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May 1, 2014 Bank of Japan

# **Outlook for Economic Activity and Prices**

April 2014

(English translation prepared by the Bank's staff based on the Japanese original)

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## The Bank's View<sup>1</sup>

## **Summary**

- From fiscal 2014 through fiscal 2016, Japan's economy is likely to continue growing at a pace above its potential as a trend, while it will be affected by the front-loaded increase and subsequent decline in demand prior to and after the two rounds of consumption tax hikes.
- The year-on-year rate of increase in the consumer price index (CPI, for all items less fresh food and excluding the direct effects of the consumption tax hikes) is likely to be around 1¼ percent for some time, follow a rising trend again from the second half of this fiscal year, and reach around 2 percent around the middle of the projection period. Thereafter, Japan's economy is expected to gradually shift to a growth path that sustains such inflation in a stable manner.
- Comparing the current projections with the previous ones, while the growth rate for fiscal 2014 is somewhat lower, due mainly to a delay in export recovery, the projected rates of increase in prices are more or less unchanged as (1) continued firm domestic demand, which tends to have large stimulative effects on employment, has tightened labor supply and demand conditions, and this situation is expected to be reinforced, and (2) a rise in medium- to long-term inflation expectations seems to have started to influence actual wage and price settings.
- In the context of the price stability target, the Bank of Japan examined the aforementioned baseline scenario (the first perspective) and upside and downside risks to the baseline scenario (the second perspective). As for the conduct of monetary policy, quantitative and qualitative monetary easing (QQE) has been exerting its intended effects. The Bank will continue with the QQE, aiming to achieve the price stability target of 2 percent, as long as it is necessary for maintaining that target in a stable manner. It will examine both upside and downside risks to economic activity and prices, and make adjustments as appropriate.

<sup>&</sup>lt;sup>1</sup> The text of "The Bank's View" was decided by the Policy Board at the Monetary Policy Meeting held on April 30, 2014.

<sup>&</sup>lt;sup>2</sup> As for the examination from two perspectives in the context of the price stability target, see the Bank's statement released on January 22, 2013, titled "The 'Price Stability Target' under the Framework for the Conduct of Monetary Policy."

## I. Baseline Scenario of the Outlook for Economic Activity and Prices in Japan

# A. Outlook for Economic Activity

Japan's economy has continued to recover moderately as a trend, albeit with some fluctuations due to the consumption tax hike. While exports have been somewhat weak, as domestic demand has been firm, a virtuous cycle of economic activity has been operating steadily. As domestic demand tends to have large stimulative effects on employment, the tightening trend in labor supply and demand conditions is becoming more apparent, as largely envisioned, despite a downward revision in the growth rate in fiscal 2013.

Looking ahead, as domestic demand is likely to maintain firmness and exports are expected to increase, albeit moderately, a virtuous cycle among production, income, and spending is likely to be maintained. Therefore, the economy is likely to continue growing at a pace above its potential as a trend, while it will be affected by the front-loaded increase and subsequent decline in demand prior to and after the two rounds of consumption tax hikes.<sup>3</sup>

The above projection assumes the following underlying developments.

First, as the Bank of Japan steadily pursues the QQE, financial conditions are likely to become more accommodative.<sup>4</sup> Namely, under the QQE, upward pressure on nominal long-term interest rates has been contained while inflation expectations have been rising on the whole, and thus real interest rates have continued to decline. The amount outstanding of bank lending has been increasing moderately. Stimulative effects of such

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<sup>&</sup>lt;sup>3</sup> Japan's potential growth rate -- under a certain methodology -- is estimated to be "around 0.5 percent" recently, and is expected to rise gradually toward the end of the projection period. However, it should be noted that estimates of the potential growth rate are subject to a considerable margin of error as they rely on the specific methodology employed and could change as more data for the relevant period become available.

<sup>&</sup>lt;sup>4</sup> Individual Policy Board members make their forecasts assuming the effects of past policy decisions and with reference to views incorporated in financial markets regarding future policy. Specifically, markets have factored in that short-term interest rates will continue to be effectively 0 percent throughout the projection period. While markets have been forecasting that long-term interest rates will hover at low levels throughout the projection period, this reflects the fact that market participants' forecasts for prices are lower than those presented in the *Outlook for Economic Activity and Prices* (Outlook Report). Each Policy Board member assumes the future path of long-term interest rates based on such market views, taking into account the difference in the forecasts for prices.

accommodative financial conditions on private demand are likely to strengthen as economic activity improves.

Second, overseas economies are expected to moderately increase their growth rates as advanced economies continue to see firm recovery and its positive effects gradually spread to emerging economies. Looking at major countries and regions, the U.S. economy is expected to gradually accelerate its pace of recovery, as the fiscal drag will fade and an improvement in the employment and income situation will become evident. While adjustment pressure associated with the European debt problem is likely to remain, the European economy is expected to move from a pick-up to a moderate recovery, supported mainly by an improvement in households' and firms' sentiment. The Chinese economy is likely to continue to see stable growth, albeit at a slightly slower pace, as authorities carry out policy measures to support economic activity while progressing with structural reforms. Meanwhile, other emerging and commodity-exporting economies will likely continue to lack growth momentum for the time being, but they are expected to gradually increase their growth rates due to positive effects of recovery in advanced economies, on the assumption that global financial markets remain generally stable.

Third, public investment is expected to continue hovering at a high level through the first half of fiscal 2014, reflecting a boost from economic stimulus, and thereafter gradually turn to a moderate downtrend.

Fourth, firms' and households' medium- to long-term growth expectations are expected to rise moderately, against the backdrop of progress in the government's growth strategy, including regulatory and institutional reforms, an increase in labor participation by women and the elderly under such strategy, and firms' initiatives toward improving productivity and their tapping of potential domestic and external demand.

Given these assumptions, to elaborate on economic activity during the projection period, <u>in</u> <u>fiscal 2014</u>, the growth rate for the April-June quarter is expected to temporarily decline, mainly in private consumption, including durable goods, due to effects of the subsequent

decline in demand following the front-loaded increase prior to the consumption tax hike.<sup>5</sup> However, private consumption is expected to maintain its resilience as a trend, underpinned by an improvement in the employment and income situation. Therefore, the effects of the subsequent decline in demand following the front-loaded increase prior to the consumption tax hike will likely dissipate from summer. In the meantime, exports are expected to start increasing, albeit moderately, as the growth rates of advanced economies will likely increase while temporary downside factors that dragged down exports -- seen at the end of fiscal 2013 -- diminish. These factors include (1) firms' stance of placing priority on domestic shipments in response to the front-loaded increase in demand and (2) the unusually severe winter weather in the United States. Business fixed investment is also expected to follow a moderate uptrend due mainly to an improvement in corporate profits, a rise in the capacity utilization rate, and effects of monetary easing. Owing to these developments in domestic and external demand, the economy is expected to return to a growth path that is above its potential from summer.

As for <u>fiscal 2015</u> through fiscal 2016, a virtuous cycle of economic activity will be maintained -- supported by (1) a firm increase in domestic private demand reflecting accommodative financial conditions and heightened growth expectations, as well as (2) an increase in exports due to an improvement in overseas economies -- and the economy is expected to continue growing at a pace above its potential, while fluctuations in demand stemming from the scheduled second consumption tax hike are anticipated. Comparing the current projection for growth rates up through fiscal 2015 with that in the January 2014 interim assessment, while the growth rate for fiscal 2014 is somewhat lower, that for fiscal 2015 is more or less unchanged.

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<sup>&</sup>lt;sup>5</sup> The effects of the two rounds of consumption tax hikes on the economic growth rate for each fiscal year are quantitatively estimated as follows: an increase of around 0.3 percentage point for fiscal 2013, a decrease of around 0.7 percentage point for fiscal 2014, an increase of around 0.2 percentage point for fiscal 2015, and about 0 percentage point for fiscal 2016. However, it should be noted that these estimates are subject to considerable uncertainty given that they depend partly on income conditions and price developments at each point in time, and therefore are subject to a considerable margin of error.

#### **B.** Outlook for Prices

The year-on-year rate of increase in the CPI (for all items less fresh food, and the same hereafter) has been expanding, and recently has been around 1½ percent.

Examining major factors that determine inflation rates into the future, first, the <u>aggregate supply and demand balance</u> (output gap, and the same hereafter), which shows the utilization of labor and capital, has been improving mainly on the labor front, reflecting firm domestic demand, which tends to have large stimulative effects on employment.<sup>6</sup> It appears to have reached around the past long-term average of about 0 percent. Specifically, the tightening trend in the labor supply and demand conditions is steadily becoming more apparent, with the unemployment rate gradually approaching a structural unemployment rate that is deemed to be around 3.5 percent, and a sense of capital shortage has been strengthening, mainly in the nonmanufacturing sector.<sup>7</sup> As for the outlook, accompanied by some swings due to effects of the consumption tax hikes, a trend in which the output gap will be positive (in excess demand) is likely to take root in the second half of fiscal 2014, and thereafter the gap is expected to move further into excess demand territory. In this situation, upward pressure on wages and prices due to the tightening of supply and demand conditions is likely to steadily increase.

Second, <u>medium- to long-term inflation expectations</u> appear to have been rising on the whole, and such developments seem to have started to influence actual wage and price settings. For example, a rise in the inflation rate has been taken into account in the recent labor-management wage negotiations. In addition, a shift in firms' price-setting strategy,

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<sup>&</sup>lt;sup>6</sup> There are two approaches to estimating the output gap: (a) estimate potential GDP and then measure its difference with actual GDP, and (b) directly measure the utilization of production factors (labor and capital). As the output gap in the Outlook Report has been estimated based on the latter approach, changes in the GDP growth rate do not have a one-to-one relationship with the expansion/narrowing of the output gap. It should be noted that estimates of the output gap could differ depending on the specific methodology employed and data used, and therefore they are subject to a considerable margin of error.

<sup>&</sup>lt;sup>7</sup> In the labor market, there is always a mismatch to some extent between job openings and job applicants, and thus there is a certain number of unemployed even when the economy is booming. Given that there is such unemployment due to the mismatch, the unemployment rate that corresponds to a state in which excess labor force has disappeared is called the *structural unemployment rate*.

from a low-price strategy to one of raising sales prices while increasing value-added, has started to be seen. Looking ahead, as the Bank pursues the QQE and the observed inflation rate rises above 1 percent, medium- to long-term inflation expectations are likely to follow an increasing trend and gradually converge to around 2 percent -- the price stability target.

Third, as for <u>import prices</u>, upward pressure mainly from energy prices is likely to wane through around summer, reflecting developments in international commodity prices and foreign exchange rates.

Based on the above, the outlook for the year-on-year rate of increase in the CPI (excluding the direct effects of the consumption tax hikes) is as follows. It is likely to be around 1½ percent for some time, follow a rising trend again from the second half of this fiscal year, and reach around 2 percent -- the price stability target -- around the middle of the projection period. Thereafter, the year-on-year rate of increase in the CPI is likely to edge up as medium- to long-term inflation expectations will converge to around 2 percent and the output gap is expected to continue expanding in positive territory. Comparing the current projection up through fiscal 2015 with that in the January 2014 interim assessment, the projected rates of increase in the CPI are more or less unchanged.

# II. Upside and Downside Risks

# A. Risks to Economic Activity

The following are upside and downside risks to the Bank's aforementioned baseline scenario regarding the economy. First, there is uncertainty regarding <u>developments in exports</u>. While, basically, the recent weakness in exports has been due mainly to the sluggishness in emerging economies including ASEAN economies that have strong ties with Japan's economy, it is likely that effects of structural factors such as a spreading of the shift of Japanese manufacturers' production sites to overseas have also played a certain role.

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<sup>&</sup>lt;sup>8</sup> The effects of the two rounds of consumption tax hikes on prices can be mechanically estimated by assuming that the rise in the consumption taxes will be fully passed on for all currently taxable items. On this basis, the year-on-year rate of increase in the CPI will be pushed up by 2.0 percentage points in fiscal 2014 and 1.3 percentage points in the second half of fiscal 2015 and the first half of fiscal 2016.

Therefore, depending on future developments in overseas economies -- such as in emerging economies, the prospects for the European debt problem, and the pace of recovery in the U.S. economy -- as well as the situation for Japanese firms' production share at home and abroad, exports may either deviate upward or downward.

The second risk is the effects of the consumption tax hikes. Consumption tax is an indirect tax that is imposed broadly on consumption in general, and the hikes will have adverse effects on households' real disposable income. However, forces to mitigate adverse effects on consumption to some extent could be at work, partly because (1) various economic measures are taken by the government, (2) the tax hikes seem to have already been factored in substantially among households, and (3) the rate hikes are expected to have the effect of alleviating households' future concerns over the fiscal condition and the social security system. Attention should be paid to the effects of consumption tax hikes on household spending as they may differ depending on consumer sentiment, the employment and income situation, and developments in prices at each point in time.

Third, <u>firms'</u> and <u>households'</u> medium- to <u>long-term</u> growth expectations may be either raised or lowered depending on future developments in regulatory and institutional reforms, innovation in the corporate sector, and the employment and income situation surrounding the household sector.

Fourth, in the event that confidence in <u>fiscal sustainability in the medium to long term</u> declines, the economy may deviate downward from the baseline scenario through increases in people's concerns regarding the future and rises in long-term interest rates that are unwarranted by economic fundamental conditions. On the other hand, there is also a possibility that the economy will deviate upward from the baseline scenario if confidence in the path toward fiscal consolidation strengthens and people's concerns regarding the future are alleviated.

#### **B.** Risks to Prices

In case the aforementioned upside and downside risks to the economy materialize, it is likely that prices will also be affected to a certain degree. Other factors that could exert upside and downside risks to prices are as follows. The first concerns developments in firms' and households' medium- to long-term inflation expectations. While the baseline

scenario assumes that, amid a rise in observed price and wage inflation, people's inflation expectations will rise further, attention should be paid to the pace at which they will rise. Furthermore, effects on people's expectations of price increases in a wide range of items associated with the consumption tax hikes warrant attention.

The second concerns <u>developments in the output gap</u>, particularly in labor supply and demand conditions. The baseline scenario assumes that, on the labor supply side, the recent increase in labor participation by the elderly and women will continue to some extent going forward, but uncertainty is associated with this assumption. In addition, even with the same economic growth rate, the degree of labor shortage in the economy as a whole may change depending on the balance between manufacturing and nonmanufacturing, for which the extent of labor intensity differs.

The third regards the <u>responsiveness of inflation to the output gap</u>. Attention needs to be paid to what extent firms will raise prices and wages as the output gap tightens.

Fourth, depending on <u>developments in import prices</u>, reflecting fluctuations in international commodity prices and foreign exchange rates, prices may either deviate upward or downward.

# **III.** Conduct of Monetary Policy

In the context of the price stability target, the Bank assesses the aforementioned economic and price situation from two perspectives and then outlines its thinking on the future conduct of monetary policy.

The <u>first perspective</u> concerns an examination of the baseline scenario for the outlook. Japan's economy is judged as likely to achieve around 2 percent inflation around the middle of the projection period, and thereafter gradually shift to a growth path that sustains such inflation in a stable manner.

The <u>second perspective</u> involves an examination of the risks considered most relevant to the conduct of monetary policy. With regard to the baseline scenario for economic activity, upside and downside risks can be assessed as being balanced, although uncertainty remains high, including that regarding developments in exports. Risks on the price front also can be assessed as being largely balanced, although considerable uncertainty surrounds

developments, mainly in medium- to long-term inflation expectations. Examining financial imbalances from a longer-term perspective, there is no sign at this point of excessively bullish expectations in asset markets or in the activities of financial institutions. Nevertheless, in a situation where the amount outstanding of government debt has shown a cumulative increase, due attention needs to be paid to the fact that financial institutions' holdings of government bonds have remained at an elevated level, although they recently have been declining.

As for the <u>conduct of monetary policy</u>, the QQE has been exerting its intended effects. The Bank will continue with the QQE, aiming to achieve the price stability target of 2 percent, as long as it is necessary for maintaining that target in a stable manner. It will examine both upside and downside risks to economic activity and prices, and make adjustments as appropriate.

<sup>&</sup>lt;sup>9</sup> For more details, see the April 2014 issue of the Bank's *Financial System Report*.

(Appendix)

# Forecasts of the Majority of Policy Board Members

y/y % chg.

	Real GDP	CPI (all items less fresh food)	Excluding the effects of the consumption tax hikes
Fiscal 2013	+2.2 to +2.3 [+2.2]	+0.8	
Forecasts made in January 2014	+2.5 to +2.9 [+2.7]	+0.7 to +0.9 [+0.7]	
Fiscal 2014	+0.8 to +1.3	+3.0 to +3.5	+1.0 to +1.5
	[+1.1]	[+3.3]	[+1.3]
Forecasts made in January 2014	+0.9 to +1.5 [+1.4]	+2.9 to +3.6 [+3.3]	+0.9 to +1.6 [+1.3]
Fiscal 2015	+1.2 to +1.5	+1.9 to +2.8	+1.2 to +2.1
	[+1.5]	[+2.6]	[+1.9]
Forecasts made in January 2014	+1.2 to +1.8	+1.7 to +2.9	+1.0 to +2.2
	[+1.5]	[+2.6]	[+1.9]
Fiscal 2016	+1.0 to +1.5	+2.0 to +3.0	+1.3 to +2.3
	[+1.3]	[+2.8]	[+2.1]

Notes: 1. Figures in brackets indicate the median of the Policy Board members' forecasts (point estimates).

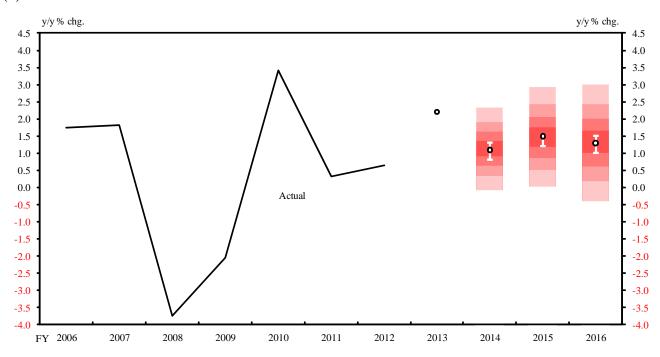
- 2. The forecasts of the majority of the Policy Board members are constructed as follows: each Policy Board member's forecast takes the form of a point estimate -- namely, the figure to which he or she attaches the highest probability of realization. These forecasts are then shown as a range, with the highest figure and the lowest figure excluded. The range does not indicate the forecast errors.
- 3. Individual Policy Board members make their forecasts assuming the effects of past policy decisions and with reference to views incorporated in financial markets regarding future policy.
- 4. The consumption tax hike in April 2014 -- to 8 percent -- and the one scheduled for October 2015 -- to 10 percent -- are incorporated in the forecasts. In terms of the outlook for the CPI, individual Policy Board members make their forecasts based on figures excluding the direct effects of the consumption tax hikes.
- 5. The forecasts for the CPI that incorporate the direct effects of the consumption tax hikes are constructed as follows. First, the contribution to prices from each tax hike is mechanically computed on the assumption that the tax increase will be fully passed on for all taxable items. The CPI will be pushed up by 2.0 percentage points for fiscal 2014 and by 0.7 percentage point for fiscal 2015 and fiscal 2016, respectively. Second, these figures are added to the forecasts made by the Policy Board members.
- 6. The ranges shown below include the forecasts of all Policy Board members.

y/y % chg.

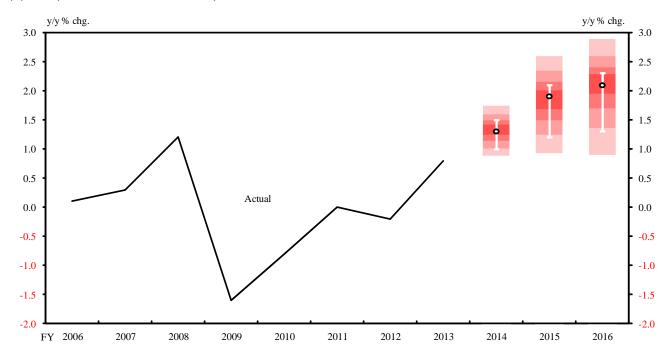
			y/y /o cng.
	Real GDP	CPI (all items less fresh food)	Excluding the effects of the consumption tax hikes
Fiscal 2013	+2.2 to +2.5	+0.8	
Forecasts made in January 2014	+2.5 to +3.0	+0.7 to +0.9	
Fiscal 2014	+0.5 to +1.4	+2.9 to +3.7	+0.9 to +1.7
Forecasts made in January 2014	+0.6 to +1.6	+2.7 to +3.7	+0.7 to +1.7
Fiscal 2015	+1.0 to +1.8	+1.5 to +2.8	+0.8 to +2.1
Forecasts made in January 2014	+1.2 to +2.0	+1.5 to +2.9	+0.8 to +2.2
Fiscal 2016	+0.8 to +1.6	+1.4 to +3.0	+0.7 to +2.3

# **Forecast Distribution Charts of Policy Board Members**

# (1) Real GDP



## (2) CPI (All Items Less Fresh Food)



Notes: 1. Based on the aggregated probability distributions (i.e., the Risk Balance Charts) compiled from the distributions of individual Policy Board members, the Forecast Distribution Charts are compiled as follows. First, upper and lower 10 percentiles of the aggregated distributions are trimmed and second, colors indicated below are used to show the respective percentiles of those distributions.

Upper 40% to lower 40%	Upper 30 to 40%	Upper 20 to 30%	Upper 10 to 20%
	& lower 30 to 40%	& lower 20 to 30%	& lower 10 to 20%

- 2. For the process of compilation of the Risk Balance Charts, see the box on page 9 of the April 2008 *Outlook* for Economic Activity and Prices.
- 3. The circles in the bar charts indicate the median of the Policy Board members' forecasts (point estimates). The vertical lines in the bar charts indicate the range of the forecasts of the majority of Policy Board members.
- 4. The forecast for the CPI excludes the direct effects of the scheduled consumption tax hikes.

## The Background

## I. Economic and Price Developments in the Second Half of Fiscal 2013

# **Economic Activity**

Looking back at Japan's economy during the second half of fiscal 2013, economic activity continued to recover moderately, accompanied by a steady improvement in labor supply and demand conditions (Chart 1). This was in an environment where domestic demand remained firm, while exports as a whole continued to lack momentum. Through the end of the fiscal year, a front-loaded increase in demand prior to the consumption tax hike was observed in private consumption and housing investment.

Specifically, overseas economies -- mainly advanced economies -- have started to recover, although a lackluster performance has still been partly seen (Charts 2 and 3). Looking at major countries and regions, the U.S. economy has been recovering moderately, led by private demand, with the recovery becoming more widespread, albeit with temporary negative effects of the unusually severe winter weather. A pick-up in the European economy has become evident. The Chinese economy has continued to grow stably, although its pace of growth is somewhat slower than seen in the past. Meanwhile, some of the emerging economies other than China and commodity-exporting economies have been somewhat weak. These economies have been burdened with such structural problems as fiscal deficits and vulnerability in the external balance.

Exports had been picking up as a trend through early autumn on the back of gradual recovery in overseas economies and partly supported by developments in foreign exchange rates, but have leveled off more or less through the end of the fiscal year (Chart 4 [1] and [2]). The recent developments in exports have been largely due to the sluggishness in emerging economies, including ASEAN countries that have close economic ties with Japan, while structural factors such as an increasing shift of some Japanese manufacturers' production to overseas have also played a certain role (Chart 2 [2]). Furthermore, temporary factors have also likely put downward pressure on exports, such as firms' stance of placing priority on domestic shipments in response to the front-loaded increase in

demand prior to the consumption tax hike and effects of the unusually severe winter weather in the United States.

Despite such lack of momentum in exports, with domestic demand remaining firm, a virtuous cycle of economic activity as a whole has continued to operate steadily (Chart 5). The level of firms' production activities, including industrial production that was prone to be affected by developments in exports in past business cycles, has marked a moderate increase, under which corporate profits and business sentiment continued to improve and became widespread (Charts 6, 7, and 8 [1]). In addition, amid continued economic recovery led by domestic demand, which tends to have large stimulative effects on employment, labor supply and demand conditions have tended to tighten, as seen in the unemployment rate approaching the structural unemployment rate (Charts 5 [2] and 11 [3]). Meanwhile, firm domestic demand also led to a reduction in net external demand through a substantial increase in imports (Charts 1 [1], 4 [1], and [3]).

