

Economic and Fiscal Projections for  
Medium to Long Term Analysis

July 9, 2018  
Cabinet Office, Japan

Projections are conducted by 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, because of various uncertainties.

## **1. Introduction**

The government decided “the New Plan to Advance Economic and Fiscal Revitalization<sup>1</sup>” on June 18, maintaining the basic policy “Without economic revitalization, there can be no fiscal consolidation,” and continuing to accelerate and expand three pillars of reform: overcoming deflation and revitalizing the economy, expenditure reforms and revenue reforms. As for the fiscal consolidation targets, the government decided to aim for the primary surplus of the central and local governments by FY2025, and at the same time to steadily reduce the public debt to GDP ratio.

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, conducting the medium- to long-term analysis, based on the scenarios of economic situations and fiscal assumptions as follows.

## **2. Scenario and Assumptions in Macroeconomy<sup>2</sup>**

For macroeconomy, it is based on “the Cabinet Office’s Mid-Year Economic Projection”<sup>3</sup> until 2019. After 2020, 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.

### (1) Economic Growth Achieved Case

The Economic Growth Achieved Case offers a projection in which the policies of Abenomics for overcoming deflation and attaining economic revitalization show solid results at a feasible pace.

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

- The total factor productivity (TFP) growth rate rises from the current level (0.6%) to around 1.5%, based on the extent and pace<sup>4</sup> the Japanese economy actually experienced before it entered deflation.
- The labor force participation rates of females and the elderly rise as the current rising trend continues. And the rates of others rise based on the estimates of labor supply and demand in “Report of Labor Policy Study Group” (2015).

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<sup>1</sup> “Basic Policy on Economic and Fiscal Management and Reform 2018” (June 15, 2018) Chapter 3

<sup>2</sup> For further details, see Appendix.

<sup>3</sup> The Cabinet Office’s Mid-Year Economic Projection for FY2018 (July 6, 2018, submitted to the Council on Economic and Fiscal Policy)

<sup>4</sup> Specifically, the total factor productivity (TFP) growth rate rose around 0.9% in 5 years from FY1982 to FY1987.

## (2) Baseline Case

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

Specifically, the Baseline Case has the following assumptions:

- The total factor productivity (TFP) growth rate converges to around 1.0%.
- The labor force participation rate gradually rises to FY2027 based on the estimates of labor supply and demand in “Report of Labor Policy Study Group” (2015).

## **3. Main Assumptions in Public Finances<sup>5</sup>**

For Public Finances, based on the following assumptions, the projection shows the fiscal prospect which is consistent with the two economic scenarios mentioned in “2.”.

- Expenditures in FY2019 are calculated by taking changes in prices, wages, expenditure reform and other factors into consideration, with an assumption that the rate of increase of the expenditure excluding the increase due to population aging and other factors will consequently be half as high as the wage growth and inflation rate. In addition, based on “the Mid-Year Economic Projection,” public-fixed capital formation is assumed to be the same amount as in FY2018 at a nominal level.
- For expenditures after FY2020, it is assumed that social security expenditures increase reflecting the population aging and ratio of wage growth, inflation rate and other factors of general expenditure increases as the ratio of inflation.
- Revenues after FY2019 increase based on two economic scenarios and assumptions of macroeconomy.
- The consumption tax rate (central and local combined) is assumed to be raised to 10% on October 1, 2019, and the revenue increase will be split between the social programs including alleviation of education burden, childrearing support and securing of long-term care workers, etc.<sup>6</sup>. and the fiscal reconstruction<sup>7</sup> on an approximately 50-50 basis. Also, the implementation of the reduced rate for consumption tax<sup>8</sup> will be carried out.

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<sup>5</sup> For further details, see Appendix.

<sup>6</sup> “Etc.” means the social security enhancement measures that were planned to be implemented at the time of the consumption tax rate hike to 10%, including the pensioners support benefits (around 1.1 trillion yen)

<sup>7</sup> “Fiscal reconstruction” means reduction of debt to be imposed on the future generation and increase in expenditure regarding four social security expenses accompanying the consumption tax rate hike to 10%.

<sup>8</sup> This projection incorporates the financial sources funded by deferring the introduction of the total aggregate system in social security as a part of the stable and permanent financial sources secured based on the Act for Partial Revision of the Income Tax Act and Other Acts in response to the decline in tax revenue due to implementing the reduced rate for consumption tax. As for the unincorporated remainder of the necessary amounts, the above act provides that it will be secured by taking legislative measures on revenues or expenditures, or other measures by the end of FY2018.

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

### <Progress>

The Japan Economy continues moderate recovery, and the GDP growth rate is 1.6% in real terms and 1.7% in nominal terms in FY2017. In FY2018, along with extension of the positive economic cycle, the GDP growth rate is projected to be 1.5% in real terms and 1.7% in nominal terms.

On the fiscal conditions, the primary deficit in FY2017 has been revised to 2.9% of GDP from 3.4% due to the tax revenue rising compared to the initial budget, as a result of high-level profit of private firms. It is to be 2.8% in FY2018.

The ratio of outstanding debt to GDP has increased at a slower pace recently. It is projected to be 188.2% in FY2017 and 189.2% in FY2018.

### <Future Prospect>

In the Economic Growth Achieved Case, the GDP growth rate is projected to rise gradually, and achieve 2% in real terms and 3% and over in nominal terms in the early 2020s. As a result, nominal GDP is projected to achieve 600 trillion yen around FY2020. The rate of change in consumer prices is projected to be stable at around 2% in the medium to long term.

