Not to be released until 2:00 p.m.
Japan Standard Time on
Friday, November 1, 2024.

日本銀行
BANK OF JAPAN

Outlook for Economic Activity and Prices

October 2024

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

Outlook for Economic Activity and Prices (October 2024)

The Bank's View[1]

Summary

- Japan's economy is likely to keep growing at a pace above its potential growth rate, with overseas economies continuing to grow moderately and as a virtuous cycle from income to spending gradually intensifies against the background of factors such as accommodative financial conditions.
- The year-on-year rate of increase in the consumer price index (CPI, all items less fresh food) is likely to be at around 2.5 percent for fiscal 2024 and then be at around 2 percent for fiscal 2025 and 2026. While the effects of a pass-through to consumer prices of cost increases led by the past rise in import prices are expected to wane, underlying CPI inflation is expected to increase gradually, since it is projected that the output gap will improve and that medium- to long-term inflation expectations will rise with a virtuous cycle between wages and prices continuing to intensify. In the second half of the projection period, it is likely to be at a level that is generally consistent with the price stability target. Through fiscal 2025, it is also expected that a dissipation of the effects of the government's measures pushing down inflation will make a positive contribution to the year-on-year rate of increase in the CPI (all items less fresh food), whereas factors such as the recent decline in crude oil and other resource prices will make a negative contribution.
- Comparing the projections with those presented in the previous *Outlook for Economic Activity and Prices* (Outlook Report), the projected real GDP growth rates are more or less unchanged. The projected year-on-year rate of increase in the CPI (all items less fresh food) for fiscal 2025 is somewhat lower due to factors such as the recent decline in crude oil and other resource prices.
- Concerning risks to the outlook, there remain high uncertainties surrounding Japan's economic activity and prices, including developments in overseas economic activity and prices, developments in commodity prices, and domestic firms' wage- and price-setting behavior. Under these circumstances, it is necessary to pay due attention to developments in financial and foreign exchange markets and their impact on Japan's economic activity and prices. In particular, with firms' behavior shifting more toward raising wages and prices recently, exchange rate developments are, compared to the past, more likely to affect prices.
- With regard to the risk balance, risks to economic activity are generally balanced. Risks to prices are skewed to the upside for fiscal 2025.

[1] "The Bank's View" was decided by the Policy Board at the Monetary Policy Meeting held on October 30 and 31, 2024.

I. Current Situation of Economic Activity and Prices in Japan

Japan's economy has recovered moderately, although some weakness has been seen in part. Overseas economies have grown moderately on the whole. Exports and industrial production have been more or less flat. Corporate profits have improved and business sentiment has stayed at a favorable level. In this situation, business fixed investment has been on a moderate increasing trend. The employment and income situation has improved moderately. Private consumption has been on a moderate increasing trend despite the impact of price rises and other factors. Housing investment has been relatively weak. Public investment has been more or less flat. Financial conditions have been accommodative. On the price front, the year-on-year rate of increase in the CPI (all items less fresh food) has been at around 2.5 percent recently, as services prices have continued to rise moderately, reflecting factors such as wage increases, although the effects of a pass-through to consumer prices of cost increases led by the past rise in import prices have waned. Inflation expectations have risen moderately.

II. Baseline Scenario of the Outlook for Economic Activity and Prices in Japan[2]

A. Baseline Scenario of the Outlook for Economic Activity

Japan's economy is likely to keep growing at a pace above its potential growth rate, with overseas economies continuing to grow moderately and as a virtuous cycle from income to spending gradually intensifies against the background of factors such as accommodative financial conditions.

The projected real GDP growth rates are more or less unchanged from those presented in the previous Outlook Report.

In the household sector, employment is likely to continue rising, but the pace of increase is projected to moderate gradually. This is because it will become more difficult for labor supply to increase, with labor force participation of women and seniors having advanced to a high degree thus far. That said, these developments will lead to an increased tightening of labor market conditions during the course of the economic recovery. In this situation, nominal wages are expected to keep increasing clearly, partly reflecting price rises, and employee income is projected to continue increasing. Against this backdrop, for the time being, although private consumption is expected to be affected by the price rises, it is projected to continue increasing moderately, mainly reflecting the rise in wage growth. Private consumption is also projected to be underpinned, for the time being, by the government's initiatives such as the continuation of measures to reduce the household burden of higher gasoline prices.

[2] Each Policy Board member makes their forecasts taking into account the effects of past policy decisions and, with regard to the future conduct of policy, referring to views incorporated in financial markets that the policy interest rate will rise moderately.

In the corporate sector, exports and production are likely to return to an uptrend, mainly due to a recovery in global demand for IT-related goods, as overseas economies continue to grow moderately. Meanwhile, inbound tourism demand, which is categorized under services exports, is expected to continue increasing. Corporate profits are likely to follow an improving trend with a moderate increase in domestic and external demand. In this situation, as accommodative financial conditions provide support, business fixed investment is likely to continue on an increasing trend, including investment to address labor shortages, digital-related investment, research and development (R&D) investment related to growth areas and decarbonization, and investment associated with strengthening supply chains.

Meanwhile, public investment is expected to be more or less flat. Government consumption is expected to increase moderately in reflection of an uptrend in healthcare and nursing care expenditures.

The potential growth rate is expected to rise moderately.[3] This is mainly because productivity is likely to increase due to advances in digitalization and investment in human capital, and because capital stock growth is projected to accelerate due to a rise in business fixed investment. These developments are likely to be encouraged by the government's various measures and by accommodative financial conditions.

B. Baseline Scenario of the Outlook for Prices

The year-on-year rate of increase in the CPI (all items less fresh food) is likely to be at around 2.5 percent for fiscal 2024 and then be at around 2 percent for fiscal 2025 and 2026. While the effects of a pass-through to consumer prices of cost increases led by the past rise in import prices are expected to wane, underlying CPI inflation is expected to increase gradually, since it is projected that the output gap will improve and that medium- to long-term inflation expectations will rise with a virtuous cycle between wages and prices continuing to intensify. In the second half of the projection period, it is likely to be at a level that is generally consistent with the price stability target. Through fiscal 2025, it is also expected that a dissipation of the effects of the government's measures pushing down inflation will make a positive contribution to the year-on-year rate of increase in the CPI (all items less fresh food), whereas factors such as the recent decline in crude oil and other resource prices will make a negative contribution.

Comparing the projections with those presented in the previous Outlook Report, the projected year-on-year rate of increase in the CPI (all items less fresh food) for fiscal 2025

[3] Under a specific methodology, Japan's recent potential growth rate is estimated to be in the range of 0.5-1.0 percent. However, the rate should be interpreted with considerable latitude. This is because the estimate is subject to change depending on the methodologies employed and could be revised as the sample period becomes longer over time. In addition, there are high uncertainties over how factors such as advances in digitalization will affect the trends in productivity or labor supply.

is somewhat lower due to factors such as the recent decline in crude oil and other resource prices.

The outlook for the CPI (all items less fresh food) depends on the assumptions regarding crude oil prices and the government's measures. Crude oil prices are assumed to decline moderately toward the end of the projection period with reference, for example, to developments in futures markets. The government's measures to reduce the household burden of higher gasoline prices, electricity charges, and gas charges had pushed down the year-on-year rates of change in the CPI (all items less fresh food) up through fiscal 2023. For fiscal 2024 and 2025, the phasing out of these measures is projected to push up the rates. Looking at the CPI (all items less fresh food and energy) -- which is not directly affected by fluctuations in energy prices -- the year-on-year rate of increase is likely to be at around 2 percent, as services and other prices are expected to continue rising moderately, reflecting factors such as wage increases, although the effects of the pass-through to consumer prices of cost increases led by the past rise in import prices are projected to wane gradually.

The main factors that determine underlying inflation are assessed as follows. The output gap, which captures the utilization of labor and capital, has followed an improving trend, albeit with fluctuations. Based on the aforementioned outlook for economic activity, the gap is likely to widen moderately within positive territory toward the end of the projection period. Meanwhile, labor market conditions are expected to tighten to a greater extent than can be explained by the changes in the output gap, partly due to a deceleration in the pace of increase in labor force participation of women and seniors, and upward pressure on wages is projected to intensify. This is likely to put upward pressure on personnel expenses on the cost side and contribute to an increase in households' purchasing power.

Medium- to long-term inflation expectations have risen moderately. Firms' inflation outlook for general prices in the *Tankan* (Short-Term Economic Survey of Enterprises in Japan) has increased moderately. Given that the formation of inflation expectations in Japan is largely adaptive, the increase in inflation seen thus far has brought about a rise in households' and firms' medium- to long-term inflation expectations. Firms' behavior has shifted more toward raising wages and prices, and nominal wages have increased clearly. In addition, moves to reflect wage increases in selling prices have continued to strengthen. Regarding the outlook, inflation expectations are expected to rise moderately, with continued improvement in the output gap and changes in firms' wage- and price-setting behavior. Under these circumstances, the virtuous cycle between wages and prices is projected to keep intensifying through achievement of wage increases that reflect price rises and through a pass-through of wage increases to selling prices.

Considering the above assessments, underlying CPI inflation is expected to increase gradually, mainly reflecting the improvement in the output gap and the rise in medium- to

long-term inflation expectations; in the second half of the projection period, it is likely to be at a level that is generally consistent with the price stability target. That said, there remain uncertainties regarding this outlook, and it is necessary to carefully monitor factors such as firms' wage- and price-setting behavior.

III. Risks to Economic Activity and Prices

A. Risks to Economic Activity

Regarding the aforementioned baseline scenario of the outlook for economic activity, the main upside and downside risks that require attention are as follows.

The first is developments in overseas economic activity and prices and in global financial and capital markets. Inflation rates in the United States and Europe have followed a declining trend, albeit with fluctuations, and central banks in these economies have started to lower policy interest rates. In this situation, the U.S. and European economies are likely to avoid significant slowdowns. That said, there are uncertainties over how past policy interest rate hikes by overseas central banks will affect their real economies and financial systems. There is also a risk of fluctuations widening in financial and foreign exchange markets depending on the pace of economic slowdown and due to expectations regarding central banks' policy conduct. It is necessary to take these risks into account and pay due attention to their impact on Japan's economic activity and prices. Meanwhile, depending on factors such as the course of the situation surrounding Ukraine and the Middle East, downward pressure on overseas economies could heighten. In addition, regarding the Chinese economy, there are high uncertainties surrounding the future pace of growth, as adjustment pressure has continued in the real estate and labor markets, and it is necessary to pay attention to how inventory adjustment pressure on some goods will affect overseas economic activity and prices.

The second risk is developments in import prices, particularly those of commodities, including grains. Attention continues to be warranted on the risk that prices of grains and other commodities will fluctuate significantly due to geopolitical factors, such as those concerning Ukraine and the Middle East. Furthermore, in the medium to long term, there are extremely high uncertainties surrounding, for example, efforts by countries around the world toward addressing climate change. Given that Japan is an importer of commodities such as energy and grains (e.g., wheat), a rise in these prices due to supply factors puts greater downward pressure on the economy through an increase in import costs, as this rise is not accompanied by an expansion in external demand or an increase in exports. If the terms of trade were to deteriorate again, this could squeeze corporate profits and households' real income, leading business fixed investment and private consumption to deviate downward from the baseline scenario through more cautious spending behavior of firms and households. Moreover, with progress in the pass-through of the rise in import

prices to consumer prices, households' defensive attitudes toward spending could strengthen further, and this could push down the economy. On the other hand, if prices of commodities, including grains, decline, the economy could deviate upward.

The third risk considered from a somewhat long-term perspective is the impact of various changes in the environment surrounding Japan on firms' and households' medium- to long-term growth expectations and on Japan's potential growth rate. It is expected that factors such as the experience of COVID-19, intensifying labor shortages, and progress on efforts with a view to decarbonization and on labor market reform will change Japan's economic structure and people's working styles. Intensifying labor shortages -- which are partly due to demographic changes -- could accelerate labor-saving investment, such as for digitalization. On the other hand, if such a substitution of labor with capital does not sufficiently progress, there is a risk that supply-side constraints in some industries will push down the growth rate. Furthermore, the heightened geopolitical risks could change the trend of globalization, which has supported the growth of the global economy to date.

B. Risks to Prices

If the aforementioned risks to economic activity materialize, prices also are likely to be affected. In addition, it is necessary to pay attention to the following two risks that are specific to prices.

The first is high uncertainties over firms' wage- and price-setting behavior, which could exert either upward or downward pressure on prices. While firms' behavior has shifted more toward raising wages and prices, there remain uncertainties over the extent to which moves to reflect wage developments in selling prices will become widespread. It is expected in the baseline scenario that the virtuous cycle between wages and prices will continue to intensify. However, given that firms, especially small and medium-sized firms, have continued to report that it has been difficult to pass on their employees' higher wages to their selling prices, the rise in selling prices could be limited. Since the behavior and mindset based on the assumption that wages and prices will not increase easily have taken hold in Japanese society for a prolonged period, it is necessary to pay close attention to whether moves to pass on increases in wages and other costs to selling prices will weaken with the waning of the effects of the pass-through of import prices to consumer prices. On the other hand, moves to reflect wages in selling prices could strengthen to a greater extent than expected, and upward pressure on wages could intensify with growing expectations that labor market conditions will continue to be tight. In this situation, there is also a possibility that both wages and prices will deviate upward from the baseline scenario, accompanied by a rise in medium- to long-term inflation expectations.

The second risk is future developments in foreign exchange rates and international commodity prices, as well as the extent to which such developments will spread to import prices and domestic prices. This risk may lead prices to deviate either upward or downward from the baseline scenario. There are high uncertainties over, for example, the outlook for the global economy, and this could lead to significant fluctuations in international commodity prices. In addition, with firms' behavior shifting more toward raising wages and prices recently, exchange rate developments are, compared to the past, more likely to affect prices.

IV. 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.[4]

The first perspective involves an examination of the baseline scenario of the outlook. The year-on-year rate of increase in the CPI is likely to be at around 2.5 percent for fiscal 2024 and then be at around 2 percent for fiscal 2025 and 2026. Meanwhile, underlying CPI inflation is expected to increase gradually, since it is projected that the output gap will improve and that medium- to long-term inflation expectations will rise with the virtuous cycle between wages and prices continuing to intensify. In the second half of the projection period, it is likely to be at a level that is generally consistent with the price stability target.

The second perspective involves an examination of the risks considered most relevant to the conduct of monetary policy. There remain high uncertainties, both upside and downside, surrounding Japan's economic activity and prices, and it is necessary to pay due attention to developments in financial and foreign exchange markets and their impact on economic activity and prices. With regard to the risk balance, risks to economic activity are generally balanced. Risks to prices are skewed to the upside for fiscal 2025.

Examining risks on the financial side, overheating has generally not been seen in asset markets and financial institutions' credit activities, although attention continues to be warranted on the pace of increase in stock and real estate prices. Japan's financial system has maintained stability on the whole. In addition, even in the case of an adjustment in the real economy at home and abroad and in global financial markets, the financial system is likely to remain highly robust on the whole, mainly because Japanese financial institutions have sufficient capital bases. Moreover, financial institutions' resilience to rises in yen interest rates has headed toward improvement, mainly reflecting

[4] 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, entitled "The 'Price Stability Target' under the Framework for the Conduct of Monetary Policy."

their portfolio rebalancing in securities investment. When examining financial imbalances from a longer-term perspective, if downward pressure on financial institutions' profits, such as from low interest rates, the declining population, and excess savings in the corporate sector, becomes prolonged, this could create a risk of a gradual pullback in financial intermediation. On the other hand, under these circumstances, the vulnerability of the financial system could increase, mainly due to the search for yield behavior. Although these risks are judged as not significant at this point, it is necessary to pay close attention to future developments.[5]

As for the conduct of monetary policy, while it will depend on developments in economic activity and prices as well as financial conditions going forward, given that real interest rates are at significantly low levels, if the aforementioned outlook for economic activity and prices will be realized, the Bank will accordingly continue to raise the policy interest rate and adjust the degree of monetary accommodation. On this basis, the Bank needs to pay due attention to the future course of overseas economies, particularly the U.S. economy, and developments in financial and capital markets. It also needs to examine how these factors will affect the outlook for Japan's economic activity and prices, the risks surrounding them, and the likelihood of realizing the outlook. With the price stability target of 2 percent, the Bank will conduct monetary policy as appropriate, in response to developments in economic activity and prices as well as financial conditions, from the perspective of sustainable and stable achievement of the target.

[5] For details, see the Bank's *Financial System Report* (October 2024).

(Appendix)

Forecasts of the Majority of the Policy Board Members

y/y % chg.

	Real GDP	CPI (all items less fresh food)	(Reference) CPI (all items less fresh food and energy)
Fiscal 2024	+0.5 to +0.7 [+0.6]	+2.4 to +2.5 [+2.5]	+1.9 to +2.1 [+2.0]
Forecasts made in July 2024	+0.5 to +0.7 [+0.6]	+2.5 to +2.6 [+2.5]	+1.8 to +2.0 [+1.9]
Fiscal 2025	+1.0 to +1.2 [+1.1]	+1.7 to +2.1 [+1.9]	+1.8 to +2.0 [+1.9]
Forecasts made in July 2024	+0.9 to +1.1 [+1.0]	+2.0 to +2.3 [+2.1]	+1.8 to +2.0 [+1.9]
Fiscal 2026	+0.8 to +1.1 [+1.0]	+1.8 to +2.0 [+1.9]	+1.9 to +2.2 [+2.1]
Forecasts made in July 2024	+0.8 to +1.0 [+1.0]	+1.8 to +2.0 [+1.9]	+1.9 to +2.2 [+2.1]

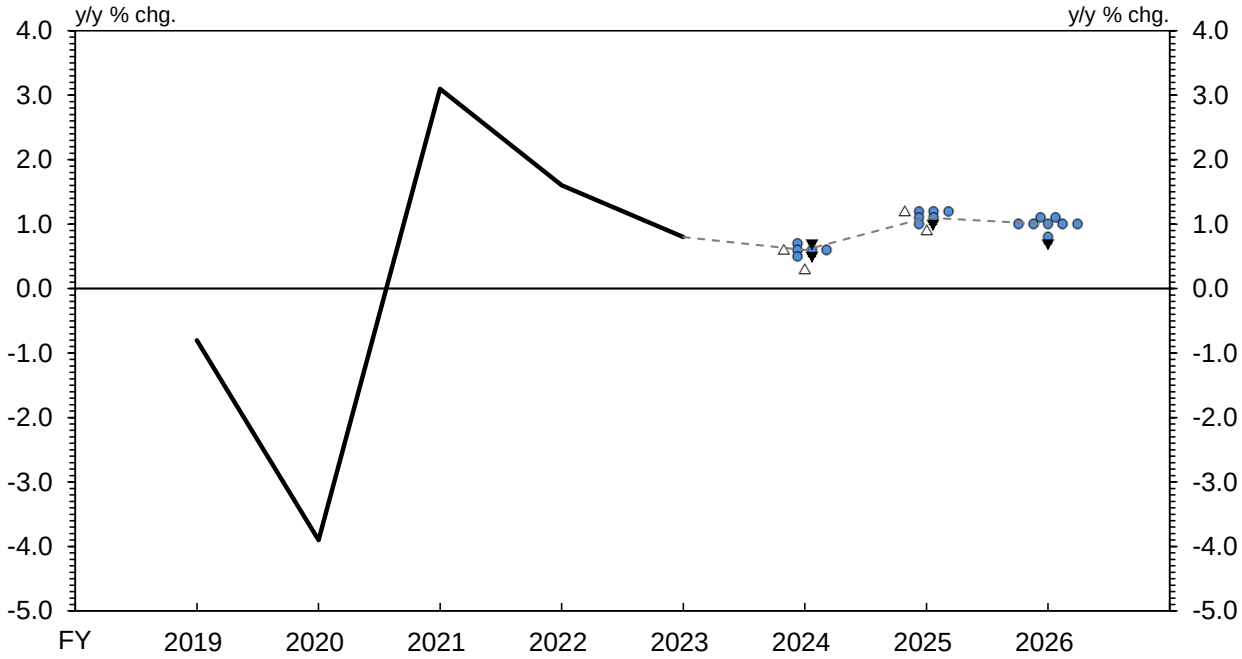
Notes: 1. Figures in brackets indicate the medians of the Policy Board members' forecasts (point estimates).