Looking in detail at developments in domestic demand, a pick-up in business fixed investment has become increasingly evident amid the improvement in corporate profits, as seen in quarter-on-quarter increases on a GDP basis for three consecutive quarters (Chart 8). Public investment has continued to increase, albeit with a gradual slowing in its pace of increase (Chart 9 [1]).<sup>10</sup> Private consumption and housing investment have remained resilient, as a trend, amid an improvement in the employment and income situation, and the front-loaded increase in demand prior to the consumption tax hike was also observed through the end of the fiscal year (Charts 9 [2], 10, 11, and 39).

Reflecting these aforementioned developments in economic activity, indicators capturing the utilization of labor and capital have continued to improve and the estimated output gap has improved to close to 0 percent (Chart 12).

<sup>&</sup>lt;sup>10</sup> As construction-related demand has been increasing both in the public and private sectors, a shortage of skilled construction workers has become more evident (Chart 9 [3]).

#### **Prices**

On the price front, the pace of increase in the year-on-year rate of change in the domestic corporate goods price index (CGPI) became somewhat slower than that seen some time ago, reflecting developments in international commodity prices and foreign exchange rates; however, the CGPI has continued to increase as rises in import costs -- including those due to past changes in foreign exchange rates -- have continued to be passed on to product prices (Chart 13 [1]). The year-on-year rate of increase in the corporate services price index (CSPI, excluding international transportation) has picked up to around 0.5 percent, as firms have gradually become somewhat willing to increase business expenses on the back of continued improvement in corporate profits (Chart 13 [2]). With regard to the CPI, the overall year-on-year rate of increase has moved up to around 1\(^4\) percent: while the positive contribution from energy-related goods that are directly affected by foreign exchange rates has peaked, improvements have become widespread for a broad range of items other than energy-related goods, including the effects of passing on cost increases due to past changes in foreign exchange rates, mainly on the back of an improvement in the output gap (Charts 14 [1] and 15). The year-on-year rate of increase in the CPI less food and energy has also continued to improve to the range of 0.5-1.0 percent (Chart 15 [1]). Turning to the trimmed mean 11 and the Laspeyres chain-weighted index, 12 as well as the private consumption deflator -- all of which are regarded as indicators for capturing trend changes in the CPI -- the rates of increase have tended to become somewhat larger (Chart 14 [2]). Improvement has become pronounced in an indicator -- representing the difference between the share of items in the CPI for which prices have risen from the previous year and that for which prices have declined -- as, since October 2013, the share of items for which prices

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<sup>&</sup>lt;sup>11</sup> The 10 percent trimmed mean is obtained by rearranging year-on-year rates of individual price changes in ascending order, excluding items corresponding to both the upper and lower 10 percent tails of weights and then taking weighted averages of the remaining items. This essentially eliminates the effects of large relative price fluctuations.

<sup>&</sup>lt;sup>12</sup> The Laspeyres chain-weighted index is released as a reference for the CPI. It is compiled as follows: (1) aggregates are produced after updating the weights of items of the base year and resetting the index level of individual items to 100 every year, and then (2) multiplying the previous year's chain-weighted index by the aggregated year-on-year figures obtained from the above calculation. Disregarding such factors as adopting and terminating items and revising model formulas, this is virtually equivalent to compiling an index in which the base year is updated every year.

have risen exceeded that of items for which prices have declined, and since December, the number of items for which prices have increased has been exceeding 50 percent of the total (Chart 14 [3]).

Meanwhile, while land prices have continued to decline on the whole, the pace of decline has been gradually slowing. In metropolitan areas, land prices have started rising, albeit marginally. In nonmetropolitan areas, by contrast, they have continued to decline. Looking at the *Public Notice of Land Prices* for 2014 (as of January 1), in the three major metropolitan areas (Tokyo, Osaka, and Nagoya), the rate of change in both commercial and residential land prices has turned positive on a year-on-year basis (Chart 16). In nonmetropolitan areas, while the year-on-year rate of change in both commercial and residential land prices has been negative, the rate of decline has been narrowing.

## **II.** Financial Developments

#### Financial Conditions

Financial conditions are accommodative.

Under the QQE, the Bank has been purchasing long-term government bonds and other financial assets so that the monetary base will increase at an annual pace of about 60-70 trillion yen. As a result, the monetary base has been increasing at a high year-on-year growth rate of around 45-55 percent (Chart 17).

Firms' funding costs have been hovering at low levels. The issuance spread for CP has been low (Chart 18 [1]). The issuance spread for corporate bonds has also been low, as some corporate bond spreads that had been wide -- such as those of electric power company bonds -- have been steadily narrowing (Chart 18 [2]). The average interest rates on new loans and discounts for both the short and long terms have been at historic low levels (Chart 19 [1]). In these circumstances, interest payments by firms have been at sufficiently low levels in relation to their profits (Chart 19 [2]).

With regard to the availability of funds for firms, financial institutions' lending attitudes -- as perceived by large as well as small firms -- have been on an improving trend, and the levels of various DIs have been above the average for the period since 2000 (Chart 20 [1]). The financial positions of large as well as small firms have recovered and the levels of various DIs have also been above the average for the period since 2000 (Chart 20 [2]). In particular, financial positions of small firms have generally recovered to the recent peak seen around 2006, and the percentage share of small firms responding that their financial position is "easy" exceeded that of those responding that it is "tight" for the first time since August 1991.

Domestic demand for working capital by firms has continued to rise. There has also been an increase in demand for funds in sectors where there are prospects for high growth, such as the medical and nursing business, and demand for funds related to corporate takeover activities. In this situation, the year-on-year rate of increase in the amount outstanding of bank lending has been in the range of 2.0-3.0 percent (Chart 21 [1]). Lending has expanded to a wider range of firm sizes, as seen in the fact that the year-on-year rate of increase in bank lending to small firms has climbed (Chart 21 [2]). The year-on-year rate of change in the aggregate amount outstanding of CP and corporate bonds continued to be around 0 percent or slightly positive, but was slightly negative in March (Chart 21 [3]). Looking at CP and corporate bonds separately, the year-on-year rate of change in the amount outstanding of corporate bonds has continued to be positive, although the rate of increase has narrowed. That of CP has continued to be negative, and the rate of decrease in March was somewhat larger.

The year-on-year rate of change in the money stock (M2) has continued to see relatively high growth of around 4 percent, mainly reflecting an increase in bank lending (Chart 22 [1]). The ratio of money stock to nominal GDP has been rising moderately (Chart 22 [2]).

## Developments in Financial Markets

In global financial markets, market participants' investment attitudes became active toward the end of 2013, as uncertainty receded mainly on the back of progress being made in the U.S. fiscal debate and the decision on a scale-down in asset purchases by the Federal Reserve (Fed). However, after the turn of the year, a temporary heightening of investors' risk aversion was observed, mainly on the back of nervousness in emerging markets and concerns over the situation in Ukraine.

Looking at respective financial markets, U.S. and European stock prices have continued to be on an uptrend, in a situation where the U.S. and European economies are on an improving trend, and U.S. stock prices -- partly underpinned by accommodative financial conditions -- have been at around their highest levels (Chart 23 [1]). Meanwhile, in emerging markets, after the turn of the year, nervousness was temporarily observed in some structurally fragile countries, such as those faced with current account deficits, as their currencies depreciated to a somewhat large degree and stock prices declined (Charts 23 [1] and 26 [3]). However, those markets have regained calmness recently.

Long-term interest rates in the United States and Germany have been moving in a relatively narrow range on the whole (Chart 24 [1]). Taking a closer look, they had risen toward the end of 2013 mainly in response to firm economic indicators. Thereafter, interest rates had been stable in the face of the Fed's scale-down in its asset purchases, but they have declined somewhat, partly reflecting the heightening of investors' risk aversion that is mainly due to nervousness in emerging markets. Meanwhile, foreign currency funding conditions have remained stable. The LIBOR-OIS spread in the U.S. dollar and euro has also remained stable at low levels (Chart 25 [2]).

Looking at financial markets in Japan, short-term interest rates -- including those on term instruments with longer maturities -- have been kept low as the Bank continues to provide ample liquidity (Chart 25 [1]). Credit spreads on interbank transactions have remained stable as the balance sheets of Japanese financial institutions have maintained their soundness (Chart 25 [2]).

Long-term interest rates have been stable even in the face of a temporary rise in long-term interest rates in the United States and Germany due to the Bank's continued purchases of

long-term government bonds, and have been in the range of around 0.6-0.7 percent (Chart 24).

Stock prices rose through end-2013, reflecting the rise in U.S. and European stock prices and further depreciation of the yen (Chart 23 [1]). After the turn of the year, however, they have been more or less unchanged, albeit with fluctuations, as investors' profit-taking was observed and as investors' risk aversion heightened mainly due to nervousness in emerging markets. In the Japan real estate investment trust (J-REIT) market, prices had been firm mainly against the background that the improving outlook for conditions in the business office market has continued, although the accommodative supply and demand conditions associated with active public offerings and new listings have weighed on market prices (Chart 23 [2]).

In foreign exchange markets, the yen continued to depreciate against the U.S. dollar through end-2013 and entered the range of 105-106 yen at one point (Chart 26). Thereafter, although it temporarily appreciated somewhat due to the heightening of investors' risk aversion, it has leveled off to the range of around 102-104 yen. The yen continued to depreciate against the euro through end-2013 and leveled off thereafter.

# III. The Outlook for Economic Activity and Prices from Fiscal 2014 to Fiscal 2016

# The Outlook for Economic Activity and Prices

Regarding the outlook for Japan's economy through fiscal 2016, a virtuous cycle among production, income, and spending is likely to be maintained as firmness in domestic demand will continue and exports are expected to increase, albeit moderately. Therefore, the economy is likely to continue growing at a pace above its potential as a trend, while it

will be affected by some fluctuations due to the two rounds of consumption tax hikes. 13

As for fiscal 2014, household spending -- after the front-loaded increase in demand prior to the consumption tax hike -- is likely to decline to a certain extent, mainly in the first half of the fiscal year. Public investment is likely to remain at a high level, supported by the implementation of the supplementary budget for fiscal 2013, before gradually turning to a moderate decline from the second half of the fiscal year onward. Consequently, the overall growth rate for fiscal 2014 is expected to slow compared with that for fiscal 2013, which is likely to have been considerably high. Nevertheless, exports are expected to start increasing moderately on the back of recovery in overseas economies and partly underpinned by foreign exchange rates. Looking at trends in domestic private demand, while corporate profits continue to be on an improving trend, business fixed investment is projected to increase moderately, supported by the effects of monetary easing and various tax reduction measures for businesses. Private consumption is expected to maintain its resilience as a trend, underpinned by an improvement in the employment and income situation, even in a situation in which factors such as the consumption tax hike will exert downward pressure on real disposable income. In this way, as resilience in domestic private demand is likely to be maintained as a trend, to which an improvement in exports will be added as a further supportive element, positive forces on income formation will continue to operate, as was the case in fiscal 2013, and the annual growth rate for fiscal 2014 is likely to continue to be above its potential growth rate.

From fiscal 2015 through fiscal 2016, although cyclical forces to support business fixed investment are likely to wane, thereby gradually slowing its pace of improvement, a virtuous cycle of economic activity is expected to be maintained. As for fiscal 2015,

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While the consumption tax rate was raised to 8 percent in April 2014, this report -- as with the Outlook Report in October 2013 -- assumes that the consumption tax will rise to 10 percent in October 2015. The effects of the two rounds of consumption tax hikes on the economic growth rate for each fiscal year are estimated as follows: an increase of around 0.3 percentage point for fiscal 2013, a decrease of around 0.7 percentage point for fiscal 2014, an increase of around 0.2 percentage point for fiscal 2015, and about 0 percent for fiscal 2016. However, it should be noted that these estimates are subject to considerable uncertainty given that they depend partly on income conditions and price developments at each point in time, and therefore are subject to a considerable margin of error.

public investment is expected to follow a moderate downtrend. On the other hand, exports will increase moderately on the back of overseas economies restoring their pace of growth at around the long-term average. On the domestic front, a rise in growth expectations and accommodative financial conditions will underpin business fixed investment and housing investment. As for private consumption, as its resilience as a trend supported by an improvement in employment and income conditions is likely to continue, its growth rate will become higher compared with that of fiscal 2014, which will be affected by the decline following the front-loaded increase. Therefore, while affected by fluctuations due to the second consumption tax hike, the economy is likely to continue growing at a pace above its potential. As for fiscal 2016, exports are likely to continue increasing as overseas economies will keep growing at a pace around the long-term average and accommodative financial conditions, together with heightened growth expectations, will support domestic private demand. Thus, the economy is projected to continue growing at a pace above its potential growth rate.

Expressing the outlook in terms of the annual real GDP growth rate, this is projected to be around 1 percent for fiscal 2014, around 1.5 percent for fiscal 2015, and around 1¼ percent for fiscal 2016 -- above the potential growth rate throughout the projection period. Comparing the current projection for growth rates up through fiscal 2015 with that in the January 2014 interim assessment, while the growth rate for fiscal 2014 is somewhat lower, that for fiscal 2015 is more or less unchanged.

The outlook for prices -- excluding the direct effects of the consumption tax hikes -- is as follows. The year-on-year rate of increase in the CPI is likely to be around 1¼ percent for some time, and reflecting an improving trend in the output gap and a rise in medium- to long-term inflation expectations, it is likely to follow a rising trend from the second half of this fiscal year and reach around 2 percent -- the price stability target -- around the middle of the projection period. Thereafter, the year-on-year rate of increase in the CPI is likely

<sup>&</sup>lt;sup>14</sup> The effects of the two rounds of consumption tax hikes on prices can be mechanically estimated by assuming that the rise in the consumption taxes will be fully passed on for all currently taxable items. On this basis, the year-on-year rate of increase in the CPI will be pushed up by 2.0 percentage points in fiscal 2014 and 1.3 percentage points in the second half of fiscal 2015 and the first half of fiscal 2016.

to edge up as medium- to long-term inflation expectations will converge to around 2 percent and the output gap is expected to continue expanding in positive territory. Comparing the current projection up through fiscal 2015 with that in the January 2014 interim assessment, the projected rates of increase in the CPI are more or less unchanged.

The following provides supplementary details on the assumptions and underlying mechanism of the outlook for economic activity and prices.

## **Government Spending**

Public investment is expected to become more or less flat at a high level toward the first half of fiscal 2014, as the positive effects of various economic measures to date will dissipate while those of the supplementary budget for fiscal 2013 will materialize. Thereafter, such investment is likely to start decreasing gradually as a trend as the positive effects of the supplementary budget dissipate; nevertheless, it is expected to remain at a reasonable level against the background of higher demand for maintenance and replacement of social infrastructure.

Meanwhile, the level of the amount outstanding of government liabilities as a percentage of nominal GDP has already been high (Chart 27). Looking ahead, even after an increase in tax revenue from the consumption tax hikes and economic recovery is taken into account, the debt ratio is likely to increase further. This is mainly due to an increase in social security-related spending reflecting the aging population.

## Overseas Economies

As for the outlook, overseas economies are expected to moderately increase their growth rates as advanced economies continue to see firm recovery and its positive effects gradually spread to emerging economies. In terms of growth rates, overseas economies as a whole are expected to grow at a somewhat slower pace than they used to before the Lehman crisis, because the after-effect of the bursting of the global credit bubble still exists. Nonetheless, the growth rate is expected to gradually return to more or less the past long-term averages

(Chart 3 [1]).<sup>15</sup> Looking at major countries and regions, the U.S. economy is expected to gradually accelerate its pace of recovery, as the fiscal drag will fade and an improvement in the employment and income situation will become evident. While adjustment pressure associated with the European debt problem is likely to remain, the European economy is expected to move from a pick-up to a moderate recovery, supported mainly by an improvement in households' and firms' sentiment. The Chinese economy is likely to continue to see stable growth, albeit at a slightly slower pace, as authorities carry out policy measures to support economic activity while progressing with structural reforms. Meanwhile, other emerging economies and commodity-exporting economies will likely continue to lack growth momentum for the time being, but they are expected to gradually increase their growth rates due to positive effects of recovery in advanced economies, on the assumption that global financial markets remain generally stable.

The outlook for overseas economies, however, entails uncertainties, both on the upside and downside. Concerning the Chinese economy, the problem of excess production capacity that has resulted from economic stimulus measures after the Lehman crisis persists. Moreover, there is still high uncertainty associated with the effects of excess debt and structural reform led by the authorities. As for other emerging economies and commodity-exporting economies, considerable attention is warranted on future developments, with particular focus on their efforts to address the vulnerability of their external balance and heightening of inflation rates, as well as developments in global financial markets including geopolitical factors. With respect to the European economy, cyclical momentum may turn out to be stronger than anticipated; nevertheless, the recent disinflationary trend, the consequences of the European debt problem, and the developments toward ensuring the soundness of the financial system continue to warrant

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Looking at the weighted averages of real GDP growth rates of respective economies and regions -- released by the International Monetary Fund (IMF) in April 2014 -- by value of exports from Japan, the growth rates of overseas economies are projected to rise moderately to the same pace as the past long-term average, registering 3.5 percent in 2013, 4.0 percent in 2014, 4.2 percent in 2015, and 4.3 percent in 2016 (Chart 3 [1]). Nonetheless, because the after-effect of the bursting of the global credit bubble remains, the growth rate is likely to stay somewhat subdued even at the end of the projection period, compared with the preiod before the Lehman crisis. The average growth rate for the past 34 years -- from 1980 through 2013 -- was 4.1 percent and that for the 5 years before the Lehman crisis (i.e., 2003-07) was 5.3 percent.

vigilance. As for the U.S. economy, stronger private consumption on the back of progress in the household balance-sheet improvement could strengthen the momentum for recovery; however, there is also a risk that firms will maintain their cautious stance on investment.

## **Exports and Imports**

While real exports continue to lack momentum for prolonged periods, there is a range of factors behind this. First, looking at the developments in exports by region, lackluster performance in emerging economies that have stronger ties with Japan appears to weigh on Japan's exports to a considerable extent, as seen in weak exports to ASEAN (Chart 28 [1]). Second, lackluster demand from overseas cannot be explained by the average growth rate of the macroeconomy alone, as such factors as sluggishness in global investment appear to have particularly negative impacts on Japan's exports, in which Japan maintains a comparative advantage in capital goods and parts (Chart 28 [2] and [3]). On this point, in emerging economies, notably China, stimulus measures after the Lehman crisis drove the share of business fixed investment to GDP to reach a substantially high level, resulting in the problem of excess production capacity that continues to exert adjustment pressure on investment. In Europe and the United States, the after-effect of the bursting of the credit bubble has caused firms to remain cautious in their investment. Third, as a more structural factor, Japanese firms, especially in the IT-related sector, may have lost a competitive edge in global markets to some extent as competitors -- especially from the East Asia region -have caught up with Japanese counterparts. From a somewhat longer-term perspective, it is possible that such changes in competitiveness have been putting downward pressure on Japan's exports (Charts 28 [1] and 29 [1] and [2]). Fourth, firms have shifted their production overseas -- including increasing their local procurement -- at an accelerated pace, and this likely has been restraining Japan's exports as well (Chart 29 [3]). Related to this, given that it takes some time for firms to start up local production facilities and begin operations after the initial decision on overseas production has been made, the current phase is one in which overseas production, which had already been decided during the course of the yen's appreciation after the Lehman crisis, has become full-fledged (Chart 34 [2]). This may have put particularly strong downward pressure on exports. Fifth, there were temporary factors pushing down exports toward the end of fiscal 2013, including firms'

stance of placing priority on domestic shipments in response to the front-loaded increase in demand prior to the consumption tax hike and the effects of the unusually severe winter weather in the United States. The aforementioned factors have also put upward pressure on imports, with the third and fourth factors leading to structural increases in imports and the fifth factor leading to temporary increases reflecting the front-loaded increase in demand.

As for the outlook, exports are expected to start increasing moderately against the background that the temporary factors mentioned above will diminish and overseas economies as a whole will gradually recover. Nonetheless, the pace of increase in exports is likely to remain moderate because, of various factors that have been exerting downward pressure to date, structural factors such as the shift of production overseas will continue to weigh on exports to some extent. Meanwhile, concerning the effect of fluctuations in the foreign exchange rates on exports, with firms inherently trying to stabilize their sales prices in local currencies to some degree, the extent of changes in export prices denominated in foreign currencies has not been so large compared with that in foreign exchange movements. That said, the extent of declines in export prices during this particular phase of yen depreciation has not been particularly small compared with past phases (Chart 30 [1]). The fact that export prices have been reduced virtually by the same extent as in the past will likely continue to underpin exports. Furthermore, from a somewhat longer-term perspective, past depreciation of the yen will likely mitigate the downward pressure on exports by slowing the shift in production sites overseas that has taken place at an accelerated pace so far (Chart 34 [3]).<sup>16</sup>

By contrast, real imports continue to increase moderately as a trend due to firm domestic demand, while being affected by fluctuations in private demand caused by the consumption tax hike. As for the outlook, they are expected to continue increasing moderately as a

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On the back of a substantial increase in the number of foreign visitors to Japan, the travel credit in the balance of payments that corresponds to exports of services has been increasing at a remarkable pace. The weaker yen may have contributed to such an improvement in the travel credit, coupled with the increased number of low cost carriers (LCCs) operating to Japan and the easing of visa requirements. For details, see "Recent Increase in Foreign Visitors and Impact on Japan's Economy," Bank of Japan Review Series, 2013-E-4.

trend, reflecting the movements in domestic demand, while they may undergo a period of temporary decline as private consumption falls back after the consumption tax hike.

# External and Saving-Investment Balances

The trade balance recorded a deficit in fiscal 2011 for the first time since fiscal 1979. After that, the trade deficit continued to widen through fiscal 2013 (Chart 31 [1]). Reflecting these developments, the current account surplus continued to decline. As for factors contributing to the deterioration of the trade balance in nominal terms, in fiscal 2013 the effects of the weaker yen on import prices were larger than that on export prices due to the difference in the ratio of transactions denominated in foreign currencies; therefore, the export-import price factor has widened its negative contribution (Chart 30 [2]). Moreover, the real export-import factor (net exports) has also somewhat widened its negative contribution. A fundamental factor behind this weakness in the real factor is a growth differential between Japan and overseas: the growth rate of overseas economies is somewhat weaker than that of the historical average, mainly due to the sluggishness in emerging economies, whereas domestic demand in Japan has been quite buoyant (Chart 30 [3]). In addition to this, as described previously, both structural and temporary factors have tended to restrain exports and induce imports, and this has also contributed to the deterioration in the real trade balance.

As for the outlook, trade deficits are expected to narrow for the following reasons. The pressure to worsen the trade balance stemming from the growth differential between Japan and the rest of the world is likely to wane as the pace of increase in domestic demand is expected to decelerate as a trend and the growth rates of overseas economies are expected to rise. On top of this, the front-loaded increase in demand that has worsened the trade balance will dissipate. Moreover, as for the income balance, it is likely to widen its surplus as overseas assets continue to be accumulated through direct investment. Accordingly, the current account surplus is likely to resume widening, albeit at a mild pace.<sup>17</sup>

<sup>&</sup>lt;sup>17</sup> From the viewpoint of the capital flows, which are a reflection of the current account, capital tends to flow out of Japan on a net basis, as it tends to go overseas in pursuit of higher profitability.

Looking at the domestic saving-investment balance that conceptually corresponds to the current account balance, domestic excess saving as a whole is expected to widen moderately throughout the projection period (Chart 31 [2]). This is because excess saving in the private sector will narrow at a moderate pace, while the deficit in the general government is expected to narrow at a pace somewhat exceeding that of the private sector, partly due to an increase in tax revenue as a result of the consumption tax hikes.

## The Environment Surrounding Corporate Profits and Business Fixed Investment

Corporate profits have continued to improve (Chart 8 [1]). As for the outlook, they are projected to continue on an improving trend against the background of firm domestic demand, with a moderate increase in exports and movements in foreign exchange rates both working as supportive factors as well. However, in the latter half of the projection period, the pace of growth in corporate profits is expected to gradually slow down as the distribution of profits to households through a rise in wages progresses.

