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# Japan's Economic Outlook No. 177

## *Assessment of Abenomics: Examination of current situation and future issues*

### Japan to see real GDP growth of +3.1% in FY13 and +0.7% in FY14, nominal GDP growth of +3.0% and +2.0%

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**Main Points**

- **Economic outlook revised:** In light of the first preliminary Jan-Mar GDP release (Cabinet Office), we have revised our economic growth outlook. We now forecast real GDP growth of +3.1% y/y for FY13 (previous forecast: +2.7%) and +0.7% for FY14 (+0.4%). The upgrades were made taking into account such factors as the improvement in the export environment which is benefitting from ongoing depreciation of the yen accompanying the Bank of Japan (BOJ)'s monetary easing, and the increase in personal spending accompanying the ascent of share prices.

- **Assessment of Abenomics:** In this report, we provide an assessment of the economic policies of the Abe administration (so-called Abenomics). Abenomics consists of three thrusts (priority areas): (1) bold monetary policies, (2) flexible fiscal policies, and (3) growth strategies to stimulate private sector investment. We believe that Abenomics represents an appropriate set of economic policies with the potential of sparking the revival of Japan's economy. In particular, monetary policies are steadily yielding results. In this report, we examine the prospects for achieving the BOJ's inflation target of 2%. This target will be hard to achieve merely by reducing the GDP gap, and a significant increase in the expected inflation rate will be essential. A quantitative analysis of the economic impact of Abenomics based on Daiwa's short-term macroeconomic model indicates that the positive effects coming from a weaker yen and higher stock prices will not be impaired as long as the long-term interest rate does not rise substantially. Hence, current favorable economic conditions will be sustained for the time being. On the other hand, the Japanese government will need to address the medium- to long-term fiscal deficit problem with more resolve than before.

- **Three issues regarding Abenomics:** First, there is the risk that the government failing to maintain fiscal discipline will invite the triple blow of falling JGB prices, falling stock prices, and

a falling yen. Second, criticism is being widely voiced that medium- to long-term improvements in the nation's economic foundation and structural reforms are currently insufficient. Third, there is concern that employee income will not grow as inflation progresses. Thus, going forward, the Abe administration will need to actively engage in: (1) the maintenance of fiscal discipline, such as by making fundamental reforms to the social insurance system, (2) the strengthening of comprehensive growth strategies, such as deregulation, participation in the Trans-Pacific Strategic Economic Partnership Agreement (TPP), and the reduction of the effective tax rate borne by corporations, and (3) the achievement of higher employee income where the pain is shared among the government, business, and labor.

- **Main scenario for Japan's economy:** Japan's economy slipped into recession after peaking in March 2012. It now appears to have hit bottom in November 2012 and to have bottomed out. It is expected to continue expanding, supported by (1) the recovery of the US and Chinese economies, (2) the continuation of reconstruction demand and a large-scale supplementary budget, and (3) the ongoing depreciation of the yen and the ascent of stock prices accompanying the BOJ's bold monetary easing. With regard to the last, we anticipate that the yen will gradually weaken against the US dollar. Also, in comparison to the real economy, it still cannot be said that stock prices are overvalued at their current levels.

- **Risks facing Japan's economy:** Risks that will need to be borne in mind regarding Japan's economy are: (1) a reigniting of the European sovereign debt crisis, (2) the worsening of Japan-China relations, (3) the US fiscal issue, and (4) a surge in crude oil prices stemming from geopolitical risk.

- **BOJ monetary policy:** The BOJ has made a smooth start with the relaunch of monetary policies under the leadership of Haruhiko Kuroda, the new governor. Concerns are likely to surface, however, with the release of *Outlook for Economic Activity and Prices* in October 2013 regarding prospects for achieving the inflation target, and the BOJ will likely be compelled to ease monetary policy further, such as by actively purchasing risk assets (ETFs and other such assets).

**Our assumptions**

- Public works spending will grow +12.2% in FY13 and –15.8% in FY14; the consumption tax rate will be increased in April 2014

- Average exchange rate of Y100.0/$ in both FY13 and FY14

- US real GDP growth of +1.9% in CY13 and +2.3% in CY14

## Main Economic Indicators and Real GDP Components

| | FY12 (Actual) | FY13 (Estimate) | FY14 (Estimate) | CY12 (Actual) | CY13 (Estimate) | CY14 (Estimate) |
|---|---|---|---|---|---|---|
| **Main economic indicators** | | | | | | |
| Nominal GDP (y/y %) | 0.3 | 3.0 | 2.0 | 1.1 | 1.5 | 2.9 |
| Real GDP (chained [2005]; y/y %) | 1.2 | 3.1 | 0.7 | 2.0 | 2.1 | 1.9 |
| Domestic demand (contribution, % pt) | 1.9 | 2.7 | -0.3 | 2.9 | 2.0 | 1.3 |
| Foreign demand (contribution, % pt) | -0.7 | 0.4 | 0.9 | -0.9 | 0.1 | 0.6 |
| GDP deflator (y/y %) | -0.9 | -0.2 | 1.3 | -0.9 | -0.5 | 1.0 |
| Index of All-industry Activity (y/y %)* | 0.3 | 2.5 | 2.4 | 0.8 | 1.3 | 3.2 |
| Index of Industrial Production (y/y %) | -3.1 | 4.3 | 5.8 | -0.3 | 0.6 | 6.6 |
| Index of Tertiary Industry Activity (y/y %) | 0.8 | 1.8 | 1.6 | 1.2 | 0.9 | 2.3 |
| Corporate Goods Price Index (y/y %) | -1.1 | 1.7 | 3.3 | -0.9 | 1.2 | 2.9 |
| Consumer Price Index (excl. fresh food; y/y %) | -0.2 | 0.3 | 2.9 | -0.1 | 0.1 | 2.3 |
| Unemployment rate (%) | 4.3 | 4.1 | 3.9 | 4.4 | 4.1 | 3.9 |
| Government bond yield (10 year; %) | 0.76 | 0.88 | 1.05 | 0.84 | 0.81 | 1.01 |
| Money stock; M2 (end-period; y/y %) | 2.5 | 3.2 | 3.6 | 2.5 | 3.1 | 3.5 |
| Balance of payments | | | | | | |
| Trade balance (Y tril) | -7.2 | -7.2 | -3.4 | -5.1 | -7.6 | -4.6 |
| Current balance ($100 mil) | 528 | 552 | 1,223 | 661 | 469 | 999 |
| Current balance (Y tril) | 4.3 | 5.5 | 12.2 | 5.3 | 4.6 | 10.0 |
| (% of nominal GDP) | 0.9 | 1.1 | 2.5 | 1.1 | 1.0 | 2.0 |
| **Real GDP components (Chained [2005]; y/y %; figures in parentheses: contribution, % pt)** | | | | | | |
| Private final consumption | 1.6 ( 1.0) | 2.4 ( 1.4) | -0.6 (-0.4) | 2.3 ( 1.4) | 1.9 ( 1.1) | 0.7 ( 0.4) |
| Private housing investment | 5.3 ( 0.1) | 7.6 ( 0.2) | -4.5 (-0.1) | 3.0 ( 0.1) | 8.3 ( 0.2) | -1.5 (-0.0) |
| Private fixed investment | -1.5 (-0.2) | 1.7 ( 0.2) | 6.5 ( 0.8) | 2.0 ( 0.3) | -1.9 (-0.3) | 6.8 ( 0.9) |
| Government final consumption | 2.6 ( 0.5) | 1.8 ( 0.3) | 1.1 ( 0.2) | 2.6 ( 0.5) | 2.0 ( 0.4) | 1.3 ( 0.3) |
| Public fixed investment | 15.2 ( 0.6) | 11.0 ( 0.5) | -16.9 (-0.8) | 12.5 ( 0.6) | 13.1 ( 0.6) | -8.5 (-0.5) |
| Exports of goods and services | -1.3 (-0.2) | 5.4 ( 0.8) | 9.8 ( 1.6) | -0.1 (-0.0) | 2.3 ( 0.3) | 9.3 ( 1.5) |
| Imports of goods and services | 3.8 (-0.5) | 3.1 (-0.4) | 4.5 (-0.6) | 5.4 (-0.9) | 1.7 (-0.3) | 5.0 (-0.9) |
| **Major assumptions:** | | | | | | |
| **1. World economy** | | | | | | |
| Economic growth of major trading partners | 3.1 | 3.1 | 3.8 | 3.1 | 2.9 | 3.7 |
| Crude oil price (WTI futures; $/bbl) | 92.0 | 95.0 | 95.0 | 94.1 | 94.8 | 95.0 |
| **2. US economy** | | | | | | |
| US real GDP (chained [2005]; y/y %) | 2.1 | 1.9 | 2.5 | 2.2 | 1.9 | 2.3 |
| US Consumer Price Index (y/y %) | 1.8 | 1.8 | 2.1 | 2.1 | 1.7 | 2.0 |
| **3. Japanese economy** | | | | | | |
| Nominal public fixed investment (y/y %) | 14.9 | 12.2 | -15.8 | 12.2 | 13.9 | -7.4 |
| Exchange rate (Y/$) | 83.1 | 100.0 | 100.0 | 79.8 | 98.1 | 100.0 |
| (Y/€) | 107.4 | 130.0 | 130.0 | 103.5 | 128.0 | 130.0 |
| Call rate (end-period; %) | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 |

Source: Compiled by DIR.
Note: Due to rounding, actual figures may differ from those released by the government.
* Excl. agriculture, forestry, and fisheries.
Estimate: DIR estimate.

## Comparison with Previous Outlook

| | Current outlook (Outlook 177) | | Previous outlook (Outlook 176 Update) | | Difference between previous and current outlooks | |
|---|---|---|---|---|---|---|
| | FY13 | FY14 | FY13 | FY14 | FY13 | FY14 |
| **Main economic indicators** | | | | | | |
| Nominal GDP (y/y %) | 3.0 | 2.0 | 2.1 | 1.5 | 0.8 | 0.5 |
| Real GDP (chained [2005]; y/y %) | 3.1 | 0.7 | 2.7 | 0.4 | 0.5 | 0.4 |
| Domestic demand (contribution, % pt) | 2.7 | -0.3 | 2.6 | -0.6 | 0.2 | 0.3 |
| Foreign demand (contribution, % pt) | 0.4 | 0.9 | 0.0 | 0.9 | 0.4 | 0.1 |
| GDP deflator (y/y %) | -0.2 | 1.3 | -0.5 | 1.1 | 0.4 | 0.1 |
| Index of All-industry Activity (y/y %)* | 2.5 | 2.4 | 2.7 | 2.0 | -0.2 | 0.4 |
| Index of Industrial Production (y/y %) | 4.3 | 5.8 | 4.2 | 4.6 | 0.2 | 1.2 |
| Index of Tertiary Industry Activity (y/y %) | 1.8 | 1.6 | 2.2 | 1.4 | -0.4 | 0.2 |
| Corporate Goods Price Index (y/y %) | 1.7 | 3.3 | 1.3 | 3.2 | 0.4 | 0.1 |
| Consumer Price Index (excl. fresh food; y/y %) | 0.3 | 2.9 | 0.2 | 2.6 | 0.2 | 0.3 |
| Unemployment rate (%) | 4.1 | 3.9 | 4.1 | 4.0 | -0.0 | -0.1 |
| Government bond yield (10 year; %) | 0.88 | 1.05 | 0.90 | 1.07 | -0.01 | -0.02 |
| Money stock; M2 (end-period; y/y %) | 3.2 | 3.6 | 1.7 | 1.5 | 1.5 | 2.1 |
| Balance of payments | | | | | | |
| Trade balance (Y tril) | -7.2 | -3.4 | -9.6 | -5.4 | 2.4 | 2.1 |
| Current balance ($100 mil) | 552 | 1,223 | 192 | 744 | 360 | 480 |
| Current balance (Y tril) | 5.5 | 12.2 | 1.8 | 7.1 | 3.7 | 5.2 |
| (% of nominal GDP) | 1.1 | 2.5 | 0.4 | 1.4 | 0.8 | 1.0 |
| **Real GDP components (chained [2005]; y/y %)** | | | | | | |
| Private final consumption | 2.4 | -0.6 | 1.6 | -0.9 | 0.8 | 0.3 |
| Private housing investment | 7.6 | -4.5 | 6.4 | -4.9 | 1.1 | 0.4 |
| Private fixed investment | 1.7 | 6.5 | 3.4 | 5.6 | -1.7 | 0.9 |
| Government final consumption | 1.8 | 1.1 | 1.5 | 1.1 | 0.3 | 0.0 |
| Public fixed investment | 11.0 | -16.9 | 10.6 | -16.9 | 0.4 | -0.0 |
| Exports of goods and services | 5.4 | 9.8 | 2.6 | 8.7 | 2.8 | 1.1 |
| Imports of goods and services | 3.1 | 4.5 | 2.6 | 3.3 | 0.4 | 1.2 |
| **Major assumptions:** | | | | | | |
| 1. World economy | | | | | | |
| Economic growth of major trading partners | 3.1 | 3.8 | 3.6 | 3.9 | -0.5 | -0.1 |
| Crude oil price (WTI futures; $/bbl) | 95.0 | 95.0 | 95.0 | 95.0 | 0.0 | 0.0 |
| 2. US economy | | | | | | |
| US real GDP (chained [2005]; y/y %) | 1.9 | 2.5 | 1.9 | 2.3 | 0.1 | 0.2 |
| US Consumer Price Index (y/y %) | 1.8 | 2.1 | 2.1 | 2.2 | -0.3 | -0.1 |
| 3. Japanese economy | | | | | | |
| Nominal public fixed investment (y/y %) | 12.2 | -15.8 | 12.2 | -15.8 | -0.0 | -0.0 |
| Exchange rate (Y/$) | 100.0 | 100.0 | 95.0 | 95.0 | 5.0 | 5.0 |
| (Y/€) | 130.0 | 130.0 | 125.0 | 125.0 | 5.0 | 5.0 |
| Call rate (end-period; %) | 0.10 | 0.10 | 0.10 | 0.10 | 0.00 | 0.00 |

Source: Compiled by DIR.
Notes: Due to rounding, differences do not necessarily conform to calculations based on figures shown.
* Excl. agriculture, forestry, and fisheries.

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# Summary

***Economic outlook revised***

In light of the first preliminary Jan-Mar GDP release (Cabinet Office), we have revised our economic growth outlook. We now forecast real GDP growth of +3.1% y/y for FY13 (previous forecast: +2.7%) and +0.7% for FY14 (+0.4%). The upgrades were made taking into account such factors as the improvement in the export environment which is benefitting from ongoing depreciation of the yen accompanying the Bank of Japan (BOJ)'s monetary easing, and the increase in personal spending accompanying the ascent of share prices.

***Jan-Mar 2013 real GDP increased an annualized 3.5% q/q in the first preliminary estimate***

The first preliminary estimate of Jan-Mar 2013 real GDP (Cabinet Office) posted an advance of 0.9% q/q, annualized at 3.5%, the second quarterly positive growth in a row and surpassing the market consensus (+0.7%; annualized at +2.7%). Domestic demand saw the second quarterly positive contribution to q/q GDP growth in a row (+0.5 percentage points), while foreign demand saw the first positive contribution in four quarters (+0.4 points). In other words, well-balanced domestic and foreign demand drove real GDP. Behind the higher-than-expected growth of real GDP was a larger-than-expected contribution from foreign demand, as exports slightly overshot expectations while imports undershot them.

Personal consumption increased 0.9% q/q, a rise for the second quarter in a row. At the same time, real employee compensation increased 0.5% for the first time in two quarters. However, the growth tempo of the former was larger than the latter, thanks to improved consumer sentiment. While a boost in sales of high-end products, reflecting the wealth effect accompanying the ascent of stock prices, has often been reported in the media, Jan-Mar GDP data shows that personal consumption saw a broad-based gain, regardless of type of goods/services. Housing investment increased 1.9%, improving for the fourth consecutive quarter. In addition to the ongoing lower housing loan rate, front-loaded demand prior to the consumption tax hike likely began to emerge, supporting steady housing investment. Public investment increased 0.8%, the fifth consecutive quarterly gain. Although the growth tempo slowed, it continued to bolster the economy. Exports increased 3.8%, the first gain in four quarters. In *Trade Statistics of Japan* (Ministry of Finance), export volume has been on a downtrend for shipments to the EU and Asian trading partners, but it turned around for those to the US, driving overall exports. Along with improved exports and domestic demand, imports also increased, by 1.0%, the first advance in three quarters. However, the smaller gain in imports was offset by a larger gain in exports, and foreign demand (net exports) made a positive contribution of 0.4 points to GDP growth. Meanwhile, capex declined 0.7%, the fifth quarterly slide in a row, evidencing that companies have not softened their cautious attitude toward capex despite a likely improvement in the environment surrounding capex, such as improved earnings due to a weaker yen, and increased exports.

***Assessment of Abenomics***

In this report, we provide an assessment of the economic policies of the Abe administration (so-called Abenomics). Abenomics consists of three thrusts (priority areas): (1) bold monetary policies, (2) flexible fiscal policies, and (3) growth strategies to stimulate private sector investment. We believe that Abenomics represents an appropriate set of economic policies with the potential of sparking the revival of Japan's economy. In particular, monetary policies are steadily yielding results. In this report, we examine the prospects for achieving the Bank of Japan (BOJ)'s inflation target of 2%. This target will be hard to achieve merely by reducing the GDP gap, and a significant increase in the expected inflation rate will be essential. A quantitative analysis of the economic impact of Abenomics based on Daiwa's short-term macroeconomic model indicates that the positive effects coming from a weaker yen and higher stock prices will not be impaired as long as the long-term interest rate does not rise substantially.

Hence, current favorable economic conditions will be sustained for the time being. On the other hand, the Japanese government will need to address the medium- to long-term budget deficit problem with more resolve than before.

***Three issues regarding Abenomics***

First, there is the risk that the government failing to maintain fiscal discipline will invite the triple blow of falling JGB prices, falling stock prices, and a falling yen. Second, criticism is being widely voiced that medium- to long-term improvements in the nation's economic foundation and structural reforms are currently insufficient. Third, there is concern that employee income will not grow as inflation progresses. Thus, going forward, the Abe administration will need to actively engage in: (1) the maintenance of fiscal discipline, such as by making fundamental reforms to the social insurance system, (2) the strengthening of comprehensive growth strategies, such as deregulation, participation in the Trans-Pacific Strategic Economic Partnership Agreement (TPP), and the reduction of the effective tax rate borne by corporations, and (3) the achievement of higher employee income where the pain is shared among the government, business, and labor.

***Main scenario for Japan's economy***

Japan's economy slipped into recession after peaking in March 2012. It now appears to have hit bottom in November 2012 and to have bottomed out.

Japan's economy is expected to continue expanding, supported by (1) the recovery of the US and Chinese economies, (2) the continuation of reconstruction demand and a large-scale supplementary budget, and (3) the ongoing depreciation of the yen and the ascent of stock prices accompanying the BOJ's bold monetary easing. With regard to the last, we anticipate that the yen will gradually weaken against the US dollar. Also, in comparison to the real economy, it still cannot be said that stock prices are overvalued at their current levels.

***Risks facing Japan's economy***

Risks that will need to be borne in mind regarding Japan's economy are: (1) a reigniting of the European sovereign debt crisis, such as from political instability in Italy or Spain, (2) the worsening of Japan-China relations, (3) the US fiscal issue, and (4) a surge in crude oil prices stemming from geopolitical risk.

***BOJ monetary policy***

The BOJ has made a smooth start with the relaunch of monetary policies under the leadership of Haruhiko Kuroda, the new governor. Concerns are likely to surface, however, with the release of *Outlook for Economic Activity and Prices* in October 2013 regarding prospects for achieving the inflation target, and the BOJ will likely be compelled to ease monetary policy further, such as by actively purchasing risk assets (ETFs and other such assets).

# 1. Assessment of Abenomics: Will Abenomics spark the revival of Japan's economy?

## 1.1 Assessment of Abenomics

### *Abenomics represents an appropriate set of economic policies in accord with global standards*

In this report, we provide an assessment of the economic policies of the Abe administration (so-called Abenomics). Abenomics consists of three thrusts (three priority areas): (1) bold monetary policies, (2) flexible fiscal policies, and (3) growth strategies to stimulate private sector investment. We have asserted from the start of the Abe administration that Abenomics has the potential of sparking the revival of Japan's economy and that its basic direction is set on the right course.

To the extent that we have exchanged views with foreign policy authorities and economists, the three thrusts of the Abe administration are regarded extremely favorably on the global stage. In a nutshell, Abenomics is being viewed by the international community as an appropriate set of economic policies in accord with global standards.

### *Abenomics represents policies prioritizing economic growth*

Economic policies can be broadly divided into the four quadrants of supply-side policies, demand-side policies, domestic demand, and foreign demand (Chart 1).

**Conceptual Image of Economic Policies** **Chart 1**

<table>
<tr><th></th><th>Domestic demand</th><th>Foreign demand</th></tr>
<tr><td rowspan="2">Supply side</td><td>● Ease regulations</td><td>● Conclude Trans-Pacific Partnership Agreement (TPP) so that Japan will be able to align with economic growth in East Asia<br>● Prevent sharp appreciation of yen</td></tr>
<tr><td colspan="2">● Implement growth strategy, such as promoting advancement of science and technology, etc.</td></tr>
<tr><td>Demand side</td><td>● Implement measures to counter low birth rate, such as child stipend<br>● Implement job-creating measures<br>● Reform pension and social security system</td><td>Conditions surrounding foreign demand dependent on overseas economic development</td></tr>
<tr><td>Growth fields</td><td colspan="2">Medical/nursing care Environment</td></tr>
</table>

Source: Compiled by DIR.

The Democratic Party of Japan (DPJ) administration inaugurated in 2009, in part as an antithesis to the Liberal Democratic Party (LDP) that gave some thought to the supply side and foreign demand, placed considerable weight on demand-side and domestic-demand policies. As a result, many foreign investors, key players in Japan's stock market, came to view the former DPJ administration as not being well balanced and as being tilted toward the demand side of domestic demand centered on the child support subsidy—in other words, with an interest in only one quarter of the economy. At the Inward Investment Promotion Round-Table (Chair: Minister of Economy, Trade and Industry; held under the direction of Prime Minister Naoto Kan), Japanese business leaders identified five factors that

were “evicting” Japanese companies from Japan and that were abetting the hollowing out of the economy. The so-called five “eviction factors” were (1) a strong yen, (2) slowness in concluding EPAs, (3) environmental regulations, (4) labor regulations, and (5) a heavy corporate tax rate. By ignoring these issues, the DPJ administration was roundly criticized as being anti-business.

Unlike the anti-business stance of the former DPJ administration, the clear pro-business stance of Abenomics can be highly commended.

***Bold monetary policies steadily yielding results***

Of the three thrusts of the Abe administration, it is the first, bold monetary policies, that has made a smooth start in particular.

Haruhiko Kuroda, the new governor of the BOJ, made a dramatic debut by focusing his monetary policies on an entirely new dimension. Based on the penetrating views of Koichi Hamada, professor emeritus of Yale University and a potential candidate for the Nobel Prize in Economics, Prime Minister Shinzo Abe pressed the BOJ to break from its traditional approach to monetary policy. This judgment by Abe can be highly rated.

On 4 April, the BOJ announced introduction of quantitative and qualitative monetary easing to achieve a price stability target of 2% in terms of year-on-year change in CPI as early as possible with a time horizon of about two years. To this end, the bank changed the main operating target for money market operations from the uncollateralized overnight call rate to the monetary base and announced it would double the monetary base within two years. Also, the bank will prolong the average remaining maturity of JGB purchases and increase outstanding amounts of JGBs as well as ETFs. These moves will expand BOJ’s balance sheet at end-2014 to Y290 trillion (59% of GDP), or twice the current asset size.

Kuroda’s decision could mark a decisive break from the past. Previously, foreign investors thought BOJ’s monetary easing measures were quite insufficient. While criticism of Kuroda is heard among those supporting the policies of the previous BOJ regime, it rings hollow in the face of the major shift already seen toward a weaker yen and higher stock prices.

The aggregate market value of listed stocks has increased by about Y180 trillion since the dissolution of the House of Representatives was virtually decided in mid-November 2012. In other words, wealth twice the annual state budget (Y90 trillion on an initial budget basis) was created accompanying the change in administration.

The yen has depreciated by about Y20 against the dollar over the same period. According to Daiwa’s short-term macroeconomic model, a Y10 rise against the dollar boosts Japan’s real GDP by roughly 0.3-0.5% (Y1.5-2.5 tril). Simply stated, the shift to a weaker yen accompanying change in the administration has pushed up real GDP by about Y3-5 trillion.

***Three issues regarding Abenomics***

Now that Kuroda’s magic ball has been passed to the government, and Abenomics has got off to a flying start, there are three issues that the Abe administration should work on.

The first is to maintain fiscal discipline. Loss of fiscal discipline combined with bold monetary easing could lead to debt monetization. This could lead to a plunge in JGB prices (a boost in long-term interest rates), which might result in vicious yen depreciation, higher import prices, and then stagflation (rising prices during an economic downturn).

The second issue is to thoroughly improve Japan's economic foundation. Currently, Abenomics mainly consists of stimulus measures like public works spending and monetary policies. However, if the capacity for economic growth is to be strengthened in the medium to long term, efforts toward strengthening the third thrust—structural reform such as deregulation and participation in the Trans Pacific Partnership Agreement (TPP)—will be necessary. Other essential steps will be reducing the corporate tax, tax breaks for investing in growth sectors, and establishing an environment that promotes entrepreneurship. If Japan's economic foundations are not improved through such measures, there is concern that the ascent of share prices and depreciation of the yen will come to be just passing phenomena.

The third issue is to increase employee income. An examination of the historical record discloses the existence in Japan of a cycle where an increase in sales is followed by higher wages and higher prices. In other words, about six to 12 months after sales increase, wages rise, followed by CPI after another six months. Some concern, however, is raised by sales losing some of their leading character relative to wages since the 2000s with the progress of globalization. From such a perspective, there is no doubting the need in policy terms to strengthen a transmission mechanism that will enable higher sales to propagate appropriately to wage increases.

We will closely analyze these issues in Section 2, *Three Issues Regarding Abenomics*. Nevertheless, following the flying start we have so far seen, we anticipate that the Abe administration will move to address them.

**(1) Bold monetary policy: Already yielding results**

**(2) Flexible fiscal policy: Uncertainty remains**

*Issue: Maintaining fiscal discipline*

—Strengthening resilience of nation's infrastructure: Risk of bloated public spending under guise of protecting lives and assets of citizens

—Risk of expanding budget deficit leading to triple weakness in the form of JGBs plunging (rise in long-term interest rate), weaker yen, and lower stock prices

**(3) Growth strategy: Not underway yet**

*Issue: Improving/restructuring economic structure over medium/long term*

Need to tackle issues like joining TPP, deregulation, and lowering effective tax rate for corporations

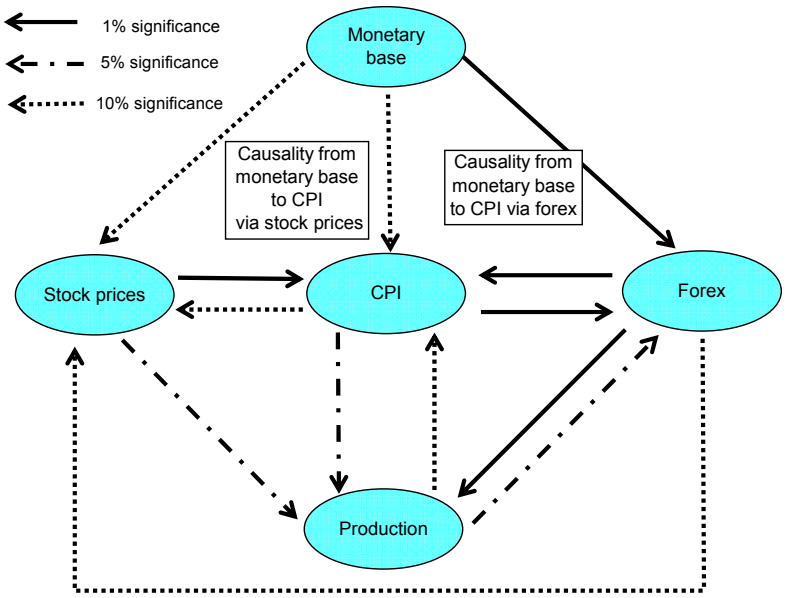
## 1.2 Examination of monetary policy: Will an inflation target of 2% be achieved?

### *Effectiveness of ongoing yen depreciation/rising stock prices through aggressive monetary easing*

Currently, the greatest interest of participants in Japan's financial market is whether the BOJ can achieve an inflation target of 2%.

