7 December 2022 (No. of pages:14)

Japanese report: 22 Nov 2022

Japan's Economy: Monthly Outlook (Nov 2022)

Economic outlook revised; economic effects and challenges of Comprehensive Economic Measures

Economic Research Dept.

Keiji Kanda

Shotaro Kugo

Wakaba Kobayashi

Kazuma Kishikawa

Kanako Nakamura

Summary

- In light of the announcement of the Jul-Sep 2022 GDP 1st preliminary results, we have revised our economic outlook. We now see growth in Japan's real GDP at +2.2% in FY2022, with FY2023 at +1.6%. We expect a recovery in domestic consumption, including inbound consumption by foreign tourists visiting Japan, as well as recovery production in motor vehicles as a result of the resolution of the shortage in semiconductors. We expect positive growth to continue despite the slowdown in the global economy with accommodative fiscal and monetary policies providing underlying support for the economy. Domestic inflation retains a strong cost push factor, but if a major increase in wages becomes manifest in the spring 2023 wage negotiations, discussions regarding an exit strategy from the current monetary policy will likely become active.

- The government's Comprehensive Economic Measures are expected to boost real GDP by around 7.0 tril yen. Regarding the effects of the measures to prevent high energy costs, which are the centerpiece of the project, the standard household indicated by the government is not the average household on a macro scale, and the actual burden reduction for many households may be less than that of the standard household. Japan's challenge as an energy importing nation is to reduce the volume of its use of fossil fuels. Household savings have accumulated significantly since the spread of COVID-19, a phenomenon which is especially prominent amongst high income households. In addition, considering the fact that corporate business results are favorable in most industries, efforts to lighten the burden should be focused on low income households and some corporations.

1. Economic Recovery Continues with Normalization of Economy and Accommodative Fiscal and Monetary Policies

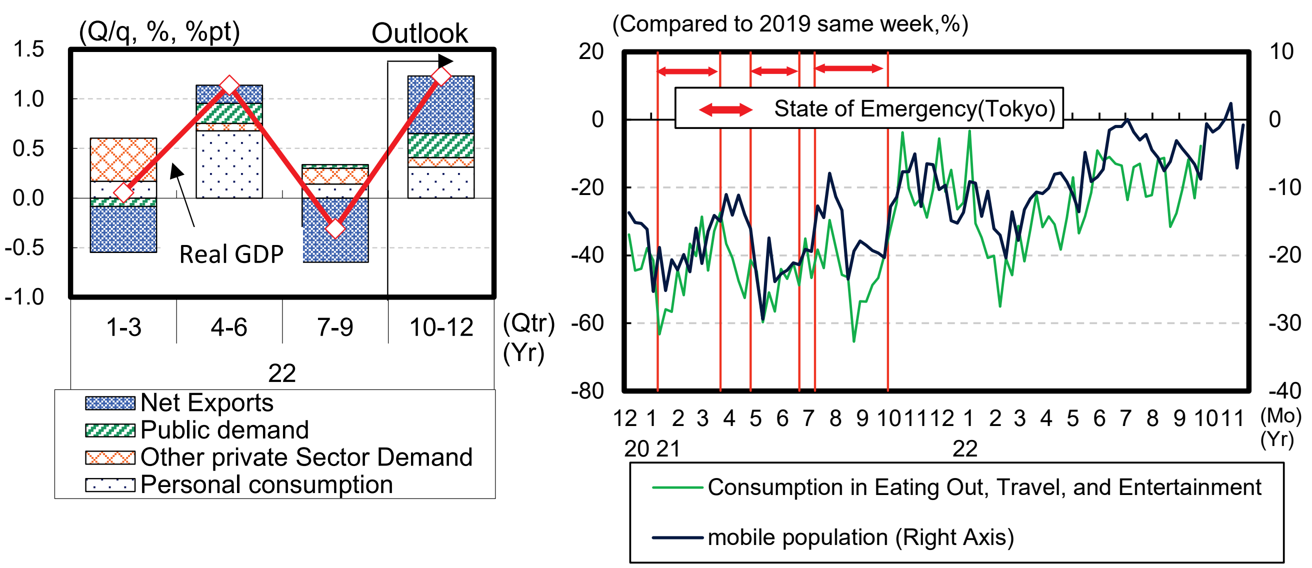
Jul-Sep period real GDP not bad despite turn toward negative growth

The real GDP growth rate for Jul-Sep 2022 was -1.2% q/q annualized (-0.3% q/q), the first time in four quarters that negative growth has been recorded[1]. Most private sector research institutes including DIR predicted positive growth, but sharp growth in the import of services, considered to be a temporary phenomenon, brought major downward pressure on GDP (Chart 1). In addition, the upward revision of the Apr-Jun period real GDP growth rate from +3.5% q/q annualized to +4.6% due to a revision based on seasonally adjusted figures was also influential.

Economic activity was hindered by the resurgence of COVID-19 infections (the 7th wave), which began in July. However, this time around there were no government restrictions such as priority measures to prevent the spread of disease, hence spending on eating out, travel and entertainment maintained underlying strength (Chart 1, right), and personal consumption maintained a positive tone. Capex and exports are also growing, suggesting that the economy is actually not as bad as the negative GDP growth rate indicates.

Looking at performance by demand component (Chart 1), in the area of private sector demand, personal consumption and capex grew, while housing investment declined. Changes in inventories also brought downward pressure on the GDP growth rate. As for public sector demand, government consumption and public investment also grew. As for overseas demand, both exports and imports grew, and since growth in imports exceed that of exports, the contribution of net exports (foreign demand) moved deeply into the negative range.

Real GDP Growth Rate Results and Outlook (Left); Mobile Population and Consumption in Eating Out, Travel, and Entertainment (Right) — Chart 1



Source: Cabinet Office, Ministry of Internal Affairs and Communications, V-RESAS; compiled by DIR.
Notes: 1) Figures on the left side of the chart are seasonally adjusted.
2) The mobile population shown on the right is the weekly total for all municipalities of the population of persons whose estimated place of residence is outside the local municipality. Eating out, travel, and entertainment-related consumption is the sum of eating out, transportation, and education and entertainment services.

[1] See the DIR report by Keiji Kanda and Wakaba Kobayashi dated 15 November 2022, *Jul-Sep 2022 1st Preliminary GDP Estimate*.

