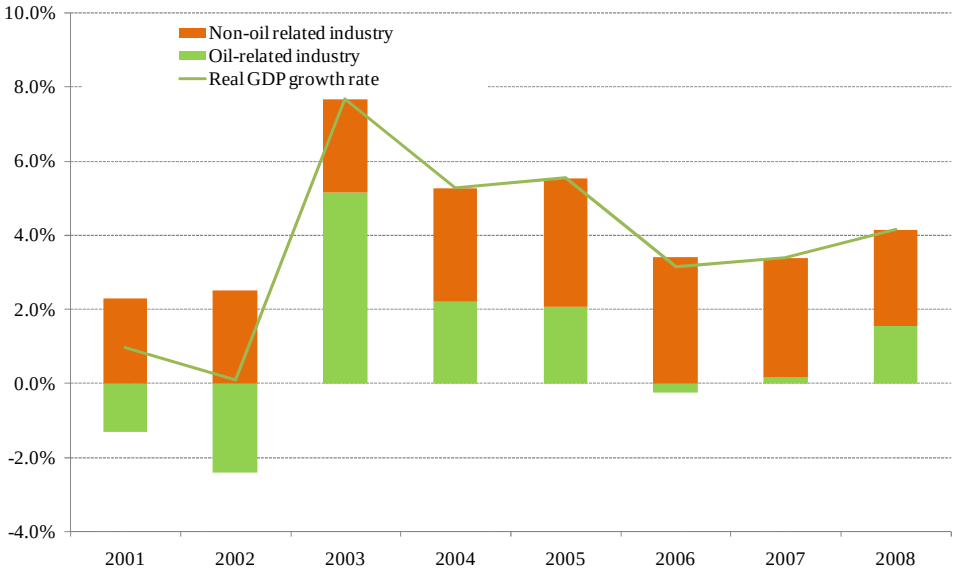
[232] These figures are based on a survey conducted by bayt.com, a Middle East job site, between December 2008 and January 2009.

Figure 1-2-6-67 Contribution to real GDP by type of industry in Saudi Arabia (excluding the mining industry)



Note: Data for 2008 are provisional.
Source: (2009) *Appendix of Statistical Tables for Forty-Fifth Annual Report* (Saudi Arabian Monetary Agency)

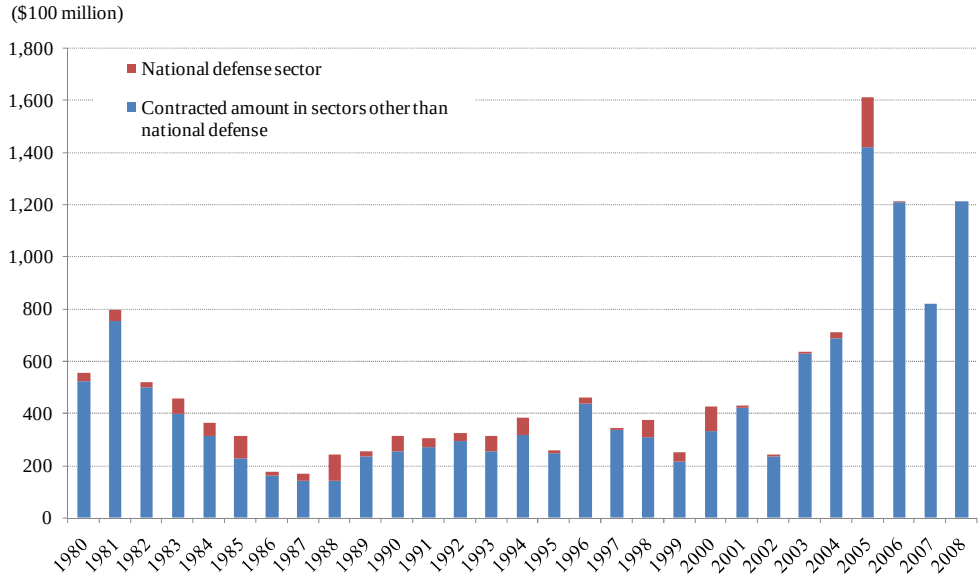
Figure 1-2-6-68 Contribution to the GDP growth rate by type of industry in Saudi Arabia



Note: Data for 2008 are provisional.
Source: (2009) *Appendix of Statistical Tables for Forty-Fifth Annual Report* (Saudi Arabian Monetary Agency)

Furthermore, in oil-producing Middle East countries, demand remains strong for various development projects, including urban development, infrastructure development and petrochemical plant construction (see Figure 1-2-6-69 and Table 1-2-6-70). Demand for development projects is especially growing in the UAE (see Figure 1-2-6-71), raising hopes for an expansion of business opportunities in such sectors as construction, plant, engineering and petrochemicals.

Figure 1-2-6-69 Contracted amount for projects in the Middle Eastern market



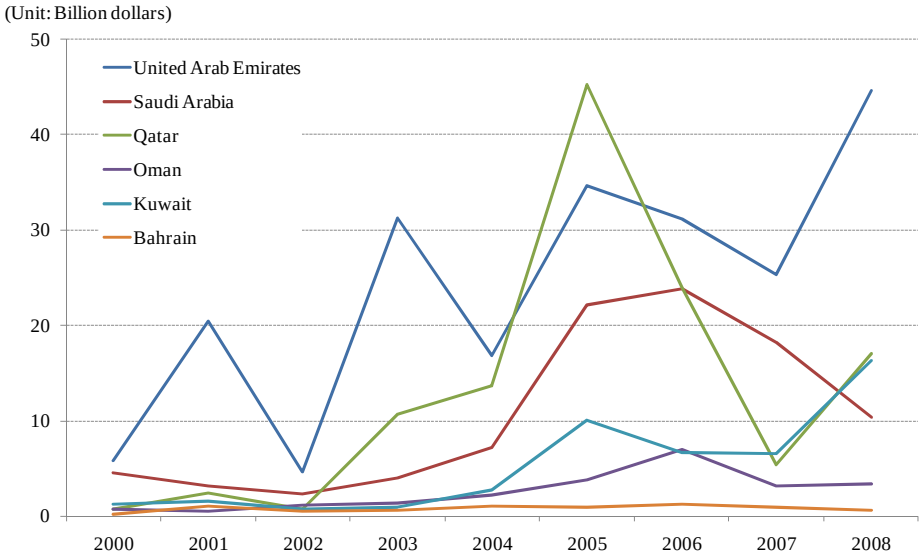
Source: Motegi, H. (2009), "KIRO NI TATSU 2008 NEN NO CHUTOU PUROJEKUTO SIJOU"
Original Source: Various issues of MEED. Some articles from The Nikkei.

Figure 1-2-6-70 Projects in major economic cities of Saudi Arabia

Name of city	Estimated total investment amount	Project fields
(1) King Abdullah Economic City	$26 billion	Ports and harbors, industrial area, central business district, financial district, educational zone, resort area, and residence
(2) Al Madinah's Knowledge Economic City	$7 billion	Advanced technology park, Islamic civilization research center, educational/entertainment park themed around the heritage of the Prophet (PBUH), medical science and biotechnology center, center for various public transportation, business district, markets, and hotels
(3) Prince Abdulaziz Bin Musaed Economic City	$8 billion	Logistics and shipping center, dry port, international airport, petrifaction industry center, business center, intellectual foundation center, agriculture, minerals center, and entertainment district
(4) Jazan Economic City	$26 billion	Industrial park, ports and harbors, power generation and desalination facilities, business district, agriculture-related packaging and delivery system, cultural center, fisheries, and health and education

Source: Japanese Embassy in Saudi Arabia and Ministry of Economy, Trade and Industry

Figure 1-2-6-71 Changes in contracted amount by ordering country



Source: Motegi, H. (2009), "KIRO NI TATSU 2008NEN NO CHUTOU PUROJEKUTO SIJOU"
Original Source: Various issues of MEED.

Regarding development projects, the GCC countries are expected to expand the capacities of their petrochemical facilities significantly in the future. As the GCC countries' petrochemical products are competitive due to low raw materials costs,[233] these products are expected to become their major export items. The annual ethylene production capacity of a plant planned under the Chemaweyaat project of the UAE is 7 million tons compared with the combined capacity of 7.9 million tons for all ethylene plants in Japan,[234] underscoring the huge scale of this project (see Table 1-2-6-72).

[233] As for production of petrochemical products, ethylene made in Japan is derived mainly from naphtha, while that made in the GCC countries is derived primarily from ethane. The GCC countries are more competitive than Japan not only because ethylene made in the former is cheaper than that made in the latter but also because ethane is cheaper than naphtha.

