

# Monthly Report of Prospects for Japan's Economy

May 2009

Macro Economic Research Centre  
Economics Department



The Japan Research Institute, Limited

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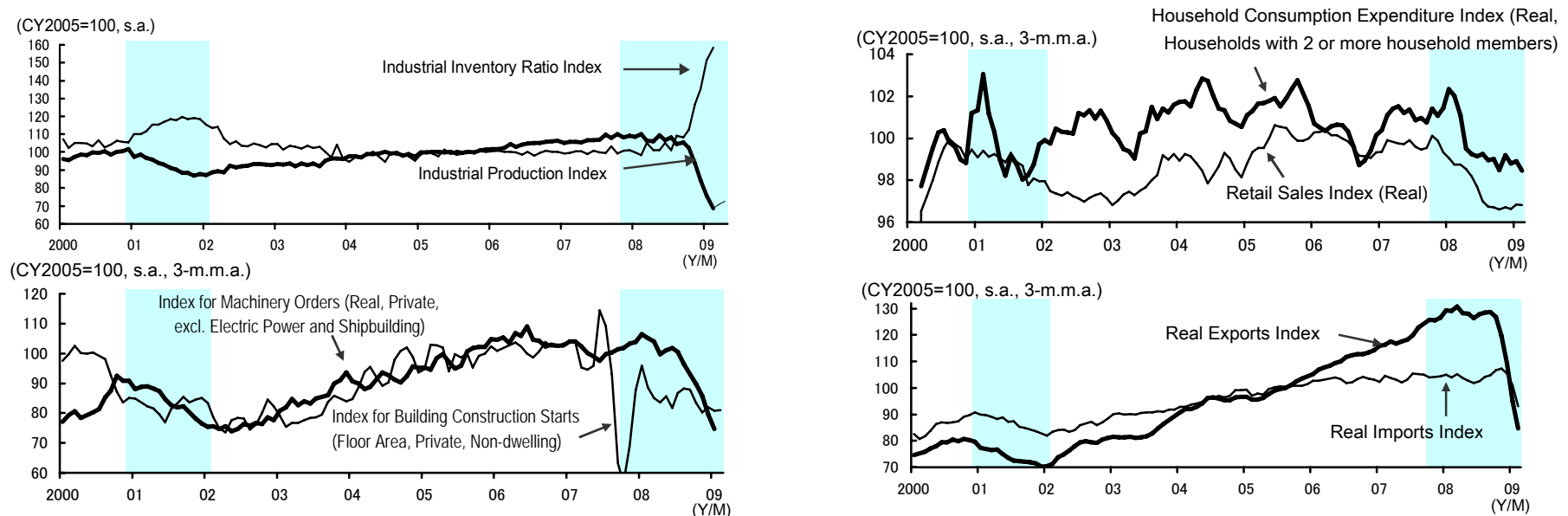
This report is the English version of the April 2009 issue of the original Japanese version.

## Current situation of Japan's economy – Deteriorating sharply, mainly in the corporate sector

Japan's economy has recently been deteriorating very sharply. In the corporate sector, a steep declining trend of exports has been obvious in all regions as a falling move in exports to emerging and resource-rich countries has been accelerating, in addition to a continued considerable decline in shipments to the US and European countries. Machinery orders excluding electric power and shipbuilding have also been dropping significantly, chiefly in manufacturing. Reflecting these unfavourable moves, industrial production in the October-December period last year saw a record 12 per cent decrease over the previous quarter. Also, production in the January-March quarter this year is estimated to see a further decline of 25 per cent. The household sector also continues to be in a sluggish situation. Private consumption expenditure is on a stagnating trend as employment and income environments have been worsening. The diffusion index for current conditions in the Economy Watchers Survey by the Cabinet Office continues to stay in record near-bottom territory.

It is, therefore, highly probable that the real GDP growth rate in the January-March period could be the second consecutive double-digit minus figure on a seasonally adjusted annualised quarter-on-quarter change basis.

Figure 1 Main Indicators for Japan's Economy



Source: The Ministry of Economy, Trade and Industry, The Ministry of Internal Affairs and Communications, The Cabinet Office, The Ministry of Land, Infrastructure and Transport, The Bank of Japan.

Note 1: Indices of industrial production and industrial inventory ratio are seasonally adjusted on a monthly basis. Others are calculated as seasonally adjusted and 3-month moving averages.

2: The industrial production index in March and April 2009 is based on METI forecasts. 3: Shaded areas indicate periods of recession according to the Cabinet Office.

## Business conditions in Tankan – Diffusion index at the lowest level ever in large manufacturing

The Tankan March 2009 survey clearly indicates that demand at home and abroad has been declining very rapidly.

The diffusion index (DI) for business conditions (shown as "favourable" minus "unfavourable") deteriorated considerably. Especially, the DI in large manufacturing worsened by a marked 34 percentage points from the previous survey result, against the background of a significant fall in overseas demand. The DI in the motor vehicle industry was minus 92, the lowest among those. In large nonmanufacturing, the business conditions in the industries such as wholesaling and transport, which tend to be affected by the business activity in manufacturing, also deteriorated. The DI in retailing and restaurants declined further. However, the survey results in the industries such as food and electric and gas utilities got better because of the improved output / input price ratio reflecting a fall in resource prices.

As for the forecast DI predicting the business conditions in July, the figure indicates a worsened business situation in nonmanufacturing, mainly in small and medium-sized enterprises. On the other hand, the forecast DI in large manufacturing predicts an improvement. This prediction appears to show large manufacturing's heightening hope for a recovery of overseas demand, with domestic demand continuing to get worse.

