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Japan's Economy: Monthly Outlook (Aug 2022)

Economic outlook revised; challenges of normalizing consumption behaviors toward "living with Corona"

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Summary

- In light of the announcement of the Apr-Jun 2022 GDP 1st preliminary results, we have revised our economic outlook. We now see growth in Japan's real GDP at +2.6% in FY2022, with FY2023 at +1.8%. According to our main economic scenario, economic normalization is expected to progress due to the reviewing of the approach to handling COVID-19 under the Infectious Diseases Control Law, and the effectiveness of additional vaccinations.

- While there is major downside risk centering on exports affected by a tough external environment, we expect the continuation of relatively high positive growth due to three areas where there is much room for recovery. These are (1) domestic consumption of services (excluding inbound), (2) inbound consumption by foreign tourists visiting Japan, and (3) motor vehicle production. The shortage of semiconductors used on the manufacture of motor vehicles is expected to be resolved in 2023. Assuming recovery production ensues, the appearance of pent-up demand should bring major growth in the consumption of durables, while at the same time boosting capex spending and exports.

- While major advanced nations other than Japan have largely eliminated domestic COVID-19 restrictions and border measures, and steered toward a "living with corona" policy, the Japanese government's measures to prevent the spread of infection have so far been seen as a drag on the recovery of service consumption and inbound consumption. Most recently, debate has begun regarding taking a new look at the approach to the handling of the Infectious Diseases Control Law. The revision of the COVID-19-related system and the spread of new vaccines will boost demand for travel, dining out, entertainment, and other activities.

1. Three Areas of Growth Potential to Support Economy Despite Tough External Environment

Apr-Jun period real GDP achieved growth for the third consecutive quarter due to growth in personal consumption and other components

The real GDP growth rate for Apr-Jun 2022 (1st preliminary est) was +2.2% q/q annualized (+0.5% q/q)[1]. Growth was achieved for the third consecutive quarter[2], slightly exceeding the level recorded before the spread of COVID-19 (the Oct-Dec period of 2019). The spread of COVID-19 gradually played itself out during the second half of March, and Special Stricter Measures (quasi-state of emergency) were completely lifted, allowing economic activities to return to normal. On the other hand, production and supplies were tight centering on motor vehicles and household electronics due to the lockdown in Shanghai, China.

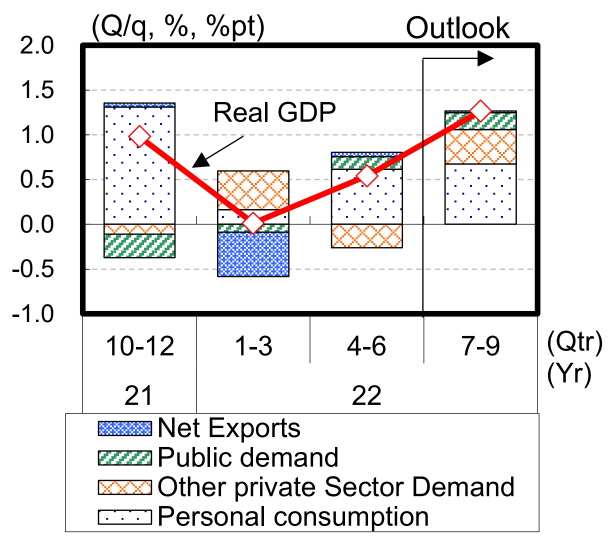
Looking at performance by demand component (Chart 1), real GDP received a boost especially from personal consumption. Personal consumption grew for the third consecutive quarter at +1.1% q/q. The COVID-19 situation improved and consumer turn-out recovered, with expenditure on services such as eating out and travel registering growth (Chart 2). Growth was also seen in expenditure on a wide range of goods. The personal consumption deflator during the same period saw an acceleration of growth at +1.1% q/q (the previous period recorded +0.9% q/q), due to the influence of the high price of resources and the weak yen. As a result, while real compensation of employees declined for the second consecutive quarter at -0.9% q/q, growth in consumption appears to have been buoyed by households withdrawing from the major accumulation of savings after the spread of COVID-19.

As for other demand components, while capex grew, private residential investment declined, and change in private inventories brought downward pressure of 0.4%pts on real GDP in comparison to the previous period. As for the public sector, government consumption and public investment both grew. As for overseas demand, both exports and imports grew, and since exports grew slightly more than imports, the contribution of net exports (foreign demand) shifted into the positive range.

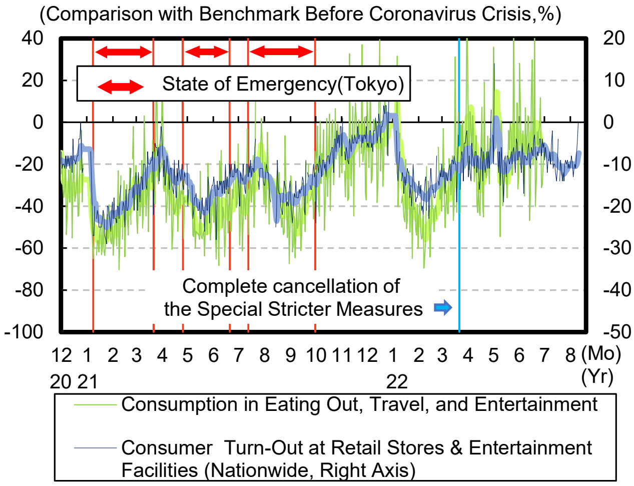
[1] See the DIR report by Keiji Kanda and Wakaba Kobayashi dated 15 August 2022, *Apr-Jun 2022 1st Preliminary GDP Estimate*.

[2] Real GDP growth in the Jan-Mar 2022 period, which had previously been negative on a q/q basis, turned slightly positive with the release of the Apr-Jun period figures and the resulting seasonal adjustment.

Real GDP Growth Rate Results & Outlook Chart 1



Consumer Turn-Out and Consumption in Eating Out, Travel, and Entertainment Chart 2



Source: Cabinet Office, Ministry of Internal Affairs and Communications, Google, CEIC; compiled by DIR.
Notes: 1) The left side chart uses real figures, all seasonally adjusted.
2) The benchmark used in the right side of the chart is the daily median between January 3 and February 6, 2020. The thick lines represent the 7-day central moving average. Eating out, travel, and entertainment related consumption is the total value of eating out, transportation, and culture & recreation services. Data from holidays falling on weekdays and the Obon Festival and year-end/New Year are excluded.

