

# **Economic and Fiscal Projections for Medium to Long Term Analysis**

**(Submitted to the Council on Economic  
and Fiscal Policy on July 29<sup>th</sup>, 2024)**





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## 1. Introduction

This projection is submitted to the Council on Economic and Fiscal Policy (CEFP) as basic information for evaluating the progress of economic revitalization and fiscal consolidation, and for considering medium- to long-term economic and fiscal policies. This projection reflects the data and policies available at the time of the projection and is estimated using the “Economic and Fiscal Model,” which presents the macroeconomy, public finance, and social security in an integrated manner.<sup>1</sup>

Japan's economy is currently facing a historic opportunity to completely overcome deflation and realize a growth-oriented economy. In light of these economic conditions, we have added a "Transferring to a New Economic Stage (TN) Case," in which Japan's economy transfers to a "new growth-oriented economic stage" and continues to grow at a stable rate of 1% or more in real terms, examining fiscal sustainability of this case in detail<sup>2</sup>. To compare the TN Case with, the name of "Baseline Case" is changed to the "Projection of Past Trend (PP) Case" (a case in which growth near zero is projected from recent past trend), and the name of "Economic Growth Achieved Case" is changed to the "Higher Economic Growth (HG) Case" (a case in which even higher growth is achieved than in the TN Case).

## 2. Medium to long term economic projection

This projection reflects various economic statistics and incorporates the Cabinet Office’s Mid-year Economic Projection<sup>3</sup> up to FY2025. For FY2026 and beyond, we present (1) the PP Case, which assumes that the Total Factor Productivity (TFP)<sup>4</sup> growth rate will remain at the same level as the average of the most recent business cycle, (2) the TN Case<sup>5</sup>, which assumes that the TFP growth rate will increase to the average of the about 40 years, and (3) the HG Case<sup>6</sup>, in which the TFP growth rate will increase to the average of the period prior to the deflationary situation. The key assumptions for each scenario<sup>7</sup> are as follows.

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<sup>1</sup> Considerable leeway should be given when interpreting the projections due to the various uncertainties involved. The “Economic and Fiscal Model (FY2018 version)” is available on the Cabinet Office website.

<sup>2</sup> Long-term Projection for Economy, Public Finance and Social Security (April 2, 2024, submitted to the CEFP) indicates that long-term sustainability of the economy, public finance, and social security can be ensured under real growth of over 1% if the effects of reforms are realized. In addition, the Basic Policies for Economic and Fiscal Management and Reform 2024 (June 21, 2024, approved by the Cabinet) states that "In order to ensure the sustainability of the economy, public finances, and social security, it is necessary to secure a steady real economic growth rate of over 1% even during and after the 2030s, when depopulation will go into full swing. On the top of that, it is aimed to achieve even a higher growth."

<sup>3</sup> Mid-year Economic Projection for FY2024 (July 19, 2024, submitted to the CEFP).

<sup>4</sup> TFP represents the increase in value added that is not attributable to an increase in capital and labor, and includes the reflection of technological progress, improved worker skills, and more efficient allocation of resources.

<sup>5</sup> Equivalent to the case described as "Reference Case" since the July 2023 projection.

<sup>6</sup> Each of the figures in the HG Case is prepared using key multiplier tables from the “Economic and Fiscal Model (FY2018 version).” See Appendix 1 for detailed methods of calculations.

<sup>7</sup> See Appendix 1 for detailed assumptions.

### Key assumptions for each scenario

	TFP Growth Rate (0.7% in FY2023)	Labor Participation Rate <sup>8</sup> (62.9% in FY2023)
PP Case	Around 0.5%, the average of the most recent business cycle <sup>9</sup>	Rising to some extent, especially among women and the elderly (64.8% in FY2033)
TN Case	Reaching around 1.1%, the average of the past 40 years <sup>10</sup>	Higher than the PP case, especially among women and the elderly (65.8% in FY2033)
HG Case	Reaching around 1.4%, the average for the period before the economy entered the deflationary situation <sup>11</sup>	Same as above

#### (1) Potential growth rate

Japan's potential growth rate was 4.2% in the 1980s and 1.6% in the 1990s, and has remained below 1% since the beginning of the 2000s. As the working-age population continues to decline at an accelerating pace due to the declining birthrate and aging population,<sup>12</sup> economic growth is expected to decline in the absence of changes in the economic structure and higher productivity growth than before.

In the PP Case, where TFP increases at the same rate as in the recent business cycle (around 0.5%), the contribution of capital input to the potential growth rate, which is calculated endogenously, will be slightly positive, but the negative contribution of labor input will increase due to the decline in the working-age population, although labor participation is assumed to increase to some extent. Overall, the potential growth rate is projected to remain in the mid-0% range over the medium to long term.

In contrast, in the TN Case and the HG Case, TFP will increase by around 1.1% over the next three years (TN Case: average TFP growth rate over the past 40 years) and by around 1.4% (HG Case: average TFP growth rate before entering the deflationary situation) through stimulating innovation and improving production efficiency by promoting medium- to long-term planned investment in priority issues, including investment in human capital, Green Transformation, Digital Transformation, frontier development, science and technology and innovation under public-private partnership. Under this assumption, the higher rate of TFP growth and the improved earnings environment for firms promote capital investment, resulting in a higher

<sup>8</sup> The PP Case refers to "the baseline economic growth case in which labor participation advance to some extent" of the JILPT's "Labor Demand and Supply Estimates 2023," and the TN Case and the HG Case refers to "the economic growth achieved case in which labor participation strongly advance" of that.

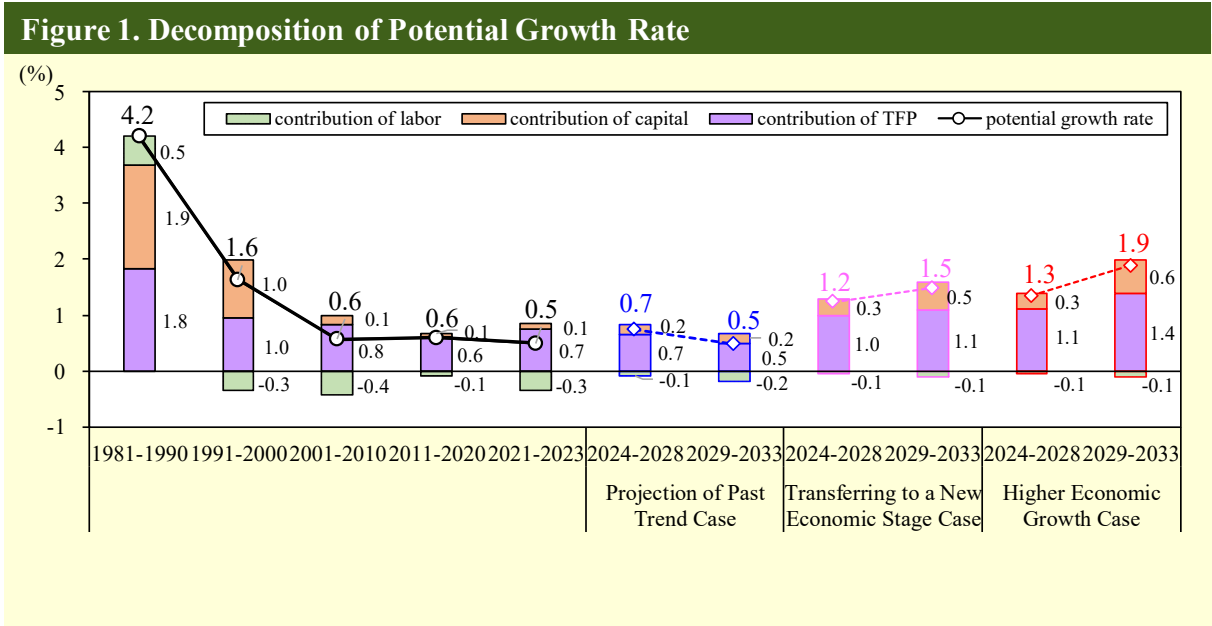
<sup>9</sup> The 16th business cycle (October-December 2012 to April-June 2020).

<sup>10</sup> Average from the past to the 16th business cycle (April-June 1980 to April-June 2020).

<sup>11</sup> Average from the past to the 12th business cycle (April-June 1980 to January-March 1999).

<sup>12</sup> According to the National Institute of Population and Social Security Research's "Population Projections for Japan" (estimated in 2023) with the births (deaths) median estimates, the average change during 2031 and 2035 in the total population is about -0.6%, while that in the working-age population (15-64 years old) is about -1%.

contribution of endogenously calculated capital input. This result is also consistent with the expectation of an increase in private capital formation due to the promotion of various investments. With regard to labor input, it is assumed that labor demand will increase with economic growth, and the labor participation, especially among women and the elderly, will be higher than in the PP Case due to the promotion of diverse work styles, etc. Nevertheless, this assumption still cannot offset the impact of population decline completely, and the resulting contribution of labor input will be slightly negative. All in all, the potential growth rate is projected to be around mid-1% to 2% in the medium to long term.



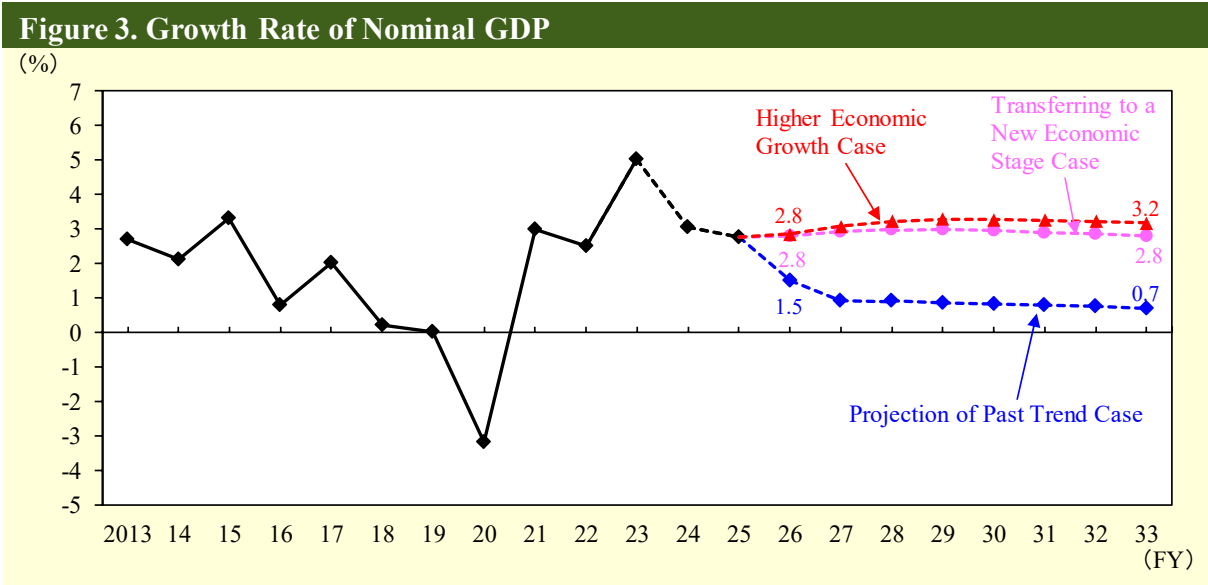
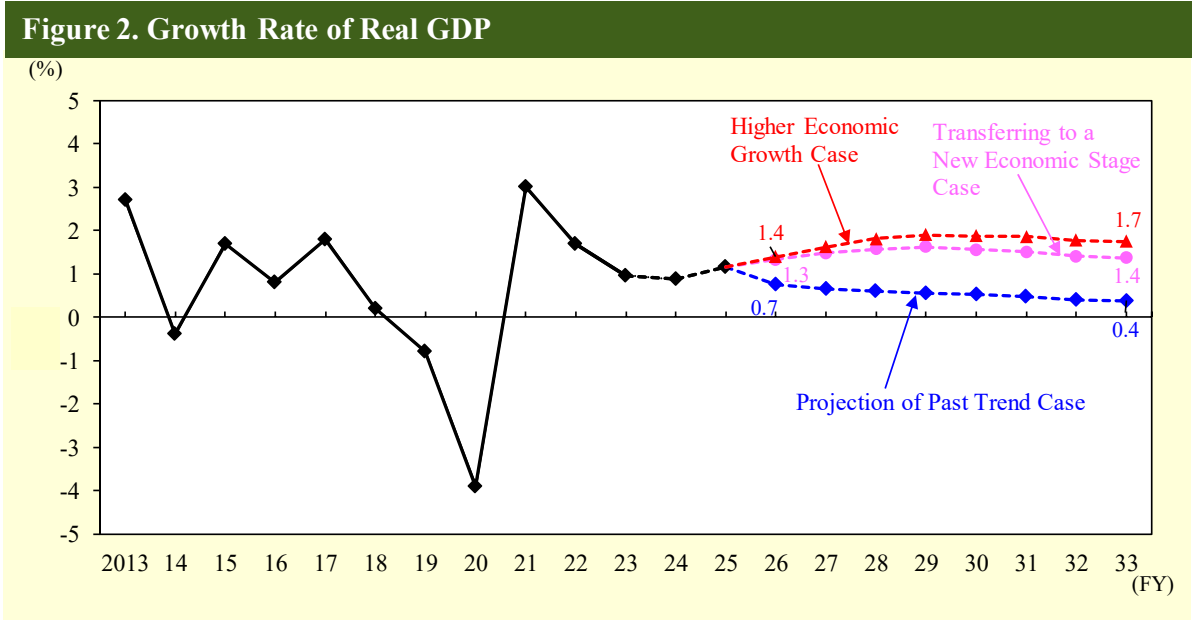
(2) Economic growth rate and wage growth rate

The real GDP growth rate averaged around 0.9% in FY2013-2019, before the COVID-19 pandemic. Subsequently, the economy was strongly affected by the suppression and easing of economic activity due to the pandemic, with significant negative growth (-3.9%) in FY2020 and positive growth (3.0%) in FY2021. In FY2022, growth was 1.7%, followed by 1.0% in FY2023.

According to Mid-Year Economic Projection, GDP growth in FY2024 is expected to be around 0.9% in real terms and 3.0% in nominal terms, with a gradual recovery based on rising incomes, including wage increases, and solid capital investment, despite the impact of the recent suspension of production and shipments by some automakers. In FY2025, moderate private demand-led growth is expected to continue, at around 1.2% in real terms and 2.8% in nominal terms.

Thereafter, since supply and demand of the overall economy will be roughly in balance, the real GDP growth rate will converge to the potential growth rate (mid-0% range in the PP Case, around mid-1% in the TN Case, around 2% in the HG Case). Similarly, in the medium to long term, nominal GDP growth is projected to be in the upper-0% range in the PP Case, around upper-2% in the TN Case and around 3% in the HG Case.

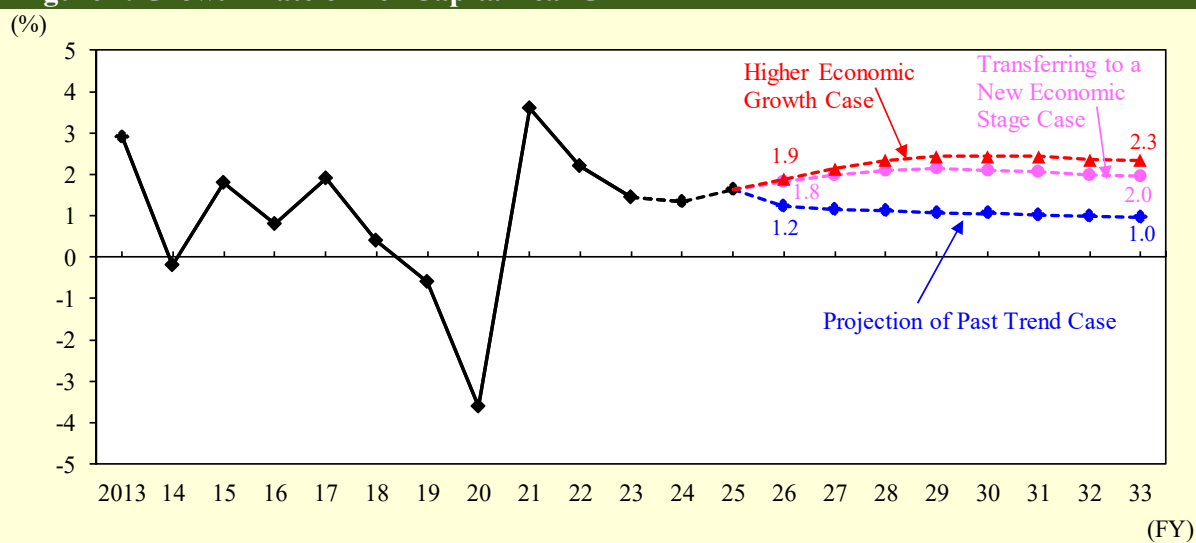
Under these growth rates, nominal GDP in the final year of the projection (FY2033) is projected to reach around 680 trillion yen in the PP case, around 790 trillion yen in the TN case, and around 810 trillion yen in the HG case<sup>13</sup>.



It is also important to look at per capita real GDP growth from the perspective of people's standard of living and productivity, given the prospect that population decline will be intensified in the future. The real GDP per capita growth rate will be higher than the real GDP growth rate due to the impact of population decline and is projected to be around 1% in the PP Case, around 2% in the TN Case, and more than 2% in the HG Case.

<sup>13</sup> If the nominal GDP is mechanically extended using the nominal growth rate in the final year of the estimation (FY2033), nominal GDP will exceed 1,000 trillion yen in FY2042 in the TN case and in FY2040 in the HG case.

**Figure 4. Growth Rate of Per Capita Real GDP**



Next, we look at the rate of nominal wage growth<sup>14</sup> to examine the distributional aspect, such as whether wage growth has been achieved in line with economic growth. Since 2013, the wage growth rate was pushed down due to the increase in the ratio of non-regular employees amid the improvement in the labor participation of women and the elderly, but also raised up by boosting factors such as the tightening of labor supply and demand in recent years.<sup>15</sup> As a result, the wage growth rate averaged around 0.6% from FY2013 to FY2022. In FY2024, the wage growth rate is expected to be around 2.8% as the spring wage negotiation (“Shunto”) resulted in the highest level of wage revision in the last 33 years, and in FY2025, the rate is expected to be around 2.8%.

Subsequently, in the PP Case, as the rates of increase in labor productivity and prices remain modest, the wage growth rate in the medium- to long-term stays around 1%. In the TN Case and HG Case, the wage growth rate in the medium- to long-term is projected to be around 3%, as labor productivity in line with increased capital formulation is more advanced than in the PP Case, and prices rise in line with increased demand, etc. under higher economic growth rates.