Real GDI suffers negative growth exceeding that of real GDP due to further worsening of terms of trade

Against a backdrop of resource price highs etc., Jul-Sep period terms of trade deteriorated further in comparison to the previous period, with the import deflator rising at a pace exceeding that of the export deflator. Meanwhile, trading losses[2], which are an expression of income flowing out of Japan overseas through worsening terms of trade, amounted to -19.7 tril yen as of the Jul-Sep 2022 period, an increase in the margin of decline of 3.6 tril yen in comparison with the previous period. As a result, the growth rate of real Gross Domestic Income after adding trading losses from real GDP was at -3.9% q/q annualized. Real GDI growth rate has continued to fall below that of real GDP since the Jan-Mar period of 2021. However, growth in household and corporate burden has been mitigated somewhat by government measures to counter high prices, such as subsidies for drastically reducing fuel oil prices (so-called gasoline subsidies).

Real GDP growth rate in Oct-Dec period expected to shift into positive growth

Our outlook for the real GDP growth rate in the Oct-Dec period of 2022 sees growth of +5.0% q/q annualized (Chart 1, left). In addition to a reactionary decline in the import of services, personal consumption and capex are expected to provide a boost to GDP. Growth in inbound consumption by foreign tourists visiting Japan is also expected due to the easing of border measures. Motor vehicle production will also likely achieve moderate growth with progress in the mitigation of the shortage in semiconductors.

However, the number of new COVID-19 infections per day has been on the rise recently, and there is growing concern about the 8th wave of infections. On November 18, the government held a meeting of the Novel Coronavirus Response Headquarters Infections and decided on new measures to prevent the spread of infection in preparation for the COVID-19 infections (the 8th wave)[3]. Prefectures will be able to issue declarations of enhanced measures to prevent medical emergencies and declarations of medical emergencies, and request people to refrain from leaving their homes, etc., depending on the infection situation and the level of medical urgency. In the Oct-Dec period, Nationwide Travel Support and other factors are expected to support a recovery in consumer spending, but depending on the infection situation, economic activity may be restrained on a regional basis.

Faced with high inflation and monetary tightening, real GDP in the US and the eurozone both showed positive growth in the Jul-Sep period. While this confirms that economic activity remains resilient, it should be noted that exports of goods to Europe and the US may swing downward in the Oct-Dec period, as the negative impact of a sharp interest rate hike on economic activity will be delayed.

Outlook for overseas economies: Risk of recession in US and Europe and continuation of China's zero-Covid policy weigh heavily

Chart 2 illustrates trends in Japan’s real GDP according to our main scenario, and the outlook for overseas economies which is one of the assumptions in our outlook. The DIR outlook for overseas economies is based on the latest predictions of our experts on the economies of each of the countries covered (as of November 21).

We expect the real GDP growth rate in 2022 to record +1.9% in the US in comparison with the previous year, with the Eurozone at +3.2%, and China at +3.0%. As for the US, GDP was affected by the economic slowdown in the Jul-Sep period of 2022, but ultimately positive growth was achieved for the first time in three quarters with the support of personal consumption. We revised our outlook upwards

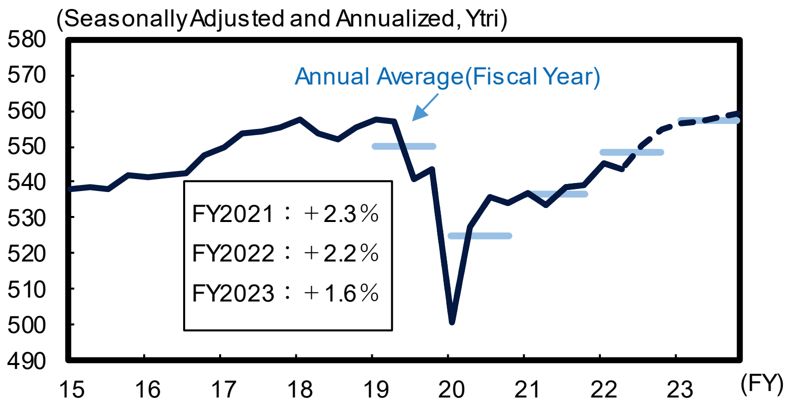
[2] Loss (gain if positive) due to changes in terms of trade from the base year of the deflator (currently 2015). It should be noted that the amount of loss or gain is revised when the base year is changed.

[3] Novel Coronavirus Response Headquarters, "Response to the Increased Burden on Health and Medical Services Due to the Spread of Infection Since this Fall" (November 18, 2022, Japanese only).

by 0.2%pts in comparison to our September 8 report, *"Japan's Economic Outlook No. 214 Update"* (our previous outlook, Japanese only). Meanwhile, our outlook for the Eurozone was revised upwards by 0.2%pt due to unexpected positive growth during the Jul-Sep period despite high inflation and concerns associated with influence of the Ukraine crisis. As for China, the forecast was revised downward by 1.0%pt based on the maintenance of the zero-Covid policy at the National Congress of the Chinese Communist Party held in October (the congress is held once every five years), and the worsening COVID-19 infection situation.

Real GDP growth in 2023 is expected to be +0.7% y/y in the US, +0.1% y/y in the eurozone, and +4.5% y/y in China. In the US, the forecast was revised downward by 0.2%pt from our previous outlook, mainly due to persistent inflationary pressures and a larger necessary interest rate hike. In the eurozone, the forecast was revised downward by 0.5%pt, reflecting the same persistent inflationary pressures as in the US and the growing likelihood that the Ukraine crisis will be further protracted. In China, the forecast was revised downward by 1.1%pt, reflecting the maintenance of the zero-Covid policy and the deteriorating economic outlook for major export destinations, including the US and Europe.

Outlook for Japan's Real GDP and Assumptions Regarding Overseas Economies **Chart 2**



US, Eurozone & China
Real GDP Growth Rate

US	2021	+5.7%
	2022	+1.9%
	2023	+0.7%
Eurozone	2021	+5.3%
	2022	+3.2%
	2023	+0.1%
China	2021	+8.1%
	2022	+3.0%
	2023	+4.5%

Source: Produced by DIR based on data from Cabinet Office and 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.

Japan's real GDP growth expected to continue positive growth due to economic normalization and accommodative fiscal and monetary policies

With the outlook for overseas economies as described in the above, our main scenario sees Japan's real GDP growth rate in FY2022 at +2.2% y/y, with FY2023 at +1.6% (Chart 2, in terms of calendar year figures are +1.6% in 2022 and +2.2% in 2023). Real GDP is expected to exceed its historic high recorded during the Apr-Jun period of 2019 in the Jan-Mar period of 2024.