Real GDI suffers negative growth for second consecutive quarter due to widening trading losses

Against a backdrop of resource price highs etc., Apr-Jun period terms of trade deteriorated in comparison to the previous period, with the import deflator rising at a pace exceeding that of the export deflator. Meanwhile, trading losses[3], which are an expression of income flowing out of Japan overseas through worsening terms of trade, amounted to -15.4 tril yen as of the Apr-Jun 2022 period, an increase in the margin of decline of 4.6 tril yen in comparison with the previous period. As a result, the growth rate of real Gross Domestic Income after subtracting trading losses from real GDP was at -1.2% q/q annualized, the second consecutive quarter of decline. While real GDP reflecting income generated domestically registered growth, outflow of income due to the high price of resources and the weak yen exceeded that, meaning the income environment for both households and corporations has deteriorated further. (Real GNI, which adds net income received from overseas to real GDI, also suffered negative growth for the second consecutive quarter.)

Real GDP growth rate in Jul-Sep period of 2022 expected to win growth of +5.2% q/q annualized

Our outlook for the real GDP growth rate in the Jul-Sep period of 2022 sees growth of +5.2% q/q annualized (Chart 1). Unlike previous situations, there have been no restrictions on personal behaviors announced by the government despite Japan now being in its seventh wave of COVID-19 infections, and negative influence on consumer turn-out has been minimal (Chart 2).

The number of summer vacation tourists is expected to significantly exceed that of the previous year. According to the ANA Group, the number of passengers was at its highest since the spread of COVID-19 on August 11, the first day of Japan's Obon vacation (the summer Buddhist festival period). The number of passengers using Japan Airlines (JAL) also recovered on that date to approximately 90% of what it was before the spread of COVID-19. Considering the situation, consumption of services is expected to grow further during the Jul-Sep period. Meanwhile, the gradual dissipation of the effects of the lockdown in Shanghai, China, is expected to boost consumption of durables, corporate investment in machinery, and exports.

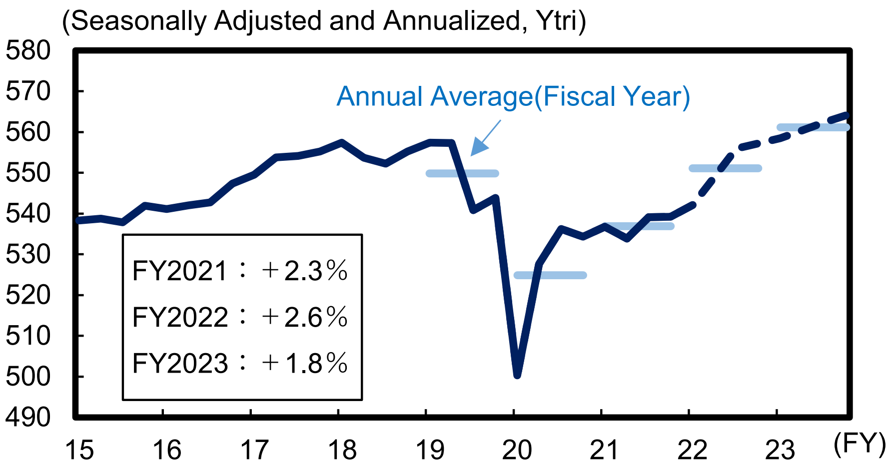
[3] Loss (gain if positive) due to changes in terms of trade from the base year of the deflator (currently 2015). It should be noted that the amount of loss or gain is revised when the base year is changed.

Outlook for overseas economies: influence of US monetary tightening and China's "Zero-Covid" policy provide main focus

Chart 3 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 (as of August 19).

As for expected growth in real GDP in 2022, we estimate the US GDP at +1.7% in comparison with the previous year with the Eurozone at +2.9%, and China at +4.0%. As for the US, growth declined for the second consecutive period in the Apr-Jun period of 2022, while in addition, high inflation and an acceleration in the pace of interest rate hikes led us to revise our outlook downward by 0.9%pts (see June 8 report, *"Japan's Economic Outlook No. 213 Update"* (Japanese only)).Meanwhile, our outlook for the Eurozone was revised upwards by 0.1%pt due to unexpected positive growth during the Apr-Jun period despite high inflation and concerns associated with influence of the Ukraine crisis. We revised our outlook for China's economy downwards by 0.5%pts in light of economic stagnation during the Apr-Jun period caused by the lockdown in Shanghai and other cities.

Outlook for Japan's Real GDP and Assumptions Regarding Overseas Economies Chart 3



US, Eurozone & China
Real GDP Growth Rate

US	2021	＋5.7%
	2022	＋1.7%
	2023	＋0.9%
Eurozone	2021	＋5.3%
	2022	＋2.9%
	2023	＋0.8%
China	2021	＋8.1%
	2022	＋4.0%
	2023	＋5.6%

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 be on the high side due to progress in economic normalization

With the outlook for overseas economies as described in the above, our main scenario sees Japan's real GDP growth rate in FY2022 at +2.6% y/y, with FY2023 at +1.8% (Chart 3). Real GDP is expected to exceed its historic high recorded during the Apr-Jun period of 2018 in the Apr-Jun period of 2023.

Our outlook for the growth rate in FY2022 has been revised downwards from our previous outlook by 0.2%pt. Our opinion remains unchanged regarding the strengthening recovery trend centering on personal consumption due to progress in normalization of economic activity, the effects of additional economic measures and other factors, but with the appearance of the seventh wave of COVID-19 infections, we have revised our outlook for the pace of recovery in personal consumption during the Jul-Sep period down somewhat in comparison to the previous outlook. In addition, we have also revised our outlook downwards for exports and capex spending due to the worsening outlook for the overseas economy.

Our outlook for the growth rate in FY2023 was revised downwards by 0.1%pt from the previous outlook. A relatively high growth rate is expected to continue beyond FY2022, but this is because the carry-over effect from the previous period is large. Without that effect, the growth rate would only be +0.7% in comparison to the previous fiscal year. In reality, growth will be moderate.