We have advocated that a weaker yen and higher stock prices ensuing from aggressive monetary easing will be effective in ending deflation. Chart 2 presents a five-variable Granger causality test model. To define Granger causality, variable X is viewed as Granger-causing Y when past information about variable X is useful in improving the forecast of variable Y. The analysis we performed suggests the possibility that expansion of the monetary base influences CPI through stock prices and forex. Also, a variance analysis of CPI points to the possibility of forex having a certain effect on prices.

**Five Variable Granger Causality** (y/y %) **Chart 2**




***Model description***

| | | |
|---|---|---|
| Sampling period | | Mar 2006-Feb 2011 |
| Lag | | Quartic lag based on Akaike information criterion |
| Variables | Monetary base | Avg outstanding balance, adjusted for reserve requirement ratio, seasonally adjusted |
| | Stock prices | Nikkei 225 (monthly avg) |
| | Forex | Nominal effective exchange rate (2010 benchmark; BIS regulation basis) |
| | Production | All-industry Activity Index (excl agriculture/forestry/fisheries & public service; 2005 benchmark; seasonally adjusted) |
| | CPI | Major category items (excl. fresh food; nationwide; 2010 benchmark) |

Source: Bank of Japan, Ministry of Finance, Ministry of Internal Affairs and Communications, Ministry of Economy, Trade and Industry, *Nikkei*; compiled by DIR.

### *For CPI to rise steadily at 2%, a higher expected inflation rate will be essential*

In the final analysis, will the BOJ be able to achieve an inflation target of 2%?

The growth rate of CPI is closely correlated with the GDP gap, a relationship that is expressed by the Phillips curve. CPI's growth rate, however, is not simply determined by the GDP gap alone but is influenced by a range of factors. We therefore estimated a Phillips curve that factors in the expected inflation rate.

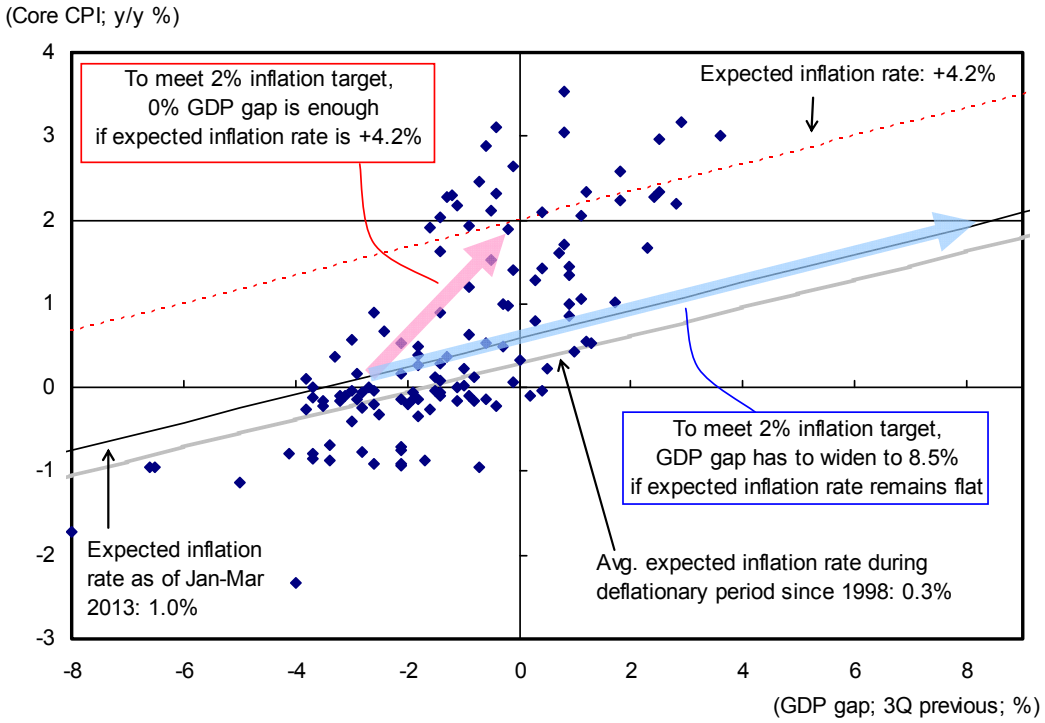
Chart 3 illustrates the Phillips curve factoring in the expected inflation rate, where the GDP gap is plotted along the horizontal axis and the year-on-year change in core CPI along the vertical axis. The standard Phillips curve is the approximate curve between these two variables. When the expected inflation rate is factored in, changes in it will be expressed as a shift in the level of the Phillips curve (change in the intercept). In other words, when the expected inflation rate increases (decreases), the Phillips curve will shift upward (downward).

The chart indicates that, should the currently observed expected inflation rate (+1.0% in Jan-Mar 2013) remain flat, the GDP gap would have to rise to +8.5% for the CPI growth rate to meet the BOJ's inflation target of 2%. Since the GDP gap is currently around –3%, GDP would have to increase by more than 10% to meet the inflation target, an extremely high hurdle to surmount in short order. Also, since maintaining a significant wider positive margin in the GDP gap is unrealistic, it is difficult to imagine an inflation rate of 2% being sustained.

In a case where the expected inflation rate rises, should the rate increase to +4.2%, the GDP gap needed to meet the CPI growth rate of 2% would narrow to 0%.

The above analysis underscores that it will be essential as a practical matter not only to break out of the negative GDP gap but to see an increase in the expected inflation rate if CPI is to steadily grow at 2%. Should we assume an expected inflation rate of +2% and +3%, the GDP gap needed to achieve a CPI growth rate of 2% would respectively be +5.8% and +3.1%.

**Phillips Curve Adjusted for Expected Inflation Rate** **Chart 3**



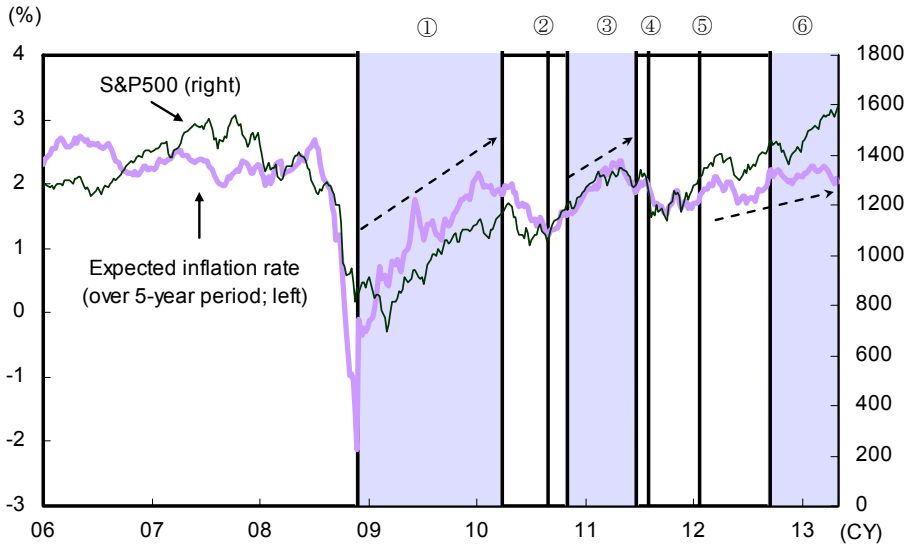

Source: Cabinet Office, Ministry of Internal Affairs and Communications; compiled by DIR.
Equation: CPI = 0.15 + 0.44 x INFEX + 0.17 x GDP gap (-3),
where CPI=y/y CPI excl. fresh food (adjusted for consumption tax hikes), INFEX=expected inflation rate, and the figure in parentheses=quarterly lag; adjusted R2=0.84.
Estimation period: Oct-Dec 1980 to Jan-Mar 2013.
Expected inflation rate through Jan-Mar 2004 based on Carlson-Parkin method; thereafter weighted average of expected inflation rate (Cabinet Office survey) adjusted for discontinuity.

### *Expected inflation rate has increased in the US through bold monetary easing*

Whether the expected inflation rate will increase in Japan can be viewed as a large-scale social experiment. The expected inflation rate, however, has increased in the US through the bold monetary easing of the Fed. As depicted in Chart 4, it is possible to infer that such bold monetary easing has had a certain effect on the expected inflation rate, such as through higher stock prices.

In Japan as well, raising the expected inflation rate of the financial market and ordinary citizens through such measures as the BOJ continuing to demonstrate its firm resolve toward achieving its inflation target and the government strengthening its growth strategies will remain an important pursuit.

**US Expected Inflation Rate and Stock Prices** **Chart 4**




| | | |
|---|---|---|
| 1 | QE1 | 25 Nov 2008 to end-Mar 2010 |
| 2 | Fed Chairman Ben S. Bernanke's speech at Jackson Hole | 27 Aug 2011 |
| 3 | QE2 | 3 Nov 2010 to end-Jun 2011 |
| 4 | Downgrade of US Treasury ratings | 05 Aug 2011 |
| 5 | Fed sets inflation goal | 25 Jan 2012 |
| 6 | QE3 | Started 15 Sep 2012 |

Source: Federal Reserve Board, Standard & Poor's Ratings Services, Haver Analytics; compiled by DIR.
Note: Expected inflation rate=Breakeven inflation rate (BEI) based on Treasury Inflation-Protected Securities (TIPS).

## 1.3 Quantitative analysis of Abenomics: Where is Japan's economy heading?

### *Quantitative analysis of Abenomics based on Daiwa's short-term macroeconomic model*

Where is Japan's economy about to head through Abenomics? Chart 5 provides an estimation based on Daiwa's short-term macroeconomic model of how Japan's economy would be affected by a weaker yen, higher stock prices, and a higher long-term interest rate.

### *The yen depreciating by 10% would boost GDP by about 0.3-0.5%, reflecting higher exports*

Should the yen depreciate, the export environment would turn upward, and corporate profits would improve, such as through higher sales. With the growth of sales and improved profits, companies would increase capex. Also, since a weaker yen would increase import prices, CPI would rise about 0.2 percentage points in the first year. The improvement in corporate profits would translate into higher wages, and higher stock prices would create a wealth effect. Personal consumption would therefore rise. Through such a route, the yen depreciating by 10% is estimated to boost GDP by about 0.3% to 0.5% compared to our base scenario.

### *TOPIX increasing 100 points would lift GDP nearly 0.1%, such as through higher consumption stemming from the wealth effect*

Should TOPIX increase 100 points, personal consumption would rise more than 0.1% from our base scenario through the wealth effect. This in turn would stimulate the economy as a whole. Moreover, higher stock prices would increase the market capitalization of companies and reduce the relative value of fixed assets. Thus, higher stock prices would also increase capex by a slight amount. Also, with the increase in consumption, imports would grow. As a result, TOPIX increasing by 100 points is estimated to lift GDP nearly 0.1% in the final analysis.

### *Long-term interest rate rising by 1% point would reduce GDP by about 0.2%*

When interest on funding is too high compared to the expected rate of return, companies will refrain from expanding production capacity, or they will consider substitute measures, such as making direct foreign investments. According to Daiwa's short-term macroeconomic model, should the long-term interest rate rise by 1 percentage point, capex would decrease around 1.5%. As a result, the long-term interest rate rising by 1 percentage point is believed to have the effect of reducing GDP by about 0.2% compared to our base scenario.

**Impact of Weaker Yen, Higher Stock Prices, Higher Long-term Interest Rate**
(% deviation from base scenario) **Chart 5**

| | | GDP | Personal consumption | Capex | Exports | Imports | CPI (y/y) |
|---|---|---|---|---|---|---|---|
| 10% depreciation of yen against dollar | 1st-yr | 0.30 | 0.08 | 1.13 | 0.51 | 0.26 | 0.21 |
| | 2nd-yr | 0.48 | 0.09 | 1.31 | 0.91 | -0.46 | 0.04 |
| | 3rd-yr | 0.40 | 0.03 | 1.39 | 0.85 | -0.61 | 0.08 |
| 100pt rise in TOPIX | 1st-yr | 0.09 | 0.13 | 0.00 | 0.00 | 0.06 | 0.00 |
| | 2nd-yr | 0.09 | 0.13 | 0.03 | 0.00 | 0.29 | 0.01 |
| | 3rd-yr | 0.08 | 0.12 | 0.04 | 0.00 | 0.27 | 0.01 |
| 1% pt rise in interest rate | 1st-yr | -0.21 | -0.04 | -1.39 | -0.01 | -0.48 | -0.00 |
| | 2nd-yr | -0.22 | -0.03 | -1.58 | -0.01 | -0.53 | -0.03 |
| | 3rd-yr | -0.18 | 0.00 | -1.58 | -0.00 | -0.45 | -0.04 |

Source: Compiled by DIR.

### *Weaker yen/higher stock prices likely pushed up GDP by around Y2 trillion in Jan-Mar 2013*

Since mid-November 2012, when the dissolution of the House of Representatives became all but certain, the yen has depreciated around Y20 (from about Y80/$ to Y100/$), and stock prices have risen 400 points in terms of TOPIX.

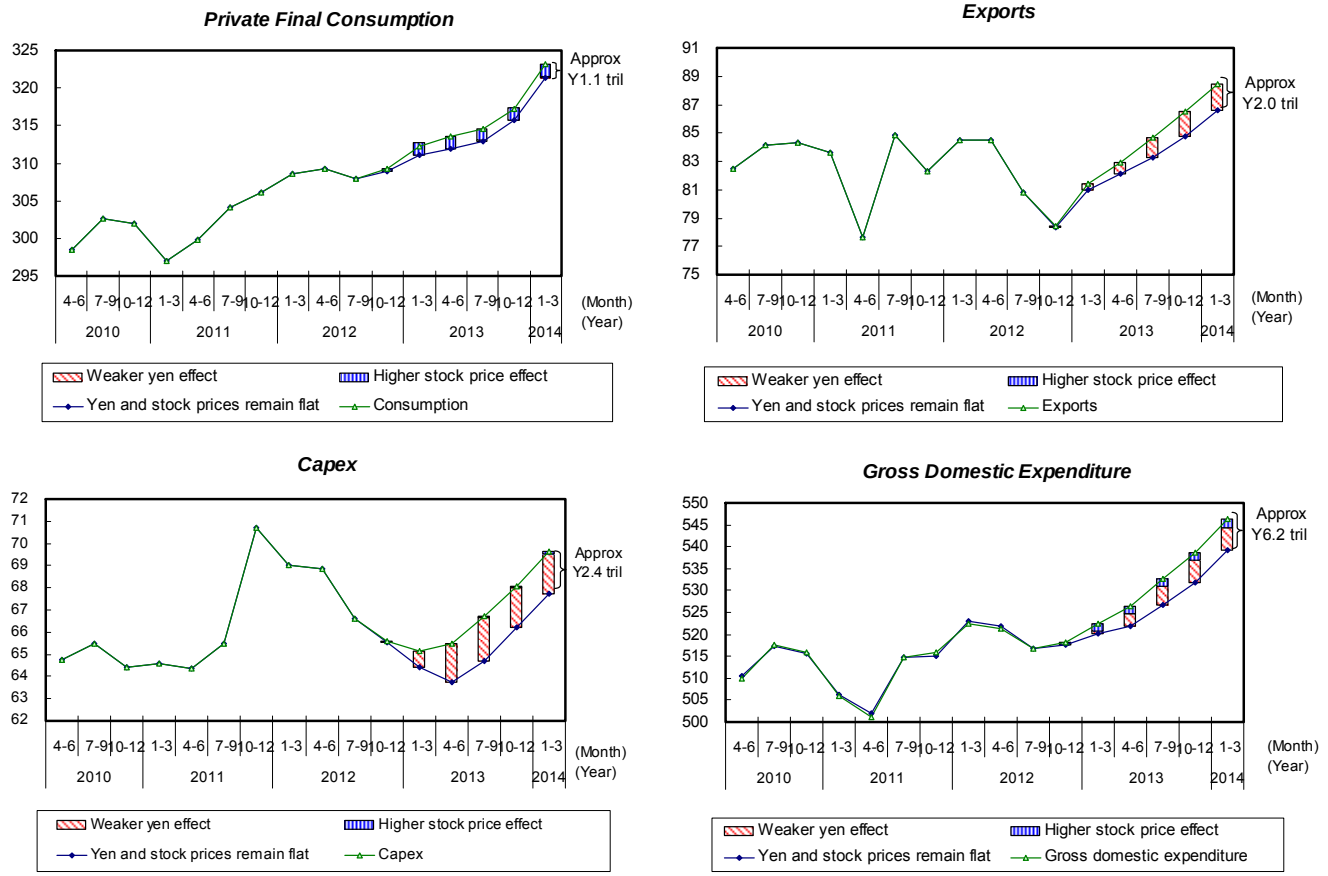
Chart 6 uses the simulation results of Chart 5 to compare the difference between the current base scenario and the case where the depreciation of the yen and the ascent of stock prices did not occur.

Of the depreciation of the yen and the ascent of stock prices to date, it is mainly higher stock prices that have augmented personal consumption by about Y1 trillion as of Jan-Mar 2013. Also, exports are beginning to rise through the depreciation of the yen, and capex is being supported by the improvement of corporate earnings and the upturn of business sentiment. Thus, we estimate that, compared to the case where the depreciation of the yen and the ascent of stock prices did not occur, GDP (here shown as gross domestic expenditure) grew around Y2 trillion in Jan-Mar 2013.

### *Effect of weaker yen/higher stock prices to grow further, pushing up the economy by around Y6 trillion as of end-FY13*

The effect of a weaker yen in increasing exports will gradually increase going forward. Since this will amplify capex, the effect of a weaker yen and higher stock prices will grow further. We estimate that, as of end-FY13, the depreciation of the yen and the ascent of stock prices will serve to boost GDP by around Y6 trillion.

**Impact of Weaker Yen and Higher Stock Prices** (deviation from base scenario; Y tril) **Chart 6**



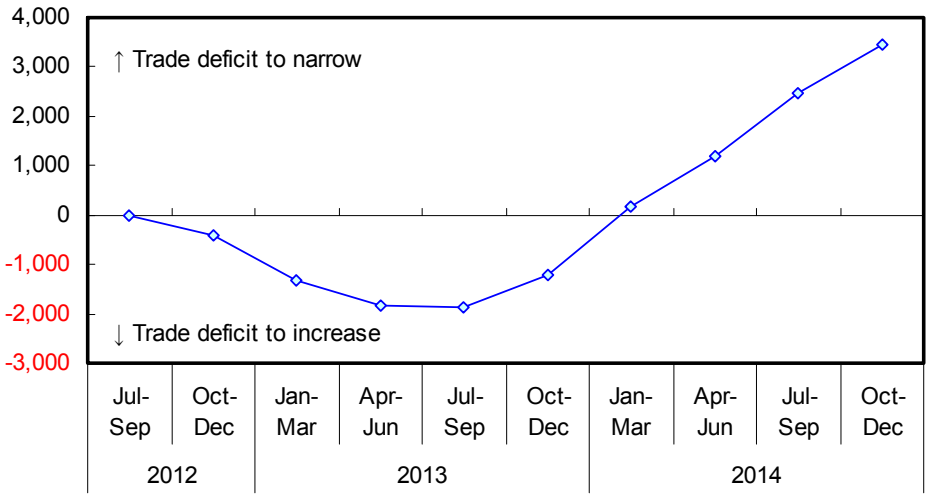

Source: Cabinet Office; compiled by DIR.
Note: Deviation estimated by DIR based on Daiwa short-term macroeconomic model when the yen depreciates from Y80/$ (base scenario) to Y100/$. Here, higher stock price effect corresponds to that accompanying yen depreciation.

### *Effect of weaker yen on the trade balance*

Chart 7 portrays the effect of a weaker yen on the trade balance based on Daiwa's short-term macroeconomic model. When the yen depreciates, the trade deficit will temporally widen due to higher import prices. Then, as export volume grows, export value will gradually increase, and the trade deficit will begin to narrow. This is the so-called J-curve effect. As shown in the chart, the depreciation of the yen since November 2012 is estimated to first widen the trade deficit (by Y200 billion at maximum). Beyond Jan-Mar 2014, however, the depreciation of the yen will work to narrow the trade deficit.

Economic observers who only draw attention to the drawbacks of a weak yen have become widespread in Japan in recent years. Such views, however, can hardly be called balanced. In the final analysis, what will be important is to compare and measure the benefits and drawbacks of a weak yen. Given Japan's export-led economic structure, it seems safe to say that the degree to which the yen has depreciated to date is having a greater positive than negative effect on the macroeconomy as a whole.

**J-curve Effect of Weaker Yen on Trade Balance** (Y100 mil) **Chart 7**




Source: Compiled by DIR.
Note: DIR estimate based on Daiwa short-term macroeconomic model for a case where forex moves toward a weaker yen than we assumed in *Japan's Economic Outlook No. 175*, Nov 2012 (Y80/$).

***Will positive effect of weaker yen/higher stock prices be offset by higher long-term interest rate?***

Instability has recently overtaken the JGB market. Despite the BOJ's increased purchases, JGB prices have become quite volatile. Should the long-term interest rate rise sharply and adversely impact Japan's economy, to what degree would this offset the positive effects of a weaker yen and higher stock prices?

Chart 8 shows the impact of changes in the yen exchange rate, stock prices, and the long-term interest rate on Japan's economy as annual averages. Our estimation indicates that the impact of the yen depreciating by 10% and TOPIX rising by 200 points would nearly be offset by the impact of the long-term interest rate increasing by 2 percentage points.

In other words, in terms of its impact on the economy for at least the next year or so, the likelihood is strong that the adverse effect of a higher long-term interest rate will be less than the positive effect of higher stock prices and a weaker yen. Should the yen and stock prices remain at their current levels (roughly corresponding to the scenario of 20% depreciation of the yen against the dollar and 400-point rise in TOPIX from the base scenario in the chart), the impact on Japan's economy will continue to be positive as long as the long-term interest rate does not rise around 4 percentage points.

***Adverse impact of higher long-term interest rate over the medium-/long-term warrants attention***

Our estimation above, however, indicates the average impact the economy would sustain in one year after the occurrence of the shock. Over the medium to long term, the contraction of capex accompanying a higher long-term interest rate would give way to the retrenchment of domestic production sites, raising concern that the hollowing out of Japan's economy would accelerate further. It is also worth recalling that, in the wake of the European sovereign debt crisis, financial markets and the real economy suffered adverse and discontinuous blows from plunging bond prices.

To conclude, while the adverse impact of a higher long-term interest rate on Japan's economy will be limited for the time being, the possibility should be entertained that, in the medium to long term, it will have a larger adverse impact than estimation results based on our short-term macroeconomic model.

**Impact of Further Depreciation of Yen and Rise in Long-term Interest Rate**
(% pt deviation from base scenario of *Japan's Economic Outlook No. 177*) **Chart 8**

| GDP | Base scenario | Long-term interest rate to rise by | | | |
|---|---|---|---|---|---|
| | | 1% pt | 2% pt | 3% pt | 4% pt |
| Base scenario | 0.00 | -0.21 | -0.42 | -0.63 | -0.84 |
| 10% depreciation of yen against dollar + 200pt rise in TOPIX | 0.38 | 0.17 | -0.04 | -0.25 | -0.46 |
| 20% depreciation of yen against dollar + 400pt rise in TOPIX | 0.76 | 0.55 | 0.34 | 0.13 | -0.08 |
| 30% depreciation of yen against dollar + 600pt rise in TOPIX | 1.15 | 0.94 | 0.73 | 0.51 | 0.30 |

| Capex | Base scenario | Long-term interest rate to rise by | | | |
|---|---|---|---|---|---|
| | | 1% pt | 2% pt | 3% pt | 4% pt |
| Base scenario | 0.00 | -1.39 | -2.79 | -4.18 | -5.57 |
| 10% depreciation of yen against dollar + 200pt rise in TOPIX | 1.13 | -0.26 | -1.65 | -3.04 | -4.44 |
| 20% depreciation of yen against dollar + 400pt rise in TOPIX | 2.27 | 0.87 | -0.52 | -1.91 | -3.30 |
| 30% depreciation of yen against dollar + 600pt rise in TOPIX | 3.40 | 2.01 | 0.61 | -0.78 | -2.17 |

| Personal consumption | Base scenario | Long-term interest rate to rise by | | | |
|---|---|---|---|---|---|
| | | 1% pt | 2% pt | 3% pt | 4% pt |
| Base scenario | 0.00 | -0.04 | -0.09 | -0.13 | -0.18 |
| 10% depreciation of yen against dollar + 200pt rise in TOPIX | 0.20 | 0.16 | 0.12 | 0.07 | 0.03 |
| 20% depreciation of yen against dollar + 400pt rise in TOPIX | 0.41 | 0.36 | 0.32 | 0.28 | 0.23 |
| 30% depreciation of yen against dollar + 600pt rise in TOPIX | 0.61 | 0.57 | 0.52 | 0.48 | 0.44 |

| CPI (y/y) | Base scenario | Long-term interest rate to rise by | | | |
|---|---|---|---|---|---|
| | | 1% pt | 2% pt | 3% pt | 4% pt |
| Base scenario | 0.00 | -0.00 | -0.00 | -0.01 | -0.01 |
| 10% depreciation of yen against dollar + 200pt rise in TOPIX | 0.21 | 0.21 | 0.21 | 0.21 | 0.20 |
| 20% depreciation of yen against dollar + 400pt rise in TOPIX | 0.43 | 0.43 | 0.42 | 0.42 | 0.42 |
| 30% depreciation of yen against dollar + 600pt rise in TOPIX | 0.64 | 0.64 | 0.64 | 0.64 | 0.63 |

| Nominal employee compensation | Base scenario | Long-term interest rate to rise by | | | |
|---|---|---|---|---|---|
| | | 1% pt | 2% pt | 3% pt | 4% pt |
| Base scenario | 0.00 | -0.08 | -0.16 | -0.25 | -0.33 |
| 10% depreciation of yen against dollar + 200pt rise in TOPIX | 0.36 | 0.28 | 0.20 | 0.12 | 0.03 |
| 20% depreciation of yen against dollar + 400pt rise in TOPIX | 0.72 | 0.64 | 0.56 | 0.48 | 0.40 |
| 30% depreciation of yen against dollar + 600pt rise in TOPIX | 1.09 | 1.00 | 0.92 | 0.84 | 0.76 |

| Corporate earnings | Base scenario | Long-term interest rate to rise by | | | |
|---|---|---|---|---|---|
| | | 1% pt | 2% pt | 3% pt | 4% pt |
| Base scenario | 0.00 | -2.05 | -4.10 | -6.14 | -8.19 |
| 10% depreciation of yen against dollar + 200pt rise in TOPIX | 6.45 | 4.41 | 2.36 | 0.31 | -1.74 |
| 20% depreciation of yen against dollar + 400pt rise in TOPIX | 12.91 | 10.86 | 8.81 | 6.76 | 4.71 |
| 30% depreciation of yen against dollar + 600pt rise in TOPIX | 19.36 | 17.31 | 15.26 | 13.22 | 11.17 |

Source: Compiled by DIR.

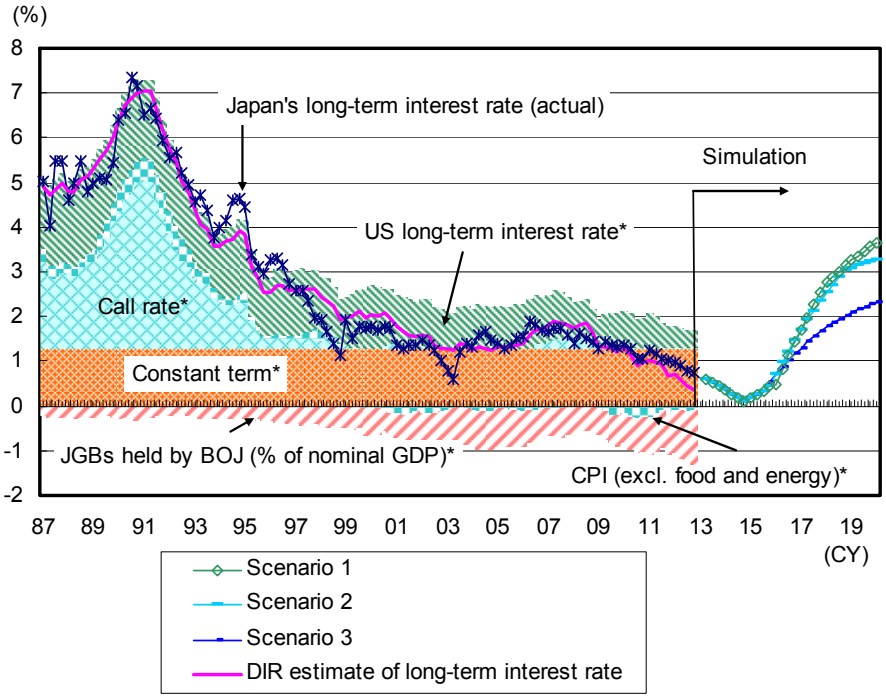
### *Simulation of long-term interest rate trend*

While there is risk that Japan's long-term interest rate will rise sharply in the future, since the BOJ will maintain its aggressive stance toward JGB purchases, we believe that the upside risk for the long-term interest rate is limited for the time being.