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 they attach 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.

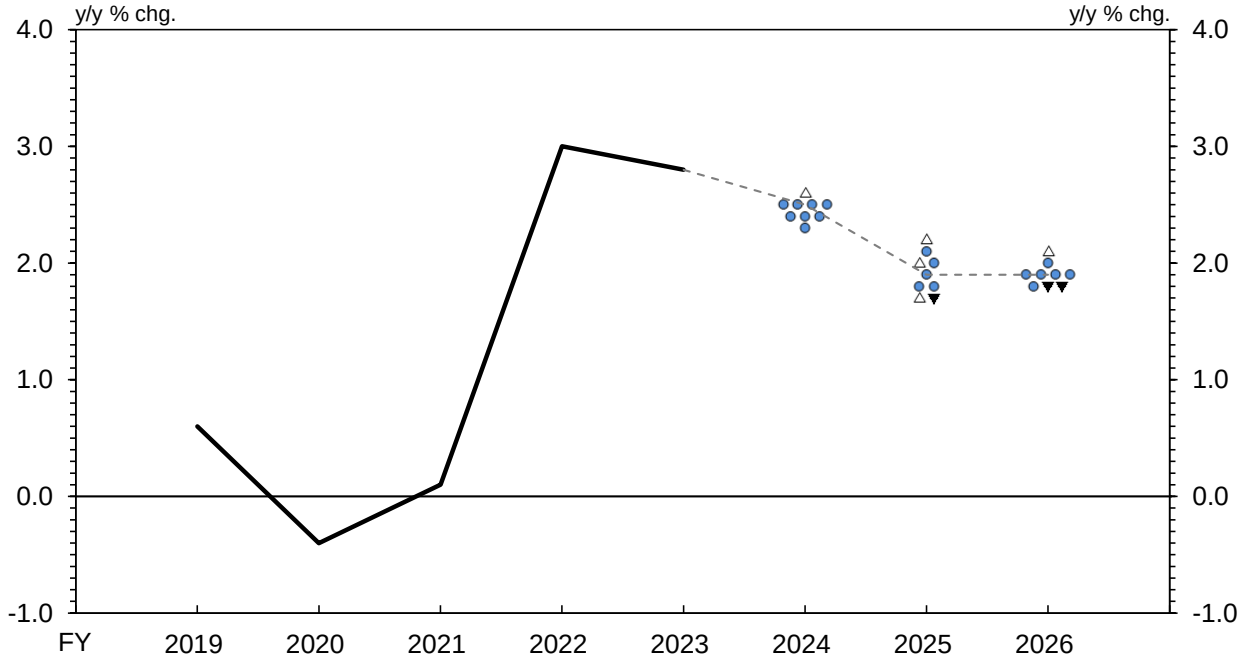
3. Each Policy Board member makes their forecasts taking into account the effects of past policy decisions and with reference to views incorporated in financial markets regarding the future conduct of policy.

Policy Board Members' Forecasts and Risk Assessments

(1) Real GDP



(2) CPI (All Items Less Fresh Food)



Notes: 1. The solid lines show actual figures, while the dotted lines show the medians of the Policy Board members' forecasts (point estimates).

2. The locations of ●, △, and ▼ in the charts indicate the figures for each Policy Board member's forecasts to which they attach the highest probability. The risk balance assessed by each Policy Board member is shown by the following shapes: ● indicates that a member assesses "upside and downside risks as being generally balanced," △ indicates that a member assesses "risks are skewed to the upside," and ▼ indicates that a member assesses "risks are skewed to the downside."

The Background[6]

I. Current Situation of Economic Activity and Its Outlook

A. Economic Developments

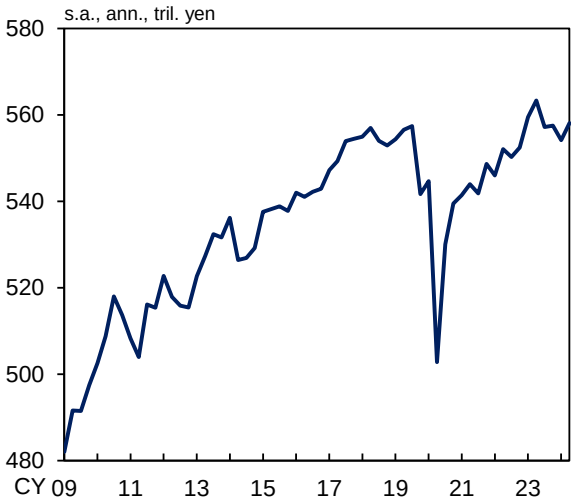
Japan's economy has recovered moderately, although some weakness has been seen in part.

The real GDP growth rate for the January-March quarter of 2024 was minus 0.6 percent on a quarter-on-quarter basis and minus 2.4 percent on an annualized basis (Chart 1). It then increased clearly for the April-June quarter, registering plus 0.7 percent on a quarter-on-quarter basis and plus 2.9 percent on an annualized basis. Looking at the breakdown, private consumption increased, mainly led by durable goods, with the resumption of shipment at automakers that had suspended their activities, and business fixed investment also increased. These developments show that domestic demand has risen moderately. In this situation, the output gap -- which captures the utilization of labor and capital -- narrowed somewhat within negative territory in the April-June quarter (Chart 2).

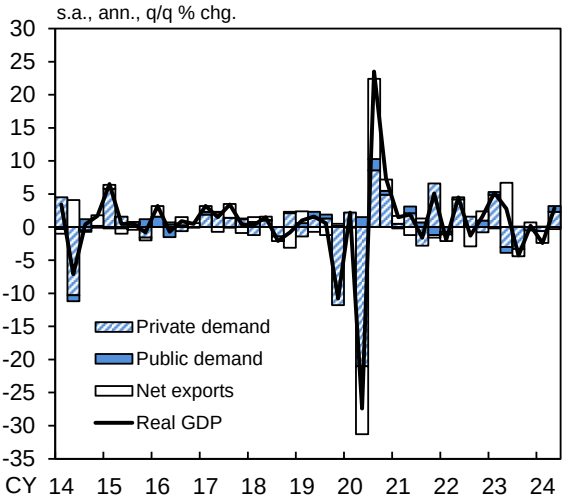
Monthly indicators and high-frequency data since then suggest that Japan's economy has continued on a recovery trend, although some weakness has been seen in part. In the corporate sector, exports and production have been more or less flat. Corporate profits have improved and business sentiment has stayed at a favorable

Chart 1: Real GDP

1. Level



2. Annualized Quarterly Growth Rate

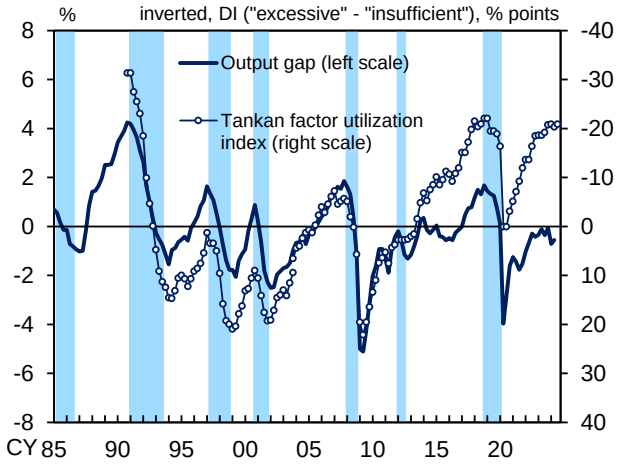


Source: Cabinet Office.

[6] "The Background" provides explanations of "The Bank's View" decided by the Policy Board at the Monetary Policy Meeting held on October 30 and 31, 2024.

level. In this situation, business fixed investment has been on a moderate increasing trend. Business fixed investment plans (in nominal terms) in the September 2024 *Tankan* indicate that the year-on-year rate of change in planned investment for fiscal 2024 is clearly positive. In the household sector, the employment and income situation has improved moderately. Under these circumstances, private consumption has been on a moderate increasing trend despite the impact of price rises and other factors.

Chart 2: Output Gap

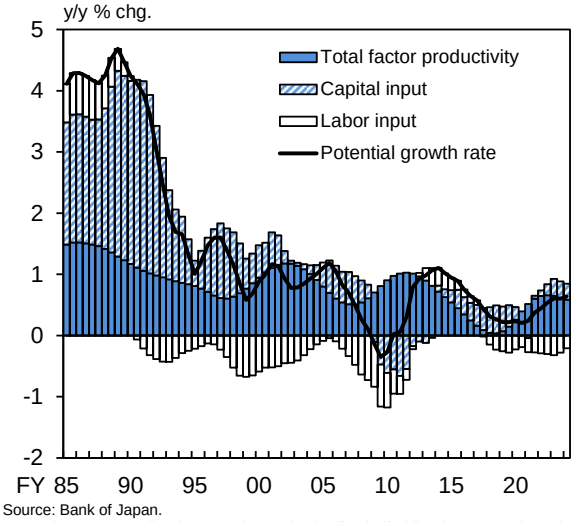


Source: Bank of Japan.
Notes: 1. Figures for the output gap are staff estimates.
2. The *Tankan* factor utilization index is calculated as the weighted average of the production capacity DI and the employment conditions DI for all industries and enterprises. The capital and labor shares are used as weights. There is a discontinuity in the data for December 2003 due to a change in the survey framework.
3. Shaded areas denote recession periods.

Japan's economy is likely to keep growing at a pace above its potential growth rate, with overseas economies continuing to grow moderately and as a virtuous cycle from income to spending gradually intensifies against the background of factors such as accommodative financial conditions. Comparing the projections with those presented in the previous Outlook Report, all projected growth rates are more or less unchanged.

The potential growth rate seems to have been in the range of 0.5-1.0 percent recently: while the downtrend in working hours reflecting working-style reforms, for example, has continued, growth in capital stock has accelerated and total factor productivity (TFP) has continued to grow moderately (Chart 3). As for the outlook, the potential growth rate is expected to rise moderately. This is based on the projection that, although there will be less room for the number of employed persons to increase, (1) TFP will continue to grow, mainly on the back of advances in digitalization and a resulting improvement in efficiency of resource allocation, as well as an

Chart 3: Potential Growth Rate



Source: Bank of Japan.
Note: Figures are staff estimates. Figures for the first half of fiscal 2024 are those for 2024/Q2.

expansion in investment in human capital, (2) the decline in working hours will come to a halt in reflection of the diminishing effects of working-style reforms, and (3) growth in capital stock will accelerate. These developments are likely to be encouraged by the government's various measures and by accommodative financial conditions.[7]

Details of the outlook for each fiscal year are as follows. In the second half of fiscal 2024, Japan's economy is expected to continue recovering moderately, partly due to the effects of the government's economic measures, with overseas economies continuing to grow moderately and accommodative financial conditions being maintained. Goods exports are likely to see a moderate increase, as overseas economies continue to grow moderately. Inbound tourism demand is projected to keep increasing. Business fixed investment is expected to continue on an increasing trend, mainly on the back of accommodative financial conditions. In the household sector, nominal employee income is likely to continue to see a clear increase, mainly reflecting a rise in employment on the back of an increase in domestic and external demand, as

[7] However, the output gap and the potential growth rate, which are estimated based on a specific assumption regarding trends, should be interpreted with some latitude. For example, in terms of labor, it is highly uncertain what kind of working style will take hold going forward -- including among women and seniors -- given the experience of COVID-19, that of wage and price increases, and with demographic changes. In addition, in the corporate sector, it is expected that factors such as moves toward digitalization, which reflect the experience of COVID-19 and labor shortages, and progress on efforts with a view to decarbonization will change Japan's economic and industrial structures; however, there remain high uncertainties over the extent of advancement and sustainability of innovation and sectoral reallocation of production factors, both of which aim at adapting to changes in the economic and industrial structures.

well as the results of this year's annual spring labor-management wage negotiations and hikes in the minimum wage. Moreover, the government's measures to reduce the household burden of higher energy prices are projected to push up disposable income. In this situation, private consumption is expected to remain on a moderate increasing trend, despite being affected by price rises.

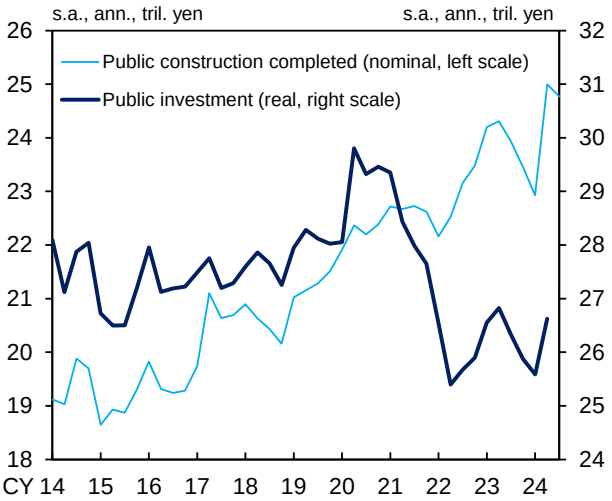
In fiscal 2025 and 2026, Japan's economy is expected to grow at a pace above its potential growth rate, with domestic and external demand rising. Goods exports are likely to increase moderately, with overseas economies continuing to grow. Inbound tourism demand is projected to keep increasing. Business fixed investment is also expected to continue increasing, mainly for investment to address labor shortages, digital-related investment, investment related to growth areas and decarbonization, and investment associated with strengthening supply chains. In the household sector, nominal employee income is likely to continue to see a clear increase. This is because wage growth is expected to remain relatively high as the linkage between wages and prices strengthens further, although it will gradually become more difficult for labor supply to increase, with labor force participation of women and seniors having advanced to a high degree thus far. In this situation, private consumption is projected to continue increasing moderately.

B. Developments in Major Expenditure Items and Their Background

Government Spending

Public investment has generally been more or less flat, albeit with fluctuations (Chart 4). While construction based on the government's economic measures, including construction related to building national resilience, has progressed, the amount of public construction completed -- a coincident indicator of public investment -- has generally been more or less flat, albeit with fluctuations. The value of public works contracted and orders received for public construction -- both of which are leading indicators of public investment -- also have generally been more or less flat, albeit with fluctuations.

Chart 4: Public Investment



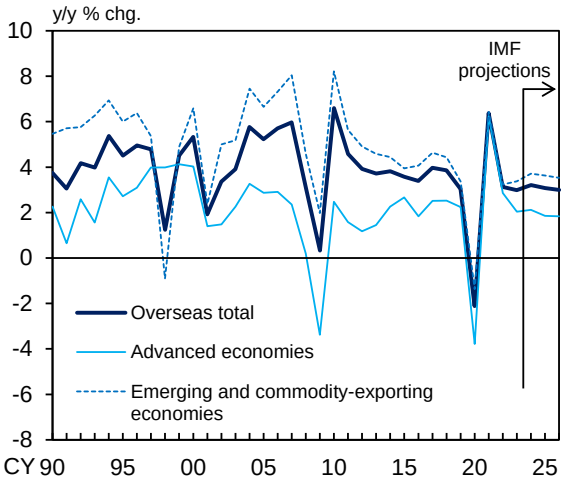
Sources: Cabinet Office; Ministry of Land, Infrastructure, Transport and Tourism.
Note: The figure for 2024/Q3 is the July-August average.

As for the outlook, public investment is likely to be more or less flat.[8] Government consumption is projected to continue increasing moderately, reflecting an uptrend in healthcare and nursing care expenditures.

Overseas Economies

Overseas economies have grown moderately on the whole (Chart 5). By region, the U.S. economy has grown moderately, mainly led by private consumption, although the economy has been

Chart 5: Overseas Economies



Sources: IMF; Ministry of Finance.
Note: Figures are the weighted averages of real GDP growth rates using countries' share in Japan's exports as weights. The real GDP growth rates are compiled by the IMF, and the rates from 2024 onward are its projections in the October 2024 *World Economic Outlook* (WEO). Figures for advanced economies are those for the United States, the euro area, and the United Kingdom. Figures for emerging and commodity-exporting economies are those for the rest of the world.

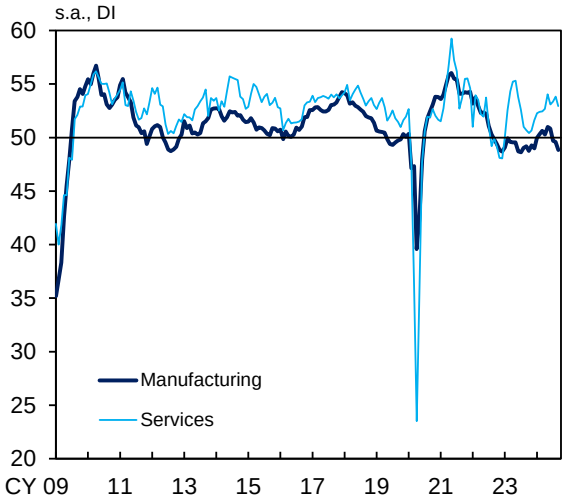
[8] The five-year acceleration measures for building national resilience with a project size of about 15 trillion yen were decided by the Cabinet in December 2020. In these measures, public investment projects for disaster prevention, disaster mitigation, and building national resilience are to be implemented intensively over five years from fiscal 2021 through fiscal 2025. The government's economic measures decided by the Cabinet in November 2023 also include efforts to implement the acceleration measures.

affected by past policy interest rate hikes. European economies have bottomed out, although weakness has remained in part. The pace of improvement in the Chinese economy has slowed despite government support, with continued downward pressure from adjustments in the real estate and labor markets. Emerging and commodity-exporting economies other than China have improved moderately on the whole, as exports have picked up, mainly led by IT-related goods. Among those in Asia, which have close links to Japan's economy, the ASEAN economies have improved moderately as exports have picked up. The NIEs economies also have improved moderately on the back of a recovery in exports, mainly led by IT-related goods, although the pace of improvement in domestic demand has continued to decelerate.

Looking at the Global PMI to see the current situation for the global economy, figures for the services industry have been clearly above 50 -- the break-even point between improvement and deterioration in business conditions -- while figures for the manufacturing industry have been somewhat below 50 (Chart 6).

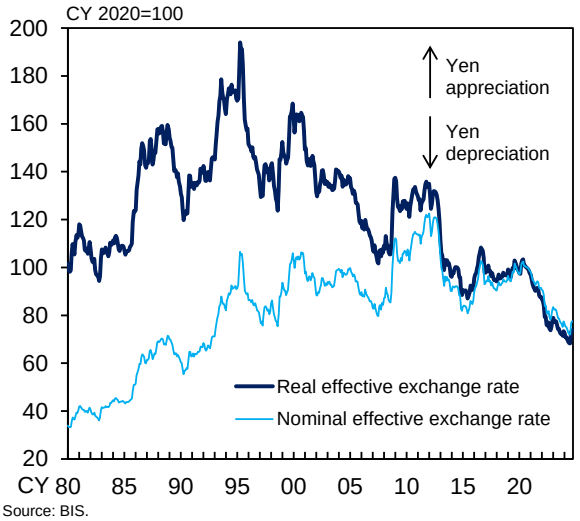
As for the outlook, overseas economies are projected to keep growing moderately. Looking at developments by region for the time being, the U.S. economy is likely to continue growing moderately. European economies are expected to pick up moderately. The Chinese economy is projected to continue to see moderate growth reflecting government support, despite the continued downward pressure from adjustments in the real estate and labor markets. Emerging

Chart 6: Global PMI



Source: Copyright © 2024 by S&P Global Market Intelligence, a division of S&P Global Inc. All rights reserved.
Note: Figures for manufacturing are the J.P.Morgan Global Manufacturing PMI. Figures for services are the J.P.Morgan Global Services Business Activity Index.

Chart 7: Effective Exchange Rates



Source: BIS.
Note: Figures are based on the broad effective exchange rate indices. Figures prior to 1994 are calculated using the narrow indices.

and commodity-exporting economies other than China are likely to continue to see moderate growth with external demand recovering.

