

Economic and Fiscal Projections  
for Medium to Long Term Analysis

January 24, 2023  
Cabinet Office, Government of Japan

Projections are conducted using the Cabinet Office's "Economic and Fiscal Model," incorporating macroeconomy, public finance and social security synthetically.

Therefore, the main economic variables, such as growth rates, inflation rates and interest rates are not exogenously assumed, but are endogenously obtained within the model.

Considerable leeway should be given when interpreting the projections shown here due to various uncertainties.

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# Assumptions of Projection and Future Prospects

## 1. Introduction

This projection is intended to contribute to the discussion of the Council on Economic and Fiscal Policy by checking the progress of the economic revitalization and fiscal consolidation and providing the basic data necessary to consider further efforts, and conducting medium- to long-term analysis, based on the scenarios of economic situations and fiscal assumptions as follows.

## 2. Scenarios and Assumptions in Macroeconomy

The projection on macroeconomy until FY2023 is based on the Cabinet Office's "Fiscal 2023 Economic Outlook."<sup>1</sup> From FY2024, based on the past performance and current trend of the Japanese economy, the projection shows medium- to long-term macroeconomic prospects such as GDP and inflation for two different cases.<sup>2</sup>

### (1) Economic Growth Achieved Case

The Economic Growth Achieved Case offers a projection in which the government's policy goals of overcoming deflation and economic revitalization show solid results at a feasible pace reflecting the past performance.

Specifically, the Economic Growth Achieved Case includes the following assumptions:

- The total factor productivity (TFP) growth rate rises from the current level (around 0.5%) to around 1.4%, based on the extent and pace<sup>3</sup> that the Japanese economy actually experienced before it entered deflation.
- The labor force participation rate shifts based on the estimates of labor supply and demand for the "case in which economic growth and labor participation are achieved" shown by the "Labor Policy Study Group" (2019).
- The number of foreign workers shifts based on the non-Japanese population reported in the "Population Projection for Japan" by the National Institute of Population and Social Security Research and the "Expected Number of Acceptance" of foreign workers related to the status of residence of specified skilled workers.<sup>4</sup>

### (2) Baseline Case

The Baseline Case offers a projection in which the economy will shift approximately at the rate of current potential growth.

Specifically, the main differences from the assumptions of the Economic Growth Achieved Case are as follows:

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<sup>1</sup> The Cabinet Office's "Fiscal 2023 Economic Outlook and Basic Stance for Economic and Fiscal Management" (Cabinet Decision, January 23, 2023)

<sup>2</sup> For further details, see the page 12-15(Key Assumptions).

<sup>3</sup> Specifically, the total factor productivity (TFP) growth rate rose around 0.9% in 5 years from FY1982 to FY1987.

<sup>4</sup> "The Basic Policy on Operation of the System Related to Status of Residence of the Specified Skilled Worker" (Cabinet Decision, December 25, 2018, partially changed on August 30, 2022)

- The total factor productivity (TFP) growth rate moves around 0.6%.<sup>5</sup>
- The labor force participation rate shifts based on the estimates of labor supply and demand for the “case in which economic growth and labor participation are partly achieved” shown by the “Labor Policy Study Group” (2019).

### **3. Main Assumptions in Public Finance**

For Public Finances, based on the following assumptions, the projection shows fiscal prospects which are consistent with the two economic scenarios mentioned in “2.”<sup>6</sup>

- Revenues and expenditures in FY2022 and FY2023 reflect the “Second Supplementary Budget for FY2022” and the “Draft FY2023 Budget.”
- From FY2024, social security expenditures will increase, reflecting the aging of population and price and wage developments, and other expenditures (excluding the expenditures explained below in the specific period for the defense capability buildup and the national resilience) will increase along with inflation rates. Additional expenditures are assumed in FY2024 and FY2025, based on “Five-Year Acceleration Measures for Disaster Risk Reduction, and National Resilience.”<sup>7</sup> Revenues from FY2024 will increase along with the developments of the macroeconomy.
- Regarding the defense capability buildup, based on “Defense Buildup Program,”<sup>8</sup> the government will spend around 43 trillion yen, which is the amount for the necessary level of defense capability buildup, from FY2023 to FY2027, and will take measures to finance the program.
- Regarding GX (Green Transformation), based on the “Basic Policy for the Realization of GX (Draft),”<sup>9</sup> GX measures will cover around 20 trillion yen from FY2023 to FY2032, and will be financed through the issuance of “GX Economic Transition Bonds” (tentative name). Since the GX Economic Transition Bonds are supposed to be redeemed by FY2050 with the future financial resources obtained through carbon pricing and its expenditures and financial resources are designed to balance for a multi-year term, the “Central and Local Governments' Public Finances” excluding the expenditures and financial resources for GX measures are shown.<sup>10</sup>

### **4. Progress and Future Prospects of Economic Revitalization and Fiscal Consolidation**

<Progress>

In FY2022, the Japanese economy has been picking up moderately from the COVID-19 pandemic, while there are concerns about a slowdown in the global economy as well as rising energy and food prices worldwide. Under these circumstances, GDP for FY2022 is projected to grow around 1.7% in real terms and 1.8% in nominal terms. In FY2023, GDP is projected to grow around 1.5% in real terms and 2.1% in nominal terms, as Economic Stimulus Measures<sup>11</sup> will be in full effect.

<sup>5</sup> Average from November 2012 to May 2020. (the 16th business cycle.)

<sup>6</sup> For further details, see the page 12-15(Key Assumptions).

<sup>7</sup> Cabinet Decision, December 11, 2020

<sup>8</sup> Cabinet Decision, December 16, 2022

<sup>9</sup> The Realization of GX Conference Materials, December 22, 2022.

<sup>10</sup> Specifically, the figures excluding the expenditures and the fiscal resources for the recovery and reconstruction measures and GX measures are shown. The fiscal figures including these expenditures and fiscal resources are also shown.

<sup>11</sup> “Comprehensive Economic Measures for Overcoming Price increases and Revitalizing the Economy” (Cabinet Decision, October 28, 2022)

Regarding the fiscal conditions, the primary deficit<sup>12</sup> is projected to be around 8.8% in FY2022 and 4.0% in FY2023, due to the increase in expenditures (most of which are expenditures that contribute to supporting the economy) based on a series of Economic Stimulus Measures, including measures to tackle the COVID-19 pandemic and oil and other resource price hikes, although revenue is expected to increase. In FY2024, as such expenditures will decrease, the primary balance is expected to recover to the level before the deterioration due to the increase in those expenditures (-1.9% in FY2018), and the primary deficit is projected to be around 1.0% in the Economic Growth Achieved Case, and 1.3% in the Baseline Case. The ratio of outstanding debt to GDP is projected to be around 217.0% in FY2022 and around 216.0% in FY2023.

#### <Future Prospects>

In the Economic Growth Achieved Case, toward the realization of the New Form of Capitalism, measures are taken for investment in people and investment in growth areas under cooperation between the public and private sectors. Those efforts lead to a rise in the potential growth rate, coupled with higher productivity, and the increase in income leads to an increase in consumption. As a result, the GDP growth rate is projected to achieve around 2% in real terms and around 3% in nominal terms. The rate of change in consumer prices is projected to be around 2%.

Regarding the fiscal conditions, without the expenditure reforms, the primary deficit is projected to be around 0.2% of GDP in FY2025, and turn to surplus in FY2026.<sup>13</sup> It is important to aim for the economic growth projected in the Economic Growth Achieved Case by expanding the “Virtuous Cycle of Growth and Distribution” under the concept of “the economy is the foundation of public finance.” The ratio of outstanding debt to GDP is projected to decline steadily in the periods of the projection, given the economic growth and interest rates for the Economic Growth Achieved Case. It should be noted, however, that the existing bonds issued at lower interest rates will be refinanced at higher interest rates sequentially with the long-term nominal interest rate rising.

In the Baseline Case, on the other hand, the GDP growth rate is projected to be around the mid-0% range in both real and nominal terms in the medium to long term. The rate of change in consumer prices is projected to be around late-0%.

On the fiscal conditions, the primary deficit is projected to be around 0.9% of GDP in FY2025, and the primary deficit will increase at a modest pace within the projection period. The ratio of outstanding debt to GDP is projected to increase in the latter half of the projection period.

However, attention should be paid to downside risks to economic growth, such as instability in the global economy and to a potential increase in outstanding debt along with higher long-term interest rates.

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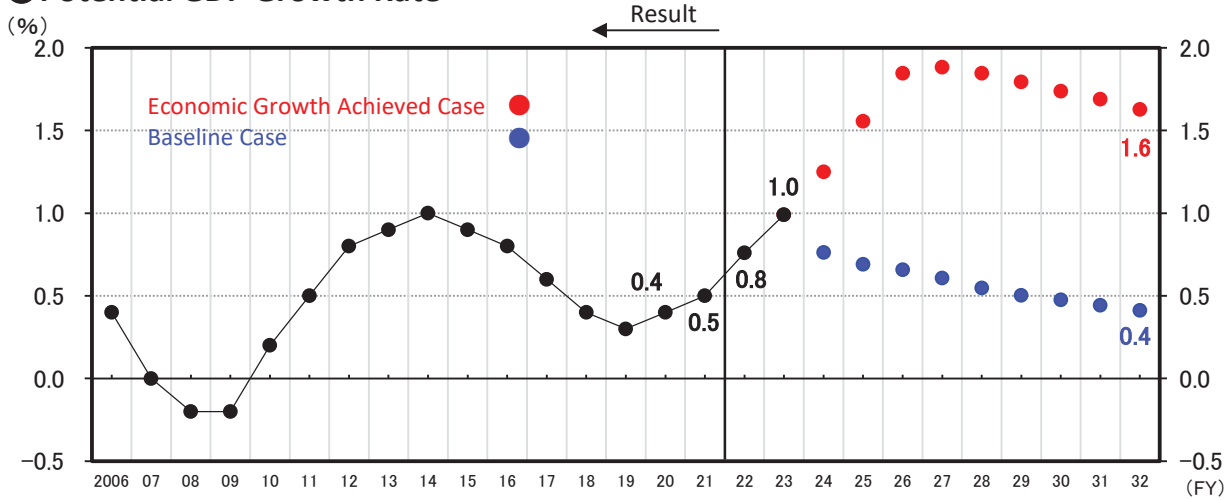
<sup>12</sup> Excluding the expenditures and the fiscal resources for the recovery and reconstruction measures and GX measures.

<sup>13</sup> The effect on improvement in the primary balance by efforts for increasing spending efficiency is assumed to be about 1.3 trillion yen per year when the impact on the economy is taken into consideration, based on the materials submitted to the Council on Economic and Fiscal Policy by council members from the private sector (May 28, 2018) and those by the Cabinet Office (July 21, 2021). Calculating mechanically based on this assumption, if the efforts for increasing spending efficiency carried out thus far are continued, the primary surplus will be achieved in FY2025, around a year earlier.

