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Japan’s Economy: Monthly Outlook (Nov 2024)

Economic Outlook Revised: Attention on US and Chinese economies expecting moderate recovery

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Summary

- In light of the announcement of the Jul-Sep 2024 GDP 1st preliminary results, we have revised our economic outlook. We now see growth in Japan’s real GDP according to our main scenario at +0.5% in FY2024, and +1.4% in FY2025 (on a calendar year basis we expect -0.2% in 2024 and +1.6% in 2025).

- We expect real wages (real employee compensation per capita), which grew on a y/y basis for the second consecutive quarter during the Jul-Sep period, to maintain growth of around +1%, due to factors such as significant increases in the minimum wage and civil servants' salaries, and continued high wage increases as a result of the spring wage negotiations. We also expect the growth rate in CPI to be at around 2% due to the cycle of wage increases and price pass-through. Japan’s economy can expect to find underlying support and growth factors including improvement in the household income environment, economic stimulus measures by the government, growth in inbound demand, the high level of household savings, and the recovery of the silicon cycle. However, vigilance is necessary regarding downside risk centering on the overseas economy associated with the policies of the incoming Trump administration and other factors, as well as the possibility of appreciation of the yen.

- We assume that the Bank of Japan (BOJ) will raise the short-term interest rate to 0.50% in the Jan-Mar 2025 period, followed by additional rate hikes at a pace of once every six months, 0.25%pt at a time, while closely monitoring economic and price conditions. An accommodative monetary environment will likely be maintained throughout the forecast period. However, if the possibility of the CPI growth rate increasing significantly and exceeding the 2% target becomes imminent due to a significant depreciation of the yen above 170 yen/dlr or other factors occur, the BOJ is expected to move up additional interest rate hikes.

1. Moderate Recovery Seen, Centering on Domestic Demand, but Caution Required Regarding Trends in US and Chinese Economies

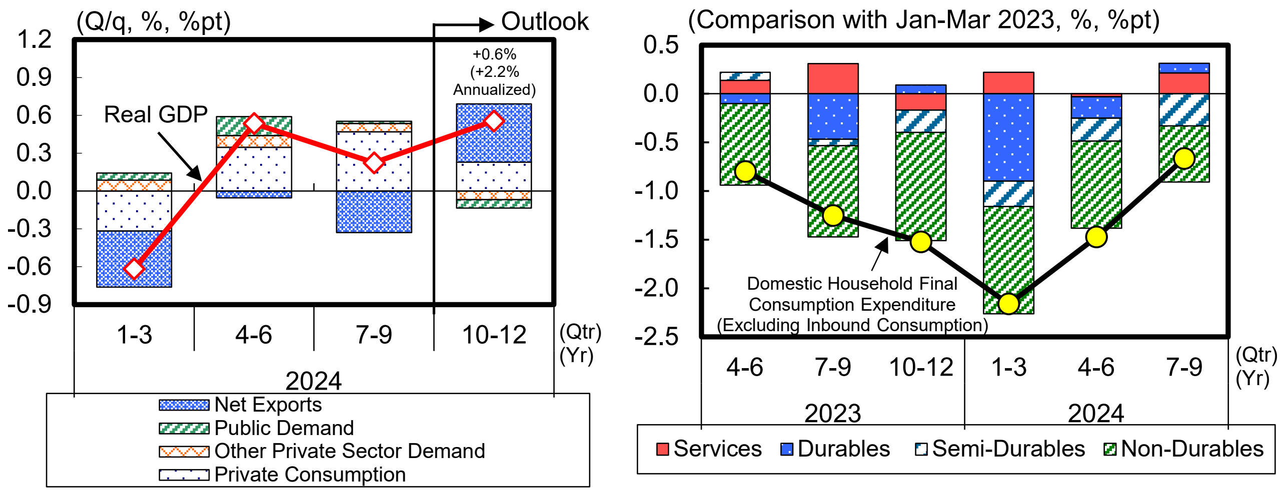
Positive growth in real GDP expected to continue through year-end

The real GDP growth rate for Jul-Sep 2024 (1st preliminary est) was at +0.9% q/q annualized (+0.2% q/q)[1] (Chart 1, left side). This represents the second consecutive quarter of positive growth, and on a y/y basis was a shift into positive terrain for the first time in three quarters. While various factors brought negative influence on economic activity, such as continued price highs, some factory shutdowns due to a typhoon, and fears of a major earthquake, private consumption still achieved relatively high growth backed by the improved household income environment and provided a boost to real GDP.

Looking at performance by demand component in the Jul-Sep period (Chart 1, left), in the area of private sector demand, while private consumption grew, capital expenditure and housing investment declined. Private sector inventories brought a contribution to GDP growth. As for public sector demand, government consumption grew, but public investment declined. Meanwhile, in the area of overseas demand, both exports and imports grew, but since the growth in exports was below that of imports, net exports registered negative growth for the third consecutive quarter.

Private consumption grew for the second consecutive month at +0.9% q/q. Excluding inbound tourism from domestic household final consumption expenditure, we estimated the contribution of goods and services compared to the Jan-Mar 2023 period (Chart 1, right), and found that in addition to durables such as motor vehicles, non-durables and services contributed to the recovery in private consumption in the Jul-Sep period. While semi-durables, especially clothing, did not perform well due to the intense heat, non-durables such as beverages and electricity increased. In the same category, demand for processed rice also increased due to the rice shortage. Services maintained an upward trend, despite the growing caution about a massive earthquake and the tendency to avoid travel and other activities due to a typhoon.

Real GDP Growth Rate Results & Outlook (Left); Domestic Household Consumption as Seen in Performance of Goods and Services (Right) Chart 1



Source: Cabinet Office, Japan Tourism Agency; compiled by DIR.
Notes: Figures are seasonally adjusted. The chart on the right shows the real amount, which is calculated by breaking down direct domestic purchases by non-resident households in GDP statistics by goods and services based on the Japan Tourism Agency's Survey of Inbound Consumption Trends and subtracting it from domestic household final consumption expenditures.

Real employee compensation increased for the fourth consecutive quarter at +0.0% q/q, but the growth rate contracted. While the number of employees increased, real employee compensation per capita (≒

[1] See the DIR report by Keiji Kanda and Munehisa Tamura dated 15 Nov 2024, *Jul-Sep 2024 1st Preliminary GDP Estimate.*

real wages) declined. However, in terms of level, it exceeded that of the Jan-Mar 2024 period, and y/y growth was positive for the second consecutive quarter (Chart 3, right). Moreover, the Flat-amount Cut of Personal Income Tax and Personal Residence Tax of 40,000 yen per person implemented between June and July brought an increase in net income, boosting consumption in the Jul-Sep period[2].