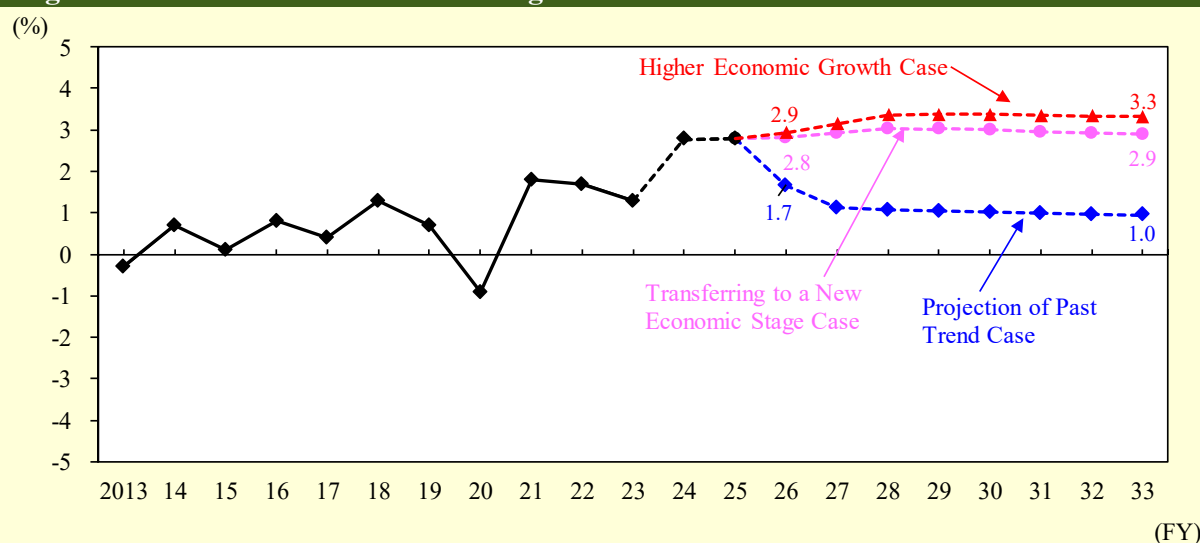
With regard to real wage growth, which is calculated by subtracting the CPI growth rate (discussed below) from the wage growth rate, it is around 0% over the medium to long term in the PP Case, and around 1% in the TN Case and HG Case because the nominal wage growth rate is higher than the CPI growth rate.

<sup>14</sup> Wage growth per employee (nominal).

<sup>15</sup> See Cabinet Office’s “Annual Report on the Japanese Economy and Public Finance 2023”, Chapter 2, Section 1.



**Figure 5. Growth Rate of Nominal Wage**



(3) Consumer price rate and long-term interest rate

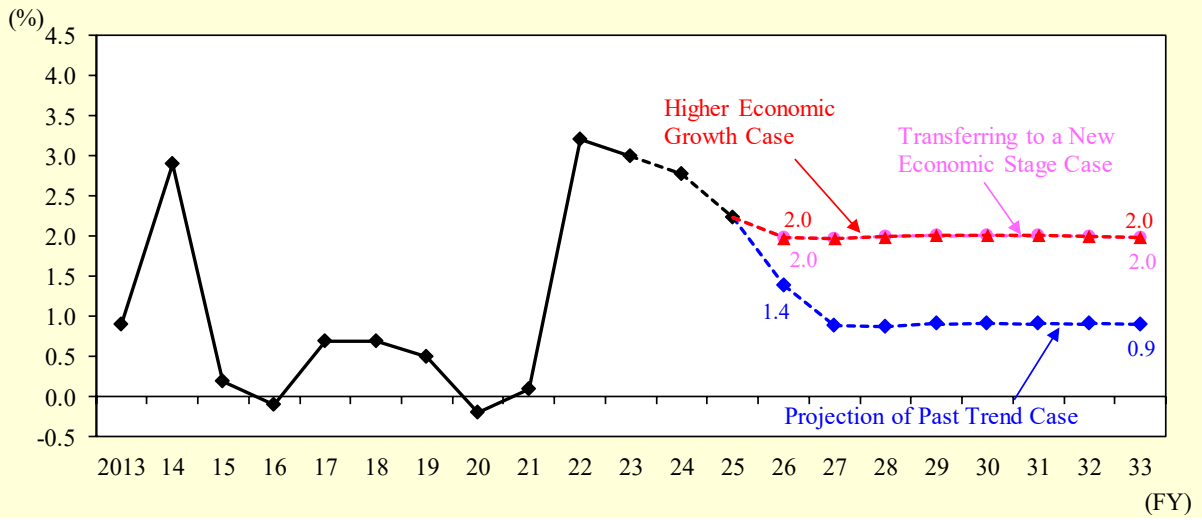
Since the end of 2013, amid a non-deflationary situation, the CPI growth rate averaged around 0.8%<sup>16</sup> in FY2013-2019. In FY2020 and FY2021, when the COVID-19 spread, the CPI growth rates were -0.2% and 0.1%, respectively. Due to price increases, mainly in energy and food products, in FY2022 and FY2023, the rates were 3.2% and 3.0%, respectively, and are expected to be around 2.8% in FY2024 and around 2.2% in FY2025.

In the PP Case, the CPI growth rate is projected to remain in the upper 0% range in the medium to long term. The nominal long-term interest rate is projected to rise to around 1% in the medium to long term.

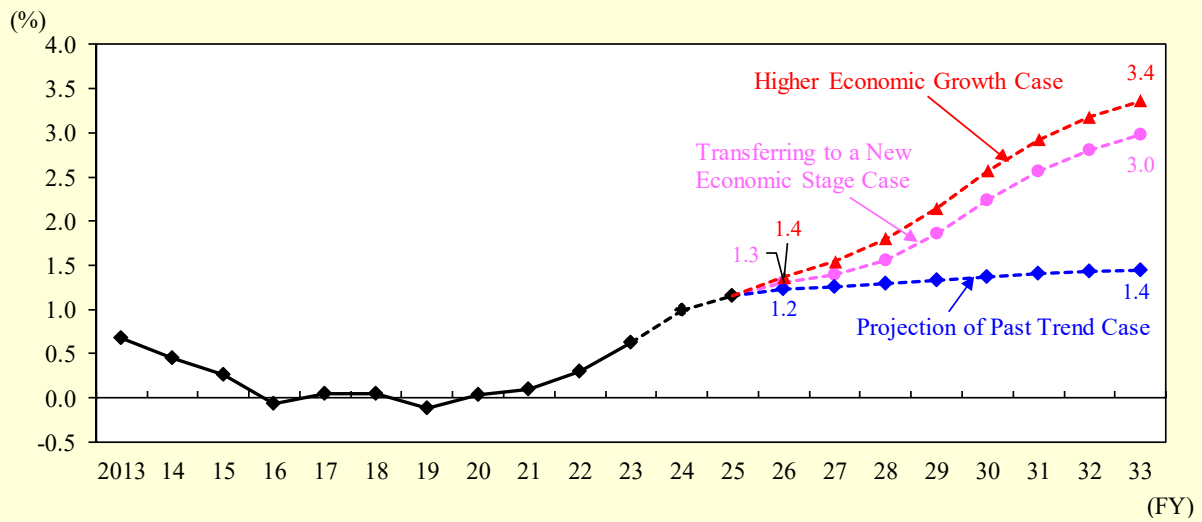
In the TN Case and HG Case, the CPI growth rate is projected to move at about 2% over the medium to long term as the potential growth rate and the wage growth rate increase. The nominal long-term interest rate is projected to rise to 3% range in the medium to long term in line with economic growth.

<sup>16</sup> The series of Consumer Price Index excluding the impact of the consumption tax rate hike is around 0.5% (the Ministry of Internal Affairs and Communication).

**Figure 6. Growth Rate of CPI**

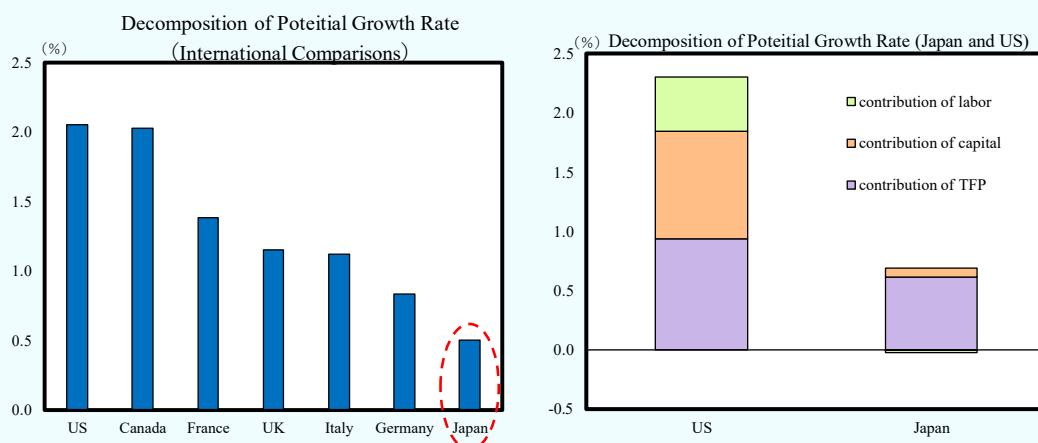


**Figure 7. Nominal Long-term Interest Rate**



## <BOX 1> Potential Growth Rate

The current potential growth rate in Japan is lower than in other G7 countries. The potential growth rate comprises three components – total factor productivity growth (TFP), capital input growth, and labor input growth. A comparison of the average potential growth rate in the United States, which has the highest potential growth rate among G7, with that in Japan over the past 10 years indicates that while all the three components have made positive contributions to the potential growth rate in the United States, the potential growth rate in Japan has featured a negative contribution of labor input, a small positive contribution of capital input, and a dominant positive contribution of TFP. In addition, the TFP growth in the United States has been higher than in Japan. Thus, Japan is characterized by sluggish labor input, stagnant capital investment, and relatively weak productivity growth.



(Note) The data for Japan is from Cabinet Office, that for the United States is from the Congressional Budget Office (CBO), and those for the other countries are from the OECD Economic Outlook (May 2024). The left figure indicates CY2023 data. The right figure indicates average data between CY2012 and 2019. The Decomposition of Potential Growth Rate for the United States is for the nonfarm private sector.

As Japan's population declines further, labor input is expected to exert further downward pressure on the potential growth rate. It is important to reduce such downward pressure by promoting labor force participation among women and the elderly. In order to further raise the potential growth rate, it is also important to significantly increase capital input and TFP.

If private sector investment is stimulated through the promotion of medium to long-term systematic investment in priority initiatives, such as human resources investment, Green Transformation, Digital Transformation, frontier development, science, technology, and innovation under public-private partnership, capital accumulation is expected to contribute to economic growth, leading to the improvement of productivity through technological progress, the enhancement of workers' capabilities, and the efficient allocation of production resources. For example, reskilling efforts constitute investment in intangible human capital assets, such as workers' capabilities, contributing to TFP growth. If a path to productivity improvement is foreseen, business investment is expected to be further promoted.

In particular, the productivity growth rate put exogenously in this projection is an important factor of future economic growth. It is necessary to consider how productivity grows in relation to policy. Including the reskilling effects mentioned above, there are the following examples of productivity-boosting effects from investment promotion in priority policy areas based on the previous studies.

### Productivity-Boosting Effects Based on Previous Studies

	Assumption	Productivity-boosting effect (annual rate)
Human resources investment	Investment in education and training by companies (stock per employee) rises by 5 percentage annually	<b><u>About 0.1 percentage points</u></b> (labor productivity growth rate)
	Part-timers' share of employment decreases by 0.0-0.5 percentage points annually	<b><u>About 0.0-0.2 percentage points</u></b> (labor productivity growth rate)
Science, technology, innovation, etc.	The ratio of R&D investment to GDP increases by 0.5 percentage points	<b><u>About 0.2 percentage points</u></b> (TFP growth rate)
Promotion of startups, etc.	The productivity-boosting effect of the promotion of corporate metabolism is 1-2 times higher than in the mid-2010s	<b><u>About 0.0-0.2 percentage points</u></b> (TFP growth rate)
Others	The ratio of inward direct investment to GDP will increase by 5.2 percentage points by 2030	<b><u>About 0.1 percentage points</u></b> (TFP growth rate)

(Note) For detailed calculation methods, see ESRI Discussion Paper Series No. 395. Considerable leeway should be given when interpreting or applying numerical value data, with consideration given to the following analytical limitations and points to note.

- (1) Assumptions are not necessarily identical to the government policies.
- (2) The relationship between assumptions and productivity-boosting effects is based on past domestic or overseas analyses and should be carefully applied to Japan's economy in the future.
- (3) The time lag between policy implementation and effect manifestation is not explicitly considered.

Although attention should be paid to the overlap and interaction of policy effects, it is possible to estimate the approximate magnitude and direction of policies by adding up the measured effects of individual policies. If the productivity-boosting effects in the above research (around 0.4-0.8 percentage points in total) are added to the TFP growth rate of around 0.5% in the PP Case, the TFP growth rate will be about 0.9-1.3%. Around 1.1%, the intermediate value in the range, corresponds to the TFP growth rate in the TN Case and is about the same as the TFP growth rate assumed in a U.S. economic outlook.<sup>(\*1)</sup>

The implementation of policies that have yet to be quantified here and those that have already begun to go on and the acceleration of relevant initiatives are expected to further boost growth. At present, it cannot be said that the quantitative effects of many policy measures have been sufficiently demonstrated. From the perspective of EBPM,<sup>(\*2)</sup> it is desirable to examine the effects of policies for considering policy measures that contribute to growth.

(\*1) According to the CBO (Congressional Budget Office in the U.S.)'s Budget and Economic Outlook (June 2024), the TFP growth rate is around 1.1% on average for the 2024-2034 period (nonfarm private sector).

(\*2) EBPM stands for evidence-based policymaking.

### 3. Medium to long term fiscal projection

On the fiscal side, reflecting the FY2024 Budget, etc. the fiscal projections that are consistent with economic scenarios are shown.<sup>17</sup> In this section, the results of the PP case and the TN case are described from the perspective of focusing on fiscal sustainability. With regard to expenditures, the defense capacity buildup, national resilience measures, etc., whose specific sizes are already decided in the multi-year plans, are reflected<sup>18</sup> in the projection. Social security expenditures are assumed to increase, reflecting factors such as the population aging and the rate of price and wage increases, while other general expenditures are assumed to increase at the rate of price increases. As for revenues, tax revenues and other revenues are assumed to increase in line with the macroeconomic variables.

#### (1) Primary balance and fiscal balance for central and local governments

The ratio of primary balance (PB)<sup>19</sup> to GDP for central and local governments steadily improved since FY2013 until the spread of COVID-19 (around -1.9% in FY2018),<sup>20</sup> because of the promotion of expenditure reforms in the initial budget and the increased revenue due to nominal GDP expansion and the consumption tax rate hike, etc., regardless of the increase in expenditure due to the population aging and supplementary budgets, etc. Subsequently, due to the increase in expenditures (that mostly contribute to supporting the economy) associated with the successive economic measures against the spread of COVID-19, and against the increase in oil prices and other prices, etc., the PB-to-GDP ratio was around -9.1% in FY2020, -5.5% in FY2021, and -3.5% in FY2022. In FY2023 and FY2024, there are increases in the expenditure based on the economic stimulus measures that include policies to relieve the burden borne of higher prices, most of which are supposed to be executed by FY 2024. Based on this, the PB-to-GDP ratio are projected to continue to be negative, around -2.9% in FY2023 and -3.0% in FY2024, but the ratio is projected to be positive, around 0.1% in FY2025<sup>21</sup>.

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<sup>17</sup> See Appendix 1 for detailed assumptions.

<sup>18</sup> ‘Defense Buildup Plan,’ ‘The Five-Year Acceleration Plan for Disaster Prevention, Disaster Mitigation, and Building National Resilience’ and ‘Children’s Future Strategy’ are incorporated in this projection.

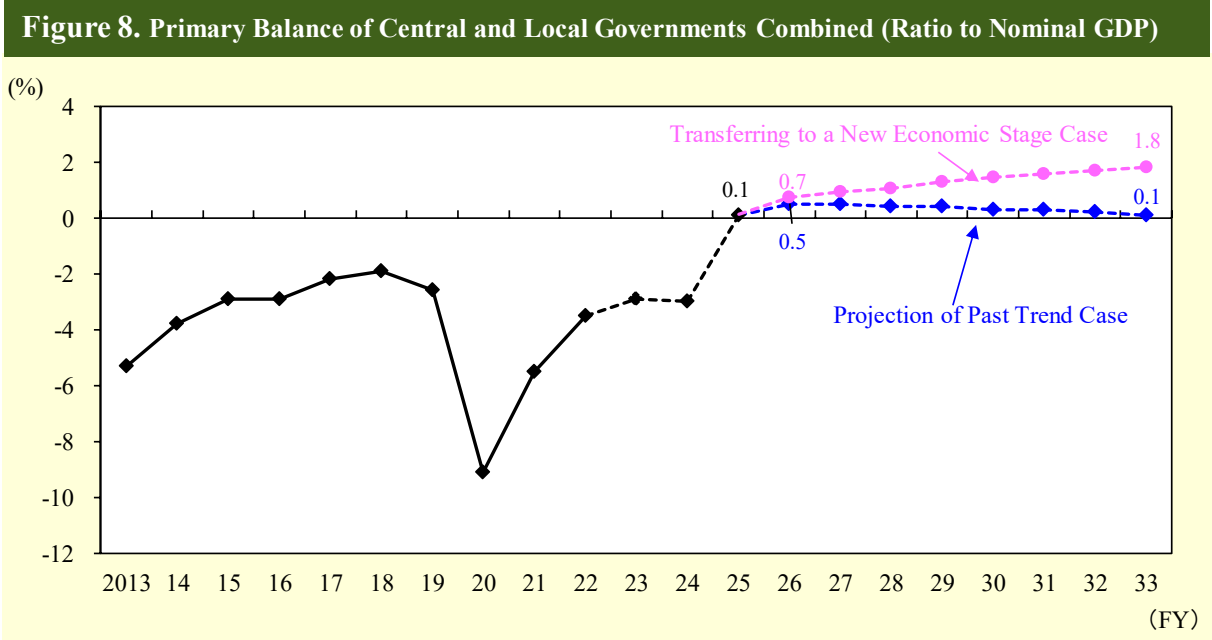
<sup>19</sup> The primary balance (PB) is an indicator of how much of the cost of providing various administrative services, including social security and public works (policy expenses), is covered by tax revenues and other sources. This section discusses trends in PB, excluding expenditures and fiscal resources for the recovery and reconstruction measures and GX measures.