Japan's situation differs from that of the major economies of North America and Europe in that there is still a large margin for recovery in demand due to the normalization of the economy. Moreover, Japan is still implementing an accommodative fiscal and monetary policy. In the future, we expect positive growth to continue through FY2023 despite the difficult external environment, with underlying support for the economy coming from the recovery in consumption of services by the Japanese and inbound consumption by foreign tourists visiting Japan. Further support comes from recovery production in motor vehicles due to the resolution of the shortage in semiconductors, and the accommodative fiscal and monetary policy.

Detailed outlooks for personal consumption, exports, and prices are provided below. In Chapter 2 we discuss the comprehensive economic measures mentioned in the summary.

Personal Consumption:

Recovery trend expected to continue due to effects of government measures and mitigation of supply constraints in motor vehicles

Measures to stimulate demand, such as Nationwide Travel Support and the Go To Eat Campaign as well as the easing up of supply constraints due to the shortage of semiconductors in the motor vehicle industry will provide a tailwind for personal consumption and the consumption of durables. Although downward pressure on personal consumption has been brought on by the decline in household purchasing power due to high prices, the influence of this factor is mitigated by the excess savings of over 60 tril yen accumulated after the spread of COVID-19[4]. In addition, support for personal consumption will also likely come from cash benefits of 50,000 yen for households exempt from the resident tax, measures to prevent high energy costs, childcare support measures and other benefits included in the comprehensive economic measures. However, the pace of recovery in personal consumption is expected to be moderate from December through the beginning of 2023 due to the effects of the COVID-19 infections (the 8th wave).

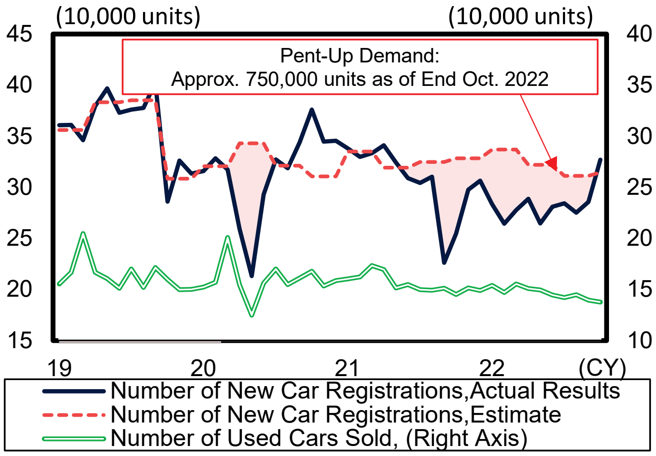
Most local governments plan on implementing the Nationwide Travel Support measures by December 20. The economic effects assuming this date as the deadline for implementation of the measures are calculated at around 0.8 tril yen (direct effects 0.6 tril yen, ripple effects 0.2 tril yen) (Chart 3)[5]. This outlook assumes that Nationwide Travel Support will be implemented with an extension through end March 2023, excluding the year-end through new-year period (Dec. 21 - Jan. 8). If this is the case, economic effects will reach around 1.8 tril yen (direct effects 1.4 tril yen, ripple effects 0.4 tril yen), exceeding the approximately 1.2 tril yen of the Go To Travel Campaign.

Economic Effects of Nationwide Travel Support
Chart 3

	Nationwide Travel Support		Go To Travel
Implementation period	Oct.11-Late Dec. 2022	Extended till End Mar.2023	2nd half of 2020
Economic Effects (Direct Effect)	0.8 tril yen (0.6 tril yen)	1.8 tril yen (1.4 tril yen)	1.2 tril yen (1.0 tril yen)

Source: Produced by DIR based on data from Japan Tourism Agency, Recruit Jalan Research Center.
Note: Nationwide travel support was implemented on Oct. 20 in Tokyo only. Late December end of implementation period is expected to be Dec. 20. If it goes till end March 2023, this will exclude the year-end through new-year period (Dec. 21 - Jan. 8).

Domestic Pent-Up Demand for Passenger Vehicles
Chart 4



Source: Produced by DIR based on data from Bank of Japan, Cabinet Office, Ministry of Internal Affairs and Communications, Japan Automobile Dealers Association, Japan Mini Vehicle Association.
Note: Figures seasonally adjusted by DIR.

[4] If the discrepancy from the trend in household savings seen in 2015-2019 is considered as excess savings, that amount would be calculated at approximately 62 tril yen as of end September 2022. This accounts for 21.5% of the amount of personal consumption in FY2021, significantly exceeding the growth rate in consumer prices in FY2022 (seen at +2.6% y/y).

[5] Economic effects are calculated based on the results of the Go To Travel program and do not take the 8th wave of COVID-19 infections into consideration. For the method of calculation, see the DIR report by Kanako Nakamura and Wakaba Kobayashi dated 27 Sep. 2022, "Will Nationwide Travel Support Act as a Catalyst for Travel Demand?"

The shortage in semiconductors for motor vehicles is easing up, and is expected to be resolved during CY2023. The number of new passenger car sales in Japan in October achieved major growth at +14.5% m/m, the highest it's been since April of 2021 (figures seasonally adjusted by DIR). A situation in which supply is unable to keep up with demand for motor vehicles has become long-term, and pent-up demand (carryover) is estimated to have reached approximately 750,000 units as of end October 2022 (in monetary terms approximately 1.8 tril yen) (Chart 4). If full scale recovery production of motor vehicles gets going in association with the easing up and final resolution of the shortage in semiconductors, demand for durable goods will likely grow significantly, and capex (vehicle purchases by corporations) and exports will also likely receive a boost.

Caution regarding impact on consumer spending due to strengthening budget-minded tendency and new measures to prevent spread of COVID-19

There are two major risk factors that could hinder consumption in the future. These are (1) the strengthening tendency to be budget-minded (the preference to be frugal), and (2) the possibility that new measures to prevent the spread of COVID-19 could be implemented by prefectures if the infection situation worsens. According to the Opinion Survey on the General Public's Views and Behavior conducted by the Bank of Japan targeting individuals age 20 and over, the "Diffusion Index (D.I.) for Economic Conditions One Year from Now" (percentage of responses that it will worsen) was at its lowest level since March 2020 in the most recent September 2022 survey. This is seen as being associated with concerns regarding economic slowdown in the US and Europe, and the Ukraine crisis having become long-term. Also, in answer to the question regarding "Major Factor(s) in the Choice of Goods and Services on Which to Spend for the Year Ahead," the response "low price" was most frequent. The response rate to the survey has increased for four consecutive quarters with the rise in prices and other concerns. With expectations that the situation of global economic slowdown and price highs will continue to progress simultaneously for some time to come, the sense of uncertainty about the future is growing stronger, and the number of households concerned about rising expenditures may increase, even amongst those that have purchasing power.