Figure 2-1 Diffusion Index for Supply and Demand Conditions for Products and Services

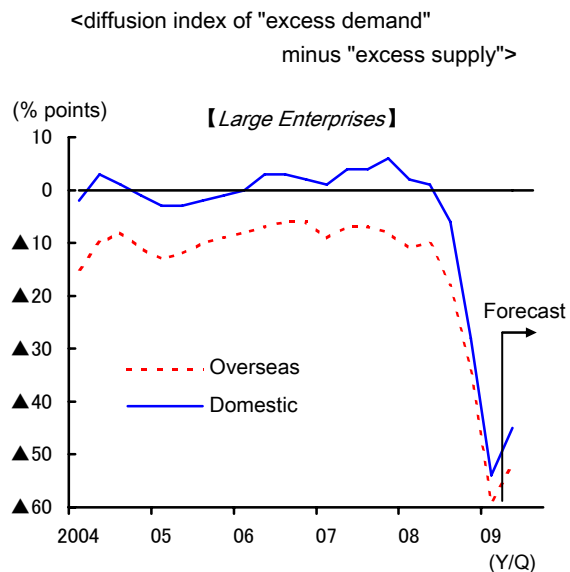
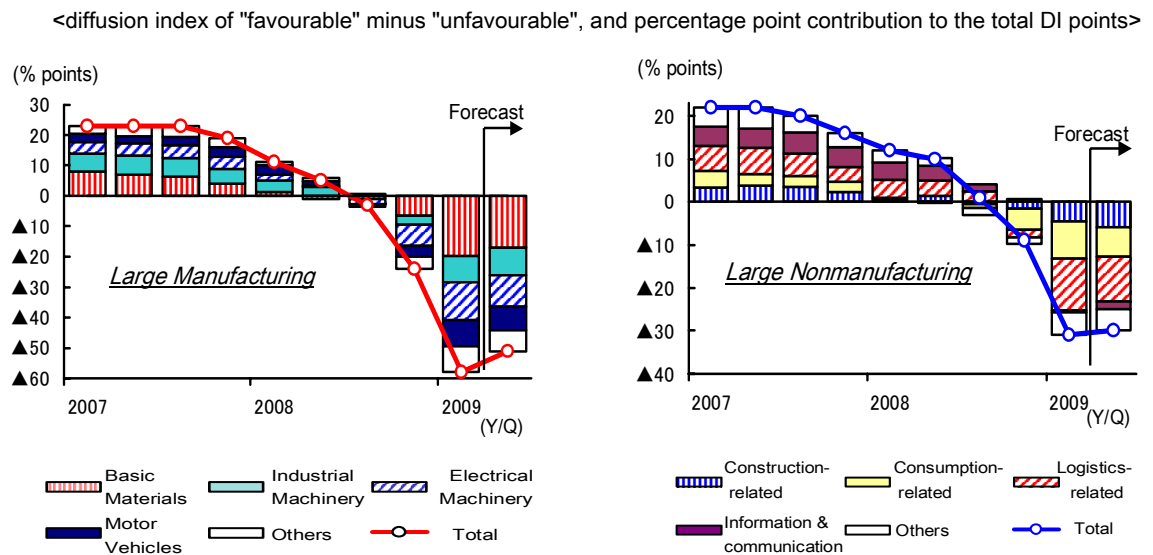


Figure 2-2 Contributions to Business Conditions Diffusion Index by Industry



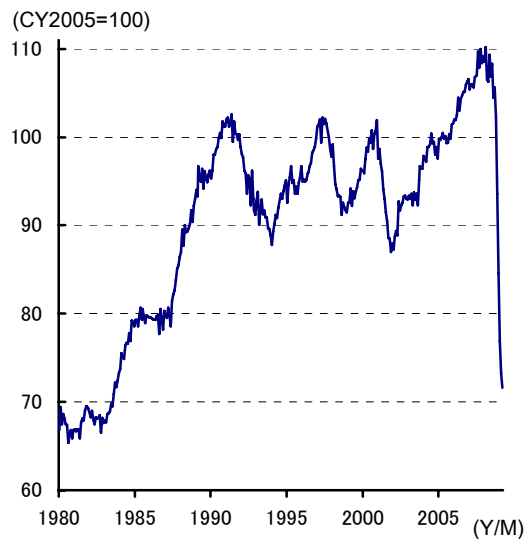
## Industrial production – Signs of bottoming out seem to have started to be seen

The industrial production index declined by 9.4 per cent in February over the previous month, for four months running of an around 10 per cent monthly fall. The index was also still at an about 40 per cent lower level than that of the month a year earlier.

However, it seems that signs of bottoming out have started to be seen in industrial production during the period of March and April. The production forecast index indicated a 2.9 per cent month-to-month increase in March and a 3.1 per cent increase in April. Also, the tendency of downswings in the revision ratios in the production forecast indices tended to be smaller. The industries such as motor vehicles and pulp and paper products forecast an over 10 per cent increase in production during the period.

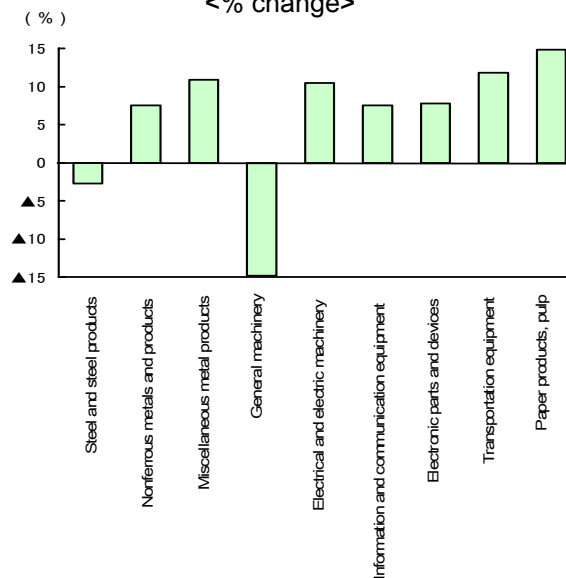
These moves are against the background of progress in inventory adjustment. The industrial inventory index declined by a considerable 4.2 per cent from the previous month in February. By industry, a noticeable fall in inventories was seen especially in the information and communications equipment industry and the motor vehicle industry. The increase seen in the production forecast index during March and April can be regarded as the moves by enterprises to try to increase their production up to the level in proportion to their shipments.