<sup>20</sup> As for information on past financial conditions, including the period of the COVID-19 pandemic, see Cabinet Office’s “Annual Report on the Japanese Economy and Public Finance 2022”, Chapter 1, Section 3.

<sup>21</sup> The effect on improvement in the PB by efforts for expenditure efficiency is assumed to be around 1.3 trillion yen per year when the impact on the economy is taken into consideration, based on the materials submitted by committee of the integrated economic and fiscal reforms to the CEF (April 2, 2024). For the FY2025 budget, this projection incorporates about half (about 0.7 trillion yen) of the effect of efforts for expenditure efficiency (the same assumption as in the previous projections). The analysis on the revision of the PB in FY2025 since our last projection (January 2024) is shown in BOX 2.

Then, in the PP Case, partly because a spending assumption will be stripped out<sup>22</sup>, the PB-to-GDP ratio of central and local governments is projected to be around 0.5% in FY2026, followed by a gradual deterioration. This is because the increase in revenue, which grows at the same rate as nominal GDP growth, is projected to be less than the increase in expenditures, which grow due to the population aging, price and wage factors, etc.<sup>23</sup> The ratio of fiscal balance to GDP for central and local governments is projected to remain deficit during the projection period, due to the increased interest expenses in response to rising interest rates.

In the TN Case, the PB-to-GDP ratio of central and local governments continue to improve during the projection period since 2026. This is because the increase in revenue, which grows at the same rate as nominal GDP growth, is projected to exceed the increase in expenditures, which grows due to the population aging, price and wage factors, etc.<sup>24</sup> The fiscal balance-to-GDP ratio of central and local governments is projected to remain near zero during the projection period, since interest expenses are projected to expand in response to rising interest rates.



(2) Outstanding debt of central and local governments

The ratio of outstanding debt to GDP of central and local governments has been on an upward trend in the 2000s based on the PB deficits and sluggish nominal GDP growth, and rose sharply during the Great Recession. After FY2013, the pace of increase slowed with the improvement of the PB and the increase in nominal GDP. However, due to the impact of the

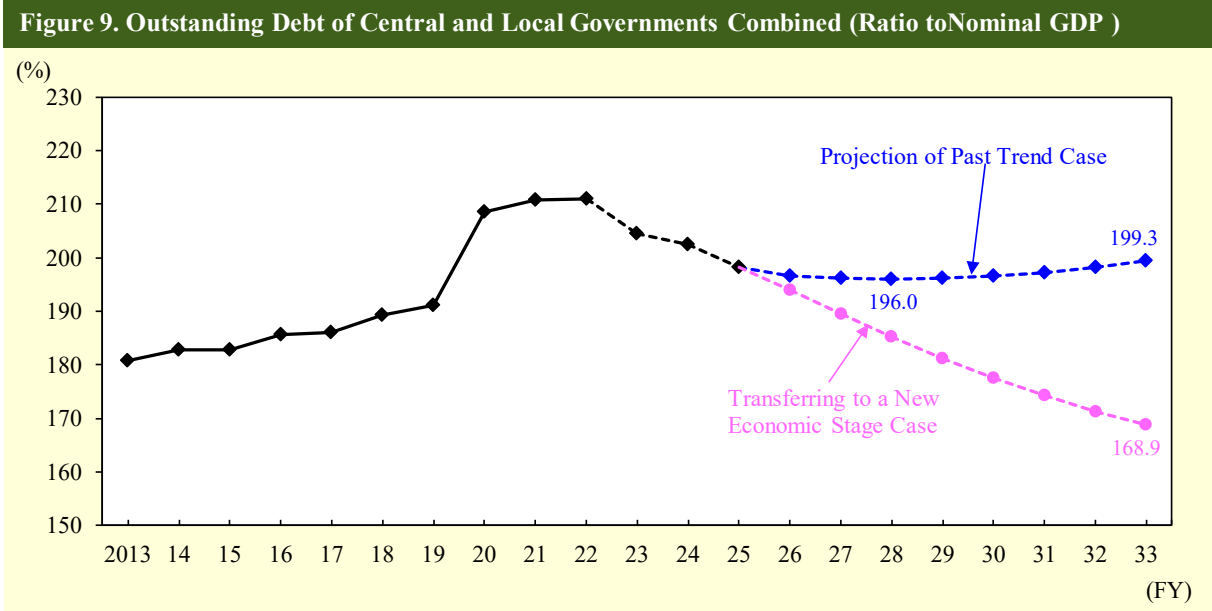
<sup>22</sup> ‘The Five-Year Acceleration Plan for Disaster Prevention, Disaster Mitigation, and Building National Resilience’ is up to FY2025 and does not consider FY2026 and beyond.  
<sup>23</sup> See BOX 2.  
<sup>24</sup> See BOX 2.

COVID-19 pandemic and the supplementary budget to deal with it, the ratio rose significantly again, reaching around 211.0% in FY2022. For the time being, due to the expansion of nominal GDP etc., it is expected to turn downward to around 204.6% in FY2023, 202.5% in FY2024, and 198.3% in FY2025.

Then, in the PP Case, in the latter half of the projection period the ratio is projected to turn to go up, because the amount of outstanding debt, the numerator, is projected to increase due to the deterioration of PB, while the nominal GDP, the denominator, is projected to grow only modestly.

In the TN Case, the ratio steadily tends downward in the projection period, because the increase in the amount of outstanding debt, the numerator, is projected to slow down as a result of the improvement in PB, while the nominal GDP, the denominator, is projected to expand.

It should be noted that as long-term interest rates rise, existing bonds issued at lower interest rates will be refinanced at higher rates.



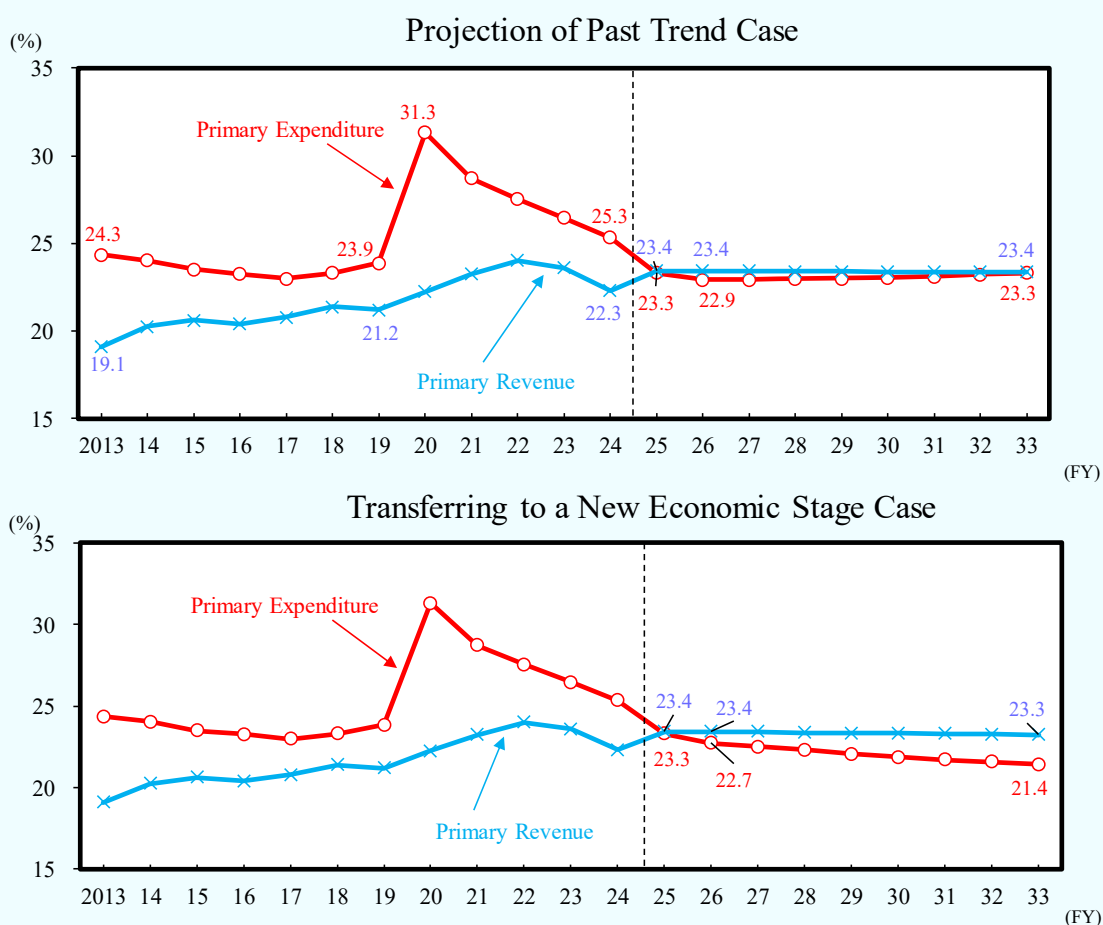
## <BOX 2> Analysis of the PB movements

Since the PB is the difference between primary revenue and primary expenditure, the PB worsens if the revenue growth is less than the expenditure growth, and improves if the revenue growth is greater than the expenditure growth.

Looking at the past movements relative to GDP, until FY2019, the revenue tended to increase, while the expenditure tended to decline, and the resulting PB was gradually on an improving path. From FY2020 to FY2022, although the revenue continued to increase, the expenditures increased significantly due to the large-scale economic measures to tackle the COVID-19 outbreak, which was a major factor in the deterioration of the PB in this period.

In FY2023, as the economic measures to deal with price hikes and to overcome the deflationary economy have been implemented, the expenditure is expected to expand in FY2023 and FY2024. In FY2024, a temporary reduction in the revenue is expected due to the income tax cut etc., but those effects are not assumed from FY2025 onward.

### Primary Revenue and Expenditure (Central and local governments, percent of GDP)



(Notes) 1. The classification is based on IMF's Government Finance Statistics manual 2014.

2. The primary revenue is "revenue" minus "interest income."

3. The primary expenditure is "expenditure" minus "interest payment."

4. Excluding revenue and expenditure for recovery and reconstruction measures and GX measures.

5. These primary revenue and expenditure remove transfers between central and local governments.



The difference between the PP Case and the TN Case is caused by the difference in the mechanisms that determine the growth in expenditure and revenue, as described below.

- As for the revenue growth, it is generally defined by the trends in tax revenues, which account for most of the primary revenue. Since tax revenues are linked to macroeconomic variables, such as household income, consumption, and corporate earnings, they generally have a strong correlation with nominal GDP. In this projection as well, the growth of overall tax revenues is consequently linked to the growth of nominal GDP. For this reason, the ratios of the primary revenue to GDP remain flat in the both cases.
- As for the expenditure growth, social security expenditures increase to reflect aging factors and the rate of price and wage increases, while other general expenditures increase in line with the rate of price increases. Since there is no difference in the aging factor between the two cases, the difference in the expenditure growth is mainly caused by the difference in the rate of price increases. In the PP Case, since the inflation rate and nominal GDP growth rate are similar over the medium to long term, the primary expenditure to GDP ratio does not change so much, while in the TN Case, since the inflation rate is lower than the nominal GDP growth rate, the primary expenditure to GDP ratio declines gradually.

The PB of the central and local governments in FY2025 is projected be around +0.8 trillion yen (+0.1% of GDP), an improvement of about 1.9 trillion yen from the Economic Growth Achieved Case projected in January 2024.

### Factors of the PB Revision in FY2025

Appx. trillion Yen		
	Contribution to the PB	Primary balance in FY 2025
January 2024 projection	/	▲ 1.1
Factors on the revenue side		
· assumption on the underlying tax revenue growth	+ 1.6	
Factors on the expenditure side		
· upswing of the price rate projection in FY2025, etc.	▲ 0.4	
· assumption on the expenditure reform efforts in FY2025	+ 0.7	
July 2024 projection	/	+ 0.8

(Notes) 1. Considerable leeway should be given when interpreting this table, including assumptions on this projection.  
2. Figures in this table are rounded, so the sum of factors and the change of PB do not always match.

As for the revenue side, an underlying increase in tax revenues is assumed based on an upward revision of tax revenues in the Provisional FY2023 Settlement and recent macroeconomic trends, which contributes to the improvement of the PB in FY2025. As for the expenditure side, compared with the previous projection, an upswing of the price increases (while the CPI growth rate for FY2025 was estimated to be 2.0% in the January 2024 projection, it is estimated to be 2.2% in this projection), etc. contributes to the growth in expenditures. For the FY2025 budget, a reduction in the expenditure growth of about half of what it would have been if the expenditure efficiency efforts carried out thus far had continued, is assumed (see the footnote 21). As a result, the expenditure side also contribute to the improvement in the PB in FY2025.

(\*) Differences in the rate of wage growth will also have an impact, but the impact of differences in the rate of price growth will be larger because the expenditure weights involved in wage growth are relatively small.

## 4. Risk and Uncertainty

The medium to long term economic and fiscal projections described so far entail various risks and uncertainties. In the short term, slowing down of overseas economies is downside risk of the Japanese economy, including the effects of continued high interest rate levels in the U.S. and Europe, and the lingering stagnation of the real estate market in China. Also, full attention should be given to price increases, the situation in the Middle East and fluctuations in the financial and capital markets. Furthermore, looking at the medium to long term time horizon, the risks and uncertainties include, for example, the following (i)~(iii).<sup>25</sup>

In order to understand the path and quantitative effects of the external impacts of these risks and uncertainties on the Japanese economy and public finances, we conduct sensitivity analyses based on mechanical calculations of the impact of a decline in the growth rate and an increase in nominal long-term interest rates, etc. Please note that these sensitivity analyses are conducted mechanically and are not discussed with specific scenarios or specific policy changes in mind.

### (i) Changes in medium to long term economic growth

The IMF's "World Economic Outlook" (April 2024) points out several downside risks involved in global economic growth due to such factors as commodity price spikes stemming from regional conflicts, continued price hikes and financial market instability, sluggish recovery in China, sharp fiscal tightening, decline in reform momentum due to declining credibility of the government and the increase in geoeconomic fragmentation, etc.<sup>26</sup> Such a downturn in the global economy puts downward pressure on production and corporate performance through lower exports, etc. If this impact is prolonged, it will have a negative impact on Japan's medium to long term economic growth through sluggish investment, etc.

In the current domestic economy, while there are some factors that could move the medium to long term growth path upward, such as the recent trend in the wage increase and continued high investment motivation, there are also factors that could move the path downward, such as an increase in volatility of the economy and a decline in the expected medium to long term growth rate amid the declining birthrate and the reduction in labor force participation.

In the following, we conduct a sensitivity analysis based on a mechanical calculation of the impact of a decline in the potential growth rate. Here, we assume that the rate of increase in TFP was continuously reduced by about 0.5%pt relative to the PP Case. As a result, combined

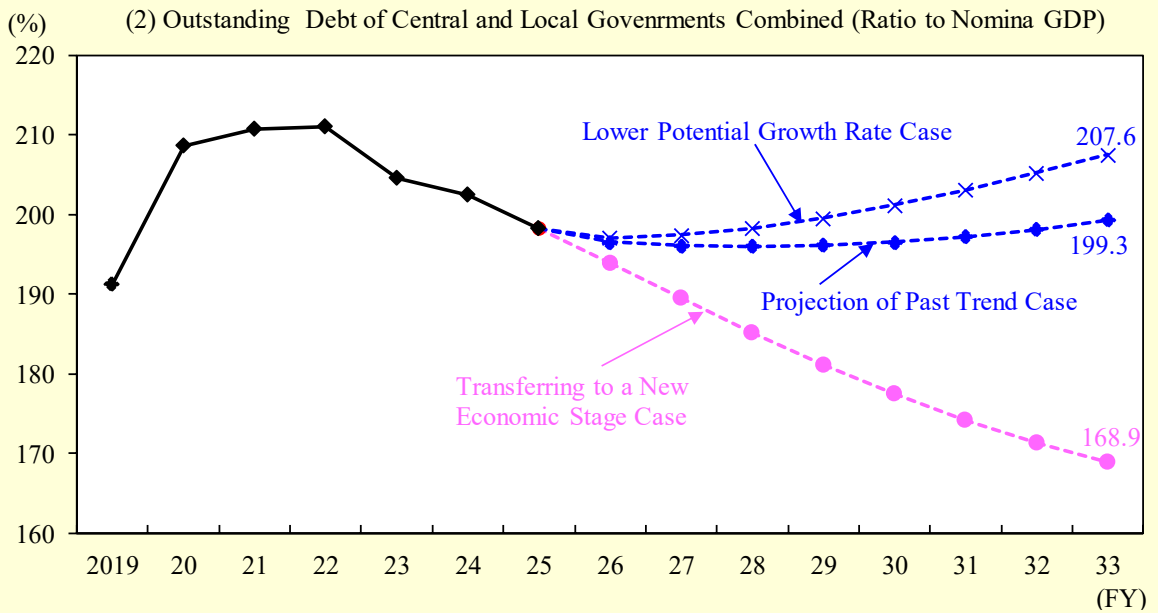
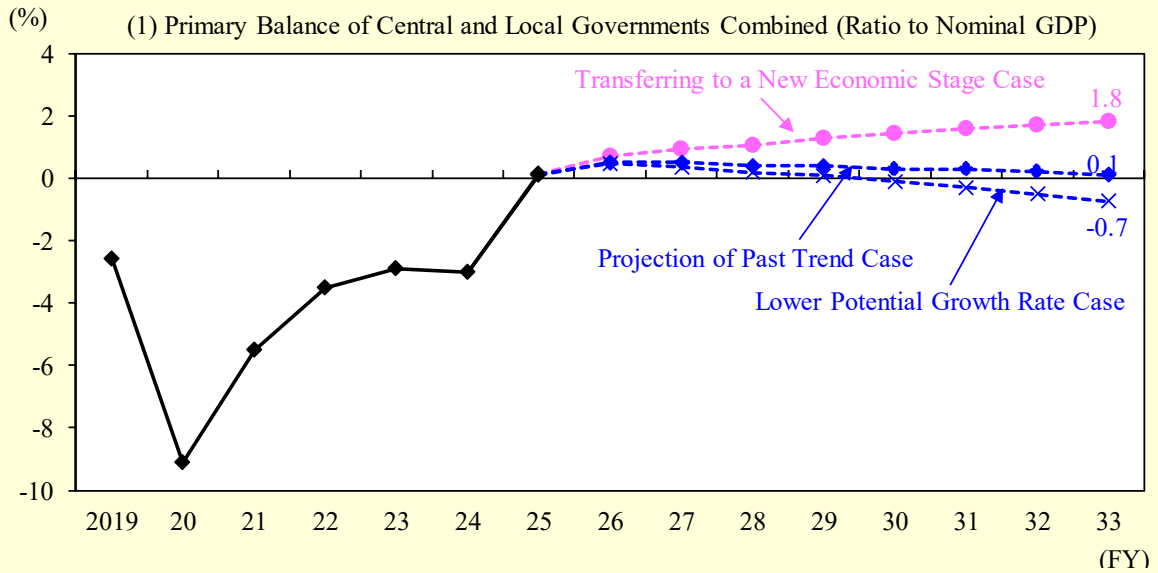
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<sup>25</sup> Those listed here are examples. Risks and uncertainties are not limited to these.