The influence of new measures to prevent the spread of COVID-19 which the government has decided on in preparation for the coming the infections (the 8th wave), are also a matter of note. If the infection situation becomes as bad or worse than the 7th wave[6], Prefectures can issue a Declaration on Strengthening Measures to Prevent Medical Shortages and request that residents practice restraint in regard to eating together in large groups and participation in large-scale events. If the situation becomes even more serious, a declaration of medical emergency can be issued, allowing for stronger requests such as drastic curbs on work attendance, voluntarily refraining from travel, and postponement of events (shortened hours and closures of restaurants and facilities will not be requested). The declaration for strengthening measures against BA.5 issued by 28 prefectures during the 7th wave requested the elderly and others to refrain from activities with a high risk of infection. This time, residents can be widely requested to refrain from leaving their homes and taking other actions. The declaration of a medical emergency allows for stricter measures than the declaration for strengthening measures against BA.5.

The mobile population recovered to the same level as 2019 from October to early November this year (Chart 1, right). Even if the mobile population declines to the average level of infections (the 7th wave) after mid-November, the mobile population in the Oct-Dec period is still expected to be slightly higher than in the Jul-Sep period. Although the mobile population and real service consumption have recently lost their linkage, even if a Declaration on Strengthening Measures to Prevent Medical Shortages is issued in a wide range of regions, the negative impact on consumption due to a decline in consumer turnout is likely to be limited. However, if a medical emergency were to be declared, there is a possibility

[6] The guideline for the situation of increased healthcare burden is when there is a sharp increase in absenteeism of healthcare workers at priority medical institutions, or when the utilization rate of hospital beds or critical care beds generally exceeds 50%.

that measures to stimulate demand, such as Nationwide Travel Support, would be suspended. If this were to spread nationwide, personal consumption would likely suffer a downswing as it did up through the 6th wave.

Exports:

Exports of goods are expected to grow moderately, but downside risk is high centering on exports to the US and Europe

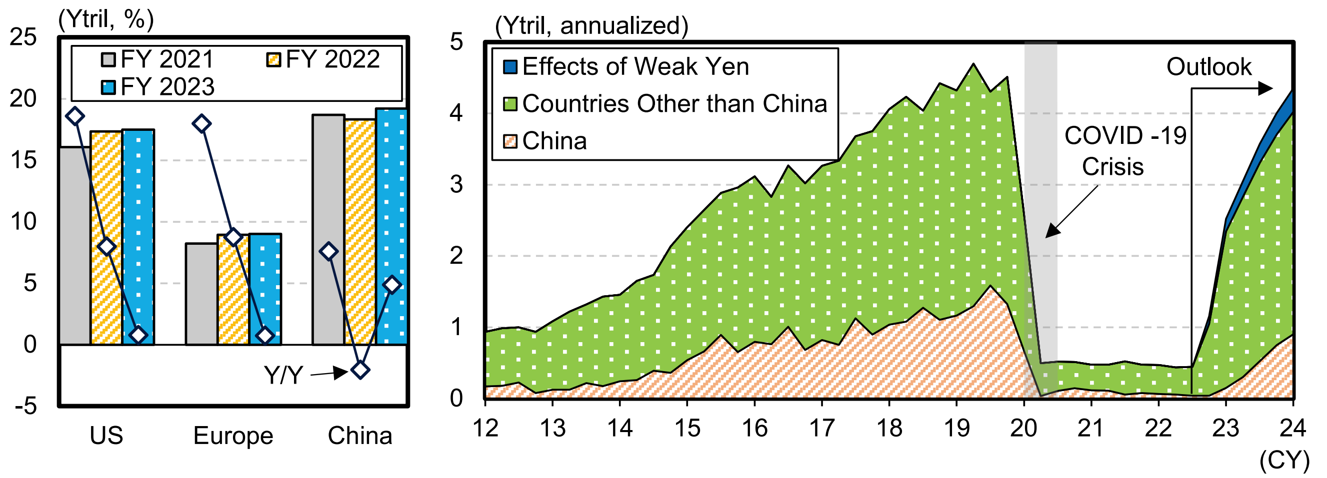
Downside risk is high centering on exports of goods and services to the US and Europe, but the growth trend is expected to continue due to the mitigation of supply constraints and progress in the recovery in inbound demand.

Exports of goods are seen moving toward a moderate growth trend throughout the forecast period. The easing up of supply constraints such as the shortage of semiconductors is expected to progress and the recovery in exports of motor vehicles is expected to provide underlying support to overall performance. In addition, exporters are enjoying foreign exchange gains by not lowering local sales prices despite the yen's historic depreciation. However, as overseas consumers become more reluctant to buy due to high prices, there is growing incentive to shift to a strategy of securing market share by lowering prices. If companies come to place more emphasis on increasing export volume than on yen-denominated export prices, the so-called "J-curve effect" will emerge, boosting real exports.

Looking at major export destinations, we expect the leader in export destinations to be China in the future. Real exports to China plummeted by -11.1% q/q during the Apr-Jun period this year due to the lockdown in Shanghai etc. On the other hand, the Jul-Sep period saw growth stop at +7.1%, with a wide margin remaining for recovery. As the normalization of China’s economy has progressed, exports of intermediate goods and capital goods are expected to grow, and exports to China are expected to accelerate their pace of growth throughout FY2023 (Chart 5, left). However, the Chinese government continues to pursue its zero-Covid policy. The shortening of the quarantine period for airline passengers and persons who have had close contact with an infected person was announced on November 11, 2022, but at the same time restrictions on economic activity in regions where the infection was spreading were strengthened. Future trends in the zero-Covid policy need to be watched closely.

Meanwhile, exports to the US and Europe where monetary tightening is progressing are expected to remain sluggish through mid-2023. While exports to the US, where personal consumption is firm, will remain flat, those to Europe, where a recession is imminent, will likely follow a downtrend. Thereafter, we expect exports to the US and Europe to turn to a gradual upward trend as the pace of monetary tightening slows (Chart 5, left). However, the possibility of Europe and the US falling into a serious recession cannot be ruled out. If this were to happen, exports to the region would likely decline significantly.

Outlook for Real Export Value of Goods by Region (Left); Outlook for Inbound Consumption (Right)
Chart 5



Source: Cabinet Office, Bank of Japan, Ministry of Finance, Japan Tourism Agency, Japan National Tourism Organization, FRB, BEA, National Bureau of Statistics of China, Eurostat, data from various countries, JP Morgan/Haver Analytics; compiled by DIR.
Note: The outlook on the right side of the chart is based on the growth rate of inbound consumption estimated from the projected per capita consumption and number of visitors for the top 20 inbound spending countries in Japan in 2019, and applied to the SNA-based inbound consumption. The impact of the yen's depreciation was estimated using a single regression analysis of the sensitivity of each country's real exchange rate against the yen and per capita travel consumption using panel data, and the range of the boost to consumption if the exchange rate remained unchanged from the current level was estimated.