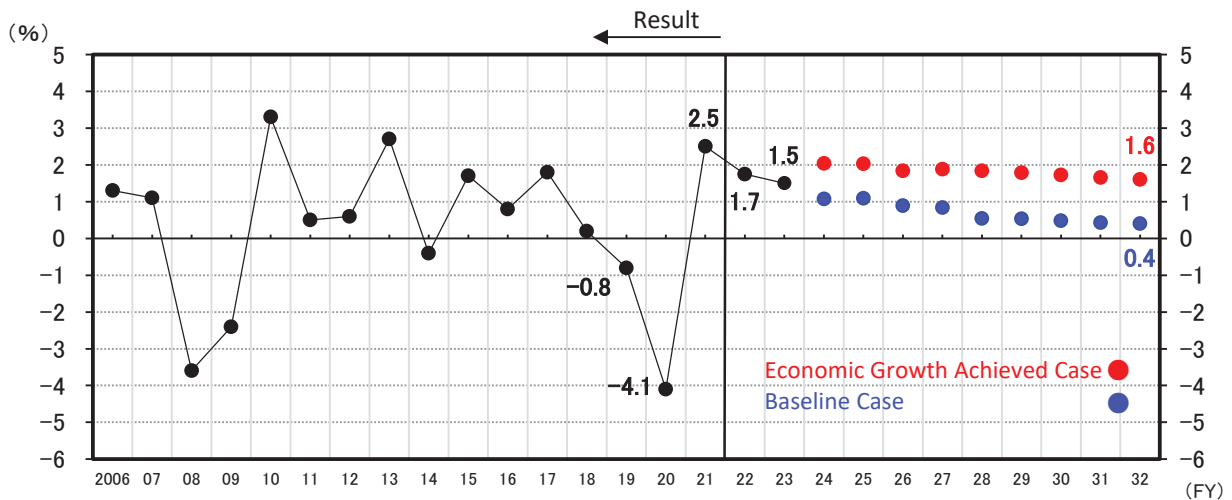
# Results of Projection

- In the Economic Growth Achieved Case, toward the realization of the New Form of Capitalism, measures are taken for investment in people and investment in growth areas under cooperation between the public and private sectors. Those efforts lead to a rise in the potential growth rate, coupled with higher productivity, and the increase in income leads to an increase in consumption. As a result, the GDP growth rate is projected to achieve around 2% in real terms and around 3% in nominal terms.
- In the Baseline Case, the growth rate will be around the mid-0% range in both real and nominal terms over the medium to long term.

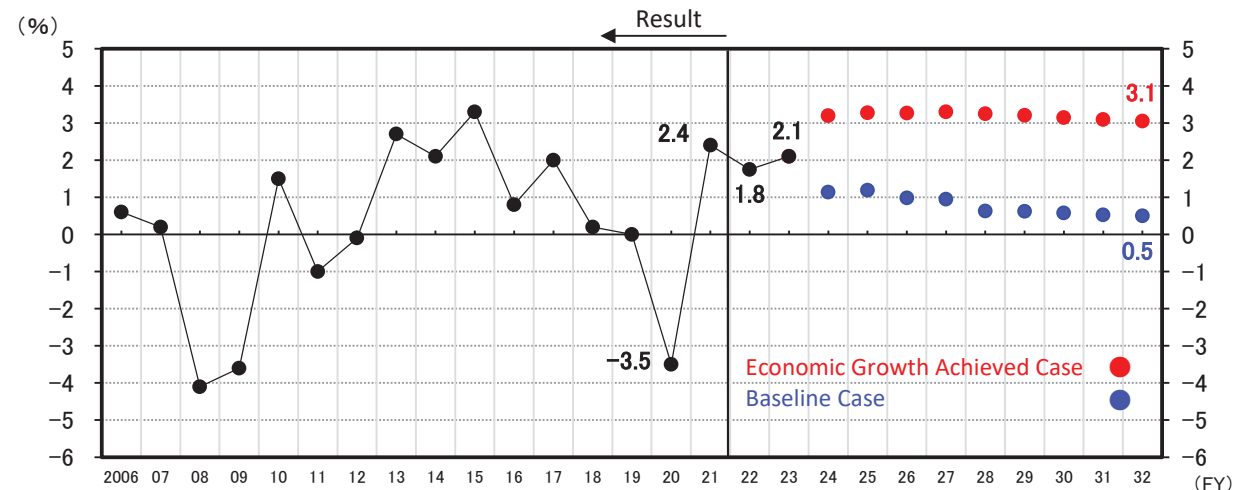
## ○ Potential GDP Growth Rate



## ○ Real GDP Growth Rate

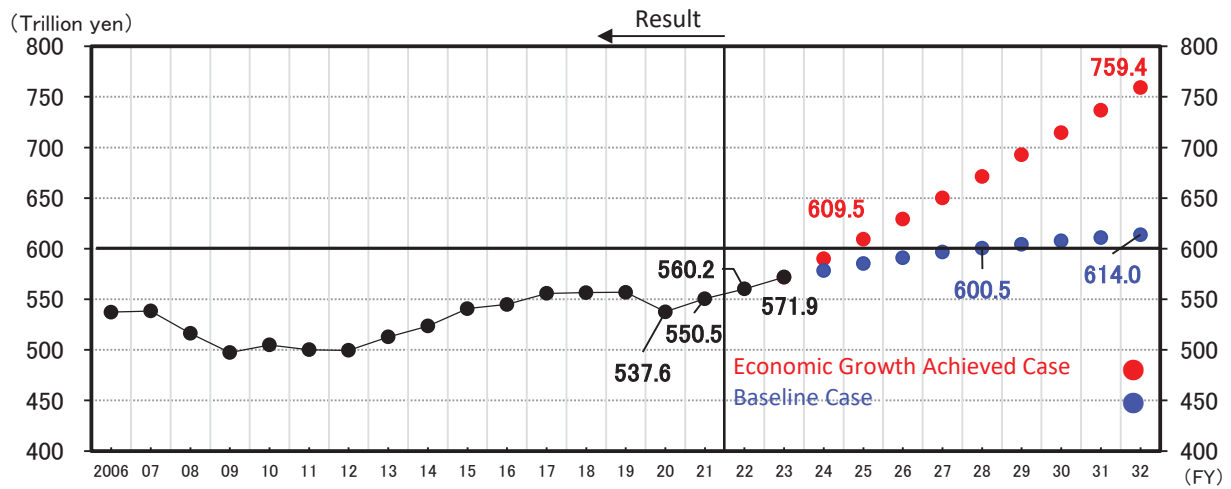


## ○ Nominal GDP Growth Rate



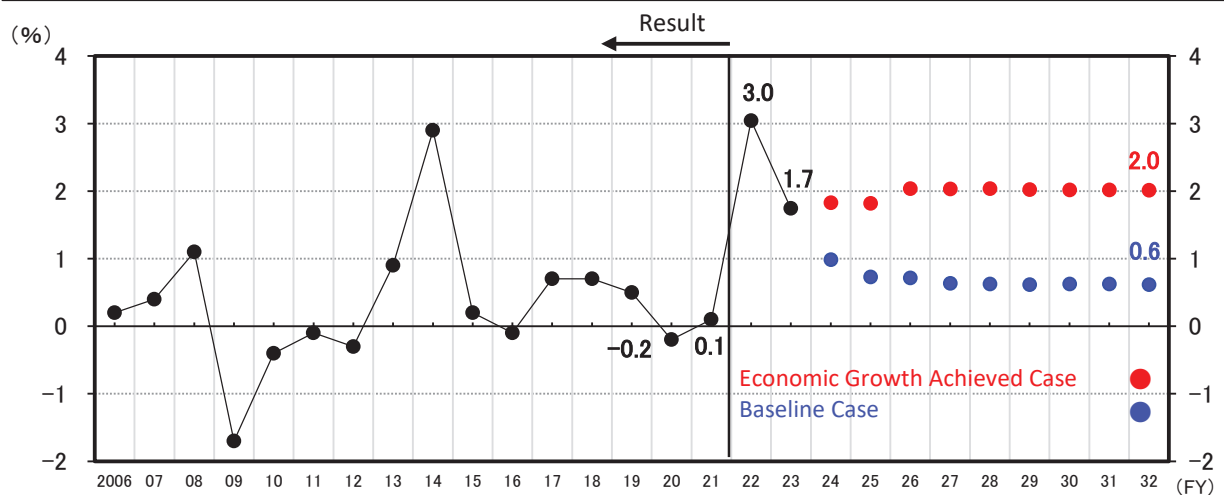
## ○Nominal GDP

• In the Economic Growth Achieved Case, the nominal GDP is projected to increase over 600 trillion yen.



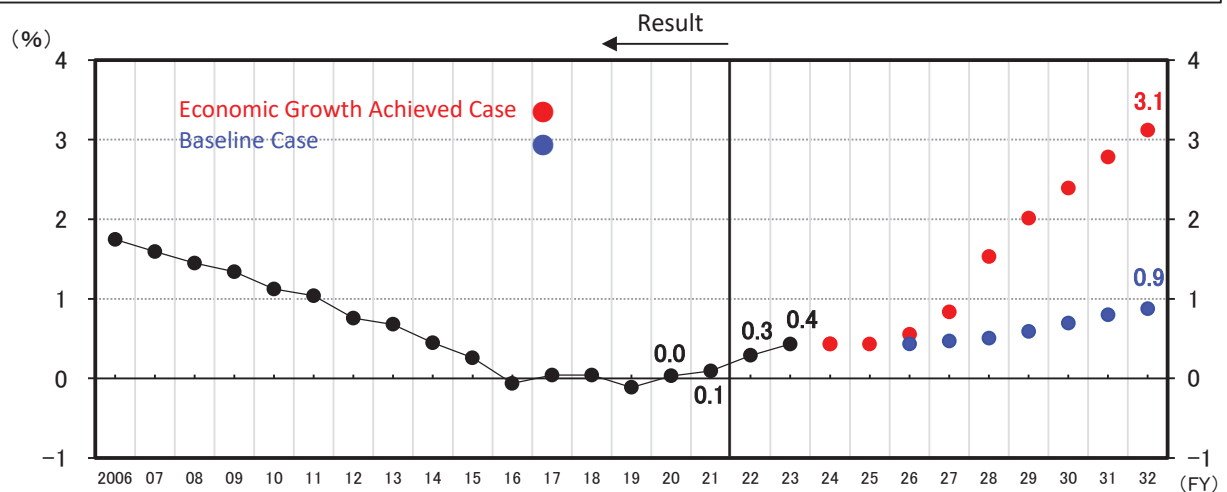
## ○Consumer Price Index (Rate of Change)

• In the Economic Growth Achieved Case, the rate of change in consumer prices is projected to be around 2%.