<sup>26</sup> IMF (April 2024) cites as upside risks short-term fiscal spending increases associated with elections in many countries, the reduction of price spikes by factors such as easing supply constraints, the productivity improvement due to the AI, and so on. The World Bank's "Commodity Market Outlook" (April 2024) points out that crude oil prices have both the risks of higher prices due to the intensification of the conflict in the Middle East and the failure of the U.S. shale gas industry to meet its production targets, and the risks of lower prices due to early withdrawal from lower production in OPEC+ and lower demand accompanying lower growth in global economy.

with a decrease in capital input, the potential growth rate declines by about 0.8%pt in the final year of the projection period (FY2033). Due to the revenue decline resulting from the lower growth rate, the PB to GDP ratio deteriorates by about 0.8%pt and the ratio of outstanding debt to GDP increased by about 8.3%pt in the final year of the projection period.

**Figure 10. Lower Potential Growth Rate Case**



(3) Table

FY	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Potential Growth Rate	( 0.5)	( 0.6)	( 0.7)	( 1.0)	( 0.2)	( 0.1)	( 0.0)	(▲0.1)	(▲0.2)	(▲0.3)	(▲0.4)	(▲0.4)
Nominal GDP	568.7	597.3	615.4	632.4	640.1	643.8	647.0	649.6	651.5	653.2	654.8	655.8
Primary Balance of Central and Local Government Combined (Ratio to Nominal GDP)	(▲3.5)	(▲2.9)	(▲3.0)	( 0.1)	( 0.5)	( 0.4)	( 0.2)	( 0.1)	(▲0.1)	(▲0.3)	(▲0.5)	(▲0.7)
Outstanding Debt (Ratio to Nominal GDP)	( 211.0)	( 204.6)	( 202.5)	( 198.3)	( 197.1)	( 197.5)	( 198.3)	( 199.6)	( 201.2)	( 203.1)	( 205.2)	( 207.6)

(Notes) 1. Sensitivity analysis using multiplier tables from the Economic and Fiscal Model (2018).  
 2. The "Lower Potential Growth Rate Case" is the case in which the rate of increase in TFP is continuously 0.5%pt lower than Projection of Past Trend Case during the estimation period (FY2026 and beyond), with no change in other exogenous variables.

(ii) Rise in interest rates

Since the end of 2021, monetary tightening has been implemented in Europe and the U.S and overseas long-term interest rates have risen, which put upward pressure on interest rates in Japan. Regarding the recent nominal long-term interest rate in Japan, after it rose to almost 1% at the end of October 2023, it moved around 0.7% for a while, and then it rose to about 1.0% in June 2024, after the monetary policy change by Bank of Japan in March 2024.

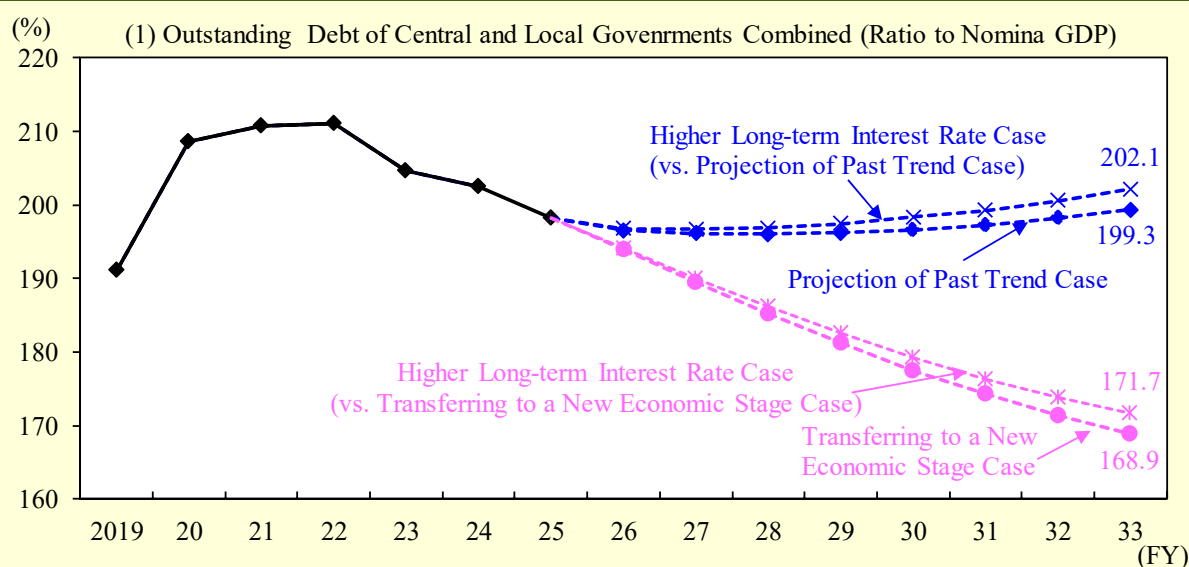
A rise in long-term interest rates could have several impacts on the economy and public finance through various channels.<sup>27</sup> For example, by restraining investment, etc., it could have a negative impact on the real economy. If nominal long-term interest rates rise relative to the nominal GDP growth rate, they could have a negative impact on fiscal sustainability by worsening the fiscal balance and increasing the outstanding debt to GDP ratio.

In the following, we conduct a sensitivity analysis based on a mechanical calculation of the impact of a rise in long-term interest rates. Specifically, we set the long-term interest rate to continuously rise by about 0.5%pt relative to each case. Since interest expenses increased due to the rise in interest rates on newly issued and refinanced bonds, the ratio of the outstanding debt to GDP rose by about 2.8%pt in the final year of the projection period in both cases.

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<sup>27</sup> As for the economic impact of a rise in long-term interest rates, for example, see Cabinet Office's "The Japanese Economy 2005", Chapter 2, Section 1.

**Figure11. Higher Long-term Interest Rate Case**



(2) Table

< vs. Projection of Past Trend Case >												
FY	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Nominal Long-term Interest Rate	0.3	0.6	1.0	1.2	1.7	1.8	1.8	1.8	1.9	1.9	1.9	1.9
Outstanding Debt (Ratio to Nominal GDP)	211.0	204.6	202.5	198.3	196.8	196.7	196.9	197.5	198.3	199.3	200.5	202.1

< vs. Transferring a New Economic Stage Case >												
FY	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Nominal Long-term Interest Rate	0.3	0.6	1.0	1.2	1.8	1.9	2.1	2.4	2.7	3.1	3.3	3.5
Outstanding Debt (Ratio to Nominal GDP)	211.0	204.6	202.5	198.3	194.2	190.1	186.1	182.5	179.3	176.3	173.7	171.7

(Notes) 1. Sensitivity analysis using multiplier tables from the Economic and Fiscal Model (2018).  
 2. The "Higher Long-term Interest Rate Case" is the case in which the nominal rate is continuously 0.5%pt higher than those in both cases during the estimation period (FY2026 and beyond), with no change in other exogenous variables.

(iii) Response to economic fluctuations, etc.

When various economic shocks have occurred, there has often been additional fiscal spending to deal with the crisis. The outstanding debt to GDP of central and local governments rose by about 100%pt over the past 20 years (FY2002-2022), but especially by about 40%pt<sup>28</sup> in the five years following the Great Recession and the response to the COVID-19 pandemic.

While it is desirable for the economy to stabilize at an early stage through fiscal adjustment in response to large shocks, supplementary budgets have been compiled in the past as a flexible response to occasional economic conditions, even when the shocks are not as large as the Great Recession or the pandemic. In the past, the expenditures in the general account of the central government related to the primary balance<sup>29</sup> have tended to swing upward from the initial

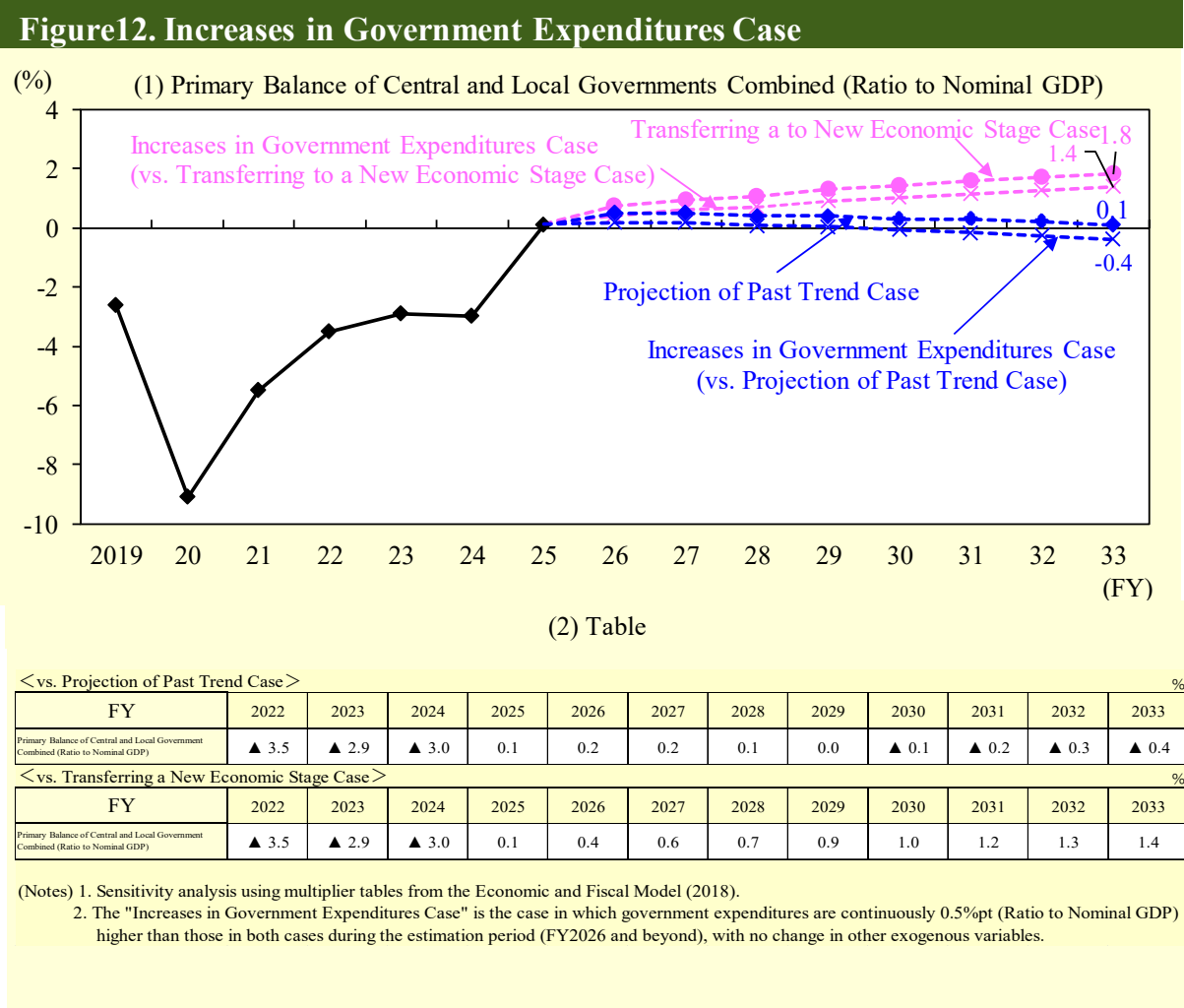
<sup>28</sup> Changes in the ratio of outstanding debt to GDP in FY2008-2010 and FY2019-2022. The outstanding debt has increased by about 600 trillion yen over the past 20 years, of which about 230 trillion yen, or about 40%, has increased over the past five years.

<sup>29</sup> Total expenditures less interest payments and debt redemption costs (excluding subsidy bonds).

budgets to the settlement, at an average of about 3 trillion yen per year<sup>30</sup> in FY2013-2019.

Supplementary budgets in the general account of the central government are compiled in cases of particular urgency under the Public Finance Act,<sup>31</sup> and this projection shows figures that do not incorporate such expenditures that are not specifically envisioned at this time. While the government works to prevent emergency fiscal spending from becoming more prolonged and permanent than necessary, at the same time, it is necessary to realize wise spending so that the spending has a high effect on stable economic growth.

In the following, we conduct a sensitivity analysis based on a mechanical calculation of the impact of the increase in government expenditures from the levels expected in the projection. Specifically, we set the government expenditures to continuously rise by about 0.5% of the nominal GDP relative to each case. As a result, the PB is lower in both cases, and in the PP Case, it turns negative.



<sup>30</sup> Average difference between primary expenditures of the initial budget for the central government and that of the settlement in FY2013-2019. Note that the differences were around 2 trillion yen in the pre-Great Recession period, FY2002-2008, and around 36 trillion yen in FY2020-2022.

<sup>31</sup> Article 29 of the Public Finance Act.

In addition to the above, various uncertainties are involved, such as the impact of wage negotiations on wage trends, the impact of the price pass-through situation on price and wage trends, the change in the trends in tax revenues and fluctuation in the fiscal balance<sup>32</sup> due to the incorporation of settlement, etc. Therefore, considerable leeway should be given when interpreting the projections shown here.<sup>33</sup>

It is important that these risks and uncertainties be kept in mind when discussing medium and long term economic and fiscal policy, and in order to contribute to these discussions, it is useful to show the impact of these risks and uncertainties in the medium- and long-term projections.<sup>34</sup>

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<sup>32</sup> The PB of the central and local governments, which is SNA based, in a given year (say, FY T), reflects the (provisionary) settlement of the general account of the central government in the FY T+1 July projection, resulting in improving by about 2 trillion yen compared with FY T+1 January projection due to the changes in the tax revenue and the redundancy and carry over in the expenditure, etc. (among our projections calculated in the last 10 years, FY2013-2019, which do not include the COVID-19 pandemic periods). Also, in FY T+2 January projection, the FY T PB has tended to improve by about 2 trillion yen compared with that in the FY T+1 July projection as a result of the reflection of the Annual Estimates of SNA which take into account the settlements of local government and special accounts, etc.

<sup>33</sup> As for the results about past projections, see BOX 3.

<sup>34</sup> In the previous projection (2023 July), in BOX 3 “Fan chart of real GDP growth,” as an attempt to show the range of uncertainties a fan chart is demonstrated.



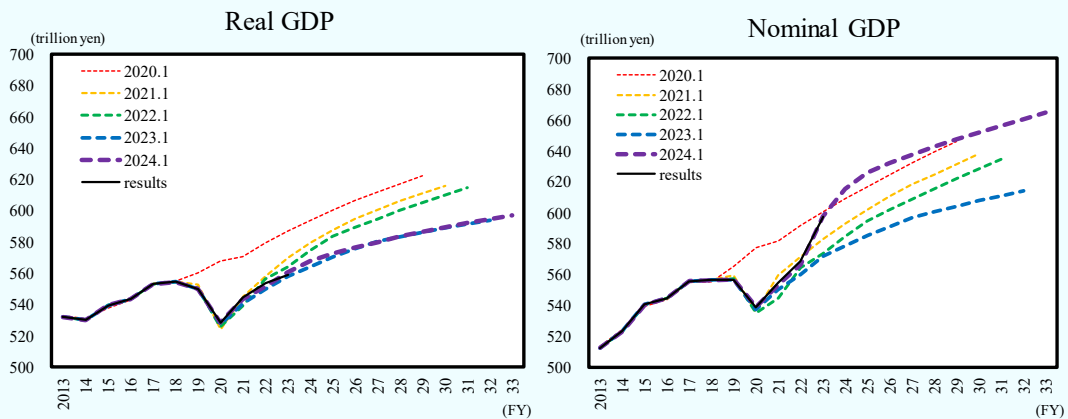
### <BOX 3> Time Series Comparison of the Past Projections

By looking at the time series changes of past projections, it is possible to grasp the tendencies of their deviations from the results, which is supposed to become supplementary information for interpreting estimates in the projections.

In the following, we compare real and nominal GDP projections, starting from January 2020 projection to January 2024 projection, with the actual values<sup>(\*)</sup> from FY2020.

The actual values of real GDP for FY2020-2022 was 5% lower on average than projections made in January 2020 which did not incorporate the impact of the COVID-19. The subsequent projections made in January 2021 and 2022 were revised downward throughout the projection period up to around FY2030, with its downward impacts taken into account. The actual values for FY2022 and FY2023 were slightly lower than the projection made in January 2021.

As with real GDP projections, nominal GDP projections were revised downward in light of the COVID-19 pandemic, etc. In January 2024, however, projections were revised significantly upward due to faster-than-expected price hikes. The actual value for FY2023 was significantly higher than the projections made in January 2023.

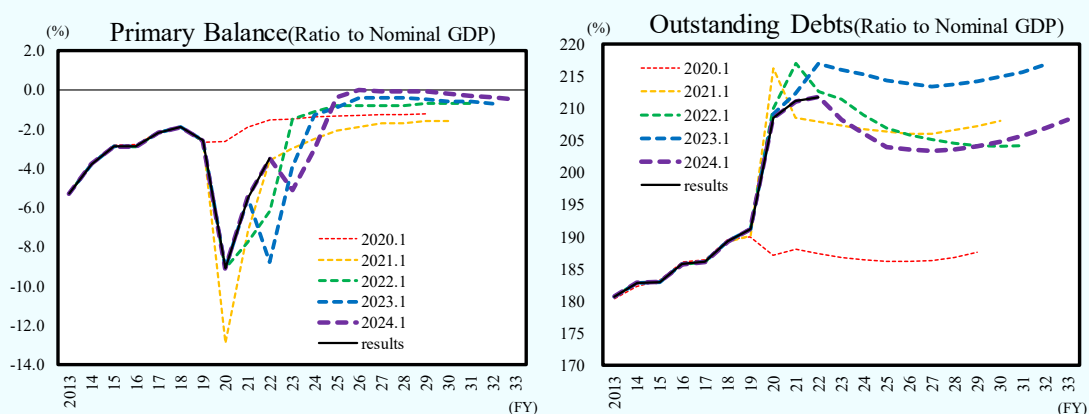


- (Notes) 1. “Economic and Fiscal Projections for Medium to Long Term Analysis” (Projections made in January 2020 to 2024 for the Baseline Case), etc.  
 2. The “2020.1” on this graph takes into account the impact of the SNA standard revision in December 2020.