Figure 3-1 Industrial Production Index  
Since the Start of Year 1980  
<on a monthly basis>



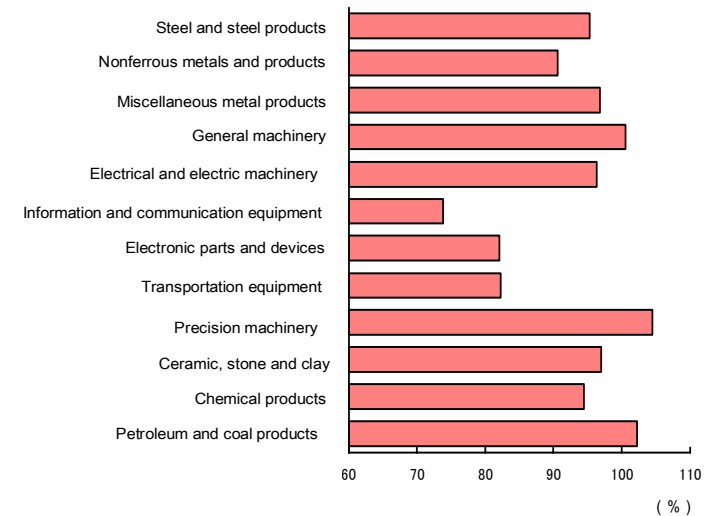
Source: The Ministry of Economy, Trade and Industry.

Figure 3-2 Change in Production Shown  
in the Forecast Index in April  
2009 from 2 Months before  
<% change>



Source: The Ministry of Economy, Trade and Industry.

Figure 3-3 Inventory Level by Industry  
in February 2009, Compared  
with 3 Months before



Source: The Ministry of Economy, Trade and Industry.

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## Exports - The declining trend could be prolonged

It is expected that the declining trend of exports will be more noticeable, against the background of a further deterioration of overseas economies. Viewed by region:

(i) To the US and European countries. A continued decline, reflecting the considerable downturn of their economic activity. Viewed by industry, in addition to a continued decline in exports of motor vehicles, shipments of industrial machinery could also be falling.

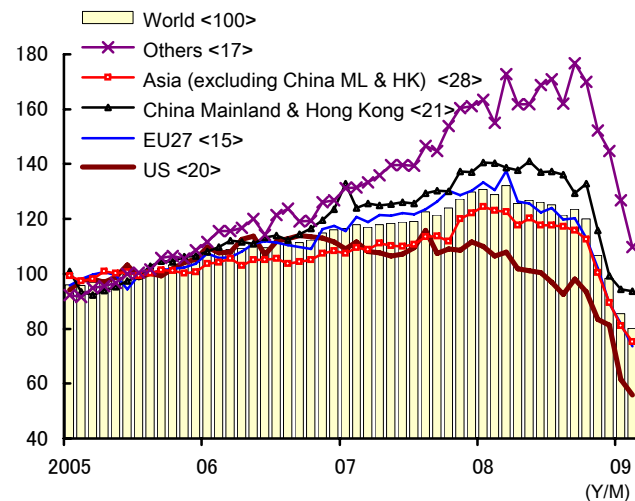
(ii) To resource-rich countries. A significant fall mainly in exports to Middle Eastern countries and Russia. The national income of resource-rich countries has been decreasing considerably due to the fall of resource prices.

(iii) To China. A declining trend had become obvious, mainly in exports of producer goods and capital goods. This is reflecting the deteriorating economic situation in the US and European countries.

Moreover, it is expected that negative influences of the yen appreciation would be materialising during this year. As a result, it is likely that the sluggish situation of Japan's exports could be prolonged. The declining trend is projected to continue at least until the end of FY2009.

Figure 4-1 Japan's Real Exports by Region  
<seasonally adjusted>

(CY2005=100)

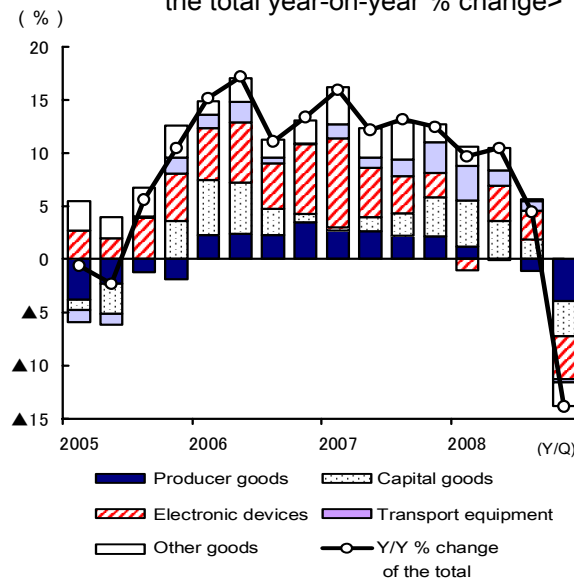


Source: The Ministry of Finance, The Bank of Japan.

Note 1: The figures in angle brackets in the legend indicate the share of each region in total nominal exports of Japan in FY2007.

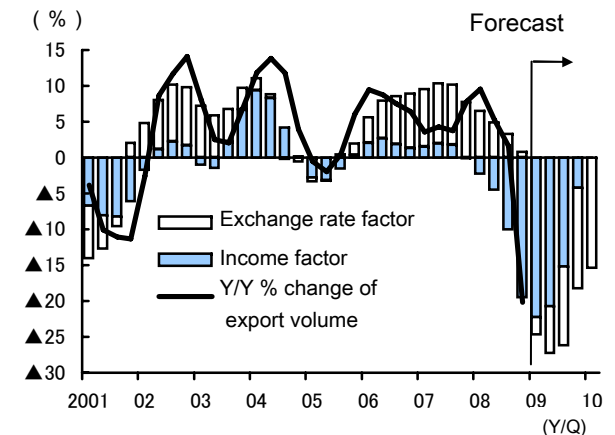
Note 2: Others: Middle Eastern countries, South American countries, Russia and so on.