Chart 9 provides an estimation of the long-term interest rate going forward. Our simulation is based on the scenarios assumed by the government and the BOJ. With the BOJ making massive purchases of long-term JGBs, the long-term interest rate is expected to trend at a low level for the time being. For at least while quantitative and qualitative monetary easing is in place, downside pressure on the long-term interest rate from such monetary easing is estimated to be larger than upside pressure arising from the recovery of the economy and/or higher inflation.

Once quantitative and qualitative monetary easing comes to an end, however, upside pressure on the long-term interest rate has the potential of intensifying. With the achievement of its inflation target, the BOJ will switch to an exit strategy from quantitative and qualitative easing, and the balance of long-term JGBs held by the central bank will decrease sharply. Thus, the pace by which the long-term interest rate rises will be determined by the BOJ's exit strategy. Chart 9 simulates the BOJ's exit strategy according to three scenarios. Even with the relatively gradual Scenario 3, the long-term interest rate has the potential of greatly surpassing 2% in the future.

**Outlook for Japan's Long-term Interest Rate** **Chart 9**




Source: Bank of Japan (BOJ), Ministry of Internal Affairs and Communications, Cabinet Office, Bloomberg; compiled by DIR.

*Factors contributing to change in DIR estimate of Japan's long-term interest rate (% pt).
Note: Long-term JGBs held by BOJ through April 2001 estimated based on JGBs held by BOJ.

Estimation equations:
Yield on 10-yr JGBs = 1.29 + 0.46 x call rate + 0.18 x y/y CPI (excl. food and energy) - 0.06 x long-term JGBs held by BOJ (% of GDP) + 0.21 x yield on 10-yr US Treasuries; estimation period: Jul-Sep 1986 to Oct-Dec 2012.

Call rate = 0.89 x call rate (-1) + 0.11 x ([potential GDP growth rate + 2] +1.05 x GDP gap + 1.00 x [y/y CPI excl. food and energy -2]); estimation period: Jan-Mar 1985 to Oct-Dec 1995.

Assumptions for all scenarios:
1) CPI (excl. food and energy) to grow 2% y/y at end-2015 and remain flat thereafter.
2) Nominal and real GDP to grow through Jan-Mar 2015 on par with base scenario of *Japan's Economic Outlook No. 177*; thereafter the former to grow an annualized 3% and the latter an annualized 2%.
3) Call rate from Jan-Mar 2013 on par with the estimation result by the above call rate equation.
4) Call rate assumed to be 0.1% when CPI (excl. food and energy) growth rate falling short of 2% y/y.
5) Banknotes in circulation extended by trend.
6) Call rate to be flat at 0.1% before BOJ starts scaling down of its balance sheet.

Assumptions by scenario:
Scenario 1: BOJ will begin to implement exit measures in Jan-Mar 2016. The amount of long-term JGBs held by BOJ will match banknotes in circulation by Jan-Mar 2018. Then, BOJ will reduce such JGBs to the amount equivalent to half banknotes in circulation.
Scenario 2: The amount of long-term JGBs held by BOJ will match banknotes in circulation by Oct-Dec 2018. BOJ will hold the same amount of JGBs as banknotes in circulation.
Scenario 3: BOJ will reduce its holdings of long-term JGBs by 1% a quarter from Jan-Mar 2017.

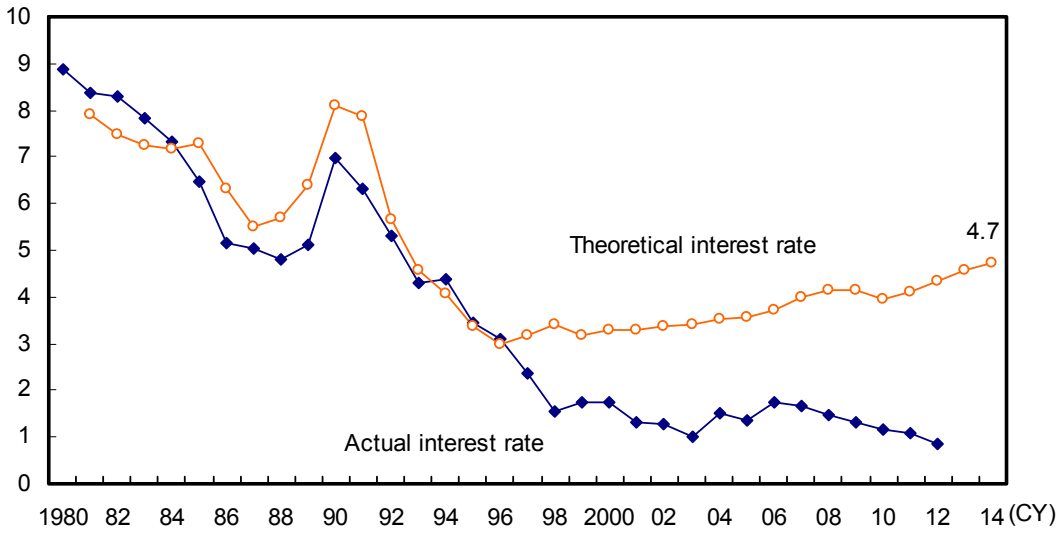
### *Risk that the long-term interest rate will approach 5% in the future*

In this section, we examine the level of the future long-term interest rate from a different angle.

Chart 10 presents an estimate of Japan's long-term interest rate obtained by extrapolating Japanese data by means of a long-term interest rate function derived from data for 21 member nations of the OECD excluding Japan. Stated another way, we sought to estimate Japan's long-term interest rate when the explanatory variable of the long-term interest rate and the long-term interest rate that is explained are similar in their relationship as that for other OECD nations. Our estimation uses the three variables of short-term interest, the ratio of general government debt to nominal GDP, and the GDP deflator.

The estimated long-term interest rate began to deviate from the actual rate from around 1997, and this deviation has tended to widen. The estimated rate is trending gradually upward and is figured to be 4.7% in 2014. In contrast, the actual rate has been about 1% since the second half of the 1990s. If the long-term interest rate in Japan is determined in a similar manner to the corresponding rate in OECD nations, we should constantly bear in mind that, given the massive level of government debt, the long-term interest rate has the potential of rising to nearly 5% in Japan. It is an undeniable fact, however, that low interest rates in Japan cannot be fully explained by the explanatory variables (short-term interest rate, general government debt, and the GDP deflator) that have a certain explanatory power for OECD nations. The estimation results should therefore be viewed with a certain amount of latitude.

**Japan's Theoretical Long-term Interest Rate Implied by Other Nations' Interest Rate** (%) **Chart 10**




Source: OECD; compiled by DIR.
Estimating equation for theoretical interest rate:
Long-term interest rate = 1.24 + 0.75 x short-term interest rate + 0.01 x outstanding balance of general government debt (% of nominal GDP) + 0.06 x GDP deflator (y/y).
Estimation period 1981-2011.
Significance of coefficients: 5%.
Coefficients derived from estimation results of long-term interest rates of 21 OECD nations (excl. Japan).

### *Higher long-term interest rate will have a profound adverse impact on government finances*

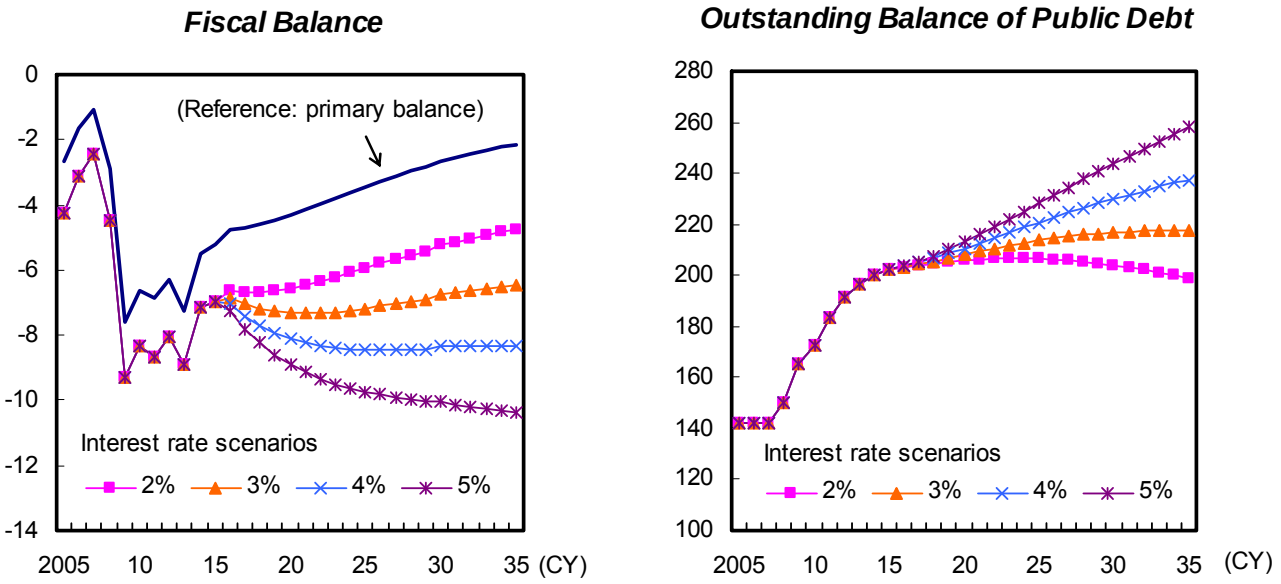
As noted above, the adverse effect of a higher long-term interest rate on Japan's economy will be limited for the time being. Should the long-term interest rate rise sharply, however, this will risk having a profound adverse impact on government finances in Japan.

Chart 11 estimates how changes in the long-term interest rate according to certain assumptions would influence the fiscal balance and the outstanding balance of government debt in Japan over the long term. Higher interest rates would worsen the fiscal balance through the ascent of interest paid. As a result, the fiscal balance would deteriorate the higher the interest rates rise, serving to increase the outstanding balance of government debt. The relationship between interest rates and government finances is frequently discussed in terms of the Domar condition (if the growth rate of nominal GDP is larger than the nominal long-term interest rate, government finances will remain at a sustainable level). In our calculations below, nominal GDP is assumed to grow at 3% over the long term. If the long-term interest rate is 3%, the fiscal balance is found to trend largely flat, a situation that is generally consistent with the Domar condition. Should the long-term interest rate trend at 3%, public finances would worsen gradually, and the ratio of public debt to nominal GDP would be 217% in 2035.

However, if the long-term interest rate is 4% or 5%, government debt would accumulate, and the ratio of public debt to nominal GDP would respectively rise to 237% and 258%.

Chart 11 is based on a calculation that does not factor in systemic or other changes. In addition, it does not consider how economic variables like the economic growth rate and interest rates interact with each other. Accordingly, calculation results will need to be viewed with a certain amount of latitude.

**Impact of Change in Long-term Interest Rate on Fiscal Balance and Public Debt** (% of nominal GDP)
**Chart 11**




Source: Cabinet Office, National Institute of Population and Social Security Research (NIPSSR); compiled by DIR.
Assumptions:
1) Nominal and real GDP to grow on par with base scenario of *Japan's Economic Outlook No. 177* for FY12-14; thereafter the former to grow an annualized 3% and the latter an annualized 2%.
2) Elasticity of tax revenue vs. GDP assumed to be 1.1; revenue other than tax extended by nominal GDP growth rate.
3) Debt servicing = outstanding balance of public debt x weighted avg of long-term interest rate and effective interest rate (previous fiscal year).
4) Per-retiree social security expenditure to increase by half per-capita real GDP for working generation.
5) Population grows on par with the medium-fertility and medium-mortality case projection in *Population Projections for Japan, January 2012*, NIPSSR.
6) Expenditure other than debt servicing and social security extended by nominal GDP growth rate.

### *Effect of higher interest rates on the financial system will be limited*

There is also concern that higher interest rates will adversely affect Japan's financial system.

The *Financial System Report* (April 2013 issue; BOJ) considers the impact of changes in interest rates on financial institutions. The report considers two cases, the steepening scenario (10-yr interest rates shift upward) and the parallel scenario (interest rates on all maturities shift upward). Of these two, the parallel scenario brought larger capital losses on bond holdings to financial institutions, as they have larger holdings of JGBs with short maturities—the margin of rise in short-term interest rates (the margin of slide in JGB prices) is large for the parallel scenario compared to the steepening scenario.

Meanwhile, the net interest income of financial institutions will improve in both cases. Since the yield on investments will respond to a greater degree to changes in market interest rates than the yield on funding, financial institutions will benefit from higher interest rates. In this regard, there is little difference between two scenarios.

Given the above analysis, the BOJ concludes that, should the steepening scenario materialize, the impact on financial institutions will be slight. In the case of the parallel scenario, if interest rates rise by around 1 percentage point (in other words, the yield curve shifts upward by 1 point), capital losses on bond holdings resulting from lower bond prices will be offset by higher net interest income. In contrast, if the yield curve shifts upward by 2 points or more, capital losses will be larger than net interest income. However, even if the yield curve shifts upward by around 3 points, capital adequacy will still exceed the regulatory level in terms of the Tier 1 ratio, and the effect on the financial system will be limited on the whole.

**Impact of Rises in Interest Rate on Banks** (Y tril) **Chart 12**

| | | Capital losses on bond holdings | | | Net interest income | | |
|---|---|---|---|---|---|---|---|
| | Pattern of interest rate rise | 1%pt | 2%pt | 3%pt | 1%pt | 2%pt | 3%pt |
| Internationally active banks | Steepening scenario | -1.7 | -2.1 | -3.6 | 3.9 | 4.0 | 4.2 |
| | Parallel scenario | -3.2 | -6.2 | -8.0 | 3.9 | 4.1 | 4.5 |
| Domestic banks | Steepening scenario | -1.9 | -2.8 | -4.2 | 3.5 | 3.6 | 3.7 |
| | Parallel scenario | -3.4 | -6.3 | -8.6 | 3.4 | 3.4 | 3.6 |

Source: Bank of Japan; compiled by DIR.
Notes: 1) Steepening scenario: 10-yr interest rates shift upward.
2) Parallel scenario: Interest rates on all maturities shift upward.

***Summary: Favorable economic conditions will be sustained for the time being, but there will be a need to address the budget deficit problem***

Finally, we present a summary of our preceding discussion. A quantitative analysis of the economic impact of Abenomics based on Daiwa's short-term macroeconomic model indicates that the positive effects coming from a weaker yen and higher stock prices will not be offset as long as the long-term interest rate does not rise substantially. Hence, current favorable economic conditions will be sustained for the time being. On the other hand, the Japanese government will need to address the medium- to long-term fiscal deficit problem with more resolve than before.

# 2. Three Issues Regarding Abenomics

## Three issues worrying Japanese citizens

### *(1) Fiscal discipline, (2) growth strategies, and (3) employee income*

In this section, we examine three issues regarding Abenomics, which, according to media reports, Japanese are concerned about. First, there is the risk that the government failing to maintain fiscal discipline will invite the triple blow of falling JGB prices, falling stock prices, and a falling yen. Second, Abenomics is currently centered on such stimulus measures as monetary policy and public works spending, and criticism is being widely voiced that medium- to long-term improvements in the nation's economic foundation and structural reforms are insufficient. Third, there is concern that employee income will not grow as inflation progresses.

Thus, going forward, the Abe administration will need to actively engage in: (1) the maintenance of fiscal discipline, such as by making fundamental reforms to the social insurance system, (2) the strengthening of comprehensive growth strategies, such as deregulation, participation in the Trans-Pacific Strategic Economic Partnership Agreement (TPP), and the reduction of the effective tax rate borne by corporations, and (3) the achievement of higher employee income where the pain is shared among the government, business, and labor.

## Issue 1: Maintaining fiscal discipline

### *Japan risks forfeiting the sustainability of government finances*

The first issue that Japanese are concerned about with respect to Abenomics is the risk that the government failing to maintain fiscal discipline will invite the triple blow of falling JGB prices, falling stock prices, and a falling yen.

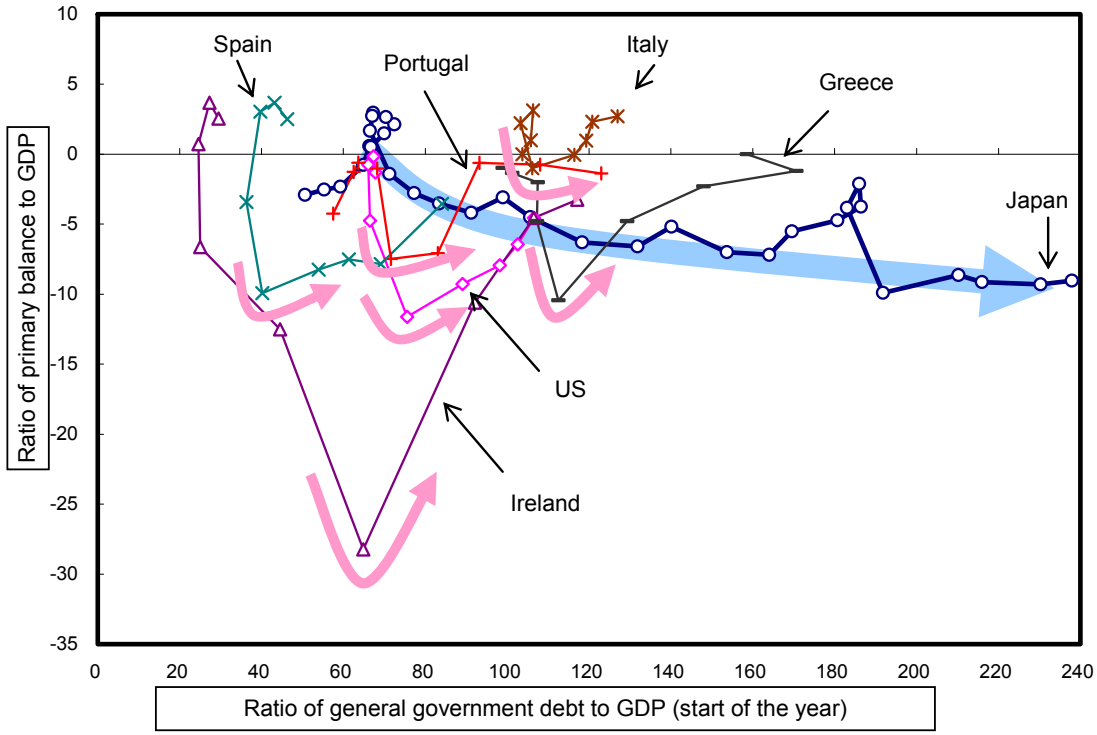
It hardly needs mentioning that government finances are facing a crisis in Japan. Chart 13 examines conditions for the sustainability of budget balances as formulated by Henning Bohn, professor of economics at the University of California.

Clearly, Japan's situation is far worse than that facing southern European nations. In the chart, the vertical axis shows the ratio of the primary balance to GDP and the horizontal axis the ratio of general government debt to GDP at the start of the year. In simple terms, a line graph rising to the right indicates that budget balances are sustainable, and a line graph falling to the right indicates that such balances are unsustainable. In other words, nations with line graphs rising to the right are those where the ratio of general government debt to GDP at the start of the year (budget balance on a stock basis; horizontal axis) is problematic, but, at the same time they are nations that are just about managing government finances in a way that promises improvement with respect to the ratio of the primary balance to GDP (budget balance on a flow basis; vertical axis). In contrast, nations with line graphs falling to the right are those where the ratio of general government debt to GDP is problematic, and, despite this situation, are also managing government finances in a reckless manner that will further worsen the ratio of the primary balance to GDP.

Southern European nations are positioned to the left of Japan in the chart, positioning clearly lower than Japan's place along the horizontal axis (ratio of general government debt to GDP at the start of the year). Also, the line graph for Japan is basically trending toward the lower right, which casts serious doubt on the sustainability of its budget balance. In contrast, European nations are generally trending to the upper right, and it is possible to say that their budget balances are sustainable, albeit only just.

The prospect of the European sovereign debt crisis spreading to Japan and giving way to a sharp decline in JGBs is not by any means remote. It will be important for the Japanese government to accept European sovereign risk as a valuable lesson and to work toward rebuilding government finances such as by raising the consumption tax.

**Primary Balance and General Government Debt** (% of GDP) **Chart 13**




Source: IMF; compiled by DIR.
Note: 1981-2013 for Japan and 2005-13 for others; IMF outlook for Japan and Portugal from 2011 and others from 2012.

***Reducing social security costs will be key to achieving sound government finances in Japan***

Increasing the consumption tax alone will be insufficient to achieve sound government finances in Japan and a substantial reduction in social security costs will be essential.

Chart 14 presents simulation results for the medium- to long-term fiscal balance. We developed seven scenarios comprising varying pairs of nominal and real GDP growth rates in Japan and then simulated the fiscal balance for different growth rates in social security costs under respective scenarios. The results are shown in terms of ratio of the primary balance to nominal GDP as of FY20. According to simulation results, even in Scenario 1 (optimistic one with nominal growth of 3.0% and real growth of 2.0%) for the medium- to long-term trend, social security costs will have to be reduced at an annual pace of 4% if the primary balance is to turn positive in FY20. Considering social security costs have been on an uptrend in recent years, a very high hurdle stands in the way of achieving a balanced primary balance in FY20.

**FY20 Primary Fiscal Balance** (% of GDP) **Chart 14**

| Scenario | | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| Nominal GDP | | +3.0% | +2.0% | +1.5% | +1.0% | +0.0% | -1.0% | -2.0% |
| Real GDP | | +2.0% | +2.0% | +1.0% | +1.3% | +0.6% | -0.1% | -0.7% |
| Social security expenditure | +4% | -3.0 | -3.4 | -3.9 | -4.1 | -4.8 | -5.6 | -6.4 |
| | +3% | -2.5 | -3.0 | -3.4 | -3.6 | -4.3 | -5.0 | -5.8 |
| | +2% | -2.1 | -2.5 | -3.0 | -3.1 | -3.8 | -4.5 | -5.2 |
| | +1% | -1.6 | -2.1 | -2.5 | -2.7 | -3.3 | -4.0 | -4.7 |
| | +0% | -1.2 | -1.6 | -2.1 | -2.2 | -2.8 | -3.5 | -4.1 |
| | -1% | -0.8 | -1.2 | -1.6 | -1.8 | -2.4 | -3.0 | -3.6 |
| | -2% | -0.5 | -0.8 | -1.2 | -1.4 | -1.9 | -2.5 | -3.1 |
| | -3% | -0.1 | -0.4 | -0.8 | -1.0 | -1.5 | -2.1 | -2.7 |
| | -4% | 0.3 | -0.1 | -0.5 | -0.6 | -1.1 | -1.7 | -2.2 |

Source: Compiled by DIR based on various materials.

**Major assumptions**

1) Consumption tax to rise by 3% pt in April 2014 and 2% pt in Oct 2015.
2) Figures in the table on central/local government basis; figures used for calculation are general government basis for employee compensation and central/local government basis for other.
3) Nominal and real GDP growth rates through FY15 estimated by DIR; thereafter as described in scenarios.
4) Elasticity of tax revenue vs. nominal GDP assumed to be 1.1.
5) Real revenues other than taxes extended based on nominal GDP growth rate.
6) Growth rate of social security expenditure through FY15 estimated by DIR based on "Estimation of Impact of FY13 Budget on Revenue and Expenditure in Following Years" (Ministry of Finance; available in Japanese).
7) Public gross fixed capital formation through FY14 estimated by DIR and assumed to grow at the same rate as nominal GDP thereafter.
8) Interest payment = outstanding balance of public debt (previous FY) x effective interest rate (previous FY) + increased portion of public debt x long-term interest rate.
9) Other expenditure extended based on nominal GDP growth rate.

## Issue 2: Strengthen growth strategy

### *Efforts such as deregulation, TPP participation, and corporate tax reduction currently insufficient*

The second issue that Japanese are concerned about with respect to Abenomics is that medium- to long-term improvements in the nation's economic foundation and structural reforms are insufficient at the present moment. Abenomics mainly consists of stimulus measures like public works spending and monetary policies. However, if the capacity for economic growth is to be strengthened in the medium to long term, efforts toward strengthening the third thrust—structural reform such as deregulation and participation in TPP—will be necessary. Other essential steps will be reducing the corporate tax, tax breaks for investing in growth sectors, and establishing an environment that promotes entrepreneurship. If Japan's economic foundations are not improved through such measures, there is concern that the ascent of share prices and depreciation of the yen will come to be just passing phenomena.

### *Japan's growth areas in terms of industrial structure*

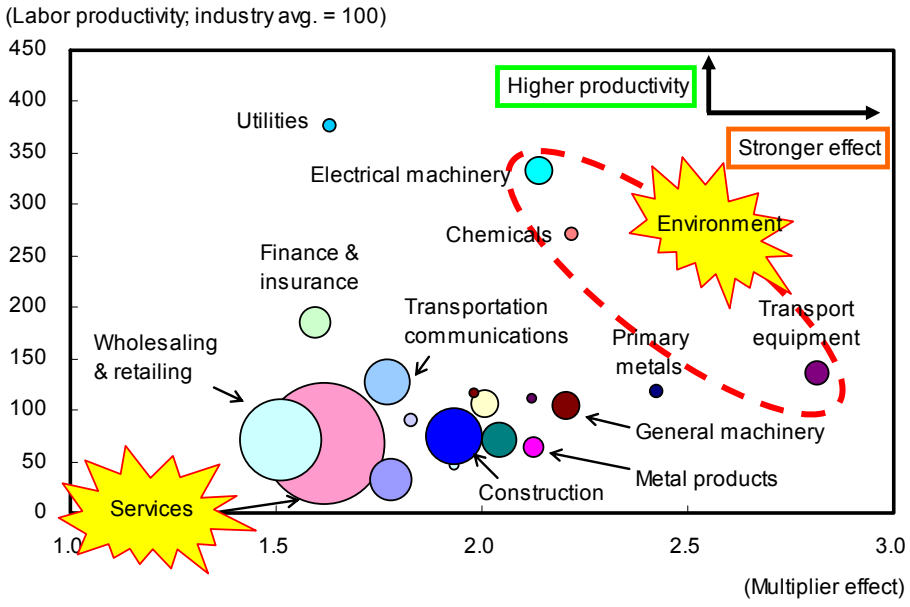
As illustrated in Chart 15, in view of Japan's industrial structure, priority areas are likely to be (1) the environment, which promises efficiency, ripple effects to other industries, and high growth prospects, and (2) services centering on health care and long-term care which have a large capacity to create jobs. In the chart, the size of circles indicates number employed. The capacity to create jobs is limited for environment-related industries (electrical machinery, chemicals, and transportation equipment). In addition, manufacturing industries only accounted for 18.8% of the number of employees in CY12.

Therefore, to increase jobs, it will be indispensable to stimulate services, centering on health care and long-term care (located in the lower left corner in the graph) by, for example, easing regulation regarding operating "special nursing homes" (social welfare facilities for the aged).

In growth strategy discussions, the pointless contest between manufacturing and non-manufacturing (services) industries or that between foreign demand and domestic demand often continues endlessly. While manufacturing industries and foreign demand promise efficiency and ripple effects to other industries, service industries and domestic demand have a large capacity to create jobs. Thus, the key to Japan's economic growth will be to first determine the potential advantages of each and then to implement strategies to fortify industries/demand on both sides as optimally as possible.

In implementing industrial policies, the government should provide funds, such as subsidies to specified areas, only on a limited basis. For example, in such areas as stem-cell research where it is difficult for the pure private sector to assume risk—areas where research periods are long and uncertainties large—some degree of government involvement to bring a pump-priming effect will be necessary. The basic approach, however, should be for the government to create an equal footing—to ease regulations to the maximum extent possible within the scope that does not cause harm and to expend maximum effort in laying the groundwork so the private sector can freely express its creative energies.

**Labor Productivity and Multiplier Effect** **Chart 15**




Source: Ministry of Economy, Trade and Industry; Cabinet Office; compiled by DIR.
Notes: 1) Multiplier effect: DIR estimate for some industries.
2) Size of circles indicates number employed.