[234] The Heavy & Chemical Industries News Agency, "Petrochemical Industries in Asia" (2009)

Figure 1-2-6-72 Growth of production capacity of petrochemical products in GCC countries and China

(Unit: 1000 tons per year)

		Capacity for expansions (ethylene equivalent)	Start of operations	Ratio of capacity after expansion compared to existing capacity
Saudi Arabia	SHARQ	1300	June 2009	231%
	Rabigh	1300	1Q 2009	
	YanSab	1300	1Q 2009	
	Saudi Kayan	1300	1Q 2011	
	DowAramco	1300	On and after 2013	
	Other	3860	From Sep. 2006 to 2012	
	Total for Saudi Arabia	9360 (existing capacity: 7140)		
UAE	Borouge	1400	2011	1500%
	ケウマイアット	7000	From 2014 to 2015	
	UAE	8400 (existing capacity: 600)		
Kuwait	Total	850 (existing capacity: 800)	3Q 2009	206%
Qatar	Total	3695 (existing capacity: 1250)	From Aug. 2007 to 2013 and onward	395%
Iran	Total	7330 (existing capacity: 4636)	From June 2007 to 2012 and onward	258%
China	SINOPEC	6900	From 2009 to 2013 and onward	228%
	CNPC	4700	From 2007 to 2011 and onward	
	Other	1040	From 2007 to 2010	
	Total for China	12640 (existing capacity: 9850)	From June 2007 to 2013 and onward	

Note: The existing capacity is the amount as of the end of Nov. 2008.
Source: (2008), 2009 Petrochemical Industries in Asia, (The Heavy & Chemical Industries News Agency) and Miyauchi, T. (2009), "SEKAIDOUJIFUKYOU KA NO SEKIYU KAGAKU KOUGYOU JIJOU TO TENBOU: ECHIREN NO DOUKOU NI TSUITE"

In oil-producing Middle East countries, interest in energy conservation is growing as a result of an increase in the energy consumption volume (see Table 1-2-6-73) due to a population increase and urbanization.

If the energy use efficiency of oil-producing countries improves, it is expected not only to contribute to curbing the increase in demand for fossil fuels in those countries but also to expand their spare capacity for exports of fossil fuels, thereby bringing significant benefits to Japan, which depends heavily on the supply of crude oil imports from them.

Figure 1-2-6-73 Year-on-year increase of energy consumption in major GCC countries

	Rate of increase for oil consumption (year-on-year)	Rate of increase for natural gas consumption (year-on-year)	Population growth rate (reprint)
Saudi Arabia	**7.2%**	**3.3%**	**2.12**
UAE	**7.7%**	**3.7%**	**2.82**
Kuwait	**0.3%**	**-2.3%**	**2.44**
Qatar	**21.7%**	**4.6%**	**10.65**
Reference	China: 4.1%	China: 19.9%	

Note: Data as of end of 2007.
Source: *BP Statistical Review of World Energy* (BP)

In addition, as there are concerns about a water shortage in the GCC countries, efforts are underway to make more efficient use of water resources.[235] Japan has not only superior technology related to water processing facilities but also excellent comprehensive know-how concerning efficient use of water, including operation of such facilities.[236] It is important for Japan to contribute to the establishment of mutually beneficial relations with the GCC countries by using its superior water-related technology in order to support the resolution of water-related problems, which poses a social challenge for the GCC countries. Below, we will describe Japan's strengths in waterworks and sewage treatment, in addition to a description of activities made by the Cooperation Committee on Water Resources in the Middle East.

(i) Waterworks

Japan has been highly successful in the prevention of water leakage from waterworks compared with other countries. This achievement was made by reducing the ratio of no-revenue water, thereby realizing effective and efficient water supply through the combination of: pipe network maintenance efforts, including the use of long-life pipes, block-by-block control of pipe networks and replacement of old pipes; and, water leakage detection technology and pipe repair technology (which enables repair work without cutting off water supply).[237] Generally speaking, the water leakage ratio in Middle East countries is estimated at 20% to 40%, compared with 3.3% in Tokyo,[238] indicating that there is significant room for Japan to make contributions in this respect.

(ii) Sewage treatment

In the GCC countries, activities related to sewage treatment are not as advanced as those related to desalination. In the Saudi city of Jeddah, for example, a sewage lake with a depth of 15 meters and a total mass of 40 million cubic meters has been created as a result of long years of untreated sewage disposal.[239] Japan, with its expertise in the recycling of water, has achieved a high level of water productivity,[240] especially in the industrial sector (see Table 1-2-6-74). As the GCC countries are promoting industrial diversification in order to shift away from an industrial structure overly dependent on the oil industry and devoting efforts to nurturing the manufacturing industry in particular, they are pinning hopes on Japan's technology and know-how related to water use in the industrial sector, mainly in the manufacturing industry. As the Saudi Ministry of Water and Electricity is promoting the construction of sewage networks

[235] In recent years, the GCC countries have been gradually promoting the privatization of water-related businesses. (Global Water Intelligence (2009), "Water Market Middle East 2010")

[236] The White Paper on International Economy and Trade 2008 pointed out that in order to support activities by countries facing water-related problems it is important to provide not only equipment but also products and services required for a water supply system, including the construction, maintenance and management of water processing plants.

[237] Ministry of Economy, Trade and Industry (2008), "WAGAKUNI MIZUBIJINESU･MIZU KANREN GIJUTSU NO KOKUSAI TENKAI NI MUKETE — 'MIZU SHIGEN SEISAKU KENKYUKAI' TORIMATOME"

[238] Yosuke Okazaki (2008) "CHUTOU NO MIZU SHIGEN NO GENJO TO BIJINESU — SHOUSHA E NO KITAI"

[239] The above-cited research paper by Yosuke Okazaki (2008)

[240] Water productivity is an index of economic value related to the usage of one cubic meter of water.

and wastewater treatment facilities, it is important for Japan to create business opportunities by offering support.

Figure 1-2-6-74 Water productivity in world's leading countries

($)

	All industries	Manufacturing industry
UK	157.9	49.2
Japan	53.0	89.9
Germany	40.9	15.9
France	34.2	9.4
South Korea	30.6	66.7
U.S.	20.9	9.6
Australia	17.9	43.2
World	8.6	11.4
China	2.2	4.0
India	0.8	3.4

Note: Data for 2002.
Source: *Sustainable Development on Water Resources* (Japan Cooperation Center for the
Original source: *WDI* (World Bank)

(iii) Activities by the Cooperation Committee on Water Resources in the Middle East.

The Japan Cooperation Center for the Middle East established the Cooperation Committee on Water Resources in the Middle East (Water Resource Council),[241] comprised of representatives of both public and private sectors, in order to support Japanese-owned companies' business operations related to water resource issues in the Middle East. This council is mainly engaged in activities such as technical cooperation and the dispatch and acceptance of mission groups.

For example, the Water Resource Council's activities have led to the construction of a demonstration plant for reverse osmosis (RO)[242] in Dukhan in the western part of Qatar. The plant was constructed by a Japanese government agency and a Japanese private company, and joint research with Qatar Electricity & Water Company is ongoing there in connection with the desalination technology based on the RO method. Until now, processing of water from the Arabian Gulf based on the RO method has been believed to be difficult due to water quality problems. However, improvements in the function of the RO membrane made by a Japanese-owned company have enabled water processing based on the RO method. The joint research, which is intended to verify the performance of the RO membrane, has proceeded smoothly. If the reliability of the improved membrane RO method is objectively verified the combination of RO with the existing MSF method (creating a hybrid system) is expected to contribute to the reduction of water processing costs and to aid in energy conservation in the region.

[241] The Cooperation Committee on Water Resources in the Middle East was established in September 2001 for the purpose of meeting requests from oil-producing Middle East countries for government-to-government cooperation related to water resource issues and supporting business expansion by private-sector Japanese-owned companies in the region. The council is now headed by Satoshi Takizawa, professor at the University of Tokyo, and its members comprise representatives from 24 private-sector companies and the Water Re-Use Promotion Center.

[242] The RO method generates fresh water by using a reverse osmosis membrane. It enables the generation of water at a lower cost than the higher energy consuming MSF (multi-stage flash) method.