Exports and Imports

Exports have been more or less flat (Chart 8). By region, exports to the United States have been at relatively high levels, albeit with fluctuations (Chart 9). Those to Europe have picked up, mainly led by a rebound in automobiles, of which exports decreased until recently. Exports to China, particularly of intermediate goods, have been relatively weak against the background of a slowdown in the Chinese economy, although exports of semiconductor production equipment have increased. Exports to the NIEs, ASEAN, and some other Asian economies have picked up on the back of a recovery in global demand for IT-related goods. [9] By goods, exports of automobile-related goods have been more or less flat (Chart 10). Exports of capital goods have also been more or less flat: while there has been a pause in demand for construction machinery and other items, exports of semiconductor production equipment have increased. Exports of IT-related goods have picked up against the background of the recovery in global demand for such goods. Meanwhile, exports of intermediate goods have been at relatively low levels, mainly reflecting an oversupply of raw materials, particularly in Asia.

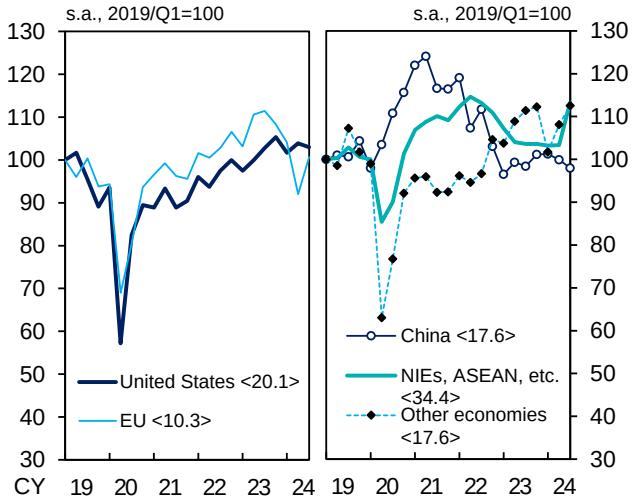
As overseas economies continue to grow moderately, exports are projected to return to an uptrend, mainly due to a recovery in global demand for IT-related goods.

[9] See Box 1 for developments in IT-related cycles.

Chart 8: Real Exports and Imports

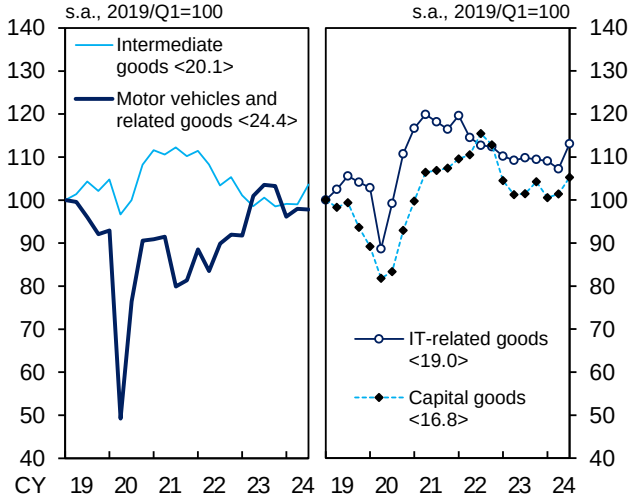
Sources: Bank of Japan; Ministry of Finance; Cabinet Office.
Note: Based on staff calculations.

Chart 9: Real Exports by Region



Sources: Bank of Japan; Ministry of Finance.
Notes: 1. Based on staff calculations. Figures in angular brackets show the share of each country or region in Japan's total exports in 2023.
2. Figures for the EU exclude those for the United Kingdom for the entire period.

Chart 10: Real Exports by Type of Goods



Sources: Bank of Japan; Ministry of Finance.
Note: Based on staff calculations. Figures in angular brackets show the share of each type of goods in Japan's total exports in 2023.

Imports have picked up (Chart 8). They are expected to follow a moderate uptrend on the back of developments in demand induced by increases in domestic demand and exports.

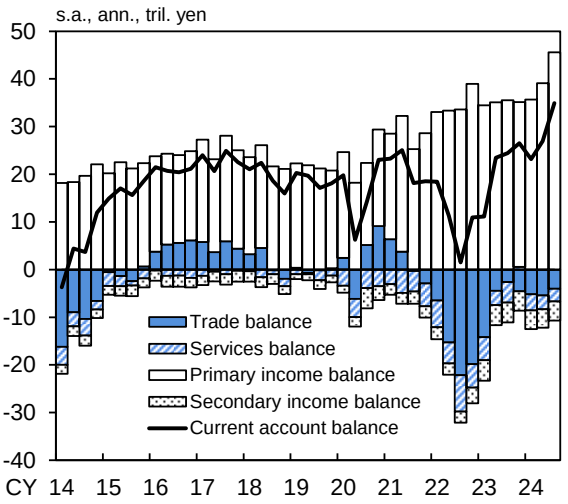
External Balance

The nominal current account surplus has been at a high level (Chart 11). The trade balance has continued to register a slight deficit. Despite a surplus in the travel balance -- which reflects the increase in inbound tourism demand due to factors such as a rise in the number of inbound visitors (Chart 12) -- the services balance has remained on a slight deficit trend, as payments for digital-related services have been at high levels, albeit with fluctuations. Meanwhile, the primary income balance surplus has remained at a high level.

The nominal current account balance is likely to follow a moderate improving trend. This is based on the projection that the primary income balance surplus will increase moderately, and that the trade balance deficit will decline moderately due to factors such as an increase in goods exports and an improvement in trading gains. Meanwhile, the services balance is expected to be more or less unchanged: while the rise in inbound tourism demand will make a positive contribution, the increase in payments for digital-related services will make a negative contribution.

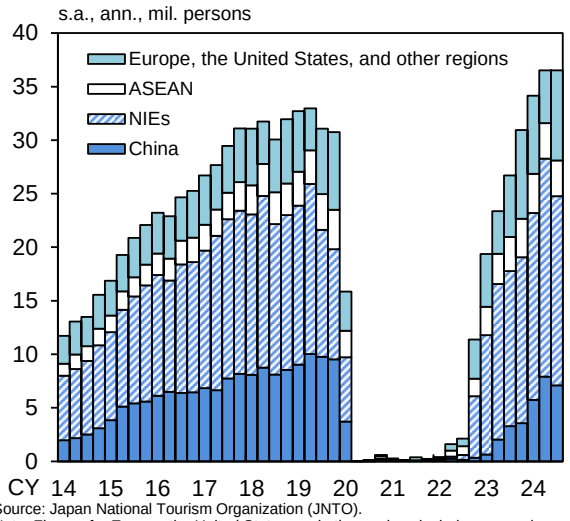
In terms of the savings-investment balance, overall excess savings in Japan's economy are projected to follow a moderate expanding trend, because the fiscal balance is likely to improve at a

Chart 11: Current Account



Source: Ministry of Finance and Bank of Japan.
Note: Figures for 2024/Q3 are July-August averages.

Chart 12: Number of Inbound Visitors



Source: Japan National Tourism Organization (JNTO).
Note: Figures for Europe, the United States, and other regions include seasonal adjustment errors.

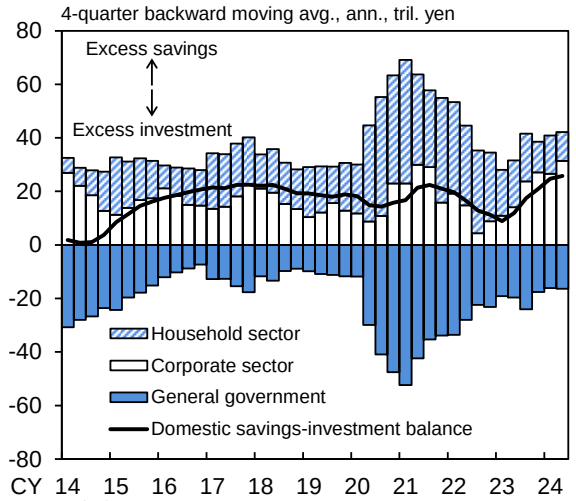
pace that somewhat exceeds the pace of decline in excess savings in the private sector (Chart 13).

Industrial Production

Industrial production has been more or less flat (Chart 14). By major industry, production of "transport equipment," particularly automobiles, was temporarily pushed down by the suspension of operations at factories due to the typhoon; nevertheless, production of "transport equipment" has been on an uptrend, as the effects of previous suspensions of production and shipment at some automakers since the end of last year have dissipated. Production of "electronic parts and devices" has picked up with the recovery in global demand for IT-related goods. Production of "electrical machinery, and information and communication electronics equipment" has picked up, particularly for automobile-related goods, due to the resumption of production and shipment at automakers that had suspended their activities. Despite signs of a pick-up in production of semiconductor production equipment, production of "general-purpose, production, and business-oriented machinery" has decreased somewhat, reflecting a pause in demand for construction machinery and other items. Meanwhile, production of "chemicals (excluding medicine)" has been at a low level, mainly due to an oversupply of raw materials, particularly in Asia.

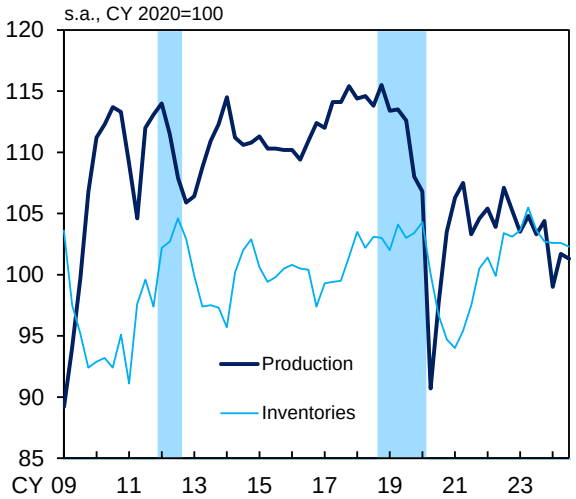
Industrial production is projected to return to an uptrend, mainly due to the recovery in global demand for IT-related goods.

Chart 13: Savings-Investment Balance



Source: Bank of Japan.

Chart 14: Industrial Production



Source: Ministry of Economy, Trade and Industry.
Note: Shaded areas denote recession periods.

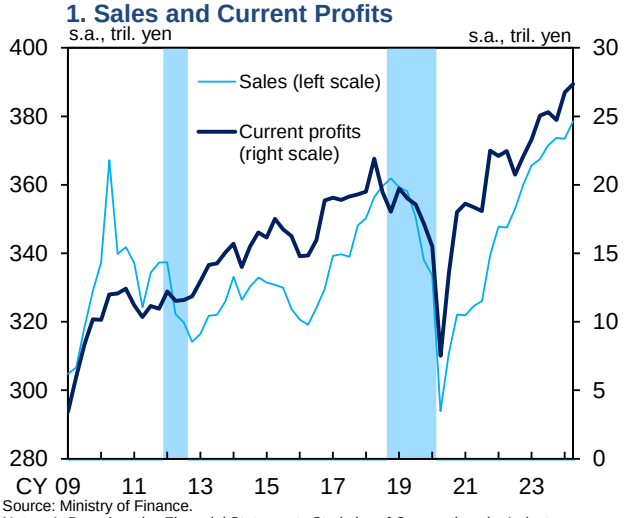
Corporate Profits

Corporate profits have improved. According to the *Financial Statements Statistics of Corporations by Industry, Quarterly*, current profits for all industries and enterprises for the April-June quarter of 2024 rose from the previous quarter, reaching the highest level since the April-June quarter of 1985, from when comparable data are available (Chart 15). This mainly reflects the resumption of production and shipment at automakers that had suspended their activities, progress in the pass-through of cost increases to selling prices, and the increase in non-operating profits due to the yen's depreciation. By industry and firm size, current profits of large manufacturers have risen, mainly reflecting the resumption of production and shipment at automakers that had suspended their activities, the recovery in demand for IT-related goods, and the increase in non-operating profits due to the yen's depreciation. Current profits of small and medium-sized manufacturers have increased slightly, due to the resumption of production and shipment at automakers that had suspended their activities and the progress in the pass-through of cost increases to selling prices for food. As for nonmanufacturers, current profits of large firms have risen, mainly because of an improvement in ocean freight rates, as well as an improvement in profit margins of the electric and gas utilities industry due to developments in fuel prices. Current profits of small and medium-sized nonmanufacturers have been more or less flat.

Business sentiment has stayed at a favorable level. The September *Tankan* shows that the diffusion index (DI) for business conditions has remained at a favorable level (Chart 16). By industry, the DI for manufacturing has been flat.

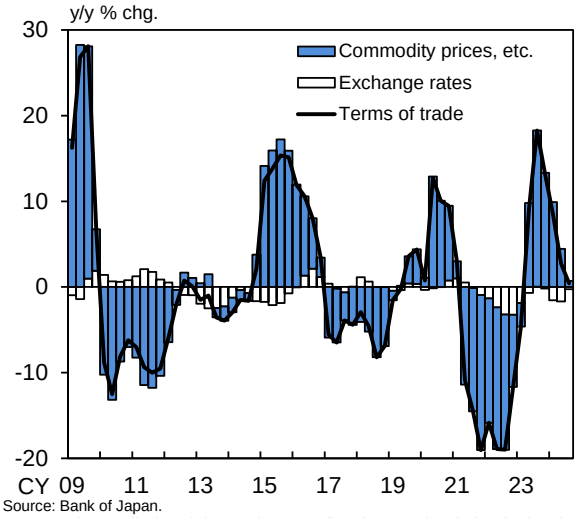
Chart 15: Indicators Related to Corporate Profits

1. Sales and Current Profits



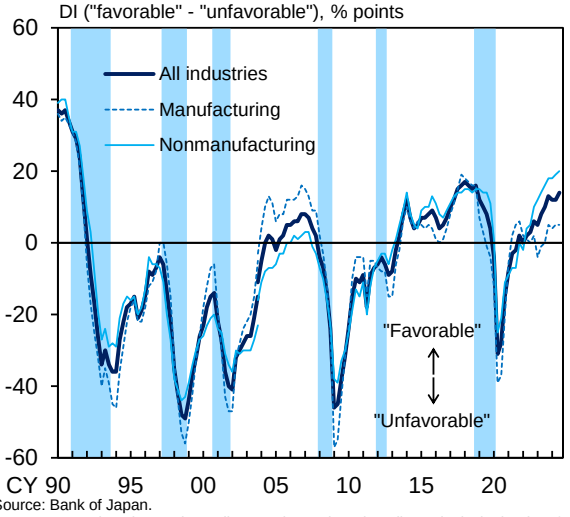
Source: Ministry of Finance.
Notes: 1. Based on the *Financial Statements Statistics of Corporations by Industry, Quarterly*. Excluding "finance and insurance."
2. Figures from 2009/Q2 onward exclude pure holding companies.
3. Shaded areas denote recession periods.

2. Contribution to Changes in Terms of Trade



Source: Bank of Japan.
Notes: 1. The contribution of changes in commodity prices, etc. is calculated using changes in export/import price indexes on a contract currency basis. The contribution of changes in exchange rates is calculated using the difference between export/import price indexes on a yen basis and those on a contract currency basis.
2. Terms of trade = Export price index on a yen basis / Import price index on a yen basis

Chart 16: Business Conditions



Source: Bank of Japan.
Notes: 1. Based on the *Tankan*. All enterprises. There is a discontinuity in the data for December 2003 due to a change in the survey framework.
2. Shaded areas denote recession periods.

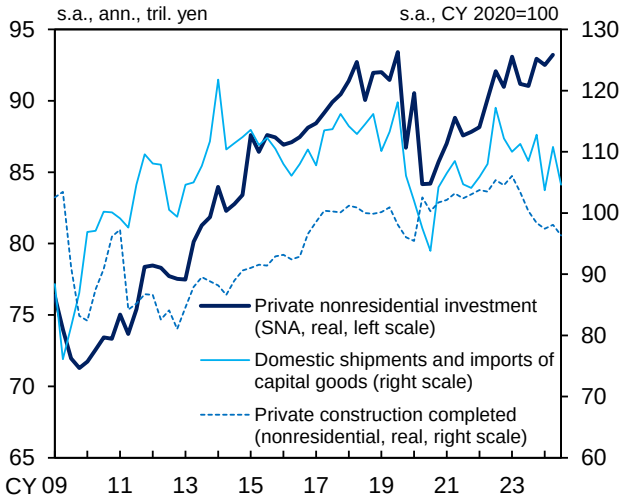
The DIs for industries such as electrical machinery, production machinery, and nonferrous metals have improved, reflecting the recovery in demand for IT-related goods. The DIs for "processed metals" (large enterprises), "chemicals," and "shipbuilding, heavy machinery, etc." have also improved, due to the progress in the pass-through of cost increases to selling prices and the pause in the rise in raw material prices. On the other hand, the DIs for "iron and steel" and "ceramics, stone, and clay" have deteriorated, reflecting sluggish external demand and the past rise in raw material prices. In addition, the DI for motor vehicles (large enterprises) has deteriorated somewhat because factories of some automakers had to suspend their operations due to the typhoon. The DI for nonmanufacturing has improved slightly. The DIs for industries such as "construction" and "accommodations as well as eating and drinking services" -- despite downward pressure resulting from labor shortages and a rise in personnel expenses -- have improved, reflecting the progress in the pass-through of cost increases to selling prices. While the effects of this summer's hot weather and the typhoons have contributed to the improvement in the DI for "retail trade," they have also contributed to the deterioration in the DIs for "services for individuals" and "transport and postal activities" (large enterprises).

Regarding the outlook, with a moderate rise in domestic and external demand, corporate profits are likely to follow an improving trend, partly due to the progress in the pass-through of cost increases to selling prices.

Business Fixed Investment

Business fixed investment has been on a moderate increasing trend (Chart 17). The aggregate supply of capital goods -- a coincident indicator of machinery investment -- has generally been more or less flat. This reflects the fact that, while a decline in renewal investment by manufacturers of general-purpose machinery due to sluggish external demand has exerted downward pressure, investment in semiconductor production equipment has been on an uptrend, reflecting the recovery in demand for IT-related goods. Although moves to postpone investment have been observed against the background of factors such as high construction material prices, private construction completed (nonresidential) -- a coincident indicator of construction investment -- has been flat recently, as there has been progress in, for example, the construction of logistics facilities and factories, and urban redevelopment projects.

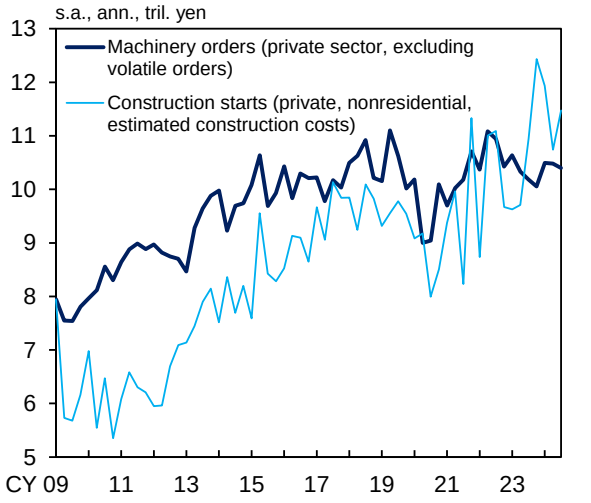
Chart 17: Coincident Indicators of Business Fixed Investment



Sources: Cabinet Office; Ministry of Economy, Trade and Industry; Ministry of Land, Infrastructure, Transport and Tourism.
Notes: 1. The figure for private construction completed for 2024/Q3 is the July-August average.
2. Figures for real private construction completed are based on staff calculations using the construction cost deflators.