In the meantime, looking back at the developments in Japan's economy for the last year or so from the perspective of the economy-wide effects of the weaker yen through higher corporate profits, changes in import and export prices denominated in yen terms have resulted in a slight deterioration of terms of trade of the economy as a whole, while impacts have varied by industry, with the profit of the manufacturing sector boosted and that of the nonmanufacturing sector placed under pressure (Chart 32 [1]). However, the weaker yen has also exerted positive effects on domestic demand including private consumption through a rise in stock prices of listed companies, many of which are in manufacturing. At the same time, the nonmanufacturing sector has benefited from continued positive developments such as buoyant consumption by the elderly, which had already been observed, and an increase in public spending. Consequently, the deterioration of the terms of trade resulting from the weaker yen caused only marginal effects, and business sentiment as well as profitability in nonmanufacturing actually improved (Chart 32 [2]). Business sentiment and profitability of the manufacturing sector also improved significantly as a result of the depreciation of the yen, and this induced positive moves on the part of firms.

The pick-up in business fixed investment has become increasingly evident as corporate profits have improved. In manufacturing, as the recovery is still in the early stage, it appears that firms have put priority on investment in the maintenance and replacement of aged equipment as well as strategic investment, such as IT-related and R&D investment.<sup>18</sup> In nonmanufacturing, too, positive moves have been seen, as firms have embarked on investing, with some investment intended for capacity expansion, for such purposes as creating innovative logistics systems and capturing consumption by the senior generation, which has shown firmness. As for the outlook, business fixed investment is expected to follow a moderate increasing trend throughout the projection period (Chart 33). More specifically, it is expected to increase moderately for some time on the back of improving profits and rising capacity utilization while the cyclical momentum for recovery remains strong. Thereafter, although the cyclical upward pressure will gradually ebb as capital stock accumulates, it is expected to maintain a moderate increasing trend on account of rising growth expectations, and, partly related to this, strengthening of monetary easing effects, as well as the effects of various tax reductions for businesses. The underlying mechanism behind this outlook can be summarized as follows.

First, the effects of the QQE are expected to underpin business fixed investment during the projection period. In the context of investment profitability, the extent of monetary easing stimulus to investment is projected to strengthen, reflecting both a rise in the rate of return on capital due to improvement of corporate profits and a decline in real interest rates, partly in reflection of a rise in inflation expectations (Chart 34 [1]). In addition, the effects of various tax reductions for businesses implemented as part of the economic policy package are likely to support business fixed investment through a decline in capital costs and an improvement in cash flows.

Second, given that the level of business fixed investment is still low, as it has only just entered a recovery phase following the period of a plunge after the Lehman crisis and the earthquake disaster, the cyclical position of the economy is such that pent-up demand can

<sup>&</sup>lt;sup>18</sup> Nevertheless, a large part of R&D investment appears to consist of personnel expenses and costs of raw materials. Thus, under the current SNA statistics in Japan, R&D investment is only marginally recorded as business fixed investment.

well be expected to materialize when the level of economic activity increases further and corporate profits continue to improve as a trend. Indeed, on the assumption that business fixed investment will be undertaken in order to realize the level of capital stock necessary for production under certain growth expectations, an assessment from the viewpoint of the capital stock cycle shows that the ratios of business fixed investment to capital stock have remained at levels well below those derived from the expected growth rates of businesses. Thus, even though firms' expected growth rates will remain at around 0.5 percent for some time, there appears to remain ample room for business fixed investment to increase (Chart 33 [1]). The ratios of business fixed investment to nominal GDP and to cash flow remain relatively low viewed from a longer-term perspective (Chart 35 [1] and [2]). Recently, the capacity utilization rate in manufacturing, where improvement had previously lagged, has been rising and firms as a whole have gradually come to stop perceiving a sense of excess in their capital stock (Chart 48 [5] and [6]). Given this, the cyclical forces to support recovery in business fixed investment seem to have become more evident.

Third, firms' medium- to long-term growth expectations are likely to rise moderately on the back of efforts to strengthen competitiveness and growth potential; on the part of the government, these efforts include regulatory and institutional reforms, and on the part of firms, further business restructuring. Such heightening of growth expectations is likely to contribute to mitigating the decelerating pressure of business fixed investment that can result when capital stock accumulates. Considered from the viewpoint of the ratio of business fixed investment to capital stock, as the potential growth rate rises very moderately toward the end of the projection period, business fixed investment is expected to gradually rise in accordance with a rising potential growth rate (Chart 35 [3]).

Meanwhile, looking at business fixed investment overseas, given that it takes some time for firms to start up local production facilities after the initial decision on overseas production

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<sup>&</sup>lt;sup>19</sup> Based on a certain methodology that relies on a production function approach, Japan's potential growth rate has been estimated recently to be "around 0.5 percent" but is expected to rise gradually toward the end of the projection period due to such factors as capital accumulation (Chart 40 [2]). However, it should be noted that estimates of the potential growth rate are subject to a considerable margin of error, as they rely on the specific methodology employed and could change as more data for the relevant period become available.

has been made, the last few years have likely coincided with the periods in which investment decisions that were made after the Lehman crisis -- when the yen appreciated -- proceeded to the actual implementation phase (Chart 34 [2]). Thus, it was likely that the pace of increase in the ratio of overseas business fixed investment relative to domestic investment was particularly high. Although this ratio is expected to follow an increasing trend as firms try to capture ever-increasing overseas demand, its pace of increase is likely to decelerate somewhat, considering that it was influenced by foreign exchange movements (Chart 34 [3]).

# The Employment and Income Situation

As for the employment and income situation, against the background of continued resilience in domestic demand, which tends to have large stimulative effects on employment, labor demand -- including that in the manufacturing sector, which had shown some weakness -has been increasing and labor supply and demand conditions have been improving steadily on the whole (Chart 11). The amount of labor input (i.e., [number of employees] times [number of hours worked]) has been increasing moderately, due mainly to growth in the number of employees (Chart 36 [1]). Recent tightening of labor supply and demand conditions largely reflects the fact that an aging population has tended to put downward pressure on labor supply; the necessary pool of labor supply is secured by a decline in the number of unemployed and an increase in labor participation by women and the elderly (Chart 36 [2]). So far, such newly-utilized labor supply comes mainly in the form of part-time employees with short hours worked. As a result of this, both overall hours worked and average wages per employee -- to be explained in a later section -- are faced with downward pressure. That said, the heightening of the labor force participation rate, even with short hours worked, is likely to support economic growth, such as through the effects of increased income leading to higher demand (Chart 38 [2] and [3]).

The tightening of labor supply and demand conditions has started to exert effects on wages. Hourly nominal wages of employees as a whole have started to rise moderately with some fluctuations (Chart 37 [3]). While an increase in the number of employees with short hours worked exerts downward pressure, wages per employee have largely stopped declining on the whole, supported by an increase in non-scheduled cash earnings and

bonuses (Chart 37 [1] and [2]). In addition, under the wage negotiations this spring, discussions between labor unions and management have moved in the direction of raising not only bonuses but also, to a certain extent, base pay (Chart 37 [4]).

Going forward, in a situation where Japan's economy continues to grow at a pace above its growth potential, firms have shown increasingly more willingness to hire new recruits, including regular employees (Chart 36 [3]). Under such circumstances, it is likely that the labor supply and demand conditions will further tighten, and the unemployment rate is expected to continue declining to a level more or less close to the structural unemployment rate (Chart 11 [3]).<sup>20</sup> In this situation, it is increasingly likely that nominal wages will be put under clear upward pressure. Looking at the hourly wages of employees in order to analyze the underlying movements in wages, based on the relationship between wages and unemployment rates (i.e., a wage version of the Phillips curve), the effects of tighter labor supply and demand conditions are likely to be more evident, unlike the movements during the mid-2000s when this relationship was obscure because of a sharp increase in non-regular employees (Chart 37 [3]). Looking ahead, as the rise in the CPI will become increasingly evident, such price developments will be reflected in movements such as a rise in base pay, and eventually overall wages are likely to rise (Chart 46 [3]).

Under these circumstances, the increase in employee income is expected to accelerate gradually through the projection period. The labor share is expected to trend downward at a mild pace, reflecting the fact that labor productivity rises slightly ahead of real wages against the backdrop of a continued recovery in the economy; however, it is projected to stop declining toward the latter half of the projection period to around a level somewhat

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<sup>&</sup>lt;sup>20</sup> In Chart 11 [3], aggregate supply and demand in the labor market is judged as being in equilibrium on the whole when the unemployment rate (i.e., the rate reflecting the portion of the labor force that is without jobs) is equal to the vacancy rate (i.e., the rate reflecting the portion of job positions remaining vacant). The unemployment rate in such a situation is regarded here as the structural unemployment rate. It should be noted that the structural unemployment rate estimated in this way should be treated with some degree of latitude, as it has the characteristic of changing over time. Moreover, it also should be noted that, in Japan, there has been a statistical tendency for the unemployment rate to consistently exceed the vacancy rate.

higher than the average for 2004-07 -- the latter half of the previous economic expansion phase (Chart 37 [5]).<sup>21</sup>

# Households' Spending Behavior

Private consumption has remained resilient as a trend with improvement in the employment and income situation, albeit with some fluctuations due to the consumption tax hike. On this point, concerning the income of workers' households, it is not just the revenues of the heads of the households -- including bonuses -- that have increased, but also the revenues of the spouses as well as other members of the households, owing to a rise in the proportion of wage earners in a household reflecting improvement in the labor supply and demand conditions. As a result of these developments, an increase in income per household has been providing underlying support to private consumption (Chart 38 [2] and [3]).

Regarding the outlook, given that the data available so far confirm that the front-loaded increase in demand prior to the consumption tax hike has happened at a considerable scale, there will be a clear fall-back from such increase temporarily (Chart 39). Nevertheless, private consumption is expected to start picking up and likely stay on an increasing trend thereafter, albeit at a very moderate pace. This outlook owes to several factors. First, consumption by the elderly is likely to support consumption as a whole on a sustainable basis, both from the demand side (i.e., a higher propensity to consume among the baby-boomer generation) and from the supply side (i.e., firms' tapping of the elderly's potential demand) (Chart 38 [5]). Second, as mentioned earlier, an improvement in employee income, which is expected to become increasingly evident, will support consumption, mainly by workers' households. Nonetheless, growth in nominal disposable income is projected to remain moderate due to tax rises and a higher burden of social security-related payments; moreover, the consumption tax hikes and other factors are likely to push down real income (Chart 38 [1]). As a result, the propensity to consume in the economy is likely to remain high, partly as population aging proceeds (Chart 38 [4]).

<sup>&</sup>lt;sup>21</sup> During the period between 2004 and 2007, deregulation in the labor market led to a sharp increase in nonregular employment -- mainly temporary workers -- and thereby exerted downward pressure on wages. In contrast, downward pressure caused by these factors is considered to be less pronounced in the current phase.

Housing investment has remained resilient as a trend with improvement in the employment and income situation, albeit with some fluctuations due to the consumption tax hike (Chart 9 [2]). As for the outlook, while it will experience a period of fall-back following the front-loaded increase, housing investment is expected to be resilient as a trend, assisted in part by improvement in the employment and income situation as well as accommodative financial conditions.

# The Environment surrounding Prices

In assessing the outlook for prices, the main factors that determine inflation rates are examined. First, the output gap has continued its moderate improving trend, and most recently supply and demand has become more or less balanced (Chart 40 [1]). In the last several quarters, estimates of the output gap have been improving at a much faster pace than those of real GDP. This owes much to the fact that the current economic recovery is driven by domestic demand, which tends to have large stimulative effects on employment, and that in the short run this is likely to lead to further tightening in the labor supply and demand conditions.<sup>22</sup> Going forward, the economy is likely to continue growing at a pace above its potential, although there will be fluctuations due to the consumption tax hikes. Against this backdrop, a trend in which the output gap will be positive (in excess demand) is likely to take root in the second half of fiscal 2014; thereafter, the gap is expected to move further into excess demand territory at a moderate pace toward the end of the projection period.

Second, based on market indicators and the results of various surveys, medium- to long-term inflation expectations appear to have been rising on the whole. According to the view of market participants, breakeven inflation rates -- calculated by the difference between the yield spreads of fixed-rate bonds and inflation-indexed bonds -- have been

The output gap in this case is calculated by directly using developments in the production factor inputs (labor and capital) and is not estimated by using the GDP itself (for details of the output gap, see the Box on page 36). Both labor and capital inputs have contributed to the recent improvement in the output gap. An improvement on the labor front has been particularly pronounced, such that the contribution of labor input to the gap has already turned positive.

rising (Chart 41 [1]).<sup>23</sup> A survey result obtained from bond market participants indicates that medium- to long-term inflation expectations have been on a moderate uptrend from a somewhat long-term perspective (Chart 41 [3]). Inflation expectations of economists are also rising (Chart 41 [2]). According to various survey results on households and businesses, the inflation expectations of households are rising on the whole and businesses appear to be expecting a further pick-up in the inflation rate (Chart 42). These rises in inflation expectations seem to have started to exert effects on the formation of actual wages and prices.

As for the outlook, under the Bank's QQE, medium- to long-term inflation expectations are likely to continue on a rising trend amid a rise in observed inflation rates, gradually converging to around 2 percent -- the price stability target. The fact that the year-on-year rate of increase in the CPI has already reached around 1¼ percent also appears to have started to generate positive effects on inflation expectations. Going forward, while the expectation that the economy will continue to improve on a sustainable basis will become widespread, the actual inflation rate is projected to rise, and this should also contribute to a further rise in inflation expectations.

Third, import prices have been rising at a somewhat slower pace than a while ago, reflecting movements in international commodity prices and in foreign exchange rates (Chart 43). Thus, as far as energy-related items -- which require less time to pass on changes in import prices to the CPI -- are concerned, the effect of pushing up prices so far is likely to gradually wane. By contrast, for other items, as passing on changes in costs resulting from foreign exchange movements tends to take more time and proceeds at only a gradual pace, the pass-through from higher import prices is likely to remain for some time as a factor to push up the CPI. Import prices in the projection period are expected to stay on a fairly moderate rising trend against the backdrop of the recovery in overseas economies.

<sup>&</sup>lt;sup>23</sup> The government has started issuing inflation-indexed bonds again, since October 2013; however, the market liquidity is still low. This is particularly the case in the market for those bonds issued before October 2013. Due attention to the interpretation of changes in breakeven inflation rates is necessary, as these are likely to be affected to a noticeable degree by changes to the risk premium of inflation-indexed bonds, in addition to changes in market participants' expected inflation rates.

Taking the above into account, as for the outlook for prices -- excluding the direct effects of the consumption tax hikes -- the year-on-year rate of increase in the CGPI is expected to widen, mainly due to an improvement in overseas economies and the supply and demand conditions for products. The year-on-year rate of increase in the CPI is likely to be around 1½ percent for some time, and reflecting an improving trend in the output gap and a rise in medium- to long-term inflation expectations, it is likely to follow a rising trend from the second half of this fiscal year and reach around 2 percent -- the price stability target -- around the middle of the projection period. Thereafter, the year-on-year rate of increase in the CPI is likely to edge up as medium- to long-term inflation expectations will converge to around 2 percent and the output gap is expected to continue expanding in positive territory. Comparing the current projection up through fiscal 2015 with that in the January 2014 interim assessment, the projected rates of increase in the CPI are more or less unchanged.

Considering the outlook for prices in light of their relationship with the output gap -depicted by the so-called Phillips curve -- the year-on-year rate of increase in the CPI is
projected to rise gradually by responding relatively clearly to an improvement in the output
gap, as well as by accompanying an upward shift of the Phillips curve in line with a rise in
medium- to long-term inflation expectations (Charts 44 and 45 [1]).

Looking at recent developments in indicators that capture trend changes in the CPI -- such as the trimmed mean and the indicator representing the difference between the share of items for which prices have risen and that for which prices have declined -- in relation to the output gap, unlike the previous economic recovery and expansion phase of the mid-2000s, they exhibited clear improvement in line with the movements in the output gap, or even at a somewhat faster pace compared with those movements (Chart 45 [2] and [3]). Major reasons for this might be that the "negative price shocks" seen in the mid-2000s that did not directly result from developments in the output gap -- such as a low-pricing strategy utilizing imported goods and a substantial increase in non-regular employment -- have not been occurring this time around. Rather, firms' recent price-setting behavior seems to have gradually been shifting toward raising selling prices while increasing value-added and tapping new potential demand. In addition, thanks partly to an improvement in the employment and income situation, there is even a possibility that households' focus on

lower prices alone might have been less pronounced. In relation to this, moves among firms to pass changes in costs -- including development in foreign exchange rates -- on to selling prices have become more pronounced compared with previous phases. In this way, during the current phase, in the absence of factors that shift the Phillips curve down, the responsiveness of prices to the output gap as well as inflation expectations, including short-term ones, have been observed to be gradually rising.

Meanwhile, in terms of the relationship between prices and nominal wages, a stable correlation is observed between the CPI and hourly wages -- namely, from a long-term perspective, they move almost in parallel to each other (Chart 46 [1] and [2]). In the aforementioned outlook, it is assumed that a cycle between wage increases and price increases will become gradually evident, due partly to the fact that developments on the price front have been taken into account in wage negotiations, and the rate of increase in the CPI is projected to pick up gradually while hourly wages are expected to rise moderately, reflecting the tightening of labor supply and demand conditions and the rise in people's inflation expectations (Chart 46 [3]).

#### (Box) Developments in the Aggregate Supply and Demand Balance

One of the fundamental factors that determine the inflation rate is the aggregate supply and demand balance. It measures the extent to which actual *aggregate demand* (actual GDP) exists vis-à-vis *potential supply capacity* (potential GDP), and is also called the output gap.

While there are several ways to estimate the output gap, a *time-series approach* and a *production function approach* have been used relatively widely. The time-series approach does not assume an *a priori* model but rather, by using the time-series analysis method, it extracts a *trend component* and a *cyclical component*, with the former considered to be potential GDP and the latter to be the output gap. With this approach, it is most typical to apply the Hodrick-Prescott (HP) filtering method.

The production function approach is based on the idea of a macro production function whereby GDP is determined by the three variables of labor input, capital input, and total factor productivity (TFP), which represents the efficiency with which the former two factors are used. There are two methods under this approach: (1) first, estimating potential GDP from average inputs of labor and capital as well as the trend in TFP, then measuring the difference between that and actual GDP as the output gap (this method is used by the Cabinet Office, the International Monetary Fund, and the Organisation for Economic Co-operation and Development); and (2) directly measuring the output gap by using indicators related to the labor and capital utilization situation (used by the Bank of Japan).<sup>24</sup> With the former method, if the potential growth rate is held constant, there is a one-to-one relationship between changes in actual GDP growth rates and a widening/narrowing of the output gap. By contrast, with the latter method, such a relationship does not necessarily exist, and developments in the output gap will be in line not with the GDP growth rate, but with changes in the unemployment rate and capacity utilization rate.

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The Bank takes the method of first calculating the output gap by using data concerning the labor and capital utilization situation, and then from this gap and actual GDP data calculating potential GDP. For this reason, short-term swings in TFP associated with fluctuations in GDP do not directly affect the estimated output gap. For details of the estimation method, see "The New Estimates of Output Gap and Potential Growth Rate," Research and Statistics Department, Bank of Japan Review Series, 2006-E-3.

The level of the output gap could vary depending on the difference in estimation methods, data used for estimation, measurements of average inputs of production factors, and the trend in TFP, and thus it is subject to a considerable margin of error. Looking at the output gap figure of Japan's economy estimated by various organizations, while broad cyclical movements are similar, the level differs according to phases (Chart 47). Even focusing on recent movements, all estimated figures show an improving trend following a plunge due to the Lehman crisis, but the pace of improvement varies.

Bearing these points in mind and taking a closer look at the Bank's estimated figures for the output gap, this gap recently improved to around the long-term average of about 0 percent amid firm domestic demand. Looking at this in detail, examining various indicators that show the state of utilization of labor as well as capital, including those used in the Bank's estimation of the output gap, many have improved to the level seen at around the peak prior to the Lehman crisis, and the utilization ratio of the production factor has been steadily increasing (Chart 48).

As for the state of labor utilization, while aging works in the direction of reducing potential labor supply, labor demand has been increasing on the back of firm domestic demand, and the supply and demand condition as a whole has increasingly tightened as a trend. Against such a backdrop, the necessary labor force has been secured by a reduction in the number of unemployed and an increase in labor participation by women and the elderly. Namely, the unemployment rate has improved to a level equivalent to the bottom prior to the Lehman crisis (3.6 percent in July 2007), and the divergence from the structural unemployment rate has substantially shrunk. In addition, on the back of labor participation by women and the elderly, the number of so-called *discouraged workers*<sup>25</sup> has been at a historic low. Meanwhile, the active job openings-to-applicants ratio exceeded 1.0 at the end of last year and has been steadily approaching the peak level seen prior to the Lehman crisis (1.08 in July 2006). The employment conditions DI in the Short-Term Economic Survey of Enterprises in Japan (*Tankan*) for all industries and enterprises has recently been showing a

<sup>&</sup>lt;sup>25</sup> Those who want to work and are in the state of being able to take a job immediately but not actively seeking employment due to a lack of appropriate jobs.

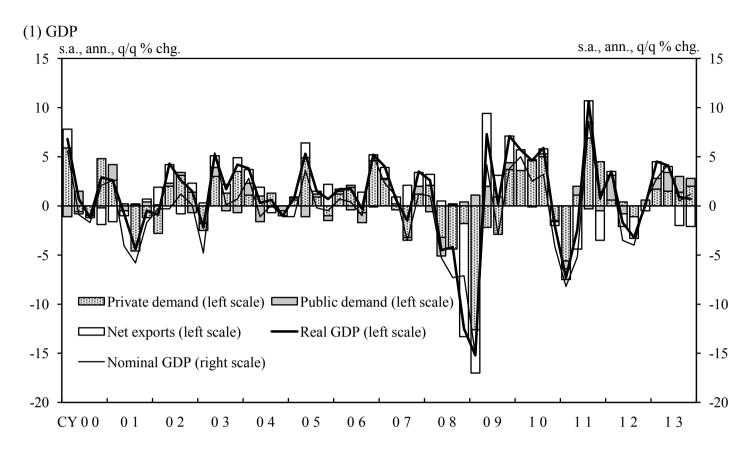
marked expansion in its "insufficient employment," and that in March 2014 posted a level that was the same as the March 2007 peak level seen prior to the Lehman crisis.

As for the state of capacity utilization, an improvement in the utilization ratio of manufacturing has been somewhat delayed due to sluggish exports, but the ratio has been registering a clear increase recently due partly to effects of the front-loaded increase in demand prior to the consumption tax hike. The production capacity DI in the March 2014 *Tankan* has ceased to be in "excessive" territory on the whole (for the first time since March 2008): while the production capacity DI of manufacturing narrowed but still retained its net "excessive," that of nonmanufacturing expanded its net "insufficient."