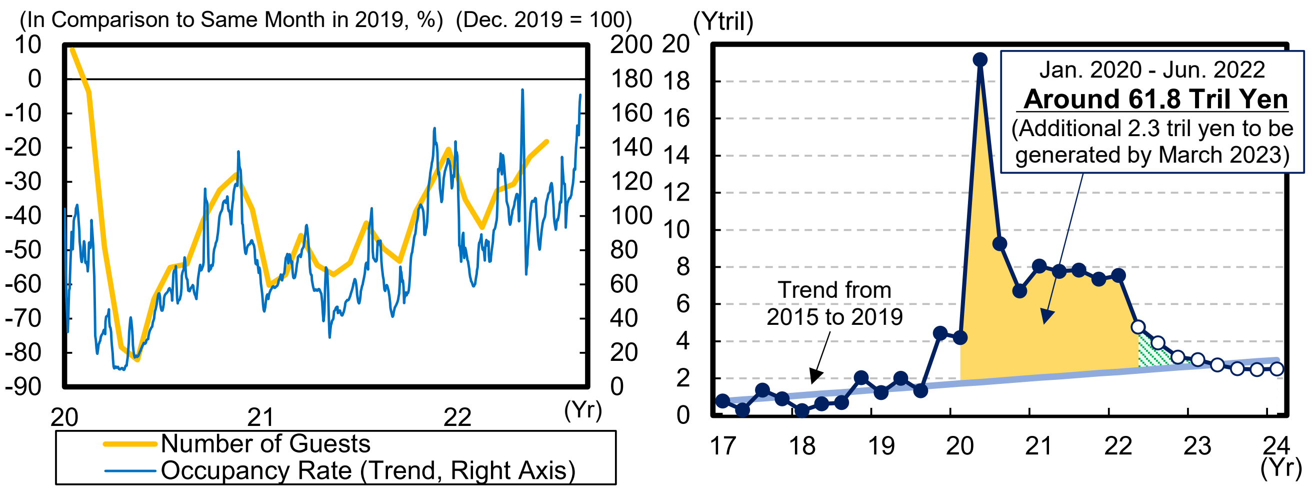
Japan's economy holds major downside risk centering on exports, but the normalization of economic activity lags behind the other major advanced nations, and there are three areas where there is much room for recovery. These are (1) domestic consumption of services (excluding inbound), (2) inbound consumption by foreign tourists visiting Japan, and (3) motor vehicle production. These three areas of potential growth will likely provide underlying support for the economy along with progress in normalization of domestic economic activity despite the tough external environment, including the Ukraine crisis moving into the long-term and the deteriorating global economy.

Personal consumption led by recovery in travel demand expected to boost GDP

GDP is expected to get a significant upward push from personal consumption in FY2022. With progress in normalization of economic activity, consumption of services such as travel is expected to lead economic growth. Consumer turn-out declined in July influenced by the seventh wave of COVID-19 infections, but then halted its decline in the first half of August. Recently, the occupancy rate according to daily data linked to the number of overnight guests has been steadily increasing (Chart 4, left). As was mentioned previously in this report, both the ANA Group and JAL posted favorable results on August 11, the first day of Japan's Obon vacation. It is assumed that travel demand achieved an easy recovery due to the lack of restrictions on behavior despite the increase in COVID-19 infections. According to our main scenario, we assume that nationwide travel subsidy program will be in place from the beginning of October 2022 through the end of March 2023, excluding the year-end and New Year holidays, which will further stimulate travel and transportation-related demand. On the other hand, according to TableCheck (an online reservation site in Japan), the number of customers per restaurant declined in July. A gradual recovery in demand for eating out is expected as the COVID-19 situation improves. Issues associated with the normalization of consumption behaviors in this new situation of "living with corona" are discussed in Chapter 2.

The shortage in semiconductors, which has been hindering production centering on motor vehicles, is expected to begin easing up in the fall of 2022, and is expected to be resolved by sometime in 2023. Once recovery production of motor vehicles gets going, pent-up demand is expected to appear, bringing major growth in consumption of durable goods, as well as boosting capex spending and exports.

Trends in Number of Guests & Occupancy Rate (Left), Trends in Flow-Based Household Savings (Right) **Chart 4**



Source: Cabinet Office, Japan Tourism Agency, Kyushu Economic Research Center; compiled by DIR.
Notes: 1) Figures for Number of Guests the left side of the chart are seasonally adjusted by DIR. Occupancy Rate = 100- ((Number of vacancies on that day - Minimum number of vacancies in last 2 years) / (Maximum number of vacancies in last 2 years - Minimum number of vacancies in last 2 years) x 100). Trends exclude day of the week factors, events, and other special factors. The most recent value is from August 17, 2022. As there was a large number of lodging facilities which suspended business in association with the state of emergency lasting from April to May 2020, only those lodging facilities which had rooms available more than twenty days per month are included.
2) Figures on the right side of the chart are seasonally adjusted. The blank (non-colored) circles represent DIR's outlook. Savings = disposable income - household final consumption expenditure. Trends from 2015 to 2019 exclude the increase in consumption tax and the effects of natural disasters incurred during the Oct-Dec period of 2019.

High prices are bringing downward pressure on consumer spending through a decline in household purchasing power, but this has been mitigated by the excess savings that have built up after the spread of COVID-19 (Chart 4, right). Household savings have accumulated significantly as a result of major benefits paid as part of government measures in dealing with COVID-19 and restrictions on the consumption of services on the part of households due to measures to prevent the spread of infection. Amounts diverging from the basic trend in household savings from 2015 to 2019 are considered to be excess savings. This amount is seen as having reached approximately 62 trillion yen as of the end of June 2022[4] (Chart 4, right). This is the equivalent of 21.3% of the amount of personal consumption in FY2021, and significantly exceeds the outlook for growth in the consumer price index (CPI) in FY2022 (+2.1% y/y)[5]. This suggests that there is an environment in which households can easily maintain their level of consumption by dipping into savings, even if prices of various goods and services increase. From a macro perspective, this is a situation in which households are showing relatively high resistance to high prices.

Capex expected to exceed level seen before spread of COVID-19 in manufacturing sector, but caution advised regarding growing uncertainty

Capex spending is expected to grow in both FY2022 and 2023. Out of overall capex, machinery is expected to increase moderately. Machinery orders, which are an approximately six-month leading indicator of capex spending in machinery, are in a growth trend when all is averaged out. However, the sense of uncertainty regarding the global economy is growing stronger, and caution is advised regarding the possibility that this could affect corporate willingness to engage in capex spending. On the other

[4] Household savings during the Apr-Jun period of 2022 were estimated by DIR, as disposable income had not yet been announced as of the writing of this report.
[5] Using the same method to estimate excess savings in the US and Europe, as of the end of June 2022, the US had about 282 tril yen (13.4% of personal consumption in 2021), the eurozone had about 114 tril yen (13.2%), and the UK had about 47 tril yen (20.4%), all of which significantly exceeds the increase in living expenses due to higher prices (Amounts converted at the most recent market exchange rates; figures for excess savings in the eurozone and the UK are as of the end of March.).

hand, investment in computerization and research & development are expected to maintain underlying strength.