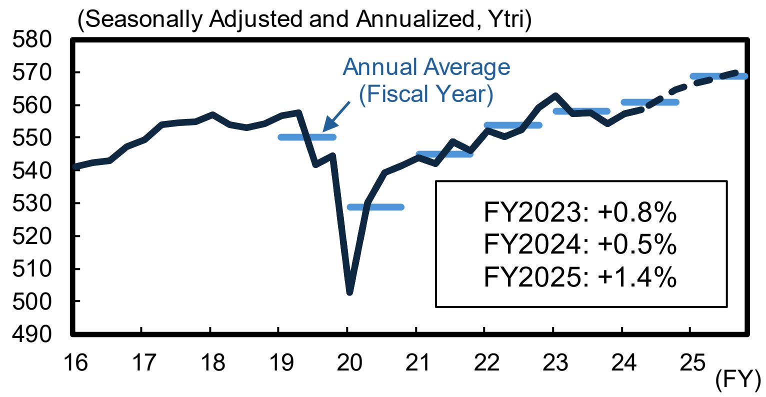
The GDP deflator grew for the eighth consecutive quarter by +2.5% y/y, and the unit labor cost (real employee compensation per capita ÷ real GDP) grew by +3.2%. The growth rate was nearly 0% y/y for three consecutive quarters until the Oct-Dec period of 2023, then accelerated to +3.0% in the Jan-Mar period of 2024 and has maintained a high level until recently. The rate of wage increases was at a 33 year high as a result of the spring wage negotiations of 2024, and wages have continued to bring strong upward pressure on prices recently as well.

Japan's economy was stagnant for three quarters until the Jan-Mar period this year, but entered a recovery phase in the Apr-Jun period, and has continued its recovery during the Jul-Sep period. We expect the real GDP growth rate in the Oct-Dec period to be at +2.2% annualized (+0.6% q/q), recording its third consecutive quarter of positive growth due to the recovery in private sector demand and other factors (Chart 1, left).

Japan's real GDP expected to grow by around 1% through FY2025

Chart 2 illustrates our main scenario for the trend in real GDP, based on our outlook for overseas economies. Our latest outlook for overseas economies dated November 22 is provided by our in-house expert on the overseas economy. For details see the economic outlooks for the various countries included.

Outlook for Japan's Real GDP (Left) and Assumptions Regarding Overseas Economies (Right) Chart 2



US, Eurozone & China
Real GDP Growth Rate

US	2023: +2.9% 2024: +2.7% 2025: +2.2%
Eurozone	2023: +0.5% 2024: +0.8% 2025: +1.3%
China	2023: +5.2% 2024: +5.0% 2025: +4.5%

Source: Produced by DIR based on data from the Cabinet Office and statistics by various countries.
Note: The dashed line in the chart represents predicted values as estimated by DIR. Outlooks for the US, Eurozone and China are based on predictions by DIR's in-house expert.

Based on the above overseas economic outlook, Japan's real GDP growth rate according to our main scenario is expected to be +0.5% in FY2024, and +1.4% in FY2025 (-0.2% in 2024 and +1.6% in 2025 on a calendar year basis).

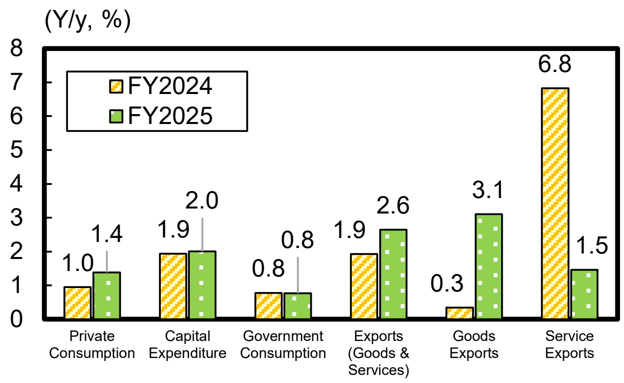
The outlook for the FY2024 growth rate was revised downward by 0.3%pt from our recent report of September 9, 2024 (*Japan's Economic Outlook No. 222 Update* (Japanese only), hereafter "our previous outlook")). This was due to the downward revision of the Apr-Jun 2024 period results centering on personal consumption, sluggish capital expenditure in the Jul-Sep period, and the slowdown in net exports. Meanwhile, the outlook for FY2025 was revised upwards by 0.1%pt in comparison to our

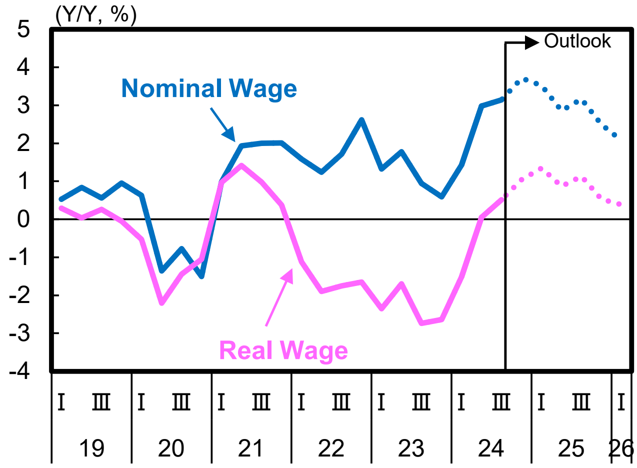
[2] For details, see *Japan's Economy: Monthly Outlook (June 2024)* (Japanese only).

previous outlook. This is due, among other factors, to the delayed timing of the economic recovery. Excluding carryover (real GDP growth rate that can be achieved with zero q/q growth in each quarter), the growth rate was around +0.7% in comparison to the previous period. As with our previous outlook, we expect moderate growth The growth rate for real GDP on a quarterly basis is expected to maintain a level of around +1% q/q annualized.

Major demand components are expected to perform as illustrated on the left side of Chart 3. Private consumption is expected to continue to achieve moderate growth, backed by an improving income environment due to major wage hikes and the high level of household savings, which are at a high level.

Outlook for Major Demand Components (Left), Outlook for Employee Compensation per capita (Right)
Chart 3





Source: Ministry of Health, Labour and Welfare, Ministry of Internal Affairs and Communications, Cabinet Office; compiled by DIR.
Note: Solid lines in the right side of the chart are seasonally adjusted, and the dotted lines are values estimated by DIR.

Real employee compensation per capita (seasonally adjusted), which corresponds to real wages in the GDP statistics, though only by a small amount at +0.0%, shifted into positive territory on a q/q basis for the first time in ten quarters in the 2024 Apr-Jun period, and is expected to increase its margin of positive growth in the Jul-Sep period[3] (Chart 3, Right). Factors behind real wages being down on a y/y basis in 2022-23 included deteriorating terms of trade due to major yen depreciation, the high price of natural resources, and a decline in labor's relative share, but these effects have now run their course[4]. Real wages are expected to continue rising in the Oct-Dec period of 2024 and beyond, due to large increases in the minimum wage and civil servants' salaries, continued high wage increases as a result of the spring labor negotiations (Chart 4), and a slowdown in price increases. We expect growth in real wages to remain at around +1% y/y through FY2025, the same as the rate of increase in labor productivity the past.