## ○Nominal Long-term

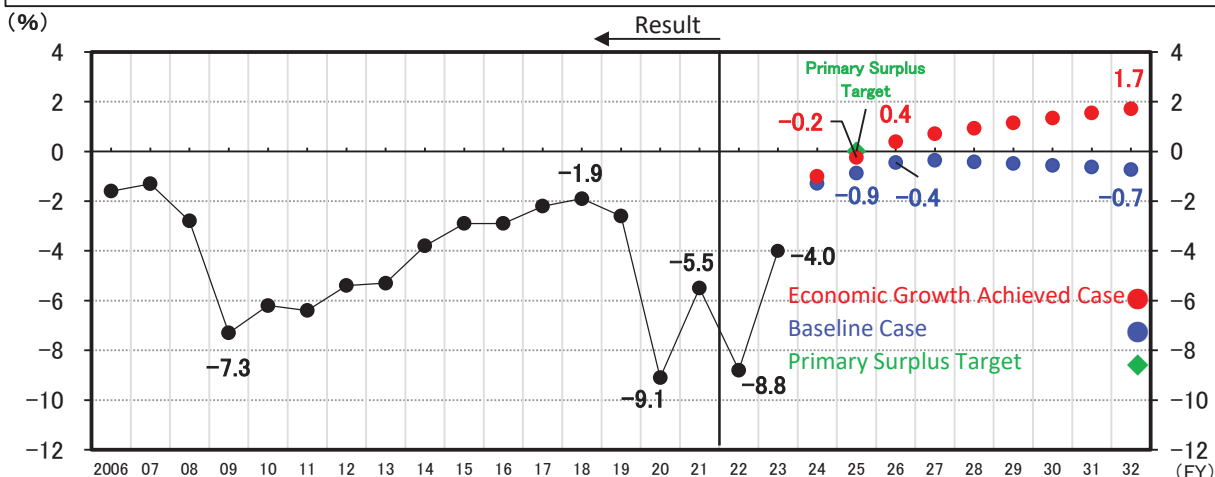
• In the Economic Growth Achieved Case, the nominal long-term interest rate is projected to rise to around 3% over the medium to long-term.





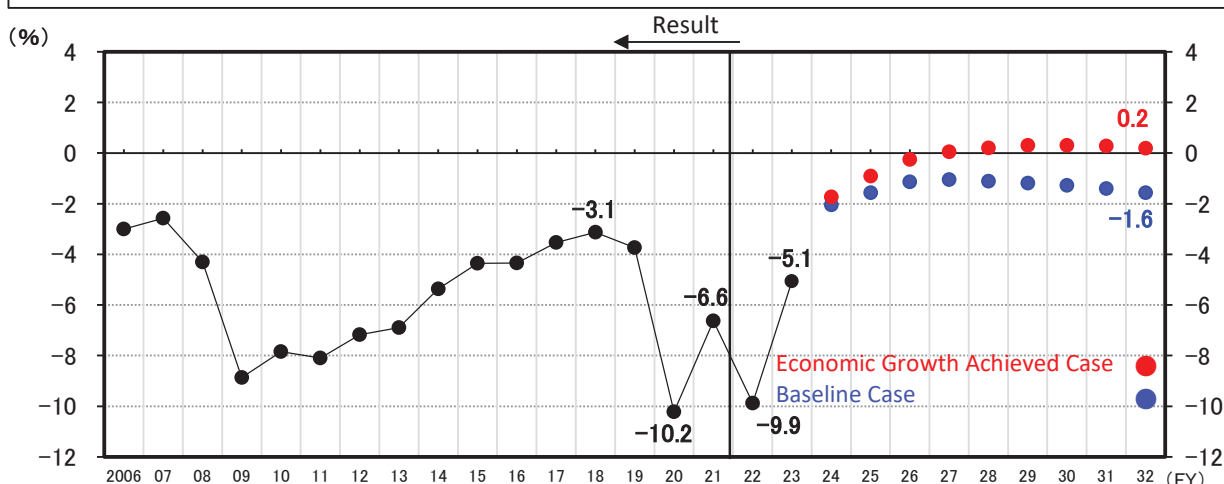
## ○Primary Balance of Central and Local Governments Combined\* (Ratio to Nominal GDP)

- In the Economic Growth Achieved Case, without the expenditure reforms, the primary deficit is projected to be around 0.2% of GDP in FY2025, and turn to surplus in FY2026.
- In the Baseline Case, the primary deficit is projected to be around 0.9% of GDP in FY2025 and to worsen at a modest pace in the rest of the projection period.



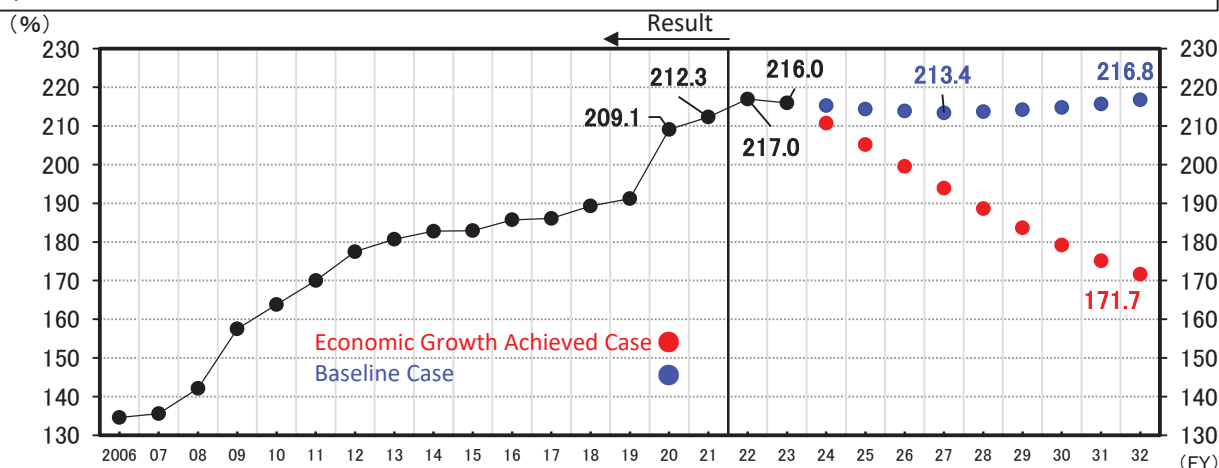
## ○Fiscal Balance of Central and Local Governments Combined\* (Ratio to Nominal

- In the Economic Growth Achieved Case, the fiscal balance is projected to remain flat near zero during the projection period.



## ○Outstanding Debt of Central and Local Governments Combined\* (Ratio to Nominal GDP)

- The ratio of outstanding debt to GDP is projected to steadily decline in the periods of the projection, given the economic growth and interest rates for the Economic Growth Achieved Case. It should be noted that the existing bonds issued at lower interest rates will be refinanced at higher rates sequentially with the long-term nominal interest rate rising.
- In the Baseline Case, it is projected to turn to increase in the latter half of the projection period.



\* Excluding the expenditures and the fiscal resources for the recovery and reconstruction measures and GX measures.

## Results of Projection (Table)

### Economic Growth Achieved Case

【Macroeconomy】

(%), [ratio to GDP, %], Trillions of Yen

	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032
Real GDP Growth	( 2.5)	( 1.7)	( 1.5)	( 2.0)	( 2.0)	( 1.8)	( 1.9)	( 1.8)	( 1.8)	( 1.7)	( 1.7)	( 1.6)
Real GNI Growth	( 2.2)	( 0.6)	( 1.8)	( 2.6)	( 2.3)	( 2.0)	( 2.0)	( 1.9)	( 1.8)	( 1.7)	( 1.7)	( 1.6)
Nominal GDP Growth	( 2.4)	( 1.8)	( 2.1)	( 3.2)	( 3.3)	( 3.3)	( 3.3)	( 3.2)	( 3.2)	( 3.1)	( 3.1)	( 3.1)
Nominal GDP	550.5	560.2	571.9	590.2	609.5	629.5	650.3	671.4	693.0	714.7	736.9	759.4
Nominal GNI Per Capita Growth	( 4.6)	( 3.1)	( 3.0)	( 3.4)	( 3.2)	( 3.5)	( 3.8)	( 3.8)	( 3.8)	( 3.7)	( 3.6)	( 3.6)
Nominal GNI Per Capita (※Ten thousand yen)	462	476	490	507	523	542	562	584	606	628	650	674
Potential GDP Growth	( 0.5)	( 0.8)	( 1.0)	( 1.3)	( 1.6)	( 1.8)	( 1.9)	( 1.8)	( 1.8)	( 1.7)	( 1.7)	( 1.6)
Change of Price												
Consumer Prices	( 0.1)	( 3.0)	( 1.7)	( 1.8)	( 1.8)	( 2.0)	( 2.0)	( 2.0)	( 2.0)	( 2.0)	( 2.0)	( 2.0)
Corporate Goods Prices	( 7.1)	( 8.2)	( 1.4)	( 2.4)	( 0.8)	( 0.8)	( 0.8)	( 0.8)	( 0.8)	( 0.8)	( 0.8)	( 0.8)
GDP Deflator	(▲0.1)	( 0.0)	( 0.6)	( 1.1)	( 1.2)	( 1.4)	( 1.4)	( 1.4)	( 1.4)	( 1.4)	( 1.4)	( 1.4)
Unemployment Rate	( 2.8)	( 2.5)	( 2.4)	( 2.4)	( 2.4)	( 2.4)	( 2.5)	( 2.5)	( 2.5)	( 2.6)	( 2.6)	( 2.6)
Long-term Interest Rate	( 0.1)	( 0.3)	( 0.4)	( 0.4)	( 0.4)	( 0.6)	( 0.8)	( 1.5)	( 2.0)	( 2.4)	( 2.8)	( 3.1)
Balance by Sector												
General Government	[▲5.9]	[▲8.8]	[▲3.9]	[▲0.7]	[ 0.2]	[ 1.0]	[ 1.3]	[ 1.6]	[ 1.7]	[ 1.7]	[ 1.7]	[ 1.6]
Private	[ 9.5]	[ 10.2]	[ 5.1]	[ 2.3]	[ 2.0]	[ 1.9]	[ 1.7]	[ 1.6]	[ 1.4]	[ 1.4]	[ 1.4]	[ 1.4]
Overseas	[▲3.6]	[▲1.4]	[▲1.2]	[▲1.6]	[▲2.2]	[▲2.8]	[▲3.0]	[▲3.2]	[▲3.1]	[▲3.1]	[▲3.1]	[▲3.0]