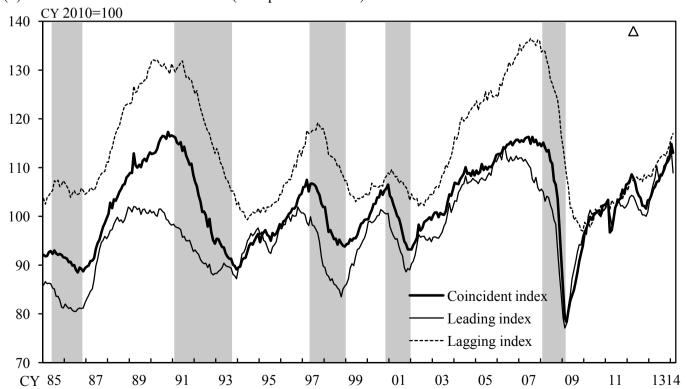
# **Charts**

Chart 1	GDP and Indexes of Business Conditions	Chart 27	Government Liabilities
Chart 2	World Economy	Chart 28	Exports and Overseas Economies
Chart 3	Overseas Economies and Exchange Rates	Chart 29	Environment Surrounding Exports
Chart 4	Exports and Imports	Chart 30	Export Prices and Trade Balance
Chart 5	Domestic Demand	Chart 31	Current Account and Investment-Saving Balance
Chart 6	Industrial Production and All Industry Activity	Chart 32	Aggregate Income Formation and
Chart 7	Business Conditions		Corporate Profits
Chart 8	Corporate Profits and Fixed Investment	Chart 33	Capital Stock Cycles and Business Fixed
Chart 9	Public Investment and Housing Investment	Cl + 2.4	Investment Plans
Chart 10	Private Consumption	Chart 34	Environment Surrounding Business Fixed Investment
Chart 11	Employment and Income Situation	Chart 35	Business Fixed Investment
Chart 12	Resource Utilization	Chart 36	Labor Supply and Demand
Chart 13	Domestic Corporate Goods Prices and Corporate Services Prices	Chart 37	Wages
Chart 14	Consumer Price Index (1)	Chart 38	Environment Surrounding Private Consumption
	Consumer Price Index (2)	Chart 39	Household Expenditure prior to and
	Land Prices	Cl. + 40	after the Consumption Tax Hikes
Chart 17	Monetary Base and JGB Purchases	Chart 40	Output Gap and Potential Growth Rate
Chart 18	Spreads for CP and Corporate Bonds	Chart 41	Inflation Expectations (1)
Chart 19	Bank Lending Rates	Chart 42	Inflation Expectations (2)
Chart 20	Corporate Finance-Related Indicators	Chart 43	Import Prices and International Commodity Prices
Chart 21	Amount Outstanding of Bank Lending,	Chart 44	Output Gap and Inflation Rate (1)
21017 21	CP, and Corporate Bonds	Chart 45	Output Gap and Inflation Rate (2)
Chart 22	Money Stock		Prices and Wages
Chart 23	Stock Prices and REIT Prices	Chart 47	Various Estimates of the Output Gap
Chart 24	Nominal Benchmark Yields	Chart 48	Labor and Capital Utilization
Chart 25	Money Market Rates	D. C	
Chart 26	Exchange Rates	Reference	Economic Assessment by Region (Regional Economic Report)

# GDP and Indexes of Business Conditions



## (2) Indexes of Business Conditions (Composite Indexes)

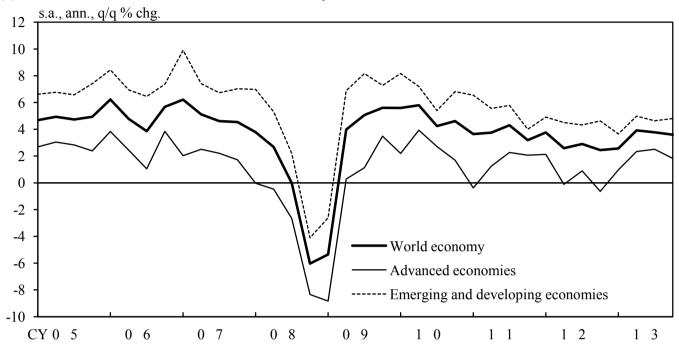


Note: Shaded areas indicate recession periods. Triangle shows the latest peak.

Source: Cabinet Office, "National Accounts," "Indexes of Business Conditions."

# World Economy

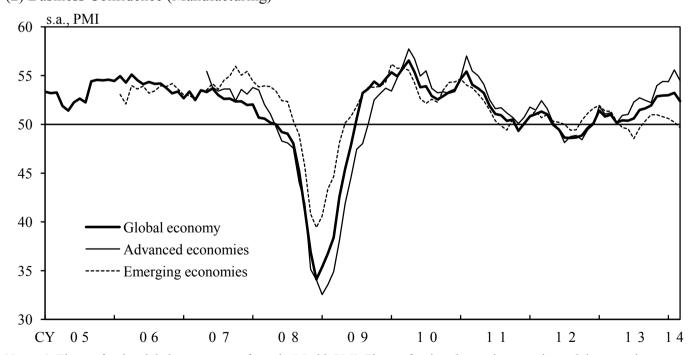
## (1) Real GDP Growth Rates of the World Economy



Notes: 1. Figures are calculated using GDP based on purchasing power parity (PPP) shares of the world total from the IMF.

- 2. The world economy covers 189 countries. The advanced economies are the euro area, Japan, the United Kingdom, and the United States. The emerging and developing economies include the rest of the world economy.
- 3. Includes estimated quarterly growth rates based on historical annual data on real GDP growth rates.

#### (2) Business Confidence (Manufacturing)



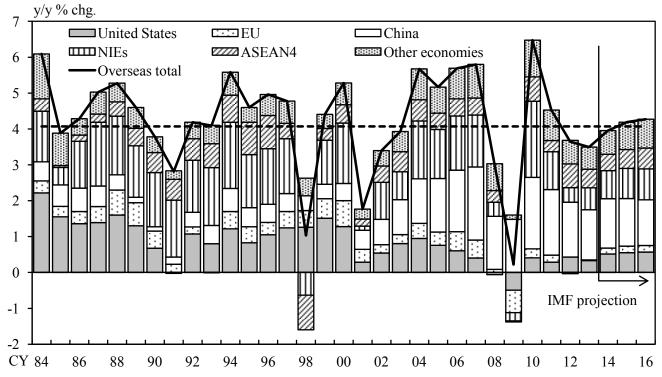
Notes: 1. Figures for the global economy are from the Markit PMI. Figures for the advanced economies and the emerging economies are calculated using the Markit PMI and GDP based on PPP shares of the world total from the IMF.

- 2. The advanced economies are the euro area, Japan, the United Kingdom, and the United States. The emerging economies are Australia, Brazil, China, the Czech Republic, Hungary, India, Indonesia, Mexico, Poland, Russia, Singapore, South Korea, Taiwan, Turkey, and Vietnam.
- 3. A reading of 50 on the PMI generally indicates a turning point between economic expansion and downturn.

Sources: IMF, "World Economic Outlook"; Markit (© and database right Markit Economics Ltd 2014. All rights reserved.), etc.

# Overseas Economies and Exchange Rates

## (1) Real GDP Growth Rates of Overseas Economies



Note: Figures for the overseas total are the weighted averages of real GDP growth rates by value of exports from Japan to each economy. The broken line indicates the average of 1980-2013 (4.1 percent).

#### (2) Effective Exchange Rates of the Yen

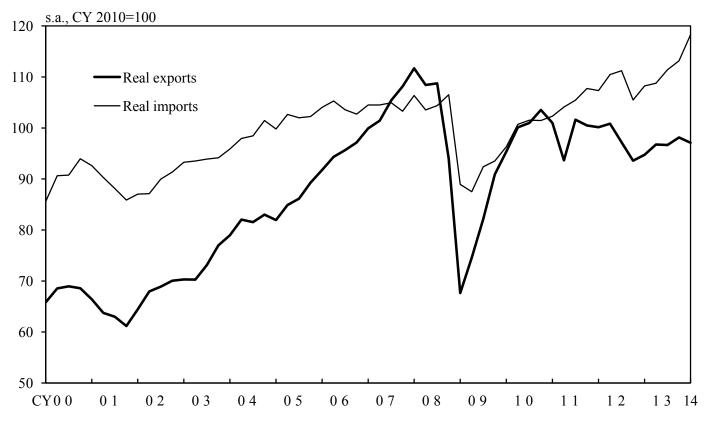


Note: Figures are based on the broad indices of the BIS effective exchange rates, and those prior to 1994 are calculated using the narrow indices. Figures for April 2014 are calculated using the Bank of Japan's nominal effective exchange rate of the yen.

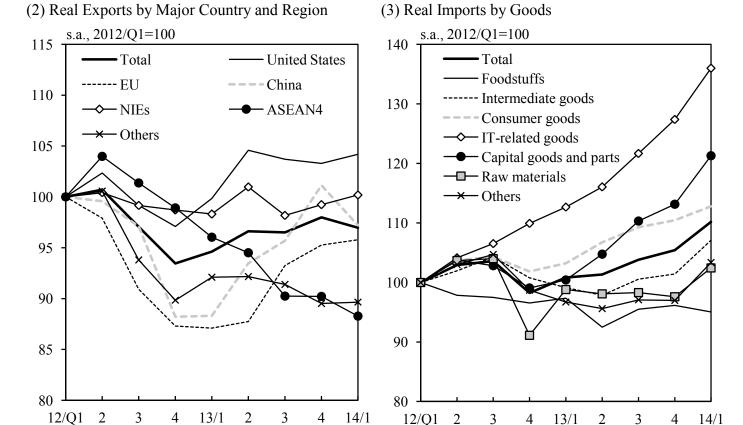
Sources: IMF, "World Economic Outlook"; Ministry of Finance, "Trade Statistics"; Bank for International Settlements (BIS); Bank of Japan.

# **Exports and Imports**

## (1) Real Exports and Real Imports



Note: Figures are seasonally adjusted by X-12-ARIMA. The same method applies to the charts below.



2

12/Q1

3

13/1

2

3

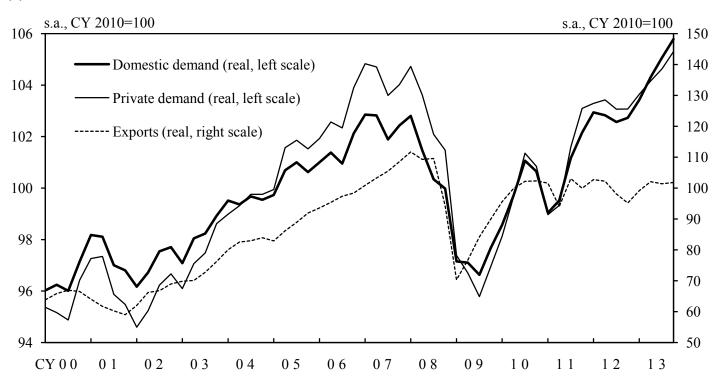
4

14/1

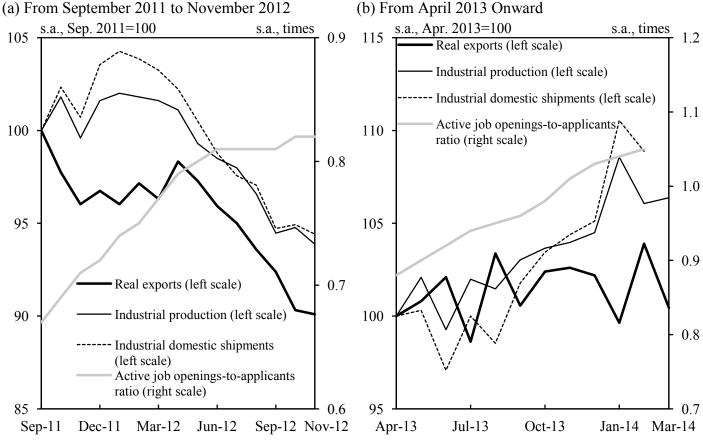
Sources: Ministry of Finance, "Trade Statistics"; Bank of Japan, "Corporate Goods Price Index."

## **Domestic Demand**

#### (1) Domestic Demand



(2) Comparison of Exports and Domestic Demand over Business Cycles



Note: Figures for real exports are seasonally adjusted by X-12-ARIMA.

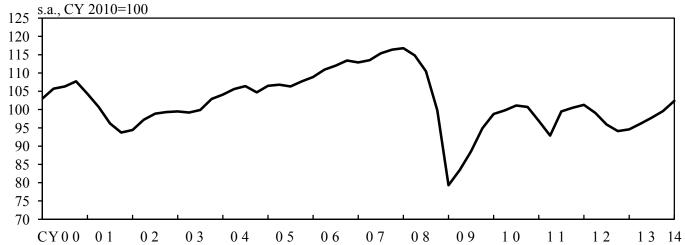
Sources: Cabinet Office, "National Accounts"; Ministry of Economy, Trade and Industry, "Indices of Industrial Production,"

<sup>&</sup>quot;Indices of Industrial Domestic Shipments and Exports"; Ministry of Health, Labour and Welfare,

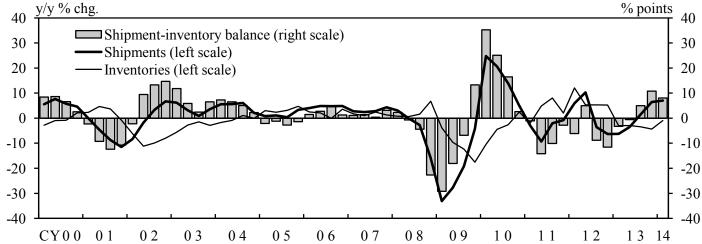
<sup>&</sup>quot;Report on Employment Service"; Ministry of Finance, "Trade Statistics"; Bank of Japan, "Corporate Goods Price Index."

# Industrial Production and All Industry Activity

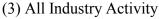
## (1) Industrial Production

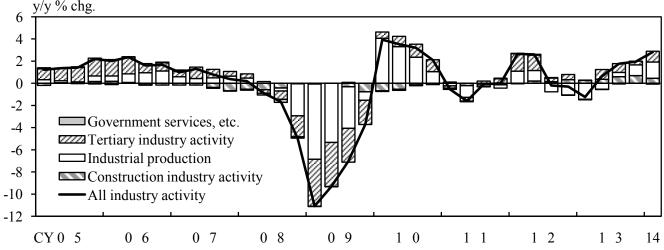


## (2) Shipment-Inventory Balance (Mining and Manufacturing)



Note: Shipment-inventory balance = shipments (y/y % chg.) - inventories (y/y % chg.)



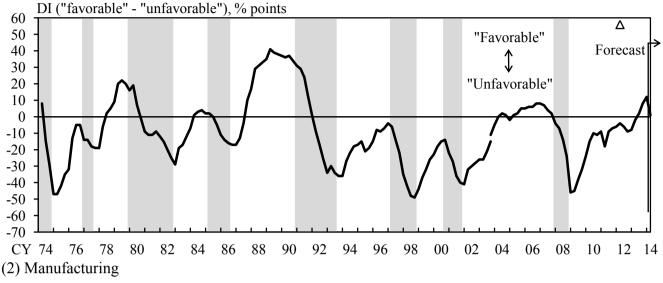


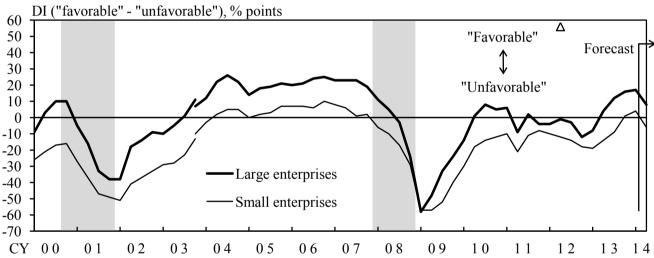
Note: Figures for 2014/Q1 are January-February averages.

Source: Ministry of Economy, Trade and Industry, "Indices of Industrial Production," "Indices of All Industry Activity."

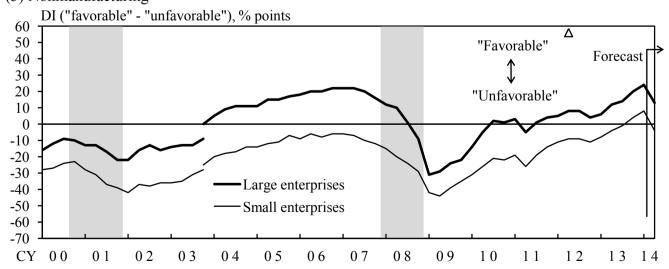
## **Business Conditions**

#### (1) All Industries and Enterprises





#### (3) Nonmanufacturing



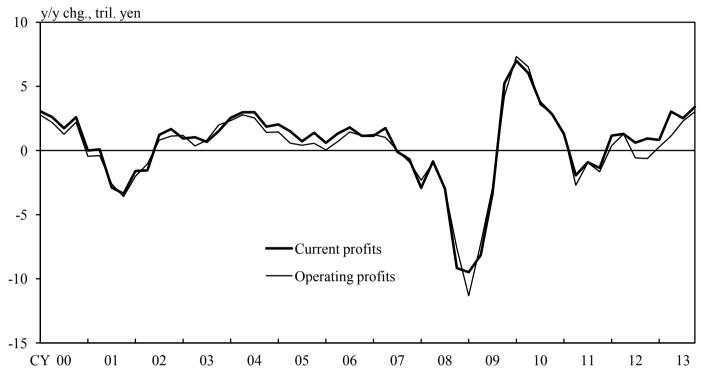
Notes: 1. The "Tankan" was revised from the March 2004 survey. Figures up to the December 2003 survey are based on the previous data sets. Figures from the December 2003 survey are on the new basis. Figures for 2014/Q2 are the forecasts in the March 2014 survey.

2. Shaded areas indicate recession periods. Triangles show the latest peaks.

Source: Bank of Japan, "Tankan, Short-Term Economic Survey of Enterprises in Japan."

# Corporate Profits and Fixed Investment

# (1) Corporate Profits



Note: Taken from the "Financial Statements Statistics of Corporations by Industry, Quarterly." Figures are based on all enterprises except finance and insurance.

#### (2) Fixed Investment

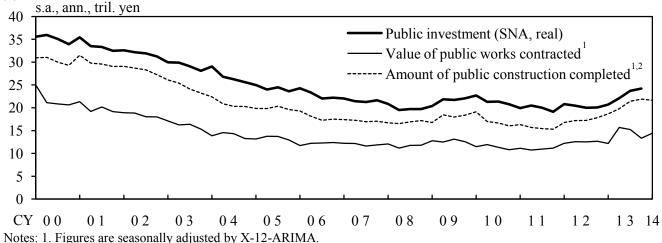


Note: Taken from the "National Accounts." The figure represents real private non-residential investment.

Sources: Ministry of Finance, "Financial Statements Statistics of Corporations by Industry, Quarterly"; Cabinet Office, "National Accounts."

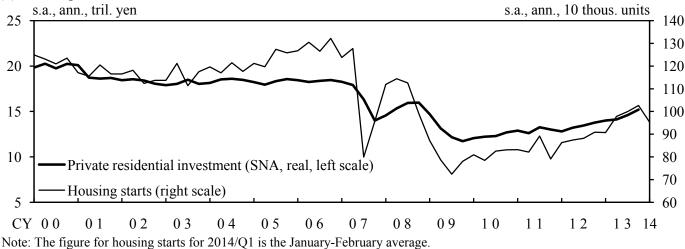
# Public Investment and Housing Investment

## (1) Indicators of Public Investment

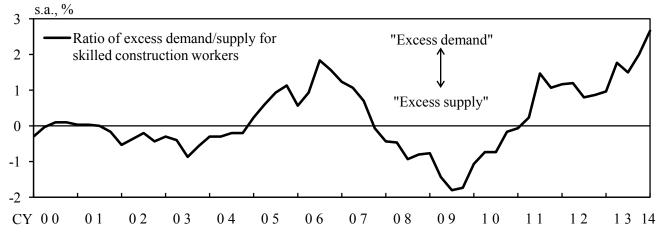


2. The figure for 2014/Q1 is the January-February average.

#### (2) Housing Starts and Private Residential Investment



#### (3) Excess Demand/Supply for Skilled Construction Workers

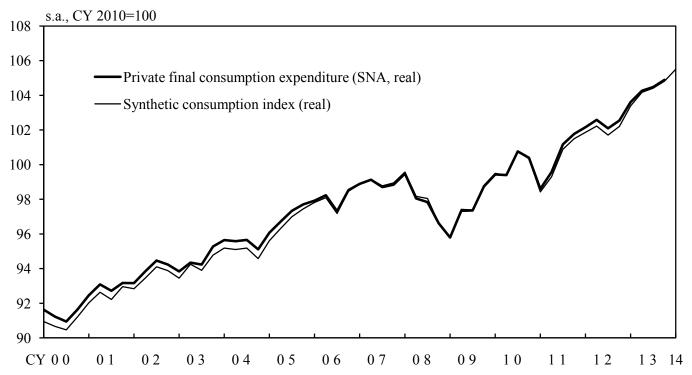


Note: Ratio of excess demand/supply for skilled construction workers = (number of workers being shorthanded - number of excess workers) / (number of current workers + number of workers being shorthanded) × 100

Sources: Cabinet Office, "National Accounts"; East Japan Construction Surety, etc., "Public Works Prepayment Surety Statistics"; Ministry of Land, Infrastructure, Transport and Tourism, "Integrated Statistics on Construction Works," "Statistics on Building Construction Starts," etc.

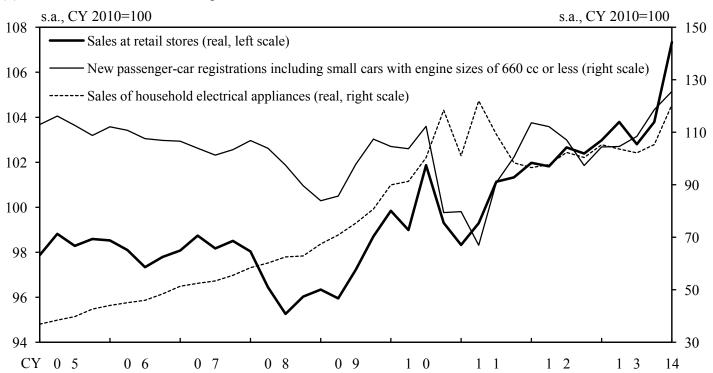
# **Private Consumption**

## (1) Private Final Consumption Expenditure and Synthetic Consumption Index



Note: The figure for the synthetic consumption index for 2014/Q1 is the January-February average.

#### (2) Indicators of Private Consumption



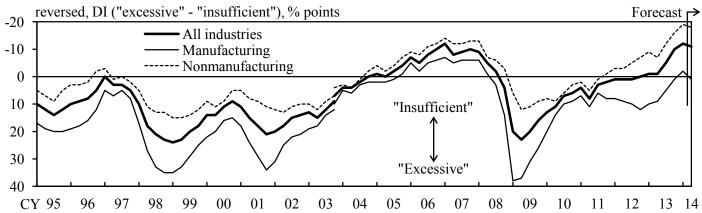
Notes: 1. Sales at retail stores, new passenger-car registrations, and sales of household electrical appliances are seasonally adjusted by X-12-ARIMA.

2. Sales at retail stores are deflated by the CPI for goods (excluding electricity, gas & water charges). Sales of household electrical appliances are calculated as follows: indices of retail sales of machinery and equipment in the "Current Survey of Commerce" deflated by the geometric means of the corresponding CPI.

Sources: Cabinet Office, "National Accounts," "Synthetic Consumption Index"; Ministry of Economy, Trade and Industry, "Current Survey of Commerce"; Ministry of Internal Affairs and Communications, "Consumer Price Index," etc.

# **Employment and Income Situation**

## (1) Employment Conditions DI

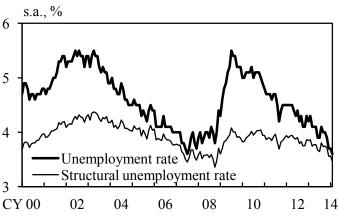


Note: Data from the "Tankan" are based on enterprises of all sizes. The "Tankan" was revised from the March 2004 survey. Figures up to the December 2003 survey are based on the previous data sets. Figures from the December 2003 survey are on the new basis. Figures for 2014/Q2 are the forecasts in the March 2014 survey.

## (2) Job Openings-to-Applicants Ratio<sup>1</sup>

#### s.a., times 2.0 Active job openings-to-applicants ratio 1.8 New job openings-to-applicants ratio 1.6 1.4 1.2 1.0 0.8 0.6 0.4 0.2 CY 00 02 04 06 08 10 12 14

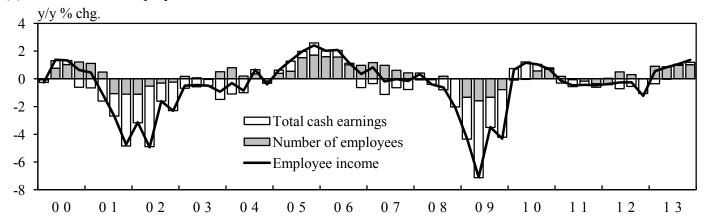
## (3) Unemployment Rate<sup>2</sup>



Notes: 1. Figures for 2014/Q1 are January-February averages.