Figure 4-2 Japan's Real Exports to China  
by Commodity <contribution to  
the total year-on-year % change>



Source: The Japan Research Institute, Ltd. based on the data of The Ministry of Finance, The Bank of Japan.

Figure 4-3 Estimate of Export Volume Function  
<on a year-on-year % change basis>



Source: The Japan Research Institute, Ltd. based on the data of The Ministry of Finance, The OECD, and so on.

Note: The exchange rate factor; the real effective exchange rate of the yen, the income factor; the OECD economic indicator. The assumptions of forecast are by JRI projections

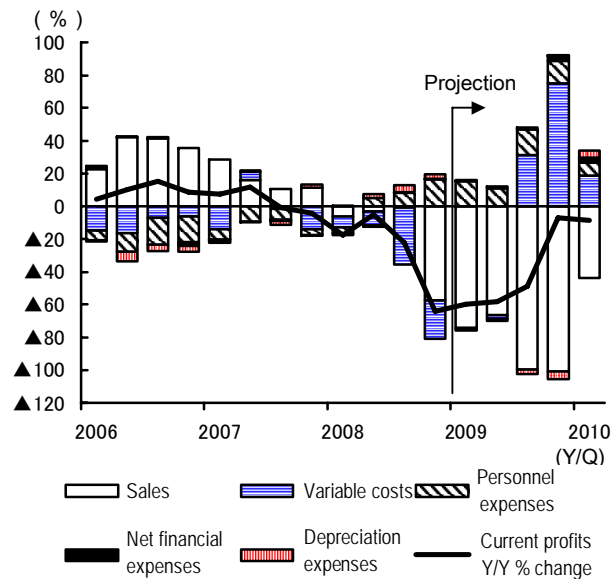
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## Continued considerable decline of corporate profits and business fixed investment

It is projected that corporate profits will continue to see a double-digit fall in their change rate on a year earlier. Although an improvement in the output / input price ratio due to the fall in resource prices is expected to contribute to bolstering profits, downward pressure on profits from a decline in sales amount could intensify and outpace the improvement.

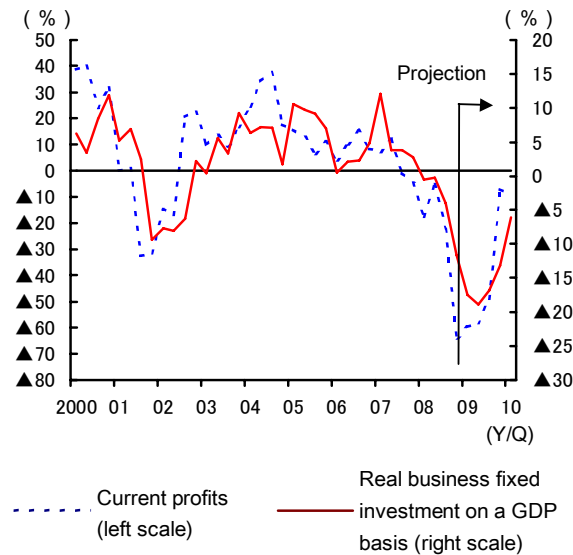
The year-on-year minus in the change in business fixed investment is estimated to expand for the moment. It is expected that the attitude of enterprises to business fixed investment will become more cautious in a very rapid manner, reflecting a deterioration of corporate profits, a lowering of capacity utilisation and a worsening of business sentiment. Especially, it is likely that business fixed investment in manufacturing will decline considerably. This forecast is predicted by the fact that machinery orders in manufacturing have recently been dropping very sharply.

Figure 5-1 Contribution of Sales and Expenses to Year-on-year % Change of Current Profits



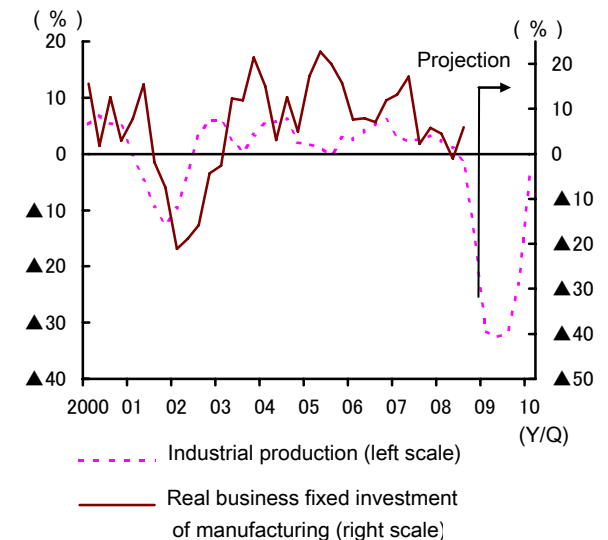
Source: The Japan Research Institute, Ltd. based on the data of The Ministry of Finance, "Financial Statements Statistics of Corporations by Industry: Quarterly".

Figure 5-2 Current Profits and Real Business Fixed Investment <year-on-year % change>



Source: The Japan Research Institute, Ltd. based on the data of The Ministry of Finance, The Cabinet Office.

Figure 5-3 Industrial Production and Business Fixed Investment of Manufacturing <year-on-year % change>



Source: The Japan Research Institute, Ltd. based on the data of The Ministry of Economy, Trade and Industry, The Cabinet Office.

## Declining exports, the yen appreciation - To weigh on the processing industries

An estimate of the influences of declining exports, the yen appreciation and the fall of the price of crude oil shows visibly the difference of the degree of impact between industries.

The processing industries, which feel a significant influence of a fall in exports and the yen appreciation, are estimated to be most adversely affected. Among nonmanufacturing, the wholesale trade and financial services industries, which have a high degree of export or overseas dependence, are estimated to have a downswing in their profits.

On the other hand, a certain number of industries among the material industries in manufacturing and nonmanufacturing other than the above mentioned sectors are projected to have a positive net influence. This is because these industries are able to enjoy to an appreciable degree the benefits of exchange gains in imports and the fall in the price of crude oil. Especially, the positive influences of decreased costs are expected to expand in the food and textiles industries.