***The key is increasing labor productivity of the non-manufacturing sector***

A major factor behind the persistence of deflation in Japan is the low labor productivity of the non-manufacturing sector which stems from a low capital-labor ratio, centering on IT-related investments. The capital-labor ratio of the industry is growing far more slowly than that of the manufacturing industry, and total factor productivity (a measure of technological progress) of the industry remains stagnant.

An important issue going forward will be raising labor productivity of the non-manufacturing industry such as by increasing its capital-labor ratio, centering on IT-related investments. Specifically, it will be worth considering policy incentives to promote IT-related investments in the industry. What will prove to be key are measures that will encourage the renewal of companies in the industry by fostering entrepreneurs, by developing domestic sites through the promotion of TPP, and by reforming the labor market.

***Tax reform conforming to international standards***

Going forward, an important task will be reforming Japan's tax system to be in conformity with international standards. With the progress of globalization, we have entered an age where the global harmonization of tax systems has become a desirable goal. For this reason, it will be essential to examine a suitable framework for Japan's tax system based on a thorough understanding of global tax reform trends.

The reduction of progressive tax rates (so-called flattening of tax rates) and the rising of income tax thresholds that were implemented as stimulus measures following the collapse of the asset bubble in Japan have led to a hollowing out of the income redistribution function through income tax. Japan's tax system also has many atypical features in international terms, such as a high corporate tax rate and low consumption tax rate.

As the basic direction for tax reform, it will be important to levy taxes on Japanese citizens broadly and lightly such as by expanding the tax base of the income tax, lowering income tax thresholds, and increasing the consumption tax rate. It will also become necessary to expand the tax base of the corporate tax and to reduce the tax rate to maintain economic vitality.

***Major transformation of agricultural policies***

The major transformation of agricultural policies will have a decisive effect on the question of whether or not to participate in TPP. The global trend of agricultural policies is to end price support policies for agricultural products and to support agriculture through direct payments by the government. Agricultural policies in Japan, however, have burdened consumers with the hidden cost of protecting agriculture by means of price support policies.

Learning from the global trend of agricultural policies, Japan should replace its price support policies with direct income support policies. Needed are policies that lower the prices of agricultural products and that lead to greater consumption and higher exports in the end. Rather than being a declining industry, agriculture is a growth industry with the potential of expanding greatly in the future. It would be truly unfortunate if Japan is forfeiting a major growth opportunity through the failed policies of the government.

## Issue 3: Increase employee income

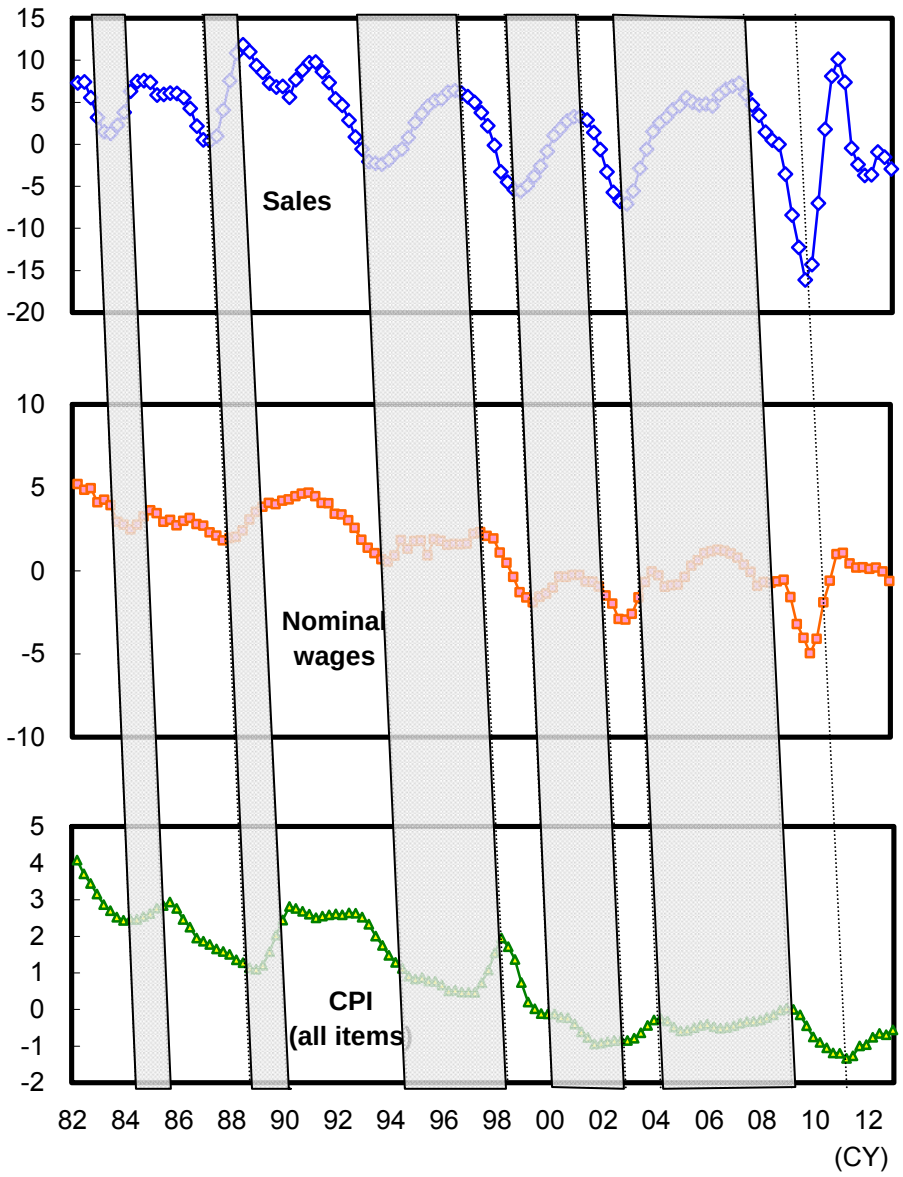
***Cycle seen where increase in sales is followed by higher wages and higher prices***

The third issue that Japanese are concerned about with respect to Abenomics is that, while inflation progresses, employee income might not grow.

However, as shown in Chart 16, an examination of the historical record discloses the existence in Japan of a cycle where an increase in sales is followed by higher wages and higher prices. In other words, about six to 12 months after sales increase, wages rise, followed by CPI after another six months. In its basic philosophy, Abenomics views the expansion of sales through monetary easing by the BOJ and through the pro-business policies of the government as the best approach for overcoming

deflation. Bearing the above cycle in mind, it is safe to say that Abenomics has chosen precisely the right target to aim for.

**Sales, Wages, and Prices** (y/y %) **Chart 16**




Source: Ministry of Finance, Ministry of Internal Affairs and Communications, Ministry of Health, Labour and Welfare; compiled by DIR.
Notes: 1) Y/y comparison of four-quarter moving average.
2) Shaded bars denote periods when sales were on uptrend. Bars tilted in order to show roughly 6-month lag from sales graph to nominal wages graph and from there to CPI graph, respectively.

### *Policies sought that will support transfer of income from corporate to household sector*

Nevertheless, with the progress of globalization since the 2000s there is some concern that sales have lost some of their leading character relative to wages. In other words, as global competition intensifies, there is a tendency among companies to accelerate the increase or decrease in employee wages. There is no doubting the need in policy terms to strengthen a transmission mechanism that will enable higher sales to propagate appropriately to wage increases.

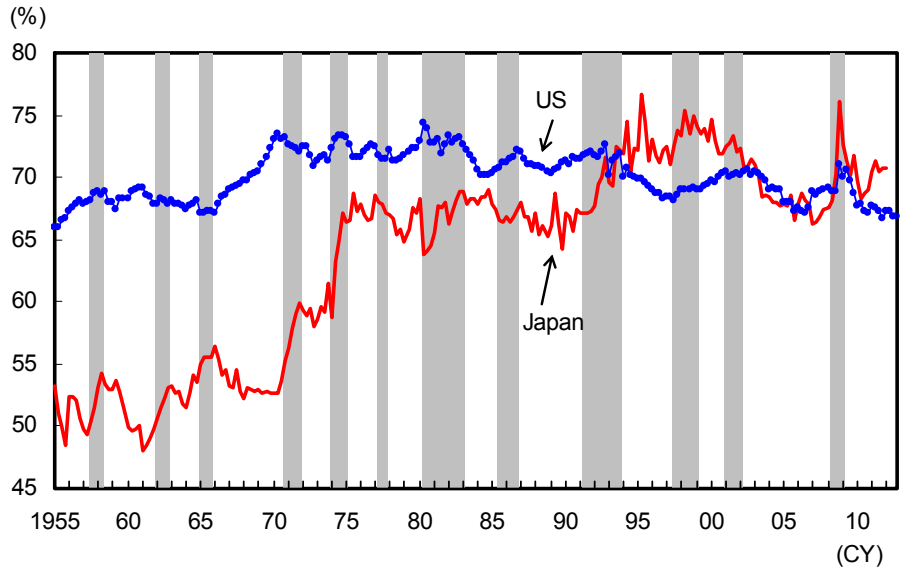
The Abe administration is planning to provide tax breaks to companies that increase the allocation of income to workers. While this policy can be commended to a certain degree, what is needed to strengthen the transfer of income from the corporate to household sector is a broader approach where higher wages are achieved by sharing the pain among government, business, and labor.

Due to an excessive preoccupation with averting unemployment during recessions, wage cuts became prevalent in Japan, and deflation has persisted. What is needed in the future is to have workers accept a greater degree of labor flexibility and to have companies actively increase wages in exchange. To encourage such developments, the government should support vocational training and workers' efforts to get jobs, provide tax breaks like that mentioned above, and support the restructuring of companies even more than before.

### *Labor's share not trending downward in Japan*

The view loudly proclaimed by some economists that labor's share is trending downward in Japan is a misinterpretation of the facts. Chart 17 portrays the long-term trend of labor's share in Japan and the US. The chart reveals that labor's share is trending upward in Japan in the medium to long term and that its current level exceeds that of the US. Because of the downward rigidity of wages, labor's share generally declines during economic expansion and advances during recession. In the years since 1990, labor's share in Japan surged temporarily when the economy worsened sharply following the collapse of an asset bubble and after the Lehman crisis but declined in subsequent economic expansion periods. It is not the case that it is on a downward trend. In other words, the sluggishness of employee income is not a problem related to the allocation of national income but is mainly the outcome of an economic pie that has not expanded.

**Long-term Trend of Japan and US Labor's Share** **Chart 17**




Source: US Bureau of Economic Analysis, Cabinet Office; compiled by DIR.
Notes: 1) Shaded areas denote economic downturns in Japan.
2) Due to discontinuity, Japan's labor's share adjusted based on 1990 SNA for 1955-79, 2000 SNA for 1980-93, 2005 SNA from 1994, and seasonally adjusted by DIR for 1955-79.

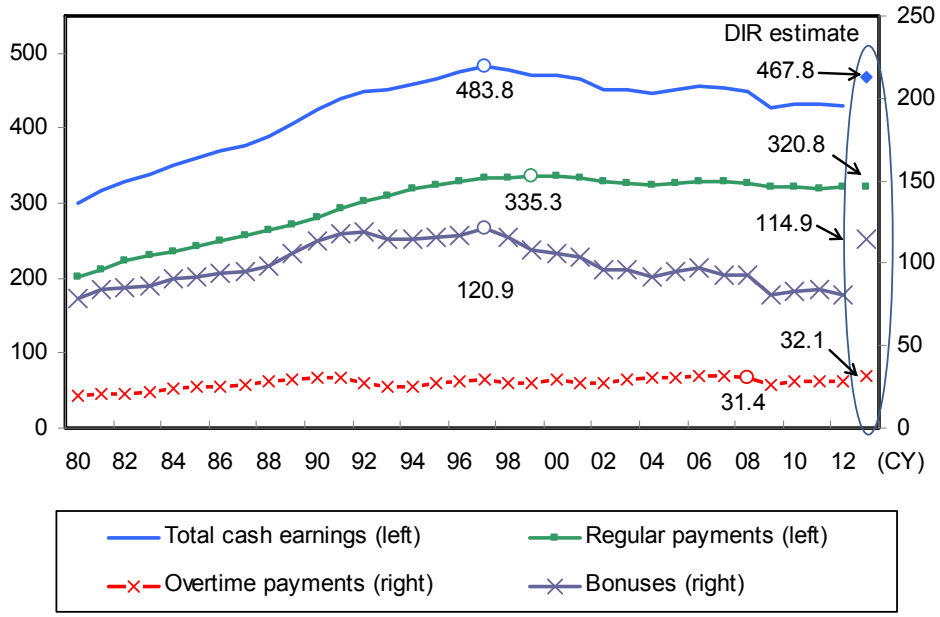
### *While wages expected to grow in cyclical terms, structural reforms necessary for stable growth*

Chart 18 provides a simulation of per capita wage trend incorporating the cyclical economic recovery initiated by Abenomics. With the depreciation of the yen, production and corporate earnings have improved, and bonuses and overtime payments are expected to rise in cyclical terms. Regular

payments, however, are continuing to decline, in large part owing to such structural factors as the stagnant labor productivity of the non-manufacturing sector and regulations restricting nursing care and social welfare businesses. Hence, hurdles to be overcome before we can see an increase in regular payments remain high. If an increase in regular payments cannot be counted on, there are limits to how high bonuses and overtime payments can rise, and, on this basis, total cash earnings are estimated to top out at Y4,678,000 annually, which is Y160,000 less than their all-time high.

To conclude, to achieve a sustained increase in wages, it will be insufficient to depend solely on the cyclical recovery of the economy. What will prove indispensable are the promotion of structural reforms and deregulation and an increase in regular wages.

**Estimation of Total Cash Earnings Per Employee, Assuming Regular Wage Not Increasing**
(Y10,000; annually) **Chart 18**




Source: Ministry of Health, Labour and Welfare; compiled by DIR.
Note: Circles denote highest ever payments.

# 3. Main Scenario for Japan's Economy

## 3.1 Japan's economy on a recovery path since November 2012

### *Japan's economy to continue to trace recovery path*

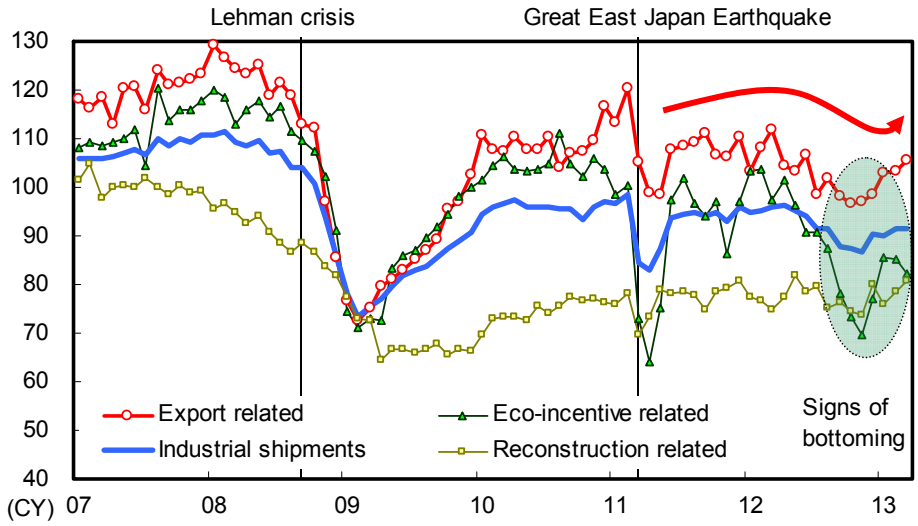
After peaking in March 2012, Japan's economy slipped into recession, impacted by the worsening of foreign economies. Since November 2012, however, the economy appears to be on a path toward recovery.

### *Economy to gradually gain momentum in FY13*

Chart 19 provides a breakdown of industrial shipments in Japan. Here we can verify the reasons for the economy slipping into recession after peaking in March 2012. First, eco-incentive-related shipments, in other words, domestic consumer durables that are eligible for eco-car tax breaks and eco-point programs, greatly slowed. In addition, export-related shipments declined on account of the sluggishness of foreign economies, centering on Europe and China. In contrast, reconstruction-related shipments, such as construction materials and capital goods (excl. transportation equipment) trended firmly for the most part. Thus, reconstruction demand appeared to be the sole source of support for Japan's economy.

Following the adverse impact of the expiration of eco-car tax breaks having run its course, eco-incentive-related shipments overall have greatly improved since end-2012. Automobile sales will likely remain steady going forward, reflecting the wealth effect accompanying the ascent of stock prices. Also, export-related shipments, the driver behind Japan's economy, are beginning to bottom. Furthermore, Japan's economy is expected to accelerate gradually in FY13, given that (1) reconstruction-related shipments have increased, (2) public works projects are expected to increase, following approval of the FY12 supplementary budget, and (3) front-loaded demand will likely emerge prior to the expected consumption tax hike in April 2014, supporting housing investment and personal consumption.

**Breakdown of Industrial Shipments** (2005 = 100) **Chart 19**




Source: Ministry of Economy, Trade and Industry; compiled by DIR.
Notes: 1) Eco-incentive related: Durable goods for the domestic market that are eligible for eco-car subsidies/tax breaks and eco-point programs.
2) Reconstruction related: Construction materials and capital goods (excl. transportation equipment).

### *Transition from domestic demand to foreign demand likely in FY14*

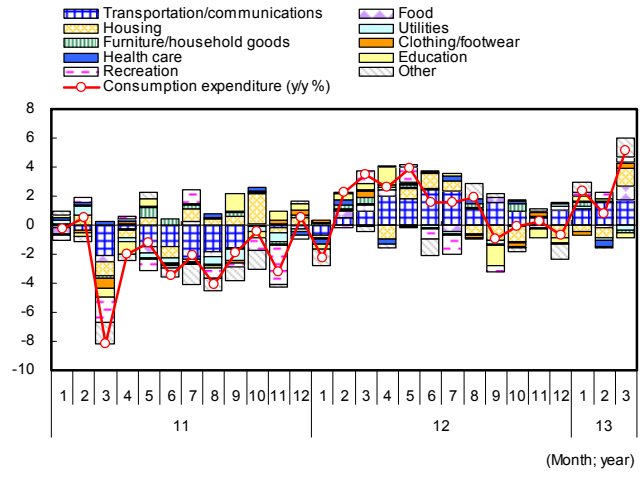
We believe that the driving force behind Japan's economy will shift from domestic demand to foreign demand in FY14. Following the likely consumption tax hike in FY14, domestic demand, centering on personal consumption and housing investment, is expected to slump temporarily. We, however, anticipate that exports will grow firmly for such reasons as (1) the expansion of foreign economies centering on the US and (2) the depreciation of the yen beginning to have a positive effect on export volume with a lag of about one year.

### *Personal consumption steady*

In the first preliminary estimate of Jan-Mar 2013 GDP, personal consumption increased 0.9% q/q, a rise for the second quarter in a row. At the same time, real employee compensation increased 0.5% for the first time in two quarters. However, the growth tempo of the former was larger than the latter, thanks to improved consumer sentiment. While a boost in sales of high-end products has often been reported in the media, Jan-Mar GDP data shows that personal consumption began to show a broad-based gain, regardless of type of goods/services.

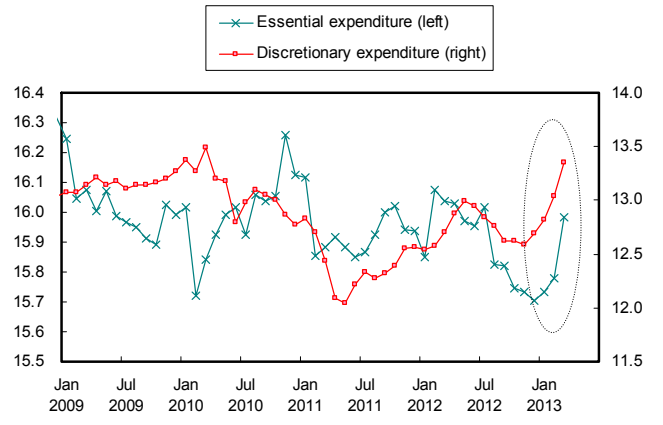
A breakdown of consumption expenditure (all households; real) is provided in Chart 20. Here we see that consumption is increasing for a broad range of items, such as "transportation and communications" supported by the firm sales of mini-vehicles and "food" driven by higher spending on eating out. Chart 21 examines personal consumption in terms of "discretionary expenditure" corresponding to luxury items and "essential expenditure" corresponding to basic items. March figures for consumption value indicate that essential expenditure has risen sharply, boosting overall consumption. As epitomized by the higher spending on eating out, it is quite probable that the improvement in consumer sentiment is gradually leading to the increased consumption of everyday items. Going forward, it may be important to monitor whether consumption as a whole expands rather than focusing on the trend of the consumption of big-ticket items.

**Real Household Consumption Expenditure**
(all households; y/y %) **Chart 20**




Source: Ministry of Internal Affairs and Communications; compiled by DIR.

**Household Consumption by Type of Expenditure**
(Y10,000) **Chart 21**




Source: Ministry of Internal Affairs and Communications; compiled by DIR.
Note: 3M MA; seasonally adjusted by DIR.

### *Capex likely to turn around in Apr-Jun 2013 and beyond*

In the first preliminary estimate of Jan-Mar 2013 GDP, capex declined 0.7% q/q, the fifth quarterly slide in a row, evidencing that companies have not softened their cautious attitude toward capex despite a likely improvement in the environment surrounding capex, such as improved earnings due to

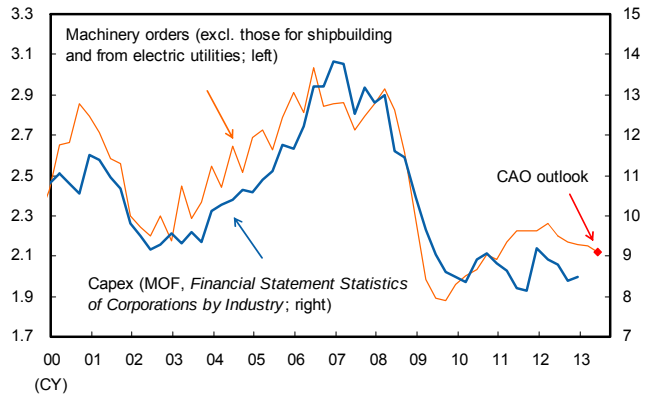
a weaker yen, and increased exports. However, we expect capex to turn around in Apr-Jun 2013 and beyond, driven by improved earnings and increased production, reflecting higher exports.

Accompanying steady exports, capex-related indices have been firm. First, as indicated in Chart 22, machinery orders (Cabinet Office [CAO]; private sector excl. those for shipbuilding and from electric utilities) posted the second consecutive m/m gain in March (up 14.2%), substantially overshooting consensus expectations (up 3.5%). In the forecast figures released along with the March figures, CAO projects that overall orders will fall 1.5% q/q in Apr-Jun 2013, a decline for the fifth consecutive quarter. However, this does not warrant an overly pessimistic view going forward, as manufacturing orders are projected to increase for the first time in seven quarters.

Second, as indicated in Chart 23, the expected growth of real demand (outlook for the next five years), which leads the ratio of capex to cash flow by around three quarters, has turned sharply upward. Given that (1) the ratio of capex to cash flow has dropped to a record low and that (2) net investments are negative since capex has fallen below depreciation, it is reasonable to think that capex will trend gradually upward.

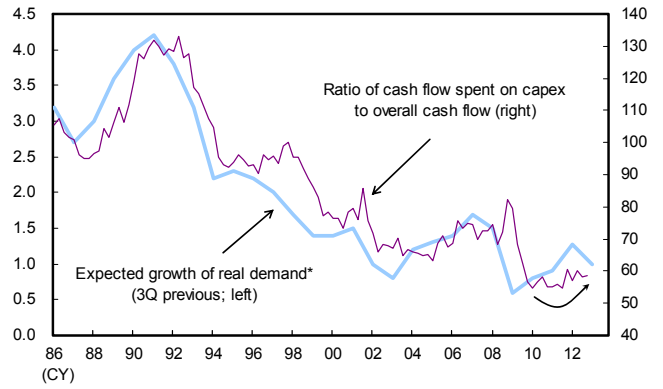
Also, in policy terms, the Abe administration has positioned the next three years as a period for promoting focused investments and has established the goal of seeing an increase in private capital expenditures from the current Y63 trillion to Y70 trillion. This is also expected to be a factor that will stem the decline of capex.

**Machinery Orders and Capex** (Y tril) **Chart 22**




Source: Cabinet Office (CAO), Ministry of Finance (MOF); compiled by DIR.

**Capex-Cash Flow Ratio and Expected Growth of Real Demand** (all industries; %) **Chart 23**




Source: Ministry of Finance, Cabinet Office; compiled by DIR.
*Outlook for the next five years; FY10 survey implemented before March 2011 quake/tsunami.

## 3.2 Three positives supporting Japan's economy

### *Positive 1: Pickup of the US and Chinese economies*

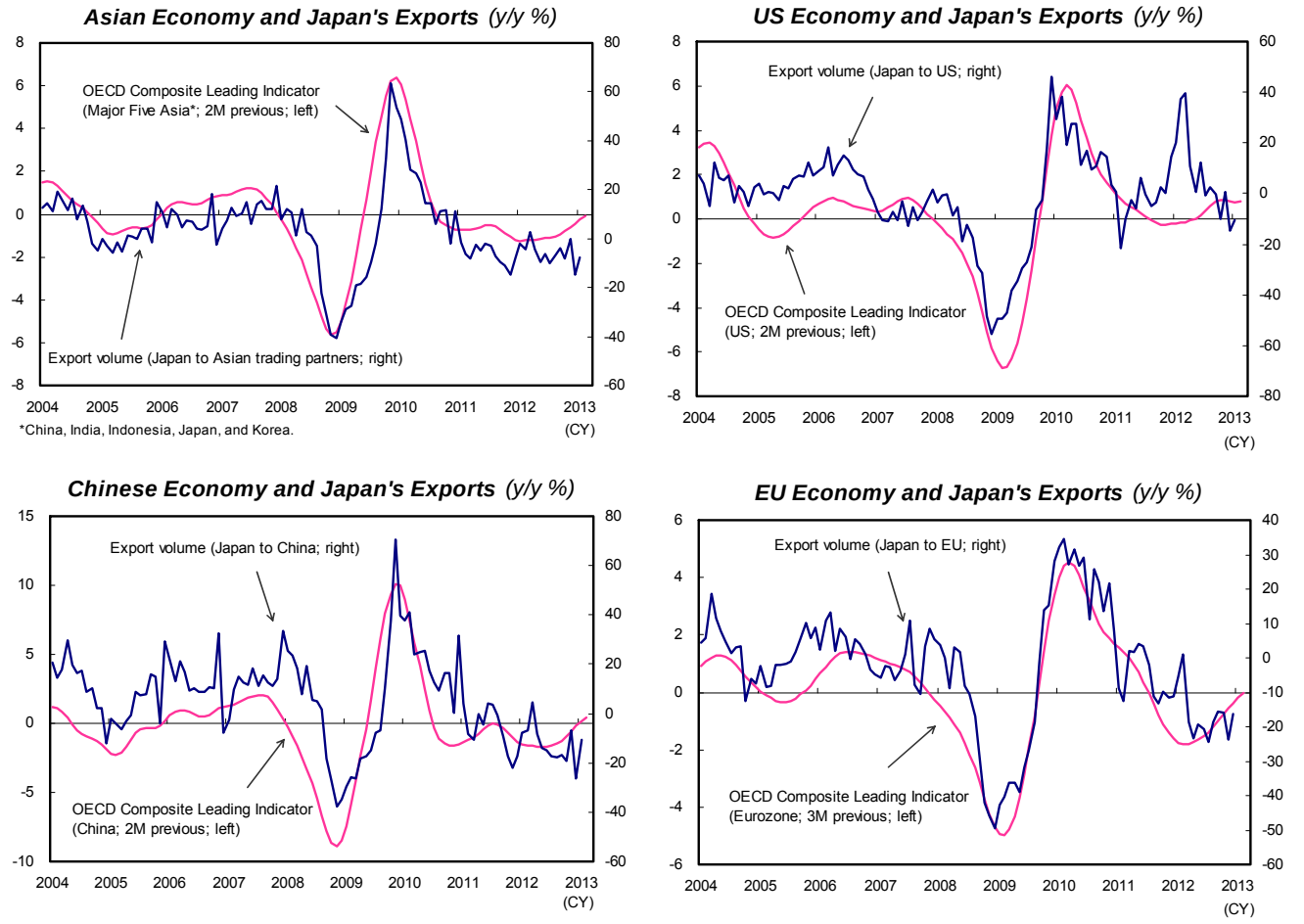
#### *Signs that foreign economies are gradually bottoming out*

As our main scenario, we believe that the expansion of Japan's economy will continue, supported by three factors: (1) pickup of the US and Chinese economies, (2) ongoing reconstruction projects and a large-scale supplementary budget, and (3) the ongoing depreciation of the yen/ascent of stock prices accompanying the BOJ's adoption of inflation targeting.