Machinery orders -- a leading indicator of machinery investment -- have been at relatively high levels (Chart 18). Developments in machinery orders by industry are as follows. In manufacturing, orders by the "general-purpose and production machinery" industry have been relatively weak due to a pause in demand for construction machinery and other items; however, orders by the "electrical machinery" and "information and communication electronics equipment" industries have been on an uptrend against the background of the recovery in global demand for IT-related goods. Orders from the nonmanufacturing industry have increased moderately, albeit with fluctuations stemming from large-scale projects, as digital- and labor

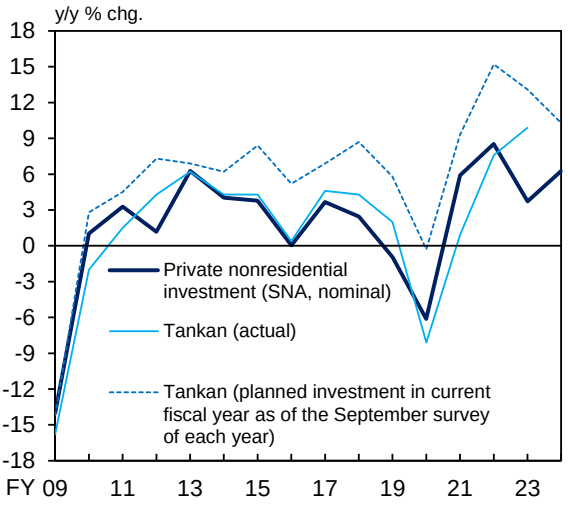
Chart 18: Leading Indicators of Business Fixed Investment



Sources: Cabinet Office; Ministry of Land, Infrastructure, Transport and Tourism.
Notes: 1. Volatile orders are orders for ships and orders from electric power companies.
2. Figures for 2024/Q3 are July-August averages.

saving-related investments have followed an uptrend. Construction starts (in terms of planned expenses for private and nonresidential construction) -- a leading indicator of construction investment -- have been at relatively high levels, as construction of logistics facilities, urban redevelopment projects, and the establishment of new factories have continued. Looking at business fixed investment plans (in nominal terms) in the September *Tankan*, business fixed investment (on the basis close to GDP definition; business fixed investment -- including software and R&D investments but excluding land purchasing expenses -- for all industries and enterprises including financial institutions) registered a year-on-year rate of increase of 10.3 percent for fiscal 2024 (Chart 19). Like in the previous survey in June, this is a relatively high increase compared with past *Tankan* surveys in the same month.

Chart 19: Planned and Actual Business Fixed Investment

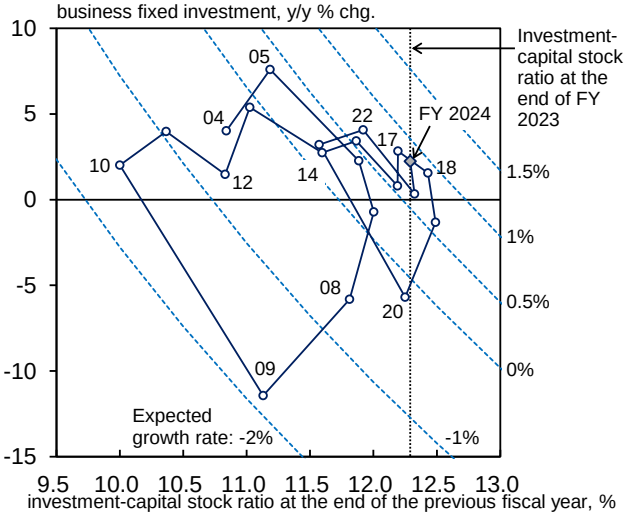


Sources: Bank of Japan; Cabinet Office.
Notes: 1. The *Tankan* figures include software and R&D investments and exclude land purchasing expenses. R&D investment is not included before the March 2017 survey. The figures are for all industries including financial institutions.
2. The figure for private nonresidential investment for fiscal 2024 is that for 2024/Q2.

Business fixed investment is expected to continue on an increasing trend, mainly on the back of accommodative financial conditions, as corporate profits follow an improving trend. Specifically, investment that is expected to be undertaken during the projection period includes (1) investment induced by the increase in domestic and external demand; (2) labor-saving and efficiency-improving investment to address labor shortages and IT-related investment to digitalize business activities; (3) construction investment in logistics facilities, resulting from expanding e-commerce, and in offices and commercial facilities due to redevelopment projects; (4) investment in growth areas and to address environmental issues, such as decarbonization; and (5) semiconductor-related investment that is

mainly aimed at strengthening supply chains and that also reflects government support. Toward the end of the projection period, investment that is less susceptible to fluctuations in economic activity, such as (4) investment in growth areas and to address environmental issues, is expected to increase. Regarding investment related to growth areas, such as digitalization and semiconductors, capital accumulation in these areas tends to be moderate due to a relatively small existing capital stock and to short depreciation periods reflecting rapid advances in technology (Chart 20).

Chart 20: Capital Stock Cycles



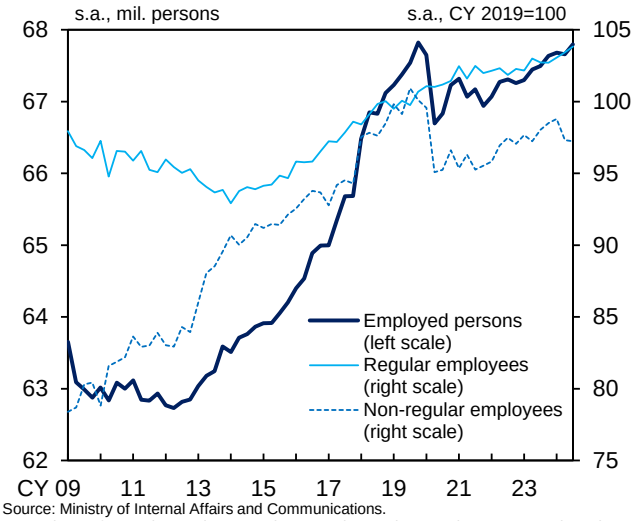
Source: Cabinet Office.
Note: Each broken line represents the combination of the rate of change in business fixed investment and the investment-capital stock ratio at a certain expected growth rate. The figure for fiscal 2024 is that for 2024/Q2.

Employment and Income Situation

The employment and income situation has improved moderately.

Regarding the number of employed persons, that of regular employees has been on a moderate uptrend, albeit with fluctuations, mainly in the information and communications industry, which has faced a severe labor shortage (Chart 21). The number of non-regular employees overall has been more or less flat recently: while the number of non-regular employees in industries such as the face-to-face services industry has been on an increasing trend, the number of involuntary non-regular employees -- with labor market conditions tightening -- has been on a declining trend. With regard to labor market conditions, the unemployment rate has been at a low level (Chart 22). The active job openings-to-applicants ratio, despite some fluctuations, has been more or less flat (Chart 23).[10] Meanwhile, the labor force

Chart 21: Number of Employed Persons



Source: Ministry of Internal Affairs and Communications.
Note: Figures for regular employees and non-regular employees prior to 2013 are based on the "detailed tabulation" in the *Labour Force Survey*.

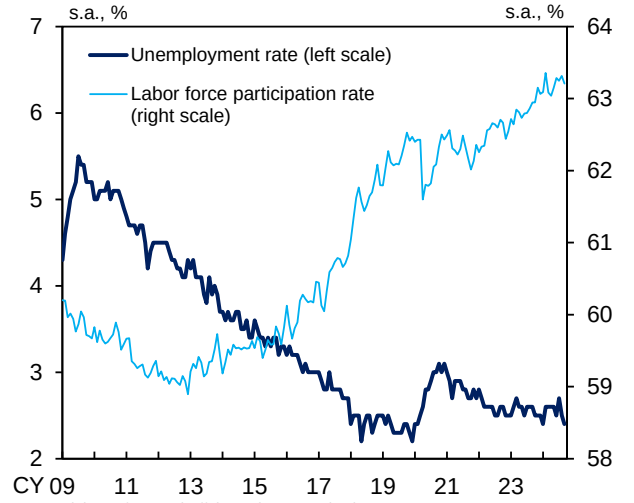
[10] See Box 2 for the spread of labor shortages.

participation rate has been on a moderate uptrend, particularly for women, when fluctuations are smoothed out (Chart 22).

With regard to the outlook for the employment situation, the number of regular employees is likely to increase moderately, mainly in industries with labor shortages, such as the information and communications industry. The number of non-regular employees is expected to remain more or less flat, partly due to firms making a shift to regular employment. In this context, the number of overall employees is likely to increase moderately. However, the pace of increase is projected to decelerate, partly because it will become more difficult for labor supply to increase, reflecting factors such as demographic changes, with labor force participation of women and seniors having advanced to a high degree thus far. Under these circumstances, the unemployment rate is expected to follow a moderate declining trend.

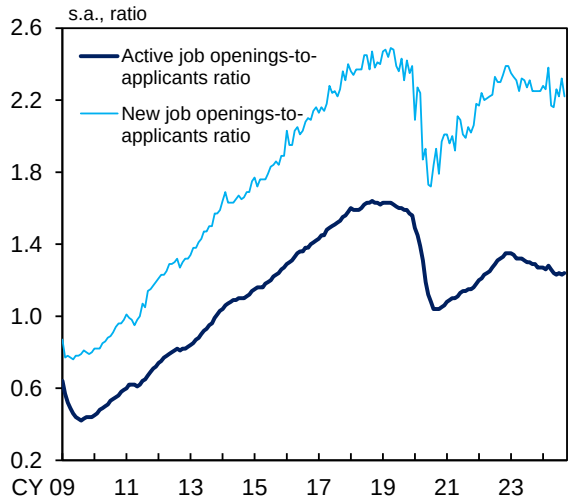
On the wage side, nominal wages per employee have increased clearly, reflecting the results of this year's annual spring labor-management wage negotiations and an increase in bonuses supported by high levels of corporate profits (Chart 24).[11] Looking at the breakdown, the year-on-year rate of increase in scheduled cash earnings has accelerated clearly (Chart 25). Specifically, the rate of increase for full-time employees has been at around 3 percent as their scheduled cash earnings have reflected the

Chart 22: Unemployment Rate and Labor Force Participation Rate



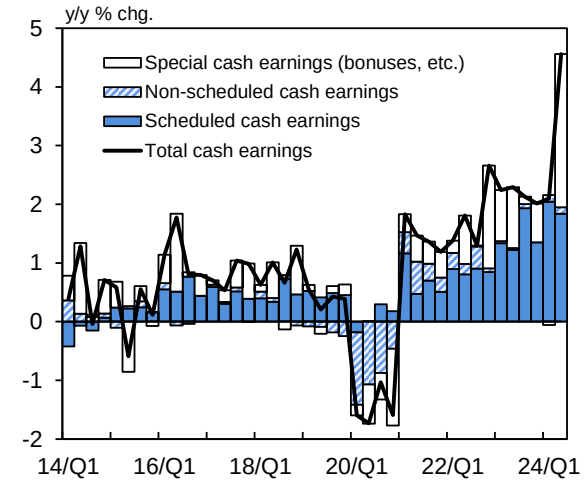
Source: Ministry of Internal Affairs and Communications.

Chart 23: Job Openings-to-Applicants Ratio



Source: Ministry of Health, Labour and Welfare.

Chart 24: Nominal Wages

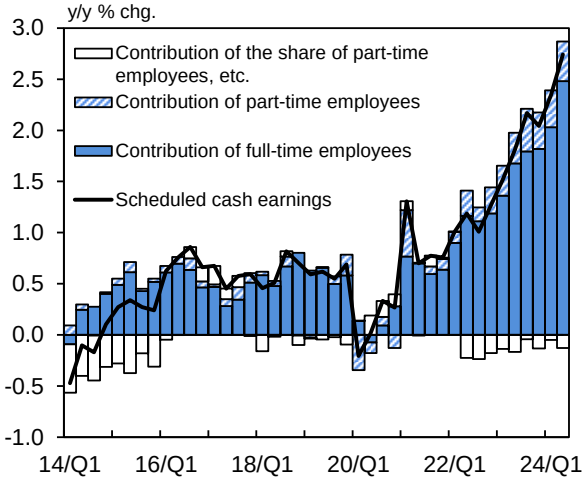


Source: Ministry of Health, Labour and Welfare.
Notes: 1. Q1 = March-May, Q2 = June-August, Q3 = September-November, Q4 = December-February.
2. Figures from 2016/Q1 onward are based on continuing observations following the sample revisions.

[11] Wages in the *Monthly Labour Survey* are assessed on the basis of continuing observations, which are less susceptible to fluctuations due to sample revisions.

results of the annual spring labor-management wage negotiations, in which the wage growth rate (the rate of base pay increase) significantly exceeded last year's high rate. The year-on-year rate of increase in hourly scheduled cash earnings for part-time employees has shown high growth, albeit with fluctuations, as labor market conditions have remained tight. The year-on-year rate of change in non-scheduled cash earnings has been positive, albeit with fluctuations. The rate of change in special cash earnings (bonuses) has shown high growth of around 9.5 percent, reflecting the high levels of corporate profits.

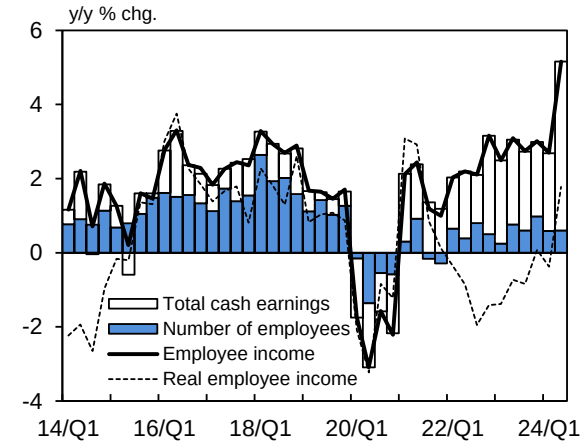
Chart 25: Decomposition of Developments in Scheduled Cash Earnings



Source: Ministry of Health, Labour and Welfare.
Notes: 1. Q1 = March-May, Q2 = June-August, Q3 = September-November, Q4 = December-February.
2. Figures from 2016/Q1 onward are based on continuing observations following the sample revisions.

With regard to the outlook for wages, the rate of increase in scheduled cash earnings is likely to continue to show relatively high growth. These earnings are projected to continue increasing firmly from fiscal 2025, in reflection of price rises and with labor market conditions continuing to be tight, due in part to a slowdown in the pace of increase in labor force participation of women and seniors. Non-scheduled cash earnings are expected to increase moderately, reflecting the rise in domestic and external demand. Special cash earnings (bonuses) are likely to keep rising with corporate profits following an improving trend. Taking all of these factors into account, the rate of change in nominal wages per employee is projected to continue increasing clearly.

Chart 26: Employee Income



Sources: Ministry of Health, Labour and Welfare; Ministry of Internal Affairs and Communications.
Notes: 1. Q1 = March-May, Q2 = June-August, Q3 = September-November, Q4 = December-February.
2. Employee income = Total cash earnings (*Monthly Labour Survey*) × Number of employees (*Labour Force Survey*)
3. Figures from 2016/Q1 onward are based on continuing observations following the sample revisions of the *Monthly Labour Survey*.
4. Figures for real employee income are based on staff calculations using the CPI (less imputed rent).

In light of the aforementioned employment and wage conditions, employee income has increased clearly in nominal terms (Chart 26). In real terms, the year-on-year rate of change in employee income has turned positive recently. With regard to the outlook, nominal employee income is likely

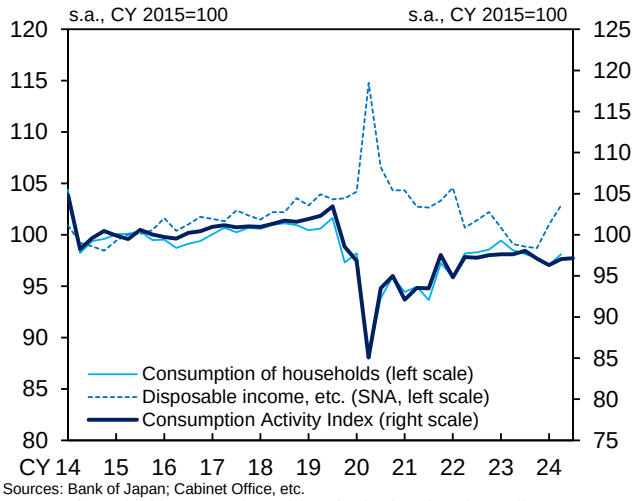
to continue to see a clear increase in reflection of an acceleration in nominal wage growth. Under these circumstances, a positive trend, albeit with fluctuations, is expected to take hold for the year-on-year rate of change in real employee income.

Household Spending

Private consumption has been on a moderate increasing trend despite the impact of price rises and other factors.

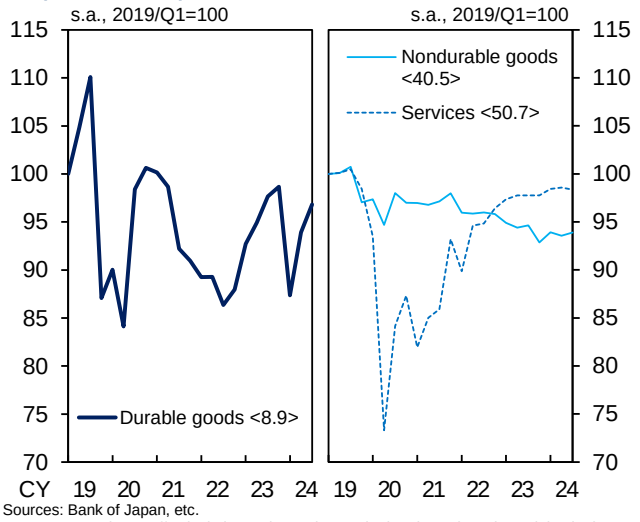
The Consumption Activity Index (CAI, travel balance-adjusted) -- which is calculated by combining various sales and supply-side statistics from the viewpoint of gauging Japan's consumption activity in a comprehensive manner -- saw relatively high growth in the April-June quarter of 2024 on a quarter-on-quarter basis (Charts 27 and 28).[12] The index then increased slightly on average in the July-August period relative to the April-June quarter, partly because of a rise in sales of goods due to the effects of hot weather and with services consumption increasing moderately as a trend. Looking at subsequent developments in private consumption from various sources, such as high-frequency indicators, statistics published by industry organizations, and anecdotal information from firms, consumption seems to have been on a moderate increasing trend, although some firms have pointed to the effects of consumers' increased thriftiness due to price rises (Chart 29).

Chart 27: Real Private Consumption



Sources: Bank of Japan; Cabinet Office, etc.
Notes: 1. Figures for the Consumption Activity Index (CAI) are based on staff calculations. The CAI figures are travel balance adjusted; i.e., they exclude inbound tourism consumption and include outbound tourism consumption. The figure for 2024/Q3 is the July-August average.
2. Figures for consumption of households exclude imputed rent.
3. "Disposable income, etc." consists of disposable income and adjustment for the change in pension entitlements, and real values are obtained using the deflator of consumption of households.

Chart 28: Consumption Activity Index (CAI, Real)



Sources: Bank of Japan, etc.
Notes: 1. Based on staff calculations. Figures in angular brackets show the weights in the CAI. Figures for 2024/Q3 are July-August averages.
2. Nondurable goods include goods classified as semi-durable goods in the SNA.

[12] Regarding the CAI, see the Bank's research paper "Revision of the Consumption Activity Index to Capture Recent Changes in Consumption Patterns" released in July 2021.

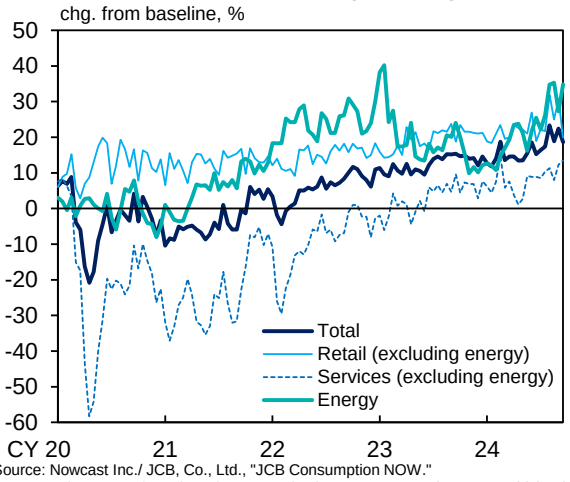
By type, consumption of durable goods has picked up, mainly led by automobiles (Chart 28). Sales of household electrical appliances have picked up moderately as a trend, partly due to an increase in sales of air conditioners this summer.