In terms of capital expenditure, we expect to see investment in renewal and capacity expansion, which companies had been postponing due to the Corona crisis and high prices, to emerge amid a continued accommodative financial environment. In addition to investment in labor saving due to the worsening labor shortage, and the decrease in the relative cost of capital associated with aggressive wage hikes on the part of corporations, software investment associated with the digital transformation (DX) and the green transformation (GX), as well as R&D investment are also expected to increase. On the other hand,

[3] Real wages often focus on the figures published by the Ministry of Health, Labour and Welfare's Monthly Labour Survey. In contrast, the GDP statistics on employee compensation shown on the right side of Chart 3 cover all industries and company sizes (the Monthly Labour Survey does not cover companies with fewer than five employees or categories such as public service). The household final consumption expenditure deflator used in calculating real figures is a Paasche type reflecting a basket of recent consumption figures (the consumer price index used in the Monthly Labour Survey is a Laspeyres type reflecting a basket of consumption figures during the base year (currently 2020)). From these and other points of view, employee compensation is a macro wage indicator that better reflects economic conditions.
[4] For details see our report of 10 June 2024 (*Japan's Economic Outlook No. 221 Update* (Japanese only).

caution should be exercised with the possibility that increased uncertainty over the outlook for overseas economies and delays in construction due to the shortage of labor will dampen the appetite for capex. Government consumption is expected to continue growing centering on medical and nursing care as the aging of the population progresses. The growth rate is also expected to remain around the same in FY2024 and FY2025.

As for exports, goods exports are expected to continue achieving growth due to the recovery of the silicon cycle and other factors. The growth rate is expected to increase from FY2024 through FY2025, but much of this is due to carryover as was explained earlier. Hence on a quarterly basis, we expect a general slowdown in the growth rate starting in FY2024. As for services exports, in addition to growth in inbound consumption centering on FY2024, business services are also expected to provide underlying support for the growth trend.

2. Key Points in the Future of Japan’s Economy

Chart 4 brings together a list of major supporting factors and boosts to Japan’s economy, as well as downside risks based on recent developments. The outlook for prices and the Bank of Japan (BOJ) ’s monetary policy are covered in chapter 3. The growth rate of the consumer price index (CPI) is expected to maintain a level of around 2%, and the Bank of Japan (BOJ) is expected to continue raising interest rates at a moderate pace (however, an accommodative monetary environment will be maintained with the real interest rate in the negative range).

Supporting factors and boosts to economy

Aside from the above, factors expected to influence Japan’s economy up to FY2025 include improvements in the household income environment due to wage hikes, government economic measures, growth in inbound demand, the high level of household savings, and the recovery of the silicon cycle. Recovery production for motor vehicles (consumption of order backlog) was a factor up through our previous outlook, but has been excluded from our list this time around since recovery production is expected to experience a pause within the year.

As has been mentioned previously in this report, real wages (real employee compensation per capita) were on the plus side for the second consecutive quarter in the Jul-Sep period of 2024, and are expected to remain in the positive range in the Oct-Dec period and beyond due to the high level of wage hikes as a result of the spring wage negotiations as well as other factors (Chart 3, right). According to the aggregated result of responses released by the Japanese Trade Union Confederation (RENGO), the rate of wage increases in the 2024 spring labor negotiations (including regular salary increases) was a weighted average of 5.1%[5]. The rate of wage increase in CY2025 is estimated at around 4.2% based on an estimation formula using corporate results, supply and demand of labor, rate of increase in prices and other factors as its explanatory variables. Although this represents a decline in comparison to CY2024 due to the rate of increase in prices and the slowdown in corporate earnings, the rate of wage increase is still expected to maintain at the 4% level, exceeding the rate seen in CY2023. As the margin of growth in labor supply shrinks[6] and competition among companies to acquire talent intensifies, "defensive wage increases" are likely to continue to be widely implemented by companies. In terms of government policy, the expansion of the child allowance by 1.3 tril yen per year, which began in October 2024 (payments will be made in December), will also improve the income environment[7].

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[5] Japanese Trade Union Confederation (RENGO), “Over 5% for the First Time in 33 Years! -Results of 7th (final) round of responses to Spring Wage Negotiations in 2024” (July 3, 2024) (Japanese only)

[6] We discussed the question of margin of growth in labor supply (surplus labor) in our report dated 11 March 2024, *Japan’s Economic Outlook No. 220 Update* (Japanese only).

[7] Income restrictions will be eliminated and the payment period were extended to high school age (18th birthday – first March 31). The monthly allowance will be 15,000 yen for children aged 0 to 2, 10,000 yen for children aged 3 to high school age, and 30,000 yen for the third and subsequent children, regardless of age.

Major Supporting Factors, Boosts and Downside Risks to Japan's Future Economy — Chart 4

Supporting Factors and Boosts to Economy

○Improvements in household income environment due to wage hikes and other factors

Real wages (real employee compensation per capita), which experienced positive growth y/y for two consecutive quarters through the Jul-Sep period of 2024, are expected to continue rising during the Oct-Dec period of 2024 and beyond (this is at the same level as labor productivity at around +1%). Although the rate of wage hikes will decline on a y/y basis in the spring labor negotiations in FY2025, a high level of growth is still expected to be maintained at 4.2% (aggregated result released by Japanese Trade Union Confederation). In addition, the child allowance will also be enhanced at a scale of 1.3 tril yen annually from October 2024 (payments begin in December).

○Government Economic Policy

The Ishiba administration is planning on preparing a supplemental budget exceeding that of FY2024 (13 tril yen in national funds or around the level of 17 tril yen when the Flat-amount Cut of Personal Income Tax and Personal Residence Tax is included). Payment of benefits centering on low-income households, resumption/extension of the high energy price measures, strengthening national land resilience (against natural disasters), and a decrease in income tax may be included in the package. It will likely become increasingly difficult to attain the fiscal consolidation target of getting the national/local government primary balance back in the black in FY2025.

○Continuation of Accommodative Monetary Policy

Core CPI less fresh food and energy is expected to maintain around +2% y/y. We assume that the Bank of Japan (BOJ) will raise the short-term interest rate to 0.50% in the Jan-Mar 2025 period, followed by additional rate hikes at a pace of once every six months, 0.25%pt at a time (real short-term interest will remain in negative territory).