(African countries)

Participation in resource development projects is expected to provide huge business opportunities for Japanese-owned companies. It has been pointed out that as the impact of the financial crisis has made the fund-raising situation difficult for major foreign resource companies, opportunities for participation in resource development are increasing for Japanese-owned companies, whose fund-raising situation is relatively favorable.[243]

Among the advantages of Japanese-owned companies that may be attractive for African countries are their reliability as partners, resource exploration and development technology, infrastructure development technology, financing capability, purchasing power as off-takers (final purchasers of resources), marketing power and development project management capability (see Figure 1-2-6-75).[244]

Moreover, as the governments of African countries, which are promoting industrial diversification, are seeking proposals that involve the participation of the manufacturing industry so as to foster a domestic industry that can create high added value, Japanese-owned companies are expected to find business opportunities in a wide range of business sectors in combination with resource development projects.

[243] Nomura Research Institute (2009), "AFURIKA SINKOKOKU NO SHIGEN KAIHATSU DOKO OYOBI KOTEKI SHIEN JHOKYO NADO NI KAKAWARU CHOSA" ~~"Research on the Trend in Resource Development in African Emerging Countries and the Status of Public Support"~~

[244] The above research report by the Nomura Research Institute also points out that, regarding resource development in Africa, the ability to undertake the development of supporting infrastructures such as roads, railways and port facilities will also be a selling point to attract companies leading development projects and the governments of the host countries.

Figure 1-2-6-75 Opportunities for Japanese-owned companies to enter into partnership, in order of resource development, and points to promote, in the same order[245]

Stage of entering into resource development business	Method of entering resource development business		Japanese companies' targets of promotion		Points to promote ○: To leading company ●: To local government
	Capital participation	Participation in business	Local government	Leading company	
(1) At the time of acquiring mining rights	It is difficult for Japanese companies to enter into business at these stages since the risk is high		◎	◎	○High level mining skills ●Ensuring environmental consideration and local employment
(2) At the start of geological survey				◎	○Extensive geological information ○High level mining skills
(3) At the start of prospecting				◎	○High level mining skills
(4) At the time of acquiring exploitation rights	-Acquire part of the industrial company's shares -Acquire part of the stake in natural resources	-Provide resource exploitation technology -Practice infrastructure development business in surrounding areas	◎	◎	○Stability as a partner ○High level resource exploitation skills ○Undertaking infrastructure development business ●High level infrastructure developing skills ●High quality in developing communities
(5) At the time of carrying out exploitation				◎	○Stability as a partner ○High level resource exploitation skills ○High level infrastructure development skills
(6) At the time of production		—		◎	○Resource purchasing capacity

Marketing ability

Financing ability

Source: (2009) *AFRICA SINKOUKOKU NO SIGENKAIHATSU DOUKOU OYOBI KOUTEKI SIEN JOUKYOUTOU NI KAKARU CHOUSA* (Nomura Research Institute)

The African economy has achieved remarkable development also as a consumer market.

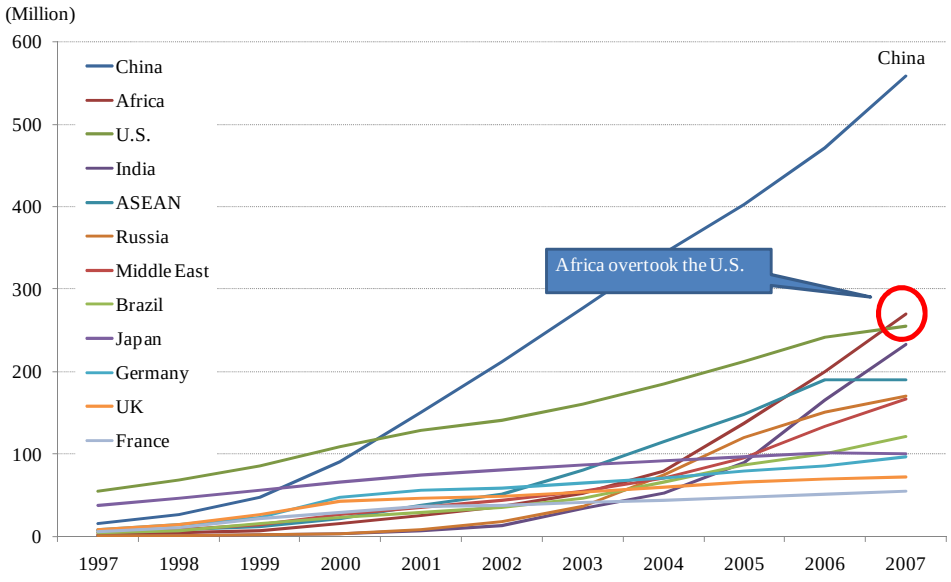
For example, the number of mobile phone subscriptions in Africa has exceeded the number in the United States (see Figure 1-2-6-76).

Furthermore, there are a total of 49 cities and metropolitan areas with a population of one million or more people in 30 different African countries. According to a medium variant estimate by the United Nations, the African population will become larger than the Asian population by 2050, accounting for about 22% of the global population. Therefore, urbanization is expected to continue, leading to the diversification of consumption patterns (see Figure 1-2-6-77 and Table 1-2-6-78).

In addition, several economic integration schemes are ongoing in Africa. If economic integration is achieved through these schemes it is expected to create vast consumer markets by promoting intra-regional distribution (see Figures 1-2-6-79 and 1-2-6-80).

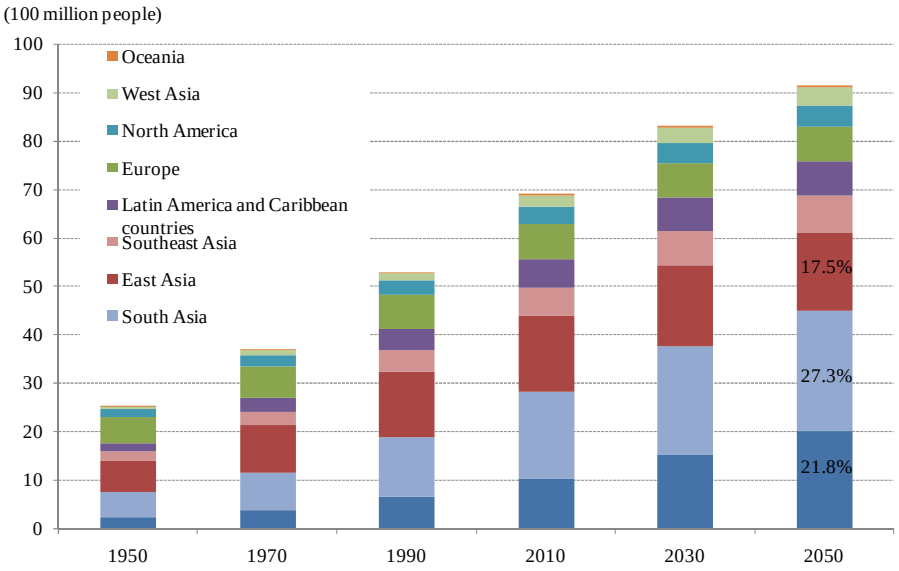
[245] The above research report by the Nomura Research Institute (2009)

Figure 1-2-6-76 Number of cell phone subscriptions in the world



Note: Number of cell phone subscriptions
Source: *WDI* (World Bank)

Figure 1-2-6-77 Demographic changes in the world



Note: Estimation of population of each region using average estimation.
Source: *World Population Prospects* UN

Table 1-2-6-78 Urban areas in Africa with a population of more than 1 million

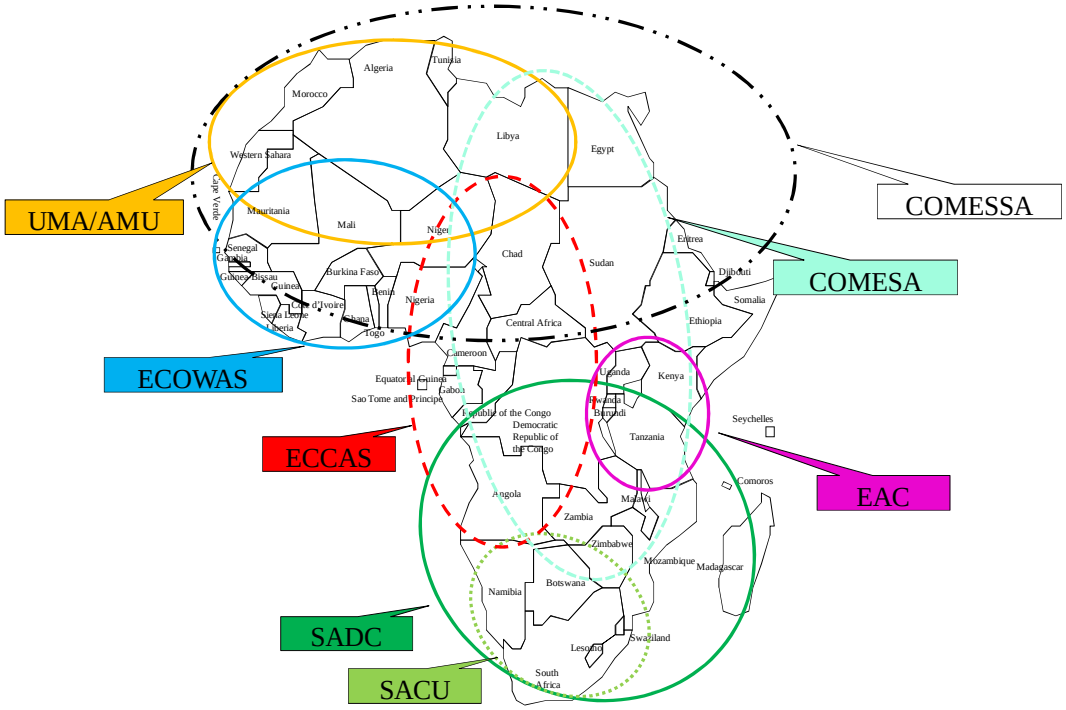
(Unit: thousand people)