Consumption of nondurable goods (e.g., "beverages and food" and "clothes") has continued on a decreasing trend, mainly reflecting the impact of high prices. While the moderate downward trend in sales at supermarkets and other stores in real terms appears to have continued, sales recently have generally been at about the same levels as last year, partly due to the effects of stockpiling demand to prepare for natural disasters. Meanwhile, sales of high-end goods at department stores have remained strong.

Services consumption has increased moderately as a trend (Charts 28 and 29). Dining-out has been on a moderate increasing trend, despite the effects of high prices, changes in consumers' lifestyles, and constraints on operating hours and the number of restaurants. While domestic travel -- reflecting a recovery in travel demand -- has been at a relatively high level, it was pushed down temporarily in August by the effects of the typhoons. Overseas travel has seen a pause in the recovery, with relatively high travel costs.

Looking at confidence indicators related to private consumption, the Consumer Confidence Index -- which is based on surveys that ask consumers for their views on the outlook -- has bottomed out, mainly reflecting the improvement in the income

Chart 29: Consumption Developments Based on Credit Card Spending



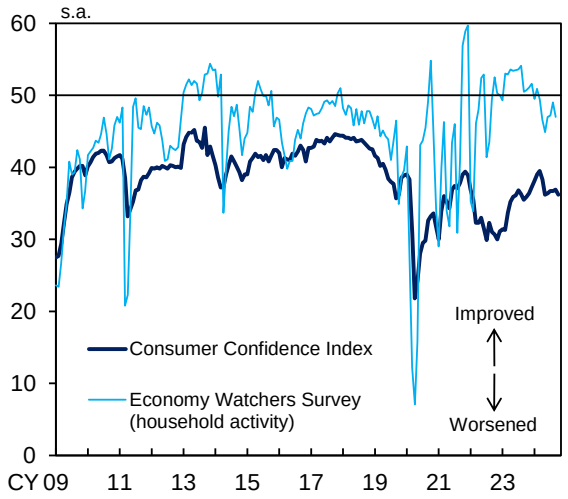
Source: Nowcast Inc./ JCB, Co., Ltd., "JCB Consumption NOW."
Notes: 1. Figures are from the reference series in *JCB Consumption NOW*, which take changes in the number of consumers into account. The baseline is the average for the corresponding half of the month for fiscal 2016 through fiscal 2018.
2. Figures for the total and for services exclude telecommunications, and figures for energy consist of those for fuel, electricity, gas, heat supply, and water. Based on staff calculations.

situation (Chart 30). The *Economy Watchers Survey* -- which asks firms for their views on the direction of the economy -- shows that the current economic conditions DI (household activity-related) has recently deteriorated slightly, particularly for retail-related industries, due to factors such as the dissipation of stockpiling demand to prepare for natural disasters. Nevertheless, the DI has improved compared to the past, mainly reflecting the improvement in the income situation.

Regarding the outlook, for the time being, although private consumption is expected to be affected by price rises, it is projected to continue on a moderate increasing trend, with nominal employee income continuing to improve. Thereafter, private consumption is projected to continue increasing moderately as employee income keeps improving. The propensity to consume is likely to be more or less flat, albeit with fluctuations due to the effects of the government's economic measures (Chart 31).

Housing investment has been relatively weak (Chart 32). The number of housing starts -- a leading indicator of housing investment -- has followed a downtrend that reflects a rise in housing prices. Housing investment is likely to follow a moderate declining trend in reflection of the rise in housing prices and demographic developments, although accommodative financial conditions are expected to provide support.

Chart 30: Confidence Indicators Related to Private Consumption

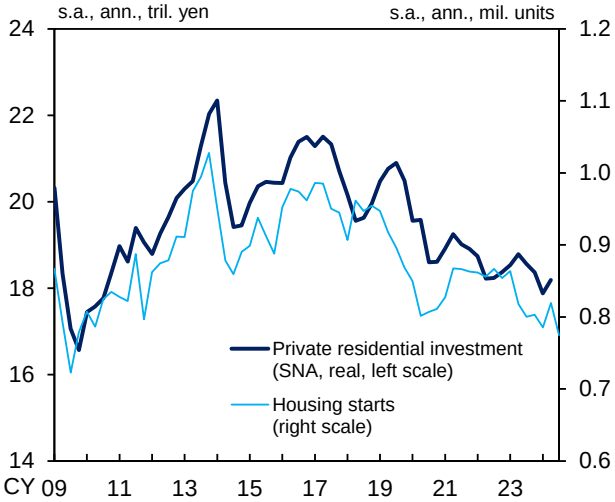


Source: Cabinet Office.
Note: Figures for the *Economy Watchers Survey* are those for the current economic conditions DI.

Chart 31: Average Propensity to Consume

Source: Cabinet Office.
Note: Average propensity to consume = Consumption of households / Disposable income, etc. "Disposable income, etc." consists of disposable income and adjustment for the change in pension entitlements.

Chart 32: Housing Investment



Sources: Cabinet Office; Ministry of Land, Infrastructure, Transport and Tourism.
Note: The figure for 2024/Q3 is the July-August average.

II. Current Situation of Prices and Their Outlook

Developments in Prices

The quarter-on-quarter rate of increase in the producer price index (PPI, adjusted for the effects of seasonal changes in electricity rates) has slowed, mainly reflecting the decline in international commodity prices, and recently has been only slightly positive (Chart 33). The year-on-year rate of increase in the services producer price index (SPPI, excluding international transportation) has remained relatively high in the range of 2.5-3.0 percent recently, mainly on the back of the rise in personnel expenses.

Chart 33: Inflation Indicators

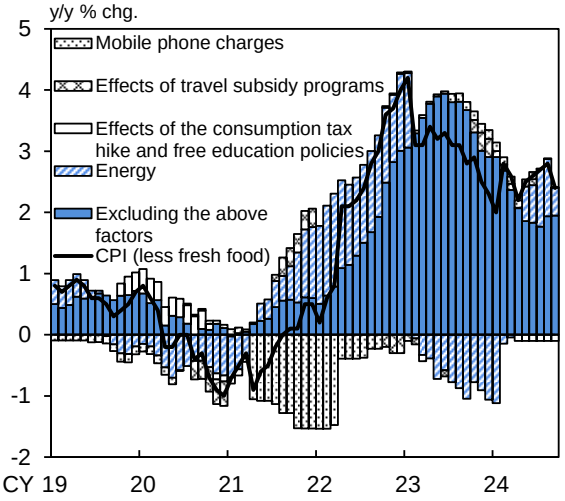
y/y % chg.

	23/Q4	24/Q1	24/Q2	24/Q3
Consumer Price Index (CPI)				
Less fresh food	2.5	2.5	2.4	2.6
Excluding temporary factors	2.1	2.3	2.4	2.8
Less fresh food and energy	3.8	3.2	2.2	2.0
Excluding temporary factors	3.4	3.0	2.1	2.1
Producer Price Index (q/q % chg.)	0.3	0.6	1.3	0.6
Services Producer Price Index	2.8	2.4	2.8	2.9
GDP Deflator	3.9	3.4	3.2	
Domestic demand deflator	2.1	2.3	2.6	

Sources: Ministry of Internal Affairs and Communications; Bank of Japan; Cabinet Office.
Notes: 1. Figures for the producer price index (PPI) are adjusted for the hike in electric power charges during the summer season. Figures for the services producer price index (SPPI) exclude international transportation.
2. The CPI figures excluding temporary factors are staff estimates and exclude mobile phone charges and the effects of policies concerning the provision of free education and travel subsidy programs.

The year-on-year rate of increase in the CPI (all items less fresh food) has been at around 2.5 percent recently, as energy prices have risen and services prices -- reflecting factors such as wage increases -- have continued to rise moderately, although the effects of the pass-through to consumer prices of cost increases led by the past rise in import prices have waned (Chart 34).[13]

Chart 34: CPI (Less Fresh Food)



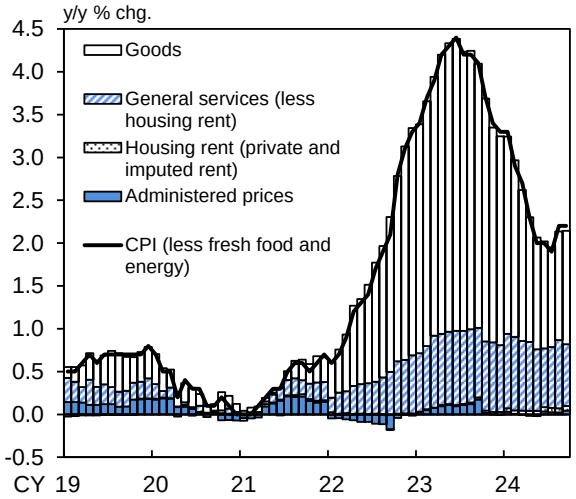
Source: Ministry of Internal Affairs and Communications.
Notes: 1. Figures for energy consist of those for petroleum products, electricity, and gas, manufactured & piped.
2. Figures for the "effects of the consumption tax hike and free education policies" from April 2020 onward are staff estimates and include the effects of measures such as free higher education.

[13] The year-on-year rate of change in energy prices has been positive recently due to (1) the discontinuation of the government's measures to reduce the household burden of higher electricity and gas charges, which were introduced last year, and (2) price hikes reflecting the past rise in crude oil prices. Looking at the energy-related economic measures in more detail, with regard to gasoline subsidies, the government has continued to provide subsidies to petroleum distributors and importers as funds to contain a sharp rise in their selling prices when the nationwide average for retail gasoline prices exceeds the benchmark price (168 yen per liter). As for electricity charges, the government discontinued the discounts at the end of June 2024, and the year-on-year rate of change in these charges increased in July and August; however, the government then cut the charges by 4 yen per kilowatt-hour for September and October and will reduce the charges by 2.5 yen per kilowatt-hour for November (the months refer to the timing at which the charges are calculated). These cuts will likely make a negative contribution to the year-on-year rate of change in electricity charges. Regarding manufactured and piped gas charges, measures to reduce the household burden roughly similar to those for electricity charges are being implemented.

The rate of increase in the CPI (all items less fresh food and energy, excluding temporary factors such as the effects of the government's domestic travel discount program) has been more or less flat, as moves to pass on personnel expenses to prices have been widely observed and prices of rice have risen, although the pressure on firms to pass on raw material cost increases to selling prices has waned compared to a while ago (Chart 35).[14] Specifically, while such pressure on firms has waned, the rate of increase in goods prices has been more or less flat, partly due to the rise in rice prices. Despite the waning of such pressure, the rate of increase in general services prices has been more or less flat, as moves to pass on personnel expenses to prices have been observed. Such moves to pass on personnel expenses have been spreading for items including domestic help, personal care services, lesson fees, and charges for massage. Administered prices such as fire insurance premiums have increased.

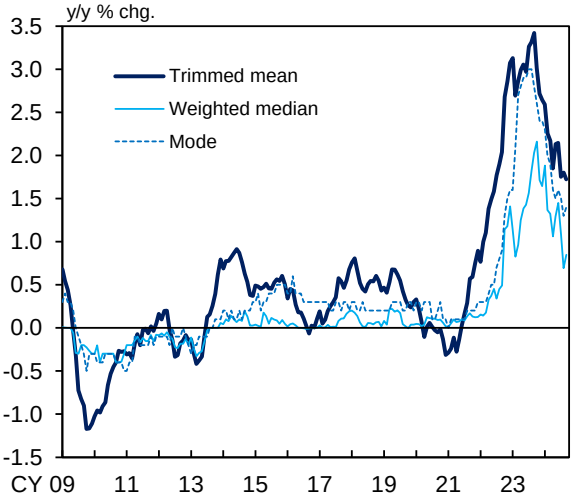
The indicators for capturing the underlying trend in the CPI have exhibited the following developments (Chart 36).[15,16] The trimmed mean

Chart 35: CPI (Excluding Temporary Factors)



Source: Ministry of Internal Affairs and Communications.
Notes: 1. Administered prices (less energy) consist of "public services" and "water charges."
2. The CPI figures are staff estimates and exclude mobile phone charges and the effects of the consumption tax hike, policies concerning the provision of free education, and travel subsidy programs.

Chart 36: CPI: Trimmed Mean, etc.



Sources: Bank of Japan; Ministry of Internal Affairs and Communications.
Note: Based on staff calculations using the CPI excluding the effects of the consumption tax hikes, policies concerning the provision of free education, and travel subsidy programs. The CPI figures from April 2020 onward are staff estimates and exclude the effects of measures such as free higher education.

[14] The CPI figures excluding temporary factors are calculated by excluding (1) the effects of the consumption tax hike and policies concerning the provision of free education, (2) the effects of travel subsidy programs, and (3) mobile phone charges from the CPI (all items less fresh food) and the CPI (all items less fresh food and energy).

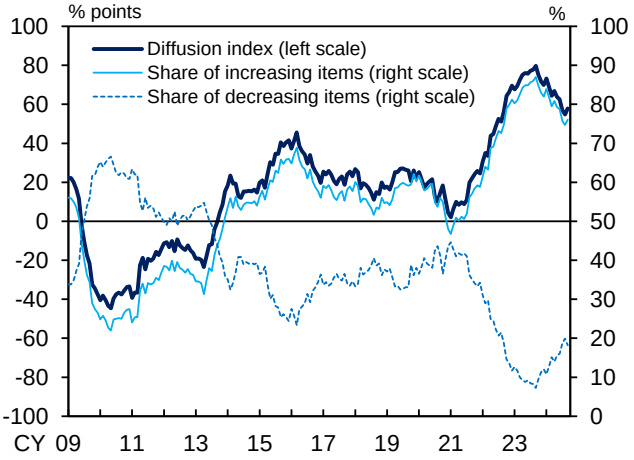
[15] The trimmed mean is calculated by excluding items that belong to a certain percentage of the upper and lower tails of the price change distribution (10 percent of each tail) in order to eliminate the effects of large relative price changes. The mode is the inflation rate with the highest density in the price change distribution. The weighted median is the average of the inflation rates of the items at around the 50 percentile point of the cumulative distribution in terms of weight. Each indicator is calculated using data for each CPI item that excludes the effects of the consumption tax hikes, policies concerning the provision of free education, and travel subsidy programs.

[16] In this report, the mode is defined as the inflation rate with the highest density in the distribution that is estimated parametrically by fitting a normal inverse Gaussian distribution to the observed

of the year-on-year rate of change in the CPI has been in the range of 1.5-2.0 percent as the impact of last year's price hikes has dissipated. The mode has been at around 1.5 percent and the weighted median has been in the range of 0.5-1.0 percent. Moreover, looking at the year-on-year price changes across all CPI items (less fresh food), the share of items whose prices have increased minus the share of items whose prices have decreased has remained on a decreasing trend as the impact of last year's price hikes has dissipated (Chart 37). On the other hand, indicators that exclude the impact of fluctuations in import prices in order to capture the inflationary pressure stemming from wage increases have remained on a moderate uptrend (Chart 38).[17] In addition, indicators of inflation expectations, which represent people's perceptions of price developments and are closely related to the underlying inflation trend, have increased moderately, as described below.[18]

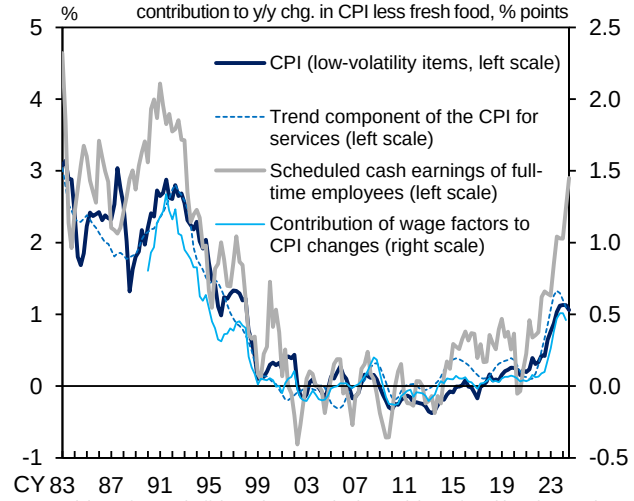
Meanwhile, the year-on-year rate of change in the domestic demand deflator has been at around 2.5 percent (Chart 33). By component, while the rate of increase in the private consumption deflator has decelerated compared to a while ago, the rates of increase in the private residential investment deflator and other deflators have

Chart 37: Diffusion Index of Price Changes



Sources: Bank of Japan; Ministry of Internal Affairs and Communications.
Note: The diffusion index is defined as the share of increasing items minus the share of decreasing items. The share of increasing/decreasing items is the share of items for which price indices increased/decreased from a year earlier. Based on staff calculations using the CPI (less fresh food) excluding the effects of the consumption tax hikes, policies concerning the provision of free education, and travel subsidy programs. The CPI figures from April 2020 onward are staff estimates and exclude the effects of measures such as free higher education.

Chart 38: CPI Changes due to Wage Factors



Sources: Ministry of Internal Affairs and Communications; Ministry of Health, Labour and Welfare; Bank of Japan.
Notes: 1. Figures for low-volatility CPI items and scheduled cash earnings of full-time employees are year-on-year percentage changes, while those for the trend component of the CPI for services are the 6-quarter backward moving averages of annualized quarter-on-quarter percentage changes. Figures for scheduled cash earnings of full-time employees before 1994 are those for regular employees. Moreover, figures from 2016 onward are based on continuing observations following the sample revisions.
2. Figures for the contribution of wage factors to CPI changes are based on the relationship between the CPI and wages, estimated using a 4-variable VAR model comprising import prices (yen basis), the output gap, wages (scheduled cash earnings of full-time employees), and price indices for low-, medium-, and high-volatility items in the CPI. The estimates are obtained using 20-year rolling regressions for low-, medium-, and high-volatility CPI items.
3. Figures for the trend component of the CPI for services are the composite of the sector-specific price trend for services and the common trend in services prices and wages. The figures are estimated using category-level services prices and industry-level scheduled cash earnings.
4. The figure for scheduled cash earnings of full-time employees for 2024/Q3 is the July-August average.

price change distribution in each period. It should be noted that, with dispersions of the observed distributions increasing, the fit of the normal inverse Gaussian distribution has deteriorated recently. Therefore, estimates of this mode should be interpreted with some latitude.

[17] For details, see "Recent Developments in the Linkage between Wages and Prices," *Bank of Japan Review Series*, no. 24-E-2, May 2024.

[18] Since 2022, indicators such as the trimmed mean have risen sharply since prices of an extremely wide range of items have shown large increases in the wake of the rise in import prices. For this reason, in the current phase, it is important to examine a wider range of indicators to grasp underlying inflation trends excluding factors such as temporary fluctuations in raw material prices. For details, see Box 4 in the April 2024 Outlook Report.

accelerated. The rate of increase in the import deflator has accelerated, mainly reflecting the past rise in crude oil prices and the yen's depreciation. The year-on-year rate of increase in the GDP deflator has decelerated somewhat; specifically, the rate of change in the domestic demand deflator has been positive, while the rise in the import deflator has exerted downward pressure.

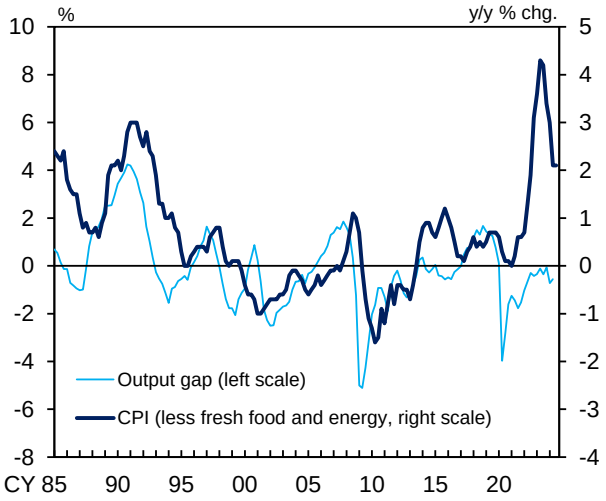
Environment Surrounding Prices

In the outlook for prices, the main factors that determine inflation rates are assessed as follows. First, the output gap is likely to continue to widen moderately within positive territory toward the end of the projection period (Charts 2 and 39).