○Growth in inbound demand

The number of foreigners visiting Japan was 25,070,000 in 2023, and is expected to be 37,000,000 in 2024 and 40,000,000 in 2025. (Real inbound consumption amount is expected to grow from 4.5 tril yen in 2023 to 6.6 tril yen in 2024, and then to 7.0 tril yen in 2025.) The number of foreign tourists visiting Japan is expected to be supported by visitors from faraway locations such as North America and Australia, and visitors from China, down by 20% in comparison to the period before the Corona crisis, are expected to increase only moderately through 2025 due to the slowdown in the Chinese economy.

○High level of household savings

Since the end of December 2021, just after the decline in real wages, household financial assets have grown by +169 tril yen as of the end of June 2024 (+145 tril yen on a net basis excluding liabilities). With the recent comeback in the stock market, consumption may get a boost from the wealth effect.

○Recovery of the silicon cycle

The silicon cycle entered a recovery phase in 2024, but is expected to see a slowdown in the pace of recovery through 2025. The balance of shipments and inventories in the electronic components and devices industry in Taiwan and South Korea, which have a high market share in advanced semiconductors and other products, is showing signs of peaking out.

Downside Risks to Japan's Economy

○Downturn in US economy due to "Trump 2.0" and long-term monetary tightening

A second Trump administration will bring additional tariffs and strengthen immigration restrictions while decreasing taxes significantly, which could shrink the US GDP by a maximum of -3.4% and raise CPI by +2.8%. Despite the worsening of the employment situation, the FRB will find it difficult to cut interest rates in order to hold down inflation, and if monetary tightening moves into the long-term, it could lead to recession and a correction in stock prices. (Stock price lows as have been seen in past recessions could lead to a negative wealth effect and cause the US real GDP to decline by 0.8%.)

○Suppression of Economic Activity Due to Intensification of US-China Conflict and Strengthening of Economic Security Measures

Full-fledged restrictions on Japanese exports of semiconductor manufacturing equipment to China will cause Japan's exports to decline by over 2 tril yen. Japan may also participate in the US restrictions on investment in China (enforced in January 2013), and there is also the possibility that China may strengthen its restrictions on the export of rare earths and other important materials as a retaliatory measure.

○Growing tensions in the Middle East and Ukraine

If the price of crude oil were to rise to 150 USD/bbl, the impact on Japan's real GDP (annual basis) would be around -0.8%.

○Rapid Appreciation of the Yen

The effect on Japan's real GDP if the yen appreciates by 10 yen to the dollar (on an annual basis) would be around -0.2%. Differences in the directions of the monetary policies of the US and Japan and economic recession in the US will also make purchasing power parity (around 90-120 yen/dlr) more noticeable.

○Emergence of China's excessive debt problem

China's excess capital stock totals 2,840 tril yen (deviation of the capital coefficient from its long-term trend) due to stagnant technology and other factors.

Source: Various Sources; compiled by DIR.

The Ishiba administration is promoting the formulation of economic measures. The details remained unclear at the time of the writing of this report, hence we were unable to reflect the effects of said measures in our economic outlook[8]. However, according to news broadcasts, the scale of government programs is said to be around 39 tril yen, with financial expenditures of around 21.9 tril yen to be worked into the supplemental budget. The plan includes benefits for low-income households, the resumption and extension of measures against high energy prices, and support for the semiconductor and artificial intelligence (AI) sectors, while some of the Democratic Party For the People's policies agreed to in policy cooperation with the ruling party, such as measures against the "1.03-million-yen annual income barrier," will be addressed through tax reform.

While the economic measures will provide support for Japan's economy for some time to come, it will likely become extremely difficult to attain the fiscal consolidation target of getting the national/local government primary balance back in the black in FY2025.

The recovery in the number of foreign visitors to Japan has been a powerful boost to Japan's economy from the fall of 2022 through the spring of 2024. However, growth has slowed since that time. One factor is the slow recovery in the number of tourists visiting from China. In the most recent figures from October 2024, the number of visitors from China was at a low level, -20% in comparison to the same month in 2019. This does not mean that Japan is no longer as attractive as a tourist destination. Rather, the effects of China's economic slowdown are thought to have kept down the number of Chinese tourists[9]. China's economic slowdown is expected to continue for some time, hence the recovery in the number of visitors to Japan from China will likely recover at a moderate pace in the future. The number of foreign tourists visiting Japan totaled 25,070,000 in 2023 with amount in real consumption at 4.5 tril yen. This is expected to grow to around 37,000,000 as of 2024 with amount in real consumption at around 6.6 tril yen, and is expected to reach around 40 million visitors in 2025 with consumption of around 7.0 tril yen.

The high level of household savings is expected to continue providing underlying support for personal consumption. Since the end of December 2021, before the decline in real wages, household financial assets have grown by +169 tril yen, reaching 2,212 tril yen as of the end of June 2024 (+145 tril yen on a net basis excluding liabilities, totaling 1,819 tril yen). The stock market showed some instability on August 5 when the Nikkei Stock Average recorded its largest-ever decline, but has since been gradually recovering due to a series of solid US economic indicators and expectations for expansionary fiscal policies in the US and Japan. Continued recovery in stock prices could boost personal consumption and other sectors through the asset effect.

The silicon cycle as seen in global semiconductor sales shifted in the positive direction for the first time in one year and three-months in November 2023. The index of industrial production for electronic parts and devices has continued in a growth trend reflecting the recovery of the silicon cycle. However, according to the leading SOX Index (the PHLX Semiconductor Sector Index™), the cycle shows signs of peaking out. The pace of recovery in the balance of shipments and inventories in the electronic components and devices industry in Taiwan and South Korea, which have a high market share in advanced semiconductors and other products, has begun to slow. Considering the fact that the silicon cycle tends to last around four years, it should continue to boost domestic production of semiconductor-related goods, but its momentum will likely slow during the course of 2025.

[8] Since public investment is expected to remain at a high level due to the "The Five-Year Acceleration Plan for Disaster Prevention, Disaster Mitigation, and Building National Resilience," the public investment forecast assumes a preliminary budget increase due to supplementary budget compilation, while taking into account past trends.
[9] For details, see the DIR report dated 18 November, 2024 by Akane Yamaguchi, "China's Economic Slowdown Casts Shadow on Japan's Inbound Consumption" (Japanese only).

Downside Risks to Japan's Economy

The major downside risks to Japan's economy are many, centering on overseas economies. Concretely speaking, these are "Downturn in US economy due to "Trump 2.0" and long-term monetary tightening," "Suppression of Economic Activity Due to Intensification of US-China Conflict and Strengthening of Economic Security Measures," "Growing tensions in the Middle East and Ukraine," "Rapid Appreciation of the Yen," and "Emergence of China's excessive debt problem" (Chart 4)[10].

There is tremendous uncertainty regarding the policies of the incoming U.S. administration of President Trump ("Trump 2.0"), which will start in January 2025, and the resulting impact on economic activity. Based on Trump's statements during the presidential election, additional tariff measures, tighter immigration restrictions, and large tax cuts are expected after his administration takes office. These measures will increase upward pressure on prices from both the supply and demand sides, and may once again accelerate inflation, which has been slowing.