The first factor that will support Japan's economy going forward are prospects that foreign economies will recover centering on the US and China. Chart 24 illustrates the trend of Japanese exports by

trading partner. OECD Composite Leading Indicators (CLIs) for respective partners tend to lead the volume of Japanese exports to the corresponding region by two to three months. OECD CLIs of major regions are showing signs of gradually bottoming out, a positive development for Japanese exports. Regarding the direction of the world economy, we assume that (1) Eurozone economies will stagnate due to the sovereign debt crisis, (2) the US economy will slowly recover, and (3) China's economy will gradually improve, supported by the effects of fiscal and monetary measures.

**Japan's Exports by Trading Partner** **Chart 24**




Source: OECD, Ministry of Finance; compiled by DIR.

### *Three conditions determining long-term structural recession—possibility of the US experiencing so-called Japanization limited*

First of all, we would like to emphasize that the US is not slipping into a long-term structural recession similar to the Great Depression of the 1930s or Japan's Heisei recession. Chart 25 offers a comparison of the Great Depression, Japan's Heisei recession, and the current situation of the US and Europe. Currently in the US, (1) policy responses have been rapid, (2) the labor market is flexible, and (3) financial system uncertainties have abated. Hence, the three basic conditions determining a long-term structural recession shared by the Great Depression and Japan's Heisei recession are not presently seen in the US. Therefore, we believe that the US will avoid a long-term structural recession accompanied by a deflationary spiral (so-called "Japanization"). In the case of European nations, since (1) policy responses have been slow, (2) labor markets are rigid, and (3) financial system uncertainties remain, some attention should be given to the risk that Europe will slip into a long-term structural recession.

**Conditions Determining Protracted Structural Recession** **Chart 25**

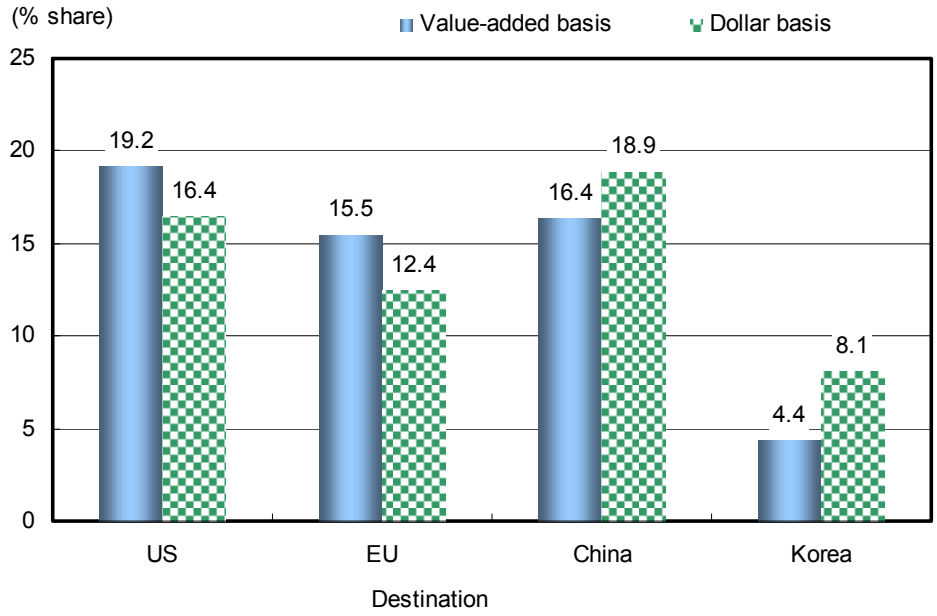
| | Great Depression | Heisei Recession | Current status of US economy | Current status of European economy |
|---|---|---|---|---|
| ① Failure of policy responses | ✓ | ✓ | X | 0 |
| ② Real wages remaining high resulting in prolonged stagnation of capex | ✓ | ✓ | X | 0 |
| ③ Impairment of financial system | ✓ | ✓ | X | 0 |

Source: Compiled by DIR.
✓=Yes, 0=to some degree, and X=No.

### *Recovery of the US economy will have major significance for Japan*

The recovery of the US economy will have major significance for Japan. Chart 26 compares the shares of exports from Japan by trading partner on a value-added basis and on a dollar basis. Comparing the situation for the US and China, the share of exports shipped to China is larger on a dollar basis, and that shipped to the US is larger on a value-added basis. This is an extremely interesting portrait of exports since it suggests the existence of a trade structure where Japan exports intermediate goods to China and other Asian trading partners, where these goods are assembled into finished goods that Asian economies export to European nations and the US, the source of final demand.

**Export of Goods from Japan by Destination** **Chart 26**




Source: OECD, Haver Analytics; compiled by DIR.
Note: Export of goods in 2009.

### *China's economy about to bottom out*

Next, we examine the future direction of China's economy. Supported by macroeconomic stimulus measures and regional public works spending, China's economy is foreseen to gradually improve for the time being. We believe that China's real GDP will increase 8.0% in 2013 and 7.5% in 2014.

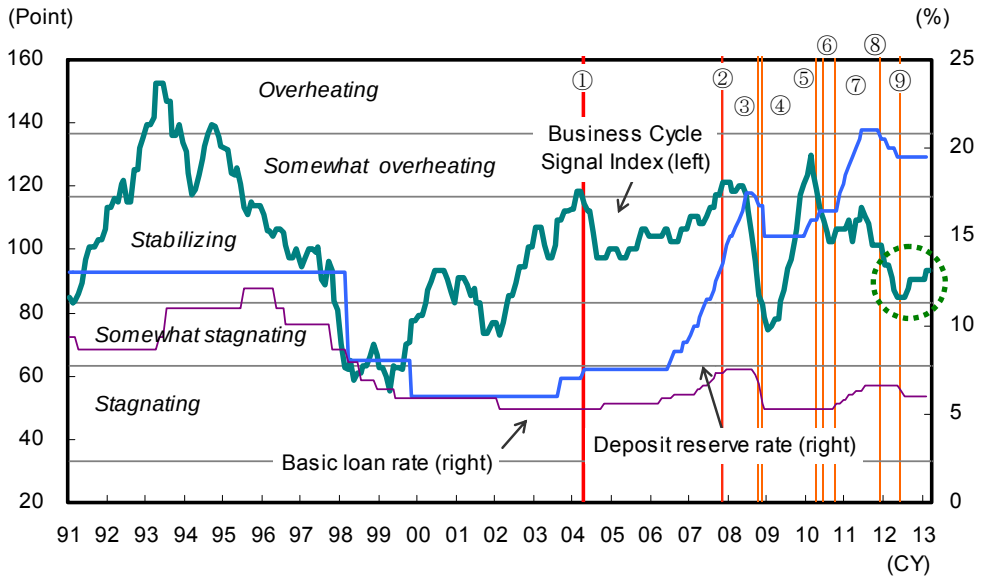
### *Business Cycle Signal Index to firm up gradually*

Chart 27 presents the Business Cycle Signal Index for China. According to this index, China's economy has slowed significantly. After peaking at 123.3 in February 2010, the index fell to 84.7 in August 2012, sinking to the low side of the stable zone between 83.33 and 116.66. Similar to previous instances when the economy has slowed to this extent, the authorities have implemented stimulus measures, such as monetary easing, since last year. As a result, the index is showing signs of rebounding.

### *Key phrases are "socialist market economy," "collective leadership," and "gradualism"*

China being a socialist market economy rather than a pure capitalist economy may also become a factor offering economic support for the time being. During the change in political leadership that occurs once every 10 years, and which we have just witnessed, it is natural for desires to come into play to circumvent as much as possible the rapid deceleration of the economy. There is no question that China is burdened with many medium- to long-term challenges. However, since its economy is not a pure capitalist system, problems can always be deferred for at least one or two more years one way or another. Politically speaking, collective leadership and a policy of gradualism should also be factors that will preclude a short-term relapse of the Chinese economy.

**China: Business Cycle Signal Index** **Chart 27**




Source: National Bureau of Statistics of China, People's Bank of China, CEIC Data; compiled by DIR.

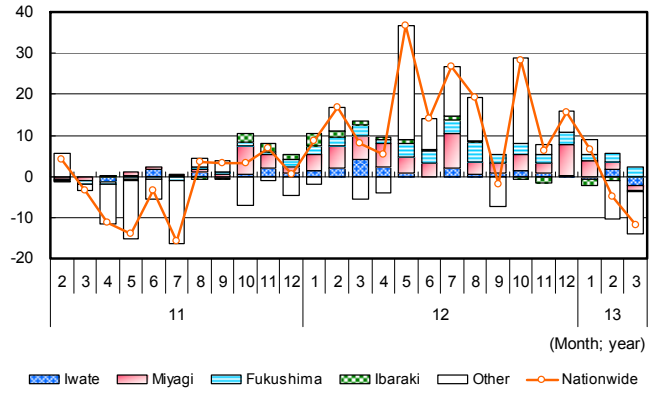
1. Apr 2004: Restrictions on aggregate loans strengthened
2. Oct 2007: Restrictions on aggregate loans strengthened
3. Oct 2008: Restrictions on aggregate loans eased
4. Nov 2008: Stimulus package of 4 tril yuan announced
5. Apr 2010: Real estate regulations strengthened
6. Jun 2010: More flexible regime for control of yuan exchange rate
7. Oct 2010-Jul 2011: Period of loan rate hikes
8. From Dec 2011: A series of deposit reserve rate lowering moves began
9. From Jun 2012: A series of loan rate cuts began

## *Positive 2: Reconstruction demand/large-scale supplementary budget*

### *Large-scale supplementary budget will support the economy*

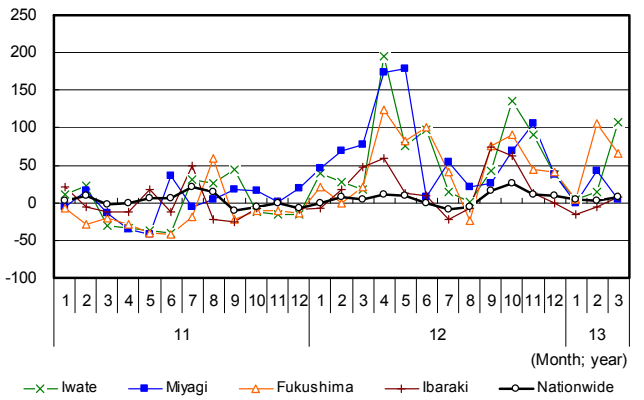
The second factor that will support Japan's economy going forward are prospects for the continuation of reconstruction projects related to the Great East Japan Earthquake and this being attended by the large-scale supplementary budget of the Abe administration. As shown in Chart 28, the yen amount of prepayment guarantees for public works projects has increased since 2H11, with a significant contribution being provided by increases related to the three disaster-affected prefectures. Public investment has decelerated to some extent but is very likely to accelerate again reflecting approval of the FY12 supplementary budget by the Diet at end-February 2013. Also, as shown in Chart 29, new housing starts by prefecture are continuing to grow firmly, centering on disaster-affected areas.

**Prepayment Guarantees for Public Works by Prefecture** (y/y %) **Chart 28**




Source: East Japan Construction Surety, West Japan Construction Surety, Hokkaido Construction Surety; compiled by DIR.

**New Housing Starts by Prefecture** (y/y %) **Chart 29**




Source: Ministry of Land, Infrastructure, Transport and Tourism; compiled by DIR.

### *Estimation of impact of reconstruction demand related to Great East Japan Earthquake and reconstruction surtaxes*

Chart 30 provides an estimation of the effect on Japan's GDP of developments related to reconstruction demand and also of reconstruction surtaxes. Given that the supplementary budget for FY12 has been factored into public works spending, GDP is anticipated to receive a boost of around 1.5% in FY13. At the present moment, higher public works spending is not causing the long-term interest rate to rise, and personal consumption, housing investment, and capex can be expected to increase as the economy expands.

**Impact of Reconstruction Demand and Change in Taxation on Real GDP** (% deviation from base scenario) **Chart 30**

| | FY11 | FY12 | FY13 | FY14 | FY15 |
|---|---|---|---|---|---|
| Real GDP | 0.1 | 0.9 | 1.5 | 0.4 | -0.3 |
| Household consumption expenditure | 0.0 | 0.1 | 0.3 | 0.2 | -0.4 |
| Private housing investment | 0.1 | 1.2 | 3.3 | 3.7 | 1.3 |
| Private capex | 0.1 | 1.2 | 3.2 | 3.3 | 0.9 |
| Government consumption expenditure | 0.0 | 0.0 | -0.1 | -0.3 | -0.4 |
| Public fixed-capital formation | 3.3 | 19.3 | 32.1 | 8.5 | 0.8 |

Source: Cabinet Office, media reports; compiled by DIR.
Notes: 1) DIR estimate based on Daiwa short-term macroeconomic model.
2) Income tax raised by 2.1% pt over 25 years from Jan 2013.
3) Inhabitants tax assumed to be raised Y1,000/person from Jun 2014.
4) 10% inhabitants tax reduction for those receiving retirement benefit abolished from Jan 2013.
5) Due to return to stricter child care allowance system (revival of income threshold for receiving allowance, etc.), aggregate income (incl. child care allowance) assumed to decline by Y0.5 tril a year from FY12.

### *Positive 3: Ongoing depreciation of the yen/ascent of stock prices accompanying BOJ's adoption of inflation targeting*

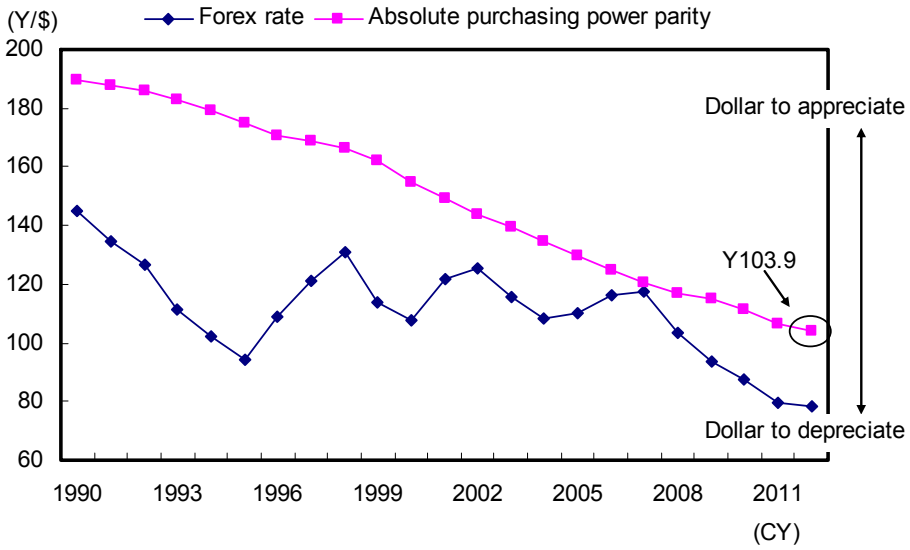
#### *Yen's depreciation against the dollar will continue*

The third factor that will support Japan's economy going forward is the ongoing depreciation of the yen and ascent of stock prices accompanying BOJ's adoption of inflation targeting. We anticipate the yen will gradually weaken against the US dollar. Also, in comparison to the real economy, it still cannot be said that stock prices are overvalued at their current levels.

It is reasonable to think that the ongoing gradual depreciation of the yen against the dollar will continue, considering (1) prospects that the BOJ will ease monetary policy further after the release of *Outlook for Economic Activity and Prices* in October 2013, (2) the Fed beginning to consider an exit strategy in light of the steady recovery of the US economy, (3) Japan's trade balance turning negative, and (4) limited criticism of the strong yen at G7 meetings for the time being.

Chart 31 depicts absolute purchasing power parity (PPP) of the yen against the dollar estimated by the OECD, which is currently Y103.9/$. Absolute PPP is a mechanism that shows the equilibrium level of prices for equivalent goods. Absolute PPP estimated by the OECD takes into account a broad range of goods and services that constitute GDP. However, it is not an indicator that shows the price trend of tradable goods, which should not be overlooked. However, absolute PPP should always be borne in mind as an indicator followed by global financial market participants.

**Absolute Purchasing Power Parity and Forex Rate** **Chart 31**



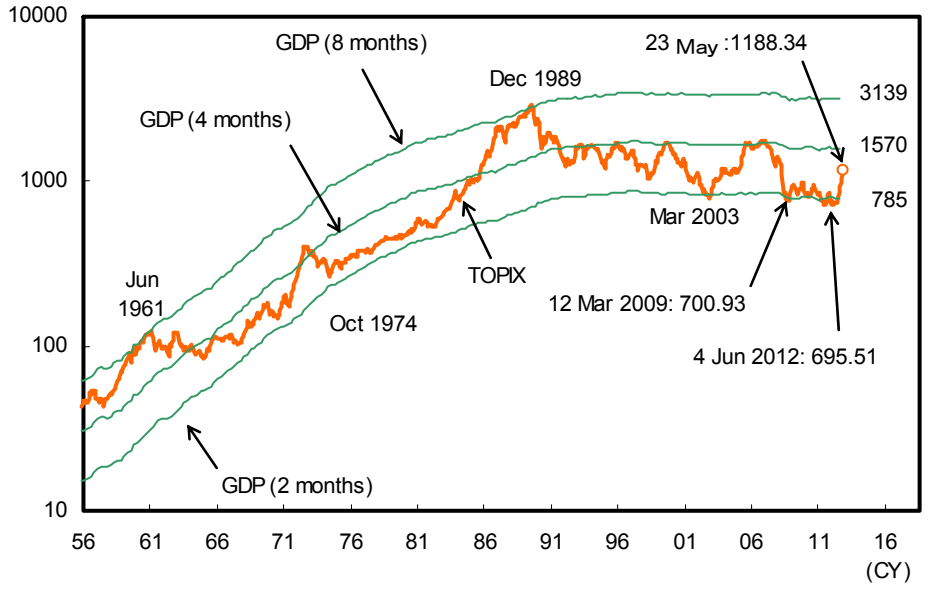

Source: OECD; compiled by DIR.

#### *Still hard to say that stock prices are overvalued*

Meanwhile, it is worth pointing out that, compared to the real economy, it still cannot be said that stock prices are overvalued at their current levels. Chart 32 illustrates the long-term trends of Japanese stocks and nominal GDP. In historical terms, Japanese stocks have traded within a band defined by nominal GDP for more than 50 years. In December 1989, when the asset bubble reached its peak, this band's upper limit became a ceiling for share prices. In October 1974 in the aftermath of the first oil crisis (Oct 1973-Mar 1974), in March 2003 in the midst of Japan's banking crisis, in March 2009 in the wake of the Lehman crisis, and in March 2011 immediately after the Great East Japan Earthquake,

stock prices found a floor at the GDP band's lower limit. In comparison to the nominal GDP trend, it is difficult to say that Japanese stocks are trading in an overvalued zone.

**TOPIX** (pt) **and Nominal GDP** (Y100 bil) **Chart 32**




Source: Cabinet Office, Tokyo Stock Exchange; compiled by DIR.

### *US stock market cycle shifting to profit-driven rally*

Abetted in part by bold monetary easing on the part of the Fed, the stock market cycle has turned upward in the US. This is also a positive development for Japanese stocks.

Chart 33 examines the US stock market cycle according to four categories derived from the direction of interest rates and stock prices. Normally, stock markets run through a cycle of (1) a liquidity-driven rally, (2) a profit-driven rally, (3) a correction prompted by higher interest rates, (4) a correction caused by lower profits, and back to (1) a liquidity-driven rally. We ascertained which of the four categories the stock market was in by assigning 1 point when either interest rates or stock prices rose m/m, by subtracting 1 point when either fell, by assigning 2 points when both rose together (a profit-driven rally), by assigning 0 points when they moved in opposite directions (a liquidity-driven rally or a correction prompted by higher interest rates), and by subtracting 2 points when they both fell (a correction caused by lower profits). It is frequently the case that stocks rise when interest rates are cut in the face of a worsening economy (1. liquidity-driven rally) and that they then rise further as earnings improve (2. profit-driven rally). Then, higher interest rates accompanying growing inflationary pressure (3. correction prompted by higher interest rates) or sluggish profits accompanying a worsening economy (4. correction caused by lower profits) come to weigh on stock prices.

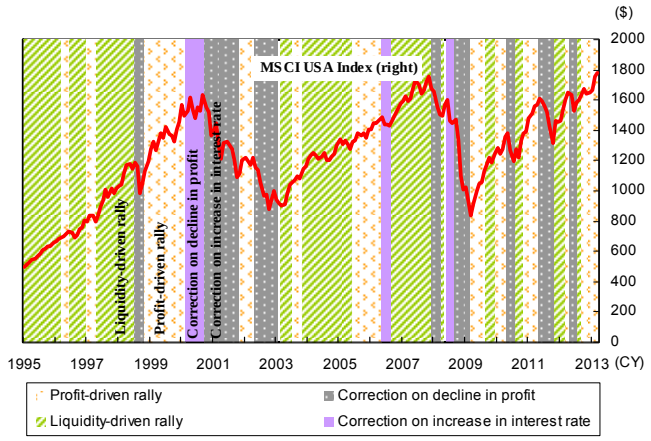
The stock market cycle in the US has shifted from being a liquidity-driven rally to a profit-driven rally. In view of prospects for the continued expansion of the US economy, it is reasonable to expect that upside opportunities will remain for US stocks for the time being.

### *Will monetary easing support stock prices in emerging economies?*

Moreover, policy interest rates were recently reduced in succession in such nations as Australia (7 May), South Korea (9 May), and Vietnam (10 May). Given this trend to lower interest rates, monetary easing can be anticipated to support stock prices in emerging economies going forward. Chart 34 illustrates the relationship between stock prices and real interest rates in emerging economies, which

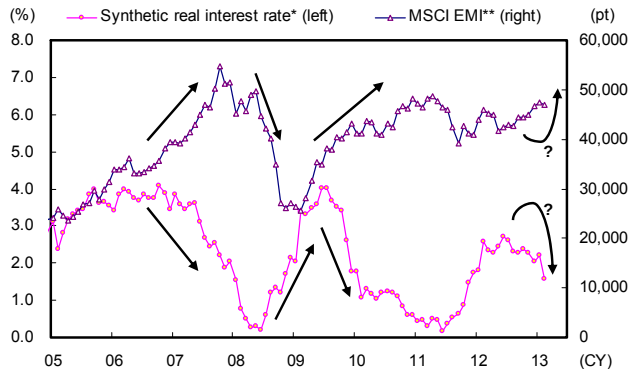
shows a weak inverse correlation. Since liquidity-driven rallies are beginning to appear in emerging economies, stock prices in such economies are foreseen to trend firmly for the most part.

**US Stock Market Cycle** **Chart 33**




Source: MSCI, Haver Analytics; compiled by DIR.
Note: Profit-driven rally and liquidity-driven rally estimated based on stock prices and long-term interest rate.

**Stock Prices vs. Interest Rate** (emerging economies) **Chart 34**




Source: MSCI, Haver Analytics; compiled by DIR.
*DIR estimate based on policy interest rates, which we deflated by prices and weighted by the real GDPs of ten emerging economies—Brazil, South Korea, Taiwan, and Thailand (deflated by core CPI), Russia, China, Hong Kong, Indonesia, Singapore (overall CPI), and India (overall WPI).
**MSCI Emerging Markets Index (home currency basis).

# 4. Risks Facing Japan's Economy

### *Four risks facing Japan's economy*

There are four risk factors facing Japan's economy: (1) any deepening of the European sovereign debt crisis, (2) any worsening of Japan-China relations, (3) the US fiscal issue, and (4) a surge in crude oil prices stemming from geopolitical risk.

### *In the worst case, an impact comparable to the Lehman crisis*

Of risks (1) to (4) above, there is no question that the greatest tail risk is (1). Chart 35 depicts the results of simulating the impact of the European sovereign debt crisis on Japan's economy. Specifically, we established three scenarios for the size of the haircuts given to the sovereign debt of European nations and calculated the core capital shortfall that major European banks would face in each scenario. We then estimated how the resulting credit crunch would influence the world economy, factored in a possibility of yen appreciation from the base scenario in our current outlook because of less alternative currency selection, and calculated how Japan's real GDP would be affected. In the worst case (Case 3), Japan's real GDP has the potential of experiencing downward pressure of more than 4%. It goes without saying that calculation results will need to be viewed with considerable latitude. Even so, should the European sovereign debt crisis see any worsening, such as by Greece leaving the euro, there is risk that Japan would sustain a blow comparable in size to the Lehman crisis.

**Impact of European Sovereign Debt Crisis on Japanese Economy** **Chart 35**

| | % discount of respective nation's sovereign bonds | | | | | | European banks | | Impact | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Belgium | Greece | Ireland | Italy | Portugal | Spain | Tier 1 capital shortfall (€ 100 mil) | Risk asset write-off matching half capital shortfall (% of overall risk assets) | Bank loans worldwide ($) | Nominal GDP worldwide ($) | Japan's real GDP (yen) |
| Case 1 | 0% | 60% | 40% | 10% | 40% | 10% | **1,274** | **7.0%** | -1.7% | -1.6% | **-0.6%** |
| Case 2 | 15% | 80% | 50% | 30% | 50% | 30% | **2,233** | **13.9%** | -3.4% | -3.2% | **-2.2%** |
| Case 3 | 30% | 100% | 60% | 50% | 60% | 50% | **3,240** | **24.9%** | -6.0% | -5.7% | **-4.1%** |

Source: World Bank, European Banking Authority, Cabinet Office; compiled by DIR.
Assumptions: 1) Ratio of risk asset write-off to overall risk assets corresponds to that of loan cutbacks to overall loans.
2) Case 1: the yen remains flat; Case 2: 5% appreciation; Case 3: 10% appreciation; all against the dollar.
Note: Estimated based on elasticity approach, which warrants some latitude.

# 5. Supplement: Alternative scenarios

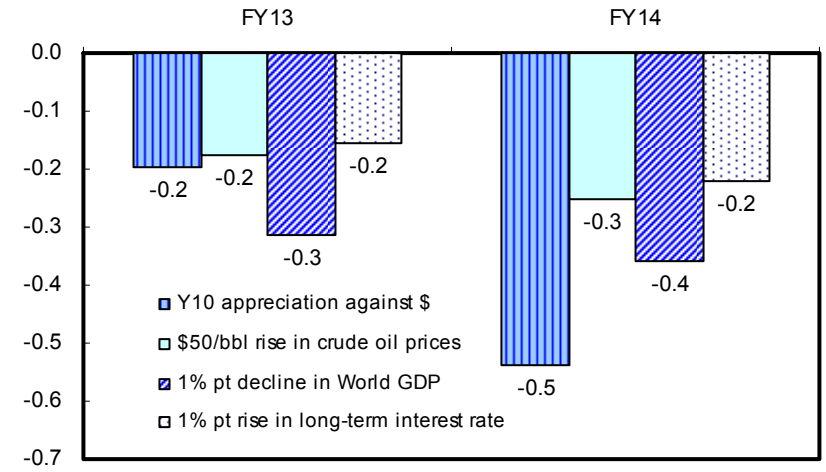
Here, we estimate likely economic effects from changes in our assumptions. The assumptions and effects of alternative scenarios are shown in the two charts below. We assumed alternative scenarios might emerge from Jul-Sep 2013.

**Standard and Alternative Scenario Assumptions** **Chart 36**

| | Standard | | Alternative |
|---|---|---|---|
| Case 1: Forex rate | Y100/$ in both FY13 and FY14 | → | Y10 appreciation against $ |
| Case 2: Crude oil prices (WTI futures) | $95/bbl in both FY13 and FY14 | | $50/bbl rise |
| Case 3: World GDP | +2.9% in CY13 and +3.7% in CY14 | | 1% pt decline |
| Case 4: Long-term interest rate | 0.88% in FY13 and 1.05% in FY14 | | 1% pt rise |

Source: Compiled by DIR.

**Effects on Real GDP**
(percentage-point change from standard scenario) **Chart 37**




Source: Compiled by DIR.