Second, medium- to long-term inflation expectations have risen moderately (Chart 40). Firms' inflation outlook for general prices in the *Tankan* has increased moderately. Given that the formation of inflation expectations in Japan is largely adaptive, the increase in inflation seen thus far has brought about a rise in households' and firms' medium- to long-term inflation expectations. Firms' behavior has shifted more toward raising wages and prices, and nominal wages have increased clearly. In addition, moves to reflect wage increases in selling prices have continued to strengthen.[19] Regarding the outlook, inflation expectations are expected to rise moderately, with continued improvement in the output gap and changes in firms' wage- and price-setting behavior. Under these circumstances, the virtuous cycle between wages

[19] See Box 3 for the impact of recent wage developments on consumer prices.

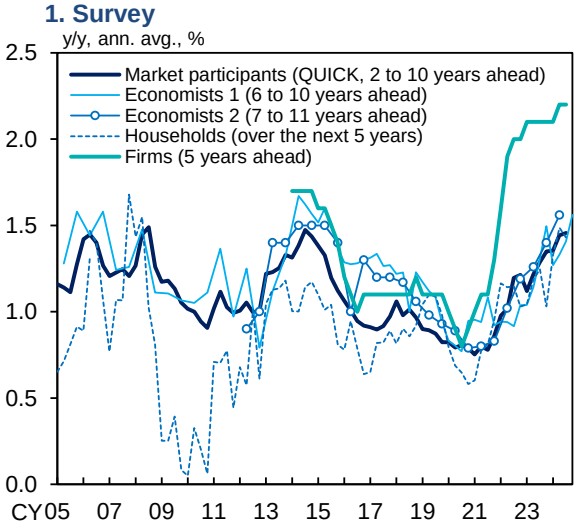
Chart 39: Inflation Rate and Output Gap



Sources: Ministry of Internal Affairs and Communications; Bank of Japan.
Notes: 1. The CPI figures are staff estimates and exclude mobile phone charges and the effects of the consumption tax hikes, policies concerning the provision of free education, and travel subsidy programs.
2. Figures for the output gap are staff estimates.

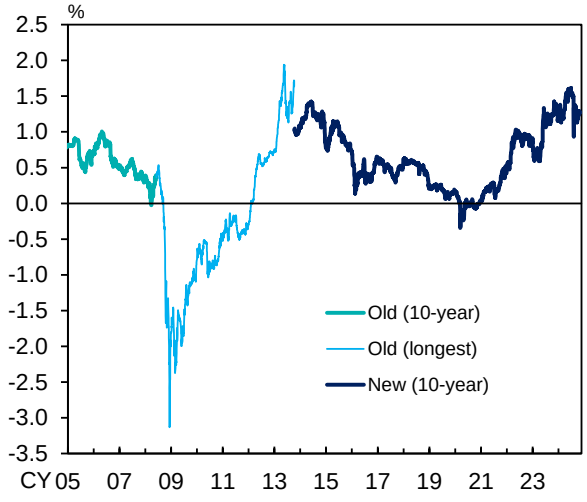
Chart 40: Inflation Expectations

1. Survey



Sources: Bank of Japan; QUICK, "QUICK Monthly Market Survey <Bonds>"; JCER, "ESP Forecast"; Consensus Economics Inc., "Consensus Forecasts."
Notes: 1. "Economists 1" shows the forecasts of economists in the *Consensus Forecasts*. "Economists 2" shows the forecasts of forecasters surveyed for the *ESP Forecast*.
2. Figures for households are from the *Opinion Survey on the General Public's Views and Behavior*, estimated using the modified Carlson-Parkin method for a 5-choice question.
3. Figures for firms show the inflation outlook of enterprises for general prices (all industries and enterprises, average) in the *Tankan*.

2. BEI



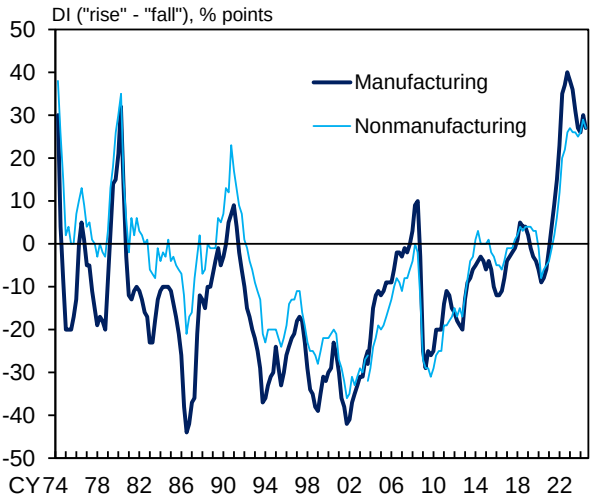
Source: Bloomberg.
Note: The BEI (break-even inflation) rate is the yield spread between fixed-rate coupon-bearing JGBs and inflation-indexed JGBs. Inflation-indexed JGBs issued since October 2013 are designated as "new," while the rest are designated as "old." Figures for "old (longest)" are calculated using yield data for issue No. 16 of inflation-indexed JGBs, which matured in June 2018.

and prices is projected to keep intensifying through achievement of wage increases that reflect price rises and through a pass-through of wage increases to selling prices.

Third, while the import price index increased through the summer, mainly reflecting the depreciation of the yen, more recently, it has decreased, mainly due to the decline in crude oil prices and the appreciation of the yen (Charts 42 and 43). Looking at the final demand-intermediate demand (FD-ID) price indexes, the index for stage 1 of the ID -- which shows developments in an upstream stage of the production process -- has decreased recently, reflecting developments in import prices (Chart 44). The index for stage 2 of the ID has also decreased. The indexes for stages 3 and 4 of the ID, which show developments in relatively downstream stages of the production process, have been on a moderate increasing trend despite the influence of lower international commodity prices, as there have been moves to pass on past high raw material costs and increases in personnel expenses and other costs to prices.

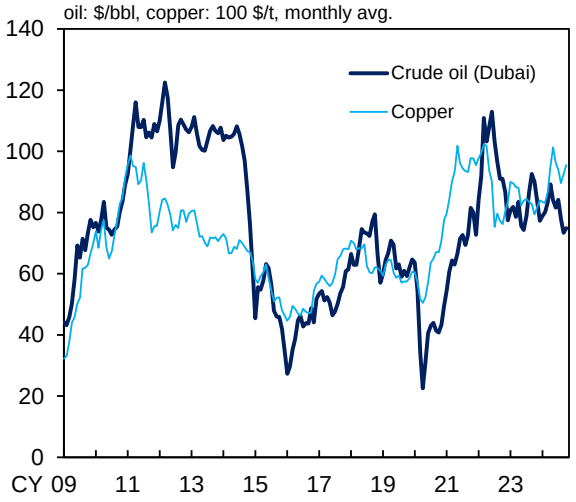
Meanwhile, the year-on-year rate of increase in energy prices (e.g., gasoline prices and electricity charges) decelerated in September 2024 due to the government's emergency measures against higher electricity and gas charges, and these measures will likely continue to push down the rate in October through November. Thereafter, assuming that the government's measures to reduce the household burden of higher energy prices will be phased out toward the end of 2024, the rate of increase in energy prices is highly

Chart 41: Output Prices



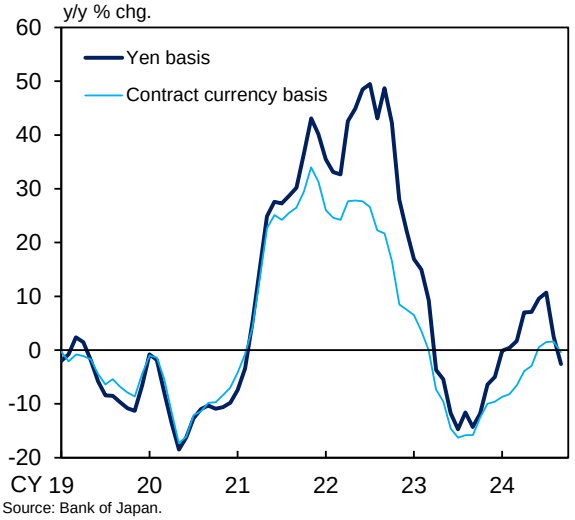
Source: Bank of Japan.
Note: Based on the *Tankan*. All enterprises. There is a discontinuity in the data for December 2003 due to a change in the survey framework.

Chart 42: International Commodity Prices



Sources: Nikkei Inc.; Bloomberg.

Chart 43: Import Price Index



Source: Bank of Japan.

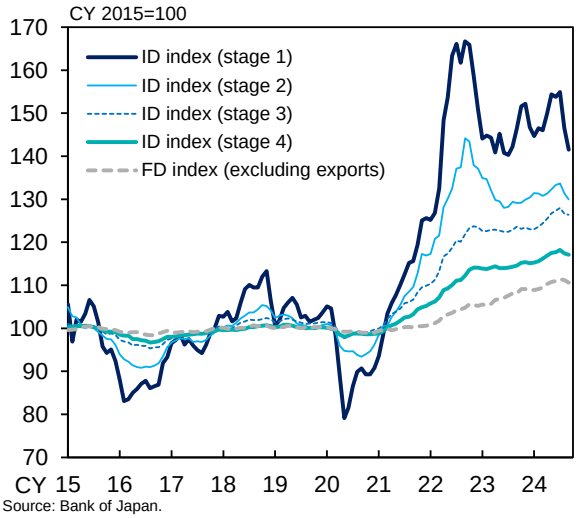
likely to be relatively large after the turn of 2025, due to the dissipation of the effects of these measures pushing down energy prices. After the impact of the rebound caused by the phasing out of the government's measures dissipates, the rate is projected to be more or less flat in light of developments in the futures markets.

Outlook for Prices

Based on this underlying scenario, the year-on-year rate of increase in the CPI (all items less fresh food and energy) is likely to be at around 2 percent (Chart 45). This reflects that, while the effects of the pass-through to consumer prices of cost increases led by the past rise in import prices are projected to wane gradually, underlying CPI inflation is expected to increase gradually, mainly reflecting the improvement in the output gap and the rise in medium- to long-term inflation expectations.

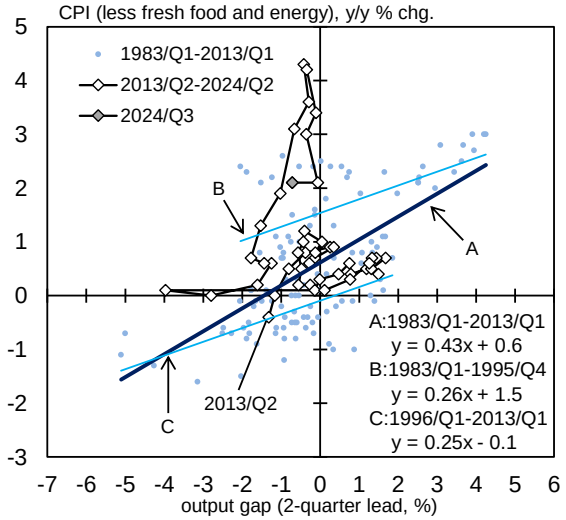
Taking account of the aforementioned developments in energy prices, the year-on-year rate of increase in the CPI (all items less fresh food) is likely to be at around 2.5 percent for fiscal 2024 and then be at around 2 percent for fiscal 2025 and 2026. In the first half of the projection period, it is expected that factors such as a dissipation of the effects of the government's measures pushing down CPI inflation will make a positive contribution to the rate of increase; on the other hand, it is likely that the effects of the pass-through to consumer prices of cost increases led by the past rise in import prices will wane, and factors such as the recent decline in crude oil and other resource prices will make a negative contribution to the rate of increase in the

Chart 44: FD-ID Price Indexes (All Commodities)



Source: Bank of Japan.

Chart 45: Phillips Curve



Sources: Ministry of Internal Affairs and Communications; Bank of Japan.
Notes: 1. The CPI figures are staff estimates and exclude mobile phone charges and the effects of the consumption tax hikes, policies concerning the provision of free education, and travel subsidy programs.
2. Figures for the output gap are staff estimates.

CPI. Thereafter, the rate of increase is projected to be at around 2 percent in reflection of the developments in the CPI for all items less fresh food and energy.

That said, there remain uncertainties over whether underlying inflation will increase with a stronger linkage between wages and prices. In particular, close attention is warranted on the degree to which moves to reflect wage developments in selling prices will become widespread. On the other hand, if such moves strengthen to a greater extent than expected or the expectation of labor market conditions remaining tight grows, there is a possibility that both wages and prices will deviate upward from the baseline scenario, accompanied by a rise in medium- to long-term inflation expectations.

III. Financial Developments in Japan

Financial Conditions

Financial conditions have been accommodative.

Looking at short-term interest rates, the uncollateralized overnight call rate has been at around 0.25 percent, as the policy interest rate was raised at the July 2024 Monetary Policy Meeting (Chart 46). Regarding interest rates on term instruments, the 3-month treasury discount bill (T-Bill) rate has been more or less flat.

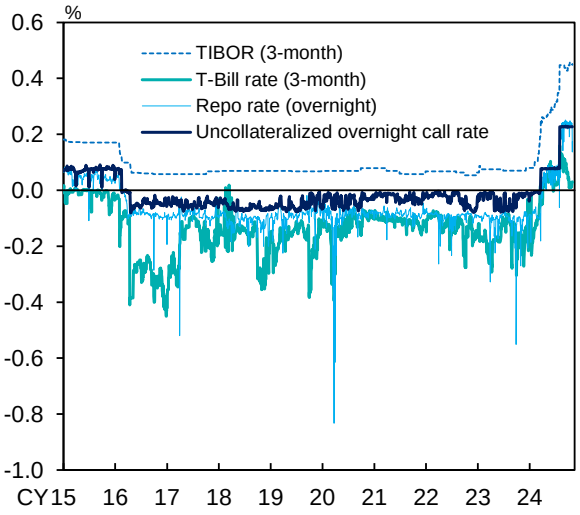
Real interest rates have been negative (Chart 47).[20]

Firms' funding costs have increased but have remained at low levels on the whole (Chart 48). Lending rates (the average interest rates on new loans and discounts) have risen, particularly for long-term loans, but have remained at low levels. Issuance rates for CP have increased. The rise in issuance rates for corporate bonds has paused, reflecting developments in their base rate.

The DI in the *Tankan* for financial institutions' lending attitudes as perceived by firms suggests that such attitudes have remained accommodative on the whole (Chart 49). The DI for issuance conditions for CP has continued to show net "easy" conditions. As suggested by the latter, issuance conditions for CP and corporate bonds have been favorable. The DI for firms'

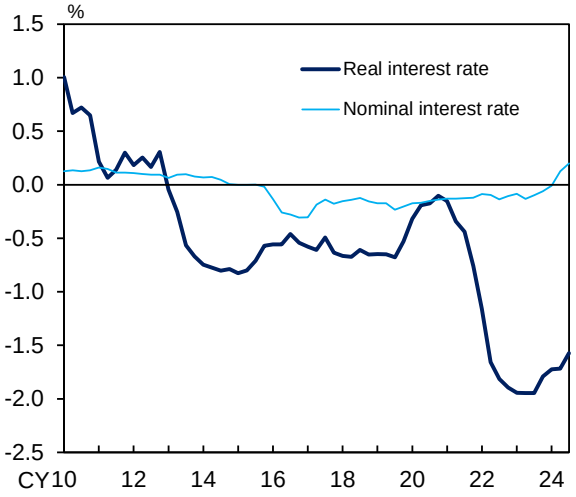
[20] See Box 5 of the April 2024 Outlook Report for an assessment of financial conditions in terms of real interest rates.

Chart 46: Short-term Interest Rates



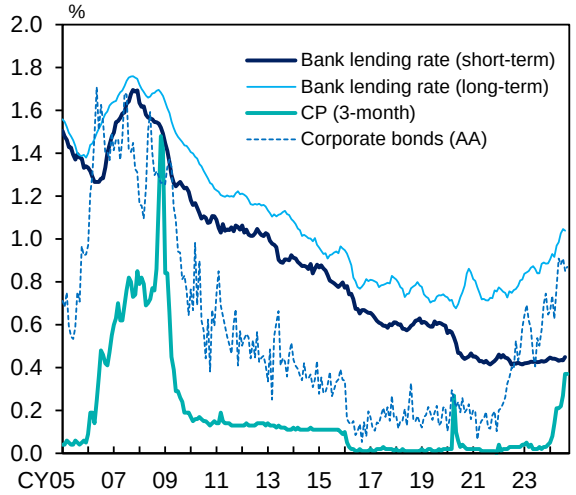
Sources: Bank of Japan; JBA TIBOR Administration; Bloomberg.
Note: Figures for repo rate are the *Tokyo Repo Rate*.

Chart 47: Real Interest Rate (1-Year)



Sources: Bank of Japan; QUICK, "QUICK Monthly Market Survey <Bonds>"; Consensus Economics Inc., "Consensus Forecasts"; Bloomberg.
Note: Figures for the real interest rate are calculated as government bond yields (1-year) minus the composite index of inflation expectations (staff estimates).

Chart 48: Bank Lending Rates and Issuance Yields for CP and Corporate Bonds

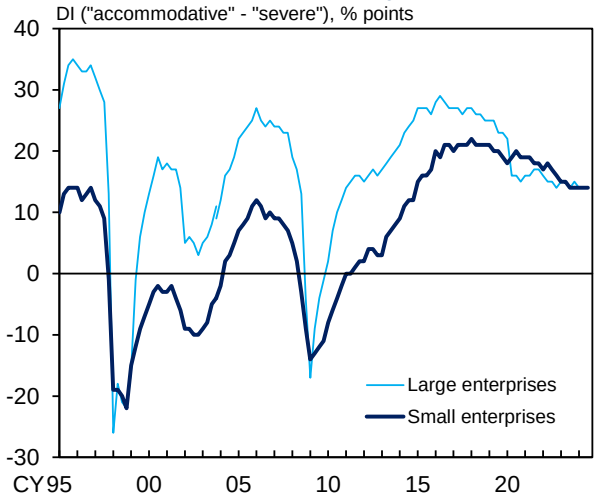


Sources: Bank of Japan; Japan Securities Depository Center; Capital Eye; I-N Information Systems; Bloomberg.
Notes: 1. Figures for issuance yields for CP up through September 2009 are the averages for CP (3-month, rated a-1 or higher). Those from October 2009 onward are the averages for CP (3-month, rated a-1).
2. Figures for issuance yields for corporate bonds are the averages for domestically issued bonds launched on a particular date. Bonds issued by banks and securities companies, etc. are excluded.
3. Figures for bank lending rates are 6-month backward moving averages.

financial positions in the *Tankan* suggests that they have been at favorable levels on the back of the recovery in economic activity and progress in the pass-through of cost increases to selling prices (Chart 50).

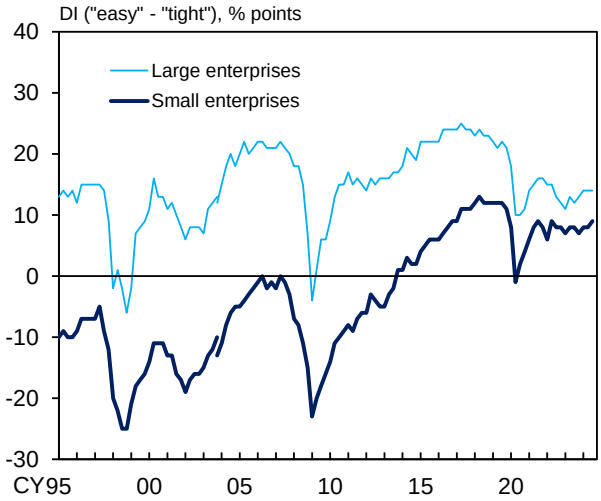
Firms' demand for funds has increased moderately on the back of, for example, the recovery in economic activity as well as mergers and acquisitions of firms. In this situation, the year-on-year rate of increase in the amount outstanding of bank lending has been at around 3 percent (Chart 51). That in the aggregate amount outstanding of CP and corporate bonds has been in the range of 3.0-3.5 percent.