In our report dated 10 June 2024, *Japan's Economic Outlook No. 221 Update* (Japanese only), we estimated that "Trump 2.0" may bring a decline in GDP of up to 3.4% while raising CPI by 2.8% (Chart 5). Meanwhile, if China implements retaliatory measures such as additional tariffs on goods imported from the US, both the US and the global economy would be reduced further.

The US employment situation is gradually worsening, but even if the pace of the worsening accelerates as described above, it will be difficult for the FRB to continue to implement interest rate cuts in order to hold down inflation. As a result, tight monetary conditions will go into the long-term, threatening to cause recession and a correction in stock prices. If stock price lows occur at the same level as past periods of recession, the US real GDP is estimated to be reduced by around 0.8% through the negative wealth effect[11].

Estimates of Risks Associated with Policies of Incoming Trump Administration (Trump 2.0) **Chart 5**

(%、%pt)

			Policy Description				
	Maximum	Moderate	Increased Tariffs		Immigration Restrictions		Tax Cuts
			Max	Mod.	Max	Mod.	
US Real GDP	**-3.40**	**-0.67**	-1.84	-0.70	-0.45	-0.21	0.83
US CPI	**2.75**	**0.84**	2.33	0.57	0.28	0.13	0.14
China Real GDP	-1.13	-0.60	-1.29	-0.86	-0.19	-0.09	0.34
Japan Real GDP	-0.48	-0.15	-0.66	-0.44	-0.21	-0.10	0.39

Source: IMF, OECD, CBO; compiled by DIR.

Note: Estimates were performed based on the following assumptions. In relation to GDP, effects of raising tariffs were estimated using the DIR macro model, and effects of immigration restrictions were estimated using the rate of decline in working population. The effects of tax cuts were estimated using the average estimates of public institutions. For details see our report dated 10 June 2024, *Japan's Economic Outlook No. 221 (Update),* (Japanese only).

Maximum Tariff Increase: 60% tariff on China and 10% for rest of world
Moderate Tariff Increase: 40% tariff on China and approximately twice amount of current tariff for rest of the world
Maximum Immigration Restrictions: All immigration halted
Moderate Immigration Restrictions: Only illegal immigration halted
Tax Cuts: Extension of Trump tax cuts of 2017

The downside risk associated with intensification of US-China conflict is the suppression of economic activity due to the strengthening of economic security measures. In response to a request from the US regarding export controls to China, Japan strengthened export controls on advanced semiconductor

[10] For more background on the effects of "Growing tensions in the Middle East and Ukraine" on the high price of crude oil, and "Emergence of China's excessive debt problem," see our report dated 11 March 2024, *Japan's Economic Outlook No. 220 Update* (Japanese only). For more detail on "Rapid Appreciation of the Yen," see our report dated 9 September 2024, *Japan's Economic Outlook No. 222 Update* (Japanese only).

[11] This estimate was calculated by multiplying the average stock price decline during past US recessions by the elasticity of the US consumption function shown in Chart 4-9 in our report dated 8 September 2021, *Japan's Economic Outlook No. 210 Update* (Japanese only).

manufacturing equipment and other products in July 2023, and expanded the range of products subject to such controls in September 2024. If semiconductor production equipment exports to China are fully restricted, the total impact on Japan's GDP is estimated to be around -2.6 tril yen (-0.4% of GDP), including a decrease in exports and negative spillover effects due to domestic production cuts[12].

In the future, there is a possibility that Japan will implement similar regulations in sync with the US investment restrictions on China that will take effect in January 2025, and that China will tighten export controls on rare metals and other critical commodities as a retaliatory measure. Meanwhile, President-elect Trump has indicated his intention to withdraw from the Indo-Pacific Economic Framework (IPEF), which is led by the US and in which Japan participates as an actual encirclement of China. Japanese firms' supply chains could be affected by the US withdrawal.

[12] For details see the DIR report by Kazuma Kishikawa dated 6 September 2024, *Points of Note in New Economic Security Situation (1)* (Japanese only).

3. Outlook for Prices and Monetary Policy

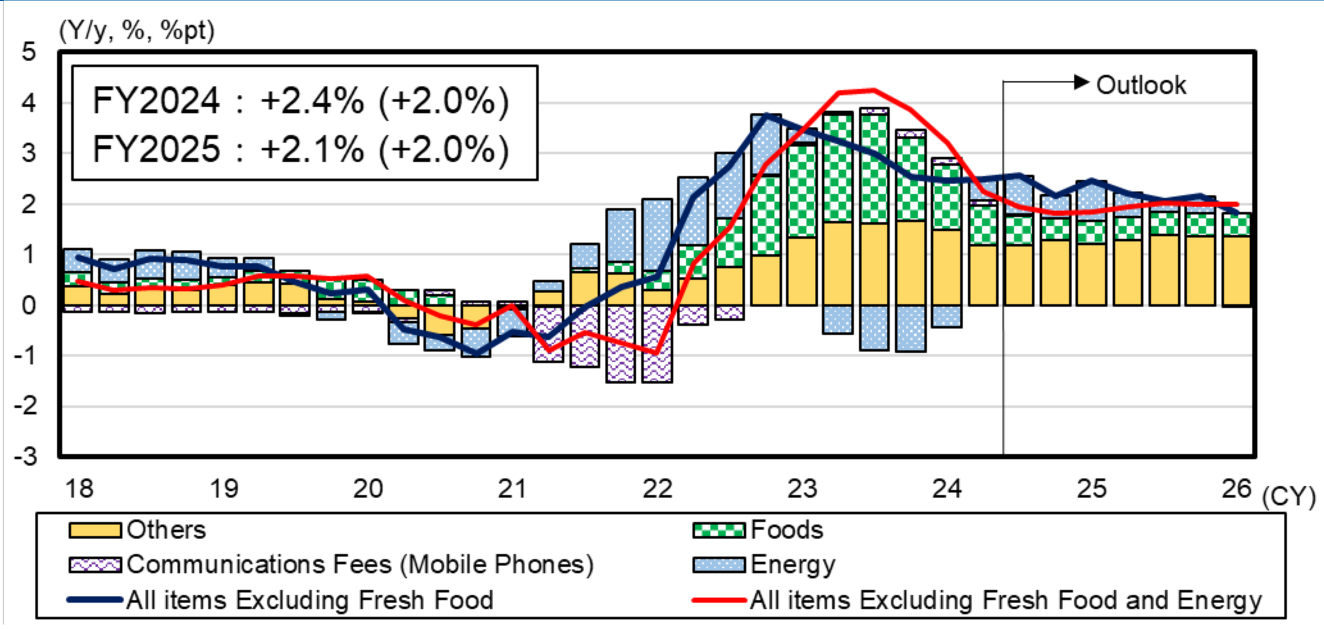
Outlook for new core-core CPI around +2% y/y in both FY2024 and FY2025

On an all items basis, less fresh food, core CPI is projected to increase by +2.5% y/y in FY2024, and +2.0% in FY2025 (Chart 6). On an all items basis, less fresh food and energy (new core-core CPI), the forecast is +2.1% in FY2024 and +2.0% in FY2025. As in our previous outlook, we expect the cyclical increase in wages and prices to become the norm , with new core-core CPI maintaining stable growth of around +2% y/y.