2. The structural unemployment rate is defined as the level of the unemployment rate where the number of vacancies equals that of the unemployed, given the empirical relationship between job vacancies and unemployment (estimation by the Research and Statistics Department, Bank of Japan). It captures frictional unemployment and unemployment caused by the mismatch between supply and demand in the labor market.

#### (4) Breakdown of Employee Income



Note: Q1 = March-May, Q2 = June-August, Q3 = September-November, Q4 = December-February.

Employee income = number of employees (Labour Force Survey) × total cash earnings

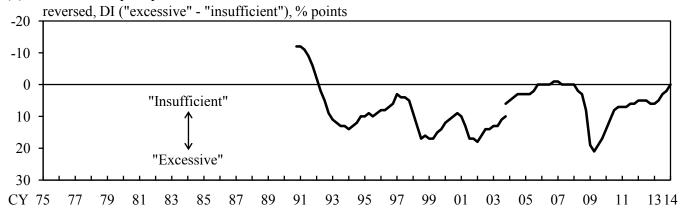
Sources: Bank of Japan, "Tankan, Short-Term Economic Survey of Enterprises in Japan";

Ministry of Health, Labour and Welfare, "Monthly Labour Survey," "Report on Employment Service";

Ministry of Internal Affairs and Communications, "Labour Force Survey."

## Resource Utilization

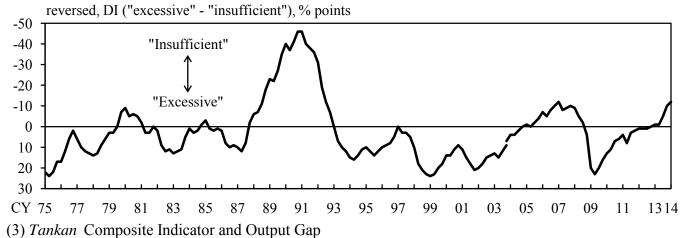
#### (1) Production Capacity DI

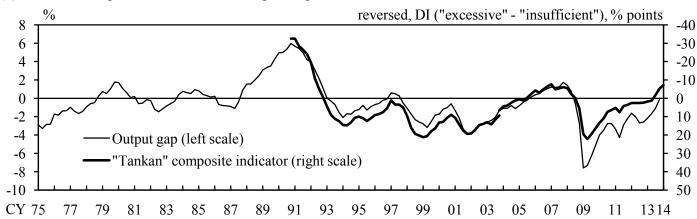


Notes: 1. Figures for the DI are based on all enterprises. The same definition applies to the charts below.

2. The "Tankan" was revised from the March 2004 survey. Figures up to the December 2003 survey are based on the previous data sets. Figures from the December 2003 survey are on the new basis. The same definition applies to the charts below.

#### (2) Employment Conditions DI



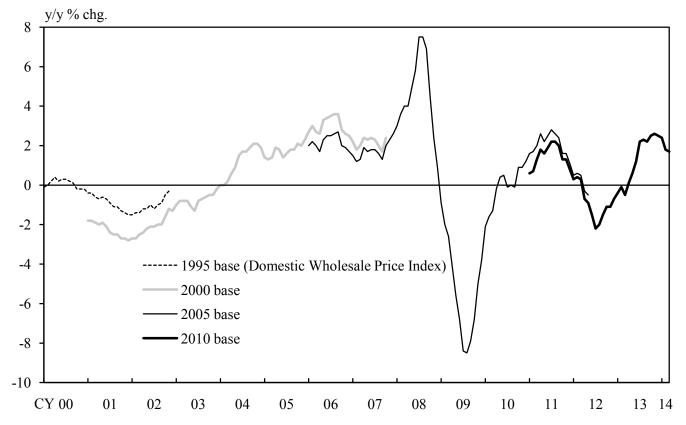


Note: Figures for the "Tankan" composite indicator are weighted averages of the production capacity DI and employment conditions DI. The fiscal 1990-2012 averages of capital and labor shares in the "National Accounts" are used as the weight. The output gap is estimated by the Research and Statistics Department, Bank of Japan. For the estimation procedures, see "The New Estimates of Output Gap and Potential Growth Rate," Bank of Japan Review Series, 2006-E-3.

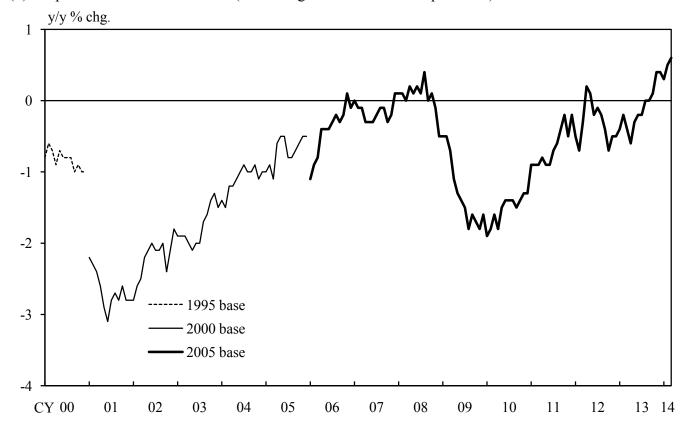
Sources: Cabinet Office, "National Accounts"; Bank of Japan, "*Tankan*, Short-Term Economic Survey of Enterprises in Japan"; Ministry of Internal Affairs and Communications, "Labour Force Survey"; Ministry of Health, Labour and Welfare, "Monthly Labour Survey," "Report on Employment Service"; Ministry of Economy, Trade and Industry, "Indices of Industrial Production," etc.

# Domestic Corporate Goods Prices and Corporate Services Prices

# (1) Domestic Corporate Goods Price Index



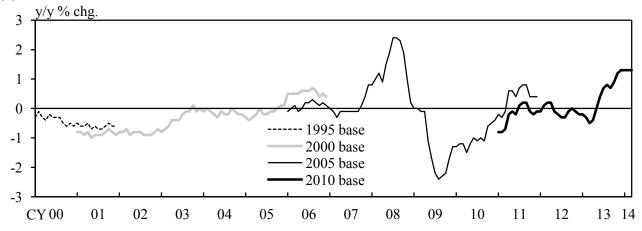
## (2) Corporate Services Price Index (Excluding International Transportation)



Source: Bank of Japan, "Corporate Goods Price Index," "Wholesale Price Index," "Corporate Services Price Index."

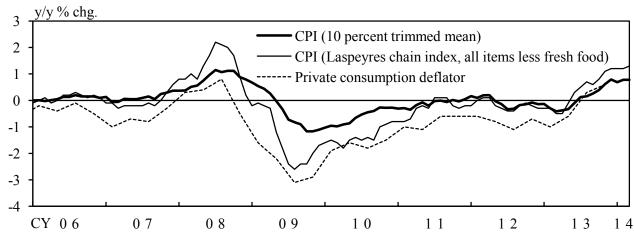
# Consumer Price Index (1)

## (1) Consumer Price Index



Note: All items less fresh food.

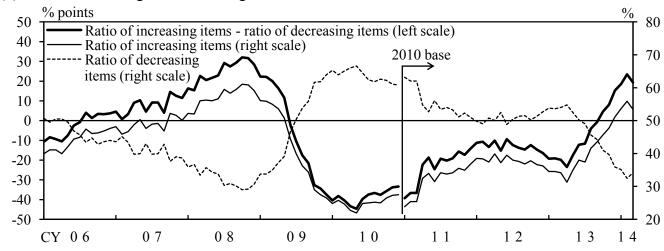
## (2) Trimmed Mean, Laspeyres Chain Index, and Private Consumption Deflator



Notes: 1. Figures for the 10 percent trimmed mean are weighted averages of items; these items are obtained by rearranging year-on-year rates of price change in ascending order and then excluding items in both the upper and lower 10 percent tails by weight.

2. Figures for the Laspeyres chain index for 2006 are the year-on-year rates for the fixed-base method. The year-on-year figures for the Laspeyres chain index up to 2010 are on the 2005 base, and those from 2011 onward are on the 2010 base.

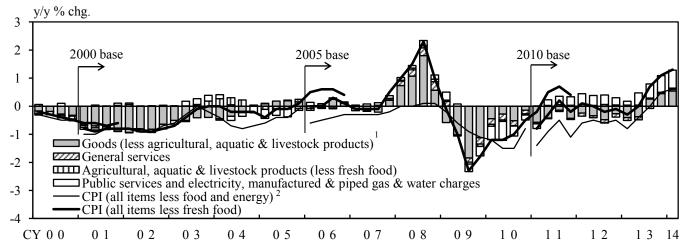
#### (3) Ratio of Increasing and Decreasing Items



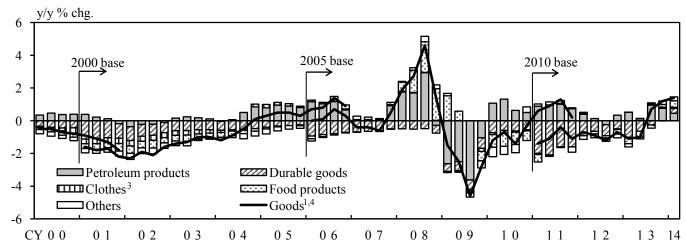
Note: Proportion of items whose indices increased/decreased from a year earlier. All items less fresh food. Sources: Ministry of Internal Affairs and Communications, "Consumer Price Index"; Cabinet Office, "National Accounts."

# Consumer Price Index (2)

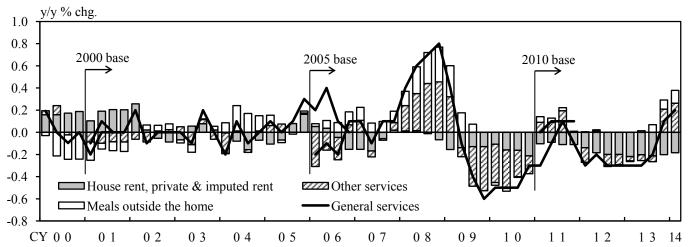
## (1) Consumer Price Index (All Items Less Fresh Food)



# (2) Goods (Less Agricultural, Aquatic & Livestock Products)<sup>1</sup>



#### (3) General Services

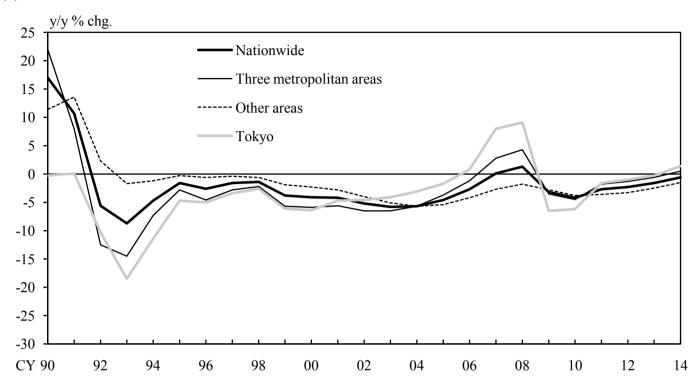


Notes: 1. The items are basically the same as those defined by the Ministry of Internal Affairs and Communications. However, electricity, manufactured & piped gas & water charges are excluded from goods.

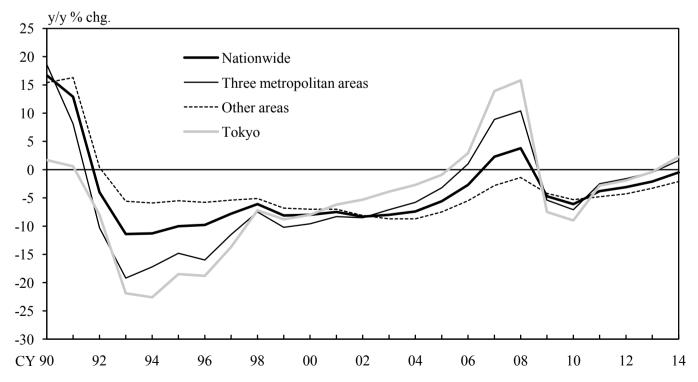
- 2. Alcoholic beverages are excluded from food.
- 3. Including shirts, sweaters & underwear.
- 4. Less agricultural, aquatic & livestock products.
- 5. The year-on-year rates of change, other than those of the CPI (all items less fresh food), CPI (all items less food and energy), and general services are calculated using published indices.

# **Land Prices**

## (1) Residential Land



#### (2) Commercial Land



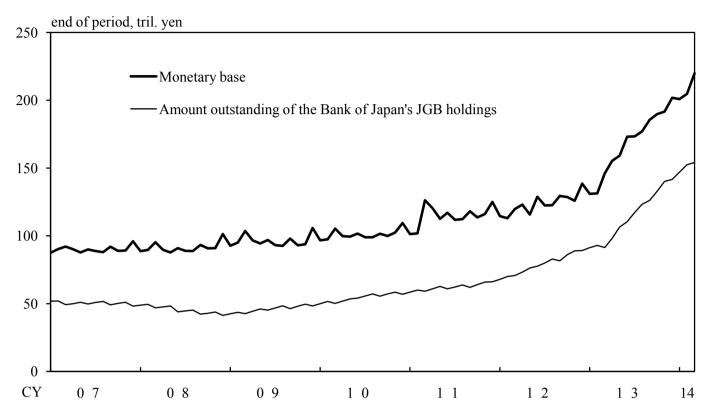
Notes: 1. Figures are as of January 1.

2. Three metropolitan areas: the Tokyo area (Tokyo, Kanagawa, Saitama, Chiba, and Ibaraki prefectures), the Osaka area (Osaka, Hyogo, Kyoto, and Nara prefectures), and the Nagoya area (Aichi and Mie prefectures). Other areas: other than the three metropolitan areas.

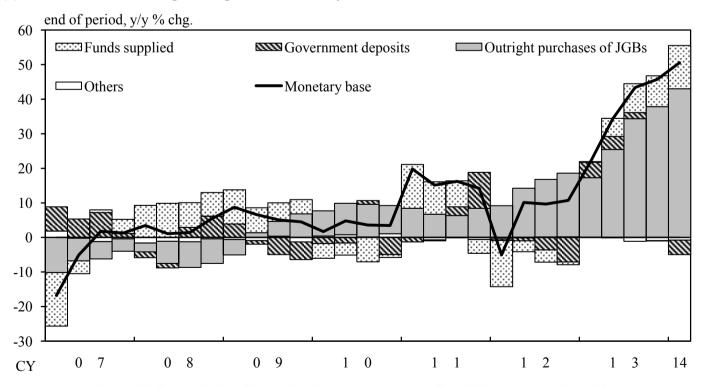
Source: Ministry of Land, Infrastructure, Transport and Tourism, "Land Market Value Publication."

# Monetary Base and JGB Purchases

## (1) Expansion in the Monetary Base and JGB Holdings



#### (2) Year-on-Year Percentage Change in the Monetary Base



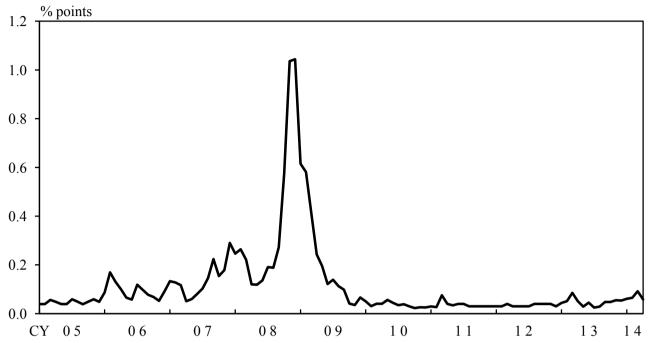
Notes: 1. Funds supplied are calculated by adding the amounts outstanding of (1) assets purchased through market operations (excluding outright purchases of JGBs), (2) funds-supplying operations against pooled collateral, and (3) the Loan Support Program, etc.

2. Government deposits mainly include sales of JGBs to the government under repurchase agreements and T-Bills underwritten by the Bank of Japan.

Source: Bank of Japan, "Monetary Base and the Bank of Japan's Transactions," "Bank of Japan Accounts."

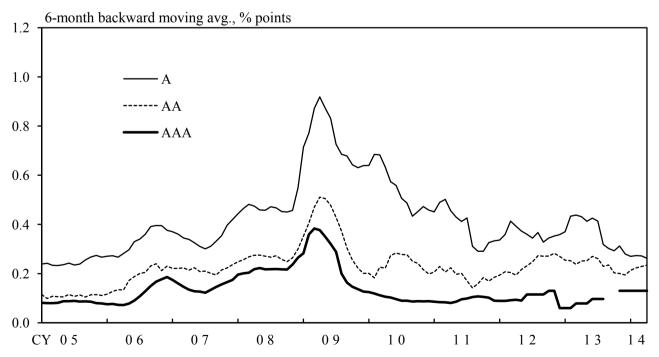
# Spreads for CP and Corporate Bonds

## (1) Issuance Spreads for CP



Note: Figures up to September 2009 are the average issuance rate of CP (3-month, rated a-1 or higher) minus the yield on T-Bills (3-month). Figures from October 2009 are the average issuance rate of CP (3-month, rated a-1) minus the yield on T-Bills (3-month).

#### (2) Issuance Spreads for Corporate Bonds by Securities Rating



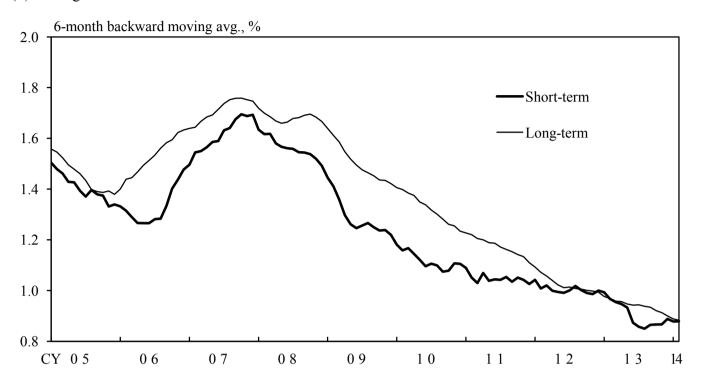
Notes: 1. The issuance spreads for corporate bonds are the issuance rate of these bonds minus the government bond yield.

- 2. Figures are the average of all maturities issued in domestic markets, based on the launch date.
- 3. Bonds issued by banks and securities companies, etc., are excluded.
- 4. Bonds are classified by the highest ratings among Moody's, S&P, R&I, and JCR.

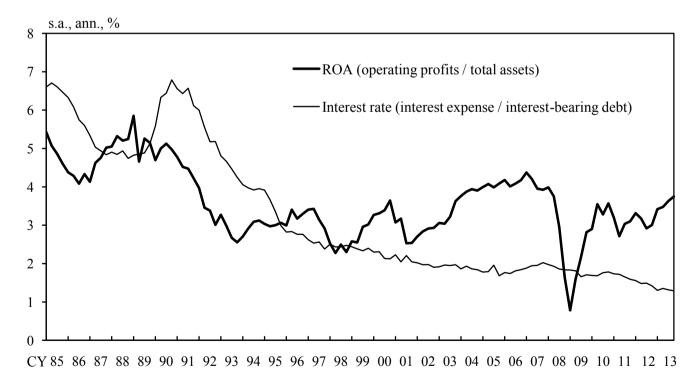
Sources: Bank of Japan, "Average Yields on Newly Issued Domestic Commercial Paper"; Japan Securities Depository Center; Capital Eye, Ltd.; I-N Information Systems; Bloomberg.

# **Bank Lending Rates**

#### (1) Average Contract Interest Rates on New Loans and Discounts



#### (2) ROA and Interest Rate

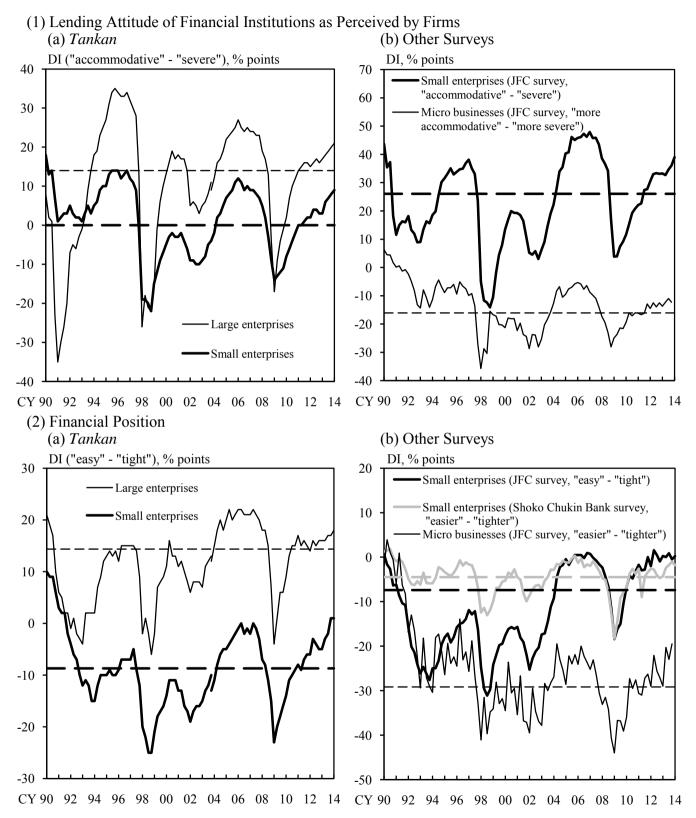


Notes: 1. Figures are taken from the "Financial Statements Statistics of Corporations by Industry, Quarterly," and are the total for all-size enterprises and all industries. Finance and insurance are excluded.

2. Interest-bearing debt is the sum of long- and short-term borrowings, corporate bonds, and bills receivable discounted outstanding.

Sources: Bank of Japan, "Average Contract Interest Rates on Loans and Discounts";
Ministry of Finance, "Financial Statements Statistics of Corporations by Industry, Quarterly."

# Corporate Finance-Related Indicators

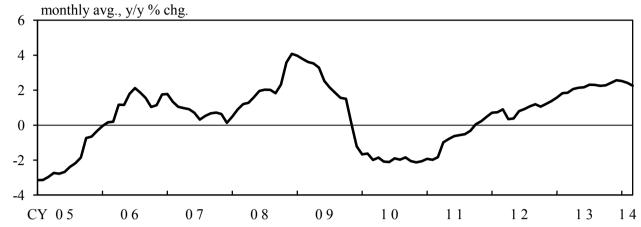


Note: Data from the "Tankan" are based on all industries. The "Tankan" was revised from the March 2004 survey. Figures up to the December 2003 survey are based on the previous data sets. Figures from the December 2003 survey are on the new basis. Broken lines are the averages since 2000.

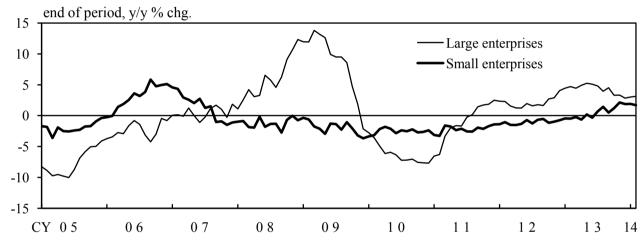
Sources: Bank of Japan, "*Tankan*, Short-Term Economic Survey of Enterprises in Japan"; Shoko Chukin Bank, Ltd., "Business Survey Index for Small and Medium-Sized Businesses"; Japan Finance Corporation (JFC), "Monthly Survey of Small Businesses in Japan," "Quarterly Survey of Small Businesses in Japan (For Micro Businesses)."