Chart 49: Lending Attitudes of Financial Institutions as Perceived by Firms



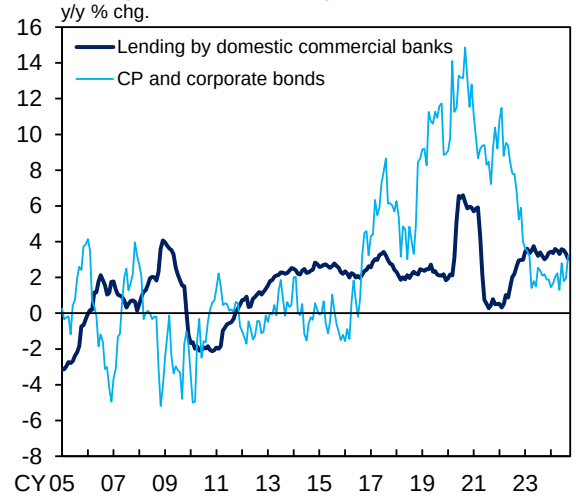
Source: Bank of Japan.
Note: Based on the *Tankan.* All industries. There is a discontinuity in the data for December 2003 due to a change in the survey framework.

Chart 50: Firms' Financial Positions



Source: Bank of Japan.
Note: Based on the *Tankan.* All industries. There is a discontinuity in the data for December 2003 due to a change in the survey framework.

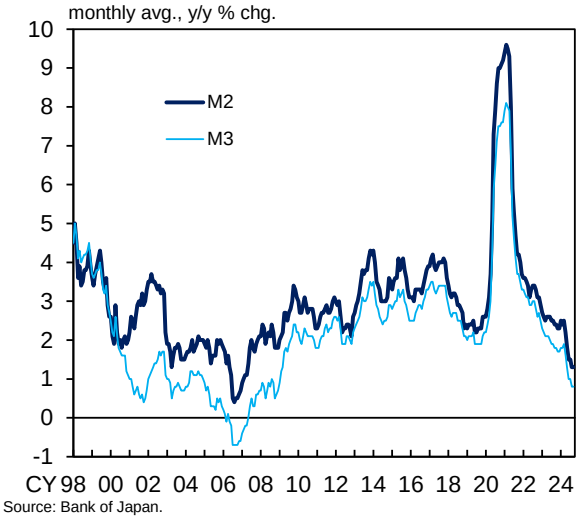
Chart 51: Amounts Outstanding of Bank Lending, CP, and Corporate Bonds



Sources: Bank of Japan; Japan Securities Depository Center; Japan Securities Dealers Association; I-N Information Systems.
Note: Figures for lending by domestic commercial banks are monthly averages. Figures for CP and corporate bonds are those at the end of the period.

The rate of change in the money stock (M2) has been at around 1.5 percent, as the amount outstanding of bank lending has continued to increase and fiscal spending has kept pushing the rate up (Chart 52).

Chart 52: Money Stock



Source: Bank of Japan.

Developments in Financial Markets

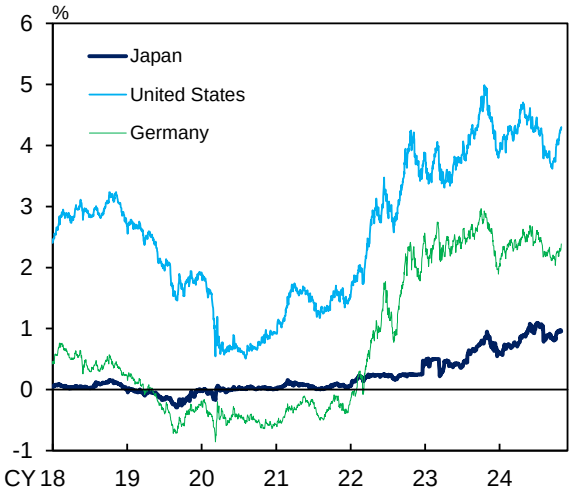
In global financial markets, market sentiment deteriorated rapidly at the beginning of August as stock prices declined worldwide and the U.S. dollar depreciated due to heightened concerns over a slowdown in the U.S. economy. Since then, market sentiment has recovered considerably, with U.S. stock prices rising again, but markets have continued to see large fluctuations.

Yields on 10-year government bonds in the United States, after declining significantly reflecting a further increase in market expectations for policy interest rate cuts by the Federal Reserve, have recently risen again (Chart 53). Yields on 10-year government bonds in Europe and Japan have been more or less flat, albeit with fluctuations in line with those seen in the United States.

Premiums for U.S. dollar funding through the dollar/yen foreign exchange swap market have expanded since the end of September, mainly due to transactions conducted in view of the year-end (Chart 54).

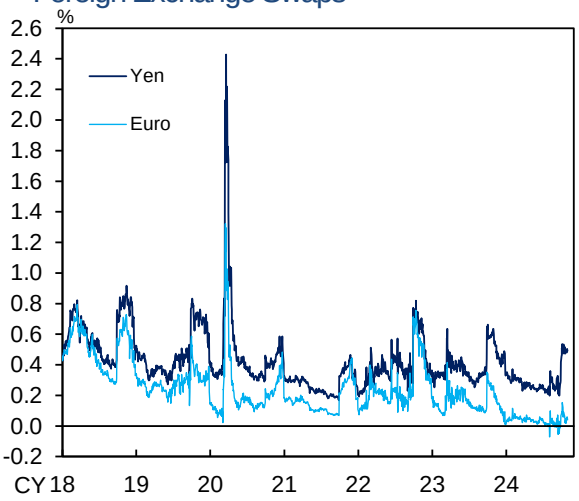
Although stock prices in the United States declined at the beginning of August with the rapid deterioration in market sentiment, they have risen again since then, underpinned by solid corporate results, as the markets' overly pessimistic views on the outlook for the U.S. economy have receded (Chart 55). Stock prices in Europe have been more or less flat while generally moving in line with those in the United States. Stock prices in Japan declined substantially at the beginning of August amid the rapid deterioration in market

Chart 53: 10-Year Government Bond Yields in Selected Advanced Economies



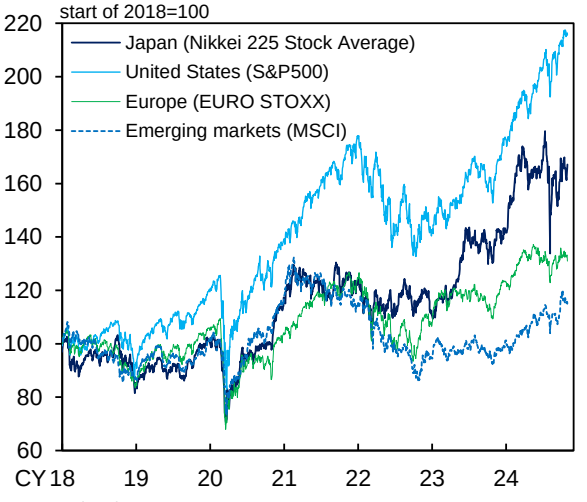
Source: Bloomberg.

Chart 54: Dollar Funding Premiums through Foreign Exchange Swaps



Source: Bloomberg.
Notes: 1. U.S. dollar funding premiums are calculated as the difference between U.S. dollar fundings rates (3-month) in the dollar/yen or euro/dollar foreign exchange swap market and those in the money market.
2. The interest rates used for the calculation are as follows: for the yen, the OIS rate; for the euro, the EONIA-referencing OIS rate before October 4, 2019, and the €STR-referencing OIS rate thereafter; for the U.S. dollar, the OIS rate before January 3, 2019, and the SOFR thereafter.

Chart 55: Selected Stock Price Indices

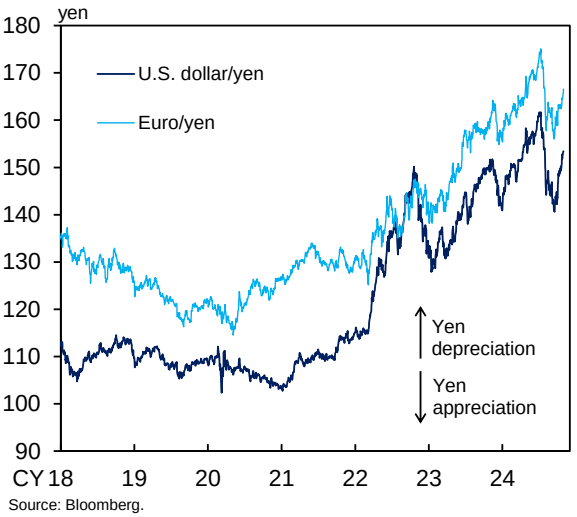


Source: Bloomberg.
Note: Figures for emerging markets are those for the MSCI Emerging Markets Index (local currency).

sentiment and the appreciation of the yen. Moving in line with those in the United States, stock prices in Japan have subsequently risen from the significantly lowered level seen at the beginning of August. Stock prices in emerging economies have risen.

In foreign exchange markets, the U.S. dollar/yen exchange rate has fluctuated somewhat significantly in both directions, reflecting attention to the yield differential between Japan and the United States. Looking at the trend, the yen had appreciated against the U.S. dollar but recently has depreciated (Chart 56). The yen had appreciated against the euro but recently has depreciated.

Chart 56: U.S. Dollar/Yen and Euro/Yen

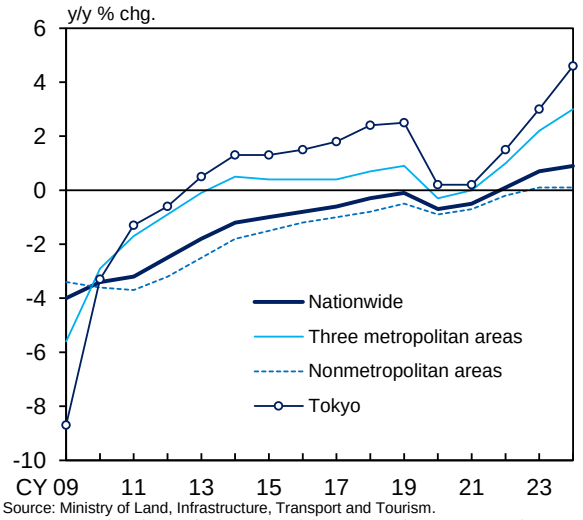


Source: Bloomberg.

Land Prices

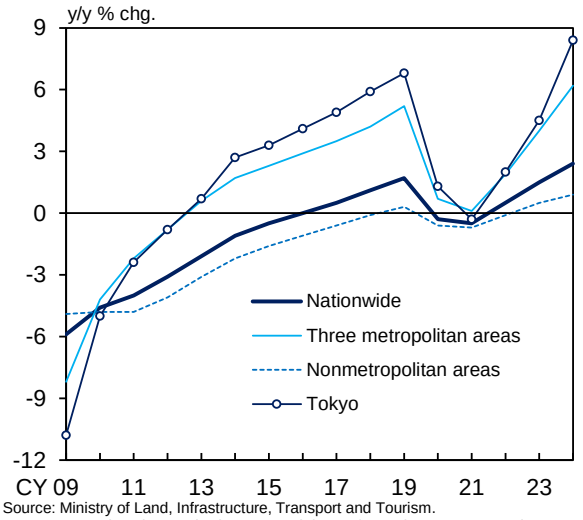
Land prices have increased in reflection of the economic recovery. According to the *Land Price Research by Prefectural Governments* for 2024 (as of July 1), the year-on-year rates of increase in both residential and commercial land prices have accelerated (Charts 57 and 58). In the three major metropolitan areas (Tokyo, Osaka, and Nagoya), the year-on-year rates of increase in both residential and commercial land prices have accelerated. In nonmetropolitan areas, the rate of increase in residential land prices has been flat, while the rate of increase in commercial land prices has accelerated.

Chart 57: Residential Land Prices



Source: Ministry of Land, Infrastructure, Transport and Tourism.
Notes: 1. Based on the *Land Price Research by Prefectural Governments*. Figures are as of July 1.
2. The three metropolitan areas are 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). Nonmetropolitan areas are areas other than the three metropolitan areas.

Chart 58: Commercial Land Prices

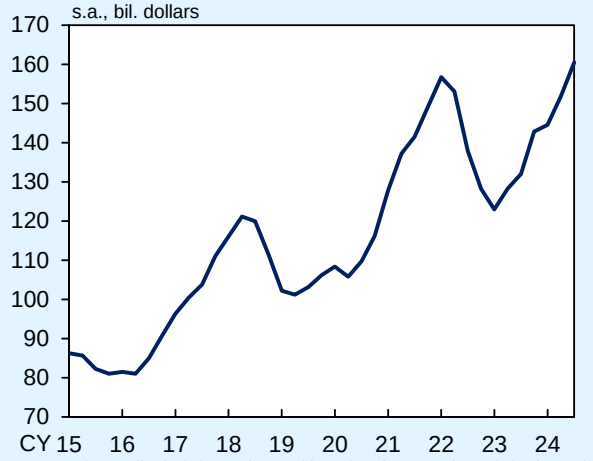


Source: Ministry of Land, Infrastructure, Transport and Tourism.
Notes: 1. Based on the *Land Price Research by Prefectural Governments*. Figures are as of July 1.
2. The three metropolitan areas are the Tokyo area (Tokyo, Kanagawa, Saitama, Chiba, and Ibaraki prefectures), the Osaka area (Osaka, Hyogo, Kyoto, and Nara prefectures), and the Nagoya area (Aichi and Mie prefectures). Nonmetropolitan areas are areas other than the three metropolitan areas.

(Box 1) Developments in IT-Related Cycles

Japan's production and exports of IT-related goods (semiconductor production equipment, etc.) are likely to increase on the back of a recovery in global IT-related demand (Chart B1-1). This box analyzes the global cycle for IT-related goods and the sustainability of demand for these goods. The shipments-inventories balance of IT-related goods in Japan, South Korea, and Taiwan has been improving, mainly reflecting progress in inventory adjustments (Chart B1-2).

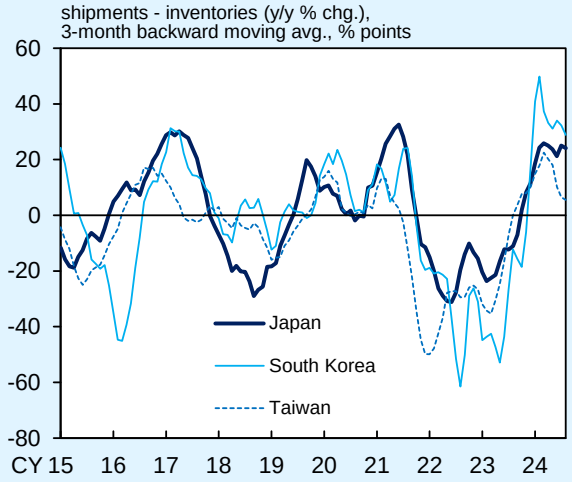
Chart B1-1: World Semiconductor Shipments



Note: Based on staff calculations using World Semiconductor Trade Statistics (WSTS) data. The figure for 2024/Q3 is the July-August average.

Looking at the IT-related sector in detail, the pace of technological innovation in the sector is generally fast, and semiconductor manufacturers have been competing to produce more semiconductors in order to recover their considerable investment costs. Under these circumstances, the IT-related sector has frequently experienced large-scale boom-bust cycles, such as the IT bubble in the early 2000s. Given these features, by applying frequency spectrum decomposition, the amount of semiconductor shipment is decomposed, using global data and data for Japan, into the following cycles: (1) the short-term cycle (2 quarters to 2 years), (2) the medium-term cycle (2-6 years), and (3) the long-term cycle (6-10 years).[21] The short-term cycle is considered to reflect the impact of inventory adjustments; the medium-term cycle to reflect developments in business fixed investment, such as by semiconductor manufacturers, owing to the replacement cycle of

Chart B1-2: Shipments-Inventories Balance of IT-Related Goods



Sources: CEIC; Ministry of Economy, Trade and Industry.
Note: Figures for Japan are the weighted averages of those for "electronic parts and devices" and "information and communication electronics equipment." Figures for South Korea and Taiwan are those for items corresponding to these categories.

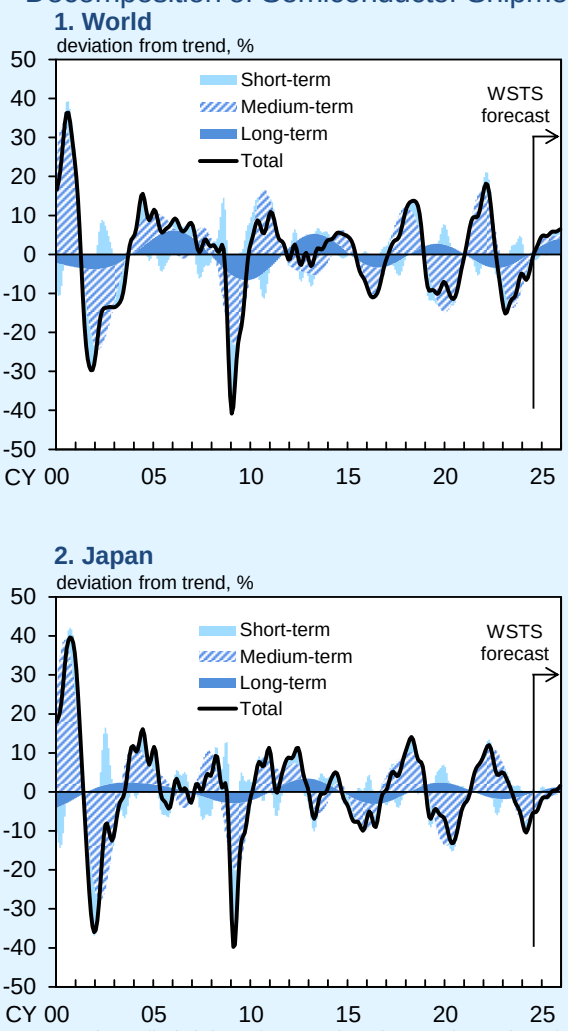
[21] For the extraction of the global cycle for IT-related goods, see also Box 4 of the April 2019 Outlook Report.

products and IT-related demand; and the long-term cycle to reflect the effects of expansion in the use of semiconductors, such as for AI, on-board equipment for motor vehicles, data centers, and the renewal of IT-related infrastructure.

The estimation results show that medium- and long-term cyclical components of global semiconductor shipments are approaching a turning point in the current phase, reflecting the fact that (1) the replacement cycle seems to be approaching for computers and smartphones, for which demand was boosted during the pandemic, and (2) the use of generative AI has been pushing up demand. The upward momentum led by these factors is expected to remain through around 2026 (Chart B1-3). Similarly, the estimation results for semiconductor shipments in Japan show that demand is expected to recover, albeit at a slower pace and at a lower level of increase in the medium- and long-term cyclical components compared with global medium- and long-term cycles.

In past global cycles for IT-related goods, however, IT booms and busts were induced through multiple orders and excessive investments, as semiconductor manufacturers tend to assume a rise in demand when the cycle for IT-related goods is expected to enter an increasing phase. In the current phase, demand could be weaker than expected, depending on the sustainability of AI-related demand or partly reflecting sluggish demand for items such as computers and smartphones, due to prolonged replacement cycles. In this regard, global

Chart B1-3: Frequency Spectrum Decomposition of Semiconductor Shipments

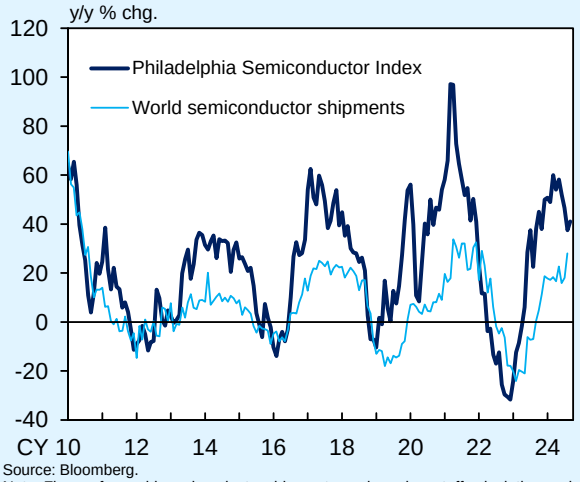


Notes: 1. Based on staff calculations using WSTS data. The WSTS forecast is as of May 2024.
2. Using the Christiano-Fitzgerald filter, the following cyclical components are extracted from the WSTS data for world semiconductor shipments and Japanese semiconductor shipments (in U.S. dollars, log scale): (a) the short-term cycle (2 quarters to 2 years), (b) the medium-term cycle (2-6 years), and (c) the long-term cycle (6-10 years). The estimation period is from January 1988 to December 2025. The trend is the residual obtained by subtracting (a), (b), and (c) from world semiconductor shipments and Japanese semiconductor shipments, respectively.

semiconductor shipment data is linked to the stock price index of semiconductors (the PHLX Semiconductor Sector) and attention is warranted to the fact that an increase in the stock prices for semiconductors appears to have peaked out recently (Chart B1-4).