【Central and Local Governments' Public Finances】

(Excluding the expenditures and the fiscal resources for the recovery and reconstruction measures and GX measures)

[ratio to GDP, %], Trillions of Yen

	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032
Primary Balance	▲ 30.4	▲ 49.3	▲ 22.9	▲ 5.9	▲ 1.5	2.5	4.7	6.3	8.0	9.6	11.4	13.1
(ratio to nominal GDP)	[▲5.5]	[▲8.8]	[▲4.0]	[▲1.0]	[▲0.2]	[0.4]	[0.7]	[0.9]	[1.2]	[1.4]	[1.5]	[1.7]
Central Government	▲ 35.6	▲ 52.1	▲ 28.0	▲ 11.8	▲ 9.4	▲ 7.3	▲ 6.0	▲ 5.0	▲ 4.3	▲ 3.6	▲ 2.9	▲ 2.2
(ratio to nominal GDP)	[▲6.5]	[▲9.3]	[▲4.9]	[▲2.0]	[▲1.5]	[▲1.2]	[▲0.9]	[▲0.8]	[▲0.6]	[▲0.5]	[▲0.4]	[▲0.3]
Local Government	5.2	2.8	5.1	5.9	7.9	9.8	10.7	11.3	12.3	13.3	14.3	15.3
(ratio to nominal GDP)	[0.9]	[0.5]	[0.9]	[1.0]	[1.3]	[1.6]	[1.6]	[1.7]	[1.8]	[1.9]	[1.9]	[2.0]
Fiscal Balance	▲ 36.5	▲ 55.4	▲ 29.0	▲ 10.2	▲ 5.6	▲ 1.6	0.3	1.4	2.1	2.2	2.1	1.4
(ratio to nominal GDP)	[▲6.6]	[▲9.9]	[▲5.1]	[▲1.7]	[▲0.9]	[▲0.3]	[0.1]	[0.2]	[0.3]	[0.3]	[0.3]	[0.2]
Central Government	▲ 40.7	▲ 57.0	▲ 33.1	▲ 15.2	▲ 12.6	▲ 10.5	▲ 9.5	▲ 9.2	▲ 9.6	▲ 10.5	▲ 11.7	▲ 13.3
(ratio to nominal GDP)	[▲7.4]	[▲10.2]	[▲5.8]	[▲2.6]	[▲2.1]	[▲1.7]	[▲1.5]	[▲1.4]	[▲1.4]	[▲1.5]	[▲1.6]	[▲1.8]
Local Government	4.2	1.6	4.1	4.9	7.0	8.9	9.9	10.6	11.6	12.7	13.7	14.7
(ratio to nominal GDP)	[0.8]	[0.3]	[0.7]	[0.8]	[1.1]	[1.4]	[1.5]	[1.6]	[1.7]	[1.8]	[1.9]	[1.9]
Outstanding Debt	1168.9	1215.4	1235.1	1243.9	1250.9	1256.6	1261.6	1266.8	1273.1	1280.9	1290.9	1304.0
(ratio to nominal GDP)	[212.3]	[217.0]	[216.0]	[210.7]	[205.2]	[199.6]	[194.0]	[188.7]	[183.7]	[179.2]	[175.2]	[171.7]

【General Account of Central Government】

Trillions of Yen

	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032
Expenditures	144.6	139.2	114.4	111.8	114.3	115.3	117.9	121.0	124.8	129.1	133.8	139.0
(Policy Expenditures)	120.5	115.6	89.5	87.2	89.2	89.8	91.8	93.7	95.9	98.1	100.3	102.6
Social Security-related Expenditures	50.2	40.9	36.9	37.7	38.5	39.2	40.2	41.1	42.0	42.9	43.8	44.7
Local Allocation Tax Grants, etc.	19.6	17.5	16.4	17.8	18.6	19.2	19.9	20.3	20.9	21.6	22.3	22.9
Others	50.3	56.7	35.8	31.3	31.7	30.9	31.3	31.9	32.6	33.2	33.9	34.5
Debt Repayment and Interest Payment	24.6	24.1	25.3	25.0	25.5	25.9	26.5	27.7	29.3	31.4	33.9	36.8
Revenues	89.3	76.7	78.8	79.7	82.9	85.4	88.7	91.6	94.5	97.4	100.5	103.5
Tax Revenue	67.0	68.4	69.4	71.7	74.7	77.2	79.8	82.3	84.9	87.5	90.2	92.9
Other Revenues	22.2	8.4	9.3	8.0	8.1	8.3	8.9	9.3	9.6	9.9	10.3	10.6
Difference between Expenditures and Revenues	57.7	62.5	35.6	32.1	31.4	29.9	29.2	29.4	30.3	31.7	33.3	35.5
Primary Balance in General Account of Central Government	▲ 31.2	▲ 38.9	▲ 10.8	▲ 7.5	▲ 6.3	▲ 4.4	▲ 3.1	▲ 2.1	▲ 1.4	▲ 0.7	0.2	0.9

【Ordinary Account of Local Government】

Trillions of Yen

	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032
Expenditures	122.4	106.6	100.1	103.8	106.9	107.3	110.2	113.0	116.1	119.4	122.5	125.9
Debt Repayment and Interest Payment	12.6	11.4	11.3	11.8	12.1	12.0	11.9	11.8	11.5	11.4	10.9	10.0
Revenues	109.1	95.3	90.0	94.1	97.4	98.9	101.8	104.7	107.8	111.2	114.1	117.7
Tax Revenue	44.8	46.6	46.5	48.2	50.0	51.6	53.2	54.9	56.5	58.2	60.0	61.7
Difference between Expenditures and Revenues	13.3	11.3	10.1	9.7	9.4	8.4	8.4	8.3	8.3	8.2	8.4	8.3
Primary Balance in Ordinary Account of Local Government	4.6	3.8	5.2	5.6	7.3	9.0	9.9	10.7	11.8	13.2	14.0	15.5

Notes 1. In "General Account of Central Government", up to FY2021 is based on the Settlement, FY2022 is based on the Supplementary Budget for FY2022, and FY2023 is based on the Draft FY2023 Budget. In "Ordinary Account of Local Government," FY2021 is based on the Settlement.

2. "Policy Expenditures" is General Account Expenditures excluding interest payments, redemption of the national debt (excluding subsidy bonds) and carry-back of settlement deficit compensation.

3. In "General Account of Central Government," "Other Revenues" in FY2021 consists of non-tax revenues and preceding fiscal year surplus received (around 44.7 trillion yen) excluding the balance of fiscal resources carried forward to the next year (around 22.4 trillion yen).

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.

## Baseline Case

### 【Macroeconomy】

(%), [ratio to GDP, %], Trillions of Yen

	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032
Real GDP Growth	( 2.5)	( 1.7)	( 1.5)	( 1.1)	( 1.1)	( 0.9)	( 0.8)	( 0.5)	( 0.5)	( 0.5)	( 0.4)	( 0.4)
Real GNI Growth	( 2.2)	( 0.6)	( 1.8)	( 1.4)	( 1.3)	( 1.0)	( 0.8)	( 0.6)	( 0.5)	( 0.5)	( 0.4)	( 0.4)
Nominal GDP Growth	( 2.4)	( 1.8)	( 2.1)	( 1.1)	( 1.2)	( 1.0)	( 0.9)	( 0.6)	( 0.6)	( 0.6)	( 0.5)	( 0.5)
Nominal GDP	550.5	560.2	571.9	578.5	585.3	591.1	596.7	600.5	604.2	607.7	610.9	614.0
Nominal GNI Per Capita Growth	( 4.6)	( 3.1)	( 3.0)	( 1.5)	( 1.3)	( 1.3)	( 1.4)	( 1.1)	( 1.2)	( 1.1)	( 1.1)	( 1.1)
Nominal GNI Per Capita (※Ten thousand yen)	462	476	490	497	504	510	517	523	529	535	541	547
Potential GDP Growth	( 0.5)	( 0.8)	( 1.0)	( 0.8)	( 0.7)	( 0.7)	( 0.6)	( 0.5)	( 0.5)	( 0.5)	( 0.4)	( 0.4)
Change of Price												
Consumer Prices	( 0.1)	( 3.0)	( 1.7)	( 1.0)	( 0.7)	( 0.7)	( 0.6)	( 0.6)	( 0.6)	( 0.6)	( 0.6)	( 0.6)
Corporate Goods Prices	( 7.1)	( 8.2)	( 1.4)	( 1.6)	( 0.5)	( 0.5)	( 0.5)	( 0.5)	( 0.5)	( 0.5)	( 0.5)	( 0.5)
GDP Deflator	(▲0.1)	( 0.0)	( 0.6)	( 0.1)	( 0.1)	( 0.1)	( 0.1)	( 0.1)	( 0.1)	( 0.1)	( 0.1)	( 0.1)
Unemployment Rate	( 2.8)	( 2.5)	( 2.4)	( 2.5)	( 2.5)	( 2.5)	( 2.6)	( 2.6)	( 2.6)	( 2.7)	( 2.7)	( 2.7)
Long-term Interest Rate	( 0.1)	( 0.3)	( 0.4)	( 0.4)	( 0.4)	( 0.4)	( 0.5)	( 0.5)	( 0.6)	( 0.7)	( 0.8)	( 0.9)
Balance by Sector												
General Government	[▲5.9]	[▲8.8]	[▲3.9]	[▲1.2]	[▲0.6]	[▲0.1]	[▲0.1]	[▲0.2]	[▲0.3]	[▲0.3]	[▲0.3]	[▲0.3]
Private	[ 9.5]	[ 10.2]	[ 5.1]	[ 2.7]	[ 2.8]	[ 2.6]	[ 2.9]	[ 2.9]	[ 3.0]	[ 3.0]	[ 2.9]	[ 3.0]
Overseas	[▲3.6]	[▲1.4]	[▲1.2]	[▲1.5]	[▲2.2]	[▲2.5]	[▲2.7]	[▲2.7]	[▲2.7]	[▲2.7]	[▲2.6]	[▲2.6]

### 【Central and Local Governments' Public Finances】

(Excluding the expenditures and the fiscal resources for the recovery and reconstruction measures and GX measures)