Figure 6 The Estimated Impact of Declining Exports, the Yen Appreciation and the Fall of the Price of Crude Oil (during CY2009)

( % points )

		Impact of each factor on ratio of profits to sales			
			Decrease in exports	Appreciation of the yen	Fall in the price of crude oil
Manufacturing	Food	3.1	- 0.4	2.4	1.1
	Textiles	10.4	- 4.2	13.0	1.6
	Paper products, pulp	- 1.1	- 4.0	0.6	2.3
	Chemical products	- 2.1	- 8.3	0.2	6.1
	Petroleum and coal products	27.6	4.0	2.0	21.6
	Ceramic, stone and clay	- 7.2	- 9.4	0.0	2.1
	Steel and steel products	- 7.5	- 8.3	- 1.0	1.8
	Nonferrous metals and products	- 3.7	- 9.7	3.7	2.3
	Miscellaneous metal products	- 4.1	- 5.6	0.3	1.1
	General machinery	- 9.7	- 8.3	- 2.3	0.9
	Electrical and electric machinery	- 12.0	- 10.8	- 2.5	1.2
	Information and communication equipment	- 6.3	- 8.1	0.9	0.9
	Electronic parts and devices	- 16.9	- 16.9	- 1.1	1.1
	Transportation equipment	- 10.3	- 8.2	- 3.1	1.0
	Precision machinery	- 8.5	- 11.2	1.9	0.8
	Other manufactured products	- 0.7	- 8.7	6.6	1.4
	Nonmanufacturing	Agriculture and fishing	3.3	- 1.0	2.9
Construction		0.7	- 0.5	0.0	1.3
Electricity and gas		3.6	- 4.5	- 0.0	8.2
City water supply		- 1.9	- 3.1	- 0.0	1.3
Wholesale and retail trade		- 7.6	- 7.5	- 0.8	0.7
Financial services and insurance		- 5.2	- 5.6	0.1	0.3
Transport		- 5.3	- 7.6	- 0.5	2.7
Communication and broadcasting		- 3.1	- 3.6	0.0	0.5
Public service		- 2.9	- 4.0	0.4	0.7

Source: The Japan Research Institute, Ltd. based on the data of The Ministry of Internal Affairs and Communications, The Ministry of Finance, The Ministry of Economy, Trade and Industry, The Bank of Japan.

Note : The estimate is based on the assumptions that (i) the yen would appreciate by 20% against all other currencies, (ii) the price of crude oil would fall by 55%, and (iii) enterprises would pass on 30% of the increased costs to the selling prices.

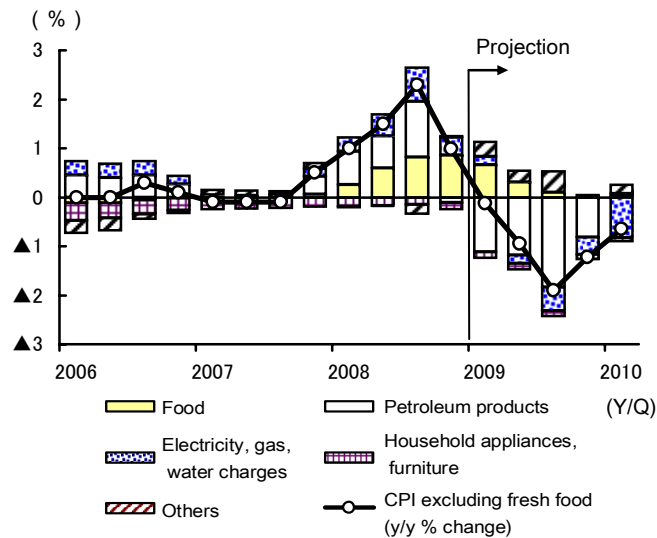
## The rate of change in the CPI - To turn negative again; looming deflationary pressure

It is expected that a declining tendency in the Consumer Price Index excluding fresh food (the core CPI) will be prolonged with deflationary pressure intensifying and resource prices softening.

For the time being, the downward pressure from the supply side would be obviously felt to have strengthened. The core CPI is projected to decline further in a rapid way, reflecting a sharp fall in petrol price and a deceleration in the pace of the food price rise. In addition, from the start of FY2009 onwards, the downward pressure from the demand side would also be felt as having stepped up. It is expected that moves to lower prices will spread among goods and services covered by the Index due to re-emerging price competition, as the supply-demand gap will expand to the level of around 10 per cent of GDP. Accordingly, it is projected that the year-on-year per cent change of the core CPI will reach around minus 2 per cent in the July-September quarter this year, then continue the rate of around minus 1 per cent after that period onwards.

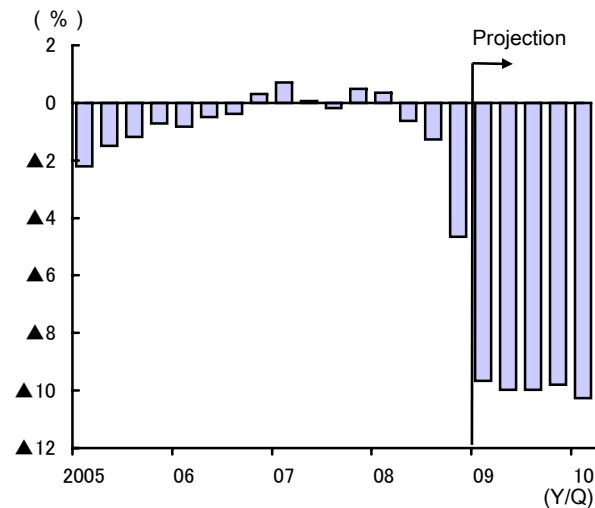
Deflationary pressure will persist for a long time from year 2010 onwards. It is estimated that it will take five to ten years for the supply-demand gap shown as a percentage of GDP, which has recently expanded rapidly, to narrow to zero. The downward pressure on the movement of prices also is expected to remain as long as the supply-demand gap exists.