Japan's exports are projected to return to an uptrend, mainly due to a recovery in global demand for IT-related goods. However, it is necessary to continue to monitor future developments in global IT-related demand, including developments in individual countries and regions and in different final products, and observe how these developments affect Japan's economy, while taking into account the sustainability of AI-related demand.

Chart B1-4: Global Cycle for IT-Related Goods and Semiconductor Stock Prices



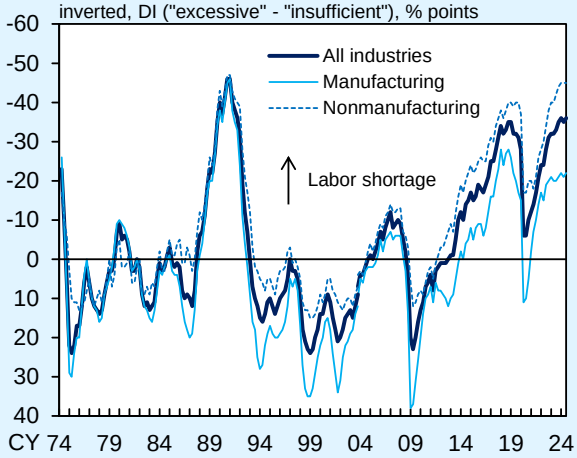
Source: Bloomberg.
Note: Figures for world semiconductor shipments are based on staff calculations using WSTS data.

(Box 2) The Spread of Labor Shortages

The employment conditions DI (all enterprises) in the *Tankan* from a long-term perspective shows that the degree of labor market tightness has been at a historically high level recently (Chart B2-1). In order to examine the spread of this tightness in labor market conditions across industries and firm sizes, Chart B2-2 presents a heat map of the employment conditions DI. Areas shaded in red indicate a labor shortage (over 2 standard deviations below the historical average), those shaded in white show a labor surplus (over 2 standard deviations above the historical average), and those shaded in yellow indicate that the DI is near its historical average. The chart shows that (1) during the recovery period before the global financial crisis, labor market tightness was limited to large firms in a very small number of industries, whereas (2) during the period preceding the pandemic and most recently, labor shortages have been severe among both small-sized and large firms and across a wide range of industries.

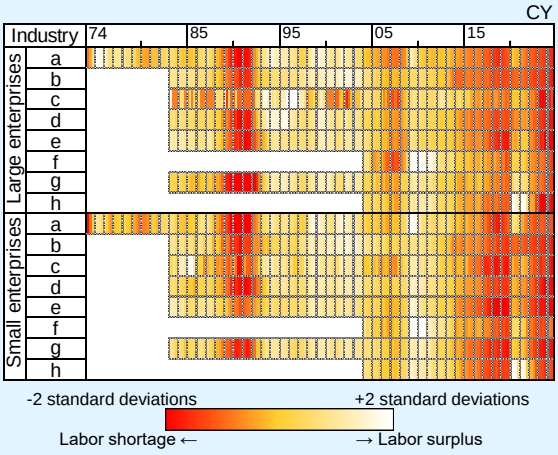
Next, labor market conditions for full-time and part-time employees are examined separately. Using the Ministry of Health, Labour and Welfare's *Survey on Labour Economy Trend*, from which it is possible to obtain DIs for the excess/shortage of employees separately for full-time and part-time employees, similar heat maps of labor market conditions by industry, firm size, and type of employment are constructed. Starting with labor market conditions for full-time and part-time employees by industry, the heat map shows that labor market conditions for

Chart B2-1: Employment Conditions DI



Source: Bank of Japan.
Note: Based on the *Tankan*. All enterprises. There is a discontinuity in the data for December 2003 due to a change in the survey framework.

Chart B2-2: Heat Map for Labor Market Conditions, *Tankan*

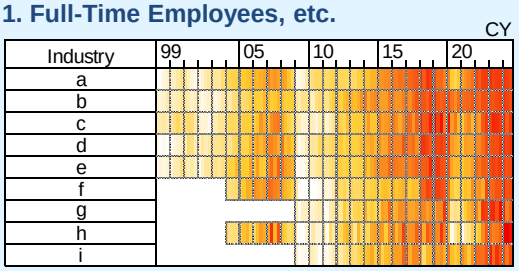


Source: Bank of Japan.
Notes: 1. In this heat map, figures for the employment conditions DI in the *Tankan* are normalized using the average and standard deviation for each industry and enterprise size over the period overall. Large enterprises are enterprises with a capitalization of 1 billion yen or more, while small enterprises are enterprises with a capitalization of 20 million yen or more but less than 100 million yen.
2. Figures for (g) services from March 2010 onward are calculated as the weighted averages of figures for "services for businesses" and "services for individuals." The number of reporting enterprises is used as weights.
3. The industries are as follows:
(a) manufacturing; (b) construction; (c) real estate; (d) wholesaling and retailing; (e) transport and postal activities; (f) information and communications; (g) services; (h) accommodations, eating and drinking services.

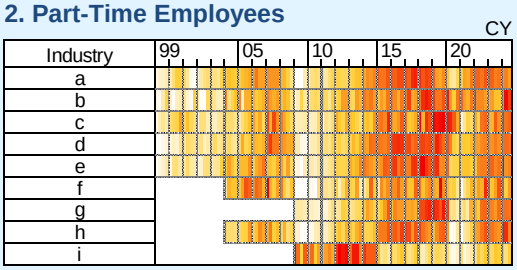
full-time employees have recently become tighter than those for part-time employees (Chart B2-3). Labor shortages for full-time workers are growing as firms are increasingly eager to hire full-timers partly due to the expected retirement of the second-generation baby boomers.[22] This pattern can be seen regardless of firm size, indicating that this change in labor conditions for full-time workers has been spreading to a considerable extent (Chart B2-4). Meanwhile, the results of a survey of corporate behavior conducted as part of the Review of Monetary Policy from a Broad Perspective suggest that, during the past 25 years, it has become increasingly difficult for firms to recruit and retain regular workers without raising wages.[23] Given this, there is a possibility that the growing labor shortage of full-time employees in Japan is causing firms to change their wage-setting stance.

Chart B2-3: Heat Map for Labor Market Conditions, by Industry

1. Full-Time Employees, etc.



2. Part-Time Employees

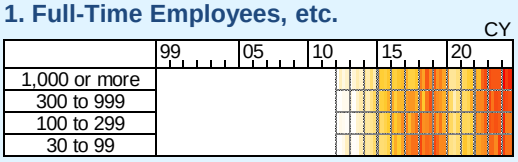


Source: Ministry of Health, Labour and Welfare.
Notes: 1. In these heat maps, figures for the DI for enterprises' employment conditions in the *Survey on Labour Economy Trend* are normalized using the average and standard deviation for each type of employment and industry over the period overall. In the upper chart, figures before 2008 are based on those for regular employees.
2. Regarding the color coding, refer to the legend in Chart B2-2.
3. The industries are as follows:
(a) manufacturing; (b) construction; (c) real estate, goods rental and leasing; (d) wholesaling and retailing; (e) transport and postal activities; (f) information and communications; (g) living-related and personal services; (h) accommodations, eating and drinking services; (i) medical, health care, and welfare.

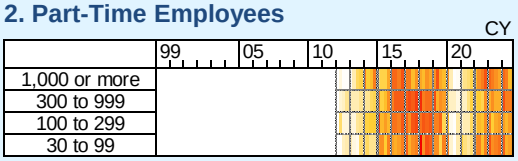
There are a number of indicators of labor market conditions, including (1) the active job-openings-to-applicants ratio in the *Employment Referral Statistics*, (2) the job vacancy rate in the *Survey on Labour Economy Trend*, and (3) the number of job postings for full-time jobs. Compared with other indicators, the active job-openings-to-applicants ratio has indicated somewhat less tight labor conditions since the pandemic (Chart B2-5). This may be due to a decrease in the use of the Public

Chart B2-4: Heat Map for Labor Market Conditions, by Enterprise Size

1. Full-Time Employees, etc.



2. Part-Time Employees



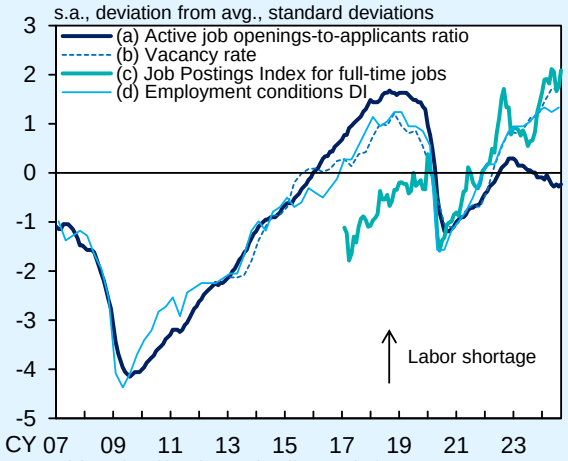
Source: Ministry of Health, Labour and Welfare.
Notes: 1. In these heat maps, figures for the DI for enterprises' employment conditions in the *Survey on Labour Economy Trend* are normalized using the average and standard deviation for each type of employment and enterprise size over the period overall. The size classification is based on enterprises' number of regular employees.
2. Regarding the color coding, refer to the legend in Chart B2-2.

[22] For the relationship between demographics and the labor market, see "Effects of Demographic Changes on Labor Market and Wage Developments," *Bank of Japan Review Series*, forthcoming.

[23] See the annex paper to the *Regional Economic Report*, "Results of the Survey regarding Corporate Behavior since the Mid-1990s: Economic Activity, Prices, and Monetary Policy over the Past 25 Years from Firms' Perspective" (June 2024).

Employment Security Office and an increase in the use of private employment agencies, resulting in the recent decline in the number of active job openings in the *Employment Referral Statistics.*[24] Against this background, it is appropriate to evaluate the extent of labor market tightness by taking these points into account and looking at a range of indicators, such as the heat map shown in this box.[25]

Chart B2-5: Various Measures of Labor Market Conditions



Sources: Ministry of Health, Labour and Welfare; Bank of Japan; Nowcast Inc.
Notes: 1. Figures for each measure of labor market conditions are normalized using the average and standard deviation for the period from 2013 onward (figures for the Job Postings Index for full-time jobs are normalized using the average and standard deviation for the period from 2017 onward). Figures for the vacancy rate are 2-quarter backward moving averages (figures from 2013 to 2014 are staff estimates). Figures for the employment conditions DI are for all industries and enterprises.
2. The data sources for (a), (b), (c), and (d) are the *Employment Referral Statistics*, the *Survey on Labour Economy Trend*, *HRog Wage Now*, and the *Tankan*, respectively.

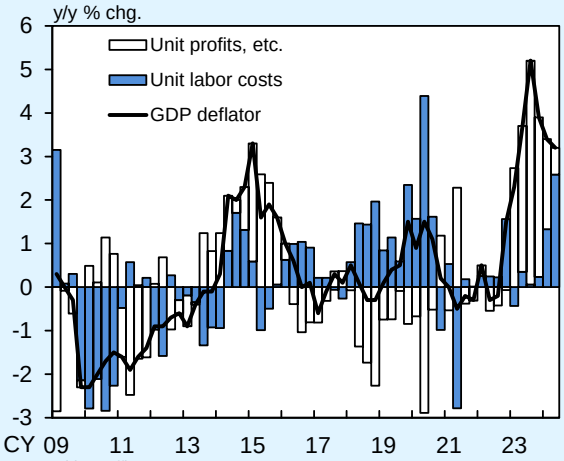
[24] The 2024 Annual Report on the Japanese Economy and Public Finance, published by the Cabinet Office, also indicates that it is no longer sufficient to examine the degree of tightness in labor market conditions based solely on the active job-openings-to-applicants ratio in the *Employment Referral Statistics*.

[25] The job vacancy rate in the *Survey on Labour Economy Trend* is calculated as the number of job vacancies divided by the number of full-time employees. The number of job vacancies is the number of positions that an establishment is seeking to fill in order to address vacancies where work is available but no one is currently performing those duties. The number of full-time workers is the sum of those employed for an unspecified employment period and those employed for a specified employment period of more than one month. The job postings index for regular workers is based on the number of full-time jobs advertised through (1) private online job boards and (2) the Public Employment Service Center (adjusted for duplicate postings).

(Box 3) Relationship between Wages and Prices in Japan

This box reviews recent developments in the relationship between wages and prices in Japan. First, the GDP deflator, which indicates domestic inflationary pressure, grew at a fast pace in 2023, mainly in unit profits, as firms passed on cost increases (Chart B3-1). On the other hand, since the start of 2024, the driver of price increases has shifted to one led by a rise in unit labor costs. With wages and prices rising moderately, growth rates of unit profits and unit labor costs are likely to become balanced.

Chart B3-1: GDP Deflator

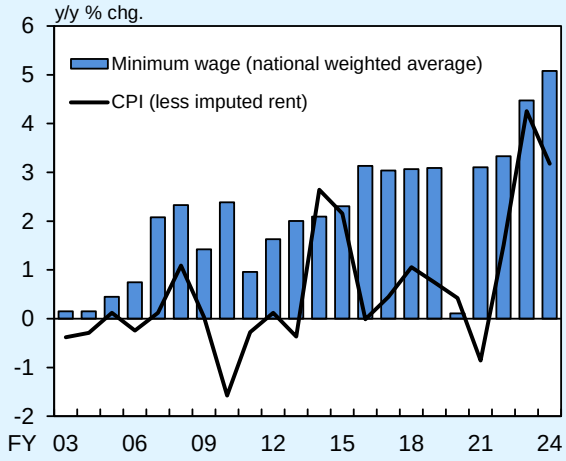


Source: Cabinet Office.
Note: Unit labor costs = Nominal compensation of employees / Real GDP

Next, with regard to wages, looking at developments in the minimum wage in detail, this year saw the largest increase on record, at 5.1 percent year-on-year, as the reference CPI rate for determining the minimum wage rose (Chart B3-2[1]). There were also larger increases in some regions where the minimum wage level is relatively low. Developments in the minimum wage and services prices in the CPI by region suggest that the impact of minimum wage hikes on services prices is estimated to be positive and statistically significant (Chart B3-2[2]). If hikes in the minimum wage continue, they are likely to push up prices, especially of services.

Chart B3-2: Impact of Hikes in the Minimum Wage

1. Developments in the Minimum Wage



2. Estimation Results

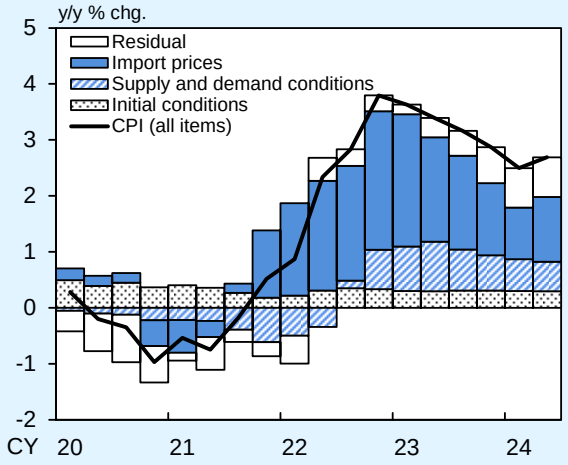
	General services prices (y/y % chg.)	
Minimum wage (y/y % chg.)	0.07 ***	(0.01)
Constant	-0.13	(0.44)
Adjusted R-squared	0.89	
Sample size	125,189	

Sources: Ministry of Health, Labour and Welfare; Ministry of Internal Affairs and Communications; Bank of Japan.
Notes: 1. Figures for the CPI (less imputed rent) are the averages of year-on-year percentage changes from October of the previous year to June of each year.
2. The table shows staff estimates using item-level microdata from the *Retail Price Survey*. The estimation period is from January 2018 to December 2023. Independent variables consist of the minimum wage (year-on-year percentage change), item dummies, and control variables. The minimum wage is the prefectural minimum wage in the previous year. The item dummies represent fixed effects for each of the items in the *Retail Price Survey*. The control variables consist of the 1-month lagged value of general services prices (year-on-year percentage change) and the 1- and 2-month lagged values of import prices (year-on-year percentage changes). *** denotes statistical significance at the 1 percent level. Figures in parentheses are standard errors.

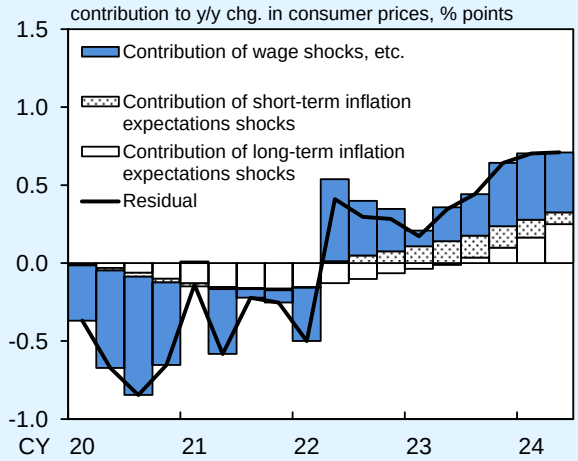
In addition, a model based on Bernanke and Blanchard (2024),[26] which decomposes changes in the CPI into exogenous factors -- such as changes in energy and food prices -- and other factors, is used to examine what explains price increases since the pandemic. Looking at the historical decomposition of changes in the CPI (Chart B3-3[1]) shows that, whereas the increase in inflation shortly after the pandemic can be explained mainly by the rise in import prices, such as energy and food prices, the recent upward pressure on prices cannot be fully explained by the aforementioned exogenous factors and supply and demand conditions. A closer look at the residual of the decomposition in Chart B3-3(1) suggests that firms' positive wage-setting behavior is pushing up prices, as positive wage shocks are pushing up the CPI (Chart B3-3[2]). It is likely that wage shocks will serve as a more significant catalyst for price increases than the average relationship observed during the low inflation period and will push up prices.

Chart B3-3: Inflation Mechanism

1. Historical Decomposition of CPI Changes



2. Decomposition of Residual



Sources: Ministry of Internal Affairs and Communications; Ministry of Health, Labour and Welfare; Cabinet Office; Bank of Japan; QUICK, "QUICK Monthly Market Survey <Bonds>"; Consensus Economics Inc., "Consensus Forecasts"; Bloomberg; Google Trends.

Notes: 1. The charts show the decomposition results obtained by Nakamura et al. (2024) applying the Bernanke-Blanchard model to Japan.
2. In the upper chart, "import prices" refers to the contribution of energy prices and food prices. "Supply and demand conditions" refers to the contribution of productivity growth, supply shortages, and labor market slack. In the lower chart, "contribution of wage shocks, etc." refers to the contribution of wage shocks and price inflation shocks.

[26] Bernanke and Blanchard (2024) construct a simple model of prices and wages for the United States to examine the direct and indirect effects of product-market and labor-market shocks on prices and nominal wage increases. Nakamura et al. (2024) apply this model to Japan.

Bernanke, B., and O. Blanchard (2024), "What Caused the U.S. Pandemic-Era Inflation?" *American Economic Journal: Macroeconomics*, forthcoming.

Nakamura, K., S. Nakano, M. Osada, and H. Yamamoto (2024), "What Caused the Pandemic-Era Inflation?: Application of the Bernanke-Blanchard Model to Japan," *Bank of Japan Working Paper Series*, No.24-E-1.