[ratio to GDP, %], Trillions of Yen

	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032
Primary Balance	▲ 30.4	▲ 49.3	▲ 22.9	▲ 7.4	▲ 5.1	▲ 2.6	▲ 2.1	▲ 2.5	▲ 2.9	▲ 3.4	▲ 3.8	▲ 4.5
(ratio to nominal GDP)	[▲5.5]	[▲8.8]	[▲4.0]	[▲1.3]	[▲0.9]	[▲0.4]	[▲0.4]	[▲0.4]	[▲0.5]	[▲0.6]	[▲0.6]	[▲0.7]
Central Government	▲ 35.6	▲ 52.1	▲ 28.0	▲ 12.6	▲ 11.0	▲ 9.5	▲ 9.0	▲ 9.0	▲ 9.2	▲ 9.5	▲ 9.7	▲ 10.1
(ratio to nominal GDP)	[▲6.5]	[▲9.3]	[▲4.9]	[▲2.2]	[▲1.9]	[▲1.6]	[▲1.5]	[▲1.5]	[▲1.5]	[▲1.6]	[▲1.6]	[▲1.6]
Local Government	5.2	2.8	5.1	5.1	5.9	6.9	6.8	6.5	6.3	6.1	5.9	5.6
(ratio to nominal GDP)	[0.9]	[0.5]	[0.9]	[0.9]	[1.0]	[1.2]	[1.1]	[1.1]	[1.0]	[1.0]	[1.0]	[0.9]
Fiscal Balance	▲ 36.5	▲ 55.4	▲ 29.0	▲ 11.8	▲ 9.2	▲ 6.7	▲ 6.3	▲ 6.7	▲ 7.2	▲ 7.8	▲ 8.5	▲ 9.6
(ratio to nominal GDP)	[▲6.6]	[▲9.9]	[▲5.1]	[▲2.0]	[▲1.6]	[▲1.1]	[▲1.1]	[▲1.1]	[▲1.2]	[▲1.3]	[▲1.4]	[▲1.6]
Central Government	▲ 40.7	▲ 57.0	▲ 33.1	▲ 15.9	▲ 14.2	▲ 12.7	▲ 12.3	▲ 12.4	▲ 12.6	▲ 13.0	▲ 13.5	▲ 14.3
(ratio to nominal GDP)	[▲7.4]	[▲10.2]	[▲5.8]	[▲2.8]	[▲2.4]	[▲2.1]	[▲2.1]	[▲2.1]	[▲2.1]	[▲2.1]	[▲2.2]	[▲2.3]
Local Government	4.2	1.6	4.1	4.1	5.0	6.0	6.0	5.7	5.4	5.2	5.0	4.7
(ratio to nominal GDP)	[0.8]	[0.3]	[0.7]	[0.7]	[0.9]	[1.0]	[1.0]	[0.9]	[0.9]	[0.9]	[0.8]	[0.8]
Outstanding Debt	1168.9	1215.4	1235.1	1245.4	1254.9	1264.3	1273.7	1283.7	1294.3	1305.7	1317.9	1331.3
(ratio to nominal GDP)	[212.3]	[217.0]	[216.0]	[215.3]	[214.4]	[213.9]	[213.4]	[213.8]	[214.2]	[214.9]	[215.7]	[216.8]

### 【General Account of Central Government】

Trillions of Yen

	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032
Expenditures	144.6	139.2	114.4	110.9	112.6	112.5	113.8	114.7	115.8	117.0	118.3	119.8
(Policy Expenditures)	120.5	115.6	89.5	86.3	87.5	87.0	87.8	88.4	89.1	89.8	90.5	91.2
Social Security-related Expenditures	50.2	40.9	36.9	37.5	38.1	38.5	39.0	39.5	40.0	40.4	40.8	41.3
Local Allocation Tax Grants, etc.	19.6	17.5	16.4	17.2	17.7	17.9	18.1	17.9	18.0	18.1	18.2	18.3
Others	50.3	56.7	35.8	31.2	31.3	30.2	30.3	30.5	30.7	30.9	31.0	31.2
Debt Repayment and Interest Payment	24.6	24.1	25.3	25.0	25.5	25.9	26.3	26.7	27.1	27.6	28.3	29.0
Revenues	89.3	76.7	78.8	77.7	79.3	80.0	81.3	81.8	82.3	82.7	83.2	83.6
Tax Revenue	67.0	68.4	69.4	69.7	71.3	72.0	72.7	73.1	73.5	73.9	74.3	74.6
Other Revenues	22.2	8.4	9.3	7.9	8.0	8.0	8.6	8.7	8.8	8.8	8.9	9.0
Difference between Expenditures and Revenues	57.7	62.5	35.6	33.3	33.3	32.5	32.5	32.9	33.5	34.3	35.2	36.2
Primary Balance in General Account of Central Government	▲ 31.2	▲ 38.9	▲ 10.8	▲ 8.7	▲ 8.3	▲ 7.0	▲ 6.6	▲ 6.6	▲ 6.8	▲ 7.1	▲ 7.3	▲ 7.6

### 【Ordinary Account of Local Government】

Trillions of Yen

	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032
Expenditures	122.4	106.6	100.1	102.7	104.0	103.5	104.2	104.9	105.4	106.1	106.3	106.2
Debt Repayment and Interest Payment	12.6	11.4	11.3	11.8	12.1	12.0	11.9	11.8	11.5	11.5	11.0	10.0
Revenues	109.1	95.3	90.0	92.6	93.9	93.4	94.2	94.4	94.9	95.5	96.0	96.5
Tax Revenue	44.8	46.6	46.5	47.5	48.0	48.6	49.0	49.3	49.6	49.8	50.1	50.3
Difference between Expenditures and Revenues	13.3	11.3	10.1	10.1	10.1	10.0	10.1	10.5	10.5	10.6	10.3	9.6
Primary Balance in Ordinary Account of Local Government	4.6	3.8	5.2	4.8	5.2	6.0	5.9	5.4	5.2	5.0	4.8	4.5

Notes 1. In "General Account of Central Government", up to FY2021 is based on the Settlement, FY2022 is based on the Supplementary Budget for FY2022, and FY2023 is based on the Draft FY2023 Budget. In "Ordinary Account of Local Government," FY2021 is based on the Settlement.

2. "Policy Expenditures" is General Account Expenditures excluding interest payments, redemption of the national debt (excluding subsidy bonds) and carry-back of settlement deficit compensation.

3. In "General Account of Central Government," "Other Revenues" in FY2021 consists of non-tax revenues and preceding fiscal year surplus received (around 44.7 trillion yen) excluding the balance of fiscal resources carried forward to the next year (around 22.4 trillion yen).

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.

【Central and Local Governments' Public Finances】

(Including the expenditures and the fiscal resources for the recovery and reconstruction measures and GX measures)

**Economic Growth Achieved Case**

(%), [ratio to GDP, %], Trillions of Yen

	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032
Primary Balance	▲ 30.4	▲ 49.7	▲ 23.9	▲ 7.6	▲ 3.1	1.0	3.1	4.7	6.5	8.1	9.9	11.5
(ratio to nominal GDP)	[▲5.5]	[▲8.9]	[▲4.2]	[▲1.3]	[▲0.5]	[0.2]	[0.5]	[0.7]	[0.9]	[1.1]	[1.3]	[1.5]
Central Government	▲ 35.6	▲ 52.6	▲ 29.0	▲ 13.5	▲ 11.1	▲ 8.8	▲ 7.5	▲ 6.6	▲ 5.8	▲ 5.1	▲ 4.5	▲ 3.8
(ratio to nominal GDP)	[▲6.5]	[▲9.4]	[▲5.1]	[▲2.3]	[▲1.8]	[▲1.4]	[▲1.2]	[▲1.0]	[▲0.8]	[▲0.7]	[▲0.6]	[▲0.5]
Local Government	5.2	2.8	5.1	5.9	7.9	9.8	10.7	11.3	12.3	13.3	14.3	15.3
(ratio to nominal GDP)	[0.9]	[0.5]	[0.9]	[1.0]	[1.3]	[1.6]	[1.6]	[1.7]	[1.8]	[1.9]	[1.9]	[2.0]
Fiscal Balance	▲ 36.5	▲ 55.8	▲ 30.0	▲ 12.0	▲ 7.2	▲ 3.2	▲ 1.2	▲ 0.2	0.4	0.5	0.2	▲ 0.5
(ratio to nominal GDP)	[▲6.6]	[▲10.0]	[▲5.2]	[▲2.0]	[▲1.2]	[▲0.5]	[▲0.2]	[▲0.0]	[0.1]	[0.1]	[0.0]	[▲0.1]
Central Government	▲ 40.8	▲ 57.4	▲ 34.2	▲ 17.0	▲ 14.2	▲ 12.1	▲ 11.1	▲ 10.9	▲ 11.3	▲ 12.2	▲ 13.5	▲ 15.2
(ratio to nominal GDP)	[▲7.4]	[▲10.3]	[▲6.0]	[▲2.9]	[▲2.3]	[▲1.9]	[▲1.7]	[▲1.6]	[▲1.6]	[▲1.7]	[▲1.8]	[▲2.0]
Local Government	4.3	1.7	4.2	4.9	7.0	8.9	9.9	10.6	11.6	12.7	13.7	14.7
(ratio to nominal GDP)	[0.8]	[0.3]	[0.7]	[0.8]	[1.2]	[1.4]	[1.5]	[1.6]	[1.7]	[1.8]	[1.9]	[1.9]
Outstanding Debt	1174.9	1221.9	1242.0	1252.7	1261.6	1269.1	1275.9	1282.8	1291.0	1300.7	1312.7	1327.8
(ratio to nominal GDP)	[213.4]	[218.1]	[217.2]	[212.2]	[207.0]	[201.6]	[196.2]	[191.1]	[186.3]	[182.0]	[178.1]	[174.9]