Figure 7-1 Change in Consumer Price Index on CY2005-base <year-on-year, excluding fresh food>



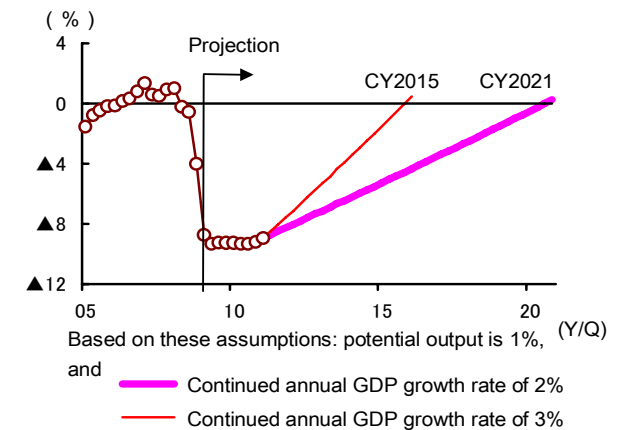
Source: The Japan Research Institute, Ltd. based on the data of The Ministry of Internal Affairs and Communications.

Figure 7-2 Estimate of Supply-Demand Gap Shown as Percentage of GDP



Source: The Japan Research Institute, Ltd. based on the data of The Cabinet Office.

Figure 7-3 Long-range Estimate of Supply-Demand Gap Shown as Percentage of GDP



Source: The Japan Research Institute, Ltd. based on the data of The Cabinet Office,

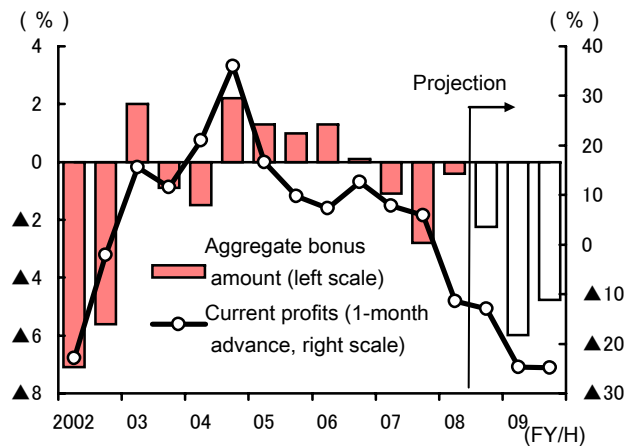
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## Rapidly intensifying pressure for employment adjustment

In the household sector, the following three negative influences would be felt: (i) a fall in wages, especially in bonuses, (ii) a negative wealth effect due to the fall in stock prices, and (iii) a worsened employment environment. Among those, the employment issue is considered as one of the most serious challenges to be addressed in Japan's economy. Especially, thus far, a firing of temporary workers has come into focus among the employment issues. Hereafter, it is, worryingly, likely that a cut in regular employees will take place in earnest.

Based on the JRI estimate on the working population reflecting its GDP projections, the number of workers who will lose their jobs, which is regarded as the pressure for employment adjustment, is calculated to reach 2,560 thousand by the first quarter of year 2010. This is the level of numbers that pushes up the unemployment rate by 4.0 percentage points. The rapidly worsening employment situation seen above is estimated to push down the growth rate of private consumption expenditure by 1.9 percentage points. Accordingly, the prospects for Japan's economic activity depend largely on whether the pressure for employment adjustment will be successfully reduced or not.

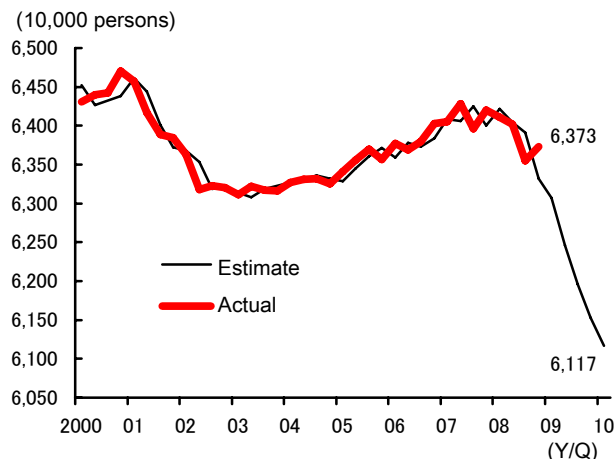
Figure 8-1 Current Profits and Aggregate Bonus Amount  
<year-on-year % change>



Source: The Japan Research Institute, Ltd. based on the data of The Ministry of Finance, The Ministry of Health, Labour and Welfare.

Note: The aggregate bonus amount is on a Monthly Labour Survey basis.

Figure 8-2 Estimate on Working Population



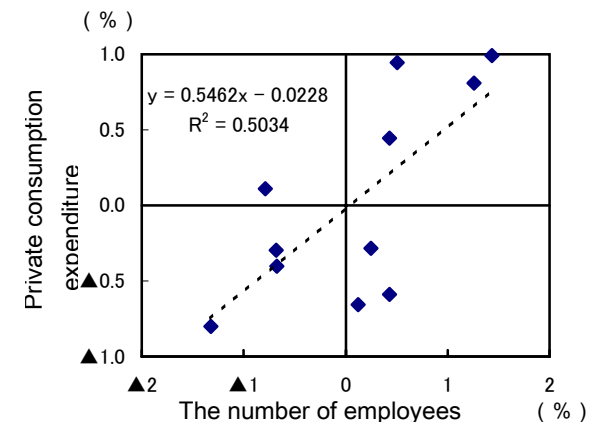
Source: The Japan Research Institute, Ltd. based on the data of The Ministry of Internal Affairs and Communications, The Cabinet Office.

Note: The equation for the estimate is as follows:

$$\ln(L) = 0.17 + 0.82 \cdot \ln(L <-1>) + 0.11 \cdot \ln(\text{GDP}) - 0.0004 \cdot \text{Trend}$$

Period 1994/Q2 ~ 2008/Q3, Adjusted R<sup>2</sup> = 0.9476

Figure 8-3 Change in the Number of Employees and Private Consumption Expenditure  
<year-on-year % change on a fiscal year basis>



Source: The Japan Research Institute, Ltd. based on the data of The Cabinet Office, "National Accounts of Japan".