## Case 1: Yen appreciation

Appreciation of the yen could result in a decline in exports via weakened price competitiveness, which in turn would curb the production of export industries (electrical machinery, transportation equipment) and operations of related non-manufacturing industries (transportation, electric utilities, commerce), resulting in lower sales and profits, reducing cash flow, and depressing the expected economic growth rate. Thus, capex would be restricted. Meanwhile, lower import prices (reflecting a stronger yen) would reduce general domestic prices, meaning lower prices of corporate and consumer goods. Thus, although the real purchasing power of households would increase, a stronger yen could adversely affect consumption because the decline in corporate profits could impact households through deterioration in the employment and income environment. However, considering the long time lag before effects on consumption are felt, the likely impact within our simulation period would be minimal. If the yen appreciates as indicated in our alternative scenario, real GDP is forecast to shrink 0.2 and 0.5 points in FY13 and FY14, respectively, compared to our standard scenario.

## Case 2: Surge in crude oil prices

If crude oil prices rise by $50/bbl above our standard scenario, real GDP is forecast to shrink 0.2 and 0.3 points in FY13 and FY14, respectively, compared to our standard scenario.

Higher crude oil prices would increase the import deflator, which would increase nominal import value, a drag on net export value. This would lower nominal GDP. At the same time, higher oil prices would increase energy prices and push up the prices of final goods through higher material prices. This would lower the real purchasing power of the household sector and depress personal spending.

Higher material costs would lower corporate profits, leading to a slowdown in capex. Weakened business sentiment would negatively affect capex the following year. Meanwhile, lower corporate profits would worsen employment and income conditions, dampening consumer sentiment. This would also depress personal spending.

## Case 3: Contraction of world GDP

If world demand (GDP) contracts 1 point from our standard scenario, Japan's real GDP would shrink 0.3 and 0.4 points in FY13 and FY14, respectively, compared to our standard scenario.

A slowdown in world demand would reduce exports from Japan, and the lower sales of the manufacturing sector would worsen corporate profits. Also, the decline of production activities in the manufacturing sector would spread to the non-manufacturing sector and would broadly undermine corporate profits. In addition to the decrease in corporate profits, capex would diminish due to a lower capacity utilization rate stemming from the waning of industrial production and due to the growing sentiment of excess capacity. Moreover, the decrease in corporate profits would place downward pressure on wages, and demand in the household sector in the form of personal consumption and housing investment would falter with a lag. Should such a situation arise, imports would also contract from the decrease in domestic demand.

## Case 4: Higher interest rates

If long-term interest rates rise 1 point above our standard scenario, real GDP would contract 0.2 points in both FY13 and FY14, compared to our standard scenario. Increased fund-raising costs due to higher interest rates would curb capex and housing investment. Such an adverse impact would accelerate once it took hold.

The direct impact on companies and households would depend on the amount of net interest-bearing liabilities. In the case of households, interest-bearing assets have exceeded interest-bearing liabilities. Consequently, higher interest rates would likely mean an increase in household income, which in turn would increase household consumption, assuming the propensity to consume remains unchanged.

As in the other cases, we did not allow for changes in the external environment when estimating the impact of higher interest rates. Interest rates do not usually rise independently, but increase in response to economic recovery or a shift to a positive economic outlook. In such instances, the expected rate of inflation also increases, which restricts the rise of real interest rates. As a result, the marginal return on investment (difference between return on investment and real interest rates) remains unchanged, which is not particularly negative for capex. It is therefore possible that our simulation overemphasizes the adverse effects of higher interest rates.

However, increases in long-term interest rates due to worsening of the fiscal balance (owing to economic stimulus measures and other fiscal commitments to spending) translate into crowding out of

capex and housing investment. Thus, the impact of higher interest rates on the economy would likely be similar to that of our simulation.

## Simulation Results — Chart 38

| | Standard Scenario | | Case 1 Y10 appreciation against $ | | | | Case 2 $50/bbl rise in crude oil prices | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | FY13 | FY14 | FY13 | | FY14 | | FY13 | | FY14 | |
| Nominal GDP (Y/y %) | 3.0 | 2.0 | 2.5 | (-0.5) | 1.6 | (-0.8) | 2.6 | (-0.4) | 2.1 | (-0.3) |
| **Real GDP (Chained [2005]; y/y %)** | **3.1** | **0.7** | **2.9** | **(-0.2)** | **0.4** | **(-0.5)** | **3.0** | **(-0.2)** | **0.7** | **(-0.3)** |
| GDP deflator (Y/y %) | -0.2 | 1.3 | -0.5 | (-0.3) | 1.2 | (-0.3) | -0.4 | (-0.2) | 1.4 | (-0.1) |
| All-industry Activity Index (Y/y %) | 2.5 | 2.4 | 2.2 | (-0.3) | 2.2 | (-0.5) | 2.4 | (-0.1) | 2.4 | (-0.1) |
| Industrial Production Index (Y/y %) | 4.3 | 5.8 | 2.9 | (-1.4) | 5.1 | (-2.0) | 4.1 | (-0.2) | 5.5 | (-0.5) |
| Tertiary Industry Activity Index (Y/y %) | 1.8 | 1.6 | 1.7 | (-0.2) | 1.5 | (-0.3) | 1.8 | (-0.0) | 1.6 | (-0.0) |
| Corporate Goods Price Index (Y/y %) | 1.7 | 3.3 | 0.7 | (-1.0) | 2.9 | (-1.3) | 3.0 | ( 1.2) | 3.0 | ( 0.9) |
| Consumer Price Index (Y/y %) | 0.3 | 2.9 | 0.2 | (-0.2) | 2.8 | (-0.3) | 0.5 | ( 0.2) | 2.8 | ( 0.1) |
| Unemployment rate (%) | 4.1 | 3.9 | 4.1 | (-0.0) | 3.9 | ( 0.0) | 4.1 | ( 0.0) | 4.0 | ( 0.1) |
| Trade balance (Y tril) | -7.2 | -3.4 | -6.6 | ( 0.7) | -3.7 | (-0.3) | -9.5 | (-2.2) | -5.9 | (-2.5) |
| Current balance (US$100 mil) | 551.8 | 1223.5 | 610.1 | ( 58.3) | 1126.8 | (-96.6) | 342.4 | (-209.4) | 982.6 | (-240.8) |
| Current balance (Y tril) | 5.5 | 12.2 | 5.5 | (-0.0) | 10.1 | (-2.1) | 3.4 | (-2.1) | 9.8 | (-2.4) |
| Real GDP components (Chained [2005]; y/y %) | | | | | | | | | | |
| Private consumption | 2.4 | -0.6 | 2.4 | (-0.0) | -0.7 | (-0.1) | 2.3 | (-0.1) | -0.6 | (-0.0) |
| Private housing investment | 7.6 | -4.5 | 7.4 | (-0.2) | -4.9 | (-0.6) | 7.4 | (-0.1) | -4.6 | (-0.3) |
| Private non-housing investment | 1.7 | 6.5 | 0.9 | (-0.8) | 5.8 | (-1.5) | 0.9 | (-0.7) | 5.8 | (-1.4) |
| Government final consumption | 1.8 | 1.1 | 1.8 | ( 0.1) | 1.3 | ( 0.2) | 1.7 | (-0.0) | 1.1 | (-0.1) |
| Public fixed investment | 11.0 | -16.9 | 11.6 | ( 0.5) | -16.7 | ( 0.7) | 10.4 | (-0.6) | -16.7 | (-0.5) |
| Exports of goods and services | 5.4 | 9.8 | 5.0 | (-0.4) | 9.1 | (-1.0) | 5.2 | (-0.2) | 9.4 | (-0.6) |
| Imports of goods and services | 3.1 | 4.5 | 2.8 | (-0.3) | 5.1 | ( 0.3) | 2.4 | (-0.6) | 4.0 | (-1.1) |

| | Case 3 1% pt decline in World GDP | | | | Case 4 1% pt rise in 10-yr JGB yield | | | | (Reference) Y5 depreciation and $50/bbl rise in crude oil prices | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | FY13 | | FY14 | | FY13 | | FY14 | | FY13 | | FY14 | |
| Nominal GDP (Y/y %) | 2.6 | (-0.3) | 1.9 | (-0.4) | 2.8 | (-0.2) | 1.9 | (-0.2) | 2.8 | (-0.2) | 2.2 | ( 0.1) |
| **Real GDP (Chained [2005]; y/y %)** | **2.8** | **(-0.3)** | **0.7** | **(-0.4)** | **3.0** | **(-0.2)** | **0.7** | **(-0.2)** | **3.1** | **(-0.1)** | **0.8** | **( 0.0)** |
| GDP deflator (Y/y %) | -0.2 | (-0.0) | 1.2 | (-0.0) | -0.2 | ( 0.0) | 1.3 | (-0.0) | -0.2 | (-0.1) | 1.4 | ( 0.1) |
| All-industry Activity Index (Y/y %) | 2.3 | (-0.2) | 2.4 | (-0.2) | 2.4 | (-0.1) | 2.4 | (-0.1) | 2.6 | ( 0.1) | 2.5 | ( 0.2) |
| Industrial Production Index (Y/y %) | 3.4 | (-0.9) | 5.8 | (-0.9) | 4.0 | (-0.3) | 5.6 | (-0.4) | 4.8 | ( 0.5) | 5.9 | ( 0.5) |
| Tertiary Industry Activity Index (Y/y %) | 1.7 | (-0.1) | 1.6 | (-0.1) | 1.8 | (-0.1) | 1.6 | (-0.1) | 1.9 | ( 0.0) | 1.7 | ( 0.1) |
| Corporate Goods Price Index (Y/y %) | 1.7 | (-0.0) | 3.2 | (-0.1) | 1.7 | ( 0.0) | 3.2 | (-0.0) | 3.5 | ( 1.7) | 3.2 | ( 1.6) |
| Consumer Price Index (Y/y %) | 0.3 | (-0.0) | 2.8 | (-0.0) | 0.3 | ( 0.0) | 2.9 | (-0.0) | 0.6 | ( 0.3) | 2.9 | ( 0.3) |
| Unemployment rate (%) | 4.1 | (-0.0) | 3.9 | ( 0.0) | 4.1 | ( 0.0) | 3.9 | ( 0.0) | 4.1 | ( 0.1) | 4.0 | ( 0.1) |
| Trade balance (Y tril) | -7.9 | (-0.6) | -3.8 | (-0.4) | -6.8 | ( 0.5) | -2.8 | ( 0.6) | -9.8 | (-2.6) | -5.7 | (-2.4) |
| Current balance (US$100 mil) | 459.2 | (-92.6) | 1125.7 | (-97.8) | 479.9 | (-71.9) | 866.8 | (-356.7) | 313.2 | (-238.6) | 1031.0 | (-192.5) |
| Current balance (Y tril) | 4.6 | (-0.9) | 11.3 | (-1.0) | 4.8 | (-0.7) | 8.7 | (-3.6) | 3.4 | (-2.1) | 10.9 | (-1.4) |
| Real GDP components (Chained [2005]; y/y %) | | | | | | | | | | | | |
| Private consumption | 2.4 | (-0.1) | -0.6 | (-0.0) | 2.4 | (-0.0) | -0.6 | (-0.0) | 2.4 | (-0.0) | -0.5 | ( 0.0) |
| Private housing investment | 7.5 | (-0.1) | -4.8 | (-0.4) | 7.0 | (-0.5) | -4.7 | (-0.7) | 7.5 | (-0.0) | -4.4 | ( 0.0) |
| Private non-housing investment | 1.5 | (-0.2) | 6.3 | (-0.5) | 0.7 | (-1.0) | 5.9 | (-1.6) | 1.3 | (-0.3) | 6.2 | (-0.7) |
| Government final consumption | 1.8 | ( 0.0) | 1.2 | ( 0.0) | 1.8 | ( 0.0) | 1.1 | ( 0.0) | 1.7 | (-0.1) | 1.0 | (-0.2) |
| Public fixed investment | 11.0 | ( 0.0) | -16.8 | ( 0.1) | 11.0 | (-0.0) | -16.8 | ( 0.0) | 10.1 | (-0.8) | -16.8 | (-0.8) |
| Exports of goods and services | 3.7 | (-1.6) | 9.8 | (-1.6) | 5.4 | (-0.0) | 9.8 | (-0.0) | 5.4 | (-0.0) | 9.7 | (-0.1) |
| Imports of goods and services | 2.8 | (-0.3) | 4.5 | (-0.3) | 2.7 | (-0.3) | 4.2 | (-0.6) | 2.6 | (-0.5) | 3.7 | (-1.3) |

Source: Compiled by DIR.
Note: Figures in parentheses indicate changes from those under standard scenario. Due to rounding, they do not necessarily conform to calculations based on figures shown.

# 6. Quarterly Forecast Tables

## 1.1 Selected Economic Indicators

| | 2011 | | | 2012 | | | | 2013 | FY | | CY | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 4-6 | 7-9 | 10-12 | 1-3 | 4-6 | 7-9 | 10-12 | 1-3 | 2011 | 2012 | 2011 | 2012 |
| Nominal GDP (SAAR; Y tril) | 463.3 | 474.5 | 474.5 | 480.2 | 477.5 | 472.8 | 473.1 | 474.9 | 473.2 | 474.7 | 470.6 | 475.8 |
| Q/q % | -1.6 | 2.4 | -0.0 | 1.2 | -0.6 | -1.0 | 0.1 | 0.4 | | | | |
| Q/q %, SAAR | -6.3 | 10.1 | -0.0 | 4.9 | -2.2 | -3.9 | 0.3 | 1.5 | | | | |
| Y/y % | -3.7 | -2.4 | -1.8 | 2.3 | 3.0 | -0.5 | -0.2 | -1.0 | -1.4 | 0.3 | -2.5 | 1.1 |
| Real GDP (chained [2005]; SAAR; Y tril) | 501.2 | 514.8 | 515.8 | 522.5 | 521.3 | 516.7 | 518.0 | 522.6 | 513.6 | 519.8 | 509.4 | 519.6 |
| Q/q % | -1.0 | 2.7 | 0.2 | 1.3 | -0.2 | -0.9 | 0.3 | 0.9 | | | | |
| Q/q %, SAAR | -3.8 | 11.3 | 0.8 | 5.3 | -0.9 | -3.5 | 1.0 | 3.5 | | | | |
| Y/y % | -1.6 | -0.5 | -0.3 | 3.4 | 4.0 | 0.3 | 0.5 | 0.2 | 0.2 | 1.2 | -0.6 | 2.0 |
| Contribution to GDP growth (% pt) | | | | | | | | | | | | |
| Domestic demand | 0.1 | 1.9 | 0.9 | 1.2 | 0.1 | -0.3 | 0.3 | 0.5 | 1.3 | 1.9 | 0.3 | 2.9 |
| Foreign demand | -1.1 | 0.9 | -0.7 | 0.1 | -0.3 | -0.6 | -0.1 | 0.4 | -1.0 | -0.7 | -0.9 | -0.9 |
| GDP deflator (y/y %) | -2.1 | -1.9 | -1.5 | -1.0 | -1.0 | -0.8 | -0.7 | -1.2 | -1.7 | -0.9 | -1.9 | -0.9 |
| Index of All-Industry Activity (2005=100) | 94.2 | 96.2 | 96.7 | 96.6 | 96.5 | 96.0 | 96.3 | 96.3 | 96.0 | 96.3 | 95.4 | 96.2 |
| Q/q %; y/y % | -1.0 | 2.2 | 0.6 | -0.1 | -0.2 | -0.5 | 0.3 | -0.0 | 0.2 | 0.3 | -0.5 | 0.8 |
| Index of Industrial Production (2005=100) | 88.9 | 93.7 | 94.1 | 95.3 | 93.4 | 89.5 | 87.8 | 89.7 | 93.2 | 90.3 | 92.2 | 91.9 |
| Q/q %; y/y % | -4.2 | 5.4 | 0.4 | 1.2 | -2.0 | -4.2 | -1.9 | 2.2 | -1.0 | -3.1 | -2.4 | -0.3 |
| Index of Tertiary Industry Activity (2005=100) | 97.0 | 98.5 | 99.0 | 99.0 | 99.0 | 99.1 | 99.6 | 99.1 | 98.5 | 99.3 | 97.9 | 99.1 |
| Q/q %; y/y % | -0.5 | 1.5 | 0.5 | 0.0 | 0.0 | 0.0 | 0.5 | -0.5 | 0.7 | 0.8 | 0.0 | 1.2 |
| Corporate Goods Price Index components (2010=100) | | | | | | | | | | | | |
| Domestic Company Goods Price Index | 102.0 | 102.1 | 101.0 | 101.2 | 100.9 | 100.1 | 100.1 | 100.9 | 101.6 | 100.5 | 101.5 | 100.6 |
| Y/y % | 1.8 | 2.1 | 1.1 | 0.3 | -1.0 | -1.9 | -1.0 | -0.3 | 1.3 | -1.1 | 1.5 | -0.9 |
| CPI (excl. fresh food; 2010=100) | 100.0 | 99.9 | 99.7 | 99.6 | 99.9 | 99.6 | 99.6 | 99.3 | 99.8 | 99.6 | 99.8 | 99.7 |
| Y/y % | -0.3 | 0.2 | -0.2 | 0.1 | -0.0 | -0.2 | -0.1 | -0.3 | -0.0 | -0.2 | -0.3 | -0.1 |
| Unemployment rate (%) | 4.7 | 4.5 | 4.5 | 4.5 | 4.4 | 4.3 | 4.2 | 4.2 | 4.5 | 4.3 | 4.6 | 4.4 |
| Call rate (end-period; %) | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 |
| Government bond yield (10 year; %) | 1.16 | 1.04 | 1.03 | 0.97 | 0.85 | 0.78 | 0.76 | 0.66 | 1.05 | 0.76 | 0.98 | 0.84 |
| Money stock; M2 (y/y %) | 2.8 | 2.8 | 3.0 | 3.0 | 2.4 | 2.4 | 2.3 | 2.9 | 2.9 | 2.5 | 2.7 | 2.5 |
| Trade balance (SAAR; Y tril) | -5.0 | -1.3 | -3.9 | -4.3 | -4.4 | -6.6 | -6.4 | -10.1 | -3.5 | -7.2 | -1.6 | -5.1 |
| Current balance (SAAR; $100 mil) | 864 | 1,240 | 938 | 825 | 767 | 497 | 532 | 317 | 964 | 528 | 1,197 | 661 |
| Current balance (SAAR; Y tril) | 7.1 | 9.6 | 7.3 | 6.5 | 6.1 | 3.9 | 4.3 | 2.9 | 7.6 | 4.3 | 9.6 | 5.3 |
| (% of nominal GDP) | 1.5 | 2.0 | 1.5 | 1.4 | 1.3 | 0.8 | 0.9 | 0.6 | 1.6 | 0.9 | 2.0 | 1.1 |
| Exchange rate (Y/$) | 81.7 | 77.8 | 77.3 | 79.3 | 80.1 | 78.6 | 81.2 | 92.3 | 79.0 | 83.1 | 79.8 | 79.8 |
| (Y/Euro) | 118.3 | 108.7 | 104.9 | 106.3 | 101.2 | 98.2 | 108.2 | 122.0 | 109.6 | 107.4 | 111.4 | 103.5 |

Source: Compiled by DIR.
Notes: 1) Quarterly figures (excl. y/y %) seasonally adjusted, other unadjusted.
2) Index of All-Industry Activity Index: excl. agriculture, forestry, and fisheries.
3) Due to rounding, figures may differ from those released by the government.
E: DIR estimate.

## 1.2 Selected Economic Indicators

| | 2013 | | | 2014 | | | | 2015 | FY | | CY | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 4-6 (E) | 7-9 (E) | 10-12 (E) | 1-3 (E) | 4-6 (E) | 7-9 (E) | 10-12 (E) | 1-3 (E) | 2013 (E) | 2014 (E) | 2013 (E) | 2014 (E) |
| Nominal GDP (SAAR; Y tril) | 479.7 | 485.4 | 491.0 | 498.4 | 492.7 | 496.3 | 500.0 | 505.1 | 488.8 | 498.6 | 483.0 | 496.9 |
| Q/q % | 1.0 | 1.2 | 1.2 | 1.5 | -1.2 | 0.7 | 0.7 | 1.0 | | | | |
| Q/q %, SAAR | 4.2 | 4.8 | 4.7 | 6.2 | -4.6 | 3.0 | 3.0 | 4.1 | | | | |
| Y/y % | 0.5 | 2.7 | 3.7 | 4.9 | 2.7 | 2.2 | 1.8 | 1.4 | 3.0 | 2.0 | 1.5 | 2.9 |
| Real GDP (chained [2005]; SAAR; Y tril) | 526.5 | 532.7 | 538.5 | 546.3 | 535.5 | 538.3 | 541.2 | 544.7 | 536.2 | 540.1 | 530.3 | 540.4 |
| Q/q % | 0.7 | 1.2 | 1.1 | 1.4 | -2.0 | 0.5 | 0.5 | 0.6 | | | | |
| Q/q %, SAAR | 3.0 | 4.9 | 4.4 | 5.9 | -7.7 | 2.1 | 2.1 | 2.6 | | | | |
| Y/y % | 1.0 | 3.1 | 3.9 | 4.4 | 1.7 | 1.0 | 0.5 | -0.2 | 3.1 | 0.7 | 2.1 | 1.9 |
| Contribution to GDP growth (% pt) | | | | | | | | | | | | |
| Domestic demand | 0.6 | 1.1 | 1.0 | 1.3 | -2.4 | 0.2 | 0.2 | 0.3 | 2.7 | -0.3 | 2.0 | 1.3 |
| Foreign demand | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.9 | 0.1 | 0.6 |
| GDP deflator (y/y %) | -0.5 | -0.4 | -0.2 | 0.4 | 0.9 | 1.2 | 1.3 | 1.6 | -0.2 | 1.3 | -0.5 | 1.0 |
| Index of All-Industry Activity (2005=100) | 97.0 | 97.9 | 99.1 | 100.6 | 100.0 | 100.6 | 101.3 | 102.2 | 98.7 | 101.1 | 97.4 | 100.5 |
| Q/q %; y/y % | 0.8 | 0.9 | 1.2 | 1.5 | -0.6 | 0.6 | 0.7 | 0.9 | 2.5 | 2.4 | 1.3 | 3.2 |
| Index of Industrial Production (2005=100) | 91.0 | 92.7 | 94.8 | 97.5 | 96.9 | 98.1 | 100.1 | 102.6 | 94.2 | 99.6 | 92.4 | 98.5 |
| Q/q %; y/y % | 1.4 | 1.9 | 2.2 | 2.8 | -0.6 | 1.3 | 2.0 | 2.5 | 4.3 | 5.8 | 0.6 | 6.6 |
| Index of Tertiary Industry Activity (2005=100) | 99.7 | 100.4 | 101.4 | 102.6 | 102.0 | 102.4 | 102.8 | 103.3 | 101.1 | 102.7 | 100.0 | 102.3 |
| Q/q %; y/y % | 0.6 | 0.7 | 1.0 | 1.2 | -0.6 | 0.4 | 0.4 | 0.5 | 1.8 | 1.6 | 0.9 | 2.3 |
| Corporate Goods Price Index components (2010=100) | | | | | | | | | | | | |
| Domestic Company Goods Price Index | 101.7 | 102.3 | 102.4 | 102.5 | 105.4 | 105.5 | 105.6 | 105.7 | 102.2 | 105.6 | 101.8 | 104.8 |
| Y/y % | 0.7 | 2.1 | 2.4 | 1.7 | 3.7 | 3.2 | 3.1 | 3.1 | 1.7 | 3.3 | 1.2 | 2.9 |
| CPI (excl. fresh food; 2010=100) | 99.8 | 100.0 | 100.0 | 99.9 | 102.5 | 102.7 | 103.0 | 103.0 | 99.9 | 102.8 | 99.8 | 102.0 |
| Y/y % | -0.1 | 0.3 | 0.5 | 0.6 | 2.7 | 2.8 | 2.9 | 3.1 | 0.3 | 2.9 | 0.1 | 2.3 |
| Unemployment rate (%) | 4.2 | 4.1 | 4.0 | 4.0 | 3.9 | 3.9 | 3.9 | 3.9 | 4.1 | 3.9 | 4.1 | 3.9 |
| Call rate (end-period; %) | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 |
| Government bond yield (10 year; %) | 0.80 | 0.86 | 0.91 | 0.95 | 1.00 | 1.03 | 1.06 | 1.12 | 0.88 | 1.05 | 0.81 | 1.01 |
| Money stock; M2 (y/y %) | 3.0 | 3.2 | 3.3 | 3.4 | 3.5 | 3.6 | 3.7 | 3.7 | 3.2 | 3.6 | 3.1 | 3.5 |
| Trade balance (SAAR; Y tril) | -7.3 | -7.2 | -7.3 | -7.1 | -5.6 | -4.2 | -2.6 | -0.8 | -7.2 | -3.4 | -7.6 | -4.6 |
| Current balance (SAAR; $100 mil) | 442 | 519 | 583 | 665 | 870 | 1,090 | 1,337 | 1,601 | 552 | 1,223 | 469 | 999 |
| Current balance (SAAR; Y tril) | 4.4 | 5.2 | 5.8 | 6.6 | 8.7 | 10.9 | 13.4 | 16.0 | 5.5 | 12.2 | 4.6 | 10.0 |
| (% of nominal GDP) | 0.9 | 1.1 | 1.2 | 1.3 | 1.8 | 2.2 | 2.7 | 3.2 | 1.1 | 2.5 | 1.0 | 2.0 |
| Exchange rate (Y/$) | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 98.1 | 100.0 |
| (Y/Euro) | 130.0 | 130.0 | 130.0 | 130.0 | 130.0 | 130.0 | 130.0 | 130.0 | 130.0 | 130.0 | 128.0 | 130.0 |

Source: Compiled by DIR.
Notes: 1) Quarterly figures (excl. y/y %) seasonally adjusted, other unadjusted.
2) Index of All-Industry Activity Index: excl. agriculture, forestry, and fisheries.
3) Due to rounding, figures may differ from those released by the government.
E: DIR estimate.