**Baseline Case**

(%), [ratio to GDP, %], Trillions of Yen

	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032
Primary Balance	▲ 30.4	▲ 49.7	▲ 23.9	▲ 9.2	▲ 6.7	▲ 4.2	▲ 3.7	▲ 4.1	▲ 4.5	▲ 4.9	▲ 5.4	▲ 6.0
(ratio to nominal GDP)	[▲5.5]	[▲8.9]	[▲4.2]	[▲1.6]	[▲1.1]	[▲0.7]	[▲0.6]	[▲0.7]	[▲0.7]	[▲0.8]	[▲0.9]	[▲1.0]
Central Government	▲ 35.6	▲ 52.6	▲ 29.0	▲ 14.3	▲ 12.7	▲ 11.0	▲ 10.5	▲ 10.5	▲ 10.8	▲ 11.0	▲ 11.2	▲ 11.6
(ratio to nominal GDP)	[▲6.5]	[▲9.4]	[▲5.1]	[▲2.5]	[▲2.2]	[▲1.9]	[▲1.8]	[▲1.8]	[▲1.8]	[▲1.8]	[▲1.8]	[▲1.9]
Local Government	5.2	2.8	5.1	5.1	5.9	6.9	6.8	6.5	6.3	6.1	5.9	5.6
(ratio to nominal GDP)	[0.9]	[0.5]	[0.9]	[0.9]	[1.0]	[1.2]	[1.1]	[1.1]	[1.0]	[1.0]	[1.0]	[0.9]
Fiscal Balance	▲ 36.5	▲ 55.8	▲ 30.0	▲ 13.6	▲ 10.9	▲ 8.3	▲ 7.9	▲ 8.3	▲ 8.8	▲ 9.4	▲ 10.2	▲ 11.3
(ratio to nominal GDP)	[▲6.6]	[▲10.0]	[▲5.2]	[▲2.3]	[▲1.9]	[▲1.4]	[▲1.3]	[▲1.4]	[▲1.5]	[▲1.5]	[▲1.7]	[▲1.8]
Central Government	▲ 40.8	▲ 57.4	▲ 34.2	▲ 17.7	▲ 15.9	▲ 14.2	▲ 13.8	▲ 13.9	▲ 14.2	▲ 14.6	▲ 15.2	▲ 16.0
(ratio to nominal GDP)	[▲7.4]	[▲10.3]	[▲6.0]	[▲3.1]	[▲2.7]	[▲2.4]	[▲2.3]	[▲2.3]	[▲2.4]	[▲2.4]	[▲2.5]	[▲2.6]
Local Government	4.3	1.7	4.2	4.2	5.0	6.0	6.0	5.7	5.4	5.2	5.0	4.7
(ratio to nominal GDP)	[0.8]	[0.3]	[0.7]	[0.7]	[0.9]	[1.0]	[1.0]	[0.9]	[0.9]	[0.9]	[0.8]	[0.8]
Outstanding Debt	1174.9	1221.9	1242.0	1254.2	1265.6	1276.8	1287.9	1299.7	1312.1	1325.3	1339.3	1354.6
(ratio to nominal GDP)	[213.4]	[218.1]	[217.2]	[216.8]	[216.2]	[216.0]	[215.8]	[216.4]	[217.2]	[218.1]	[219.2]	[220.6]

(Notes)

1. “Consumer Prices” refers to the general index (nationwide), including the direct effects of the increase in the consumption tax rate.
2. “Balance by Sector” represents “Net lending/net borrowing” in the System of National Accounts (hereinafter “SNA”).
3. “Fiscal Balance” (hereinafter “FB”) of the central and local governments represents “Net lending/net borrowing” in the SNA. “Primary Balance” (hereinafter “PB”) equals FB 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.

It should be noted that the PB in the “General Account of Central Government” equals the sum of “Tax Revenue” and “Other Revenues” minus “General Account Expenditure Excluding Debt Repayment and Interest Payment.” The PB in the “Ordinary Account of Local Government” equals “Revenues” minus “Expenditure” excluding “Debt Repayment and Interest Payment” and “Reserves.”

4. The figures for “Balance by Sector” for the general government and “Fiscal Balance” and “Primary Balance” of the central and local governments exclude the transfer of debts from the Japan Expressway Holding and Debt Repayment Agency to the general account in FY2008 and the payment from the Japan Expressway Holding and Debt Repayment Agency to the general account in FY2011 as one-off factors.
5. “Outstanding Debt” is the sum of general bonds, local government bonds, and borrowing in SALALTT. 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.
6. The amount of “the expenditures and the fiscal resources for GX measures” refers to the expenditures eligible for the issuance of “GX Economy Transition Bonds” (tentative name), which are funded by future financial resources obtained through carbon pricing, and the financial resources for its reimbursement.
7. The amount of “the expenditures and the fiscal resources for the recovery and reconstruction measures” is 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.

## Key Assumptions

The GDP growth rate and inflation rate up to FY2021 are based on the “Annual Report on National Accounts for 2021” and those for FY2022 and FY2023 are based on the “Fiscal 2023 Economic Outlook” and others.

### **(1) Assumptions on Macroeconomy**

#### **Economic Growth Achieved Case**

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

- The TFP growth rate rises from the current level (around 0.5%) to around 1.4%, based on the extent and pace the Japanese economy actually experienced before it entered deflation. (Specifically, the TFP growth rate rose around 0.9% in 5 years from FY1982 to FY1987.)

##### b) Labor Force

###### <Labor Force Participation (LFP) Rate>

- The LFP rate shifts gradually based on the estimates of labor supply and demand for the “case in which economic growth and labor participation are achieved” shown by the “Labor Policy Study Group” (January 15, 2019) (for example, the LFP rate among females aged 25-44 gradually rises from around 81% in FY2021 to 92% in FY2032, the LFP rate among males aged 65-69 gradually rises from around 63% in FY2021 to 71% in FY2032, and the LFP rate among females aged 65-69 gradually rises from around 42% in FY2021 to 51% in FY2032).

###### <Foreign Workers>

- Based on the “Population Projection for Japan” by the National Institute of Population and Social Security Research, the non-Japanese population will increase (from 2.72 million in 2021 to 3.42 million in 2032). In addition, in accordance with the “Expected Number of Acceptance” shown in the “Basic Policy on Operation of the System Related to the Status of Residence of the Specified Skilled Worker” (Cabinet Decision, December 25, 2018, and partially changed on August 30, 2022), the labor force increases with an expansion of acceptance of foreign workers of around 345,000 people.

##### c) World Economy

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

- The growth rate moves at around 3.1% to 3.3% annually from FY2024 to FY2027, based on the “World Economic Outlook” (WEO) by the IMF (October 2022). From FY2028 onward, it remains constant, at around 3.2%.

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

- The inflation rate moves at around 1.9% to 2.4% annually from FY2024 to FY2027, based on the WEO (October 2022). From FY2028 onward, it remains constant, at around 2.4%.

###### <Crude Oil Prices>

- Based on the assumption of “Commodity Markets Outlook” by the World Bank (October 2022) and the “Fiscal 2023 Economic Outlook”(January 2023), the crude oil price is 77.5 dollars per barrel (change rate is -13.0%) in FY2024 and constant at that level thereafter.

## Baseline Case

Differences from the above “Economic Growth Achieved Case” are as follows:

### a) TFP Growth Rate

- The TFP growth rate stays around 0.6 %. (Average from November 2012 to May 2020 (the 16th business cycle))

### b) Labor Force

<Labor Force Participation (LFP) Rate>

- Based on the estimates of labor supply and demand for the “case in which economic growth and labor participation are partly achieved” shown by the “Labor Policy Study Group” (January 15, 2019) (for example, the LFP rate among females aged 25-44 gradually rises from around 81% in FY2021 to 91% in FY2032, the LFP rate among males aged 65-69 gradually rises from around 63% in FY2021 to 65% in FY 2032, and the LFP rate among females aged 65-69 gradually rises from around 42% in FY2021 to 47% in FY2032).

### c) World Economy

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

- The growth rate moves at around 2.3% to 2.5% annually from FY2024, which is about 0.8 percentage points\* lower than the rate based on the WEO (October 2022) (around 3.1% to 3.3%).

\* The 50% confidence interval of the projection in the WEO is taken into account.

## (2) Tax System

- Tax revenues of the general account of the central government in FY2021 reflect the “FY2021 Settlement,” those in FY2022 reflect the “FY2022 Second Supplementary Budget” and those in FY2023 reflect the “FY2023 Budget Draft.”
- The tax system reflects the reform items shown by “FY2023 Tax Reform” (Cabinet Decision, December 23, 2022) and the reformed system is assumed to continue.
- 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 FY2021 reflect the “FY2021 Settlement,” those in FY2022 reflect the “Second Supplementary Budget for FY2022,” and those in FY2023 reflect the “Draft FY2023 Budget.”
- From FY2024, social security expenditures will increase, reflecting the aging of population and price and wage developments, and other expenditures (excluding the expenditures explained below in the specific period for the defense capability buildup and the national resilience) will increase along with the inflation rate (constant in real terms).
- The additional expenditures of two trillion yen are assumed in FY2024 and FY2025 respectively, based on “Five-Year Acceleration Measures for Disaster Risk Reduction, and National Resilience” and the implementation progress of its budgets in the past.
- Social security expenditures reflects the “Act to Partially Amend the National Pension Act and Others to Enhance National Pension System” (Act Number 40, 2020) and the “Act to Partially



Amend the Health Insurance Act and Others to Build Social Security System Oriented to All Generations” (Act Number 66, 2021).

- The series of social security-related expenditures is endogenously obtained within the Economic and Fiscal Model 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” etc., the assumptions are as follows:

- The total expenditures for the necessary level of defense capability buildup for five years from FY2023 to FY2027 amount to around 43 trillion yen. The expenditures in FY2023 reflect around 6.6 trillion yen of the FY2023 Draft Budget, those in FY2027 is around 8.9 trillion yen based on the program, and those from FY2024 to FY2026 are allocated around 8.9 trillion yen in each year. The rest of those is added to the expenditures in FY2023 (only in the Central and Local Governments’ Public Finances). 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 for five years from FY2023 to FY 2027 (around 40.5 trillion yen in total). The measures include reform of expenditures, utilization of settlement surplus, creation of defense capability reinforcement funds utilizing non-tax revenue, and tax measures (not all of the non-tax revenue, including the new funds, in the FY2023 Draft Budget are included in the calculation of the primary balance of central and local governments). The FY2023 Draft Budget is reflected and the rest of the financial resources is allocated from FY2024 to FY2027 so that the financial resources for each year are linked to 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 which 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 System of National Account. 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 “Basic Policy for the Realization of GX (Draft),” the assumptions are as follows:
- The total expenditures of around 20 trillion yen will be budgeted in the Special Energy Account for the 10 years from FY2023 to FY2032. As for the allocation to each year, the expenditures excluding 1.6 trillion yen of FY2022 and FY2023 are equally allocated to each of remaining years.
- The expenditure that amounts to around 20 trillion yen is assumed to be financed by issuing “GX Economy Transition Bonds” funded by future financial resources through carbon pricing. While the Basic Policy includes the introduction of the carbon surcharge as carbon pricing in FY2018, this projection does not incorporate the scheme since its specific volume is yet to be clear.