# Amount Outstanding of Bank Lending, CP, and Corporate Bonds

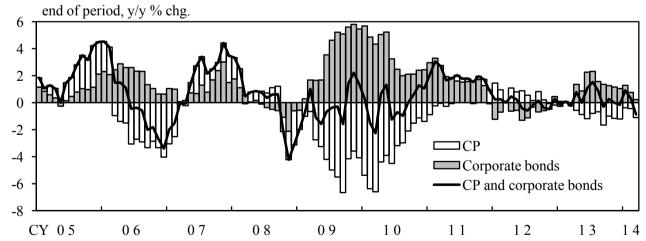
## (1) Lending by Domestic Commercial Banks (Total of Major and Regional Banks)



## (2) Lending for Enterprises by Domestically Licensed Banks



# (3) Amount Outstanding of CP and Corporate Bonds



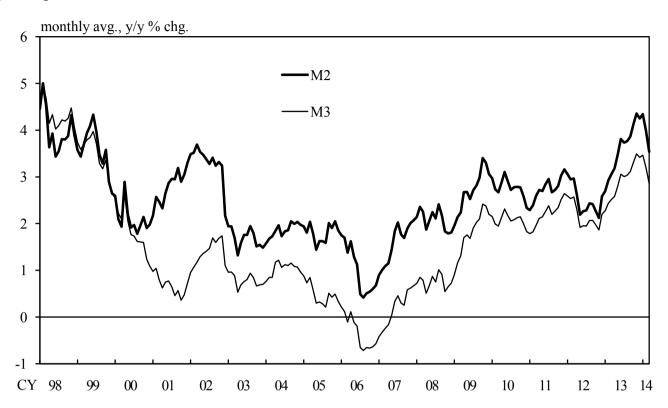
Notes: 1. Figures for CP are those of short-term corporate bonds registered under the book-entry transfer system. Those issued by banks, securities companies, and others such as foreign corporations are excluded; ABCP is included. Figures up to March 2008 are those compiled by the Bank of Japan.

2. Figures for corporate bonds are calculated based on the sum of straight bonds issued in both domestic and overseas markets. Bonds issued by banks are included. Domestic bonds are those registered by the book-entry transfer system. The series is spliced at April 2008 with the one published by the Japan Securities Dealers Association.

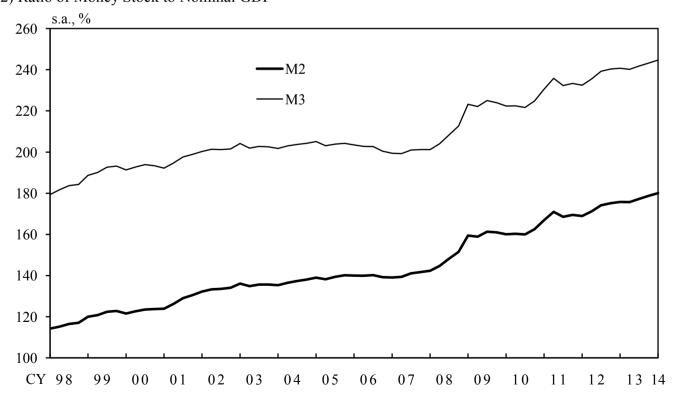
Sources: Bank of Japan, "Principal Figures of Financial Institutions," "Deposits, Vault Cash, and Loans and Bills Discounted"; Japan Securities Depository Center; Japan Securities Dealers Association; I-N Information Systems.

# Money Stock

## (1) Changes from a Year Earlier



## (2) Ratio of Money Stock to Nominal GDP



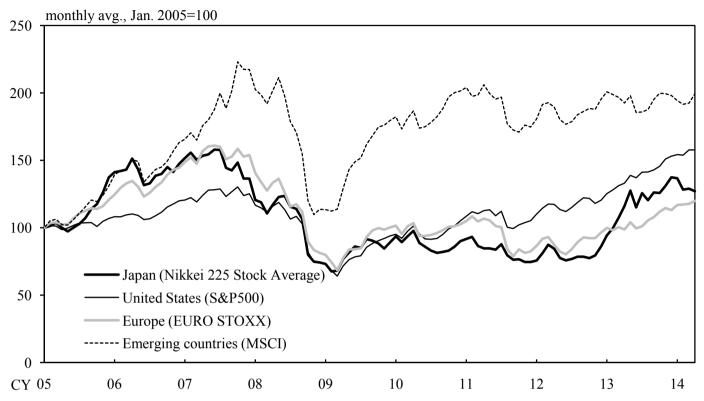
Notes: 1. Figures for M2 up to March 2003 are the former series of the figures for M2+CDs.

- 2. Figures for M3 up to March 2003 are the former series of the figures for M3+CDs minus the figures for pecuniary trusts.
- 3. The figure for nominal GDP in 2014/Q1 is assumed to be unchanged from the previous quarter.

Sources: Bank of Japan, "Money Stock"; Cabinet Office, "National Accounts."

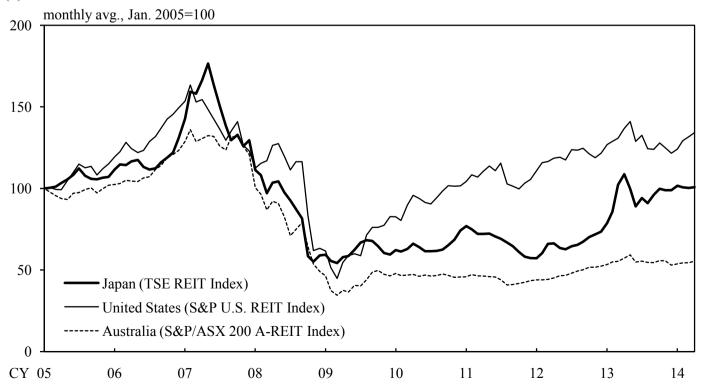
# Stock Prices and REIT Prices

## (1) Selected Stock Prices



Note: Figures for emerging countries are from the MSCI Emerging Markets Index denominated in the local currencies.

## (2) Selected REIT Indexes



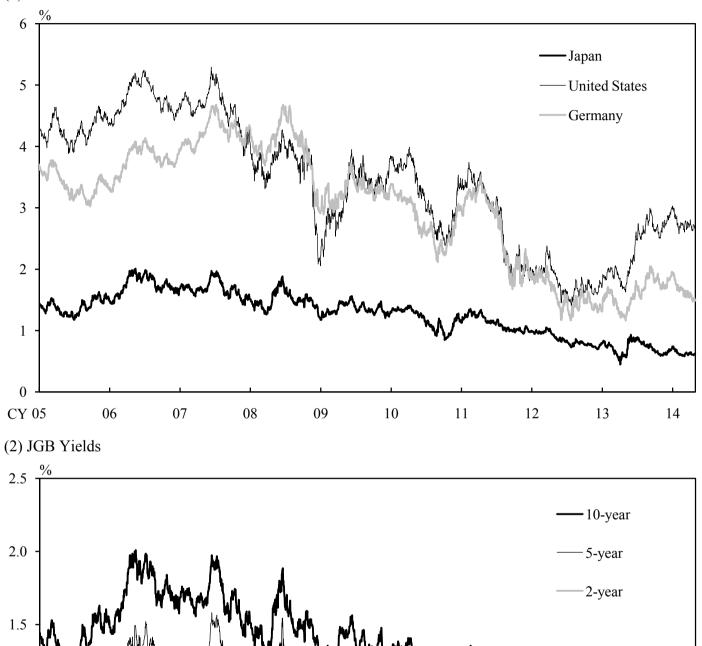
Source: Bloomberg.

13

14

# Nominal Benchmark Yields

(1) 10-Year Government Bond Yields in Selected Advanced Economies



Source: Bloomberg.

06

07

09

80

10

11

12

1.0

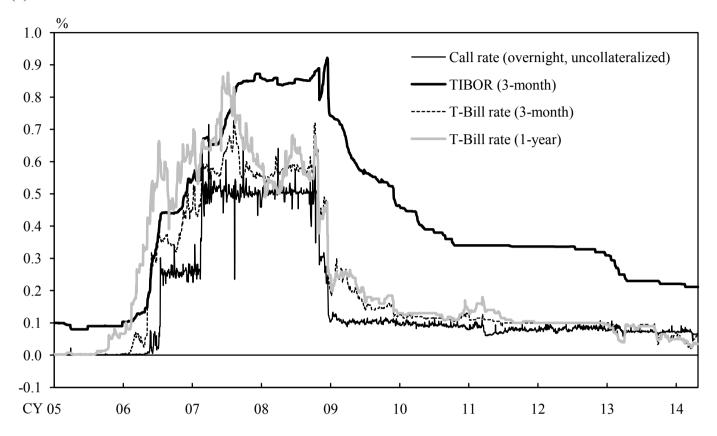
0.5

0.0

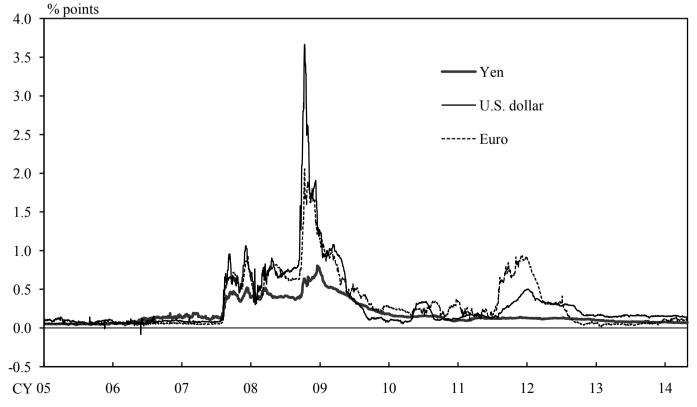
CY 05

# Money Market Rates

## (1) Short-Term Interest Rates



## (2) Credit Spreads for Yen-, Dollar-, and Euro-Denominated Term Instruments

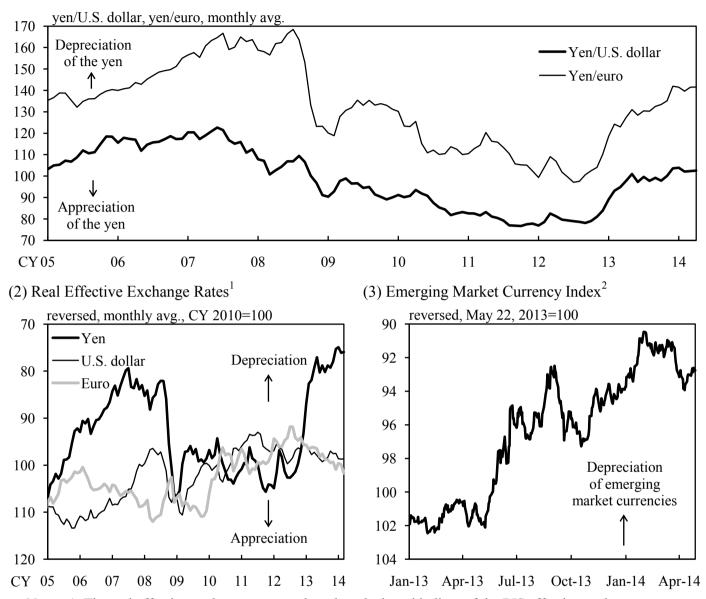


Note: The credit spreads for term instruments are LIBOR (3-month) minus yields on overnight index swaps (3-month).

Sources: Bank of Japan; Bloomberg.

# **Exchange Rates**

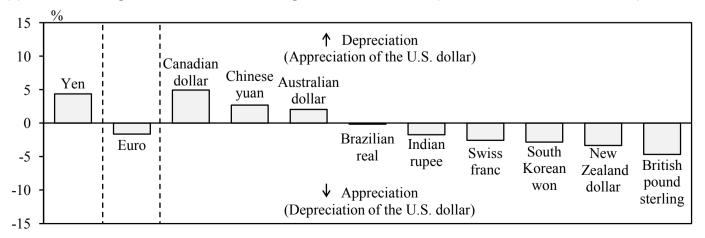
## (1) Yen/U.S. Dollar and Yen/Euro



Notes: 1. The real effective exchange rates are based on the broad indices of the BIS effective exchange rate.

2. Figures are from the JP Morgan Emerging Markets Currency Index.

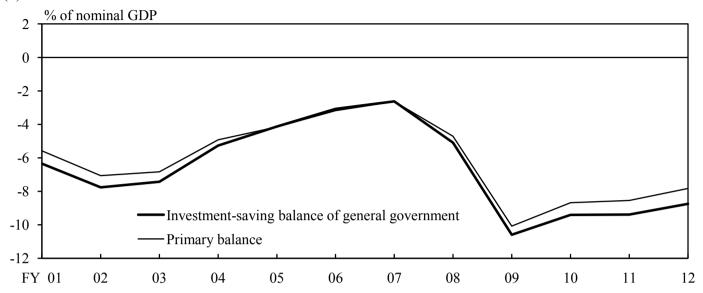
#### (4) Rates of Change in Selected Currencies against the U.S. Dollar (Since the End of October 2013)



Sources: Bank for International Settlements (BIS); Bloomberg.

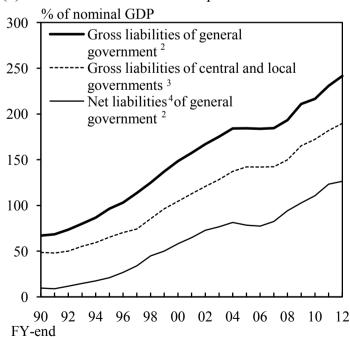
## Government Liabilities

#### (1) Fiscal Balance



Note: The following factors are excluded from the investment-saving balance of the general government: (1) redemption of JGBs held by the Deposit Insurance Corporation of Japan (fiscal 2001 and 2002); (2) transfer of assets and liabilities of the Japan Expressway Holding and Debt Repayment Agency to the general account of the general government (fiscal 2008); (3) transfer of reserves in the special account for the Fiscal Investment and Loan Program (public financial institutions) to the special account for the government debt consolidation fund of the general government (fiscal 2006 and 2008); (4) transfer of reserves in the special account for the Fiscal Investment and Loan Program to the general account (fiscal 2008-11); (5) transfer of assets of the Japan Railway Construction, Transport and Technology Agency to the general account (fiscal 2011); and (6) transfer of assets of the Japan Expressway Holding and Debt Repayment Agency to the general account (fiscal 2011).

#### (2) Government Liabilities in Japan<sup>1</sup>



# (3) Government Liabilities of the G7 Countries<sup>2,5</sup> % of nominal GDP

	Fiscal balance	Gross liabilities	Net liabilities <sup>4</sup>	
	barance	naomitics	naomnes	
Japan	-10.0	227.2	144.0	
United States	-6.5	104.1	81.8	
Germany	0.1	86.1	49.0	
United Kingdom	-6.9	107.0	73.9	
Italy	-3.0	145.7	116.7	
France	-4.2	113.0	73.4	
Canada	-3.0	97.0	42.8	

Notes: 1. Figures up through fiscal 1993 are on the 2000 base. From fiscal 1994, they are on the 2005 base.

- 2. General government consists of the central government, local governments, and social security funds.
- 3. Outstanding debt reported in "Economic and Fiscal Projections for Medium to Long Term Analysis (January 2014),"
- 4. Gross liabilities minus financial assets.
- 5. Fiscal balance and government liabilities (of the general government) are the OECD projections in CY 2013.

Sources: Cabinet Office, "National Accounts," "Economic and Fiscal Projections for Medium to Long Term Analysis"; OECD, "Economic Outlook," etc.

# **Exports and Overseas Economies**

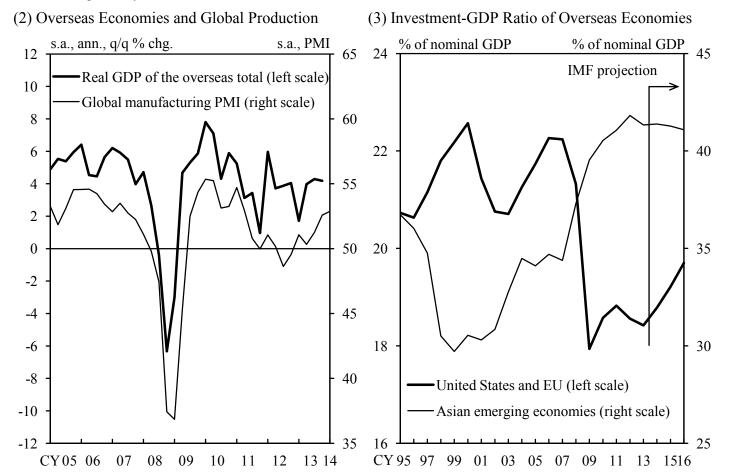
## (1) Real Exports by Region by Goods

s.a., contribution to the rate of change of real exports from 2012/Q4 to 2014/Q1, %

		Total	Intermediate goods	Motor vehicles and related goods	IT-related goods	Capital goods and parts	Semiconductor machinery, etc.	Others
		<100.0>	<21.1>	<23.9>	<10.6>	<27.5>	<1.8>	<16.9>
Total	<100.0>	3.8	0.8	1.0	-0.5	0.7	1.2	1.1
United States	<18.5>	1.3	0.2	0.4	-0.0	0.3	0.1	0.4
EU	<10.0>	1.0	0.1	0.3	-0.0	0.5	0.1	0.0
China	<18.1>	1.8	0.5	1.0	-0.0	0.4	0.5	-0.1
NIEs	<21.9>	0.3	-0.3	0.1	-0.3	0.3	0.5	0.5
ASEAN4	<10.9>	-1.3	-0.1	-0.5	-0.1	-0.4	-0.0	-0.2
Others	<20.6>	-0.0	0.2	-0.0	-0.1	-0.5	-0.0	0.4

Notes: 1. Figures are seasonally adjusted by X-12-ARIMA. Shaded areas indicate decreases in real exports.

- 2. Shares of each region and goods in CY 2013 are shown in angular brackets.
- 3. Discrepancies between the total and the sum of components arise because the seasonal adjustment is applied to each series independently.



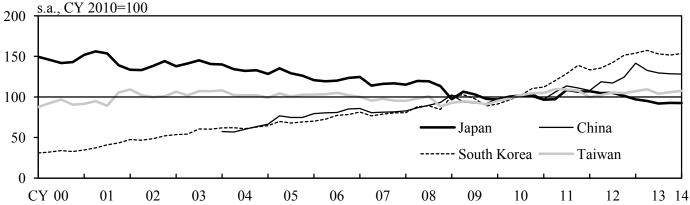
Notes: 1. Figures for the real GDP of the overseas total are the weighted averages of real GDP growth rates by value of exports from Japan to each economy.

2. Asian emerging economies comprise China, NIEs, and ASEAN4.

Sources: Ministry of Finance, "Trade Statistics"; Bank of Japan, "Corporate Goods Price Index"; IMF, "World Economic Outlook"; Markit (© and database right Markit Economics Ltd 2014. All rights reserved.), etc.

# **Environment Surrounding Exports**

# (1) IT-Related Goods Exports from East Asian Countries Relative to Global Semiconductor Demand



Notes: 1. Figures are seasonally adjusted by X-12-ARIMA. Figures for 2014/Q1 are January-February averages.

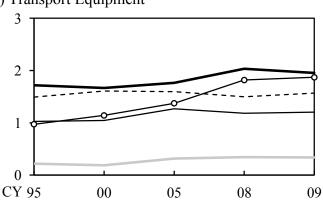
2. Figures are calculated as real IT-related goods exports divided by global semiconductor demand. The global semiconductor demand is calculated using worldwide semiconductor shipment volume by product and shipment value shares by product in 2010 by WSTS. IT-related goods exports include electrical power machinery, etc., except for Japan.

#### (2) Revealed Comparative Advantage (RCA) Index

#### (a) Electrical and Optical Equipment

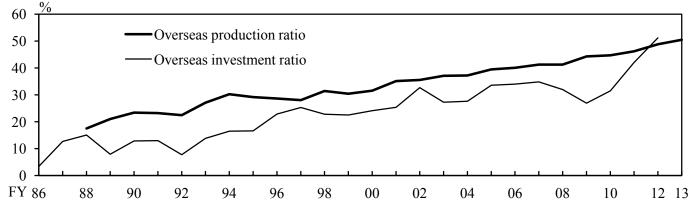
# Japan — United States China South Korea CY 95 00 05 08 09

#### (b) Transport Equipment



Note: A country with an RCA index greater than one has a comparative advantage. The RCA index is calculated as export share of an industry of the total exports of a country divided by the export share of this industry of the world. The indices are measured in terms of value added.

#### (3) Overseas Production Ratio and Overseas Investment Ratio (Manufacturing)



Notes: 1. Overseas production ratio = real sales of overseas subsidiaries / (real exports + real sales of overseas subsidiaries)

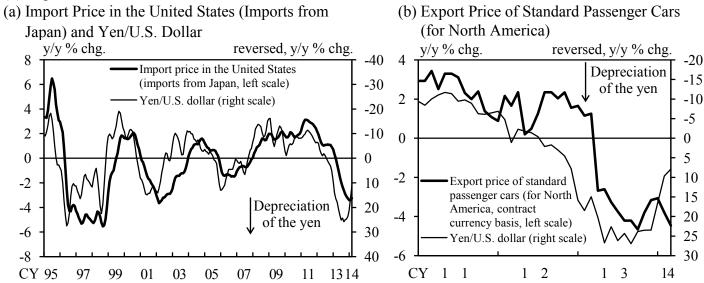
Figures for real sales of overseas subsidiaries exclude exports to Japan and imports from Japan. The figure for fiscal 2013 is 2013/Q2-Q4 averages.

2. Overseas investment ratio = overseas investment / domestic investment

Sources: CEIC; WSTS; OECD, "OECD-WTO Trade in Value Added (TiVA)"; Ministry of Finance, "Trade Statistics"; Bank of Japan, "Corporate Goods Price Index," "*Tankan*, Short-Term Economic Survey of Enterprises in Japan"; Ministry of Economy, Trade and Industry, "Survey of Overseas Business Activities," etc.

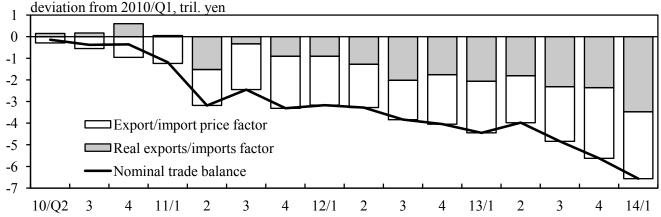
# **Export Prices and Trade Balance**

## (1) Export Prices



Note: Figures for Chart (a) are year-on-year rates of change in 3-month backward moving averages of each series.

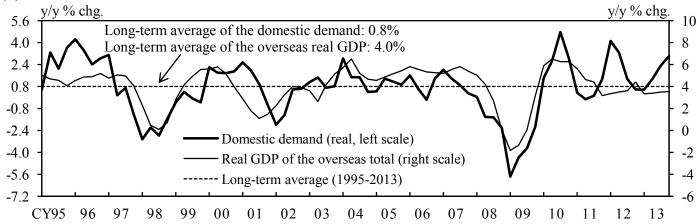
#### (2) Trade Balance



Notes: 1. Figures are based on "Trade Statistics."

2. Factors arising from the cross term between the real exports/imports and the export/import price, etc., are distributed to the real exports/imports factor and the export/import price factor on a pro-rata basis.

#### (3) Domestic Demand and Overseas Economies

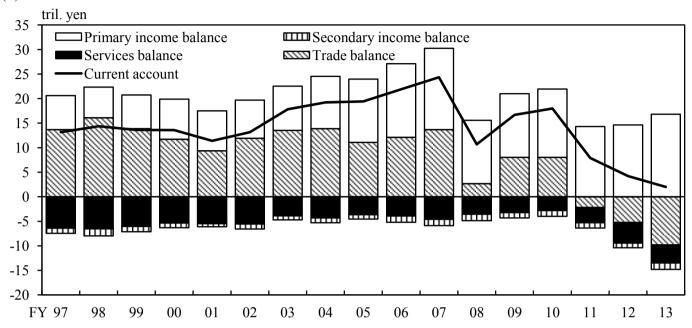


Note: Figures for the real GDP of the overseas total are the weighted averages of real GDP growth rates by value of exports from Japan to each economy.

Sources: Ministry of Finance, "Trade Statistics"; Bank of Japan, "Corporate Goods Price Index"; Cabinet Office, "National Accounts"; Bloomberg; CEIC; IMF, "World Economic Outlook," etc.