Note: From FY1997 to FY2007. The imputed rent is excluded from private consumption expenditure.

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## Deeper fall in economic activity compared with US and European countries

Japan has been suffering from a deeper fall in its economic activity compared with the situation in the US, which is the epicentre of the current financial crisis, and European countries. Taking into consideration the following four factors, it is unavoidable that Japan's economy will see a more serious recession than those in US and European countries.

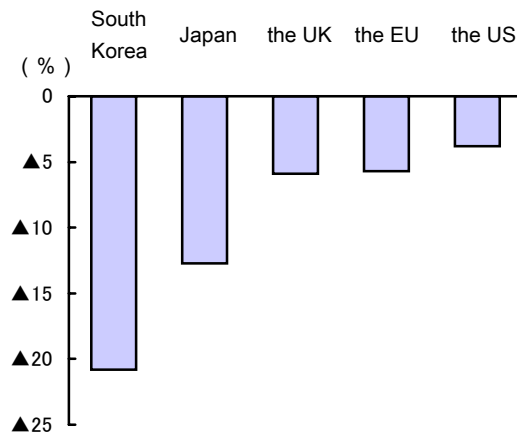
(i) High degree of dependence of manufacturing products on exports. The industries such as motor vehicles, industrial machinery and electronic parts and devices, which have high income elasticity, have been especially hard hit. This factor is also the reason for a deeper fall in the economic activities in South Korea and Taiwan.

(ii) Loss in competitiveness due to the yen appreciation against almost all currencies of major trading partners.

(iii) Weak domestic demand, especially the feeble driving power for the economy of private consumption expenditure.

(iv) A delay in taking effective measures to lift up the economy. Productive discussions to promote an expansion of demand have been shelved since last autumn, when the fall in business activity was confirmed as deeper than previously thought.

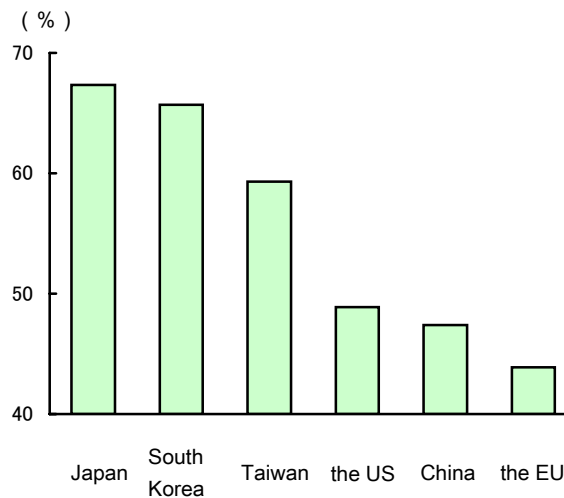
Figure 9-1 Real GDP Change Rate in October-December Quarter 2009  
<seasonally adjusted and annualised quarter-on-quarter % change rate>



Source: The Japan Research Institute, Ltd. based on the data of statistics of each country or economic area.

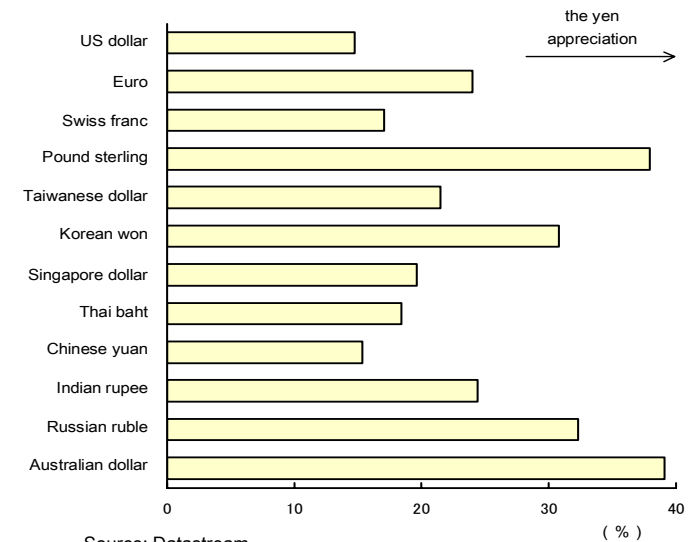
Note: "▲" indicates "minus".

Figure 9-2 Ratio of Exports of Machinery and Equipment in Total Exports in CY2007



Source: The Japan Research Institute, Ltd. based on the data of statistics of each country or economic area.

Figure 9-3 Rate of Appreciation of Each Currency against the Japanese Yen <as of the end of December 2008, from the average rate in July 2008>



Source: Datastream.

## Prospects for Japan's economy - Projected real GDP change; -3.2% in FY2008 and -5.0% in FY2009

(1) It is expected that the recessionary phase of Japan's economy will be prolonged, against the background of a further deterioration in economic activity at home and abroad. It is, especially, estimated that Japan's real GDP during the second half of FY2008 to March 2009 will see a serious recessionary phase, which is two consecutive quarters of double-digit contraction, on a seasonally adjusted and annualised quarter-on-quarter change basis. Further, it is projected that the economy will follow a quarterly trajectory at a pace considerably below its potential output growth rate during FY2009, while the economic measures taken by the government are estimated to take effect during the first half of the fiscal year. This will lead to minus 3.2 per cent in the real GDP change rate in FY2008 and minus 5.0 per cent in FY2009, a significant shrinking for two consecutive fiscal years.

(2) A main cause of the recession appears to be the rapid economic deterioration in the corporate sector. It is expected that Japan's exports will continue to be declining, and there is not much prospect that the declining trend will be checked. This is against the background of a continued significant fall in exports to the US and European economies amid still growing uncertainties in the financial markets, a predicted further decline in exports to Asian economies and resource-rich countries, and a gradual materialising of the negative effect of the Japanese yen appreciation.