	Countries	Cities	Populations		Countries	Cities	Populations
◎	Egypt	Cairo	14.800	◎	Morocco	Rabat	1.850
	Nigeria	Lagos	11.400	◎	Madagascar	Antananarivo	1.820
◎	Democratic Republic of the Congo	Kinshasa	8.600	◎	Mali	Bamako	1.800
	South Africa	Johannesburg	7.350	◎	Zambia	Lusaka	1.780
◎	Sudan	Khartoum	5.650	◎	Cameroon	Yaounde	1.690
	Egypt	Alexandria	4.500	◎	Guinea	Conakry	1.650
	Algeria	Alger	4.375		Nigeria	Kaduna	1.630
	Cote d'Ilvoire	Abidjan	4.350		Ghana	Kumasi	1.580
	Morocco	Casablanca	3.975		Democratic Republic of the Congo	Lubumbashi	1.510
	South Africa	Cape Town	3.675		Togo	Lome	1.480
	South Africa	Durban	3.575		Democratic Republic of the Congo	Mbuji-Mayi	1.470
◎	Ghana	Accra	3.475	◎	Somalia	Mogadishu	1.460
◎	Kenya	Nairobi	3.350		Democratic Republic of the Congo	Brazzaville	1.380
	Nigeria	Ibadan	3.300	◎	Burkina Faso	Ouagadougou	1.360
	Nigeria	Kano	3.250		Algeria	Oran	1.290
◎	Tanzania	Dar es Salaam	3.125		Nigeria	Benin City	1.210
◎	Ethiopia	Addis Ababa	3.025		Nigeria	Port Harcourt	1.210
◎	Angola	Luanda	3.000		Sierra Leone	Freetown	1.160
◎	Senegal	Dakar	2.625		Benin	Cotonou	1.120
◎	South Africa	Pretoria	2.450	◎	Liberia	Monrovia	1.090
◎	Tunisia	Tunis	2.300		Morocco	Fez	1.080
◎	Zimbabwe	Harare	2.250		Nigeria	Maiduguri	1.070
	Cameroon	Douala	2.100		South Africa	Port Elizabeth	1.060
◎	Uganda	Kampala	1.900		Libya	Tripoli	1.030
◎	Mozambique	Maputo	1.870		Nigeria	Zaria	1.010

Notes: 1. ◎ indicates the capital.
2. Some populations are summations of neighboring cities.

Source: City Population (http://www.citypopulation.de) (Thomas Brinkhoff)

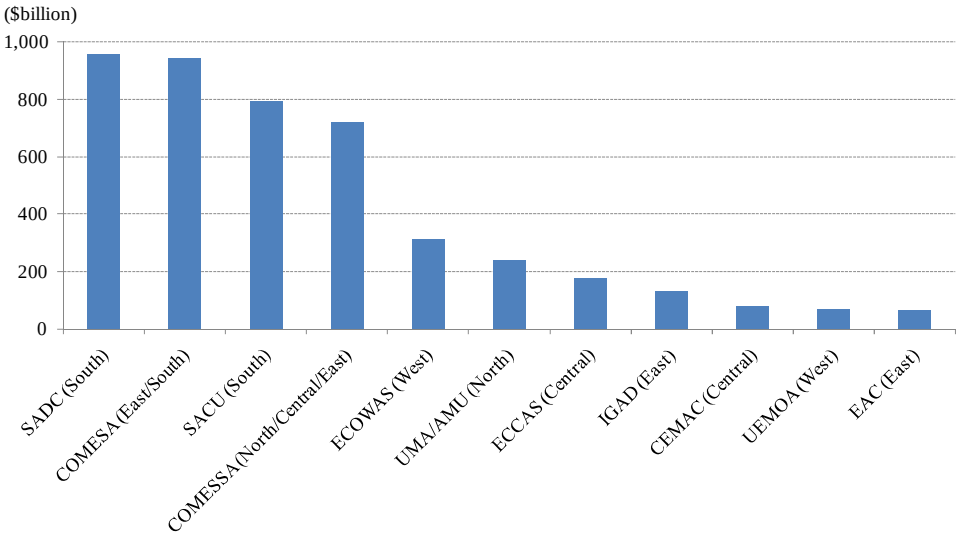
Figure 1-2-6-79 Major African Local Economic Communities[246]



Source: Ministry of Economy, Trade and Industry, Japan referred to "African Economy in 2025: How will African economy develop?" (Hidekazu Tanaka, 2009).

246 Hidekazu Tanaka (2009), "African Economy in 2025: How Will Africa Change in the Future?"

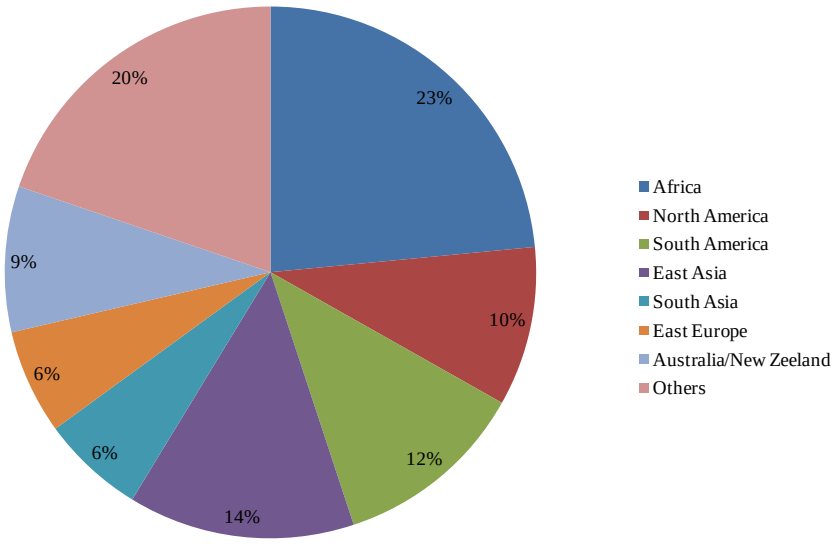
Figure 1-2-6-80 Economic scale, by African Local Economic Community[247]



Notes: 1. Countries that are members of more than one community are counted more than once.
2. Areas in parenthesis indicate the general area of member countries in the African continent.
Source: "SABU-SAHARA AFURIKA NO KEIZAIDOUKOU TO TOUSHIKANKYOU NI TSUITE" (Takeshi Sagawa, 2008), *WEO Database* (IMF)

In Africa, where there is vast farmland, countries like China and Saudi Arabia have been making active agriculture-related investments in recent years because of the growing potential of the region as a food production base, although low agricultural productivity poses a challenge (see Figure 1-2-6-81).

Figure 1-2-6-81 Proportion of farmland, by area in the world



Notes: Including published and estimated value in some countries.
Source: FAO STAT, (data in 2007).

[247] Takeshi Sagawa (2008b) "Regarding the Economic Trend of Sub-Saharan Africa and the Investment Environment"

For example, Saudi Arabia has established the Foreign Agricultural Investment Fund of Saudi Arabia worth $5.3 billion,[248] through which it acquired 10,117 hectares of farmland in Sudan and is planning to secure farmland in South Africa, too.