Surge in inbound services consumption will boost overall exports

As for the export of services, growth in inbound consumption is expected to provide a major boost. Based on the experience of the UK and the US, which have relaxed or eliminated border measures ahead of Japan[7], inbound travel is expected to surge from the end of 2022 to the spring of 2023, followed by a gradual slowdown in the pace of recovery, in an S-shaped transition. A quantitative analysis of the sensitivity of the real exchange rate against the yen and travel spending per inbound visitor suggests that a weaker yen will boost spending per inbound visitor. The historic depreciation of the yen will be a tailwind not only for the number of inbound travelers, but also for the amount spent per visitor.

The outlook for inbound consumption reflecting the above is shown in Chart 5, right. Inbound consumption is expected to recover to 50% of the 2019 average in the Jan-Mar period of 2023. Using the current real exchange rate, the annualized amount will exceed 4 tril yen in the Jan-Mar period of 2024. Even if non-inbound service exports remain flat, real service exports will increase by about 10% y/y in FY2022 and by about 14% y/y in FY2023.

However, the recovery of Chinese visitors to Japan, who accounted for about 30% of the total in 2019, is expected to be only moderate due to the zero-Covid policy. Since Chinese visitors had the largest per capita travel spending in Asia, the slow recovery will put more downward pressure on spending recovery than seen in terms of headcount.

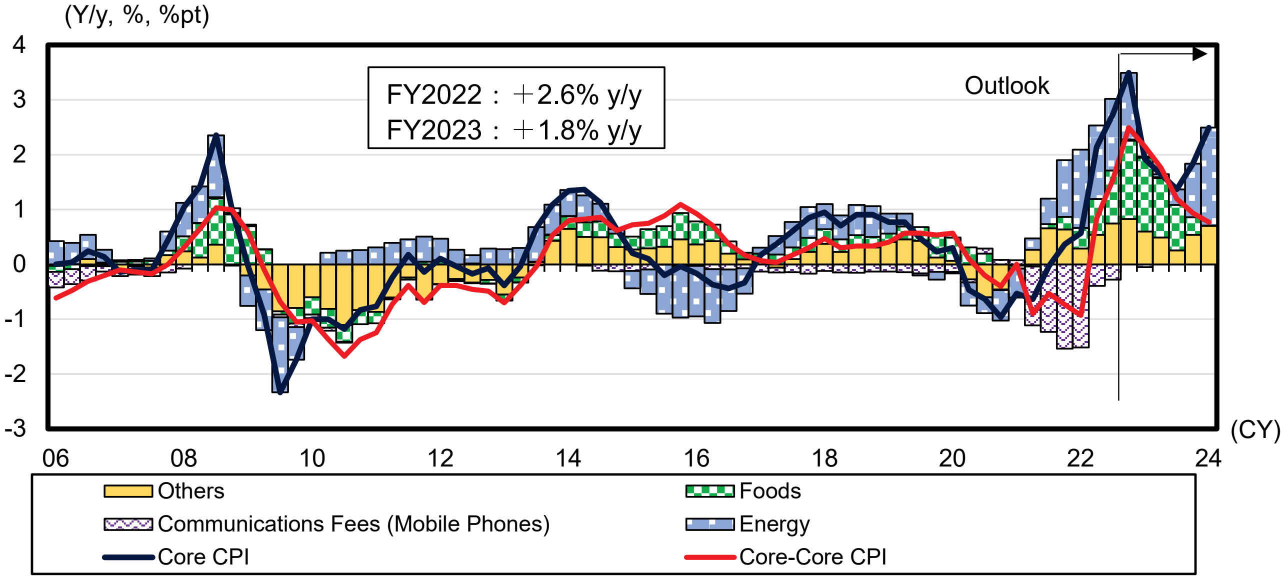
[7] For details see the DIR report dated 20 October, 2022, "Japan's Economy: Monthly Outlook (Oct 2022)" (Japanese only).

Prices:

Core CPI expected to peak at midlevel above 3% y/y due to effects of the measures to prevent high energy costs

Core CPI (all items less fresh foods) is expected to be +2.6% y/y in FY2022 and +1.8% y/y in FY2023, assuming recent resource prices and exchange rates (Chart 6).

CPI Outlook through FY2023 (Aggregate Basis, Excluding Fresh Food) **Chart 6**



Source: Ministry of Internal Affairs and Communications; compiled by DIR.
Note: Assumptions are as follows: price of crude oil (WTI) through FY2022 91.5 dlr/bbl, FY2023 81.6 dlr/bbl; yen/dlr rate in FY2022 137.8/dlr, FY2023 140.2/dlr. Nationwide travel support to be implemented from October 2022 through end March 2023 excluding year-end/new-year period, the measures to prevent high energy costs to be implemented through end September 2023.

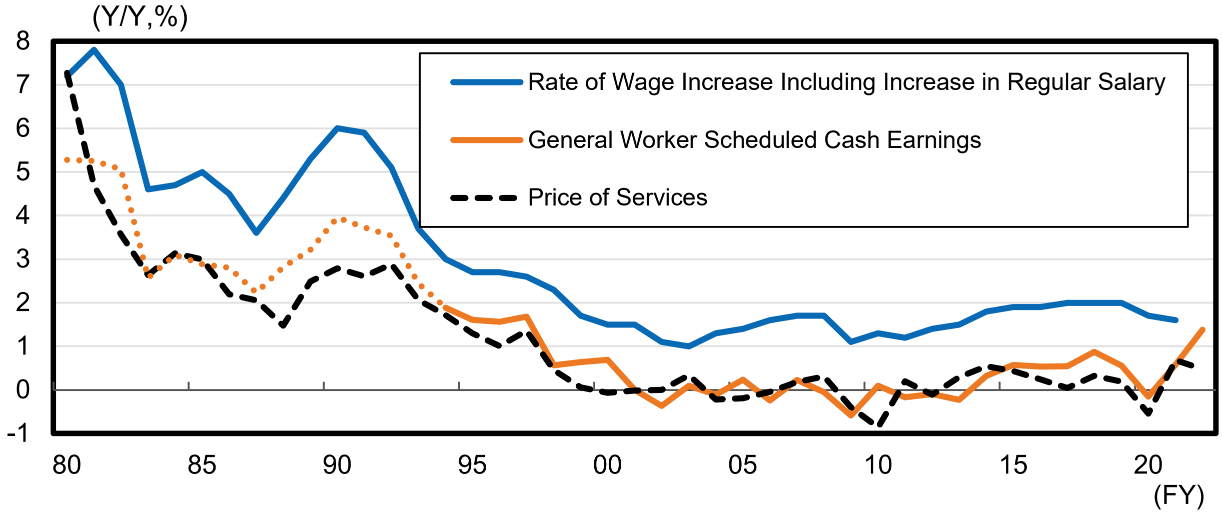
According to the Bank of Japan, the import price index (yen basis) is continuing to record high growth of over +40% y/y due to the effects of highs in the international commodities markets and the weak yen. The growth rate in energy prices remains high despite being controlled to some extent by the government's program to mitigate extreme fluctuations in the price of fuel oil (the so-called gasoline subsidy program), and prices of food and other commodities are also rising.