According to the "the Survey on Planned Capital Spending for FY2022" released on August 4 by the Development Bank of Japan (DBJ), capital investment plans of major firms for FY2022 are expected to increase by a significant 26.8% over the previous fiscal year. Factoring in the realization rate of previous years (FY2015-19 average), this is an increase of +16.3%, above FY2019 performance before the spread of COVID-19. In the manufacturing sector, investment chemicals, electrical machinery, and motor vehicles is expected to significantly exceed the level seen prior to the spread of COVID-19, due to increased demand for semiconductors and investment in electrical vehicles. In the non-manufacturing industry, real estate, transport, and construction are expected to contribute to growth. However, transport and services, which have experienced downward pressure on demand due to the recent spread of COVID-19, are not expected to achieve a sufficient recovery in levels of investment. Overall investment in the non-manufacturing sector, taking into account the realization rate of previous years, is still below the level seen before the spread of COVID-19. Nevertheless, the normalization of domestic economic activity is expected to boost capex, especially in the non-manufacturing sector, which will eventually stimulate investment in machinery, including investment in capacity increase.

Of overall capex, the FY2022 plan for information technology investment was up 27.9% from the previous fiscal year, while R&D investment was up 7.9% from the previous fiscal year, maintaining a relatively high level on a planned basis. The former increased for data utilization and manpower saving, while the latter related to greening such as energy saving and renewable energy. Digitalization and greening are global trends, and information technology investment and R&D investment to respond to these trends will likely increase steadily for the foreseeable future.

Exports continue growth trend due to economic recovery in China, easing of semiconductor shortage, and recovery of inbound tourism

The export of goods, which has registered three consecutive quarters of growth through the Apr-Jun period of 2022, is expected to continue its upward trend throughout the forecast period. Looking at exports by source of demand, exports to China, in particular, are expected to boost overall exports. Real exports to China in the Apr-Jun period fell sharply by -10.7% q/q due to the lockdown in Shanghai and other cities, and is estimated to have pushed down real GDP by about 2 tril yen on an annualized basis (estimated by DIR from the Bank of Japan data). With the resumption of economic activity in China in the Jul-Sep period, there will be a recovery in exports of intermediate goods and capital goods. Thereafter, exports to the country are expected to continue to increase with economic recovery.

Exports to the US and Europe are expected to remain flat through the end of 2022. In the US, capital expenditure and personal consumption are expected to slow due to high inflation and monetary tightening. Both capital goods and consumer goods exports to the US will be affected by these factors. In Europe, exports of mainstay capital goods are expected to remain sluggish amid a lackluster appetite for capital expenditure among local firms due to the prolonged crisis in Ukraine and other factors. On the other hand, the global shortage of semiconductors is easing. In 2023, when supply constraints are expected to be resolved, the emergence of pent-up demand for automobiles and other products in the US and Europe will boost exports to those countries and regions. Exports to the US and Europe in 2023 are expected to shift into a moderate growth trend, driven by automobile-related goods. However, the outlook for the US, European, and Chinese economies is highly uncertain. We caution that there is a significant risk of a downturn in exports of goods due to economic deterioration in the countries and regions concerned.

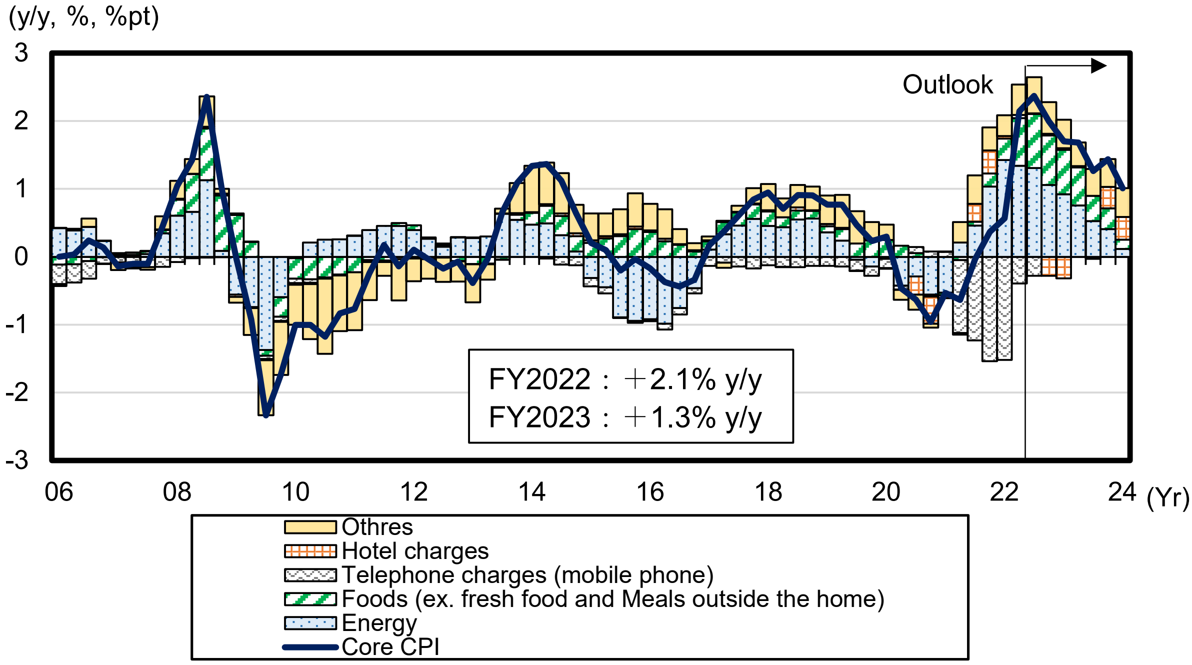
As for the export of services, the expected increase in the number of inbound tourists accepted will be a positive factor. Although inbound tourism resumed on June 10, 2022, the number of foreign visitors who entered Japan on tourist visas remained at around 1,500 for the month ending July 10, partly due to strict requirements. The Kishida administration intends to relax Japan's border measures to the level of other G7 countries. Given this situation, in our main scenario, we expect the number of non-Chinese tourists to recover to the 2019 quarterly average in the Jul-Sep period of 2023, as the entry requirements for tourists are eased and the current cap of 20,000 visitors per day is gradually raised starting in the Oct-Dec period. (The number of Chinese tourists is expected to recover in the Jan-Mar period of 2024 based on the impact of the "Zero-Covid" policy).