China has also been securing farmland in Africa. While Chinese companies had already been managing farms in countries such as Uganda and Mexico, in the spring of 2008 China announced a plan to further promote agricultural investment by Chinese companies in South America and Africa.[249]

It has been pointed out that Africa is actively accepting investments from these countries because they lack sufficient capital or infrastructure to accelerate economic growth on their own.[250] As Japan's food self-sufficiency ratio is relatively low compared with other developed countries, it would be beneficial for Japan to diversify the supply sources of foods by making investment abroad, including in Africa. In one instance, land cleared of landmines by Japanese landmine-removal equipment was converted into farmland. It is important for Japan to make efforts to avoid undermining the interests of investment recipient countries and to establish mutually beneficial relations with them.

African countries, all facing an electricity shortage, are strongly interested in new energy. As electricity demand in Africa is expected to grow further due to population increase, the region is pinning high hopes on Japan's superior technology in the field of new energy.

In Morocco, for example, there is strong interest in electricity generation using photovoltaic power, and the Moroccan government is asking to conduct joint research with Japan on such electricity generation.

Meanwhile, some African countries are considering the possibility of introducing nuclear power stations.

The Nigerian government has announced a plan to promote electricity generation using nuclear power and to acquire a nuclear power-based electricity supply capacity of 5,000MW by 2017. In order to achieve this goal, the Nigerian government is said to be planning to foster around 2,000 young experts over the coming 10 years.[251]

Namibia is also proceeding with plans to construct a nuclear power station and a uranium processing plant. The Namibian government aims to improve energy self-sufficiency by adopting a regulatory framework for nuclear power and by making effective use of its own reserves of uranium.[252]

Furthermore, hydroelectric power projects are expected to increase considerably in Africa, as the existing hydroelectric power capacity in the region accounts for only about 5% of the potential capacity. In the Democratic Republic of Congo, a feasibility study on the Grand Inga Dam (with a planned electricity

[248] Yasuharu Tanaka (2009), "Middle East, China and South Korea in Competition to Acquire Farmland around the World"
[249] Hitoshi Wakamatsu (2009), "China Trying to Secure Farmland" (MRI TODAY)
[250] Seiji Mitsuishi and Atsuko Minami (2009), "Grab for Farmland Starting - New Colonialism May Emerge" (Weekly Diamond, March 31, 2009)
[251] Japan Machinery Center for Trade and Investment (2008a), "Promotion of Nuclear Power-Based Electricity Generation (Nigeria)," Emerging Market Information, August 2008
[252] Japan Machinery Center for Trade and Investment (2008b), "Plans for the Construction of Nuclear Power Stations Proceeding," Emerging Market Information, April 2008

generation capacity of 39,500MW[253]), which will use the hydroelectric power of the Congo River, is being conducted under the leadership of the African Development Bank.[254]

Several railway projects are also planned in African countries.

The governments of Tanzania, Rwanda and Burundi have signed a memorandum of understanding on a project to build a multinational railway. Under the memorandum of understanding, a railway line that links cities in the three countries with the Central Corridor Railway line and Tanzania's Port of Dar es Salaam.[255] In Nigeria, a traffic network development project is underway. In the Nigerian city of Lagos, the construction of two railway lines is planned, with 1.6 million passengers per day projected to use the lines after their opening scheduled for December 2011.[256]

North African countries are notable in that: they have relatively high per-capita GDP compared with sub-Saharan countries; are geographically close to Europe, being located on the opposite side of the Mediterranean Sea; and, have a gradually-developing manufacturing industry. Below, we will elaborate further on the notable features of the North African region.

For North African countries, whose main industries used to be natural resources and agriculture, industrial diversification was a challenge.[257] However, their manufacturing industry is now developing.[258] This is presumably supported by the fact that the wages in North African countries are regarded as relatively low amid the rising wages in Eastern Europe. Monthly wages for general factory workers in Cairo, for example, are $210 compared with $807 for Czech workers (see Figure 1-2-6-82). From the trend in imports by Morocco, Tunisia, Egypt, Ethiopia and Algeria it is clear that their imports of machinery have increased significantly (see Figure 1-2-6-83), suggesting that the manufacturing industry in these countries is gradually growing.

[253] The electricity generation capacity of the Kurobe No. 4 power station, Japan's largest hydroelectric power station, is 335MW.

[254] Hidekazu Tanaka (2009), "African Economy in 2025: How Will Africa Change in the Future?" (Mitsubishi UFJ Research & Consulting, "Policy and Business Management Research," Vol. 1 2009)

[255] Japan Machinery Center for Trade and Investment (2009), "Railway Projects Contributing to Regional Economies," Emerging Market Information, March 2009

[256] Japan Machinery Center for Trade and Investment (2008c), "Traffic Network Project in Lagos," Emerging Market Information, December 2008

[257] For example, when the sixth meeting of the Japan Algeria Joint Economic Committee was held in November 2008, Réda Hamiani, President of the Forum des Chefs d'Entreprises (FCE), stated that Algeria would shift away from the existing industrial structure dependent on oil and gas and nurture new industries.

[258] In 1. (1) (B), it was pointed out that fixed capital formation has made a contribution to GDP growth in recent years.

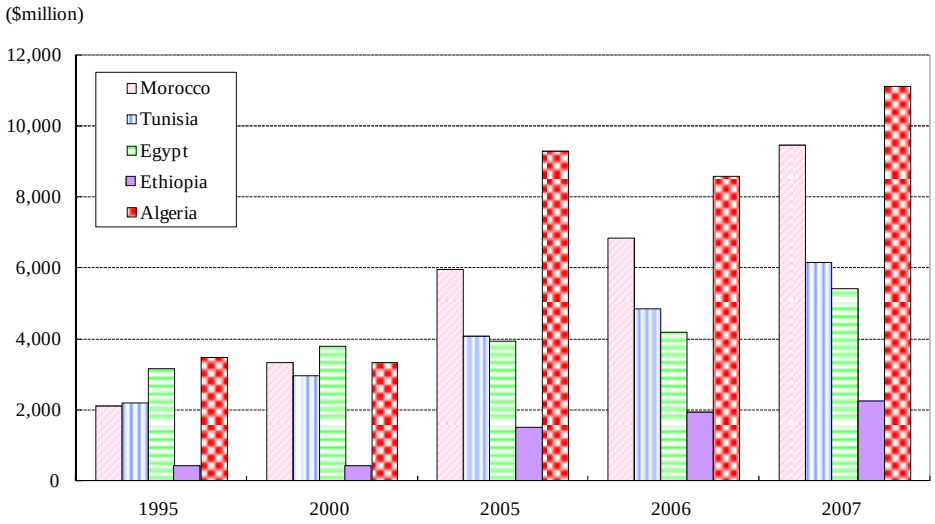
Table 1-2-6-82 Comparison of wage level in East Europe and Africa

(Unit: $)

	Prague (Czech)	Budapest (Hungary)	Warsaw (Poland)	Lagos (Nigeria)	Cairo (Egypt)	Nairobi (Kenya)
Workers (General workers)	**807**	**568-1,136**	**636-1,299**	**900-1,600**	**210**	**281.74**
Engineers (Middle-level engineers)	**1,444**	**1,054-2,220**	**1,422-2,508**	**1,600-2,600**	**497**	**2701.87**
Middle-level managers (section chief level)	**3,311**	**3,391**	**2,241-3,980**	**1,700-3,700**	**875**	**2966.53**

Source: *Survey of Investment-Related Cost Comparison* (JETRO).

Figure 1-2-6-83 Changes in machinery imports of five countries in Africa



Notes: Machinery means HS cord 84, 85, 86, 87, 88, 89, 90, 91 and 92.
Source: *Comtrade* (United Nations).

In North African countries, the business environment is also improving gradually. In the global rankings of countries in terms of business friendliness included in "Doing Business in the Arab World 2009," a report compiled by the World Bank, even Tunisia, the highest-ranked country in North Africa, is placed as low as 72nd.[259] However, the business environment in the region is improving, as exemplified by the reduction of the corporate tax rate from 35% to 30% in Morocco in 2008 and the abolition of the minimum paid-in capital for limited liability companies in Tunisia in 2007.

In addition, North African countries are trying to achieve market integration through FTAs with the United States, European countries and the GAFTA[260] and increase their attractiveness as a base for exports to their FTA partner countries.

In addition to making improvements in intangible infrastructures as described above, countries in the region are striving to improve their tangible infrastructures. For example, Morocco has already built around 850 kilometers of expressway with the support of a yen loan and plans to extend the total length to 1,500 kilometers in the future.[261] Morocco is also devoting efforts to the expansion of the port of Tangier.