In the future, the core CPI growth rate is expected to be strongly influenced by the measures to prevent high energy costs included in the Comprehensive Economic Measures, in addition to import prices. On a quarterly basis, after peaking at 3.5% in the Oct-Dec period of 2022, the growth rate will decline sharply from the Jan-Mar to the Jul-Sep period of 2023 due to the effects of the measures to prevent high energy costs. It will accelerate again in the Oct-Dec period and beyond, when the effects of the measures wear off. The CPI growth rate (excluding fresh foods and energy) will continue to decline from the beginning of 2023, and is expected to be at around +1% in the Jan-Mar period of 2024.

Possibility of shift into demand-pull inflation if rate of wage increase improves substantially in spring 2023 wage negotiations

Recently, the CPI growth rate moved up to the 3% level, and corporate earnings are maintaining a high level while supply and demand for labor is tight. With this situation both labor and management are forward-looking regarding a wage increase looking toward the spring 2023 wage negotiations. A significant increase in the rate of wage increases could lead to a shift from the previous cost-push inflation to a more sustainable demand-pull inflation with cyclical increases in wages and prices. There is an upside risk in that our price forecast does not reflect this aspect.

Rate of Wage Increase, Scheduled Cash Earnings, Price of Services **Chart 7**



Source: Ministry of Internal Affairs and Communications, Ministry of Health, Labour and Welfare; compiled by DIR.
Notes: 1) The price of services is adjusted for consumption tax. FY2021 figures exclude mobile phone communication rates. Figures for FY2022 use the average value of the most recent monthly value. Scheduled cash earnings through FY1993 (the dotted line) includes small companies with thirty or more employees and part-timers.
2) The rate of wage increase is based on the Ministry of Health, Labour and Welfare's Survey on Wage Increase focusing on corporations with one hundred or more employees.

Chart 7 shows the rate of wage increase including increase in regular salary, scheduled cash earnings, and changes in the price of services. Looking back to the early 1990s, before deflation set in, the wage increase, which was expected to be around +2% in FY2022, was around +4%. At that time, the high rate of wage increase led to a stable rise in wages, which in turn stimulated an expansion of consumption, leading to an increase in prices of services and other goods, part of which was reflected in wages, a cycle that was observed. In order to restart this cycle, which was broken by the long-term deflation, the test will be whether or not the current high inflation will be a temporary phenomenon and whether or not it can be sustained through the realization of a high wage hike rate. As the outlook for the global economy, particularly in Europe and the US, becomes increasingly uncertain, we need to pay even closer attention than usual to trends in the rate of wage increases in the spring 2023 wage negotiations

2. Economic Effects and Challenges of Comprehensive Economic Measures

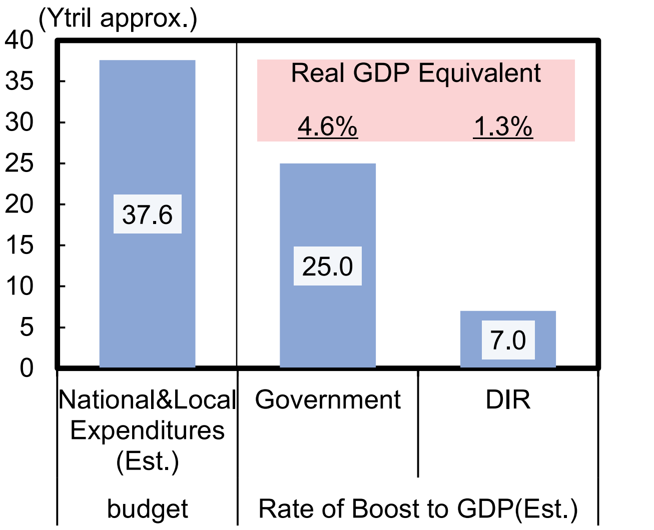
Comprehensive Economic Measures could boost real GDP by around 7 tril yen

As was mentioned in the summary, on October 28, 2022, the Kishida administration made a cabinet decision on a Comprehensive Economic Measures with a project scale of about 71.6 tril yen and fiscal expenditure of about 39.0 tril yen. Among fiscal expenditures, national and local government expenditures, which are often referred to as "fresh water," amount to about 37.6 tril yen (Chart 8).

We estimate that this so-called "fresh water" will boost GDP by about 7.0 tril yen (1.3% of real GDP). Public investment in disaster prevention, disaster mitigation, national resilience, and disaster recovery, as well as government spending to strengthen the healthcare system, secure vaccines, and provide vaccinations, will be the main drivers of the GDP boost. In addition, efforts to raise wages and the creation of projects and funds related to growth areas such as science, technology, and innovation, GX (Green Transformation), and DX (Digital Transformation) are likely to boost GDP in the medium to long term. On the other hand, the effect of the 6.1 tril yen the measures to prevent high energy costs, the centerpiece of the Comprehensive Economic Measures, in stimulating consumption is expected to be less than that of cash transfers (about 30% in terms of marginal propensity to consume).

On the other hand, the government's estimate of 4.6% real GDP equivalent (about 25.0 tril yen) is described as a propping up and boosting effect. Although the method of estimation is unclear, we believe that the difference between our estimate and the government's may be because the government's calculation took into consideration more than the pure GDP boosting effect.