Core CPI may peak out at just over +2% with the effects of government countermeasures against high prices

Japan's core CPI (excluding fresh foods) is expected to be up by +2.1% in comparison to the previous year in FY2022, with +1.3% seen in FY2023. As for the quarterly trend, core CPI is expected to be at its highest in the Jul-Sep period of 2022 at +2.4% y/y. After that, the influence of high import prices is expected to drop off and the growth rate will decline, with +1.0% seen in the Jan-Mar period of 2024 (Chart 5).

Import prices on a yen basis are continuing their high-paced growth at around +30-+40% in comparison to the previous year, due to the influence of international commodity market conditions and the weak yen. Looking at recent CPI performance, although the government's program to mitigate extreme fluctuations in the price of fuel oil (the so-called gasoline subsidy program) have curbed the rapid rise in energy prices, food prices are accelerating due to high import prices. Prices are rising in the services sector as well, centering on components easily influenced by import prices, such as Meals outside the home and External wall coating. Highs in import prices are likely to continue bringing upward pressure on CPI for some time to come.

Outlook for Core CPI through FY2023 **Chart 5**



Source: Ministry of Internal Affairs and Communications; compiled by DIR.
Note: The price of crude oil for FY2022 is assumed to be 94.3 dlrs/bbl (WTI), with FY2023 at 88.1 dlrs/bbl. The yen/dlr rate for FY2022 is set at 133.8 yen/dlr, with FY2023 at 135.1 yen/dlr. The nationwide travel subsidy program is expected to be implemented from October 2022 to the end of March 2023 excluding the year-end and new-year holidays. The government's program to mitigate extreme fluctuations in the price of fuel oil is expected to be implemented in its current form through December 2022, then after that point, the amount of the subsidy is to be gradually reduced with termination seen at the end of March 2023.

On the other hand, the government is moving in the direction of strengthening its countermeasures against high prices. There was a possibility that the government sales price of imported wheat for the Oct 2022-Mar 2023 term would rise by about 20% from the level for the Apr-Sep term of 2022, but it is expected that the price will remain unchanged as part of measures against high prices. For Wheat flour, Bread, Noodles, etc., further price increases due to high raw materials prices will likely be restrained. In addition, the government has started to consider extending its measures to mitigate extreme fluctuations in the price of fuel oil, which expires at the end of September, beyond October.

Our price outlook assumes that the current system of measures to mitigate extreme fluctuations in the price of fuel oil will be maintained until the end of December and then continued until the end of March 2023 with a gradual reduction in the subsidy amount thereafter, while taking into account that the government selling price of imported wheat will remain unchanged. In addition, the nationwide travel subsidy program, which is expected to be implemented in the second half of FY2022, is expected to push down the price of Hotel charges according to the CPI. If resource prices and exchange rates remain at current levels and the policy is effective, the y/y change in core CPI will remain in the low +2% range even at its peak.

2. Challenges of Normalizing Consumption Behaviors Toward "Living with Corona"

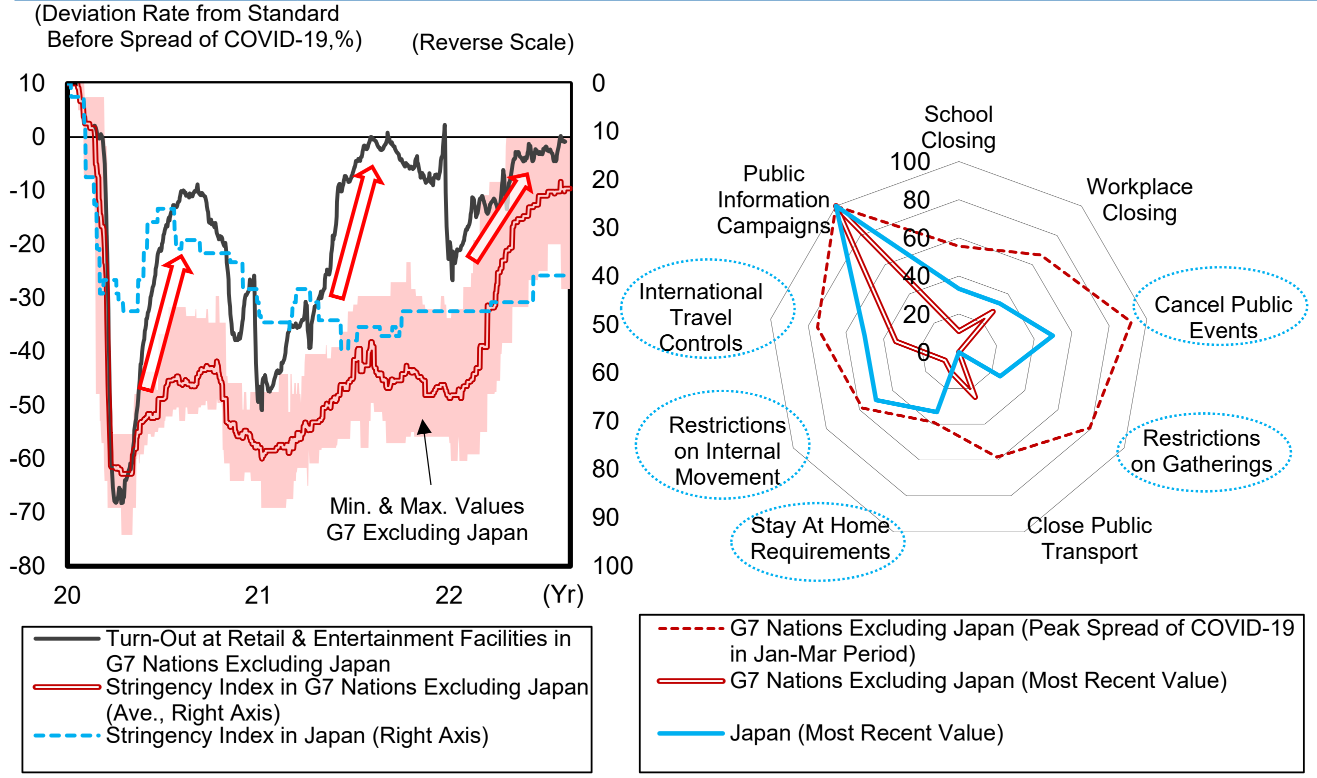
Strictness of Japan's measures to prevent the spread of COVID-19 now significantly exceed those seen in the average level of other advanced nations

Domestic debate has begun regarding taking a new look at the approach to the handling of COVID-19 under the Infectious Disease Control Law. The Kishida administration also intends to ease border measures to ensure smooth entry into Japan, on a par with other G7 countries.