[259] Egypt was ranked 114th, Morocco 128th and Algeria 132nd. Libya was not included in the rankings.
[260] Greater Arab Free Trade Area
[261] JETRO (2009) "Focus on New Business Infrastructure Development: Comparison of the Investment

Meanwhile, the Algerian government is building an expressway with a length of about 1,200 kilometers that runs across the country from east to west. In 2006, a consortium of Japanese-owned companies won a bid for the contract to build the expressway's east section, some 400 kilometers long, and construction is underway.[262]

Column 10 Dubai coping with the global financial crisis: usage of the hub function

In February 2009, the Emirate of Dubai announced that it would issue government bonds totaling $20 billion, $10 billion of which would be underwritten by the central bank of the UAE. As a result, the Dubai government is believed to have averted the immediate risk of defaulting on foreign debts.

The global financial crisis has had no small impact on the Dubai economy. Although existing development projects have been continued, many planned large-scale projects are being reviewed as the government has concluded it is necessary to examine how the market will move.[263]

However, there is an argument that Dubai's economic growth has, until now, been too rapid and the slowdown caused by the current financial crisis will help to normalize the situation.

In any case, Dubai's function as a distribution hub, which had been established before the financial crisis, remains intact.

Dubai has gradually increased the volume of containers it handles, becoming the world's ninth largest port in terms of container-handling volume, and is establishing itself as a distribution hub of not only the Middle East but also Africa (see Figure 10-1 of this column). In the future, Dubai is expected to develop further by exploiting its advantage as a distribution hub.

Japanese-owned companies, too, should pay increased attention to Dubai as a hub, as they seek to export products to the Middle East and Africa or start business in the region.

The business sentiment index for Dubai's trade-related companies, which is announced by the Dubai Chamber of Commerce and Industry, stands at 5.9 in 2009, higher than the boom-or-bust line of 5.0, indicating that such companies remain somewhat optimistic about the state of the economy even after the outbreak of the financial crisis (see Figure 10-2 of this column). This suggests that due to its position as a distribution hub, Dubai's economy has remained relatively firm amid the financial crisis.

Environments in European Frontier Countries (2) – (Central and Eastern Europe, Ukraine, Russia, Turkey and North Africa)"

[262] In the east section, a six-lane expressway (three lanes each way) leading from Bordj-bou-Arreridj to the border with Tunisia is expected to be completed in 2010.

[263] Miki Hatanaka (2009), "Economic Situation and Business Environment in Middle East Countries" (material distributed at the Middle East Business Forum 2009, sponsored by the Japan Cooperation Center for the Middle East)

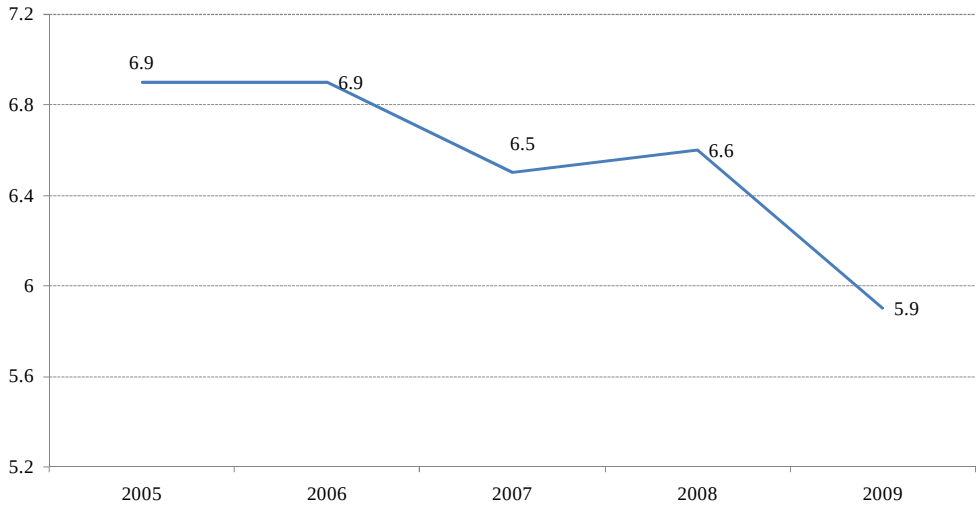
Column Table 10-1 Ranking of the number of containers by world wide port

(Unit: TEU)

Ranking	2002	2003	2004	2005	2006	
1	Hong Kong (China)	Hong Kong (China)	Hong Kong (China)	Singapore	Singapore	24,792,400
2	Singapore	Singapore	Singapore	Hong Kong (China)	Hong Kong (China)	23,538,580
3	Busan (South Korea)	Shanghai (China)	Shanghai (China)	Shanghai (China)	Shanghai (China)	21,710,000
4	Shanghai (China)	Shen Zhen (China)	Shen Zhen (China)	Shen Zhen (China)	Shen Zhen (China)	18,468,900
5	Kaohsiung (Taiwan)	Busan (South Korea)	Busan (South Korea)	Busan (South Korea)	Busan (South Korea)	12,038,786
6	Shen Zhen (China)	Kaohsiung (Taiwan)	Kaohsiung (Taiwan)	Kaohsiung (Taiwan)	Kaohsiung (Taiwan)	9,774,670
7	Rotterdam (Netherlands)	Los Angeles (U.S.)	Rotterdam (Netherlands)	Rotterdam (Netherlands)	Rotterdam (Netherlands)	9,654,508
8	Los Angeles (U.S.)	Rotterdam (Netherlands)	Los Angeles (U.S.)	Hamburg (Germany)	Dubai (United Arab Emirates)	8,923,465
9	Hamburg (Germany)	Hamburg (Germany)	Hamburg (Germany)	Dubai (United Arab Emirates)	Hamburg (Germany)	8,861,545
10	Antwerp (Belgium)	Antwerp (Belgium)	Dubai (United Arab Emirates)	Los Angeles (U.S.)	Los Angeles (U.S.)	8,469,853
11	Port Klang (Malaysia)	Dubai (United Arab Emirates)	Antwerp (Belgium)	Long Beach (U.S.)	Qingdao (China)	7,702,000
12	Long Beach (U.S.)	Port Klang (Malaysia)	Long Beach (U.S.)	Antwerp (Belgium)	Long Beach (U.S.)	7,290,365
13	Dubai (United Arab Emirates)	Long Beach (U.S.)	Port Klang (Malaysia)	Qingdao (China)	Ningbo	7,068,000
14	New York/New Jersey (U.S.)	Qingdao (China)	Qingdao (China)	Port Klang (Malaysia)	Antwerp (Belgium)	7,018,899
15	Qingdao (China)	New York/New Jersey (U.S.)	New York/New Jersey (U.S.)	Ningbo	Guangzhou	6,600,000

Notes: 1. The values are summations of export and import cargos.
2. The values are summations of full and empty containers.
3. The values include transshipment cargos
4. The values before 2005 are definite and the one in 2006 is provisional.
Source: "SUUJI DE MIRU KOUWAN" (The Japan Port and Harbour Association, 2008).
(Original Source: CONTAINERISATION INTERNATIONAL YEAR BOOK 2008)

Figure 10-2 Changes in business confidence of traders in Dubai



Notes: 1. Average value of business confidence in Dubai in the reference year, rate on a scale of 1 to 10. (10 is the highest)
2. The values are those surveyed as of the end of the previous year.
Source: *Dubai Traders Outlook* (Dubai chamber, 2009)

The core of Dubai's hub function is the port of Jebel Ali, and the largest of Dubai's free zones is the Jebel Ali Free Zone.[264]

One notable feature of the Jebel Ali Free Zone is the combination of ocean and air transportation. Generally speaking, the "sea and air" freight service,[265] which combines the advantages of transport by ship and that by aircraft realizes lower cost than air-only transportation and higher speeds than ocean-only transportation.[266] Dubai is advanced in the use of the sea and air freight service, and the collaboration between the Dubai World Central Airport and the port of Jebel Ali enables

[264] A total of 5,672 companies from around the world were operating in the Jebel Ali Free Zone as of the end of May 2007 (ARC report).
[265] Japan Institute of Logistics Systems (2002), "Basic Glossary of Logistics"
[266] Osaka Prefectural Institute for Advanced Industry Development (2008) "Toward Regional Economic Development Driven by the Twin Engines of Distribution and Industry"

transshipment of cargoes between the airport and the sea port within five hours.[267]

Column 11 Various countries' advance into the Middle East and Africa

1. China's advance into the Middle East and Africa

(1) Advance into the Middle East

China is expanding business in the Middle East. King Abdullah of Saudi Arabia, for example, visited China and met with Chinese President Hu Jintao in January 2006 in his first foreign trip after he was enthroned.