Details are provided later in this report, but the major cause of price increases has shifted from growth in intermediate input costs (the first force according to the BOJ[13]), to growth in personnel expenses (referred to as the second force). Behind this is the structural issue of the worsening labor shortage, hence the move toward wage hikes on the part of corporations will likely continue. The trend of passing on the associated increase in labor costs to sales prices will also continue.

As for energy, the government implemented “Emergency Assistance for Overcoming Severe Summer Heat” between August and October 2024, and the fuel subsidy program to curb extreme price increases (gasoline subsidy) will continue with a limitation within the year. Meanwhile, according to news broadcasts, the government will resume the subsidy for electricity and gas expenses and extend the fuel subsidy program. Details such as amount of the subsidies and period covered had not been determined at the time of the writing of this report, but if they are implemented, they will likely become a factor bringing downward pressure on the CPI growth rate.

Outlook for CPI (Excluding Fresh Food; Figures in Parenthesis Excluding Fresh Food and Energy)
Chart 6



Source: Ministry of Internal Affairs and Communications; compiled by DIR.
Note: Price outlook assuming resource prices and exchange rates at the time of preparation. Assumes that subsidies for electricity and gas will be implemented from August to October 2024 as “Emergency Assistance for Overcoming Severe Summer Heat (originally in Japanese; translated by DIR),” and the fuel subsidy program to curb extreme price increases (gasoline subsidy) will continue until the end of December.

Even if exchange rate moves in range of 165 yen/dlr, effect on boosting CPI growth rate would be only 0.15%

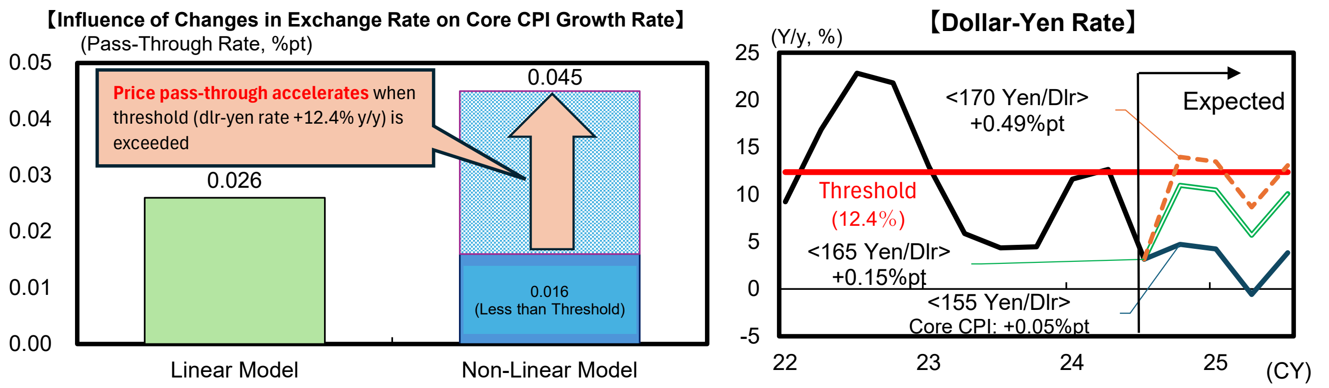
The one risk factor that would lead to higher prices is the direction of yen depreciation. The depreciation of the yen has progressed rapidly in recent months, hitting the upper range of the 161 yen/dlr level at

[13] Speech by Governor UEDA in Osaka (Japan's Economy and Monetary Policy) : Bank of Japan (2023/9/25)

one point in July 2024. However, the BOJ raised the short-term interest rate to 0.25% in response to growing opinions that the FRB was moving toward lowering the US interest rate. As a result of the strong awareness of the difference in directions of the US and Japan interest policies, the exchange rate shifted to a stronger yen, reaching 140 yen/dlr at one point in mid-September. Then fears that the US economy was worsening abated, and the yen/dlr rate reverted to the strong dollar – weak yen trend, recently moving in a range of around 155 yen/dlr.

The rapid depreciation of the yen has made corporations more aggressive in their pricing activities, pushing up the growth rate in prices in a non-linear manner[14]. Using a model that takes such corporate behavior into account, Chart 7 shows the estimated impact (pass-through rate) of change in the dollar-yen rate on the rate of increase in core CPI.

Influence of Non-Linear Fluctuations in Exchange Rate on Prices (Left); Weak Yen's Upward Pressure on Prices **Chart 7**



Source: Ministry of Internal Affairs and Communications, Ministry of Health, Labour and Welfare, Bank of Japan, "Nonlinear Input Cost Pass-through to Consumer Prices: A Threshold Approach" (Bank of Japan Working Paper Series, No. 23-E-9) Takatoshi Sasaki, Hiroki Yamamoto, Jouchi Nakajima (2023); compiled by DIR.

Notes: 1) The dependent variable is Core CPI, the explanatory variables are corporate prices, the dlr-yen rate, and nominal wages. The estimate period is Jan-Mar period of 1990 to Oct-Dec period of 2023. Optimal thresholds for each explanatory variable are set by grid search in 0.1 increments within a range of 0.5 to 2.0 times the standard deviation. The lag for each variable ranges from one to four periods, with the optimal order set by AIC. The pass-through rate is a value indicating how many percentage points of change in the rate of increase in core CPI would result from a 1%pt change in the dlr-yen rate from the previous year.
2) For more detail on the method of setting thresholds and variable lags see Sasaki, Yamamoto, Nakajima (2023).

If we assume non-linearity in corporate price setting activities, the results suggest that when the dollar-yen rate exceeds +12.4% y/y (the threshold), corporations tend to increase the degree of price pass-through. When the rate of change in the dollar-yen rate exceeds the threshold, the pass-through rate increases about threefold, from 0.016%pt to 0.045%pt, which is much higher than estimates according to models which do not take nonlinearity into consideration (0.026%pt) (Chart 7 left).

Chart 7 right shows estimates of upward pressure on prices for each dollar-yen rate case based on the results of this estimate. Even if the yen weakens further with the dollar-yen rate moving in the range of 165 yen/dlr, partly due to the fact that the previous year's level was high, the y/y growth rate in dollar-yen rate will not exceed the threshold. As a result, upward pressure on the Core CPI growth rate will rise only as far as 0.15%pt. Upward pressure in the case of a yen-dollar rate level in the range that has most recently been experienced (155 yen/dlr) would be around 0.05%pt. We must remain aware that if the rate reaches 170 yen/dlr, thereby exceeding the threshold, upward pressure will rise significantly by 0.49%pt, but at this point in time, we believe that the risk of a high rate of growth in Core CPI due to the progressively weak yen is low.