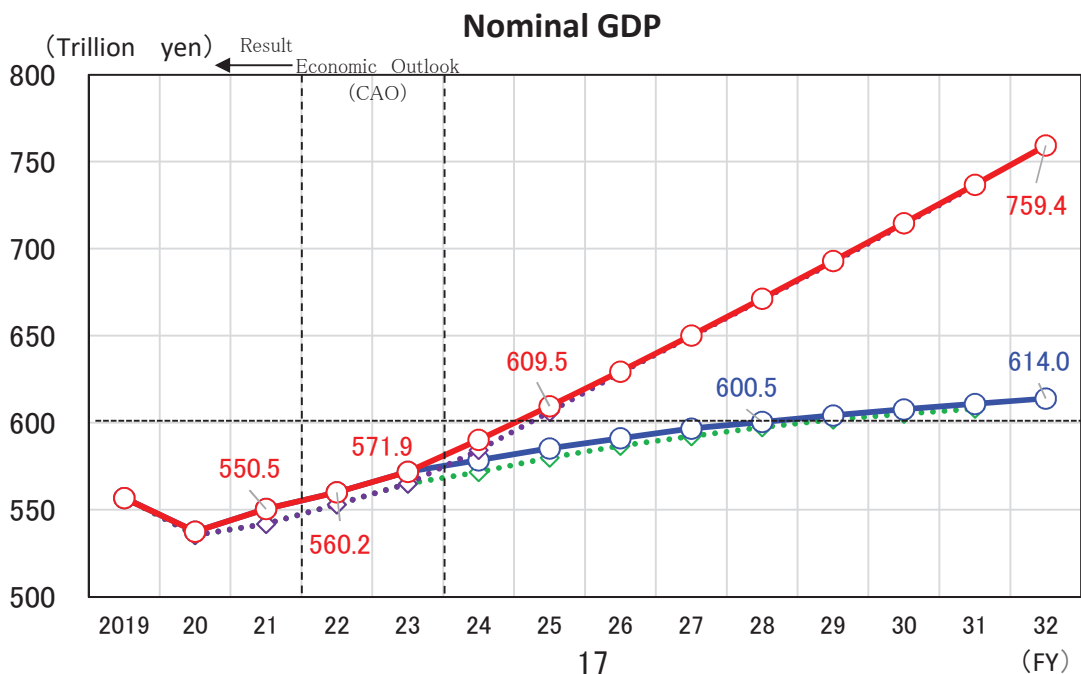
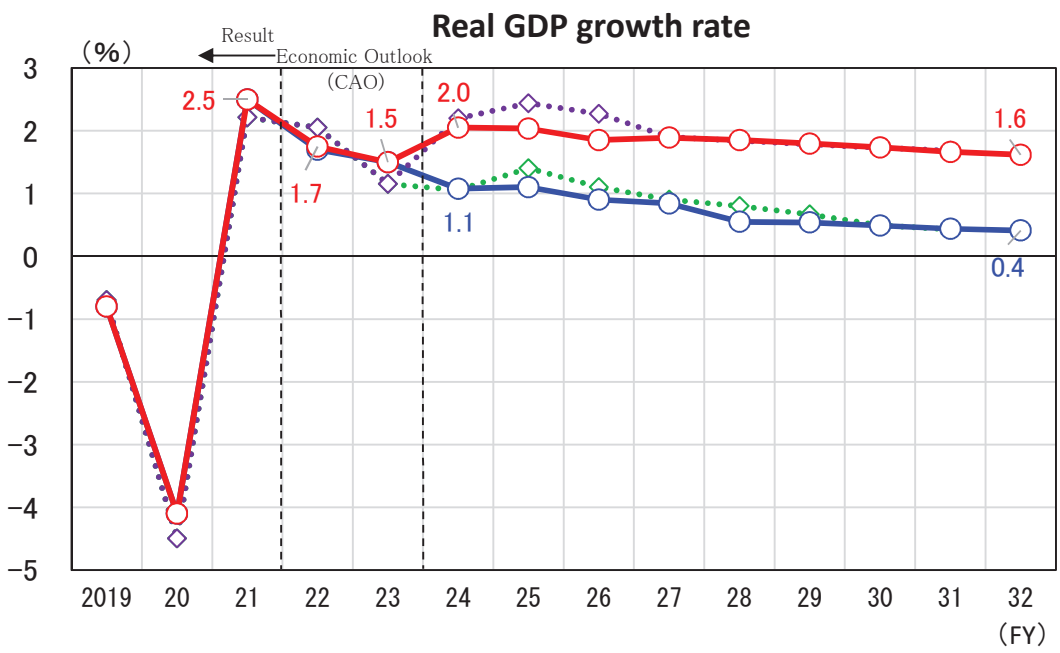
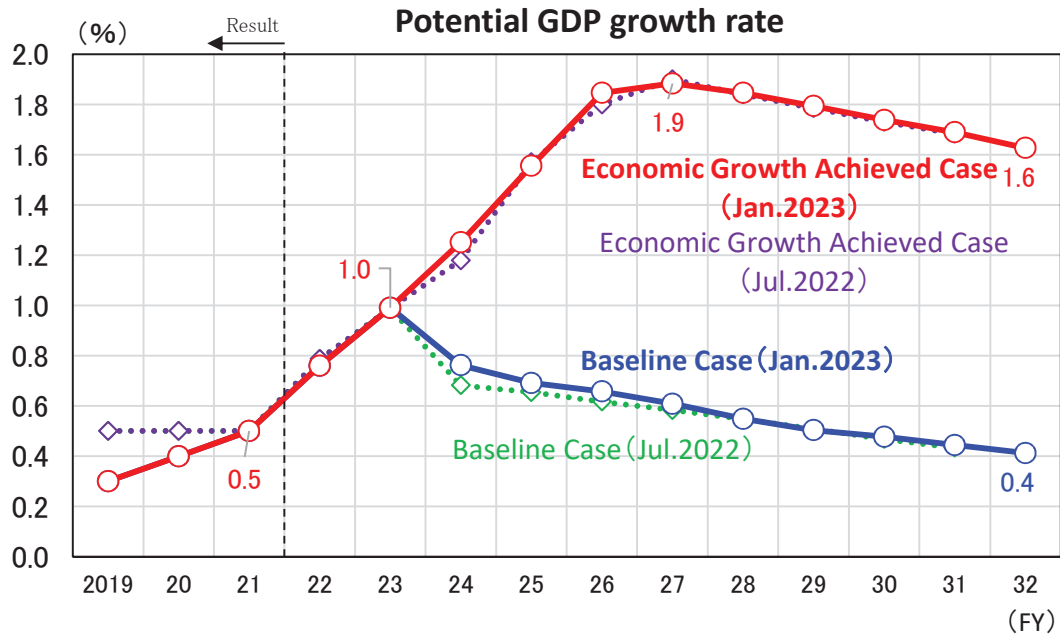
**(6) Assumptions on the Expenditures and Financial Resources for Recovery and Reconstruction from the Great East Japan Earthquake**

- 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.

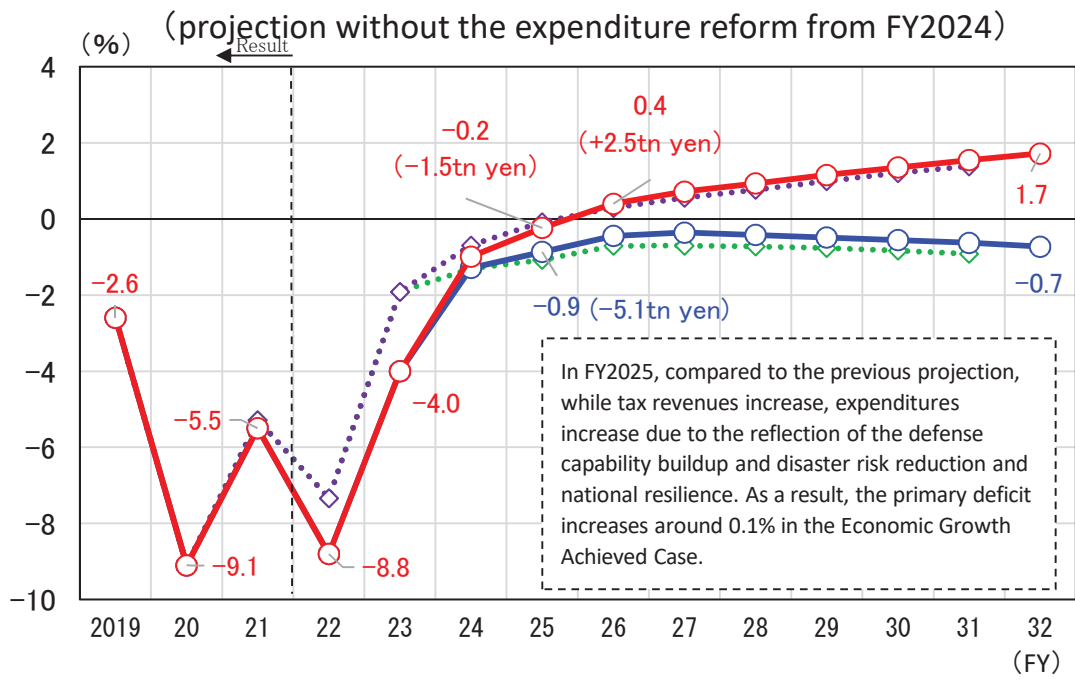
- In the projections, it is assumed that around 32.9 trillion yen of revenue resources will be secured by the special tax for reconstruction, a reduction of expenditures, non-tax revenues and others based on the “Basic Guidelines for the Third Supplementary Budget in FY2011 and the Fiscal Resources for 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 5.8 trillion yen in total, based on the “Basic Guideline for Accelerating the Reconstruction of Fukushima from the Nuclear Disaster” (Cabinet Decision, December 20, 2016), and the pattern of expenditure and revenue is assumed based on the progress of implementation and payment to date.