When President Hu visited Saudi Arabia in the same year, he revealed the goal of expanding the value of annual trade between China and Saudi Arabia to $40 billion by 2010. This goal was achieved two years early, as the value of trade between the two countries grew to some $41.9 billion in fiscal 2008, up 65% from the previous year. The value of China's exports to Saudi Arabia increased 38% from the previous year to around $10.8 billion, while China's imports from Saudi Arabia grew 77% to around $31.1 billion. China's imports of crude oil from Saudi Arabia[268] in 2008 increased 38% from the previous year to around 36.37 million tons, which was equivalent to some 20% of China's overall crude oil imports.[269]

In the meantime, Saudi Aramco, Saudi Arabia's state-run oil company, signed a contract under which it will increase its supply of crude oil to China Petroleum & Chemical Corporation (Sinopec) to one million barrels per day by 2010, and as a result, Saudi Arabia is expected to become the largest crude oil supplier for China. For its part, Sinopec is expanding the capacity of an oil refinery in the Fujian province in a joint venture with Saudi Aramco and Exxon Mobil. In Tsingtao in the Shandong province, a Sinopec oil refinery has been constructed for the purpose of refining crude oil imported from Saudi Arabia, and the first crude oil shipment from there arrived in June 2008. In the field of petrochemicals, Saudi Basic Industries Corporation (SABIC) is planning to construct a plant in Tianjin to produce ethylene and products derived from ethylene in a joint venture with Sinopec.[270]

(2) Advance into Africa

In recent years, China has been strengthening political and economic relations with African countries.

While the greatest motive for this is to secure the supply of natural resources from resource-rich Africa, China's activities in the region cover a very wide range of fields.

(A) Advance into the resource development and construction sectors

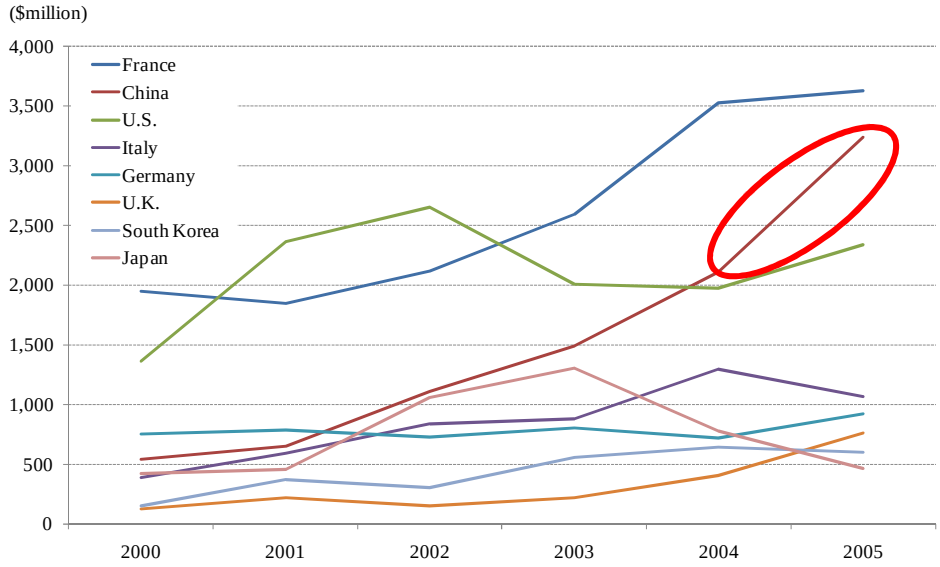
China is accelerating moves to secure the supply of energy and mineral resources in Africa.

[267] Nihon Keizai Shimbun (2007) "Competition among Asian Ports: Conditions for the Revival of Kobe and Osaka (Part 2) Port-Road Infrastructure Collaboration"
[268] HS Code No. 2709
[269] These trade data were compiled based on the World Trade Atlas.
[270] Yuzo Waki (2008) "Drastic Change in the Middle East"

Chinese oil companies are especially active in advancing into such countries as Sudan and Libya.[271] Chinese companies are also trying to acquire stakes in the development of iron ore, copper and chrome in South Africa, Zambia, Gabon and the Democratic Republic of Congo.

In addition, Chinese companies have actively entered the African construction market, which was previously dominated by European countries, by taking advantage of low materials costs.[272] Consequently, in terms of the value of construction contracts concluded in Africa in 2005, China was already close behind France, which was the largest contractor country (see Figure 11-1 of this column).

Column 11 Figure 11-1 Changes in the total amount of contract, by country in African construction markets



Source: *AFURIKA KENSETSUSIJOU NI OKERU CHUUGOKU NO TAITOU* (Tomomi Tokuori, 2009), *An Empirical Analysis of Chinese Construction Firms' Entry into Africa* (Chen et al., 2007)

(B) Increasing flow of people, goods and money

China's trade with and investment in Africa is growing rapidly.

The value of China's exports to Africa, which stood at around $10.2 billion in 2003, expanded five-fold to around $50.9 billion over the five years to 2008.[273]

The value of China's imports from Africa, which stood at some $8.4 billion in 2003, grew

[271] For example, China National Petroleum Corporation (CNPC) has advanced into many African countries, including Mauritania, Equatorial Guinea, Nigeria, Niger, Chad, Sudan, Libya and Algeria.

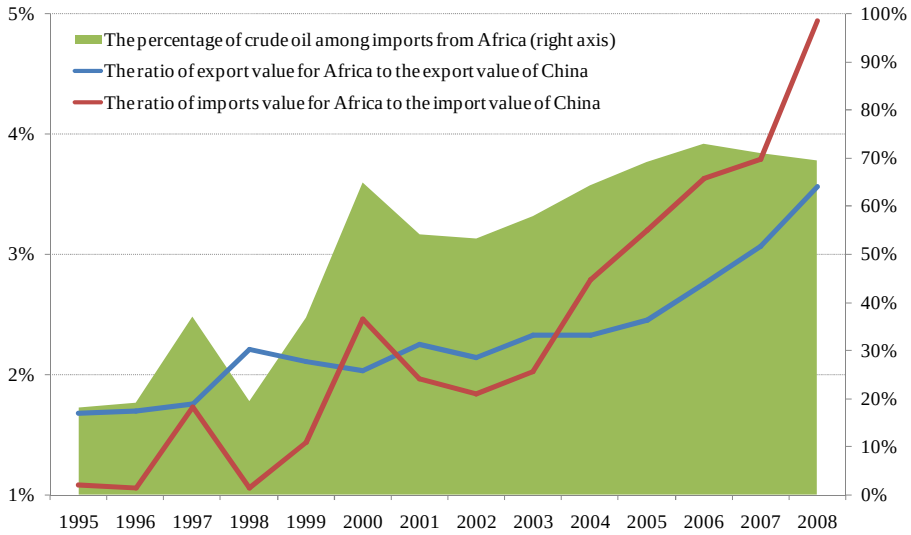
[272] The per-square-meter cost of construction by Chinese construction companies is said to be about a quarter of the cost of construction by European companies. It has been pointed out that, in contract bidding, Chinese companies are putting more priority on increasing their market shares than on securing profitability and submit bid prices with a profit margin of less than 10% compared with a margin of 15% to 25% for companies from other countries (Tomomi Tokuori (2009), "Rise of China in the African Construction Market: Study on the Impact on Local Companies"

[273] World Bank, "World Trade Atlas"

seven-fold to around $55.9 billion over the five years to 2008.

In addition, Africa's share of both China's exports and imports has been increasing year after year, suggesting that China's trade relations with African countries are becoming closer due to its imports of crude oil from Africa (see Figure 11-2 of this column). In 2008, while China's overall imports from Africa increased, the ratio of crude oil imports remained flat, indicating that imports of non-oil items are increasing.