Similarly, projections and actual values are compared for the ratio of central and local governments’ PB to GDP and that of their outstanding debt to GDP.

The PB-to-GDP ratio for central and local governments was projected in January 2020 before the pandemic to gradually improve from FY2020 to FY2022. However, given that large-scale supplementary budgets were formulated for countermeasures against the pandemic, price hikes including energy price increases, etc., later projections indicated that the PB-to-GDP ratio would deteriorate considerably. In addition, the following deviations emerged between actual values and the projections that reflect the supplementary budgets. Although the ratio for FY2020 was projected in January 2021 at around a negative 13%, for example, the actual ratio for that year improved by about 4%pt from the January 2021 projection<sup>(\*2)</sup> thanks to greater-than-expected tax revenue, unnecessary spending, an increase in carry-over to the next fiscal year, etc. that came through the settlement of accounts. Similar deviations came later (the actual results of the ratio improved by about 2%pt from the projection for FY2021 and by 5%pt for FY2022). Furthermore, continued spending efficiency efforts and tax revenue increases have allowed the ratio over the medium to long term to be projected to gradually improve since January 2022.

As with PB developments, the projected ratio of outstanding debt to GDP for central and local governments was revised upward in January 2021 projection due to the impact of the large-scale supplementary budgets. Since then, supplementary budgets have led to an increase in the projected values, while the actual values reflecting the settlements of accounts and greater-than-projected nominal GDP have slipped below projections. In January 2024 projection, the projected values over the medium to long term were revised downward by around 10%pt from those projected in January 2023.



- (Notes) 1. “Economic and Fiscal Projections for Medium to Long Term Analysis” (Projections made in January 2020 to 2024 for the Baseline Case).  
 2. The nominal GDP of “2020.1” takes into account the impact of the SNA standard revision in December 2020.

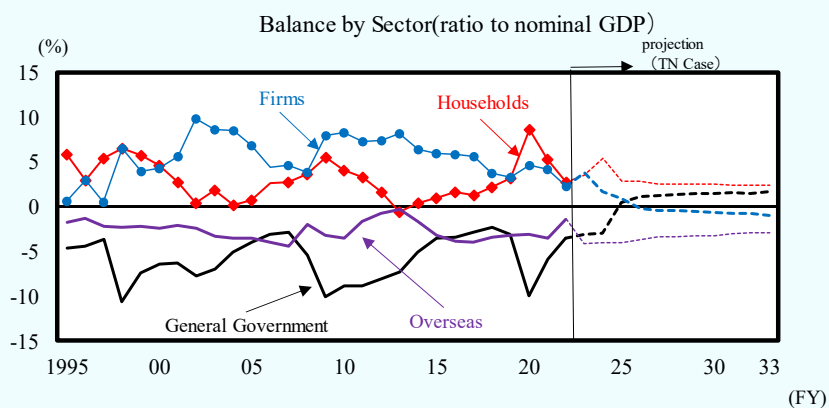
As shown above, actual economic and fiscal results deviate from projections due to major economic shocks such as COVID-19 that had not been expected, subsequent increased spending related to these shocks, and fiscal balance fluctuations reflecting the settlements, etc. Since the projections are accompanied by various uncertainties including these mentioned above<sup>(\*3)</sup>, considerable leeway should be given when interpreting the projections.

- (\*1) The actual values of GDP up to FY2023 is based on the Quarterly Estimates of GDP for January-March 2024 (The Second Preliminary (Revised)).
- (\*2) Such fluctuations in the PB-to-GDP ratio for central and local governments have been remarkable since the COVID-19 pandemic, when supplementary budget sizes were large. Between FY2013 and 2019 before the pandemic, the average annual improvement was less than 1%pt, although fluctuated from year to year (see footnote 32 for details).
- (\*3) See Box 3 “Fan Chart of real GDP growth” in the July 2023 projection.

## <BOX 4> Sectoral Balances and Gross National Income

The economic activities of various sectors are interconnected through distribution and spending. As an indicator of the balance between sectors, there are sectoral balances (balances of saving and investment in sectors). A sectoral balance is equivalent to saving (income earned in the current period minus consumption) minus investment. A country as a whole has households, firms, and general government sectors. The sum of these sectoral balances is balanced by the balance of the overseas sector that represents economic transactions with foreign countries (equivalent to the current account balance).

Past sectoral balance trends in Japan indicate that the general government sector has continued to run deficit, or an investment excess. In FY2020, the general government sector's investment excess increased significantly by spending during the COVID-19 pandemic. The household sector has roughly sustained a saving excess. The household sector's saving excess widened significantly in FY2020 as a decline in consumption opportunities under the COVID-19 pandemic combined with an increase in financial transfer to the sector through government benefits. As consumption grew amid the normalization of economic activities, however, the saving excess narrowed in the household sector. The firms sector has retained a saving excess since the second half of the 1990s, and its saving excess increased in the 2000s. In the overseas sector, which has retained an investment excess, the ratio of an investment excess (current account surplus) to GDP averaged about 3% in the 2000s and 2010s while approaching 0% temporarily in the first half of the 2010s.



(Note) A sectoral balance represents net lending (net borrowings) in the national accounts. The balance of the households sector includes private non-profit institutions serving households. The balance of the firms sector includes statistical discrepancies. The balance of the overseas sector is the opposite sign of the current account balance as seen from Japan, because it records various transactions, receipts and payments to Japan as seen from the overseas.

The balance of the general government sector is projected to turn to a saving excess from an investment excess in FY2025. After that, it is projected to turn back to an investment excess in the PP Case with real economic growth around 0.5%, and projected to sustain a saving excess in 1.0% range of GDP in the TN Case with real economic growth above 1% and progress in fiscal consolidation.

The households sector is projected to temporarily expand a savings excess due to a disposable income increase through the tax cut in FY2024. After that, it is projected to keep a savings excess at around 2% of GDP in both cases, because in the PP Case, income growth is expected to remain modest but consumption and residential investment are not expected to expand significantly, and in the TN Case, strong wage growth is expected but consumption and residential investment are expected to remain strong as well.

The firms sector is projected to temporarily expand a saving excess due to increased financial transfers from the government through a measure to mitigate drastic changes in electricity and gas prices in FY2023. After that, it is projected to retain a saving excess trend in the PP Case for moderate capital investment, and turn to an investment excess in the TN Case for the promotion of domestic investment under a rise in the expected economic growth.

The overseas sector is projected to sustain a current account surplus in both cases. In the PP Case, the past income excess level is projected to be sustained. In the TN Case, exports increase thanks to an increase in domestic supply of goods and services through productivity improvement, while external payments increase due to domestic interest rate hikes.

#### Balance by Sector

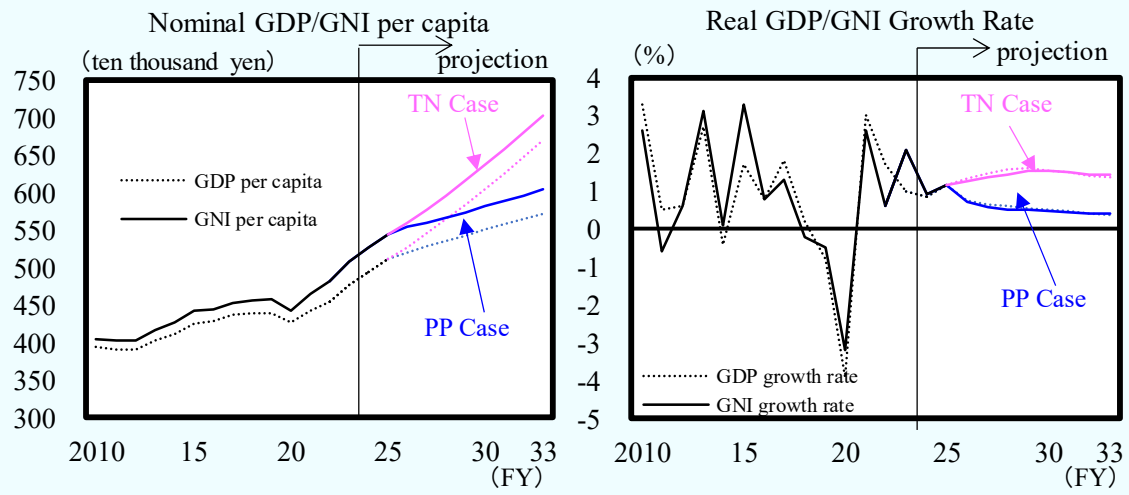
PP Case		Projection											%
FY	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	
General Government	-3.6	-3.1	-3.0	0.4	0.8	0.6	0.4	0.2	0.0	-0.1	-0.4	-0.3	
Households	2.7	3.5	5.4	2.8	2.5	2.4	2.1	2.1	1.9	1.8	1.8	1.8	
Firms	2.2	3.8	1.7	0.8	0.5	0.5	0.5	0.6	0.7	0.8	0.8	0.7	
Overseas	-1.4	-4.2	-4.0	-4.0	-3.8	-3.5	-3.1	-2.9	-2.6	-2.5	-2.2	-2.2	

TN Case													%
FY	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	
General Government	-3.6	-3.1	-3.0	0.4	1.1	1.2	1.3	1.4	1.5	1.5	1.5	1.6	
Households	2.7	3.5	5.4	2.8	2.8	2.5	2.5	2.4	2.4	2.3	2.3	2.3	
Firms	2.2	3.8	1.7	0.8	-0.2	-0.4	-0.4	-0.6	-0.7	-0.8	-0.8	-1.0	
Overseas	-1.4	-4.2	-4.0	-4.0	-3.7	-3.3	-3.4	-3.3	-3.2	-3.1	-2.9	-2.9	

A representative income indicator that takes into account such overseas income is gross national income (GNI). While GDP reflects the value added by domestic production, GNI covers GDP and net income from abroad. For example, if a company or business establishment that belongs to country A generates value added through economic operations in country B, the value added is counted as part of GDP in country B. However, dividends originating from profits earned in country B are counted as part of GNI in country A.

The trends of per capita GNI and GDP over the past 20 years indicate that GNI has been slightly higher than GDP and their gap has widened slightly since FY2021 partly due to the depreciation of yen. In the future, GNI and GDP are projected to remain close to each other.



PP Case

FY	2022	2023	projection									
Nominal GNI per Capita	483.0	508.4	526.5	544.5	554.2	560.1	567.1	574.2	581.9	589.2	596.1	603.7
Real GNI Growth Rate	( 0.6)	( 2.1)	( 0.9)	( 1.2)	( 0.7)	( 0.6)	( 0.5)	( 0.5)	( 0.5)	( 0.4)	( 0.4)	( 0.4)

TN Case

FY	2022	2023	projection									
Nominal GNI per Capita	483.0	508.4	526.5	544.5	560.0	577.2	596.0	615.8	636.7	657.8	679.7	702.6
Real GNI Growth Rate	( 0.6)	( 2.1)	( 0.9)	( 1.2)	( 1.3)	( 1.4)	( 1.4)	( 1.5)	( 1.5)	( 1.5)	( 1.4)	( 1.4)

# 1. Main Results of Projection (Table)

## Projection of Past Trend Case

(%), Trillions of Yen

	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033
Potential GDP Growth	(0.5)	(0.6)	(0.7)	(1.0)	(0.7)	(0.6)	(0.6)	(0.5)	(0.5)	(0.5)	(0.4)	(0.4)
Real GDP Growth	(1.7)	(1.0)	(0.9)	(1.2)	(0.7)	(0.6)	(0.6)	(0.5)	(0.5)	(0.5)	(0.4)	(0.4)
Nominal GDP Growth	(2.5)	(5.0)	(3.0)	(2.8)	(1.5)	(0.9)	(0.9)	(0.9)	(0.8)	(0.8)	(0.7)	(0.7)
Nominal GDP	568.7	597.3	615.4	632.4	641.9	647.9	653.8	659.4	664.8	670.0	675.0	679.7
Per Capita Real GDP Growth	(2.2)	(1.4)	(1.3)	(1.6)	(1.2)	(1.2)	(1.1)	(1.1)	(1.1)	(1.0)	(1.0)	(1.0)
Nominal Wage Growth	(1.7)	(1.3)	(2.8)	(2.8)	(1.7)	(1.1)	(1.1)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)
Unemployment Rate	(2.6)	(2.6)	(2.5)	(2.4)	(2.4)	(2.4)	(2.5)	(2.5)	(2.5)	(2.6)	(2.6)	(2.6)
CPI growth rate	(3.2)	(3.0)	(2.8)	(2.2)	(1.4)	(0.9)	(0.9)	(0.9)	(0.9)	(0.9)	(0.9)	(0.9)
GDP deflator growth rate	(0.8)	(4.0)	(2.2)	(1.6)	(0.8)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)
Nominal Long-term Interest Rate	(0.3)	(0.6)	(1.0)	(1.2)	(1.2)	(1.3)	(1.3)	(1.3)	(1.4)	(1.4)	(1.4)	(1.4)
Primary Balance(ratio to nominal GDP)	(▲3.5)	(▲2.9)	(▲3.0)	(0.1)	(0.5)	(0.5)	(0.4)	(0.4)	(0.3)	(0.3)	(0.2)	(0.1)
Outstanding Debt(ratio to nominal GDP)	(211.0)	(204.6)	(202.5)	(198.3)	(196.5)	(196.1)	(196.0)	(196.2)	(196.6)	(197.2)	(198.1)	(199.3)

## Transferring to a New Economic Stage Case

(%), Trillions of Yen

	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033
Potential GDP Growth	(0.5)	(0.6)	(0.7)	(1.0)	(1.3)	(1.5)	(1.6)	(1.6)	(1.5)	(1.5)	(1.4)	(1.4)
Real GDP Growth	(1.7)	(1.0)	(0.9)	(1.2)	(1.3)	(1.5)	(1.6)	(1.6)	(1.5)	(1.5)	(1.4)	(1.4)
Nominal GDP Growth	(2.5)	(5.0)	(3.0)	(2.8)	(2.8)	(2.9)	(3.0)	(3.0)	(2.9)	(2.9)	(2.8)	(2.8)
Nominal GDP	568.7	597.3	615.4	632.4	650.0	669.1	689.0	709.6	730.5	751.6	772.9	794.5
Per Capita Real GDP Growth	(2.2)	(1.4)	(1.3)	(1.6)	(1.8)	(2.0)	(2.1)	(2.2)	(2.1)	(2.1)	(2.0)	(2.0)
Nominal Wage Growth	(1.7)	(1.3)	(2.8)	(2.8)	(2.8)	(2.9)	(3.0)	(3.0)	(3.0)	(3.0)	(2.9)	(2.9)
Unemployment Rate	(2.6)	(2.6)	(2.5)	(2.4)	(2.4)	(2.4)	(2.5)	(2.5)	(2.5)	(2.6)	(2.6)	(2.6)
CPI growth rate	(3.2)	(3.0)	(2.8)	(2.2)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)
GDP deflator growth rate	(0.8)	(4.0)	(2.2)	(1.6)	(1.4)	(1.4)	(1.4)	(1.4)	(1.4)	(1.4)	(1.4)	(1.4)
Nominal Long-term Interest Rate	(0.3)	(0.6)	(1.0)	(1.2)	(1.3)	(1.4)	(1.6)	(1.9)	(2.2)	(2.6)	(2.8)	(3.0)
Primary Balance(ratio to nominal GDP)	(▲3.5)	(▲2.9)	(▲3.0)	(0.1)	(0.7)	(0.9)	(1.1)	(1.3)	(1.4)	(1.6)	(1.7)	(1.8)
Outstanding Debt(ratio to nominal GDP)	(211.0)	(204.6)	(202.5)	(198.3)	(193.9)	(189.5)	(185.2)	(181.2)	(177.5)	(174.2)	(171.4)	(168.9)

## Higher Economic Growth Case

(%), Trillions of Yen

	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033
Potential GDP Growth	(0.5)	(0.6)	(0.7)	(1.0)	(1.4)	(1.7)	(1.9)	(2.0)	(1.9)	(1.9)	(1.9)	(1.8)
Real GDP Growth	(1.7)	(1.0)	(0.9)	(1.2)	(1.4)	(1.6)	(1.8)	(1.9)	(1.9)	(1.9)	(1.8)	(1.7)
Nominal GDP Growth	(2.5)	(5.0)	(3.0)	(2.8)	(2.8)	(3.1)	(3.2)	(3.3)	(3.3)	(3.2)	(3.2)	(3.2)
Nominal GDP	568.7	597.3	615.4	632.4	650.4	670.4	691.9	714.7	738.0	762.0	786.5	811.4
Per Capita Real GDP Growth	(2.2)	(1.4)	(1.3)	(1.6)	(1.9)	(2.1)	(2.3)	(2.4)	(2.4)	(2.4)	(2.4)	(2.3)
Nominal Wage Growth	(1.7)	(1.3)	(2.8)	(2.8)	(2.9)	(3.1)	(3.4)	(3.4)	(3.4)	(3.4)	(3.3)	(3.3)
Unemployment Rate	(2.6)	(2.6)	(2.5)	(2.4)	(2.4)	(2.4)	(2.5)	(2.5)	(2.5)	(2.6)	(2.6)	(2.6)
CPI growth rate	(3.2)	(3.0)	(2.8)	(2.2)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)
GDP deflator growth rate	(0.8)	(4.0)	(2.2)	(1.6)	(1.4)	(1.4)	(1.4)	(1.4)	(1.4)	(1.4)	(1.4)	(1.4)
Nominal Long-term Interest Rate	(0.3)	(0.6)	(1.0)	(1.2)	(1.4)	(1.5)	(1.8)	(2.1)	(2.6)	(2.9)	(3.2)	(3.4)
Primary Balance(ratio to nominal GDP)	(▲3.5)	(▲2.9)	(▲3.0)	(0.1)	(0.7)	(1.0)	(1.1)	(1.4)	(1.7)	(1.9)	(2.1)	(2.2)
Outstanding Debt(ratio to nominal GDP)	(211.0)	(204.6)	(202.5)	(198.3)	(193.8)	(189.1)	(184.4)	(179.8)	(175.4)	(171.4)	(167.8)	(164.6)

Notes 1. "Per Capita Real GDP Growth" is the change rate of the real GDP divided by the total population. "Nominal Wage Growth" is the change rate of the total wages and salaries divided by the total employees. "CPI Growth rate" refers to the change rate of the general index (nationwide).