## 2.1 Real Gross Domestic Expenditure (chained [2005]; Y tril)

| | 2011 | 2012 | | | | | | 2013 | FY | | CY | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 4-6 | 7-9 | 10-12 | 1-3 | 4-6 | 7-9 | 10-12 | 1-3 | 2011 | 2012 | 2011 | 2012 |
| Gross domestic expenditure | 501.2 | 514.8 | 515.8 | 522.5 | 521.3 | 516.7 | 518.0 | 522.6 | 513.6 | 519.8 | 509.4 | 519.6 |
| Q/q %, SAAR | -3.8 | 11.3 | 0.8 | 5.3 | -0.9 | -3.5 | 1.0 | 3.5 | | | | |
| Y/y % | -1.6 | -0.5 | -0.3 | 3.4 | 4.0 | 0.3 | 0.5 | 0.2 | 0.2 | 1.2 | -0.6 | 2.0 |
| Domestic demand | 491.3 | 500.3 | 505.0 | 510.9 | 511.3 | 509.8 | 511.4 | 514.0 | 502.0 | 511.7 | 496.8 | 510.8 |
| Q/q %, SAAR | 0.4 | 7.5 | 3.9 | 4.7 | 0.3 | -1.1 | 1.3 | 2.0 | | | | |
| Y/y % | -0.2 | 0.1 | 1.0 | 4.3 | 4.0 | 1.9 | 1.3 | 0.7 | 1.3 | 1.9 | 0.3 | 2.8 |
| Private demand | 372.5 | 381.3 | 386.3 | 389.3 | 387.9 | 385.3 | 385.6 | 387.4 | 382.5 | 386.5 | 378.1 | 387.0 |
| Q/q %, SAAR | -0.1 | 9.8 | 5.3 | 3.2 | -1.5 | -2.7 | 0.3 | 1.9 | | | | |
| Y/y % | -0.5 | 0.1 | 1.5 | 4.7 | 4.0 | 1.1 | -0.1 | -0.6 | 1.4 | 1.1 | 0.5 | 2.4 |
| Final consumption | 299.8 | 304.1 | 306.1 | 308.6 | 309.2 | 307.9 | 309.3 | 312.2 | 304.7 | 309.7 | 301.8 | 308.7 |
| Q/q %, SAAR | 3.8 | 5.8 | 2.7 | 3.3 | 0.8 | -1.6 | 1.8 | 3.7 | | | | |
| Y/y % | 0.5 | 0.5 | 1.2 | 3.9 | 3.1 | 1.3 | 1.0 | 1.2 | 1.5 | 1.6 | 0.4 | 2.3 |
| Residential investment | 12.6 | 13.3 | 13.1 | 12.9 | 13.2 | 13.4 | 13.9 | 14.2 | 13.0 | 13.7 | 13.0 | 13.4 |
| Q/q %, SAAR | -9.2 | 21.1 | -3.5 | -5.9 | 9.3 | 6.3 | 15.0 | 7.9 | | | | |
| Y/y % | 3.5 | 8.2 | 3.3 | -0.1 | 4.7 | 1.5 | 5.8 | 9.4 | 3.7 | 5.3 | 5.5 | 3.0 |
| Non-residential investment | 64.3 | 65.5 | 70.7 | 69.0 | 68.8 | 66.6 | 65.6 | 65.1 | 67.5 | 66.5 | 66.2 | 67.6 |
| Q/q %, SAAR | -1.3 | 7.1 | 36.2 | -9.2 | -1.1 | -12.5 | -5.9 | -2.6 | | | | |
| Y/y % | -0.5 | -0.2 | 10.0 | 6.9 | 7.1 | 1.5 | -7.1 | -5.7 | 4.1 | -1.5 | 3.3 | 2.0 |
| Change in inventories | -4.3 | -1.5 | -3.7 | -1.2 | -3.4 | -2.7 | -3.2 | -4.1 | -2.7 | -3.3 | -2.9 | -2.6 |
| Public demand | 118.8 | 119.0 | 118.8 | 121.6 | 123.4 | 124.5 | 125.8 | 126.6 | 119.6 | 125.2 | 118.7 | 123.8 |
| Q/q %, SAAR | 2.0 | 0.6 | -0.6 | 9.8 | 6.0 | 3.8 | 4.3 | 2.4 | | | | |
| Y/y % | 0.9 | 0.4 | -0.6 | 2.9 | 3.7 | 4.6 | 6.0 | 4.4 | 0.9 | 4.7 | -0.1 | 4.3 |
| Government final consumption | 98.5 | 98.8 | 99.1 | 100.5 | 101.0 | 101.4 | 102.2 | 102.7 | 99.3 | 101.9 | 98.7 | 101.3 |
| Q/q %, SAAR | 1.2 | 1.0 | 1.4 | 5.9 | 2.0 | 1.6 | 2.9 | 2.3 | | | | |
| Y/y % | 1.3 | 1.1 | 0.9 | 2.3 | 2.6 | 2.6 | 3.0 | 2.2 | 1.4 | 2.6 | 1.4 | 2.6 |
| Fixed investment | 20.2 | 20.1 | 19.7 | 21.0 | 22.3 | 23.1 | 23.7 | 23.9 | 20.3 | 23.3 | 20.0 | 22.5 |
| Q/q %, SAAR | 3.7 | -1.6 | -8.7 | 29.7 | 27.7 | 14.1 | 11.9 | 3.4 | | | | |
| Y/y % | -2.2 | -4.7 | -7.4 | 5.0 | 11.3 | 15.1 | 19.6 | 14.0 | -2.2 | 15.2 | -7.5 | 12.5 |
| Change in inventories | 0.0 | 0.1 | -0.0 | 0.0 | 0.0 | 0.0 | -0.0 | -0.1 | 0.0 | -0.0 | 0.0 | 0.0 |
| Net exports of goods and services | 9.9 | 14.9 | 11.2 | 12.0 | 10.7 | 7.2 | 6.4 | 8.7 | 12.0 | 8.2 | 12.9 | 9.0 |
| Exports of goods and services | 77.7 | 84.8 | 82.3 | 84.5 | 84.5 | 80.8 | 78.4 | 81.4 | 82.3 | 81.3 | 82.1 | 82.0 |
| Q/q %, SAAR | -25.6 | 42.2 | -11.5 | 11.5 | -0.2 | -16.5 | -11.3 | 16.1 | | | | |
| Y/y % | -5.5 | 0.8 | -2.6 | 0.9 | 9.2 | -4.8 | -5.0 | -3.5 | -1.6 | -1.3 | -0.4 | -0.1 |
| Imports of goods and services | 67.7 | 69.9 | 71.1 | 72.5 | 73.8 | 73.6 | 72.0 | 72.7 | 70.3 | 73.0 | 69.2 | 73.0 |
| Q/q %, SAAR | -1.6 | 13.7 | 6.8 | 8.4 | 7.2 | -1.2 | -8.5 | 4.0 | | | | |
| Y/y % | 3.6 | 5.1 | 5.7 | 6.7 | 9.1 | 5.2 | 1.1 | 0.3 | 5.3 | 3.8 | 5.9 | 5.4 |
| Residual | -0.1 | -0.4 | -0.5 | -0.4 | -0.7 | -0.3 | 0.2 | -0.1 | -0.4 | -0.1 | -0.3 | -0.3 |

Source: Compiled by DIR.
Notes: 1) Subtotals by demand (domestic demand, private demand, and public demand) are simple aggregates of respective components, which differ from figures released by the government.
2) Y/y growth rates and FY and CY figures unadjusted; other seasonally adjusted.
3) Due to rounding, figures may differ from those released by the government.
E: DIR estimate.

## 2.2 Real Gross Domestic Expenditure (chained [2005]; Y tril)

| | 2013 | | | 2014 | | | | 2015 | FY | | CY | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 4-6 (E) | 7-9 (E) | 10-12 (E) | 1-3 (E) | 4-6 (E) | 7-9 (E) | 10-12 (E) | 1-3 (E) | 2013 (E) | 2014 (E) | 2013 (E) | 2014 (E) |
| Gross domestic expenditure | 526.5 | 532.7 | 538.5 | 546.3 | 535.5 | 538.3 | 541.2 | 544.7 | 536.2 | 540.1 | 530.3 | 540.4 |
| Q/q %, SAAR | 3.0 | 4.9 | 4.4 | 5.9 | -7.7 | 2.1 | 2.1 | 2.6 | | | | |
| Y/y % | 1.0 | 3.1 | 3.9 | 4.4 | 1.7 | 1.0 | 0.5 | -0.2 | 3.1 | 0.7 | 2.1 | 1.9 |
| Domestic demand | 517.2 | 522.8 | 527.9 | 534.9 | 522.6 | 523.9 | 525.1 | 527.0 | 525.9 | 524.5 | 520.5 | 526.6 |
| Q/q %, SAAR | 2.5 | 4.4 | 4.0 | 5.4 | -8.9 | 1.0 | 0.9 | 1.4 | | | | |
| Y/y % | 1.1 | 2.5 | 3.3 | 4.2 | 1.0 | 0.3 | -0.7 | -1.6 | 2.8 | -0.3 | 1.9 | 1.2 |
| Private demand | 389.4 | 393.0 | 397.4 | 405.1 | 394.1 | 396.9 | 399.4 | 401.9 | 396.4 | 398.2 | 391.8 | 398.8 |
| Q/q %, SAAR | 2.2 | 3.7 | 4.6 | 8.0 | -10.5 | 3.0 | 2.5 | 2.5 | | | | |
| Y/y % | 0.4 | 2.0 | 3.0 | 4.7 | 1.1 | 1.0 | 0.4 | -0.6 | 2.6 | 0.5 | 1.2 | 1.8 |
| Final consumption | 313.5 | 314.6 | 317.3 | 323.1 | 312.8 | 314.7 | 315.9 | 317.2 | 317.2 | 315.2 | 314.5 | 316.6 |
| Q/q %, SAAR | 1.8 | 1.4 | 3.4 | 7.6 | -12.2 | 2.4 | 1.6 | 1.6 | | | | |
| Y/y % | 1.4 | 2.1 | 2.6 | 3.5 | -0.2 | 0.0 | -0.4 | -1.8 | 2.4 | -0.6 | 1.9 | 0.7 |
| Residential investment | 14.3 | 14.6 | 15.0 | 15.1 | 14.1 | 14.0 | 14.0 | 14.1 | 14.7 | 14.1 | 14.5 | 14.3 |
| Q/q %, SAAR | 4.1 | 6.8 | 11.5 | 2.8 | -22.6 | -4.3 | 1.6 | 3.2 | | | | |
| Y/y % | 8.2 | 8.3 | 7.6 | 6.3 | -1.4 | -4.0 | -6.2 | -6.1 | 7.6 | -4.5 | 8.3 | -1.5 |
| Non-residential investment | 65.5 | 66.7 | 68.0 | 69.6 | 70.0 | 71.3 | 72.5 | 73.7 | 67.6 | 72.0 | 66.3 | 70.8 |
| Q/q %, SAAR | 2.0 | 7.8 | 8.2 | 9.5 | 2.4 | 7.4 | 7.0 | 7.0 | | | | |
| Y/y % | -5.0 | 0.3 | 3.7 | 6.9 | 7.0 | 6.8 | 6.6 | 5.9 | 1.7 | 6.5 | -1.9 | 6.8 |
| Change in inventories | -3.9 | -2.9 | -2.9 | -2.7 | -2.9 | -3.0 | -3.1 | -3.2 | -3.1 | -3.0 | -3.4 | -2.9 |
| Public demand | 127.7 | 129.8 | 130.5 | 129.8 | 128.5 | 126.9 | 125.7 | 125.1 | 129.5 | 126.3 | 128.6 | 127.8 |
| Q/q %, SAAR | 3.6 | 6.6 | 2.2 | -2.2 | -3.9 | -4.8 | -3.7 | -2.0 | | | | |
| Y/y % | 3.2 | 4.1 | 4.0 | 2.7 | 0.8 | -2.0 | -4.1 | -4.2 | 3.5 | -2.5 | 3.9 | -0.7 |
| Government final consumption | 103.0 | 103.5 | 103.9 | 104.2 | 104.5 | 104.7 | 104.9 | 105.1 | 103.7 | 104.8 | 103.3 | 104.6 |
| Q/q %, SAAR | 1.2 | 1.6 | 1.6 | 1.2 | 1.2 | 0.8 | 0.8 | 0.8 | | | | |
| Y/y % | 2.0 | 2.0 | 1.7 | 1.4 | 1.4 | 1.2 | 1.0 | 0.9 | 1.8 | 1.1 | 2.0 | 1.3 |
| Fixed investment | 24.8 | 26.4 | 26.7 | 25.7 | 24.1 | 22.3 | 20.9 | 20.0 | 25.9 | 21.6 | 25.4 | 23.2 |
| Q/q %, SAAR | 14.5 | 29.5 | 4.7 | -14.6 | -22.8 | -26.6 | -23.0 | -15.2 | | | | |
| Y/y % | 10.5 | 14.2 | 13.0 | 7.3 | -2.6 | -15.5 | -22.0 | -22.0 | 11.0 | -16.9 | 13.1 | -8.5 |
| Change in inventories | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 |
| Net exports of goods and services | 9.4 | 10.0 | 10.7 | 11.4 | 13.0 | 14.5 | 16.2 | 17.8 | 10.4 | 15.4 | 9.7 | 13.8 |
| Exports of goods and services | 82.9 | 84.7 | 86.5 | 88.5 | 90.5 | 92.7 | 95.1 | 97.8 | 85.6 | 94.0 | 83.9 | 91.7 |
| Q/q %, SAAR | 7.8 | 8.7 | 8.9 | 9.5 | 9.5 | 10.0 | 10.8 | 11.7 | | | | |
| Y/y % | -2.0 | 4.8 | 10.5 | 8.6 | 9.3 | 9.5 | 9.9 | 10.5 | 5.4 | 9.8 | 2.3 | 9.3 |
| Imports of goods and services | 73.6 | 74.6 | 75.8 | 77.1 | 77.5 | 78.1 | 78.9 | 80.0 | 75.3 | 78.6 | 74.2 | 77.9 |
| Q/q %, SAAR | 4.9 | 5.9 | 6.3 | 7.0 | 2.4 | 3.2 | 4.1 | 5.3 | | | | |
| Y/y % | -0.4 | 1.4 | 5.3 | 6.0 | 5.4 | 4.7 | 4.1 | 3.8 | 3.1 | 4.5 | 1.7 | 5.0 |
| Residual | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | 0.2 | 0.2 | 0.0 |

Source: Compiled by DIR.
Notes: 1) Subtotals by demand (domestic demand, private demand, and public demand) are simple aggregates of respective components, which differ from figures released by the government.
2) Y/y growth rates and FY and CY figures unadjusted; other seasonally adjusted.
3) Due to rounding, figures may differ from those released by the government.
E: DIR estimate.

## 3.1 Nominal Gross Domestic Expenditure (Y tril)

| | 2011 | | | 2012 | | | | 2013 | FY | | CY | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 4-6 | 7-9 | 10-12 | 1-3 | 4-6 | 7-9 | 10-12 | 1-3 | 2011 | 2012 | 2011 | 2012 |
| Gross domestic expenditure | 463.3 | 474.5 | 474.5 | 480.2 | 477.5 | 472.8 | 473.1 | 474.9 | 473.2 | 474.7 | 470.6 | 475.8 |
| Q/q %, SAAR | -6.3 | 10.1 | -0.0 | 4.9 | -2.2 | -3.9 | 0.3 | 1.5 | | | | |
| Y/y % | -3.7 | -2.4 | -1.8 | 2.3 | 3.0 | -0.5 | -0.2 | -1.0 | -1.4 | 0.3 | -2.5 | 1.1 |
| Domestic demand | 469.8 | 478.4 | 481.6 | 488.0 | 485.9 | 483.2 | 484.3 | 486.8 | 479.6 | 485.1 | 474.8 | 485.2 |
| Q/q %, SAAR | -0.5 | 7.5 | 2.7 | 5.4 | -1.7 | -2.2 | 0.9 | 2.0 | | | | |
| Y/y % | -1.1 | -0.4 | 0.6 | 4.1 | 3.2 | 0.9 | 0.6 | -0.1 | 0.8 | 1.1 | -0.4 | 2.2 |
| Private demand | 352.6 | 360.9 | 364.8 | 368.3 | 365.5 | 361.8 | 361.9 | 363.5 | 361.8 | 363.1 | 357.9 | 364.4 |
| Q/q %, SAAR | -1.4 | 9.8 | 4.5 | 3.9 | -3.0 | -4.0 | 0.2 | 1.7 | | | | |
| Y/y % | -1.6 | -0.6 | 1.1 | 4.4 | 3.6 | 0.2 | -0.7 | -1.4 | 0.8 | 0.4 | -0.4 | 1.8 |
| Final consumption | 283.1 | 286.9 | 288.1 | 290.8 | 290.6 | 288.0 | 289.4 | 291.5 | 287.3 | 289.9 | 284.8 | 289.6 |
| Q/q %, SAAR | 2.8 | 5.4 | 1.8 | 3.8 | -0.3 | -3.5 | 2.0 | 2.9 | | | | |
| Y/y % | -0.6 | -0.1 | 0.7 | 3.6 | 2.6 | 0.4 | 0.4 | 0.3 | 0.9 | 0.9 | -0.4 | 1.7 |
| Residential investment | 13.1 | 13.8 | 13.6 | 13.3 | 13.6 | 13.8 | 14.3 | 14.7 | 13.5 | 14.1 | 13.5 | 13.8 |
| Q/q %, SAAR | -7.7 | 22.5 | -5.9 | -7.1 | 8.4 | 5.8 | 16.2 | 10.3 | | | | |
| Y/y % | 4.4 | 9.0 | 3.6 | -0.3 | 3.8 | 0.2 | 5.4 | 10.0 | 4.2 | 4.8 | 6.2 | 2.3 |
| Non-residential investment | 60.9 | 62.1 | 66.8 | 65.2 | 65.0 | 62.7 | 61.7 | 61.4 | 63.8 | 62.6 | 62.7 | 63.7 |
| Q/q %, SAAR | -2.8 | 8.2 | 34.6 | -9.4 | -1.3 | -13.5 | -6.0 | -2.1 | | | | |
| Y/y % | -2.1 | -1.3 | 9.2 | 6.4 | 7.0 | 0.7 | -7.6 | -5.9 | 3.1 | -1.9 | 1.9 | 1.6 |
| Change in inventories | -4.5 | -1.9 | -3.7 | -1.0 | -3.7 | -2.7 | -3.5 | -4.1 | -2.8 | -3.5 | -3.0 | -2.7 |
| Public demand | 117.3 | 117.5 | 116.8 | 119.6 | 120.4 | 121.4 | 122.4 | 123.3 | 117.8 | 122.0 | 116.9 | 120.8 |
| Q/q %, SAAR | 2.5 | 0.8 | -2.4 | 10.2 | 2.5 | 3.4 | 3.3 | 3.1 | | | | |
| Y/y % | 0.5 | 0.3 | -0.6 | 3.1 | 2.3 | 3.4 | 4.6 | 3.8 | 0.8 | 3.5 | -0.3 | 3.4 |
| Government final consumption | 96.2 | 96.4 | 96.4 | 97.8 | 97.2 | 97.5 | 97.9 | 98.6 | 96.7 | 97.8 | 96.2 | 97.6 |
| Q/q %, SAAR | 1.1 | 1.1 | -0.3 | 6.3 | -2.6 | 1.4 | 1.6 | 2.8 | | | | |
| Y/y % | 0.7 | 1.0 | 0.8 | 2.4 | 1.0 | 1.2 | 1.4 | 1.1 | 1.2 | 1.2 | 1.1 | 1.5 |
| Fixed investment | 21.0 | 21.0 | 20.4 | 21.7 | 23.2 | 23.8 | 24.5 | 24.8 | 21.0 | 24.1 | 20.7 | 23.2 |
| Q/q %, SAAR | 7.1 | -1.6 | -10.3 | 29.0 | 29.4 | 11.8 | 11.1 | 5.1 | | | | |
| Y/y % | -1.5 | -3.8 | -6.7 | 5.3 | 11.0 | 14.0 | 19.3 | 14.2 | -1.5 | 14.9 | -6.9 | 12.2 |
| Change in inventories | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | -0.0 | -0.1 | 0.1 | -0.0 | 0.0 | 0.0 |
| Net exports of goods and services | -6.6 | -3.8 | -7.1 | -7.8 | -8.4 | -10.4 | -11.2 | -11.9 | -6.4 | -10.4 | -4.3 | -9.4 |
| Exports of goods and services | 68.0 | 73.5 | 70.9 | 71.6 | 71.4 | 68.0 | 68.1 | 73.7 | 70.9 | 70.4 | 71.3 | 69.7 |
| Q/q %, SAAR | -25.5 | 36.4 | -13.1 | 3.7 | -0.9 | -17.6 | 0.6 | 37.3 | | | | |
| Y/y % | -8.0 | -0.4 | -5.1 | -2.0 | 5.6 | -7.6 | -4.2 | 3.5 | -3.9 | -0.8 | -2.6 | -2.2 |
| Imports of goods and services | 74.5 | 77.3 | 78.0 | 79.3 | 79.7 | 78.4 | 79.3 | 85.6 | 77.3 | 80.8 | 75.6 | 79.2 |
| Q/q %, SAAR | 10.6 | 15.6 | 3.7 | 7.0 | 2.2 | -6.7 | 4.7 | 35.9 | | | | |
| Y/y % | 9.7 | 13.6 | 12.1 | 9.5 | 7.2 | 1.2 | 1.5 | 8.1 | 11.2 | 4.5 | 12.1 | 4.7 |

Source: Compiled by DIR.
Notes: 1)Y/y growth rates and FY and CY figures unadjusted; other seasonally adjusted.
2) Due to rounding, figures may differ from those released by the government.
E: DIR estimate.

## 3.2 Nominal Gross Domestic Expenditure (Y tril)

| | 2013 | | | 2014 | | | | 2015 | FY | | CY | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 4-6 (E) | 7-9 (E) | 10-12 (E) | 1-3 (E) | 4-6 (E) | 7-9 (E) | 10-12 (E) | 1-3 (E) | 2013 (E) | 2014 (E) | 2013 (E) | 2014 (E) |
| Gross domestic expenditure | 479.7 | 485.4 | 491.0 | 498.4 | 492.7 | 496.3 | 500.0 | 505.1 | 488.8 | 498.6 | 483.0 | 496.9 |
| Q/q %, SAAR | 4.2 | 4.8 | 4.7 | 6.2 | -4.6 | 3.0 | 3.0 | 4.1 | | | | |
| Y/y % | 0.5 | 2.7 | 3.7 | 4.9 | 2.7 | 2.2 | 1.8 | 1.4 | 3.0 | 2.0 | 1.5 | 2.9 |
| Domestic demand | 490.3 | 495.8 | 501.3 | 508.5 | 501.3 | 503.3 | 505.3 | 508.4 | 499.2 | 504.5 | 493.6 | 504.6 |
| Q/q %, SAAR | 2.9 | 4.6 | 4.6 | 5.9 | -5.5 | 1.6 | 1.5 | 2.5 | | | | |
| Y/y % | 0.9 | 2.6 | 3.5 | 4.6 | 2.2 | 1.6 | 0.6 | -0.1 | 2.9 | 1.1 | 1.7 | 2.2 |
| Private demand | 365.6 | 369.2 | 373.8 | 381.6 | 375.4 | 378.9 | 381.9 | 385.5 | 372.7 | 380.6 | 368.1 | 379.4 |
| Q/q %, SAAR | 2.4 | 4.0 | 5.1 | 8.5 | -6.3 | 3.8 | 3.2 | 3.8 | | | | |
| Y/y % | 0.1 | 2.1 | 3.2 | 5.2 | 2.6 | 2.6 | 2.0 | 1.2 | 2.6 | 2.1 | 1.0 | 3.1 |
| Final consumption | 292.8 | 293.8 | 296.6 | 302.4 | 296.7 | 299.1 | 300.7 | 302.8 | 296.4 | 299.9 | 293.8 | 299.7 |
| Q/q %, SAAR | 1.8 | 1.4 | 3.9 | 8.0 | -7.4 | 3.2 | 2.2 | 2.8 | | | | |
| Y/y % | 0.8 | 2.0 | 2.5 | 3.7 | 1.3 | 1.8 | 1.4 | 0.2 | 2.3 | 1.2 | 1.4 | 2.0 |
| Residential investment | 14.9 | 15.1 | 15.6 | 15.7 | 14.9 | 14.8 | 14.9 | 15.0 | 15.3 | 14.9 | 15.1 | 15.0 |
| Q/q %, SAAR | 4.9 | 7.4 | 12.0 | 3.4 | -19.4 | -3.2 | 2.6 | 4.5 | | | | |
| Y/y % | 9.2 | 9.6 | 8.7 | 7.0 | 0.1 | -2.5 | -4.6 | -4.4 | 8.6 | -2.9 | 9.3 | -0.2 |
| Non-residential investment | 61.9 | 63.1 | 64.5 | 66.1 | 66.7 | 68.1 | 69.4 | 70.8 | 64.0 | 68.9 | 62.7 | 67.5 |
| Q/q %, SAAR | 3.2 | 8.5 | 9.0 | 10.4 | 3.4 | 8.5 | 8.3 | 8.5 | | | | |
| Y/y % | -4.9 | 0.9 | 4.5 | 7.7 | 7.8 | 7.7 | 7.6 | 7.1 | 2.3 | 7.5 | -1.6 | 7.7 |
| Change in inventories | -3.9 | -2.9 | -2.9 | -2.7 | -2.9 | -3.0 | -3.1 | -3.2 | -3.1 | -3.0 | -3.5 | -2.9 |
| Public demand | 124.6 | 126.5 | 127.5 | 126.9 | 125.9 | 124.4 | 123.3 | 122.8 | 126.5 | 123.9 | 125.5 | 125.2 |
| Q/q %, SAAR | 4.5 | 6.2 | 3.0 | -1.7 | -3.1 | -4.7 | -3.5 | -1.6 | | | | |
| Y/y % | 3.1 | 4.2 | 4.4 | 3.1 | 1.2 | -1.6 | -3.5 | -4.0 | 3.7 | -2.0 | 3.9 | -0.3 |
| Government final consumption | 99.0 | 99.1 | 99.6 | 100.1 | 100.7 | 101.0 | 101.3 | 101.6 | 99.5 | 101.2 | 99.2 | 100.8 |
| Q/q %, SAAR | 1.6 | 0.4 | 2.2 | 1.8 | 2.4 | 1.2 | 1.2 | 1.2 | | | | |
| Y/y % | 1.9 | 1.6 | 1.9 | 1.4 | 1.7 | 1.9 | 1.6 | 1.6 | 1.7 | 1.7 | 1.6 | 1.6 |
| Fixed investment | 25.7 | 27.5 | 27.9 | 26.9 | 25.3 | 23.5 | 22.1 | 21.3 | 27.1 | 22.8 | 26.4 | 24.5 |
| Q/q %, SAAR | 16.3 | 31.1 | 5.9 | -13.6 | -21.7 | -25.5 | -21.8 | -13.7 | | | | |
| Y/y % | 10.6 | 15.4 | 14.5 | 8.6 | -1.4 | -14.5 | -20.9 | -20.8 | 12.2 | -15.8 | 13.9 | -7.4 |
| Change in inventories | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 |
| Net exports of goods and services | -10.5 | -10.4 | -10.3 | -10.1 | -8.6 | -7.1 | -5.3 | -3.3 | -10.3 | -6.1 | -10.8 | -7.8 |
| Exports of goods and services | 78.0 | 80.1 | 82.2 | 84.4 | 86.8 | 89.4 | 92.4 | 95.7 | 81.2 | 91.1 | 78.5 | 88.2 |
| Q/q %, SAAR | 25.2 | 11.3 | 10.6 | 11.5 | 11.7 | 12.6 | 13.9 | 15.3 | | | | |
| Y/y % | 8.9 | 17.9 | 20.8 | 14.3 | 11.4 | 11.5 | 12.4 | 13.5 | 15.4 | 12.2 | 12.6 | 12.4 |
| Imports of goods and services | 88.5 | 90.5 | 92.5 | 94.5 | 95.4 | 96.5 | 97.7 | 99.0 | 91.5 | 97.2 | 89.3 | 96.0 |
| Q/q %, SAAR | 14.4 | 9.0 | 9.1 | 9.1 | 4.1 | 4.5 | 4.9 | 5.7 | | | | |
| Y/y % | 10.9 | 15.5 | 16.7 | 10.3 | 7.8 | 6.6 | 5.6 | 4.8 | 13.3 | 6.2 | 12.8 | 7.5 |

Source: Compiled by DIR.
Notes: 1)Y/y growth rates and FY and CY figures unadjusted; other seasonally adjusted.
2) Due to rounding, figures may differ from those released by the government.
E: DIR estimate.

## 4.1 Gross Domestic Expenditure, Implicit Deflators (2005=100)

| | 2011 | | | 2012 | | | | 2013 | FY | | CY | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 4-6 | 7-9 | 10-12 | 1-3 | 4-6 | 7-9 | 10-12 | 1-3 | 2011 | 2012 | 2011 | 2012 |
| Gross domestic expenditure | 92.4 | 92.2 | 92.0 | 91.9 | 91.6 | 91.5 | 91.3 | 90.9 | 92.1 | 91.3 | 92.4 | 91.6 |
| Q/q %, SAAR | -0.6 | -0.3 | -0.2 | -0.1 | -0.3 | -0.1 | -0.2 | -0.5 | | | | |
| Y/y % | -2.1 | -1.9 | -1.5 | -1.0 | -1.0 | -0.8 | -0.7 | -1.2 | -1.7 | -0.9 | -1.9 | -0.9 |
| Private final consumption | 94.4 | 94.3 | 94.1 | 94.2 | 94.0 | 93.5 | 93.6 | 93.4 | 94.3 | 93.6 | 94.4 | 93.8 |
| Q/q %, SAAR | -0.2 | -0.1 | -0.2 | 0.1 | -0.3 | -0.5 | 0.0 | -0.2 | | | | |
| Y/y % | -1.1 | -0.5 | -0.5 | -0.3 | -0.5 | -1.0 | -0.6 | -0.9 | -0.6 | -0.7 | -0.8 | -0.6 |
| Private residential investment | 103.8 | 104.1 | 103.5 | 103.2 | 102.9 | 102.8 | 103.1 | 103.7 | 103.7 | 103.1 | 103.7 | 103.0 |
| Q/q %, SAAR | 0.4 | 0.3 | -0.6 | -0.3 | -0.2 | -0.1 | 0.3 | 0.5 | | | | |
| Y/y % | 0.9 | 0.7 | 0.3 | -0.2 | -0.8 | -1.3 | -0.4 | 0.5 | 0.4 | -0.5 | 0.6 | -0.7 |
| Private non-residential investment | 94.6 | 94.8 | 94.5 | 94.5 | 94.4 | 94.1 | 94.1 | 94.2 | 94.6 | 94.2 | 94.7 | 94.3 |
| Q/q %, SAAR | -0.4 | 0.2 | -0.3 | -0.1 | -0.1 | -0.3 | -0.0 | 0.1 | | | | |
| Y/y % | -1.6 | -1.1 | -0.7 | -0.4 | -0.2 | -0.8 | -0.5 | -0.2 | -0.9 | -0.4 | -1.3 | -0.4 |
| Government final consumption | 97.6 | 97.6 | 97.2 | 97.3 | 96.2 | 96.2 | 95.9 | 96.0 | 97.4 | 96.0 | 97.4 | 96.3 |
| Q/q %, SAAR | -0.0 | 0.0 | -0.4 | 0.1 | -1.1 | -0.0 | -0.3 | 0.1 | | | | |
| Y/y % | -0.5 | -0.1 | -0.1 | 0.1 | -1.6 | -1.5 | -1.6 | -1.1 | -0.2 | -1.4 | -0.3 | -1.1 |
| Public fixed investment | 104.1 | 104.1 | 103.6 | 103.4 | 103.8 | 103.3 | 103.1 | 103.5 | 103.7 | 103.4 | 103.7 | 103.4 |
| Q/q %, SAAR | 0.8 | -0.0 | -0.5 | -0.1 | 0.3 | -0.5 | -0.2 | 0.4 | | | | |
| Y/y % | 0.7 | 1.0 | 0.8 | 0.3 | -0.3 | -1.0 | -0.3 | 0.1 | 0.7 | -0.3 | 0.6 | -0.3 |
| Exports of goods and services | 87.5 | 86.6 | 86.2 | 84.6 | 84.5 | 84.2 | 86.9 | 90.6 | 86.2 | 86.6 | 86.8 | 85.1 |
| Q/q %, SAAR | 0.0 | -1.0 | -0.5 | -1.8 | -0.2 | -0.3 | 3.2 | 4.3 | | | | |
| Y/y % | -2.7 | -1.2 | -2.5 | -2.9 | -3.3 | -3.0 | 0.8 | 7.2 | -2.3 | 0.4 | -2.2 | -2.1 |
| Imports of goods and services | 110.1 | 110.5 | 109.7 | 109.3 | 108.0 | 106.5 | 110.1 | 117.8 | 109.9 | 110.6 | 109.2 | 108.5 |
| Q/q %, SAAR | 3.0 | 0.4 | -0.7 | -0.3 | -1.2 | -1.4 | 3.4 | 6.9 | | | | |
| Y/y % | 5.9 | 8.0 | 6.1 | 2.6 | -1.8 | -3.8 | 0.4 | 7.8 | 5.6 | 0.6 | 5.8 | -0.7 |

Source: Compiled by DIR.
Notes: 1) Y/y growth rates and FY and CY figures unadjusted; other seasonally adjusted.
2) Due to rounding, figures may differ from those released by the government.
E: DIR estimate.