The left side of Chart 6 shows a comparison of Japan's Stringency Index with other advanced nations (G7 countries excluding Japan). The Stringency Index is a numerical measure of the severity of government measures to prevent the spread of infection, calculated from nine items, including Workplace Closing and Stay At Home Requirements, and is expressed on a scale of 0 to 100, with the closer to 100, the more stringent the measures. Since the spring of 2020, strict measures to prevent the spread of infection, such as lockdowns and declaration of states of emergency, were intermittently implemented in the advanced nations. However, with the vaccine becoming widely available in 2021 and the Omicron variant, which has a relatively low rate of severe illness, becoming the main variant, measures to prevent the spread of infection in the advanced nations were rapidly eased from around February 2022. Consumer turn-out in retail and entertainment establishments has also generally recovered to the level before the spread of infection (Chart 6, left). On the other hand, since measures such as declaring states of emergency in Japan were only requested by the government, the increase in the Stringency Index was slower than in the other advanced nations, but it has remained high since then, and is recently well above the average level of other advanced nations.

Looking at the component items of the Stringency Index, the other advanced nations have significantly eased restrictions such as Cancel Public Events, Restrictions on Gatherings, and Restrictions on Internal Movement since the peak of the outbreak in the Jan-Mar period of 2022, and COVID-19 restrictions and border measures have been almost completely eliminated recently (Chart 6, right). Japan differs from the other advanced nations in that said regulations and recommendations, such as Cancel Public Events, Restrictions on Gatherings, Stay At Home Requirements, and Restrictions on Internal Movement still remain in place. In addition, Japan's figure for International Travel Controls is not so high, but this is because measures such as setting a cap on the number of people entering the country and accepting inbound travelers limited to tourists from certain countries and regions are not reflected in the evaluation. In reality, border measures are being implemented in a fairly strict manner.

Stringency Index in Advanced Nations & Japan (Left); Comparison of Components Making Up Stringency Index (Right) **Chart 6**



Source: University of Oxford, Google, CEIC; compiled by DIR.
Notes: 1) The standard before the spread of COVID-19 for turn-out at retail and entertainment facilities is the median value by Sundays from January 3 to February 6, 2020.
2) The right side of the chart sets the most stringent conditions (or the desirable policy steps) at 100%, and non-implementation of measures at 0%. Index measurements from the various countries were taken on the following dates: France on August 1, Germany on August 8, Italy and Canada on August 15, Japan on August 16, and the UK on August 17.

Demand for events, long-distance travel, banquets, etc. stagnant in Japan due to measures to prevent spread of infection

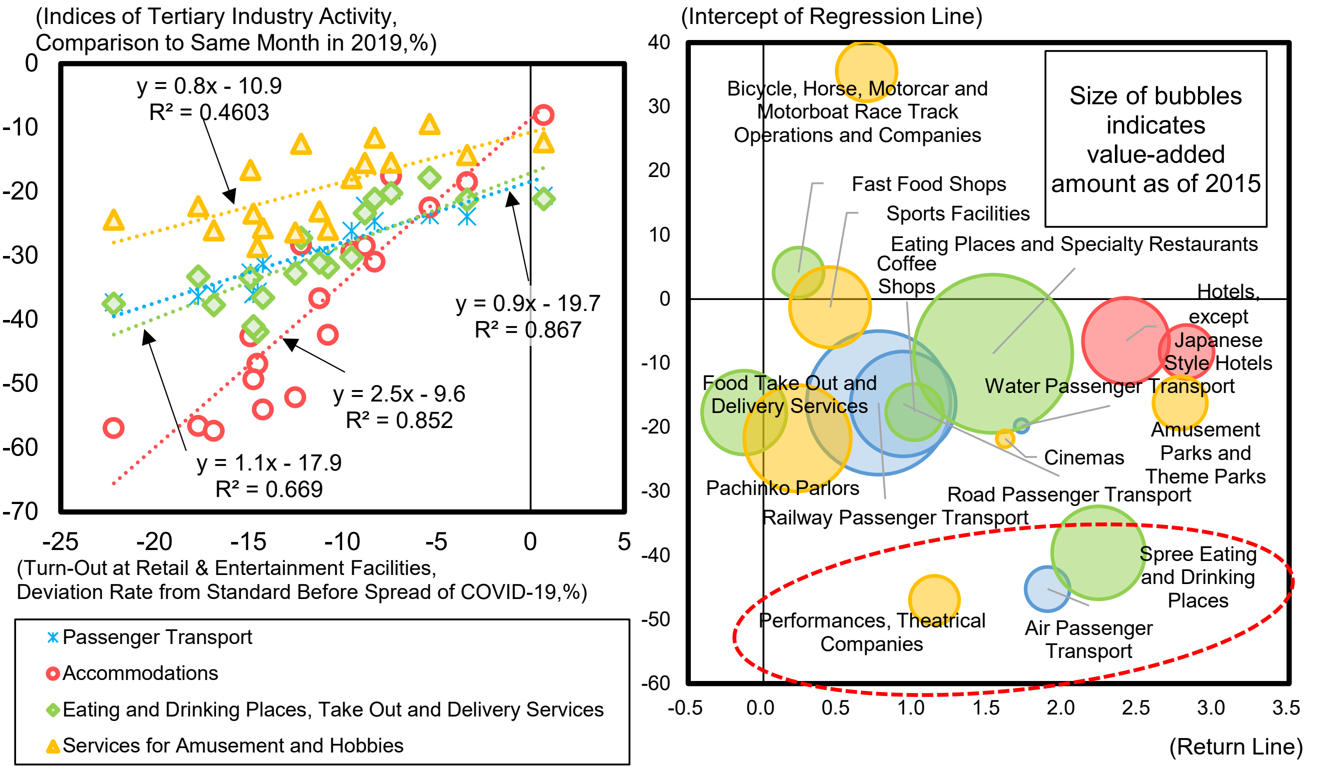
The Japanese government's measures to prevent the spread of infection, which are stricter than those in the other advanced nations, are seen as a drag on recovery in the consumption of services and inbound consumption. To examine the situation in detail, Chart 7 summarizes the characteristics of the four industries most likely to be affected by the spread of infection, namely, Passenger Transport, Accommodations, Eating and Drinking Places, Take Out and Delivery Services, and Services for Amusement and Hobbies, based on the Indices of Tertiary Industry Activity (Ministry of Economy, Trade and Industry), which is a supply-side statistic.