2. The "Primary Balance" (hereinafter "PB") shown in this table is the one of the central and local governments, which equals "Fiscal Balance" ("Net lending/net borrowing" in the SNA) of the central and local governments minus net receivable interest (receivable interest [excluding FISIM] minus payable interest [excluding FISIM]). The PBs of both the central and local governments include some special accounts in addition to the general account. Although the debt repayments and interest payments of the Special Account for the Local Allocation and Local Transfer Tax (hereinafter SALALTT) are classified as central government in SNA, in accordance with their contributions, here they are divided into central and local governments.

3. "Outstanding Debt" shown in this table is the one of central and local governments, which is the sum of general bonds (excluding the "Child and Child Care Support Special Bond," which is expected to be issued from the Social Security Fund in the classification of government organizations in the SNA), local government bonds, and borrowing in SALALTT. The amount of decrease in the outstanding debt in FY2023 from the last estimate is mechanically deducted from the outstanding debt in FY2024. The central government's share of the borrowing allocated to the general account in FY2007 is included under outstanding debt in order to maintain the continuity of indices. Borrowing in SALALTT is included in the outstanding debt of the local government.

4. The PB and Outstanding Debt shown in this table exclude the expenditures and the fiscal resources for the recovery and reconstruction measures and GX measures. The amount of "the expenditures and the fiscal resources for the recovery and reconstruction measures" refers to the amount of expenditures for recovery and reconstruction from the Great East Japan Earthquake that exceeds the transfer from the general account, which is compensated for by the reduction of other existing expenditures, and is securely financed by such fiscal resources as reconstruction bonds, securing further non-tax revenues, and special taxation for reconstruction, and the amount of the above fiscal resources. Based on the "Act on Special Measures Concerning the Handling of Environment Pollution by Radioactive Materials Discharged by the NPS Accident Associated with the Tohoku District - Off the Pacific Ocean Earthquake That Occurred on March 11, 2011" (date of promulgation: August 30, 2011), the expenditure concerning the decontamination and interim storage facility project that has been reimbursed from Tokyo Electric Power Company (hereinafter "TEPCO") also includes the expenditures for the recovery and reconstruction measures, deemed to ensure the corresponding resources, considering the progress of payment from TEPCO. The amount of "the expenditures and the fiscal resources for GX measures" refers to the expenditures eligible for the issuance of "Decarbonized Growth-Oriented Economic Structure Transition Bonds," which are funded by future financial resources obtained through carbon pricing, and the fiscal resources for its reimbursement.

## 2. Detailed Results of Fiscal Projection (Table)

### Projection of Past Trend Case

【Central and Local Governments' Public Finances】(Excluding the expenditures and the fiscal resources for the recovery and reconstruction measures and GX measures) (%), Trillions of Yen

	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033
Primary Balance	▲ 20.0	▲ 17.1	▲ 18.6	0.8	3.3	3.2	2.7	2.8	2.3	1.8	1.2	0.5
(ratio to nominal GDP)	(▲3.5)	(▲2.9)	(▲3.0)	(0.1)	(0.5)	(0.5)	(0.4)	(0.4)	(0.3)	(0.3)	(0.2)	(0.1)
Central Government	▲ 26.8	▲ 22.4	▲ 23.1	▲ 8.0	▲ 6.4	▲ 6.4	▲ 6.7	▲ 6.5	▲ 6.7	▲ 6.9	▲ 7.2	▲ 7.6
(ratio to nominal GDP)	(▲4.7)	(▲3.8)	(▲3.8)	(▲1.3)	(▲1.0)	(▲1.0)	(▲1.0)	(▲1.0)	(▲1.0)	(▲1.0)	(▲1.1)	(▲1.1)
Local Government	6.7	5.4	4.5	8.8	9.6	9.6	9.5	9.3	9.0	8.7	8.4	8.1
(ratio to nominal GDP)	(1.2)	(0.9)	(0.7)	(1.4)	(1.5)	(1.5)	(1.4)	(1.4)	(1.4)	(1.3)	(1.2)	(1.2)
Fiscal Balance	▲ 25.1	▲ 21.5	▲ 24.4	▲ 3.4	▲ 1.7	▲ 3.1	▲ 4.7	▲ 5.7	▲ 6.9	▲ 8.2	▲ 9.6	▲ 11.0
(ratio to nominal GDP)	(▲4.4)	(▲3.6)	(▲4.0)	(▲0.5)	(▲0.3)	(▲0.5)	(▲0.7)	(▲0.9)	(▲1.0)	(▲1.2)	(▲1.4)	(▲1.6)
Central Government	▲ 31.0	▲ 26.0	▲ 27.9	▲ 11.2	▲ 10.3	▲ 11.8	▲ 13.2	▲ 14.0	▲ 14.9	▲ 15.9	▲ 17.0	▲ 18.0
(ratio to nominal GDP)	(▲5.5)	(▲4.4)	(▲4.5)	(▲1.8)	(▲1.6)	(▲1.8)	(▲2.0)	(▲2.1)	(▲2.2)	(▲2.4)	(▲2.5)	(▲2.7)
Local Government	5.9	4.4	3.5	7.8	8.7	8.6	8.5	8.3	8.0	7.7	7.4	7.1
(ratio to nominal GDP)	(1.0)	(0.7)	(0.6)	(1.2)	(1.3)	(1.3)	(1.3)	(1.3)	(1.2)	(1.2)	(1.1)	(1.0)
Outstanding Debt	1199.9	1221.9	1246.0	1253.9	1261.6	1270.7	1281.4	1293.5	1306.8	1321.4	1337.5	1354.8
(ratio to nominal GDP)	(211.0)	(204.6)	(202.5)	(198.3)	(196.5)	(196.1)	(196.0)	(196.2)	(196.6)	(197.2)	(198.1)	(199.3)
Central Government	1029.0	1053.9	1082.1	1095.5	1108.9	1123.5	1139.4	1156.5	1174.6	1193.7	1213.9	1235.3
(ratio to nominal GDP)	(180.9)	(176.5)	(175.8)	(173.2)	(172.7)	(173.4)	(174.3)	(175.4)	(176.7)	(178.2)	(179.8)	(181.8)
Local Government	171.0	168.0	163.9	158.4	152.7	147.1	142.0	136.9	132.3	127.8	123.6	119.5
(ratio to nominal GDP)	(30.1)	(28.1)	(26.6)	(25.0)	(23.8)	(22.7)	(21.7)	(20.8)	(19.9)	(19.1)	(18.3)	(17.6)

【General Account of Central Government】

Trillions of Yen

	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033
Expenditures	132.4	127.6	112.6	116.3	118.0	120.4	122.8	125.0	126.9	129.0	131.1	133.2
(Policy Expenditures)	108.9	102.5	85.9	89.7	89.8	90.9	92.0	93.0	93.8	94.7	95.7	96.7
Social Security-related Expenditures	43.9	36.2	37.7	38.9	39.6	40.4	41.1	41.6	42.1	42.6	43.2	43.8
Local Allocation Tax Grants, etc.	17.5	17.2	17.8	19.1	19.4	19.6	19.7	19.9	19.9	20.0	20.2	20.3
Others	47.1	48.7	30.1	31.3	30.4	30.6	30.8	31.1	31.4	31.7	31.9	32.2
Bond Expenditures	23.9	25.5	27.0	27.0	28.6	29.9	31.2	32.4	33.5	34.7	35.8	36.9
Debt Repayment	16.3	17.7	16.9	17.4	17.9	18.2	18.5	18.7	19.1	19.3	19.7	20.0
Interest Payment	7.1	7.4	9.7	9.2	10.3	11.4	12.3	13.3	14.1	14.9	15.8	16.5
Revenues	85.3	94.1	77.1	85.8	87.0	88.0	88.8	89.6	90.3	91.0	91.7	92.4
Tax Revenue	71.1	72.1	69.6	76.8	77.8	78.5	79.1	79.7	80.3	81.0	81.6	82.2
Other Revenues	14.2	22.1	7.5	9.1	9.1	9.5	9.8	9.9	10.0	10.0	10.1	10.2
Primary Balance in General Account of Central Government	▲ 23.6	▲ 8.3	▲ 8.8	▲ 3.9	▲ 2.8	▲ 2.9	▲ 3.2	▲ 3.4	▲ 3.5	▲ 3.7	▲ 4.0	▲ 4.3

【Ordinary Account of Local Government】

Trillions of Yen

	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033
Expenditures	116.7	107.6	102.5	109.2	109.4	110.5	111.7	112.7	113.5	114.3	115.4	116.3
Debt Repayment and Interest Payment	12.3	11.3	10.9	11.3	11.7	11.7	11.7	11.6	11.3	11.0	10.8	10.6
Revenues	104.5	96.8	92.6	100.2	100.6	101.5	102.5	103.4	104.3	105.3	106.3	107.2
Tax Revenue	46.7	47.3	46.5	50.2	50.8	51.3	51.7	52.2	52.6	52.9	53.3	53.7
Primary Balance in Ordinary Account of Local Government	5.2	4.8	6.1	8.4	9.2	9.1	8.9	8.8	8.6	8.5	8.4	8.3

(Reference) 【Central and Local Governments' Public Finances】(Including the expenditures and the fiscal resources for the recovery and reconstruction measures and GX measures)

(%), Trillions of Yen

	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033
Primary Balance	▲ 20.5	▲ 18.5	▲ 19.7	▲ 1.1	1.4	1.4	1.1	1.2	0.7	0.2	▲ 0.5	0.9
(ratio to nominal GDP)	(▲3.6)	(▲3.1)	(▲3.2)	(▲0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.1)	(0.0)	(▲0.1)	(0.1)
Central Government	▲ 27.2	▲ 24.0	▲ 24.3	▲ 9.9	▲ 8.2	▲ 8.2	▲ 8.3	▲ 8.1	▲ 8.3	▲ 8.5	▲ 8.9	▲ 7.2
(ratio to nominal GDP)	(▲4.8)	(▲4.0)	(▲3.9)	(▲1.6)	(▲1.3)	(▲1.3)	(▲1.3)	(▲1.2)	(▲1.2)	(▲1.3)	(▲1.3)	(▲1.1)
Local Government	6.7	5.4	4.5	8.8	9.7	9.6	9.5	9.3	9.0	8.7	8.4	8.1
(ratio to nominal GDP)	(1.2)	(0.9)	(0.7)	(1.4)	(1.5)	(1.5)	(1.4)	(1.4)	(1.4)	(1.3)	(1.2)	(1.2)
Fiscal Balance	▲ 25.6	▲ 23.1	▲ 25.6	▲ 5.3	▲ 3.6	▲ 5.0	▲ 6.5	▲ 7.5	▲ 8.8	▲ 10.0	▲ 11.5	▲ 10.8
(ratio to nominal GDP)	(▲4.5)	(▲3.9)	(▲4.2)	(▲0.8)	(▲0.6)	(▲0.8)	(▲1.0)	(▲1.1)	(▲1.3)	(▲1.5)	(▲1.7)	(▲1.6)
Central Government	▲ 31.4	▲ 27.5	▲ 29.2	▲ 13.1	▲ 12.2	▲ 13.6	▲ 15.0	▲ 15.8	▲ 16.7	▲ 17.8	▲ 18.9	▲ 17.9
(ratio to nominal GDP)	(▲5.5)	(▲4.6)	(▲4.7)	(▲2.1)	(▲1.9)	(▲2.1)	(▲2.3)	(▲2.4)	(▲2.5)	(▲2.7)	(▲2.8)	(▲2.6)
Local Government	5.8	4.5	3.6	7.8	8.7	8.6	8.5	8.3	8.0	7.7	7.4	7.1
(ratio to nominal GDP)	(1.0)	(0.7)	(0.6)	(1.2)	(1.3)	(1.3)	(1.3)	(1.3)	(1.2)	(1.2)	(1.1)	(1.0)
Outstanding Debt	1206.6	1229.6	1254.2	1264.4	1274.0	1284.9	1297.5	1311.5	1326.8	1343.4	1361.5	1378.8
(ratio to nominal GDP)	(212.2)	(205.9)	(203.8)	(199.9)	(198.5)	(198.3)	(198.5)	(198.9)	(199.6)	(200.5)	(201.7)	(202.9)
Central Government	1035.3	1061.2	1090.1	1105.7	1121.0	1137.5	1155.3	1174.3	1194.3	1215.4	1237.6	1259.0
(ratio to nominal GDP)	(182.1)	(177.7)	(177.1)	(174.8)	(174.6)	(175.6)	(176.7)	(178.1)	(179.6)	(181.4)	(183.4)	(185.2)
Local Government	171.4	168.3	164.2	158.7	153.0	147.4	142.3	137.2	132.5	128.0	123.9	119.7
(ratio to nominal GDP)	(30.1)	(28.2)	(26.7)	(25.1)	(23.8)	(22.8)	(21.8)	(20.8)	(19.9)	(19.1)	(18.3)	(17.6)

Notes 1. In "General Account of Central Government," FY2022 is based on the Settlement, FY2023 is based on the FY2023 Provisional Settlement, and FY2024 is based on the FY2024 Budget. In "Ordinary Account of Local Government," FY2022 is based on the Settlement.

2. In "General Account of Central Government," "Policy Expenditures" is General Account Expenditures excluding interest payment, debt repayment (excluding subsidy bonds) and carry-back of settlement deficit compensation. "Debt Repayment" in Bond Expenditures excludes the subsidy bond. The "Primary Balance in General Account of Central Government" equals the sum of "Tax Revenue" and "Other Revenues" minus "Policy Expenditures."

3. In "General Account of Central Government," "Other Revenues" in FY2022 and FY2023 consist of non-tax revenues and preceding fiscal year surplus received (around 32.1 trillion yen and around 33.1 trillion yen, respectively) excluding the balance of fiscal resources carried forward to the next year (around 18.0 trillion yen and around 11.1 trillion yen, respectively).

4. In "Ordinary Account of Local Government," "Revenues" excludes local bonds, reduction of reserve, and the balance of fiscal resources carried forward from total revenues. "Tax Revenue" is the total sum of local taxes and local transfer taxes. The "Primary Balance in Ordinary Account of Local Government" equals "Revenues" minus "Expenditures" excluding debt repayment, interest payment, and reserves.



## Transferring to a New Economic Stage Case

【Central and Local Governments' Public Finances】(Excluding the expenditures and the fiscal resources for the recovery and reconstruction measures and GX measures) (%), Trillions of Yen

	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033
Primary Balance	▲ 20.0	▲ 17.1	▲ 18.6	0.8	4.7	6.2	7.3	9.2	10.5	11.9	13.2	14.5
(ratio to nominal GDP)	(▲3.5)	(▲2.9)	(▲3.0)	(0.1)	(0.7)	(0.9)	(1.1)	(1.3)	(1.4)	(1.6)	(1.7)	(1.8)
Central Government	▲ 26.8	▲ 22.4	▲ 23.1	▲ 8.0	▲ 5.9	▲ 5.1	▲ 4.8	▲ 3.9	▲ 3.2	▲ 2.8	▲ 2.3	▲ 1.9
(ratio to nominal GDP)	(▲4.7)	(▲3.8)	(▲3.8)	(▲1.3)	(▲0.9)	(▲0.8)	(▲0.7)	(▲0.5)	(▲0.4)	(▲0.4)	(▲0.3)	(▲0.2)
Local Government	6.7	5.4	4.5	8.8	10.6	11.4	12.1	13.0	13.8	14.7	15.5	16.4
(ratio to nominal GDP)	(1.2)	(0.9)	(0.7)	(1.4)	(1.6)	(1.7)	(1.8)	(1.8)	(1.9)	(2.0)	(2.0)	(2.1)
Fiscal Balance	▲ 25.1	▲ 21.5	▲ 24.4	▲ 3.4	▲ 0.3	▲ 0.2	▲ 0.6	▲ 0.0	▲ 0.0	▲ 0.3	▲ 0.8	▲ 1.4
(ratio to nominal GDP)	(▲4.4)	(▲3.6)	(▲4.0)	(▲0.5)	(▲0.0)	(▲0.0)	(▲0.1)	(▲0.0)	(▲0.0)	(▲0.0)	(▲0.1)	(▲0.2)
Central Government	▲ 31.0	▲ 26.0	▲ 27.9	▲ 11.2	▲ 9.9	▲ 10.6	▲ 11.8	▲ 12.2	▲ 13.0	▲ 14.3	▲ 15.7	▲ 17.2
(ratio to nominal GDP)	(▲5.5)	(▲4.4)	(▲4.5)	(▲1.8)	(▲1.5)	(▲1.6)	(▲1.7)	(▲1.7)	(▲1.8)	(▲1.9)	(▲2.0)	(▲2.2)
Local Government	5.9	4.4	3.5	7.8	9.6	10.4	11.2	12.1	13.0	14.0	14.9	15.8
(ratio to nominal GDP)	(1.0)	(0.7)	(0.6)	(1.2)	(1.5)	(1.6)	(1.6)	(1.7)	(1.8)	(1.9)	(1.9)	(2.0)
Outstanding Debt	1199.9	1221.9	1246.0	1253.9	1260.6	1267.9	1276.2	1285.7	1296.6	1309.5	1324.4	1341.8
(ratio to nominal GDP)	(211.0)	(204.6)	(202.5)	(198.3)	(193.9)	(189.5)	(185.2)	(181.2)	(177.5)	(174.2)	(171.4)	(168.9)
Central Government	1029.0	1053.9	1082.1	1095.5	1108.4	1121.8	1136.3	1151.7	1168.1	1185.9	1205.5	1227.0
(ratio to nominal GDP)	(180.9)	(176.5)	(175.8)	(173.2)	(170.5)	(167.7)	(164.9)	(162.3)	(159.9)	(157.8)	(156.0)	(154.4)
Local Government	171.0	168.0	163.9	158.4	152.2	146.0	139.9	134.0	128.6	123.6	119.0	114.8
(ratio to nominal GDP)	(30.1)	(28.1)	(26.6)	(25.0)	(23.4)	(21.8)	(20.3)	(18.9)	(17.6)	(16.4)	(15.4)	(14.5)