## 4.2 Gross Domestic Expenditure, Implicit Deflators (2005=100)

| | 2013 | | | 2014 | | | | 2015 | FY | | CY | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 4-6 (E) | 7-9 (E) | 10-12 (E) | 1-3 (E) | 4-6 (E) | 7-9 (E) | 10-12 (E) | 1-3 (E) | 2013 (E) | 2014 (E) | 2013 (E) | 2014 (E) |
| Gross domestic expenditure | 91.1 | 91.1 | 91.2 | 91.2 | 92.0 | 92.2 | 92.4 | 92.7 | 91.2 | 92.3 | 91.1 | 91.9 |
| Q/q %, SAAR | 0.3 | -0.0 | 0.1 | 0.1 | 0.8 | 0.2 | 0.2 | 0.4 | | | | |
| Y/y % | -0.5 | -0.4 | -0.2 | 0.4 | 0.9 | 1.2 | 1.3 | 1.6 | -0.2 | 1.3 | -0.5 | 1.0 |
| Private final consumption | 93.4 | 93.4 | 93.5 | 93.6 | 94.9 | 95.0 | 95.2 | 95.5 | 93.5 | 95.1 | 93.4 | 94.7 |
| Q/q %, SAAR | 0.0 | 0.0 | 0.1 | 0.1 | 1.3 | 0.2 | 0.1 | 0.3 | | | | |
| Y/y % | -0.6 | -0.1 | -0.1 | 0.2 | 1.6 | 1.7 | 1.8 | 2.0 | -0.1 | 1.8 | -0.4 | 1.3 |
| Private residential investment | 103.9 | 104.0 | 104.2 | 104.3 | 105.4 | 105.7 | 105.9 | 106.3 | 104.1 | 105.8 | 104.0 | 105.3 |
| Q/q %, SAAR | 0.2 | 0.2 | 0.1 | 0.2 | 1.0 | 0.3 | 0.2 | 0.3 | | | | |
| Y/y % | 0.9 | 1.2 | 1.0 | 0.6 | 1.4 | 1.6 | 1.7 | 1.9 | 0.9 | 1.6 | 0.9 | 1.3 |
| Private non-residential investment | 94.5 | 94.6 | 94.8 | 95.0 | 95.2 | 95.5 | 95.7 | 96.1 | 94.8 | 95.7 | 94.5 | 95.3 |
| Q/q %, SAAR | 0.3 | 0.1 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | | | | |
| Y/y % | 0.1 | 0.6 | 0.8 | 0.8 | 0.8 | 0.9 | 1.0 | 1.2 | 0.6 | 0.9 | 0.3 | 0.9 |
| Government final consumption | 96.1 | 95.8 | 95.9 | 96.1 | 96.4 | 96.5 | 96.6 | 96.7 | 96.0 | 96.5 | 96.0 | 96.4 |
| Q/q %, SAAR | 0.1 | -0.3 | 0.1 | 0.1 | 0.3 | 0.1 | 0.1 | 0.1 | | | | |
| Y/y % | -0.0 | -0.4 | 0.2 | -0.1 | 0.3 | 0.7 | 0.6 | 0.7 | -0.1 | 0.6 | -0.3 | 0.4 |
| Public fixed investment | 103.9 | 104.2 | 104.6 | 104.9 | 105.2 | 105.6 | 106.0 | 106.5 | 104.5 | 105.9 | 104.1 | 105.4 |
| Q/q %, SAAR | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | | | | |
| Y/y % | 0.1 | 1.0 | 1.3 | 1.3 | 1.2 | 1.2 | 1.4 | 1.6 | 1.0 | 1.3 | 0.7 | 1.2 |
| Exports of goods and services | 94.0 | 94.6 | 95.0 | 95.4 | 95.9 | 96.5 | 97.1 | 97.9 | 94.8 | 96.9 | 93.6 | 96.2 |
| Q/q %, SAAR | 3.8 | 0.6 | 0.4 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | | | | |
| Y/y % | 11.2 | 12.5 | 9.3 | 5.2 | 2.0 | 1.9 | 2.3 | 2.7 | 9.5 | 2.2 | 10.1 | 2.8 |
| Imports of goods and services | 120.3 | 121.2 | 122.0 | 122.6 | 123.1 | 123.5 | 123.7 | 123.9 | 121.6 | 123.6 | 120.4 | 123.2 |
| Q/q %, SAAR | 2.2 | 0.7 | 0.7 | 0.5 | 0.4 | 0.3 | 0.2 | 0.1 | | | | |
| Y/y % | 11.4 | 14.0 | 10.8 | 4.1 | 2.3 | 1.8 | 1.4 | 1.0 | 9.9 | 1.6 | 11.0 | 2.4 |

Source: Compiled by DIR.
Notes: 1) Y/y growth rates and FY and CY figures unadjusted; other seasonally adjusted.
2) Due to rounding, figures may differ from those released by the government.
E: DIR estimate.

## 5.1 Contribution to Real GDP Growth by Component

| | 2011 | | | 2012 | | | | 2013 | FY | | CY | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 4-6 | 7-9 | 10-12 | 1-3 | 4-6 | 7-9 | 10-12 | 1-3 | 2011 | 2012 | 2011 | 2012 |
| **1) Q/q %** | | | | | | | | | | | | |
| GDP growth rate | -1.0 | 2.7 | 0.2 | 1.3 | -0.2 | -0.9 | 0.3 | 0.9 | 0.2 | 1.2 | -0.6 | 2.0 |
| Domestic demand | 0.1 | 1.9 | 0.9 | 1.2 | 0.1 | -0.3 | 0.3 | 0.5 | 1.3 | 1.9 | 0.3 | 2.9 |
| Private demand | -0.0 | 1.8 | 0.9 | 0.6 | -0.3 | -0.5 | 0.1 | 0.3 | 1.0 | 0.8 | 0.3 | 1.8 |
| Private consumption | 0.6 | 0.9 | 0.4 | 0.5 | 0.1 | -0.2 | 0.3 | 0.6 | 0.9 | 1.0 | 0.3 | 1.4 |
| Residential investment | -0.1 | 0.1 | -0.0 | -0.0 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Private fixed investment | -0.0 | 0.2 | 1.0 | -0.3 | -0.0 | -0.4 | -0.2 | -0.1 | 0.5 | -0.2 | 0.4 | 0.3 |
| Change in private inventories | -0.5 | 0.6 | -0.5 | 0.5 | -0.5 | 0.1 | -0.1 | -0.2 | -0.5 | -0.1 | -0.5 | 0.0 |
| Public demand | 0.1 | 0.0 | -0.0 | 0.6 | 0.4 | 0.2 | 0.3 | 0.2 | 0.2 | 1.1 | -0.1 | 1.1 |
| Government final consumption | 0.1 | 0.0 | 0.1 | 0.3 | 0.1 | 0.1 | 0.2 | 0.1 | 0.3 | 0.5 | 0.3 | 0.5 |
| Public fixed investment | 0.0 | -0.0 | -0.1 | 0.3 | 0.3 | 0.2 | 0.1 | 0.0 | -0.1 | 0.6 | -0.3 | 0.6 |
| Change in public inventories | 0.0 | 0.0 | -0.0 | 0.0 | -0.0 | 0.0 | -0.0 | -0.0 | 0.0 | -0.0 | 0.0 | 0.0 |
| Net exports of goods and services | -1.1 | 0.9 | -0.7 | 0.1 | -0.3 | -0.6 | -0.1 | 0.4 | -1.0 | -0.7 | -0.9 | -0.9 |
| Exports of goods and services | -1.1 | 1.3 | -0.5 | 0.4 | -0.0 | -0.7 | -0.4 | 0.5 | -0.2 | -0.2 | -0.1 | -0.0 |
| Imports of goods and services | 0.1 | -0.5 | -0.2 | -0.3 | -0.3 | 0.1 | 0.4 | -0.2 | -0.8 | -0.5 | -0.8 | -0.9 |
| **2) Y/y %** | | | | | | | | | | | | |
| GDP growth rate | -1.6 | -0.5 | -0.3 | 3.4 | 4.0 | 0.3 | 0.5 | 0.2 | 0.2 | 1.2 | -0.6 | 2.0 |
| Domestic demand | -0.2 | 0.1 | 0.9 | 4.3 | 4.1 | 1.9 | 1.4 | 0.8 | 1.3 | 1.9 | 0.3 | 2.9 |
| Private demand | -0.4 | 0.0 | 1.1 | 3.5 | 3.1 | 0.8 | -0.1 | -0.4 | 1.0 | 0.8 | 0.3 | 1.8 |
| Private consumption | 0.3 | 0.3 | 0.7 | 2.3 | 1.9 | 0.8 | 0.6 | 0.7 | 0.9 | 1.0 | 0.3 | 1.4 |
| Residential investment | 0.1 | 0.2 | 0.1 | -0.0 | 0.1 | 0.0 | 0.2 | 0.3 | 0.1 | 0.1 | 0.1 | 0.1 |
| Private fixed investment | -0.1 | -0.0 | 1.2 | 1.0 | 0.9 | 0.2 | -0.9 | -0.9 | 0.5 | -0.2 | 0.4 | 0.3 |
| Change in private inventories | -0.8 | -0.5 | -0.9 | 0.2 | 0.2 | -0.3 | 0.1 | -0.6 | -0.5 | -0.1 | -0.5 | 0.0 |
| Public demand | 0.2 | 0.1 | -0.2 | 0.8 | 0.9 | 1.1 | 1.5 | 1.2 | 0.2 | 1.1 | -0.1 | 1.1 |
| Government final consumption | 0.3 | 0.2 | 0.2 | 0.5 | 0.6 | 0.5 | 0.6 | 0.5 | 0.3 | 0.5 | 0.3 | 0.5 |
| Public fixed investment | -0.1 | -0.2 | -0.4 | 0.3 | 0.4 | 0.6 | 0.9 | 0.8 | -0.1 | 0.6 | -0.3 | 0.6 |
| Change in public inventories | 0.0 | 0.1 | 0.0 | 0.0 | -0.0 | -0.0 | -0.0 | -0.0 | 0.0 | -0.0 | 0.0 | 0.0 |
| Net exports of goods and services | -1.4 | -0.6 | -1.2 | -0.9 | -0.1 | -1.6 | -0.9 | -0.6 | -1.0 | -0.7 | -0.9 | -0.9 |
| Exports of goods and services | -0.8 | 0.1 | -0.4 | 0.1 | 1.4 | -0.8 | -0.7 | -0.5 | -0.2 | -0.2 | -0.1 | -0.0 |
| Imports of goods and services | -0.5 | -0.7 | -0.8 | -1.1 | -1.5 | -0.8 | -0.2 | -0.0 | -0.8 | -0.5 | -0.8 | -0.9 |

Source: Compiled by DIR.
Notes: 1) Q/q growth rates seasonally adjusted; y/y growth rates and FY and CY figures unadjusted.
2) Due to rounding, figures may differ from those released by the government.
E: DIR estimate.

## 5.2 Contribution to Real GDP Growth by Component

| | 2013 4-6 (E) | 7-9 (E) | 10-12 (E) | 2014 1-3 (E) | 4-6 (E) | 7-9 (E) | 10-12 (E) | 2015 1-3 (E) | FY 2013 (E) | FY 2014 (E) | CY 2013 (E) | CY 2014 (E) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **1) Q/q %** | | | | | | | | | | | | |
| GDP growth rate | 0.7 | 1.2 | 1.1 | 1.4 | -2.0 | 0.5 | 0.5 | 0.6 | 3.1 | 0.7 | 2.1 | 1.9 |
| Domestic demand | 0.6 | 1.1 | 1.0 | 1.3 | -2.4 | 0.2 | 0.2 | 0.3 | 2.7 | -0.3 | 2.0 | 1.3 |
| Private demand | 0.4 | 0.7 | 0.9 | 1.5 | -2.1 | 0.6 | 0.5 | 0.5 | 1.9 | 0.3 | 1.0 | 1.5 |
| Private consumption | 0.3 | 0.2 | 0.5 | 1.1 | -1.9 | 0.4 | 0.2 | 0.2 | 1.4 | -0.4 | 1.1 | 0.4 |
| Residential investment | 0.0 | 0.1 | 0.1 | 0.0 | -0.2 | -0.0 | 0.0 | 0.0 | 0.2 | -0.1 | 0.2 | -0.0 |
| Private fixed investment | 0.1 | 0.2 | 0.3 | 0.3 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.8 | -0.3 | 0.9 |
| Change in private inventories | 0.0 | 0.2 | 0.0 | 0.0 | -0.0 | -0.0 | -0.0 | -0.0 | 0.0 | 0.0 | -0.1 | 0.1 |
| Public demand | 0.2 | 0.4 | 0.1 | -0.2 | -0.3 | -0.3 | -0.3 | -0.1 | 0.8 | -0.6 | 1.0 | -0.2 |
| Government final consumption | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.3 | 0.2 | 0.4 | 0.3 |
| Public fixed investment | 0.2 | 0.4 | 0.1 | -0.2 | -0.3 | -0.4 | -0.3 | -0.2 | 0.5 | -0.8 | 0.6 | -0.5 |
| Change in public inventories | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.0 | 0.0 | 0.0 | 0.0 |
| Net exports of goods and services | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.9 | 0.1 | 0.6 |
| Exports of goods and services | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.8 | 1.6 | 0.3 | 1.5 |
| Imports of goods and services | -0.2 | -0.2 | -0.3 | -0.3 | -0.1 | -0.2 | -0.2 | -0.3 | -0.4 | -0.6 | -0.3 | -0.9 |
| **2) Y/y %** | | | | | | | | | | | | |
| GDP growth rate | 1.0 | 3.1 | 3.9 | 4.4 | 1.7 | 1.0 | 0.5 | -0.2 | 3.1 | 0.7 | 2.1 | 1.9 |
| Domestic demand | 1.2 | 2.6 | 3.4 | 4.3 | 1.0 | 0.2 | -0.9 | -1.7 | 2.7 | -0.3 | 2.0 | 1.3 |
| Private demand | 0.4 | 1.6 | 2.3 | 3.6 | 0.8 | 0.8 | 0.3 | -0.5 | 1.9 | 0.3 | 1.0 | 1.5 |
| Private consumption | 0.9 | 1.3 | 1.6 | 2.1 | -0.1 | 0.0 | -0.3 | -1.1 | 1.4 | -0.4 | 1.1 | 0.4 |
| Residential investment | 0.2 | 0.3 | 0.2 | 0.2 | -0.0 | -0.1 | -0.2 | -0.2 | 0.2 | -0.1 | 0.2 | -0.0 |
| Private fixed investment | -0.6 | 0.0 | 0.4 | 1.0 | 0.8 | 0.9 | 0.8 | 0.9 | 0.2 | 0.8 | -0.3 | 0.9 |
| Change in private inventories | -0.1 | -0.0 | 0.1 | 0.3 | 0.2 | -0.0 | -0.0 | -0.1 | 0.0 | 0.0 | -0.1 | 0.1 |
| Public demand | 0.8 | 1.0 | 1.1 | 0.8 | 0.2 | -0.6 | -1.2 | -1.2 | 0.8 | -0.6 | 1.0 | -0.2 |
| Government final consumption | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 | 0.4 | 0.3 |
| Public fixed investment | 0.4 | 0.7 | 0.7 | 0.5 | -0.1 | -0.8 | -1.4 | -1.4 | 0.5 | -0.8 | 0.6 | -0.5 |
| Change in public inventories | -0.0 | -0.0 | -0.0 | 0.0 | -0.0 | 0.0 | 0.0 | -0.0 | -0.0 | 0.0 | 0.0 | 0.0 |
| Net exports of goods and services | -0.2 | 0.5 | 0.6 | 0.3 | 0.5 | 0.7 | 0.9 | 1.1 | 0.4 | 0.9 | 0.1 | 0.6 |
| Exports of goods and services | -0.3 | 0.7 | 1.5 | 1.4 | 1.5 | 1.6 | 1.6 | 1.8 | 0.8 | 1.6 | 0.3 | 1.5 |
| Imports of goods and services | 0.1 | -0.2 | -0.9 | -1.1 | -1.0 | -0.9 | -0.8 | -0.7 | -0.4 | -0.6 | -0.3 | -0.9 |

Source: Compiled by DIR.
Notes: 1) Q/q growth rates seasonally adjusted; y/y growth rates and FY and CY figures unadjusted.
2) Due to rounding, figures may differ from those released by the government.
E: DIR estimate.

## 6.1 Major Assumptions

| | 2011 | | | 2012 | | | | 2013 | FY | | CY | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 4-6 | 7-9 | 10-12 | 1-3 | 4-6 | 7-9 | 10-12 | 1-3 | 2011 | 2011 | 2011 | 2012 |
| **1) World economy** | | | | | | | | | | | | |
| Economic growth of major trading partners | | | | | | | | | | | | |
| Y/y % | 3.9 | 3.8 | 2.8 | 2.9 | 2.7 | 2.6 | 3.5 | 2.8 | 3.4 | 3.1 | 3.9 | 3.1 |
| Crude oil price (WTI futures; $/bbl) | 102.3 | 89.5 | 94.1 | 103.0 | 93.4 | 92.2 | 88.2 | 94.4 | 97.2 | 92.0 | 95.1 | 94.1 |
| Y/y % | 31.1 | 17.5 | 10.3 | 8.9 | -8.8 | 3.0 | -6.2 | -8.4 | 16.4 | -5.4 | 19.5 | -1.0 |
| **2) US economy** | | | | | | | | | | | | |
| Real GDP (chained [2005]; $ bil; SAAR) | 13,265 | 13,307 | 13,441 | 13,506 | 13,549 | 13,653 | 13,665 | 13,750 | 13,380 | 13,654 | 13,299 | 13,593 |
| Q/q %, SAAR | 2.5 | 1.3 | 4.1 | 2.0 | 1.3 | 3.1 | 0.4 | 2.5 | | | | |
| Y/y % | 1.9 | 1.6 | 2.0 | 2.4 | 2.1 | 2.6 | 1.7 | 1.8 | 2.0 | 2.1 | 1.8 | 2.2 |
| Consumer Price Index | | | | | | | | | | | | |
| (1982-84 avg=100) | 224.6 | 226.2 | 227.0 | 228.3 | 228.8 | 230.0 | 231.3 | 232.1 | 226.5 | 230.6 | 224.9 | 229.6 |
| Q/q %, SAAR | 4.7 | 2.9 | 1.4 | 2.3 | 1.0 | 2.1 | 2.2 | 1.4 | | | | |
| Y/y % | 3.4 | 3.8 | 3.3 | 2.8 | 1.9 | 1.7 | 1.9 | 1.7 | 3.3 | 1.8 | 3.2 | 2.1 |
| Producer Price Index | | | | | | | | | | | | |
| (Finished goods; 1982=100) | 190.7 | 192.2 | 193.0 | 193.7 | 192.8 | 195.2 | 196.2 | 196.5 | 192.1 | 194.9 | 190.5 | 194.2 |
| Q/q %, SAAR | 7.3 | 3.1 | 1.7 | 1.6 | -1.8 | 5.0 | 2.1 | 0.5 | | | | |
| Y/y % | 6.9 | 6.9 | 5.4 | 3.4 | 1.1 | 1.5 | 1.7 | 1.4 | 5.6 | 1.4 | 6.0 | 1.9 |
| FF rate (%) | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 |
| (Target rate for the forecast period, end-period) | | | | | | | | | | | | |
| Government bond yield (10 year; %) | 3.21 | 2.43 | 2.05 | 2.04 | 1.82 | 1.64 | 1.71 | 1.95 | 2.43 | 1.78 | 2.79 | 1.80 |
| **3) Japanese economy** | | | | | | | | | | | | |
| Nominal government final consumption | | | | | | | | | | | | |
| Y tril; SAAR | 96.2 | 96.4 | 96.4 | 97.8 | 97.2 | 97.5 | 97.9 | 98.6 | 96.7 | 97.8 | 96.2 | 97.6 |
| Q/q %, SAAR | 1.1 | 1.1 | -0.3 | 6.3 | -2.6 | 1.4 | 1.6 | 2.8 | | | | |
| Y/y % | 0.7 | 1.0 | 0.8 | 2.4 | 1.0 | 1.2 | 1.4 | 1.1 | 1.2 | 1.2 | 1.1 | 1.5 |
| Nominal public fixed investment | | | | | | | | | | | | |
| Y tril; SAAR | 21.0 | 21.0 | 20.4 | 21.7 | 23.2 | 23.8 | 24.5 | 24.8 | 21.0 | 24.1 | 20.7 | 23.2 |
| Q/q %, SAAR | 7.1 | -1.6 | -10.3 | 29.0 | 29.4 | 11.8 | 11.1 | 5.1 | | | | |
| Y/y % | -1.5 | -3.8 | -6.7 | 5.3 | 11.0 | 14.0 | 19.3 | 14.2 | -1.5 | 14.9 | -6.9 | 12.2 |
| Exchange rate (Y/$) | 81.7 | 77.8 | 77.3 | 79.3 | 80.1 | 78.6 | 81.2 | 92.3 | 79.0 | 83.1 | 79.8 | 79.8 |
| (Y/€) | 118.3 | 108.7 | 104.9 | 106.3 | 101.2 | 98.2 | 108.2 | 122.0 | 109.6 | 107.4 | 111.4 | 103.5 |
| Call rate (end-period; %) | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 |

Source: Compiled by DIR.
Notes: 1) Consumption tax hike in April 2014 assumed for Japan.
2) Due to rounding, figures may differ from those released by the government.
E: DIR estimate.

## 6.2 Major Assumptions

| | 2013 | | | 2014 | | | | 2015 | FY | | CY | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 4-6 (E) | 7-9 (E) | 10-12 (E) | 1-3 (E) | 4-6 (E) | 7-9 (E) | 10-12 (E) | 1-3 (E) | 2013 (E) | 2014 (E) | 2013 (E) | 2014 (E) |
| **1) World economy** | | | | | | | | | | | | |
| Economic growth of major trading partners | | | | | | | | | | | | |
| Y/y % | 3.0 | 3.0 | 2.9 | 3.4 | 3.6 | 3.8 | 4.0 | 4.1 | 3.1 | 3.8 | 2.9 | 3.7 |
| Crude oil price (WTI futures; $/bbl) | 95.0 | 95.0 | 95.0 | 95.0 | 95.0 | 95.0 | 95.0 | 95.0 | 95.0 | 95.0 | 94.8 | 95.0 |
| Y/y % | 1.8 | 3.0 | 7.7 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 3.2 | 0.0 | 0.7 | 0.2 |
| **2) US economy** | | | | | | | | | | | | |
| Real GDP (chained [2005]; $ bil; SAAR) | 13,810 | 13,875 | 13,951 | 14,029 | 14,115 | 14,205 | 14,303 | 14,406 | 13,916 | 14,258 | 13,847 | 14,163 |
| Q/q %, SAAR | 1.7 | 1.9 | 2.2 | 2.2 | 2.5 | 2.6 | 2.8 | 2.9 | | | | |
| Y/y % | 1.9 | 1.6 | 2.1 | 2.0 | 2.2 | 2.4 | 2.5 | 2.7 | 1.9 | 2.5 | 1.9 | 2.3 |
| Consumer Price Index | | | | | | | | | | | | |
| (1982-84 avg=100) | 233.0 | 234.0 | 235.2 | 236.4 | 237.7 | 238.9 | 240.3 | 241.6 | 234.6 | 239.6 | 233.5 | 238.3 |
| Q/q %, SAAR | 1.5 | 1.7 | 2.1 | 2.1 | 2.2 | 2.1 | 2.3 | 2.2 | | | | |
| Y/y % | 1.8 | 1.7 | 1.7 | 1.8 | 2.0 | 2.1 | 2.2 | 2.2 | 1.8 | 2.1 | 1.7 | 2.0 |
| Producer Price Index | | | | | | | | | | | | |
| (Finished goods; 1982=100) | 197.1 | 198.0 | 199.0 | 200.2 | 201.6 | 202.9 | 204.4 | 205.8 | 198.3 | 203.4 | 197.4 | 202.0 |
| Q/q %, SAAR | 1.2 | 1.8 | 2.2 | 2.4 | 2.8 | 2.6 | 3.0 | 2.8 | | | | |
| Y/y % | 2.2 | 1.4 | 1.4 | 1.9 | 2.3 | 2.5 | 2.7 | 2.8 | 1.7 | 2.6 | 1.6 | 2.4 |
| FF rate (%) | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 |
| (Target rate for the forecast period, end-period) | | | | | | | | | | | | |
| Government bond yield (10 year; %) | 2.06 | 2.21 | 2.38 | 2.56 | 2.72 | 2.89 | 2.92 | 3.00 | 2.30 | 2.88 | 2.15 | 2.77 |
| **3) Japanese economy** | | | | | | | | | | | | |
| Nominal government final consumption | | | | | | | | | | | | |
| Y tril; SAAR | 99.0 | 99.1 | 99.6 | 100.1 | 100.7 | 101.0 | 101.3 | 101.6 | 99.5 | 101.2 | 99.2 | 100.8 |
| Q/q %, SAAR | 1.6 | 0.4 | 2.2 | 1.8 | 2.4 | 1.2 | 1.2 | 1.2 | | | | |
| Y/y % | 1.9 | 1.6 | 1.9 | 1.4 | 1.7 | 1.9 | 1.6 | 1.6 | 1.7 | 1.7 | 1.6 | 1.6 |
| Nominal public fixed investment | | | | | | | | | | | | |
| Y tril; SAAR | 25.7 | 27.5 | 27.9 | 26.9 | 25.3 | 23.5 | 22.1 | 21.3 | 27.1 | 22.8 | 26.4 | 24.5 |
| Q/q %, SAAR | 16.3 | 31.1 | 5.9 | -13.6 | -21.7 | -25.5 | -21.8 | -13.7 | | | | |
| Y/y % | 10.6 | 15.4 | 14.5 | 8.6 | -1.4 | -14.5 | -20.9 | -20.8 | 12.2 | -15.8 | 13.9 | -7.4 |
| Exchange rate (Y/$) | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 98.1 | 100.0 |
| (Y/€) | 130.0 | 130.0 | 130.0 | 130.0 | 130.0 | 130.0 | 130.0 | 130.0 | 130.0 | 130.0 | 128.0 | 130.0 |
| Call rate (end-period; %) | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 |

Source: Compiled by DIR.
Notes: 1) Consumption tax hike in April 2014 assumed for Japan.
2) Due to rounding, figures may differ from those released by the government.
E: DIR estimate.