[14] For more background on this mechanism, see the DIR report dated 3 June 2024 by Shotaro Kugo and Kanako Nakamura, Rising Risk of Inflation as Yen Depreciation Progresses and Monetary Policy (Japanese only).

The main cause of price increases has already shifted from the "first force" to the "second force"

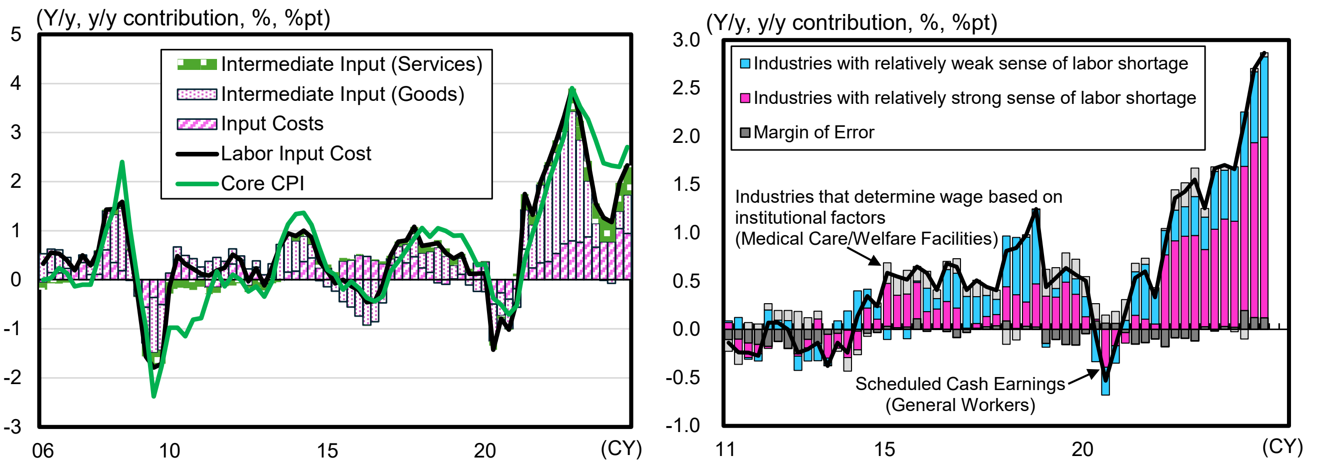
It appears that the major cause of price increases has shifted from growth in intermediate input costs (the first force according to the BOJ), to growth in personnel expenses (referred to as the second force).

Chart 8 left shows changes in corporate input costs and core CPI. The two are highly interlinked, and the factors that cause CPI to rise can be captured in terms of input costs. Looking at the years 2022 and 2023 when the core CPI growth rate rose rapidly, we can see that the extent of contribution to growth from intermediate inputs (goods) was large. In addition to resource highs, the rapid progression in the weak yen caused the intermediate input costs of corporations to rise sharply, and this led to the rapid rise in the core CPI growth rate. However, more recently, this tendency has run its course, and now the major cause of rising costs for corporations is labor input.

For this reason, it is important to take into consideration the question of whether or not growth in labor input will continue when thinking about the future of the core CPI growth rate. In order to find what is behind the growth in costs, the right-hand side of Chart 8 classifies the contribution of scheduled cash earnings (compared to the previous year), which is part of labor input costs, by industry into industries with a relatively strong sense of labor shortage and those with a relatively weak sense of labor shortage. Scheduled cash earnings have been rising at a faster pace recently, with the contribution from industries where labor shortages are particularly severe being particularly large.

The structural factor of labor shortages due to labor supply constraints and other factors is thought to be strengthening the "second force." Corporations are proactive in investing in labor-saving measures, but with the labor force about to peak out, it will be difficult to resolve in the short term. Wage increases to secure personnel and upward pressure on prices due to the passing on of increased labor costs are expected to continue[15].

Corporate Input Costs and Changes in CPI (Left); Breakdown of Scheduled Earnings (Right) Chart 8



Source: Cabinet Office, Bank of Japan, Ministry of Internal Affairs and Communications, Ministry of Health, Labour and Welfare; compiled by DIR.

Notes: 1) The input costs in the left side chart are weighted average values calculated by using the Corporate Price Index (Bank of Japan), Corporate Services Price Index (same source), Monthly Labor Survey (Ministry of Health, Labour and Welfare), etc. to calculate the rate of change in input costs for each industry from the intermediate input weights and labor input weights in the 2015 Input-Output Table, and then weighting the result by household final consumption expenditure weights.

2) The relatively strong and weak labor shortages in the right side chart are classified according to the Employment Conditions DI for each industry in the Bank of Japan's Tankan survey (actual result).

[15] By industry, however, it should be noted that the cyclical increase in wages and prices has lagged, especially in the household non-manufacturing sector. For details, see the DIR report dated 20 November 2024 by Kanako Nakamura and Shotaro Kugo, Evaluation of Progress of 'Virtuous Circle of Wages and Prices' and Challenges to Establishing It (Japanese only).

BOJ will raise short-term interest rate to 0.50% in January 2025, and subsequently raise rates at a moderate pace

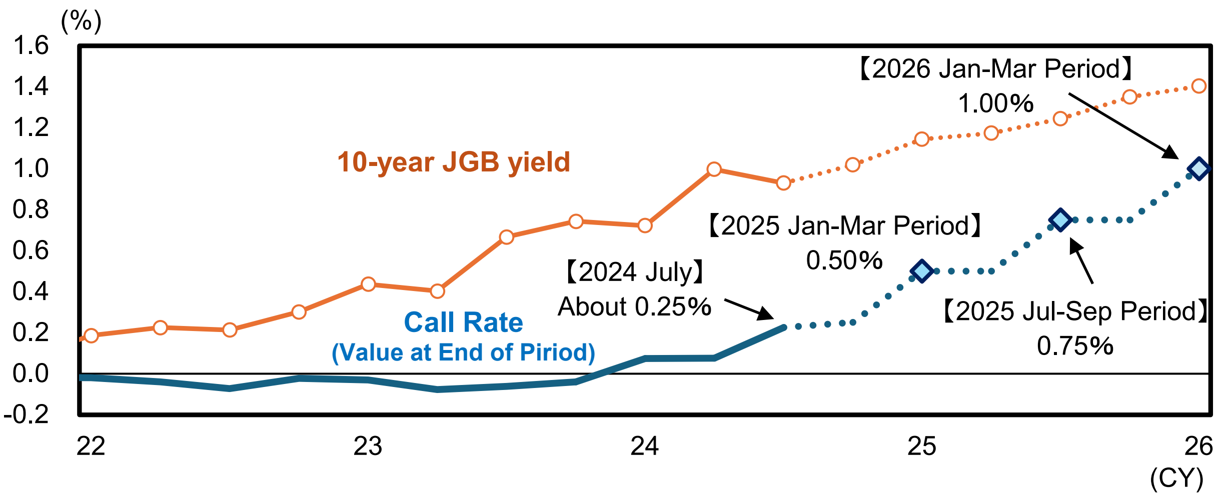
We assume that the Bank of Japan (BOJ) will implement additional interest rate hikes at a moderate pace while closely monitoring economic and price conditions. According to our main scenario, the short-term interest rate will be raised to 0.50% in the Jan-Mar 2025 period (in January on a monthly basis), followed by additional rate hikes at a pace of once every six months, 0.25%pt at a time (Chart 9).