【General Account of Central Government】

Trillions of Yen

	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033
Expenditures	132.4	127.6	112.6	116.3	118.6	122.1	125.9	129.9	134.0	138.5	143.4	148.4
(Policy Expenditures)	108.9	102.5	85.9	89.7	90.3	92.4	94.7	97.0	99.2	101.5	103.9	106.3
Social Security-related Expenditures	43.9	36.2	37.7	38.9	39.8	40.8	42.0	43.0	44.1	45.1	46.1	47.3
Local Allocation Tax Grants, etc.	17.5	17.2	17.8	19.1	19.6	20.3	20.8	21.5	21.9	22.6	23.2	23.9
Others	47.1	48.7	30.1	31.3	30.5	30.9	31.5	32.1	32.8	33.4	34.1	34.8
Bond Expenditures	23.9	25.5	27.0	27.0	28.6	30.1	31.6	33.2	35.2	37.4	39.9	42.4
Debt Repayment	16.3	17.7	16.9	17.4	17.9	18.2	18.5	18.8	19.2	19.5	19.9	20.3
Interest Payment	7.1	7.4	9.7	9.2	10.4	11.5	12.7	14.1	15.6	17.6	19.6	21.8
Revenues	85.3	94.1	77.1	85.8	88.1	90.9	93.6	96.4	99.2	102.0	104.9	107.8
Tax Revenue	71.1	72.1	69.6	76.8	79.0	81.4	83.7	86.2	88.7	91.3	93.9	96.5
Other Revenues	14.2	22.1	7.5	9.1	9.2	9.5	9.9	10.2	10.5	10.8	11.0	11.3
Primary Balance in General Account of Central Government	▲ 23.6	▲ 8.3	▲ 8.8	▲ 3.9	▲ 2.2	▲ 1.5	▲ 1.1	▲ 0.7	0.0	0.6	1.1	1.5

【Ordinary Account of Local Government】

Trillions of Yen

	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033
Expenditures	116.7	107.6	102.5	109.2	110.2	112.9	115.7	118.9	122.1	125.4	128.7	132.4
Debt Repayment and Interest Payment	12.3	11.3	10.9	11.3	11.7	11.7	11.7	11.5	11.2	11.0	10.8	10.6
Revenues	104.5	96.8	92.6	100.2	101.8	104.5	107.4	110.6	114.0	117.4	120.8	124.2
Tax Revenue	46.7	47.3	46.5	50.2	51.6	53.1	54.7	56.3	58.0	59.7	61.3	63.1
Primary Balance in Ordinary Account of Local Government	5.2	4.8	6.1	8.4	9.9	10.7	11.6	12.7	13.9	15.1	16.2	17.3

(Reference) 【Central and Local Governments' Public Finances】(Including the expenditures and the fiscal resources for the recovery and reconstruction measures and GX measures) (%), Trillions of Yen

	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033
Primary Balance	▲ 20.5	▲ 18.5	▲ 19.7	▲ 1.1	2.9	4.5	5.6	7.5	8.9	10.2	11.5	14.9
(ratio to nominal GDP)	(▲3.6)	(▲3.1)	(▲3.2)	(▲0.2)	(0.4)	(0.7)	(0.8)	(1.1)	(1.2)	(1.4)	(1.5)	(1.9)
Central Government	▲ 27.2	▲ 24.0	▲ 24.3	▲ 9.9	▲ 7.7	▲ 6.9	▲ 6.5	▲ 5.5	▲ 4.9	▲ 4.5	▲ 4.0	▲ 1.5
(ratio to nominal GDP)	(▲4.8)	(▲4.0)	(▲3.9)	(▲1.6)	(▲1.2)	(▲1.0)	(▲0.9)	(▲0.8)	(▲0.7)	(▲0.6)	(▲0.5)	(▲0.2)
Local Government	6.7	5.4	4.5	8.8	10.6	11.4	12.1	13.0	13.8	14.7	15.5	16.4
(ratio to nominal GDP)	(1.2)	(0.9)	(0.7)	(1.4)	(1.6)	(1.7)	(1.8)	(1.8)	(1.9)	(2.0)	(2.0)	(2.1)
Fiscal Balance	▲ 25.6	▲ 23.1	▲ 25.6	▲ 5.3	▲ 2.2	▲ 2.1	▲ 2.4	▲ 1.9	▲ 1.9	▲ 2.3	▲ 2.8	▲ 1.5
(ratio to nominal GDP)	(▲4.5)	(▲3.9)	(▲4.2)	(▲0.8)	(▲0.3)	(▲0.3)	(▲0.3)	(▲0.3)	(▲0.3)	(▲0.3)	(▲0.4)	(▲0.2)
Central Government	▲ 31.4	▲ 27.5	▲ 29.2	▲ 13.1	▲ 11.8	▲ 12.5	▲ 13.6	▲ 14.0	▲ 14.9	▲ 16.3	▲ 17.7	▲ 17.3
(ratio to nominal GDP)	(▲5.5)	(▲4.6)	(▲4.7)	(▲2.1)	(▲1.8)	(▲1.9)	(▲2.0)	(▲2.0)	(▲2.0)	(▲2.2)	(▲2.3)	(▲2.2)
Local Government	5.8	4.5	3.6	7.8	9.6	10.4	11.2	12.1	13.0	14.0	14.9	15.8
(ratio to nominal GDP)	(1.0)	(0.7)	(0.6)	(1.2)	(1.5)	(1.6)	(1.6)	(1.7)	(1.8)	(1.9)	(1.9)	(2.0)
Outstanding Debt	1206.6	1229.6	1254.2	1264.4	1273.0	1282.2	1292.4	1303.8	1316.8	1331.7	1348.9	1366.4
(ratio to nominal GDP)	(212.2)	(205.9)	(203.8)	(199.9)	(195.8)	(191.6)	(187.6)	(183.7)	(180.3)	(177.2)	(174.5)	(172.0)
Central Government	1035.3	1061.2	1090.1	1105.7	1120.5	1135.8	1152.1	1169.5	1187.9	1207.9	1229.6	1251.3
(ratio to nominal GDP)	(182.1)	(177.7)	(177.1)	(174.8)	(172.4)	(169.8)	(167.2)	(164.8)	(162.6)	(160.7)	(159.1)	(157.5)
Local Government	171.4	168.3	164.2	158.7	152.5	146.3	140.2	134.3	128.9	123.9	119.3	115.1
(ratio to nominal GDP)	(30.1)	(28.2)	(26.7)	(25.1)	(23.5)	(21.9)	(20.4)	(18.9)	(17.6)	(16.5)	(15.4)	(14.5)

Notes 1. In "General Account of Central Government," FY2022 is based on the Settlement, FY2023 is based on the FY2023 Provisional Settlement, and FY2024 is based on the FY2024 Budget. In "Ordinary Account of Local Government," FY2022 is based on the Settlement.

2. In "General Account of Central Government," "Policy Expenditures" is General Account Expenditures excluding interest payment, debt repayment (excluding subsidy bonds) and carry-back of settlement deficit compensation. "Debt Repayment" in Bond Expenditures excludes the subsidy bond. The "Primary Balance in General Account of Central Government" equals the sum of "Tax Revenue" and "Other Revenues" minus "Policy Expenditures."

3. In "General Account of Central Government," "Other Revenues" in FY2022 and FY2023 consist of non-tax revenues and preceding fiscal year surplus received (around 32.1 trillion yen and around 33.1 trillion yen, respectively) excluding the balance of fiscal resources carried forward to the next year (around 18.0 trillion yen and around 11.1 trillion yen, respectively).

4. In "Ordinary Account of Local Government," "Revenues" excludes local bonds, reduction of reserve, and the balance of fiscal resources carried forward from total revenues. "Tax Revenue" is the total sum of local taxes and local transfer taxes. The "Primary Balance in Ordinary Account of Local Government" equals "Revenues" minus "Expenditures" excluding debt repayment, interest payment, and reserves.

## (Appendix 1) Detailed Assumptions

The future population is based on the National Institute of Population and Social Security Research's "Population Projections for Japan" (estimated in 2023) with the births (deaths) median estimates of total population (including foreign nationals in Japan). The economic variables are based on the "Annual Report on National Accounts for 2022," etc. until FY2022, the "Quarterly Estimates of GDP for January-March 2024 (The Second Preliminary (Revised))," etc. for FY2023 and the "Mid-Year Economic Outlook for FY2024 (July 19, 2024, submitted to the CEF)," etc. for FY2024 and FY2025.

### **(1) Macroeconomy**

#### **Projection of Past Trend (PP) Case**

##### a) Total Factor Productivity (TFP) Growth Rate

-The TFP growth rate stays around 0.5% (Average from Oct-Dec 2012 to Apr-Jun 2020 (16th business cycle)).

##### b) Labor Force Participation (LFP) Rate

- The LFP rate shifts gradually referring to the estimates in "the baseline economic growth case in which labor participation advance to some extent" of the "Estimation of Labor Demand and Supply in FY2023 (Preliminary) (March 11, 2024)" by the Japan Institute for Labour Policy and Training (JILPT) (for example, the LFP rate among females aged 25-44 gradually rises from around 83 % in FY2023 to 89% in FY2033, that among males aged 65-69 gradually rises from around 64% in FY2023 to 75% in FY 2033, and that among females aged 65-69 gradually rises from around 44% in FY2023 to 53% in FY2033).

##### c) World Economy, etc.

< Real GDP Growth Rate of World Economy (considering the export shares from Japan [10 major destination countries])>

-The growth rate moves at around 2.7% to 2.8% annually from FY2026 to FY2029, based on the "World Economic Outlook" (WEO) by the IMF (April, 2024). From FY2030 onward, it remains constant, at around 2.8%.

<Inflation Rate (considering the export shares from Japan [10 major destination countries])>

-The inflation rate moves at around 1.9% to 2.1% annually from FY2026 to FY2029, based on the WEO (April, 2024). From FY2030 onward, it remains constant, at around 1.9%.

##### <Crude Oil Prices>

-Based on the assumptions of the Cabinet Office's "Mid-Year Economic Outlook for FY2024", the crude oil price is set to \$88.1 per barrel in FY2025 (-0.2% compared with the previous year), and remains constant from then onward.

#### **Transferring to a New Economic Stage (TN) Case and Higher Economic Growth (HG) Case**

Differences from the PP Case are as follows:

##### a) TFP Growth Rate

-In TN Case, the TFP growth rate reaches around 1.1%, the average for the last 40 years including the most recent business cycle (April-June 1980 to April-June 2020).

-In HG Case, the TFP growth rate reaches around 1.4%, the average for the period before the Japanese economy entered the deflationary situation (April-June 1980 to January-March 1999).

b) Labor Force Participation (LFP) Rate

- The LFP rate shifts gradually referring to the estimates in "the economic growth achieved case in which labor participation strongly advance" of the "Estimation of Labor Demand and Supply in FY2023 (Preliminary) (March 11, 2024)" by the JILPT (for example, the LFP rate among females aged 25-44 gradually rises from around 83% in FY2023 to 90% in FY2033, that among males aged 65-69 gradually rises from around 64% in FY2023 to 78% in FY2033, and that among females aged 65-69 gradually rises from around 44% in FY2023 to 55% in FY2033).

Below are the process for producing variables in HG Case.

- Potential growth rate, real growth rate, primary balance of central and local governments (ratio to nominal GDP) and outstanding debt of central and local governments (ratio to nominal GDP) are computed by adding to the estimates in the TN Case the increment associated with the change in TFP growth rate using the main multiplier tables listed in "Economic and Fiscal Model (FY2018 version)".
- Unemployment rate, CPI inflation rate and GDP deflator growth rate in the HG Case are common with those in the TN Case. The nominal growth rate is implicitly calculated by the real growth rate and the GDP deflator growth rate.
- Nominal wage growth rate in the HG Case is computed by adding to the estimate in the TN Case the increment in the labor productivity growth rate (this is in fact equals to the increment in the potential growth rate since the two cases share the assumptions on the labor force participation). Nominal long-term interest rate in the HG Case is calculated by adding to the estimate in the TN Case the difference in the nominal growth rate.

**(2) Revenue**

- Tax revenues of the general account of the central government in FY2022 reflect the "FY2022 Settlement," those in FY2023 reflect the "FY2023 Provisional Settlement" and those in FY2024 reflect the "FY2024 Budget".
- Based on the "Act to Partially Amend the Income Tax Act and Others" (Act Number 8, 2024), and other sources, the legislated tax system is assumed to continue (a flat cut in the income tax and the individual inhabitant tax is assumed to take place only in FY2024).
- Based on the "Act on Special Measures for Securing Fiscal Resources Necessary to Implement Measures for Reconstruction Following the Great East Japan Earthquake" (Act Number 117, 2011) and the "Act on Temporary Special Provision on Local Tax to Secure Necessary Fiscal Resources for Local Governments to Implement Policies for Disaster Prevention Related to Recovery from the Great East Japan Earthquake" (Act Number 118, 2011), the projections reflect the implementation of the special tax for reconstruction and the rise in the individual inhabitant tax on a per capita basis. The tax rate cut in the special income tax for reconstruction and the extension of its taxable period along with securing fiscal resources for the implementation of defense capability buildup are not assumed, as its implementation period etc. are not decided.

**(3) Expenditures**

- The expenditures of the general account of the central government in FY2022 reflect the "FY2022 Settlement," those in FY2023 reflect the "FY2023 Provisional Settlement," and those in FY2024 reflect the "FY2024 Budget."
- The expenditures for FY2025, taking into account trends in prices and wages and the

- expenditure reform efforts thus far, and excluding factors such as the population aging consequently, are calculated mechanically with a reduction in expenditure growth by about half of the amount that the expenditure reform efforts could curve if it is continued.
- On top of this, an additional expenditure of two trillion yen is assumed in FY2025, based on "Five-Year Acceleration Measures for Disaster Risk Reduction, and National Resilience" (December 11, 2020, decided by the Cabinet) and the implementation progress of its budgets in the past.
  - From FY2026, social security expenditures increase, reflecting the population aging and price and wage developments, and other expenditures increase along with the inflation rate (constant in real terms). However, the expenditures of the defense capability buildup and the child and childcare support in a specific period reflect the expenditure amount as assumed below, and there is no specified-purpose reserve fund, etc. assumed in the projection period.
  - Social security expenditures reflect the "Act to Partially Amend the National Pension Act and Others to Enhance National Pension System" (Act Number 40, 2020), the "Act to Partially Amend the Health Insurance Act and Others to Build a Social Security System Oriented to All Generations" (Act Number 66, 2021), the "Act Partially Amending the Health Insurance Act and Other Acts in Order to Establish a Sustainable Social Security System That Covers All Generations" (Act Number 31, 2023) and the "Act to Partially Amend the Act on Child and Childcare Support" (Act Number 47, 2024).
  - The series of social security-related expenditures is endogenously obtained within the "Economic and Fiscal Model (FY2018)" based on future demographics and macroeconomic dynamics. Considerable leeway should be given when interpreting the projections since the series is significantly affected by policies and other external factors.

**(4) Assumptions on the Expenditures and Financial Resources for the Implementation of Defense Capability Buildup**

- Based on the "Defense Buildup Program" (December 16, 2022, Decided by the Cabinet) etc., the assumptions are as follows:
- The total expenditures for the necessary level of defense capability buildup from FY2023 to FY2027 amount to around 43 trillion yen. After the expenditures in FY2023 is set at around 7.1 trillion yen of the "FY2023 Supplementary Budget," the rest of expenditures is allocated equally from FY2024 to FY2027 (for FY2024, only "Central and Local Governments' Public Finances" reflects this). From FY2028 onward, the expenditures increase along with the inflation rate, in line with other general expenditures.
- For financial resources related to the program, the necessary measures will be taken to secure financial resources for the additional expenditures of the annual defense budgets from FY2023 to FY 2027 (around 40.5 trillion yen in total). The measures include reform of expenditures, utilization of settlement surplus, defense capability reinforcement funds utilizing non-tax revenue, and tax measures (not all of the non-tax revenue, including the new funds, are included in the calculation of the primary balance of central and local governments). After the financial resources in FY2023 are set at the "FY2023 Supplementary Budget" and those in FY2024 are set at "FY2024 Budget," the rest of the financial resources is allocated from FY2025 to FY2027, linking to the size of the additional expenditures of the annual defense budgets. All of the financial resources are added to the Other Revenues in the General Account of the central government without assuming any breakdown (in the "Central and Local Governments' Public Finance," the ratio of the financial resources that are not included in the calculation of the primary balance is taken into consideration). The financial resources are counted as those for the year in which they are generated, based on the rule of the SNA. From FY2028 onward, the necessary measures will be assumed to be taken, as in FY2027.

#### **(5) Assumptions on the Expenditures and Financial Resources for the Implementation of GX**

- Based on the "Strategy for the Promotion of Transition to a Decarbonized Growth-Oriented Economic Structure" (July 28, 2023, Decided by the Cabinet) and the "Law on Promotion of Smooth Transition to a Decarbonized Growth-Oriented Economic Structure" (Law No. 32, 2023), the assumptions are as follows:
- The total expenditures of around 20 trillion yen will be budgeted in the Special Account for Energy Measures for the 10 years from FY2023 to FY2032. As for the allocation to each year, the expenditures excluding 3.3 trillion yen, which are already reflected in FY2022, 2023 and 2024, are equally allocated to each of the remaining years.
- The expenditure that amounts to around 20 trillion yen is assumed to be financed by issuing "Decarbonized Growth-Oriented Economic Structure Transition Bonds" funded by future financial resources through carbon pricing. Regarding the carbon pricing, although the GX-surcharge is expected to be introduced from FY2028 and the paid auctioning under the emission trading system is from FY2033, this projection does not incorporate such revenues since specific volumes of these are yet to be clear.
- The "Decarbonized Growth-Oriented Economic Structure Transition Bonds" are to be redeemed by FY2050 with the future financial resources secured from carbon pricing. Since this framework is designed to be balanced by expenditures and financial resources neutrally on a multi-year basis, the figures in the "Central and Local Governments' Public Finances" exclude the expenditures and the fiscal resources for GX measures (specifically, the figures exclude the expenditures and the fiscal resources for both recovery and reconstruction measures and GX measures; the figures including the amount of these expenditures and financial resources are also shown separately).