# Appendices

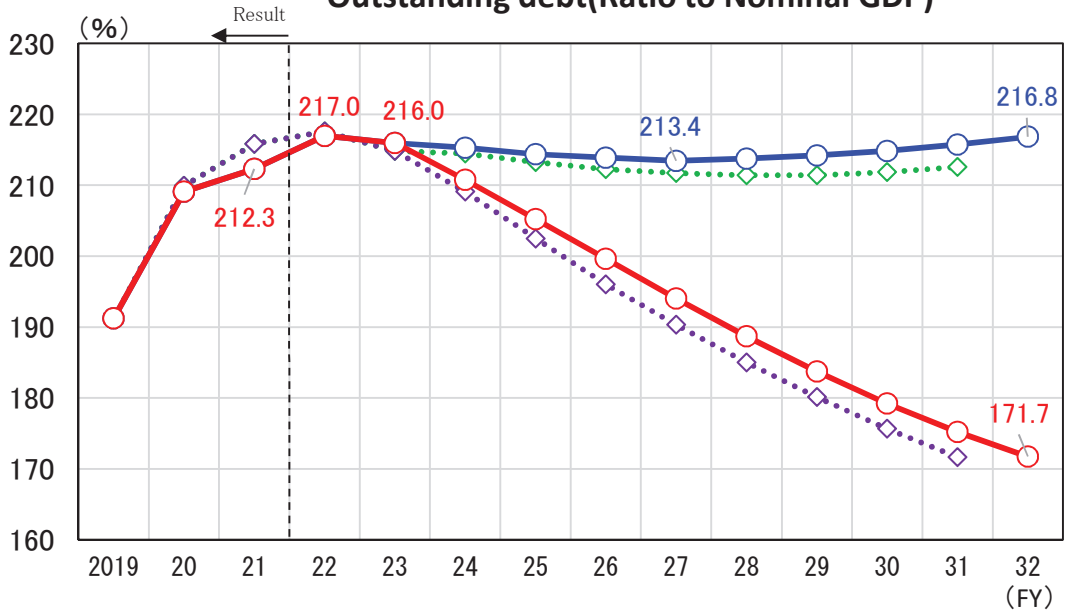
**(Appendix 1) Comparison with previous projection**



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



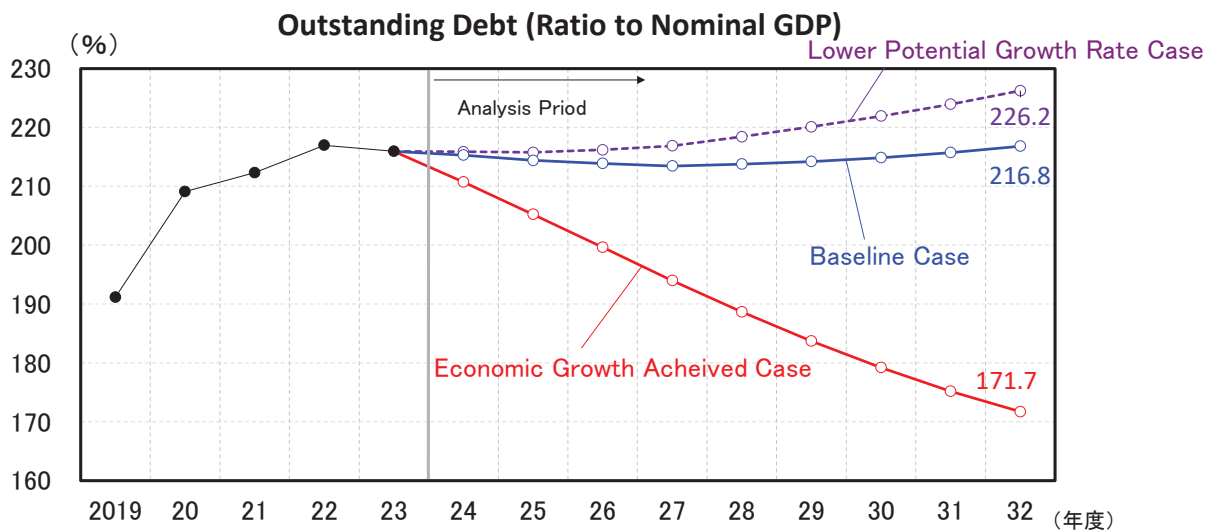
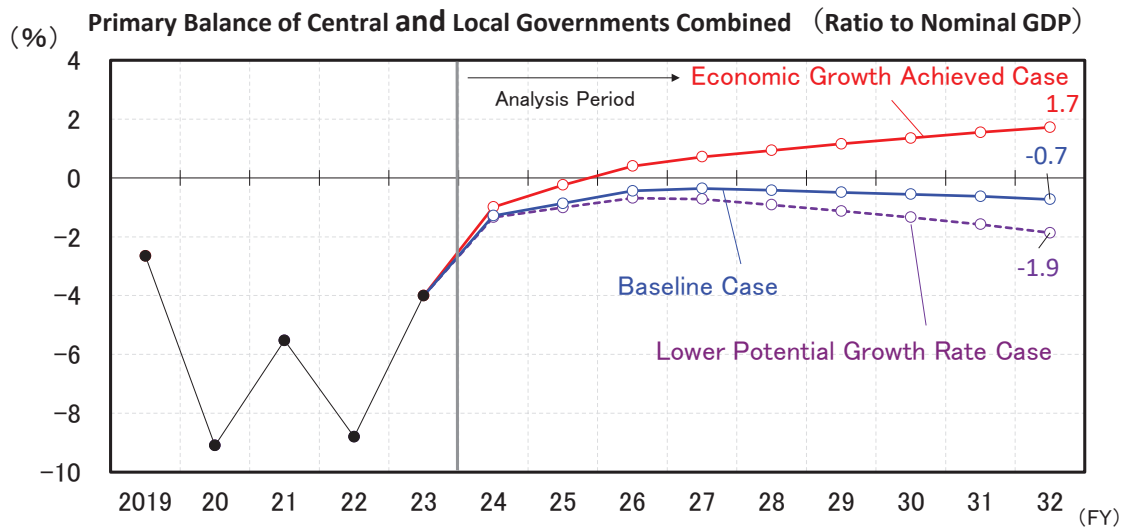
## Outstanding debt(Ratio to Nominal GDP)



**(Appendix 2) Analysis of sensitivity to economic fluctuations (Mechanical Projection)**

**Lower Potential Growth Rate Case**

If the TFP growth rate were continuously 0.5% points lower than the rate in the baseline case (i.e., lower potential growth rate case), the primary balance to GDP ratio would be 1.2% points lower in FY2032, as the revenue would decrease due to the lower growth rate. The outstanding debt to GDP ratio would be higher by 9.4% points in FY2032.



Fiscal Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Potenrtial Growth Rate	( 0.5)	( 0.8)	( 1.0)	( 0.2)	( 0.2)	( 0.1)	(▲0.0)	(▲0.1)	(▲0.2)	(▲0.3)	(▲0.4)	(▲0.4)
Nominal GDP	550.5	560.2	571.9	576.8	581.6	585.0	587.9	588.5	589.1	589.5	589.5	589.1
Primary Balance of Central and Local Governments Combined (Ratio to Nominal GDP)	[▲5.5]	[▲8.8]	[▲4.0]	[▲1.3]	[▲1.0]	[▲0.7]	[▲0.7]	[▲0.9]	[▲1.1]	[▲1.3]	[▲1.6]	[▲1.9]
Outstanding Debt (Ratio to Nominal GDP)	[ 212.3]	[ 217.0]	[ 216.0]	[ 215.9]	[ 215.8]	[ 216.2]	[ 216.9]	[ 218.4]	[ 220.1]	[ 221.9]	[ 224.0]	[ 226.2]

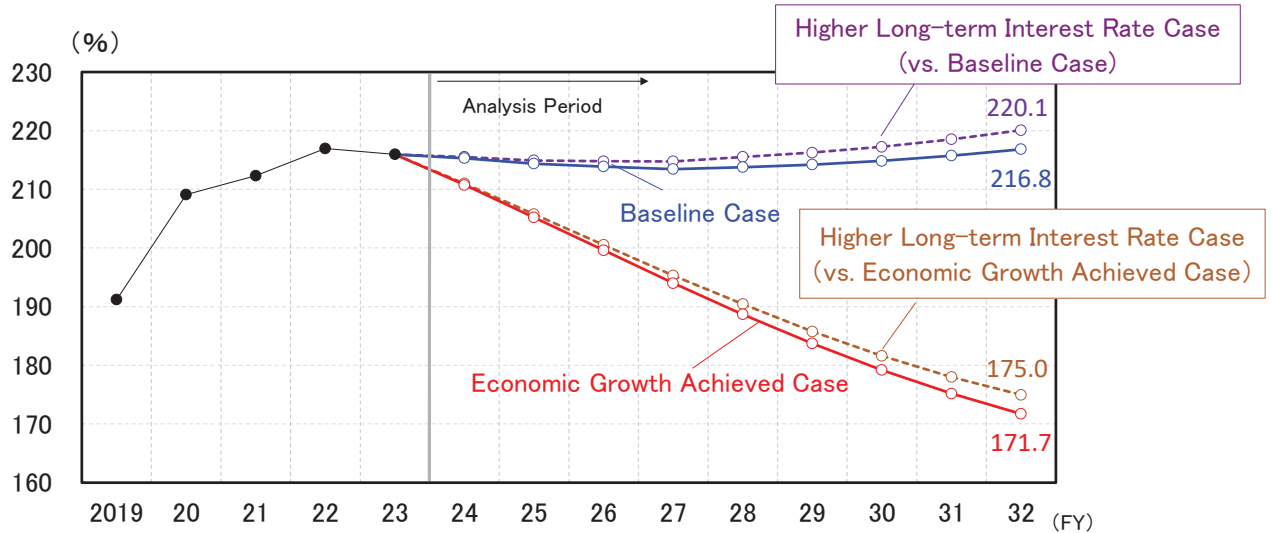
(Remarks)

1. This sensitivity analysis is based on the multiplier table in "Economic and Fiscal Model (FY 2018 version) "
2. The low potential growth rate case refers to a case in which the TFP growth rate is 0.5 percentage points lower than the baseline case continuously during the projection period (after FY2024) under conditions in which other exogenous variables remain unchanged.

## Higher Long-term Interest Rate Case

• If the long-term interest rate were continuously 0.5% points higher than it is in each case, the outstanding debt to GDP ratios would be 3.3% points higher than those in both cases. It should be noted that the impact might be larger if the interest-growth differential were small earlier or turned positive, or if the maturity structure of outstanding debt were shortened, etc.

### Outstanding Debt (Ratio to Nominal GDP)



#### <vs. Economic Growth Achieved Case>

(%), [ratio to GDP, %]

Fiscal Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Nominal Long-term Interest	( 0.1)	( 0.3)	( 0.4)	( 0.9)	( 0.9)	( 1.1)	( 1.3)	( 2.0)	( 2.5)	( 2.9)	( 3.3)	( 3.6)
Outstanding Debt (Ratio to Nominal GDP)	[ 212.3]	[ 217.0]	[ 216.0]	[ 211.0]	[ 205.8]	[ 200.5]	[ 195.3]	[ 190.4]	[ 185.8]	[ 181.6]	[ 178.0]	[ 175.0]

#### <vs. Baseline Case>

(%), [ratio to GDP, %]

Fiscal Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Nominal Long-term Interest	( 0.1)	( 0.3)	( 0.4)	( 0.9)	( 0.9)	( 0.9)	( 1.0)	( 1.0)	( 1.1)	( 1.2)	( 1.3)	( 1.4)
Outstanding Debt (Ratio to Nominal GDP)	[ 212.3]	[ 217.0]	[ 216.0]	[ 215.5]	[ 214.9]	[ 214.8]	[ 214.7]	[ 215.5]	[ 216.3]	[ 217.2]	[ 218.5]	[ 220.1]

#### (Remarks)

1. This sensitivity analysis is based on the multiplier table in "Economic and Fiscal Model (FY 2018 version) "
2. The higher long-term interest rate case refers to a case in which long-term interest rates were 0.5 percentage points higher than those in both cases continuously during the projection period (after FY2024) under conditions in which other exogenous variables remain unchanged.