The real short-term interest rate (found by subtracting the growth rate in prices from the call rate) is expected to rise gradually, but will remain in negative territory throughout the forecast period. Japan's natural rate of interest has recently been estimated to be at around zero[16]. With the real interest rate falling below the natural rate of interest (the real interest rate gap is negative), an accommodative financial environment is expected to be maintained throughout the forecast period.

As for the risk of additional interest rate hikes occurring sooner than our assumptions, this could occur if the yen weakens at a rapid pace. As was mentioned earlier in this report, if the dollar-yen rate continues around the same level as recently, it will not bring major upward pressure on growth in prices, but this will not necessarily hold in the case of major depreciation of the yen such as the rate's exceeding 170 yen/dlr. If the possibility of the CPI growth rate exceeding the price stability target of 2% by a great amount increases, the BOJ will most likely implement additional interest rate hikes earlier than planned, as a means of holding down the risk of rising prices.

We expect the yield on the 10-year JGB (long-term interest rate) to rise to around 1.40% in the final stage of the forecast period (Chart 9). The BOJ's interest rate hikes will be a factor in pushing up long-term interest rates. On the other hand, we assume that the Fed will continue cutting interest rates in the US throughout the forecast period. US long-term interest rates are expected to decline gradually, which will bring downward pressure on Japan's long-term interest rate.

Outlook for Long and Short-Term Interest Rates in Japan **Chart 9**



Source: Ministry of Finance, Bank of Japan; compiled by DIR.
Note: The long-term interest rate is a period average, while the short-term interest rate is the value as of the end of the period. Dotted lines are DIR estimates.

[16] For details see our report of 11 March 2024 *Japan's Economic Outlook No. 220 Update* (Japanese only).

Japan’s Economic Outlook No. 223 (November 21, 2024) Chart 10

		2023			2024				2025				2026	FY2023 (CY)	FY2024 (CY)	FY2025 (CY)
		Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar			
Real GDP	Y tril; annualized	562.9	557.2	557.7	554.3	557.3	558.5	561.6	564.5	566.4	567.8	569.2	570.5	558.1	560.7	568.6
	Q/q %	0.6	−1.0	0.1	−0.6	0.5	0.2	0.6	0.5	0.3	0.3	0.2	0.2			
	Q/q %; annualized	2.6	−4.0	0.4	−2.4	2.2	0.9	2.2	2.1	1.3	1.0	1.0	0.9			
	Y/y %	1.9	1.3	0.9	−0.8	−1.1	0.3	0.7	1.8	1.7	1.6	1.3	1.1	0.8	0.5	1.4
														(1.7)	(−0.2)	(1.6)
Private Consumption	Q/q %	−0.7	−0.4	−0.3	−0.6	0.7	0.9	0.4	0.4	0.3	0.2	0.2	0.2	−0.6	1.0	1.4
Private Residential Investment	Q/q %	1.2	−0.9	−1.0	−2.9	1.4	−0.1	−0.8	−0.4	−0.5	−0.5	−0.5	−0.5	0.3	−2.0	−2.1
Private Non-Resi. Investment	Q/q %	−2.2	−0.1	2.1	−0.4	0.9	−0.2	0.7	0.4	0.5	0.5	0.6	0.6	0.3	1.9	2.0
Government Consumption	Q/q %	−1.2	0.5	−0.1	0.3	0.1	0.5	−0.1	0.2	0.2	0.2	0.2	0.2	−0.5	0.8	0.8
Public investment	Q/q %	1.0	−2.0	−1.7	−1.1	4.1	−0.9	−0.9	0.0	0.3	0.3	0.3	0.3	0.6	1.2	0.0
Exports	Q/q %	3.1	0.2	2.9	−4.5	2.6	0.4	1.5	0.9	0.6	0.4	0.4	0.3	2.8	1.9	2.6
Imports	Q/q %	−4.1	0.9	2.4	−2.4	2.9	2.1	−0.8	0.0	0.4	0.4	0.4	0.4	−3.2	3.6	1.1
Nominal GDP	Q/q %; annualized	8.3	−0.6	3.2	−1.0	7.0	2.1	4.1	3.7	2.6	2.3	2.2	2.0	4.9	3.0	2.8
GDP deflator	Y/y	3.8	5.3	4.0	3.4	3.1	2.5	2.4	2.3	1.5	1.5	1.3	1.2	4.1	2.6	1.4
Industrial production	Q/q	1.2	−1.4	1.1	−5.1	2.7	−0.4	3.1	0.9	0.4	0.4	0.3	0.3	−1.9	0.4	3.1
Core CPI	Y/y	3.2	3.0	2.5	2.5	2.5	2.7	2.5	2.6	2.2	2.0	2.2	1.8	2.8	2.5	2.0
Unemployment rate	%	2.6	2.6	2.5	2.5	2.6	2.5	2.5	2.4	2.4	2.3	2.3	2.3	2.6	2.5	2.3
Trade balance (goods, services)	Y tril; annualized	−0.08	−0.06	−0.04	0.07	0.08	0.23	0.25	0.50	0.50	0.75	0.75	1.00	0.07	0.50	1.00
Current account balance	Y tril; annualized	0.40	0.67	0.74	0.72	1.00	0.93	1.02	1.14	1.17	1.24	1.35	1.40	0.63	1.02	1.29
Major assumptions																
Crude oil price (WTI futures)	$/bbl	73.6	82.2	78.5	76.9	80.7	75.3	70.2	69.4	69.4	69.4	69.4	69.4	77.8	73.9	69.4
Exchange rate	Yen/$	137.4	144.5	147.9	148.5	155.8	149.1	152.9	154.7	154.7	154.7	154.7	154.7	144.6	153.1	154.7

Source: Compiled by DIR.

Note: Shaded areas are DIR estimates. The price of crude oil and the exchange rate are assumed to be fixed at recent levels.