The high coefficient of determination (R2) of the regression line on the left side of Chart 7, which shows the scatter plots of the activity indices of the four industries and trends in consumer turn-out, suggests that all the industries are strongly influenced by consumer turn-out. The slope of the regression line is relatively high for the Accommodations, which is particularly vulnerable to the impact of outflow. However, a change can be seen recently: in June 2022, the activity index increased while consumer turn-out decreased from the previous month, and in July, when the seventh wave of infection occurred, lodging demand continued to recover (see the left side of Chart 4).

Turning to the intercept of the regression line, all of the industries are in negative territory, but the intercepts for Passenger Transport and Eating and Drinking Places, Take Out and Delivery Services are particularly low. Even if the consumer turn-out recovers to the level before the spread of COVID-19, the activity indices may not fully recover if measures to prevent the spread of infection continue.

Chart 7 (right) subdivides the above four industries and takes the slope of the regression line estimated for each industry as in Chart 7 (left) on the horizontal axis and the intercept on the vertical axis. Looking at the horizontal axis, of components other than Accommodations, Amusement Parks and Theme Parks are located farthest to the right, confirming that it is easily affected by consumer turn-out, as is the case in Accommodations.

Relation Between Activity Index of Service Industries Easily Influenced by Spread of Infection and Consumer Turn-Out **Chart 7**



Source: Ministry of Economy, Trade and Industry, Google, CEIC; compiled by DIR.
Notes: 1) Data used in both sides of the chart from January 2021 to June 2022. The right side of the chart is a simple regression analysis performed as a dependent variable using the Indices of Tertiary Industry Activity in comparison to the same month in 2019, and the deviation rate of consumer turn-out at retail and entertainment facilities from the standard before the spread of COVID-19 in an explanatory variable. Figures for the intercept of the regression line and the return line are noted.
2) The standard before the spread of COVID-19 for turn-out at retail and entertainment facilities is the median value by Sundays from January 3 to February 6, 2020.

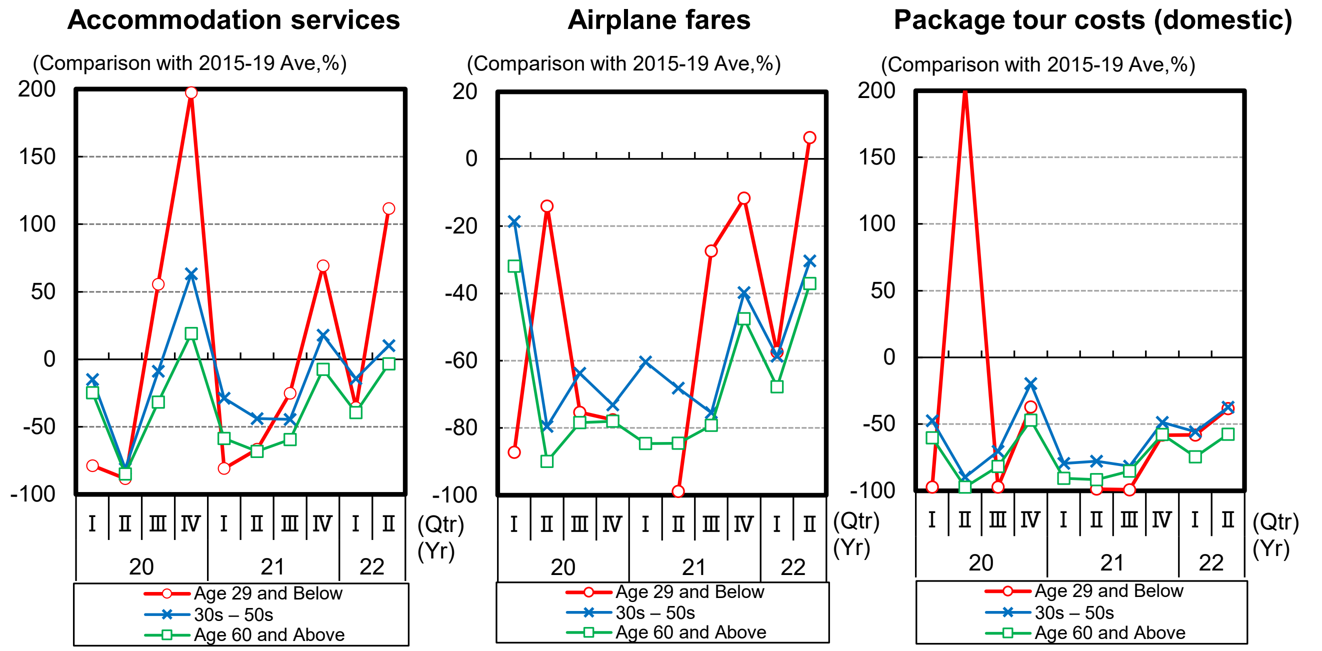
The vertical axis shows that most of the industries are in the negative zone, indicating that a wide range of industries were affected by the government's measures to prevent the spread of infectious diseases and to avoid the "Three C’s". Among them, Performances, Theatrical Companies, Air Passenger Transport, and Spree Eating and Drinking Places are in the lower zone. Since the spread of COVID-19, it has become difficult for large numbers of people to get together or to travel long distances, and consumer turn-out has not recovered, resulting in the structural deterioration of business conditions. The activity indices for these industries in June 2022 was around 40% lower than in the same month of 2019. On the other hand, the intercepts for Bicycle, Horse, Motorcar and Motorboat Race Track Operations and Companies, and Fast Food Shops were positive, indicating that the spread of COVID-19 actually encouraged said demand.

Risk of infection and burden of isolation measures have hindered recovery of demand from middle-aged and elderly population

As mentioned earlier, demand for lodging is recovering. However, the focus is on short-distance travel, and while demand for long-distance travel is recovering among younger travelers, the recovery is slower among middle-aged and elderly travelers.

Chart 8 shows the trend in Accommodation services, Airplane fares, and Package tour costs (domestic) among travel-related items by age of head of household, based on the Survey of Household Economy (Ministry of Internal Affairs and Communications). Accommodation services for the Apr-Jun 2022 period were strong, exceeding the average for the same period in 2015-19 (hereafter referred to as the base level) by more than 110% over the same period in 2015-19 for those 29 years old and younger[6]. Accommodation services for the 30-50 age group and the 60+ age group also recovered to around the base level. Airplane fares, on the other hand, exceeded the base level for those age 29 and below, while those age 30-50 and 60 and above were 30-40% below the base level. Package tour costs (domestic) remained stagnant for all age groups. This is believed to be due in part to the increased tendency for people to refrain from group travel and booking their own accommodations in order to avoid infection.