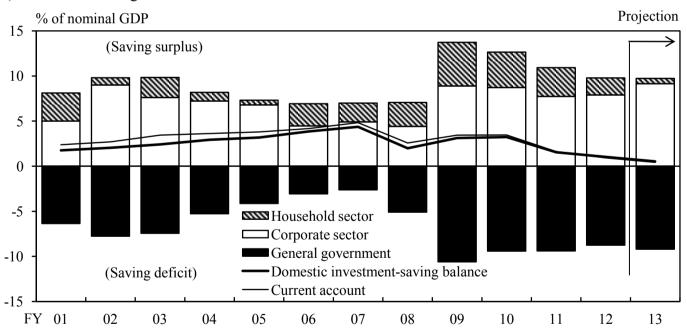
# Current Account and Investment-Saving Balance

#### (1) Current Account



Note: Figures for fiscal 2013 are April 2013-February 2014 averages in terms of annual amount.

#### (2) Investment-Saving Balance



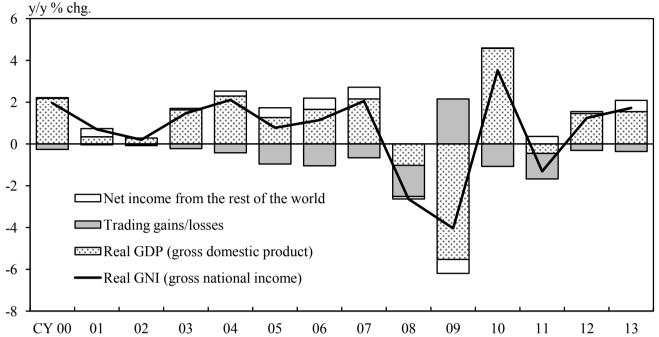
Notes: 1. The six factors described in the note to Chart 27 (1) are excluded.

- 2. The figure for the investment-saving balance of the general government for fiscal 2013 is based on the "Economic and Fiscal Projections for Medium to Long Term Analysis (January 2014)." The figure for the balance of the household sector is estimated by subtracting private consumption expenditure and private residential investment from personal disposable income, which is calculated using the nominal disposable income in Chart 38 (1). The figure for the balance of the corporate sector is the residue.
- 3. Figures for nominal GDP, private consumption expenditure and private residential investment for fiscal 2013 are calculated using the year-on-year rate of change for 2013/Q2-Q4. The domestic investment-saving balance for fiscal 2013 is estimated by adding 0.1 percentage point (the difference between the domestic investment-saving balance and the current account in fiscal 2012) from the current account.

Sources: Cabinet Office, "National Accounts," "Economic and Fiscal Projections for Medium to Long Term Analysis"; Ministry of Finance and Bank of Japan, "Balance of Payments."

# Aggregate Income Formation and Corporate Profits

### (1) Contribution to Aggregate Income Formation



Note: Real GNI (gross national income) = real GDP (gross domestic product) + trading gains/losses + net income from the rest of the world

Trading gains/losses = nominal net exports / weighted average of export and import deflators - real net exports

### (2) Business Confidence and Profit Rates

### (a) Large Manufacturing Enterprises (b) All Nonmanufacturing Enterprises DI, % points DI, % points 30 5.0 Business conditions1 20 ("favorable" - "unfavorable," left scale) 10 4.5 Ratio of current profits to sales <sup>2,3</sup> 10 (right scale) 0 0 4.0 -10 3.5 -10 -20 -30 -20 3.0 -40 -30 2.5 -50 Business conditions 1 -60 ("favorable" - "unfavorable," left scale) -40 2.0 Ratio of current profits to sales -70 (right scale) -80 1.5 -12 - 50CY 00 04 06 CY 00 02 02 08 10 12 14 04 06 08 10 12 14

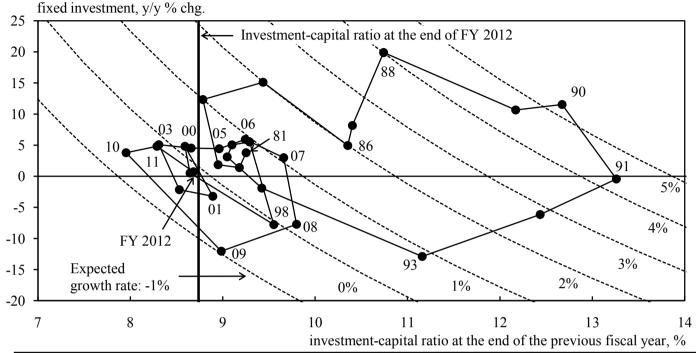
Notes: 1. The "Tankan" was revised from the March 2004 survey. Figures up to the December 2003 survey are based on the previous data sets. Figures from the December 2003 survey are on the new basis.

- 2. Figures are seasonally adjusted by X-12-ARIMA.
- 3. Excluding production, transmission and distribution of electricity.

Sources: Cabinet Office, "National Accounts"; Bank of Japan, "*Tankan*, Short-Term Economic Survey of Enterprises in Japan"; Ministry of Finance, "Financial Statements Statistics of Corporations by Industry, Quarterly."

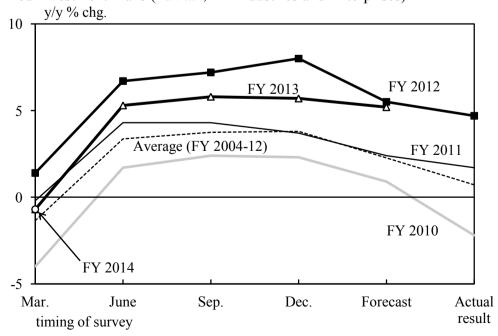
# Capital Stock Cycles and Business Fixed Investment Plans

### (1) Capital Stock Cycles



- 1. Capital stock cycles in the chart show the relationship between the investment-capital ratio and the year-on-year rate of change in fixed investment.
- 2. As these variables have the following relation, a hyperbolic curve can be drawn for a given expected growth rate. Year-on-year rate of change in fixed investment (y-axis) × investment-capital ratio at the end of the previous fiscal year (x-axis) = expected growth rate + trend growth rate of capital coefficient + depreciation rate
- 3. The phase of fixed investment at a certain time can be evaluated in relation to the hyperbolic curve corresponding to the expected growth rate at that time.

### (2) Business Fixed Investment Plans (*Tankan*, All Industries and Enterprises)



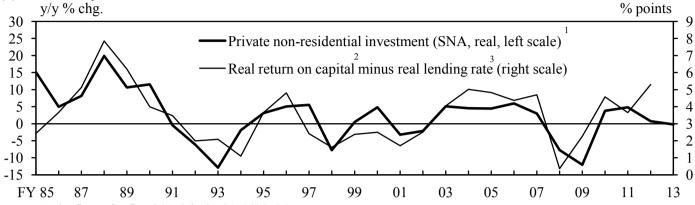
Note: Includes software investment and excludes land purchasing expenses.

Sources: Cabinet Office, "National Accounts";

Research Institute of Economy, Trade and Industry, "Japan Industrial Productivity Database"; Bank of Japan, "*Tankan*, Short-Term Economic Survey of Enterprises in Japan."

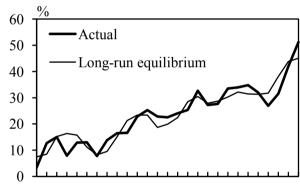
# **Environment Surrounding Business Fixed Investment**

### (1) Profitability of Investment and Business Fixed Investment



- Notes: 1. The figure for fiscal 2013 is the 2013/Q2-Q4 average.
  - 2. Real return on capital = real operating surplus / real capital stock  $\times$  100
  - 3. Real lending rate = long-term prime lending rate domestic demand deflator (y/y % chg., 1 year ahead)

### (2) Overseas Investment Ratio (Manufacturing)



Long-run equilibrium formula

Overseas investment ratio

=  $-176.8 + 5.0 \times$  overseas GDP / Japan's GDP (two-term lag)

 $+30.3 \times \log$  of real effective exchange rate (two-term lag) (4.8)

Figures in parentheses are t-values.

 $Adj.R^2 = 0.89$ 

Estimation period: FY 1986-2012

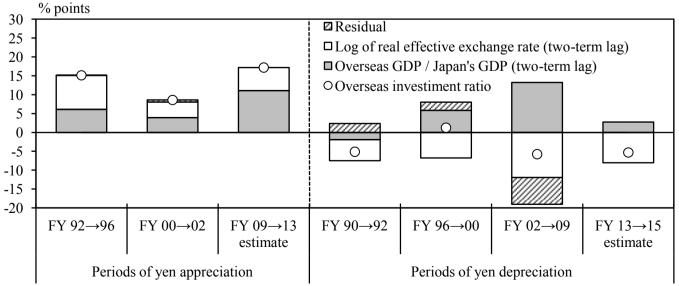
FY 86 88 90 92 94 96 98 00 02 04 06 08 10 12

Notes: 1. Overseas investment ratio = overseas investment / domestic investment

Figures for domestic investment are calculated using the "Tankan." Figures for overseas investment are calculated using the "Survey of Overseas Business Activities." The same procedure applies to the chart below.

2. Figures for GDP are based on the "World Economic Outlook (calendar year basis, purchasing-power-parity basis)." The same definition applies to the chart below.

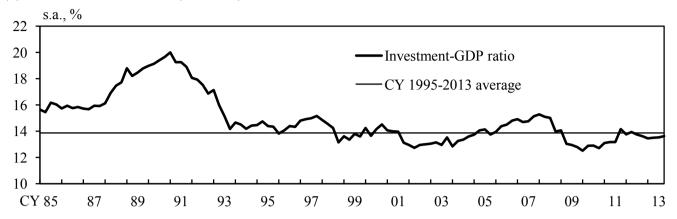
### (3) Breakdown of Changes in Overseas Investment Ratio (Manufacturing)



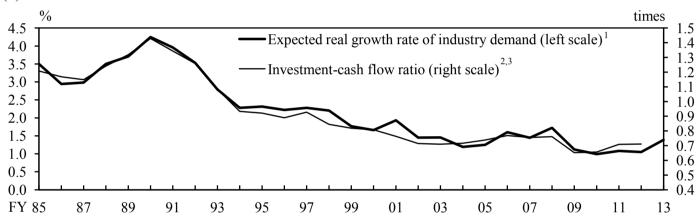
Sources: Cabinet Office, "National Accounts"; IMF, "World Economic Outlook"; Bank for International Settlements (BIS); Bank of Japan, "*Tankan*, Short-Term Economic Survey of Enterprises in Japan"; Ministry of Economy, Trade and Industry, "Survey of Overseas Business Activities," etc.

### **Business Fixed Investment**

### (1) Investment-GDP Ratio (Nominal)



### (2) Cash Flow and Business Fixed Investment

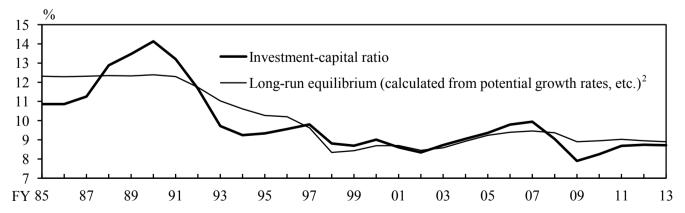


Notes: 1. Calculated using the forecasts of real growth rates of industry demand (for the next fiscal year, the next 3 years and the next 5 years) from the "Annual Survey of Corporate Behavior," as the expected real growth rate for the final year.

The survey period is January or February in each fiscal year.

- 2. Taken from the "National Accounts."
- 3. Cash flow = consumption of fixed capital + (operating surplus + net property income) / 2 Figures up through fiscal 1993 are on the 2000 base.

# (3) Investment-Capital Ratio $(I_t/K_{t-1})^1$



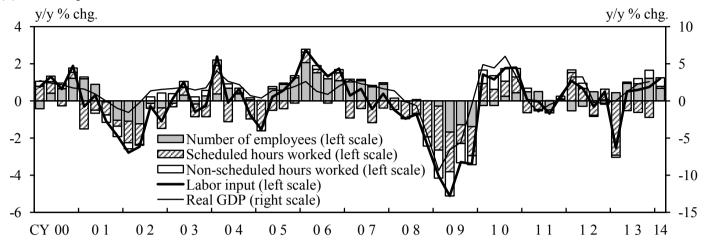
Notes: 1. Figures for fiscal 2013 are 2013/Q2-Q4 averages.

2.  $(I_t/I_{t-1})\cdot(I/K)_{t-1}$  = expected growth rate + trend growth rate of capital coefficient + depreciation rate (see the explanation in Chart 33). The investment-capital ratio consistent with the potential growth rate can be expressed as  $I_t/K_{t-1}$  = potential growth rate + trend growth rate of capital coefficient + depreciation rate. The long-run equilibrium is calculated using this equation.

Sources: Cabinet Office, "National Accounts," "Annual Survey of Corporate Behavior"; Research Institute of Economy, Trade and Industry, "Japan Industrial Productivity Database," etc.

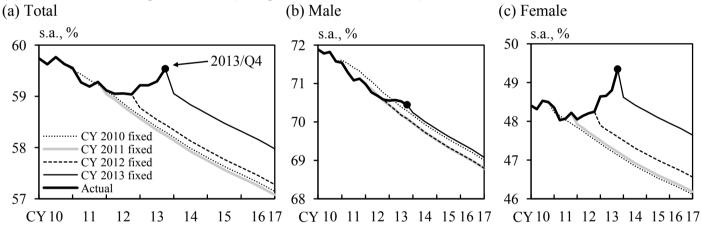
# Labor Supply and Demand

### (1) Labor Input and Real GDP



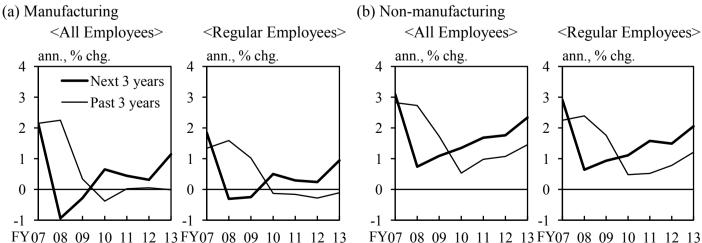
Note: Figures for 2014/Q1 are January-February averages. Labor input = number of employees (Labour Force Survey) × total hours worked (scheduled hours worked + non-scheduled hours worked)

### (2) Labor Force Participation Rates (Compared with Benchmarks)



Note: The "CY fixed" figures represent aggregate labor force participation rates when those by age (5-year interval) after each calendar year are assumed to be fixed at the level of the corresponding calendar year. The population of age 15 and over, the denominator for the participation rates, is common to all scenarios.

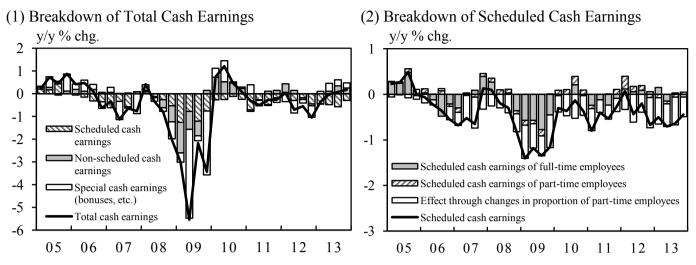
### (3) Firms' Attitudes toward Recruitment (Change in the Number of Employees)



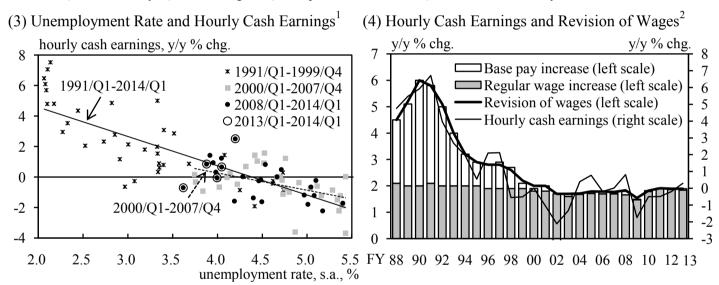
Note: The "past 3 years" includes the survey year. The "next 3 years" does not include the survey year.

Sources: Cabinet Office, "National Accounts," "Annual Survey of Corporate Behavior"; Ministry of Internal Affairs and Communications, "Labour Force Survey"; Ministry of Health, Labour and Welfare, "Monthly Labour Survey"; National Institute of Population and Social Security Research, "Population Projections for Japan."

# Wages



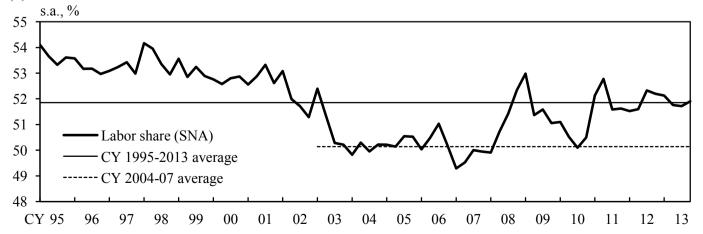
Note: Q1 = March-May, Q2 = June-August, Q3 = September-November, Q4 = December-February.



Notes: 1. Figures for 2014/Q1 are January-February averages.

2. Figures for revision of wages are based on scheduled cash earnings. Figures for hourly cash earnings up through fiscal 1990 are those for establishments with 30 or more employees, and that for fiscal 2013 is the April 2013-February 2014 average.

### (5) Labor Share



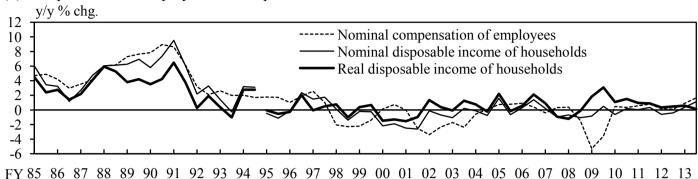
Note: Labor share = compensation of employees / nominal GDP  $\times$  100

Sources: Ministry of Health, Labour and Welfare, "Monthly Labour Survey";

Ministry of Internal Affairs and Communications, "Labour Force Survey"; Cabinet Office, "National Accounts"; Central Labour Relations Commission, "Comprehensive Survey on Wage Conditions."

# **Environment Surrounding Private Consumption**

### (1) Compensation of Employees and Disposable Income of Households



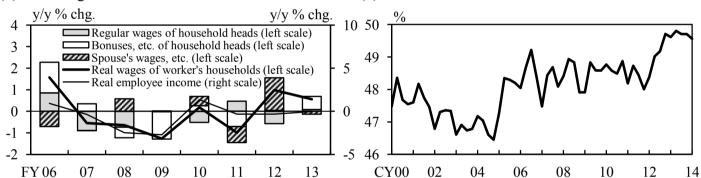
Notes: 1. The figure for nominal compensation of employees for the second half of fiscal 2013 is the year-on-year rate of change in 2013/Q4.

- 2. Figures for disposable income of households up through fiscal 1994 are on the 2000 base. From fiscal 1995, they are on the 2005 base.
- 3. Figures for fiscal 2013 are estimated by the Research and Statistics Department, Bank of Japan. They include estimated transfers of income from the government to households through the economic policy packages.

  The same procedure applies to Chart (4).

### (2) Real Wages of Worker's Households

### (3) Share of Earners in Households



Notes: 1. Except for real employee income, figures are of two-or-more-person households (excluding those engaged in agriculture, forestry and fisheries).

- 2. Figures for real wages are nominal wages deflated by CPI (all items less imputed rent).

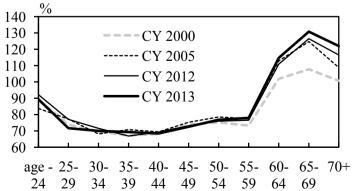
  Real employee income = number of employees (Labour Force Survey) × real cash earnings (Monthly Labour Survey)

  Figures for fiscal 2013 are April 2013-February 2014 averages.
- 3. The figure for 2014/Q1 for Chart (3) is January-February averages.

### (4) Propensity to Consume<sup>1</sup>

# 105 % 100 - 95 - 90 85 80 FY 85 87 89 91 93 95 97 99 01 03 05 07 09 11 13

### (5) Propensity to Consume by Age<sup>2</sup>

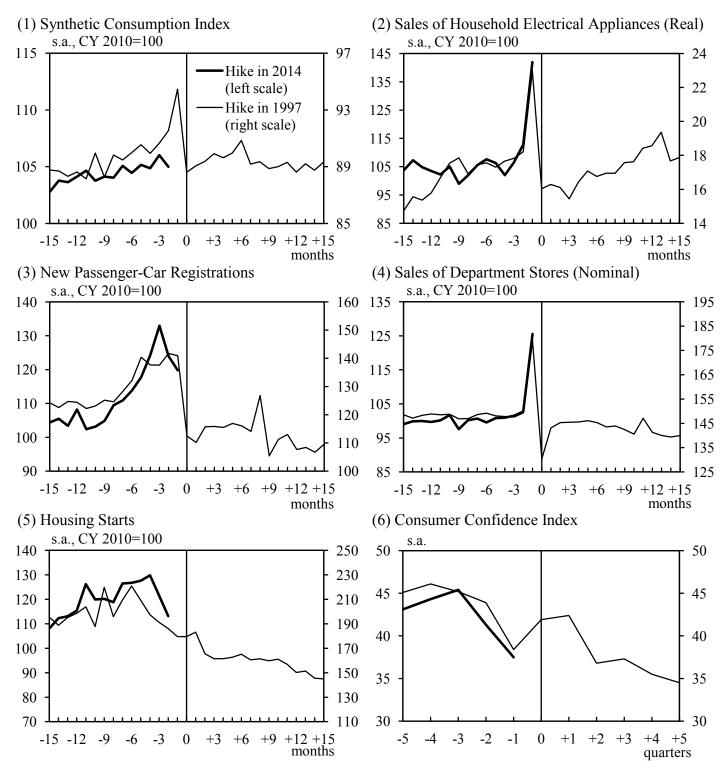


Notes: 1. Figures are on a "National Accounts" basis. They are on the 2000 base up through fiscal 1993 and on the 2005 base from fiscal 1994 onward.

2. Figures are on a "Family Income and Expenditure Survey" basis. Calculated by using consumption expenditure and disposable income that are the weighted averages of workers' households and no-occupation households.

Sources: Cabinet Office, "National Accounts"; Ministry of Internal Affairs and Communications, "Family Income and Expenditure Survey," "Consumer Price Index," etc.

# Household Expenditure prior to and after the Consumption Tax Hikes

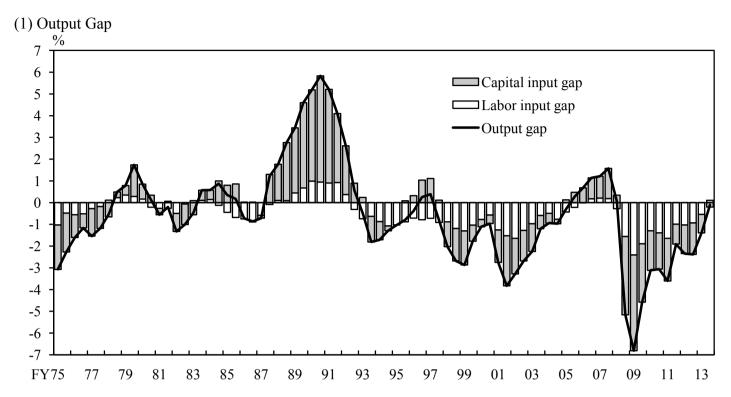


Notes: 1. 0 month shows April 1997/2014, concurrent with the rise in the consumption tax rate. In Chart (6), 0 quarter shows the quarters that include April 1997/2014.

- 2. Figures for Charts (2) through (4) are seasonally adjusted by X-12-ARIMA.
- 3. Figures for Chart (3) include small cars with engine sizes of 660 cc or less.
- 4. Figures for Chart (4) are adjusted to exclude the effects of the increase in the number of stores.
- 5. The ratios of the scale of the left axis to that of the right for Charts (1) through (5) are comparable with the ratios of the expenditure level for one year before the consumption tax hike in 2014 to that for one year before the hike in 1997.
- 6. Figures for Chart (6) are those registered in the last month of each quarter, to conform with the survey method employed during the hike in 1997, for which only the figures registered in the last month of each quarter were used. The figure for -5 quarters for the hike in 2014 is obtained from an examination survey.

Sources: Cabinet Office, "Synthetic Consumption Index," "Consumer Confidence Survey"; Ministry of Economy, Trade and Industry, "Current Survey of Commerce," etc.