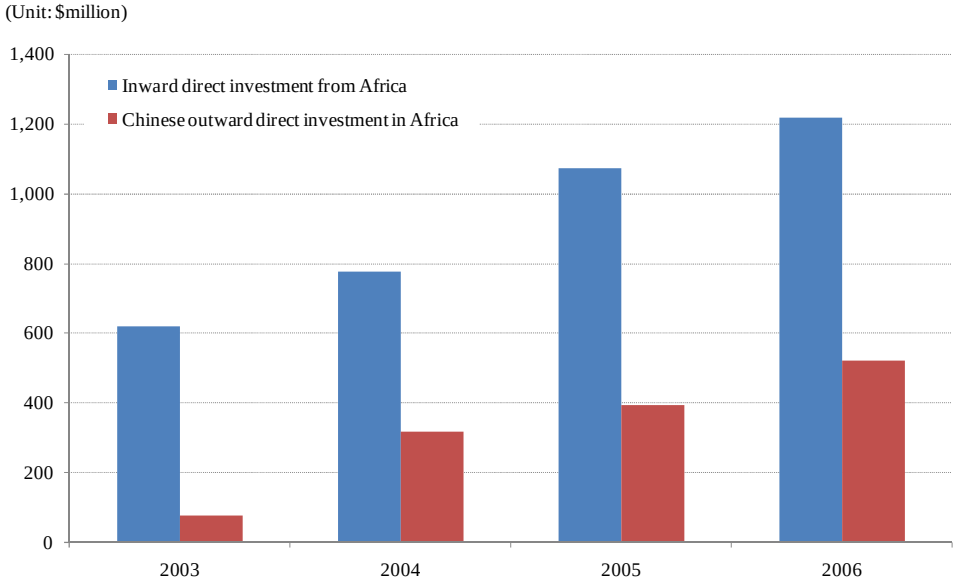
Column Figure 11-2 Deepening of trade relations between China and Africa



Source: World Trade Atlas

Chinese direct investment in Africa has also been increasing year after year (see Figure 11-3 of this column). For example, the Industrial and Commercial Bank of China acquired 20% of the outstanding shares of the Standard Bank of South Africa, South Africa's largest bank, in 2007 with an investment of some ¥620 billion, the biggest foreign investment ever made by a Chinese company.

Column Figure 11-3 Increase of Chinese direct investment in Africa



Source: *SEKAI SYUYOUKOKU NO CHOKUSETSUTOUSHI TOUKEISYUU*
(Institute for International Trade and Investment)

The number of Chinese emigrant workers in Africa is also increasing. Algeria and Sudan are the major destinations of Chinese emigrant workers (see Table 11-4 of this column).

Column Table 11-4 The number of Chinese emigrant workers per year and overseas workers at the end of the year, by country or region

(Unit: person)

	Country or region	2006		2007	
		Annual number of emigrant workers (flow)	Year-end number of overseas workers (stock)	Annual number of emigrant workers (flow)	Year-end number of overseas workers (stock)
1	Japan	65,189	143,154	70,152	162,494
2	Singapore	31,320	84,713	29,387	89,764
3	South Korea	19,689	58,618	11,409	57,073
4	Macau	24,401	38,065	23,466	45,089
5	Algeria	18,788	28,945	17,086	33,705
6	Russia	22,852	25,275	25,385	30,862
7	United Arab Emirates	14,654	20,302	10,803	23,826
8	Hong Kong	20,263	24,649	18,963	21,262
9	Sudan	8,996	11,968	12,488	17,035
10	Myanmar	1,725	9,516	3,477	11,543

Notes: 1. Excluding emigrants on an individual basis.
2. The number of emigrant workers into Japan includes immigrants with training visas.
Source: AJIA SHOKOKU NI OKERU ROUDOURYOKU NO KOKUGAI OKURIDASHI NI KANSURU CHOUSHA KENKYUU (Ministry of Economy, Trade and Industry, Japan, 2009).
Original Source: Web pages of China Trade in Services.

(C) Chinese companies' advance into Africa intensifying competition for Japanese-owned companies

Below, we will describe how Japanese-owned companies assess the impact of Chinese companies' advance into Africa.

According to the Survey of Japanese Companies in Africa,[274] conducted by JETRO, about half of the respondents replied that they were being affected by intensified competition due to China's growing relations with Africa, indicating that the business environment in the region is becoming increasingly difficult.

On the other hand, in an indication that there are some Japanese-owned companies exploring a chance for business expansion amid the intensifying competition, about 20% replied that they regarded Chinese companies' advance into Africa as an opportunity to expand their own business. Of the companies that replied competition is intensifying, some 70% said that competition with imports from China had intensified.

Of the companies that regarded Chinese companies' advance into Africa as an opportunity to expand their own business, 36.4% replied they aimed to expand imports from China and the ratio of companies aiming to expand exports from Africa was also 36.4%.

(D) Chinese leaders' visits to Africa

In recent years, Chinese leaders have made a series of visits to African countries.

On a trip that started February 10, 2009, Chinese President Hu Jintao visited African countries, including Mali, Senegal, Tanzania and Mauritius, as well as Saudi Arabia. In these countries, he signed many bilateral cooperation agreements.

In addition, Chinese Premier Wen Jiabao visited seven African countries in June 2006.[275] Furthermore, China held the third conference of the Forum on China-Africa Cooperation in Beijing in November 2006, inviting the leaders of 48 African countries with which it had diplomatic ties. At the conference, the Chinese government announced plans to (i) double aid to Africa by 2009 compared with 2006, (ii) provide $3 billion in preferential loans and $2 billion in preferential buyer credit over the next three years, (iii) establish a China-Africa development fund worth $5 billion in order to promote investment in Africa by Chinese companies, (iv) construct a conference hall for the African Union in order to help the process of African integration, (v) forgive all no-interest loans that came due at the end of 2005 and loans to least developed countries, (vi) expand the range of items for which import duties were to be abolished in trade with least developed countries with which China had diplomatic ties, (vii) establish three to five trade and economic areas in Africa over

[274] This survey was conducted between late June and early August 2007 on companies in which Japanese-owned companies had an equity stake of 1% or more regardless of whether or not Japanese representatives were stationed in the host countries. The questionnaire was sent to 227 companies in 26 countries, of which 112 companies in 16 countries returned their replies, with the effective response rate coming to 49.3%.

[275] The seven countries are Egypt, Ghana, the Republic of the Congo, Angola, South Africa, Tanzania and Uganda (Yomiuri Shimbun (2006), "Chinese Leaders Make Trips to Secure Resources in Africa - Non-Intervention in Internal Affairs is the Selling Point"

the next three years, (viii) implement a human resource development plan, including the training of 15,000 African professionals and the doubling of the scholarship quota for African students over the next three years.[276] The fourth conference of the Forum on China-Africa Cooperation is scheduled to be held in the Egyptian city of Sharm Al Shaykh in the fourth quarter of 2009.

2. Activities of other emerging countries and other developed countries in Africa

Emerging economies other than China, as well as developed countries, are also strengthening their relations with Africa as companies from those countries are expanding their business in the region.

Russia is also actively expanding business in Africa. In September 2006, an economic mission led by Russian President Vladimir Putin visited South Africa, and Russia is actively involving itself in the mining sector in the region, selecting rare metals as a target for strategic alliances.[277] In June 2008, the Gazex Suntera consortium of Russia signed a memorandum of understanding with the Nigerian government on the development of a gas field in the southeastern part of the Niger Delta region. The Russian minister of energy has stressed that this will have a special significance for Nigeria's economic development as it is the first gas resource development project in the country's history.[278]

Brazil and India are also developing relations with Africa. Vale, a major Brazilian metals company, has acquired stakes in the development of coal in Mozambique and bauxite in West Africa. In May 2009, the Export-Import Bank of India established a $30-million credit line for a project to spread the use of electricity to rural areas of Mozambique, which was the fifth Indian credit line to be established for that country. This is expected to promote exports, from India and Mozambique, of equipment and materials for the project.

As for developed countries, European countries, which have traditionally had close relations with North Africa, had been holding dialogue with the region since 1995 with a view to forming a Euro-Mediterranean Partnership through the Barcelona Process, and this initiative was relaunched as the Union for the Mediterranean in 2008.[279] This is aimed at raising the political level of the strategic relationship between the EU and Mediterranean countries in Africa. It has identified six priority projects, including (i) de-pollution of the Mediterranean Sea, (ii) the establishment of efficient maritime and land highways, (iii) civil protection initiatives to combat natural and man-made disasters, (iv) a Mediterranean solar energy plan, (v) the inauguration of the Euro-Mediterranean University in Slovenia and (vi) the Mediterranean Business Development Initiative focusing on micro, small and medium-size enterprises.[280]

[276] Shigeki Okada (2008)
[277] Tatsuya Hosokawa (2008), "Toward Securing Stakes in Mining Resources in Africa"
[278] Japan Machinery Center for Trade and Investment (2008d), "Russian Consortium Signs a Memorandum of Understanding on Gas Field Development"
[279] The Union for the Mediterranean is comprised of the 27 member countries of the EU and 16 non-EU countries facing the Mediterranean Sea.
[280] Web site of the European Commission http://ec.europa.eu/external_relations/euromed/index_en.htm