Trend in Expenditure on Travel-Related Components by Age-Group of Head of Household Chart 8



Source: Ministry of Internal Affairs and Communications; compiled by DIR.
Note: Converted to real terms by CPI (2020 standard). Data is missing for Jan-Mar period 2021 airfare and package tours for persons age 29 and below.

These differences in travel behavior may be due to the health risks of infection and the economic and social burden of isolation. For example, households in which the head of household is in the 30-50 age group have more members and gainfully employed persons than those for which the head of household is age 29 or younger and those 60 or older. If they become infected or have close contact with those who have become infected, the impact of the spread of infection in their families and workplaces, and of being restricted from various activities due to quarantine measures is likely to be greater than for other households.

Even though the elderly have been vaccinated for the fourth time, the risk of serious illness in case of infection is higher than that of other age groups. According to a survey conducted by the Cabinet Office in early June 2022[7], a higher percentage of respondents aged 60 and over cited the number of new cases, government measures, and local government measures and calls for action as important information for resuming action, compared to other age groups. With the number of newly infected persons per day at a high level and the Declaration for Strengthening measure against BA.5 issued in 25 prefectures (as of

[6] The amount of expenditure for this component tends to fluctuate significantly from year to year, hence the standard for comparison is the average value of the same period during the years 2015-2019.
[7] The Fifth Annual Survey on Changes in Attitudes and Behaviors in People's Lives under the Influence of the Novel Coronavirus Infection (July 22, 2022, Japanese only).

August 18), requesting the elderly to refrain from unnecessary and hasty outings, the elderly are likely to refrain from long-distance travel and other activities involving risk of infection.

COVID-19 system review and new vaccines central to predicting full recovery for consumption of services

Eventually, Japan's measures to prevent the spread of infection will be eased to match those of other advanced nations, and the Infectious Diseases Control Law's treatment of COVID-19 will be lowered from the current Category 2 equivalent. The flow of people and holding of events will become more active, and economic and social activities will be less likely to be curtailed by the spread of infection. The Centers for Disease Control and Prevention (CDC) has eliminated the criteria for quarantine of persons in close contact with the virus, and if self-quarantine becomes unnecessary in Japan as well, the economic and social burden of those in close contact, especially households with members in their 30s to 50s, will be greatly reduced.

However, even with these efforts underway, if the threat of COVID-19 is not sufficiently reduced, it will be difficult for all age groups to engage in the same consumption behavior as before the spread of the infection. In this regard, the Ministry of Health, Labor, and Welfare (MHLW) has decided to begin offering the new vaccine corresponding to the Omicron variant in mid-October or later. If the spread of the new vaccine, which is more effective in preventing BA.5 infection than the conventional vaccine, does not increase health risks even if the elderly and others increase consumption opportunities involving contact and transportation, or if the spread of infection is controlled even if large events and banquets are held, service consumption will be on the way to full recovery. In terms of predicting whether or not Japan will accept becoming a society living with Corona, attention must be paid to future moves toward the review of the system for handling COVID-19, as well as the impact of new vaccines and consumer trends.

Japan's Economic Outlook No. 214 (August 19, 2022) **Chart 9**

		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			
Real GDP	Y tril; annualized	536.8	533.9	539.1	539.2	542.1	549.0	556.0	557.3	558.4	560.4	562.4	564.1			
	Q/q %	0.5	-0.5	1.0	0.0	0.5	1.3	1.3	0.2	0.2	0.3	0.4	0.3			
	Q/q %; annualized	1.8	-2.1	4.0	0.1	2.2	5.2	5.2	0.9	0.9	1.4	1.4	1.2			
	Y/y %	7.3	1.2	0.5	0.7	1.1	2.8	3.1	3.5	3.0	2.1	1.1	1.2	2.3	2.6	1.8
Private Consumption	Q/q %	0.4	-0.9	2.4	0.3	1.1	1.2	1.3	0.4	0.3	0.2	0.2	0.1	2.6	4.1	1.8
Private Residential Investment	Q/q %	1.6	-1.8	-1.3	-1.4	-1.9	-0.4	1.1	0.6	0.3	0.0	-0.3	-0.3	-1.6	-3.6	1.0
Private Non-Resi. Investment	Q/q %	1.2	-2.1	0.2	-0.3	1.4	1.8	1.9	1.3	1.2	1.2	1.1	1.0	0.6	3.8	5.3
Government Consumption	Q/q %	0.9	1.1	-0.3	0.4	0.5	0.5	0.8	-1.8	-1.3	-1.1	0.1	0.1	2.0	1.3	-2.8
Public investment	Q/q %	-2.5	-3.3	-3.7	-3.2	0.9	1.5	1.3	0.9	0.8	0.5	0.3	0.3	-7.5	-1.7	3.0
Exports	Q/q %	3.0	0.0	0.6	0.9	0.9	0.6	1.7	1.2	0.7	1.0	0.8	0.8	12.5	3.7	4.0
Imports	Q/q %	4.4	-1.1	0.4	3.5	0.7	0.5	1.3	0.5	0.4	0.7	0.4	0.3	7.2	4.5	2.4
Nominal GDP	Q/q %; annualized	-0.7	-1.9	1.9	1.5	1.1	8.2	6.4	1.7	1.7	1.9	2.1	1.6	1.3	3.1	2.7
GDP deflator	Y/y	-1.1	-1.1	-1.3	-0.5	-0.4	0.3	1.0	0.8	1.4	0.8	0.7	0.6	-1.0	0.5	0.9
Industrial production	Q/q	0.3	-1.9	0.2	0.8	-2.7	3.2	2.9	2.0	0.9	0.0	0.2	0.2	5.7	1.8	4.9
Core CPI	Y/y	-0.6	-0.0	0.4	0.6	2.1	2.4	2.0	1.7	1.7	1.3	1.4	1.0	0.1	2.1	1.3
Unemployment rate	%	2.9	2.8	2.7	2.7	2.6	2.5	2.5	2.4	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	-15.0	-11.2	-11.0	-10.7	-10.8	-10.2	-9.9	-9.5	-1.6	-11.9	-10.1
Current account balance	Y tril; annualized	17.9	11.9	11.4	9.1	5.4	6.5	6.9	7.4	7.7	7.8	8.2	8.7	12.7	6.6	8.1
Major assumptions																
Crude oil price (WTI futures)	$/bbl	66.2	70.5	77.1	95.0	108.5	92.4	88.1	88.1	88.1	88.1	88.1	88.1	77.2	94.3	88.1
Exchange rate	Yen/$	109.4	110.1	113.7	116.2	129.6	135.4	135.1	135.1	135.1	135.1	135.1	135.1	112.3	133.8	135.1

Source: Compiled by DIR.

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