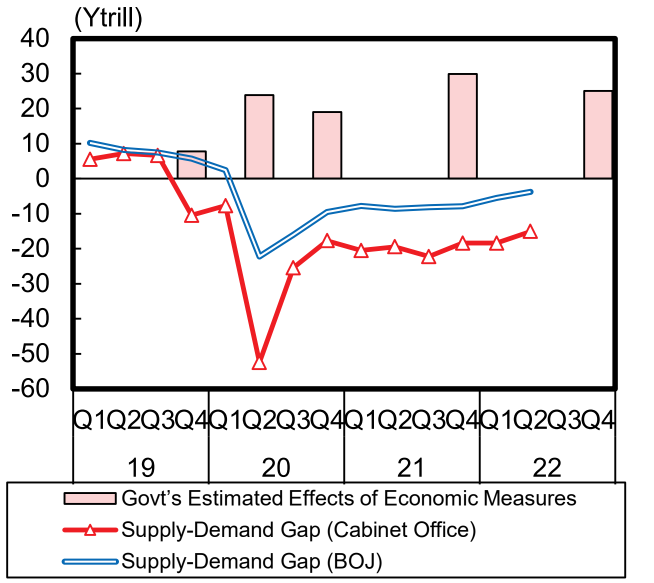
Effects of FY2022 Comprehensive Economic Measures — **Chart 8**



Source: Cabinet Office, Ministry of Internal Affairs and Communications, Prime Minister's Office; compiled by DIR

Note: The government's estimated GDP boosting effect is calculated from the rate of increase in real GDP equivalent and real GDP for the Apr-Jun quarter of 2022 (based on figures announced on September 8, 2022).

Changes in Supply-demand gap, Etc. — **Chart 9**



Source: Cabinet Office, Ministry of Finance, Bank of Japan, Prime Minister's Office; compiled by DIR

Note: The effects of the Comprehensive Economic Measures estimated by the government are calculated from the rate of increase in real GDP equivalent and the latest real GDP at the time of formulating the Comprehensive Economic Measures (based on figures announced on September 8, 2022).

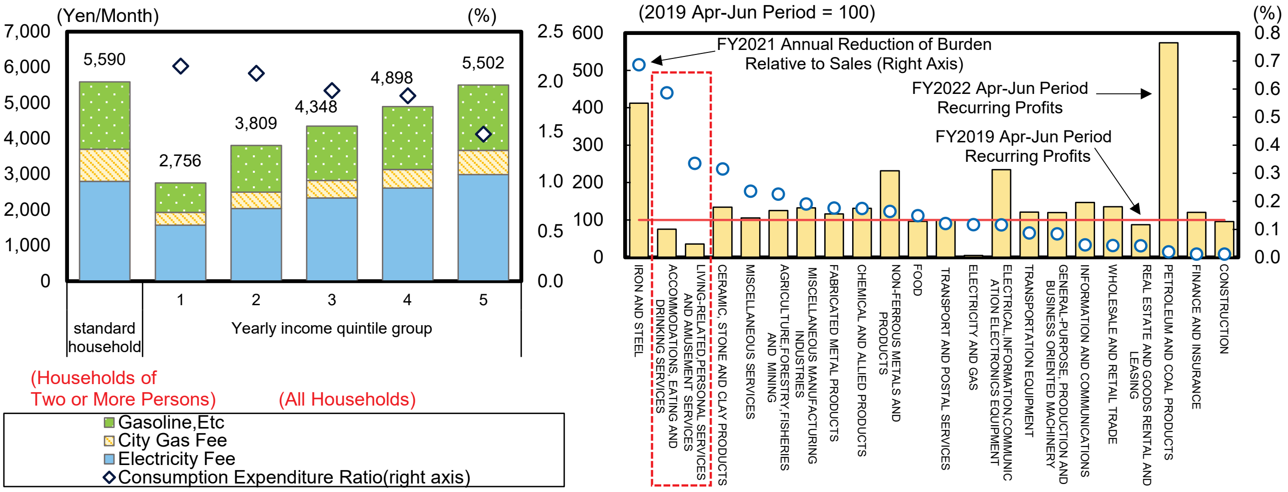
In the discussion of the scale of the Comprehensive Economic Measures, the supply-demand gap was again a topic of discussion. According to the Cabinet Office's estimate, there was a demand shortfall of 2.7% (about 15 tril yen) in the Apr-Jun period of 2022, and there were calls for the formulation of economic measures on a scale that would greatly exceed this level. However, the supply-demand gap varies greatly depending on the estimation method, with the Bank of Japan estimating a supply-demand shortfall of 0.7% (about 4 tril yen) for the same period (Chart 9).

In addition, the relationship between the supply-demand gap and the scale of Comprehensive Economic Measures is ambiguous, and fiscal expenditures such as benefits do not directly translate into increased demand. It should be noted that the major reason for the large demand shortfall after the spread of COVID-19 is the delay in economic normalization, which is not a problem that can be directly solved by the Comprehensive Economic Measures.

Energy burden reduction due to the measure is less than 3,000 yen per month for low-income households

The measures to prevent high energy costs will extend gasoline subsidies and lower electricity and city gas fee as soon as possible after January 2023. The government explains that these measures "will reduce the burden by a total of 45,000 yen for the standard household[8] from next January through the first half of the next fiscal year[9]." However, "standard household" refers to households of two or more people and does not include single-person households with relatively low energy bills. The amount of burden reduction varies depending on economic conditions and other factors. Therefore, Chart 10 (left) shows the results of estimating the amount of burden reduction for each household by income bracket.

Amount of Burden Reduction by Income Bracket (Left), Amount of Burden Reduction in Electricity Rates by Industry, and Corporate Earnings (Right) Chart 10



Source: Cabinet Office, Ministry of Internal Affairs and Communications, Agency for Natural Resources and Energy, Ministry of Finance; compiled by DIR.

Notes: 1) On the left side of the chart, monthly expenditure of total households is estimated by dividing the average price paid by households of two or more persons and then calculating quantity of purchases, then multiplying amount of support. The standard household assumes the government's definition of the standard household. Since the quantity of city gas purchased has not been surveyed, we used the standard household purchase quantity, average household spending, and frequency of purchases to estimate the cost of city gas. For gasoline etc. (gasoline and kerosene), we used the most recent week's price control range.

2) On the right side of the chart, sales for the financial and insurance industries are ordinary income or operating income.

The burden reduction for standard households is 5,590 yen per month. On the other hand, on a total household basis, including single-person households, the amount of burden reduction is 5,502 yen per month even for households in the 5th quintile, the top 20% of households with the highest annual income, which have the largest burden reduction amount. Since households with lower annual incomes tend to have fewer members and consume less energy, the burden reduction amount (2,756 yen per month) for the 1st quintile of households in the bottom 20% of annual incomes is only about half that of standard

[8] Households of two or more persons that use 400kWh of electricity, 30m^3 of gas, 35L of gasoline, and 15L of kerosene per month.