The unfavourable move in exports is expected to continue having a negative impact on domestic demand. Reflecting a rapid decline in capacity utilisation, a decreasing trend in business fixed investment would be more intensified, especially in the export industries such as motor vehicles and electronic parts and devices. An inventory adjustment could also lower the economic growth rate.

(3) It is expected that the household sector will also continue its sluggish situation, due to stagnant income environments and worsened consumer sentiment. Nominal private consumption expenditure would see a noticeable decline because of factors such as a decrease in wages, especially in bonuses, growing anxieties about a future employment situation reflecting a sharp increase in unemployment, and a negative wealth effect of falling stock prices. However, the degree of decline in real private consumption expenditure would be slight, owing to the advanced real purchasing power of households reflecting the fall of consumer prices.

(4) The Consumer Price Index excluding fresh food (the core CPI) is projected to decelerate rapidly due to a fall in petrol price and increasing deflationary pressure. It is also expected that the index will start to decline sharply from this spring, which is around the start of FY2009, onwards.

Figure 10 Projections for GDP Growth and Main Indicators of Japan ( as of April 17, 2009 )

(seasonally adjusted, annualised % changes from the previous quarter)

	CY2008	CY2009				CY2010				FY2008	FY2009	FY2010
	10~12	1~3	4~6	7~9	10~12	1~3	4~6	7~9	10~12			
	(Actual)	(Projection)				(Projection)				(Projection)		
Real GDP	▲ 12.1	▲ 16.2	▲ 1.8	1.9	0.5	0.3	0.1	0.2	0.8	▲ 3.2	▲ 5.0	0.5
Private Consumption Expenditure	▲ 1.7	▲ 2.9	1.2	1.0	0.5	0.2	0.3	0.3	0.4	▲ 0.2	▲ 0.1	0.4
Housing Investment	24.9	▲ 28.3	▲ 12.8	▲ 2.5	▲ 1.8	▲ 0.8	▲ 0.5	0.2	0.5	▲ 2.8	▲ 6.6	▲ 0.5
Business Fixed Investment	▲ 19.8	▲ 27.2	▲ 14.8	▲ 3.8	▲ 2.9	▲ 2.5	▲ 2.1	▲ 1.0	0.9	▲ 8.6	▲ 13.6	▲ 1.5
Private Inventories (percentage points contribution)	( - 1.9)	( ▲ 3.1)	( ▲ 0.5)	( - 1.0)	( - 0.1)	( - 0.2)	( - 0.0)	( - 0.0)	( - 0.3)	( ▲ 0.2)	( ▲ 0.3)	( - 0.2)
Government Consumption Expenditure	5.6	▲ 2.0	0.5	1.2	0.8	0.6	0.5	0.4	0.3	0.2	0.8	0.5
Public Investment	0.4	▲ 3.9	4.2	5.9	1.8	0.9	▲ 1.8	▲ 2.0	▲ 1.8	▲ 4.2	2.1	▲ 0.6
Net Exports (percentage points contribution)	(▲ 10.0)	(▲ 7.3)	( - 0.4)	( - 0.4)	( - 0.3)	( - 0.2)	( - 0.1)	( - 0.1)	( - 0.2)	(▲ 1.3)	(▲ 2.5)	( - 0.2)
Exports of Goods and Services	▲ 44.9	▲ 73.2	▲ 8.2	▲ 5.4	▲ 2.5	▲ 2.2	▲ 1.4	▲ 0.5	1.8	▲ 10.9	▲ 31.2	▲ 1.1
Imports of Goods and Services	12.4	▲ 57.0	▲ 12.6	▲ 10.2	▲ 6.4	▲ 4.7	▲ 2.8	▲ 1.7	▲ 0.6	▲ 4.0	▲ 18.8	▲ 3.4

(% changes from the same quarter of the previous year)

Real GDP	▲ 4.3	▲ 9.0	▲ 8.0	▲ 7.6	▲ 4.3	0.2	0.7	0.2	0.3	▲ 3.2	▲ 5.0	0.5
Nominal GDP	▲ 3.6	▲ 6.6	▲ 4.9	▲ 4.7	▲ 3.0	▲ 0.9	▲ 0.5	▲ 1.0	▲ 0.6	▲ 3.2	▲ 3.4	▲ 0.6
GDP deflator	0.7	2.6	3.4	3.1	1.4	▲ 1.1	▲ 1.3	▲ 1.3	▲ 0.9	0.0	1.7	▲ 1.1
Consumer Price Index (excluding fresh food)	1.0	▲ 0.2	▲ 0.5	▲ 1.9	▲ 1.4	▲ 0.8	▲ 1.1	▲ 0.9	▲ 0.5	1.1	▲ 1.2	▲ 0.8
Industrial Production Index	▲ 14.8	▲ 34.7	▲ 34.2	▲ 33.4	▲ 24.6	▲ 1.5	0.1	0.9	1.3	▲ 12.7	▲ 25.4	1.0
Unemployment Rate (%)	4.0	4.5	4.9	5.2	5.4	5.4	5.4	5.4	5.4	4.1	5.2	5.4
Current Account Balances (trillion JY)	1.67	3.74	2.59	4.16	3.36	4.93	3.22	4.48	3.90	13.44	15.04	17.06
Share of Nominal GDP (%)	1.3	3.2	2.2	3.6	2.7	4.3	2.7	3.9	3.1	2.7	3.2	3.6
Exchange Rates (JY/US\$)	96.1	94.0	96.0	95.0	93.0	91.0	90.0	90.0	92.0	100.6	93.8	91.5
Import Price of Crude Oil (US\$/barrel)	79	44	45	46	47	49	50	51	53	90	47	52

Source: The Cabinet Office, The Ministry of Internal Affairs and Communications, The Ministry of Economy, Trade and Industry, The Ministry of Finance.

The projection figures are based on those of The Japan Research Institute, Ltd.

Note: The assumptions on overseas economies: the real GDP growth rate during CY2009 would be -2.3% in the US, -3.8% in the euro area and +7.5% in China.