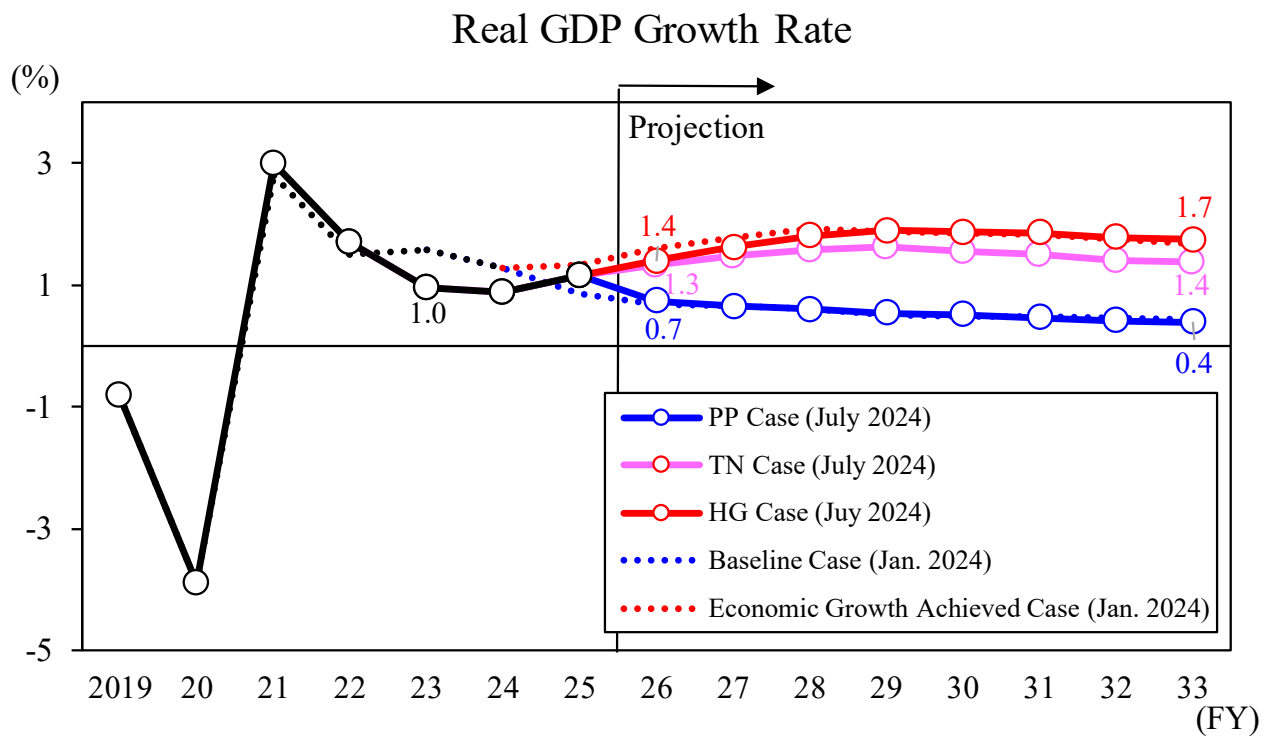
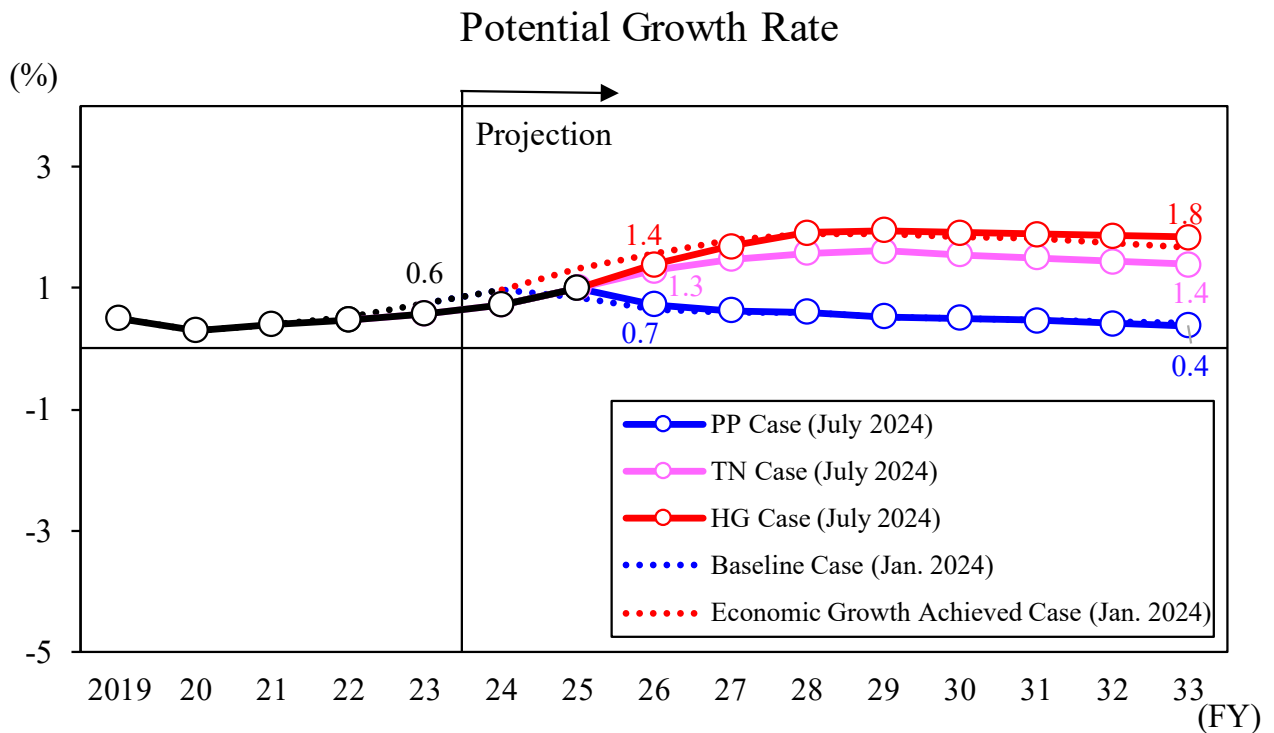
#### **(6) Assumptions on the Expenditures and Financial Resources for the Implementation of the Child and Child Care Support Policy**

- Based on the "Children's Future Strategy" (December 22, 2023, Cabinet decision) etc., the assumptions are as follows:
- Regarding the expenditure, around 3.6 trillion yen, which is the budget size of the "Child and Child Care Support Acceleration Plan," is assumed to be added by FY2028. After the expenditures in FY2023 are set at the "FY2023 Supplementary Budget" and those in FY2024 are set at "FY2024 Budget," those in FY2025 are set at around three quarters of the additional spending and those in FY2026-2028 are mechanically assumed reflecting each institutional factor. From FY2029, the expenditures increase along with the inflation rate, in line with other general expenditures.
- Regarding the financial resources related to the program, around 3.6 trillion yen is assumed to be secured by FY2028 when the "Child and Child Care Support Acceleration Plan" is planned to be completed, through the utilization of the existing budget (around 1.5 trillion yen), reform of expenditures (around 1.1 trillion yen) and the establishment of the support fund system (around 1.0 trillion yen). After the financial resources in FY2023 are set at the "FY2023 Supplementary Budget" and those in FY2024 are set at "FY2024 Budget," based on these settings, in FY2025-2028, the financial resources are assumed to be secured according to the expenditures. Meanwhile, the Child and Child Care Support Special Bond, which is issued to bridge finance, is not included in the outstanding debt of the central and local governments because the bond is expected to be issued from the Social Security Fund in the classification of government organizations in SNA (i.e. the amount financed through the bond does not affect the PB of the central and local governments). From FY2029, the necessary measures will be assumed to be taken, as in FY2028.

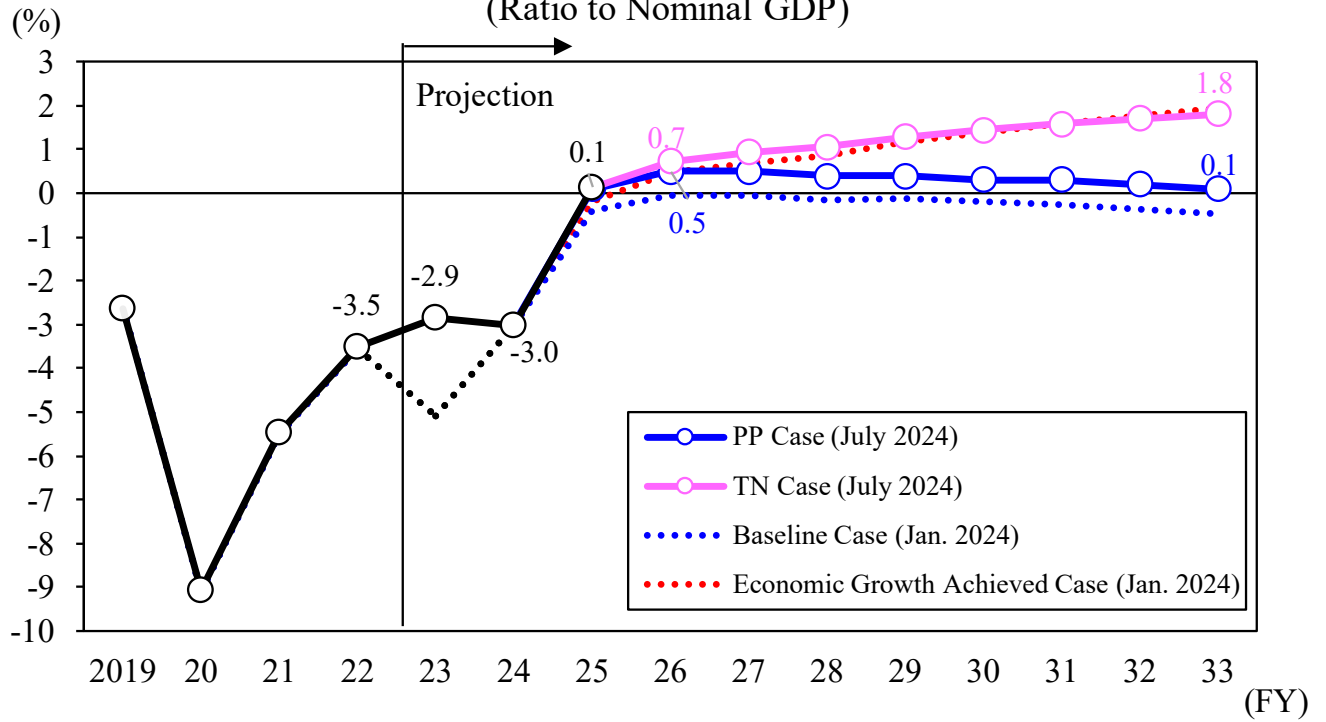
**(7) Assumptions on the Expenditures and Financial Resources for Recovery and Reconstruction from the Great East Japan Earthquake**

- Expenditures are assumed at around 31.3 trillion yen until FY2020 and around 1.6 trillion yen in five years from FY2021, based on the "Recovery and Reconstruction Work for the Five-Year Period Starting in FY2016" (Reconstruction Promotion Conference Decision, June 24, 2015), the "Scale and Funding Sources for Recovery and Reconstruction Work during the Reconstruction including the Five-Year Period Starting in FY2016" (Cabinet Decision, June 30, 2015), the "Reconstruction Efforts from FY2021" (Decision by the Reconstruction Promotion Council, July 17, 2020) and others.
- In the projections, it is assumed that around 32.9 trillion yen of revenue resources will be secured by the special tax for reconstruction, a reduction of expenditures, non-tax revenues and others based on the "Basic Guidelines for the Third Supplementary Budget in FY2011 and the Fiscal Resources for Reconstruction" (Cabinet decision, October 7, 2011), the "Scale and Funding Sources for Recovery and Reconstruction Work from Now On" (Reconstruction Promotion Conference Decision, January 29, 2013), the "Recovery and Reconstruction Work for the Five-Year Period Starting in FY2016" (Reconstruction Promotion Conference Decision, June 24, 2015), the "Scale and Funding Sources for Recovery and Reconstruction Work during the Reconstruction including the Five-Year Period Starting in FY2016" (Cabinet Decision, June 30, 2015), the "Reconstruction Efforts from FY2021" (Decision by Reconstruction Promotion Council, July 17, 2020) and others. The tax rate cut in the special income tax for reconstruction and the extension of its taxable period along with securing fiscal resources for the implementation of defense capability buildup are not assumed, as its implementation period etc. are not decided.
- The expenditure concerning the decontamination and interim storage project facility, which will be reimbursed from TEPCO, and the actual payment corresponding to it are assumed to be approximately 6.4 trillion yen in total, based on "Toward the Speedy and Secure Implementation of Compensation for Accelerating the Reconstruction of Fukushima" (December 22, 2023, Decided by Nuclear Emergency Response Headquarters), and the pattern of expenditure and revenue is assumed based on the progress of implementation and payment to date.

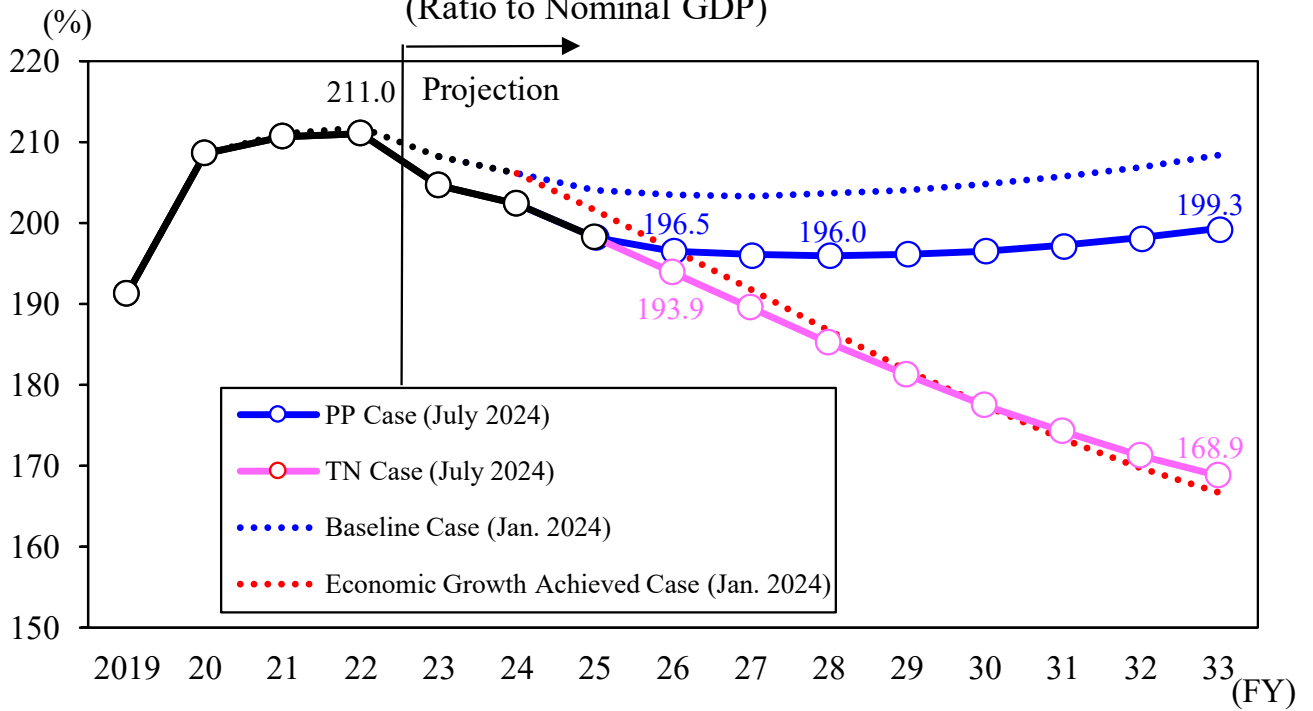
(Appendix 2) Comparison with the Previous Projection (January 2024)



Primary Balance of Central and Local Governments  
(Ratio to Nominal GDP)



Outstanding Debt of Central and Local Governments  
(Ratio to Nominal GDP)





### (Appendix 3) Comparison with private sector forecasts

Below is the comparison of this projection with the average of domestic economists' forecasts. As for real GDP growth after FY2026, average of the estimates in the PP Case is almost same as that of the "Average" or lower than it, while those in the TN Case and the HG Case are higher than that in the "Higher Average."

As for the consumer price index inflation rate after FY2026, average of the estimates in the PP Case is almost same as that in the "Lower Average," while those in the TN Case and the HG Case are almost same as that in the "Higher Average."

#### Real GDP Growth Rate (FY, app%)

		2024	25	26-30 average	31-35 average
Cabinet office "Medium to Long Term Analysis" ※ until 2033	PP Case	0.9	1.2	0.6	0.4
	TN Case	0.9	1.2	1.5	1.4
	HG Case	0.9	1.2	1.7	1.8
Private Sector Forecasts (ESP Forecast)	Lower Average	0.1	0.7	0.5	0.2
	Average	0.4	1.1	0.8	0.6
	Higher Average	0.9	1.3	1.2	1.0

#### Change of Consumer Price (FY, app%)

		2024	25	26-30 average	31-35 average
Cabinet office "Medium to Long Term Analysis" ※ until 2033	PP Case	2.8	2.2	1.0	0.9
	TN Case	2.8	2.2	2.0	2.0
	HG Case	2.8	2.2	2.0	2.0
Private Sector Forecasts (ESP Forecast)	Lower Average	2.3	1.5	1.1	0.9
	Average	2.5	1.9	1.6	1.6
	Higher Average	2.8	2.3	2.0	2.1

(Notes) FY2024 and FY2025 private-sector forecasts are based on the Japan Center for Economic Research's "ESP Forecast Survey" (July 2024); FY2026-30 and FY2031-35 are based on long-term forecasts from the same survey (June 2024). Lower and higher averages are averages of the lowest 8 forecasters and those of the highest 8 forecasters of about 40 forecasters, respectively. Consumer Price of ESP Forecast Survey is a composite series excluding fresh food.

## (Appendix 4) A Virtuous Cycle of Growth and Distribution

Here a comparison is made of this projection's estimates on "Per Capita Real GDP Growth" as an indicator for the economic growth and "Nominal Wage Growth" as one for the distribution with the results (averages between CY2012 and 2019) in the other G7 countries.

As for "Per Capita Real GDP Growth," Japan's average between CY2012 and 2019 is about 1%, which is about the average of the other countries. In the projection periods, while it is projected to be about the same 1% in the PP Case, in the TN Case and HG Case it rises up to about 2%.

As for "Nominal Wage Growth," Japan's average between CY2012 and 2019 is about 0.6%, which is lower than those in the other countries excluding Italy. In the projection periods, while it is projected to be only in the mid-1% range in the PP Case, although it is higher than the past average, in the TN Case and HG Case it rises up to about 3%, which is comparable to the past results in the U.S. and Germany.

		Per Capita Real GDP Growth (%)	Nominal Wage Growth (%)
Averages of Results between CY2012 and 2019	U.S.	1.7	2.8
	U.K.	1.4	1.5
	Germany	1.0	2.7
	Canada	0.9	2.1
	France	0.8	1.6
	Italy	0.1	0.5
	Japan	1.1	0.6
Cabinet Office "Medium to Long Term Analysis" Averages between FY2024 and 2033	PP Case	1.2	1.4
	TN Case	1.9	2.9
	HG Case	2.1	3.2

(Notes) Results from CY2012 to CY2019 are obtained from "OECD Data Explorer" for countries other than Japan, and from "System of National Accounts" by Cabinet Office and "Population Estimates" by Ministry of Internal Affairs and Communications for Japan. "Per Capita Real GDP Growth" is the change rate of the real GDP divided by the total population. "Nominal Wage Growth" is the change rate of the total wages and salaries divided by the total employees. The number of employees for countries other than Japan is based on "Annual Labour Force Survey, summary tables, Employment (excluding self-employed)." Arithmetic averages are used.