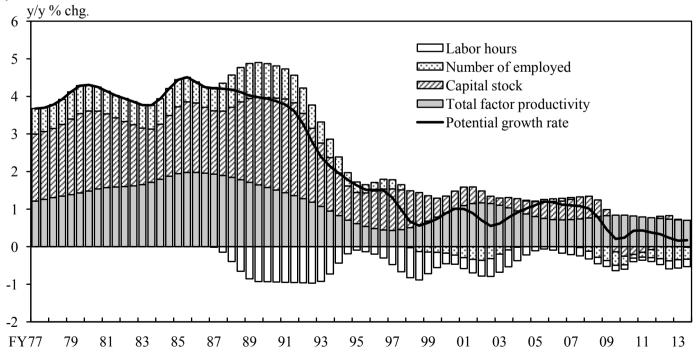
# Output Gap and Potential Growth Rate



Notes: 1. The output gap and the potential growth rate are estimated by the Research and Statistics Department, Bank of Japan. For the estimation procedures, see "The New Estimates of Output Gap and Potential Growth Rate," Bank of Japan Review Series, 2006-E-3. The same definition applies to the chart below.

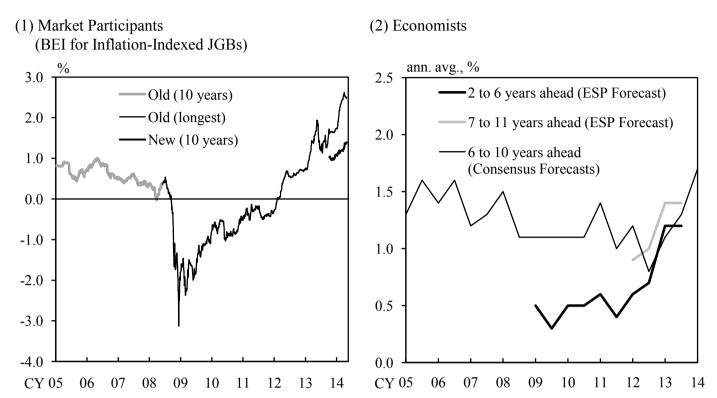
2. Figures for the second half of fiscal 2013 are those of 2013/Q4. The same rule applies to the chart below.





Sources: Cabinet Office, "National Accounts"; Ministry of Internal Affairs and Communications, "Labour Force Survey"; Ministry of Health, Labour and Welfare, "Monthly Labour Survey," "Report on Employment Service"; Ministry of Economy, Trade and Industry, "Indices of Industrial Production"; Bank of Japan, "*Tankan*, Short-Term Economic Survey of Enterprises in Japan," etc.

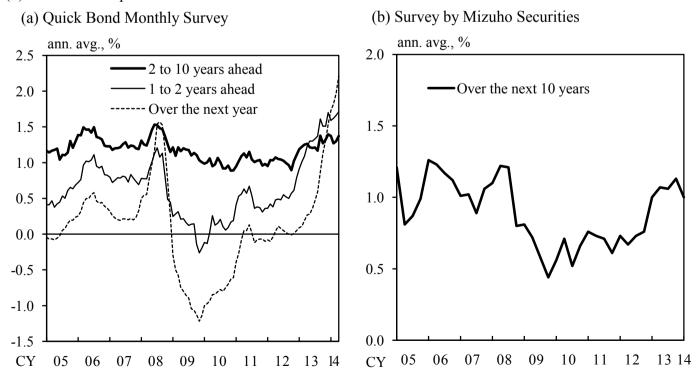
# Inflation Expectations (1)



Notes: 1. BEI (break-even inflation) rates in Chart (1) are yield spreads between fixed-rate coupon-bearing JGBs and inflation-indexed JGBs. Inflation-indexed JGBs issued since October 2013 are designated as "new," while the rest are designated as "old." Figures for "old (longest)" are calculated using yield data for issue No. 16 of the inflation-indexed JGBs, which matures in June 2018.

2. Figures for the ESP Forecast in Chart (2) exclude the effects of the consumption tax hikes.

### (3) Market Participants



Note: From the September 2013 survey, the Quick Bond Monthly Survey has asked respondents to include the effects of the consumption tax hikes. Figures for the survey by Mizuho Securities exclude the effects of the consumption tax hikes. Sources: Consensus Economics Inc., "Consensus Forecasts"; JCER, "ESP Forecast";

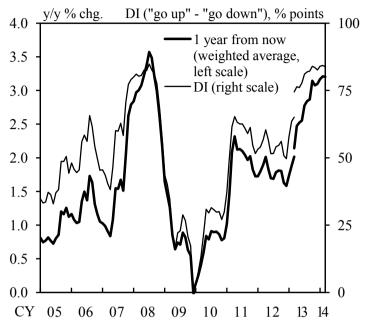
QUICK, "Quick Bond Monthly Survey"; Mizuho Securities, "Investor Survey"; Bloomberg.

# Inflation Expectations (2)

### (1) Households

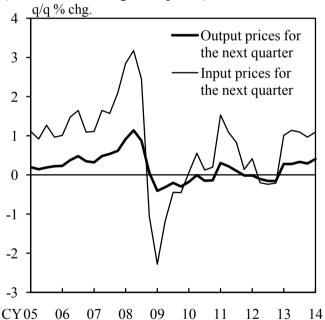
(a) Opinion Survey on the General Public's Views and Behavior<sup>1, 2</sup>

v/v % chg Over the next 5 years Over the next year 1.0 0.5 0.0 -0.5 CY 05 06 07 08 09 10 11 12 13 14 (b) Consumer Confidence Survey<sup>3, 4</sup>



- (2) Enterprises (*Tankan*)
- (a) Estimates from Change in Prices

(All Manufacturing Enterprises)<sup>1</sup>



(b) Inflation Outlook

(All Industries and Enterprises, Average)<sup>5</sup>

### General Prices

			y/y % chg.
	1 year	3 years	5 years
	ahead	ahead	ahead
Mar. 2014	1.5	1.7	1.7

### **Output Prices**

% chg. relative to the current level

	1 year	3 years	5 years		
	ahead	ahead	ahead		
Mar. 2014	1.1	1.8	2.1		

Notes: 1. Figures are estimated using the modified Carlson-Parkin method. For details, see "On Inflation Expectations," Bank of Japan Review Series, 2008-J-15 (available in Japanese only).

- 2. From the June 2013 survey, the Opinion Survey has asked respondents to exclude the effects of the consumption tax hikes.
- 3. Figures are for all households.
- 4. The weighted average is calculated based on the following assumption: survey responses chosen by households as their expected inflation rates -- "-5% or below," "from -5% to -2%," "from -2% to 0%," "from 0% to +2%," "from +2% to +5%," and "+5% or above" -- indicate inflation rates of -5%, -3.5%, -1%, +1%, +3.5%, and +5%, respectively.
- 5. Figures for the inflation outlook exclude the effects of the consumption tax hikes.

Sources: Bank of Japan, "Tankan, Short-Term Economic Survey of Enterprises in Japan,"

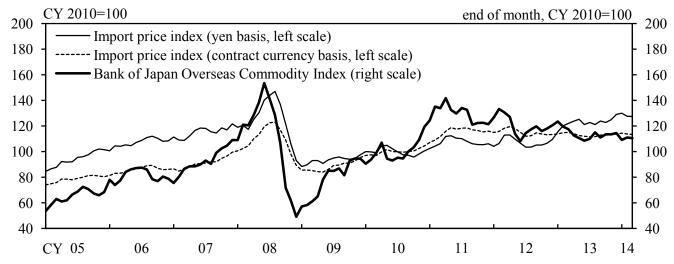
"Opinion Survey on the General Public's Views and Behavior," "Corporate Goods Price Index";

Ministry of Internal Affairs and Communications, "Consumer Price Index";

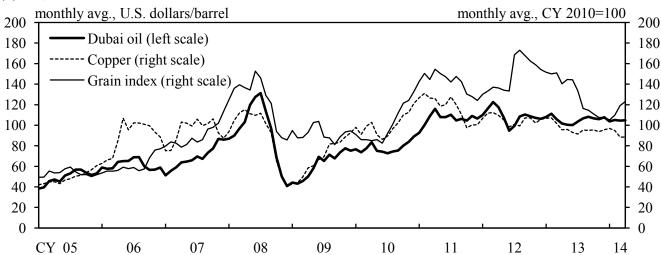
Cabinet Office, "Consumer Confidence Survey."

# Import Prices and International Commodity Prices

### (1) Import Price Index and Overseas Commodity Index

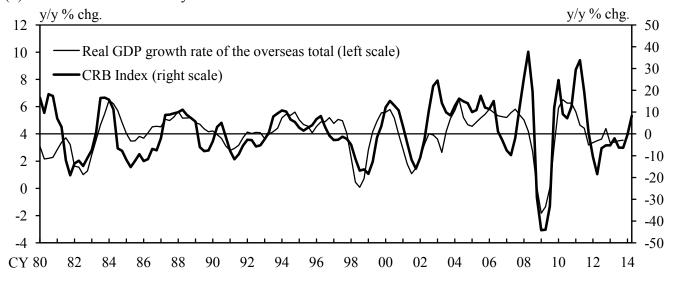


### (2) Oil, Nonferrous Metal and Grain Prices



Note: The grain index is the weighted average of prices of three selected items (wheat, soybeans, and corn) in overseas commodity markets. The weights are based on the value of imports in the Trade Statistics of Japan.

### (3) International Commodity Prices and Overseas Economies

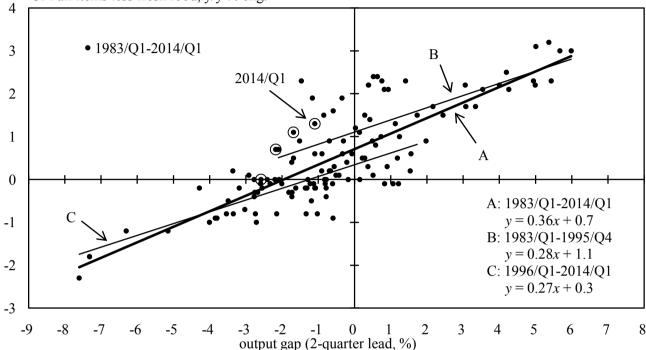


Sources: Bank of Japan, "Corporate Goods Price Index," "Bank of Japan Overseas Commodity Index"; IMF, "World Economic Outlook," etc.

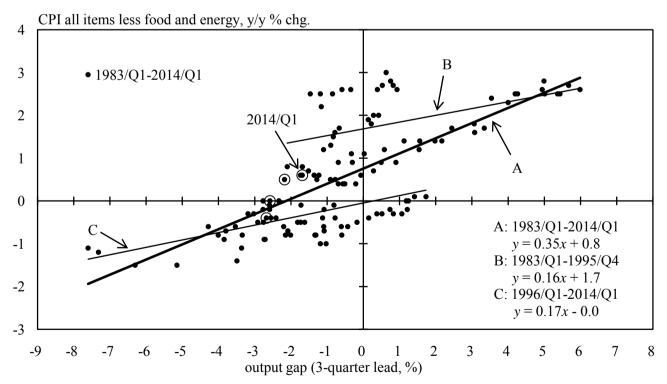
# Output Gap and Inflation Rate (1)

### (1) Phillips Curve (CPI All Items Less Fresh Food)

CPI all items less fresh food, y/y % chg.



### (2) Phillips Curve (CPI All Items Less Food and Energy)



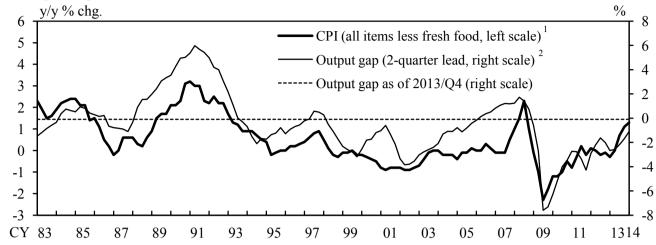
Notes: 1. The circled marks are the latest four positions.

- 2. Figures for the CPI are adjusted to exclude the effect of changes in the consumption tax rate.
- 3. The output gap is estimated by the Research and Statistics Department, Bank of Japan. For the estimation procedures, see "The New Estimates of Output Gap and Potential Growth Rate," Bank of Japan Review Series, 2006-E-3.
- 4. The number of lags is chosen so that the cross-correlation between the output gap and the CPI is maximized.

Sources: Ministry of Internal Affairs and Communications, "Consumer Price Index"; Cabinet Office, "National Accounts," etc.

# Output Gap and Inflation Rate (2)

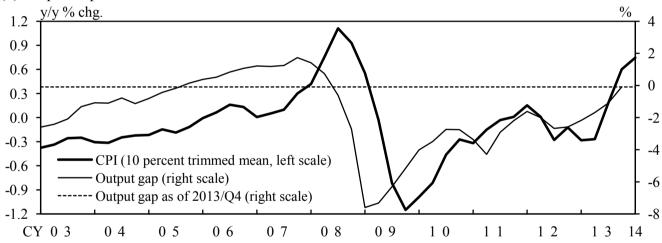
### (1) Output Gap and CPI (All Items Less Fresh Food)



Notes: 1. Figures for the CPI are adjusted to exclude the effect of changes in the consumption tax rate.

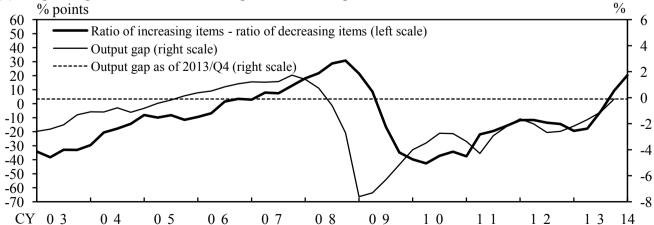
2. The output gap is estimated by the Research and Statistics Department, Bank of Japan. For the estimation procedures, see "The New Estimates of Output Gap and Potential Growth Rate," Bank of Japan Review Series, 2006-E-3. The same definition applies to the charts below.

### (2) Output Gap and Trimmed Mean CPI



Note: Figures for the 10 percent trimmed mean are weighted averages of items; these items are obtained by rearranging year-on-year rates of price change in ascending order and then excluding items in both the upper and lower 10 percent tails by weight.

### (3) Output Gap and Ratio of Increasing and Decreasing Items in CPI



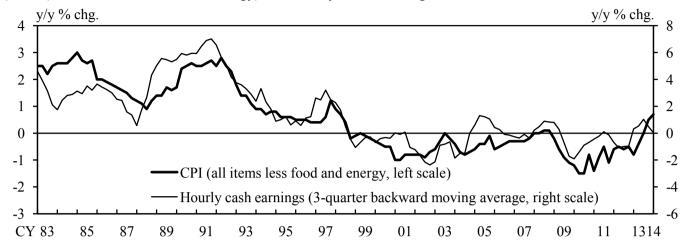
Note: Proportion of items whose indices increased/decreased from a year earlier. All items less fresh food.

Sources: Ministry of Internal Affairs and Communications, "Consumer Price Index";

Cabinet Office, "National Accounts," etc.

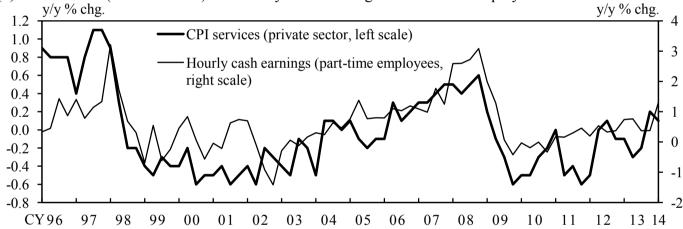
# Prices and Wages

### (1) CPI (All Items Less Food and Energy) and Hourly Cash Earnings



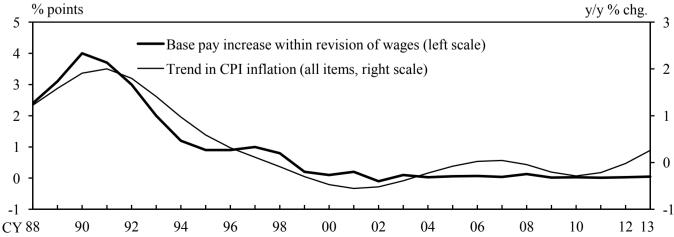
- Notes: 1. Figures for 2014/Q1 are January-February averages. The same definition applies to Chart (2).
  - 2. Figures for the CPI are adjusted to exclude the effect of changes in the consumption tax rate. The same procedure applies to Chart (3).
  - 3. Figures for hourly cash earnings up through 1990/Q4 are those for establishments with 30 or more employees.

### (2) CPI Services (Private Sector) and Hourly Cash Earnings of Part-Time Employees



Note: Figures for the CPI services (private sector) are the weighted averages of services related to domestic duties (in general services), services related to communication, culture & recreation (less package tours to overseas and mobile telephone charges), and tutorial fees.

### (3) Base Pay Increase and Trend in CPI Inflation (All Items)

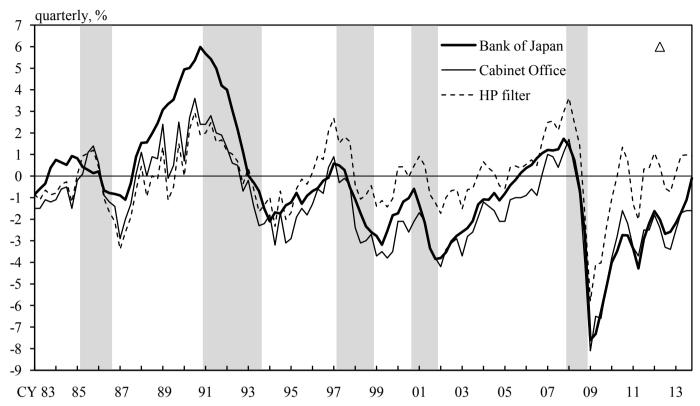


Note: "Trend in CPI inflation (all items)" is the trend component of year-on-year rates of change derived from the HP filter. Sources: Ministry of Internal Affairs and Communications, "Consumer Price Index";

Ministry of Health, Labour and Welfare, "Monthly Labour Survey"; Central Labour Relations Commission, "Comprehensive Survey on Wage Conditions."

# Various Estimates of the Output Gap

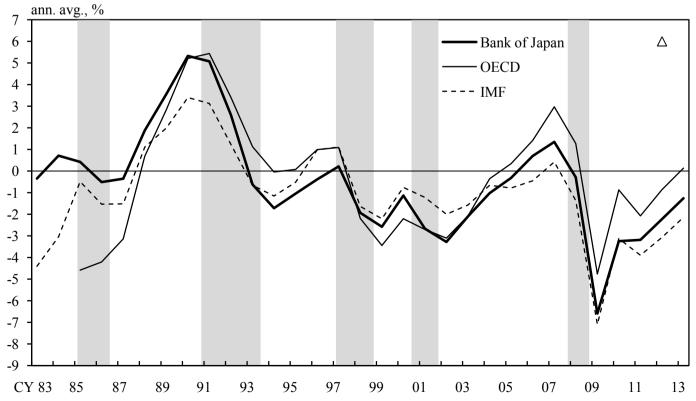
### (1) Estimates by the Bank of Japan, Cabinet Office, and by Using the Hodrick-Prescott (HP) Filter Approach



Notes: 1. For the estimation procedures of the output gap estimated by Bank of Japan, see "The New Estimates of Output Gap and Potential Growth Rate," Bank of Japan Review Series, 2006-E-3. The same definition applies to the chart below.

2. Shaded areas indicate recession periods. Triangle shows the latest peak. The same definition applies to the chart below.

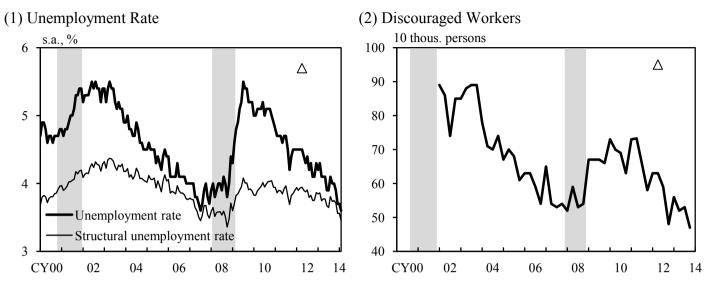
### (2) Estimates by the Bank of Japan, OECD, and IMF



Note: The figure for 2013 for the OECD is a projection in November 2013.

Sources: Cabinet Office, "National Accounts"; OECD, "Economic Outlook"; IMF, "World Economic Outlook," etc.

# Labor and Capital Utilization



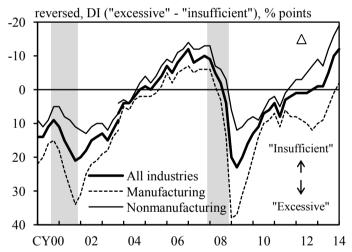
Notes: 1. Discouraged workers are persons not in the labor force who want to work and are in the state of being able to take a job immediately but not actively seeking employment due to a lack of appropriate jobs. Figures for 2011/Q1-Q3 are estimated values.

2. Shaded areas indicate recession periods. Triangle shows the latest peak. The same definition applies to the charts below.

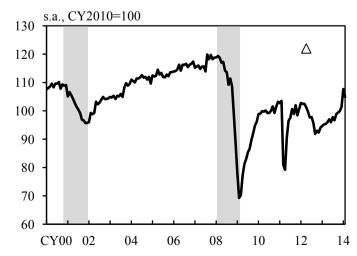
### (3) Active Job Openings-to-Applicants Ratio

### 

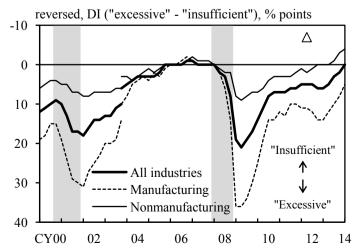
### (4) Employment Conditions DI



### (5) Operating Ratio (Manufacturing)



### (6) Production Capacity DI



Sources: Ministry of Internal Affairs and Communications, "Labor Force Survey"; Ministry of Health, Labor and Welfare, "Report on Employment Service"; Bank of Japan, "*Tankan*, Short-Term Economic Survey of Enterprises in Japan"; Ministry of Economy, Trade and Industry, "Indices of Industrial Production."

# Economic Assessment by Region (Regional Economic Report)

Region	Assessment in January 2014	Changes from the previous assessment	Assessment in April 2014
Hokkaido	The economy has been recovering moderately.	ightharpoonup	The economy has been recovering moderately as a trend, albeit with some fluctuations due to the consumption tax hike.
Tohoku	The economy has been recovering.	ightharpoonup	The economy has continued to recover as a trend, albeit with some fluctuations due to the consumption tax hike.
Hokuriku	The economy has begun to recover moderately.	$\Diamond$	The economy has been recovering moderately as a trend, while it has been affected by the front-loaded increase and subsequent decline in demand prior to and after the consumption tax hike.
Kanto- Koshinetsu	The economy has been recovering moderately.		The economy has continued to recover moderately as a trend, albeit with some fluctuations due to the consumption tax hike.
Tokai	The economy has been recovering.	ightharpoonup	The economy has continued to recover as a trend, while the subsequent decline in demand following the front-loaded increase prior to the consumption tax hike has recently been observed.
Kinki	The economy has been recovering moderately.	ightharpoons	The economy has been recovering moderately as a trend, while the subsequent decline in demand following the front-loaded increase prior to the consumption tax hike has been observed.
Chugoku	The economy has been recovering moderately.		The economy has been recovering moderately as a trend, albeit with some fluctuations due to the consumption tax hike.
Shikoku	The economy has been recovering moderately.		The economy has continued to recover moderately as a trend, albeit with some fluctuations due to the consumption tax hike.
Kyushu- Okinawa	The economy has been recovering moderately.	ightharpoons	The economy has been recovering moderately as a trend, while it has been affected by the front-loaded increase and subsequent decline in demand prior to and after the consumption tax hike.

Note: The Regional Economic Report (summary) is available on the Bank of Japan's web site (http://www.boj.or.jp/en/research/brp/rer/rer140417.htm/).

Source: Bank of Japan, "Regional Economic Report (Summary) April 2014."