[9] "Comprehensive Economic Measures to overcome high prices and realize economic revitalization" (Cabinet decision on October 28, 2022, Japanese only; translated by DIR.) p.14

households. Although the degree of burden reduction relative to consumption expenditure is greater for lower-income households, the standard household is not the average household in macroeconomic terms, and the actual amount of burden reduction may be less than that of the standard household for many households.

The measures to prevent high energy costs also reduce the burden on companies. The right side of Chart 10 shows the ratio of reduced electricity costs to sales (FY2021) and ordinary income for the Apr-Jun period of 2022 by industry. The chart shows that in addition to the iron and steel industry (0.7%), the burden reduction as a percentage of sales is large in service industries that have direct contact with people, such as the accommodations, eating and drinking services industry (0.6%) and the living-related personal services and amusement services industry (0.3%). The service industries that have direct contact with people have been improving as economic activity has been normalizing, and keeping costs down through the reduction in electricity fees is expected to further support improvement in corporate earnings.

On the other hand, many industries, with the exception of the electricity and gas and service industries having direct contact with people, recorded ordinary income in the Apr-Jun 2022 period at or above the level of the same period in 2019, even amid soaring energy prices. Among them, chemical and allied products, non-ferrous metals and products, transportation equipment, information and communications, and wholesale and retail trade recorded record highs. The need for financial support for a wide range of industries, even those with the ability to withstand high prices, remains questionable.

Measures to prevent high energy costs should be terminated as planned and replaced with more cost-effective policies

The purpose of the measures to prevent high energy costs is to ease the rapidly increasing energy burden and avoid a setback in consumption and investment. However, the longer the implementation period is, the more it will hinder decarbonization efforts, and the financial burden will be heavier. In this regard, the gasoline subsidy was initially a temporary measure until March 2022, but it has been repeatedly extended in response to the rise in the price of imported crude oil denominated in yen, which has remained high.

As an energy importer aiming to become carbon neutral by 2050, Japan faces the challenge of reducing its use of fossil fuels. As noted in Chapter 1, household savings have accumulated significantly since the spread of COVID-19, particularly among high-income households. In addition, given the strong performance of companies in many industries, burden relief should be focused on low-income households and some companies. Since prices of items other than energy are also rising, cash handouts and tax cuts will also be effective. The measures to prevent high energy costs, to be implemented until September 2023, should be completed as planned, and if continued support is required, it should be switched to more cost-effective measures.

Japan’s Economic Outlook No. 215 (November 21, 2022) Chart 11

		2021			2022				2023				2024	FY2021	FY2022	FY2023
		Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	(CY)	(CY)	(CY)
Real GDP	Y tril; annualized	537.0	533.5	538.9	539.2	545.3	543.6	550.3	554.5	556.4	556.7	557.7	559.2	536.8	548.3	557.2
	Q/q %	0.5	-0.6	1.0	0.1	1.1	-0.3	1.2	0.8	0.3	0.1	0.2	0.3			
	Q/q %; annualized	2.0	-2.5	4.1	0.2	4.6	-1.2	5.0	3.1	1.3	0.3	0.7	1.0			
	Y/y %	7.2	1.2	0.5	0.6	1.7	1.8	2.1	3.0	2.0	2.5	1.3	0.8	2.3	2.2	1.6
														(1.6)	(1.6)	(2.2)
Private Consumption	Q/q %	0.5	-1.0	2.5	0.3	1.2	0.3	0.6	0.9	0.4	0.2	0.1	0.1	2.6	3.2	1.6
Private Residential Investment	Q/q %	1.6	-1.8	-1.4	-1.3	-1.9	-0.4	0.4	0.6	0.3	0.0	-0.3	-0.3	-1.7	-4.0	0.6
Private Non-Resi. Investment	Q/q %	1.1	-2.3	0.3	-0.1	2.4	1.5	1.2	1.3	1.3	1.1	1.1	1.0	0.6	4.2	4.9
Government Consumption	Q/q %	0.9	1.2	-0.3	0.4	0.8	0.0	0.8	-0.2	-1.3	-1.8	-0.3	0.1	2.0	1.6	-2.5
Public investment	Q/q %	-2.4	-3.6	-3.7	-3.0	1.0	1.2	1.2	0.9	0.8	0.5	0.3	0.3	-7.5	-1.7	2.8
Exports	Q/q %	3.4	-0.6	0.6	1.1	1.8	1.9	0.7	1.2	1.0	0.6	0.4	0.5	12.4	5.0	3.5
Imports	Q/q %	4.2	-1.3	0.7	3.6	0.8	5.2	-2.1	0.8	0.7	0.5	0.3	0.4	7.1	6.6	2.2
Nominal GDP	Q/q %; annualized	-0.7	-2.6	2.6	1.5	3.4	-2.0	6.3	1.7	3.8	1.5	2.3	1.4	1.3	1.8	2.6
GDP deflator	Y/y	-1.1	-1.1	-1.2	-0.5	-0.4	-0.5	0.1	-0.6	0.4	0.9	1.0	1.5	-1.0	-0.4	0.9
Industrial production	Q/q	0.3	-1.9	0.2	0.8	-2.7	5.9	0.8	2.2	1.1	0.0	0.0	0.2	5.7	2.8	4.6
Core CPI	Y/y	-0.6	-0.0	0.4	0.6	2.1	2.7	3.5	1.9	1.6	1.4	1.8	2.5	0.1	2.6	1.8
Unemployment rate	%	2.9	2.8	2.7	2.7	2.6	2.6	2.5	2.5	2.4	2.4	2.3	2.3	2.8	2.5	2.3
Trade balance (goods, services)	Y tril; annualized	4.0	-0.9	-2.9	-6.8	-15.1	-23.4	-20.0	-20.2	-20.6	-20.3	-20.2	-20.2	-1.6	-19.5	-20.2
Current account balance	Y tril; annualized	25.6	19.5	19.0	16.7	12.9	3.1	5.9	5.8	5.9	5.8	5.7	5.7	20.3	6.9	5.8
Major assumptions																
Crude oil price (WTI futures)	$/bbl	66.2	70.5	77.1	95.0	108.5	91.4	84.5	81.6	81.6	81.6	81.6	81.6	77.2	91.5	81.6
Exchange rate	Yen/$	109.4	110.1	113.7	116.2	129.6	138.4	143.1	140.2	140.2	140.2	140.2	140.2	112.3	137.8	140.2

Source: Compiled by DIR.

Note: GDP through Apr-Jun 2022: actual; thereafter: DIR estimates.