On the fiscal conditions, the primary deficit<sup>9</sup> is projected to be 0.3% of GDP, and the period of achieving the primary surplus will be in FY2027. The ratio of outstanding debt to GDP is projected to decline in the future. It should be noted, however, that the existing bonds issued at lower interest rates will be refinanced at higher interest rates sequentially.

In the Baseline Case, however, the GDP growth rate is projected over 1% in real terms and high-1% in nominal terms in the medium to long term. The rate of change in consumer prices is projected to be around 1% in the medium to long term.

On the fiscal conditions, the primary deficit is projected to be 1.3% of GDP, and it will be difficult to achieve the primary surplus within the projection period. The ratio of outstanding debt to GDP is projected to stop declining after the mid-2020s.

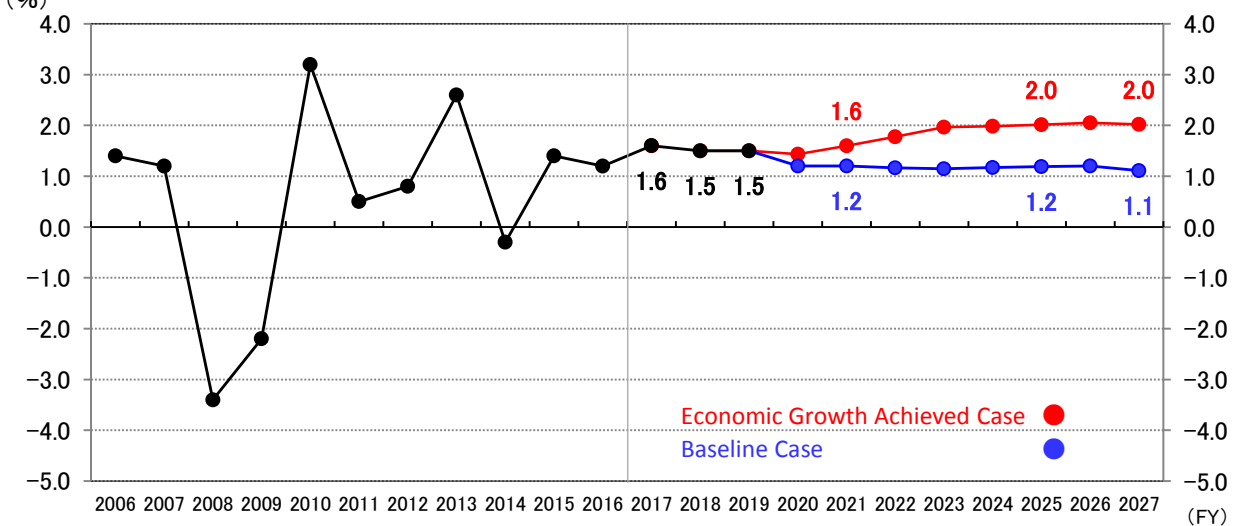
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<sup>9</sup> Excluding the expenditures and the fiscal resources for the recovery and reconstruction measures

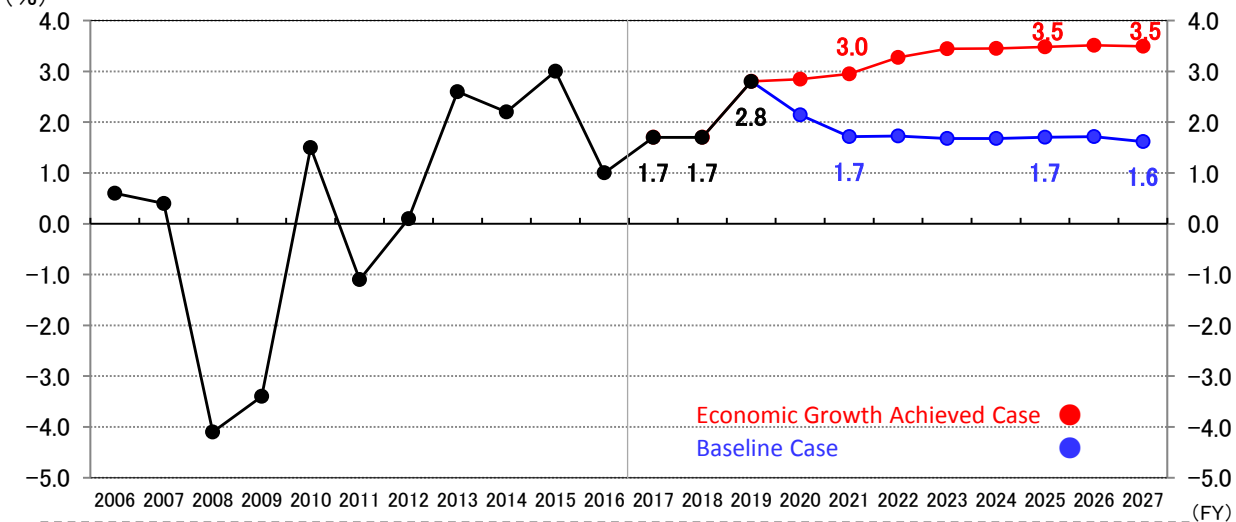
## Results of Projections

### ○ GDP Growth Rate

[Real GDP Growth Rate]

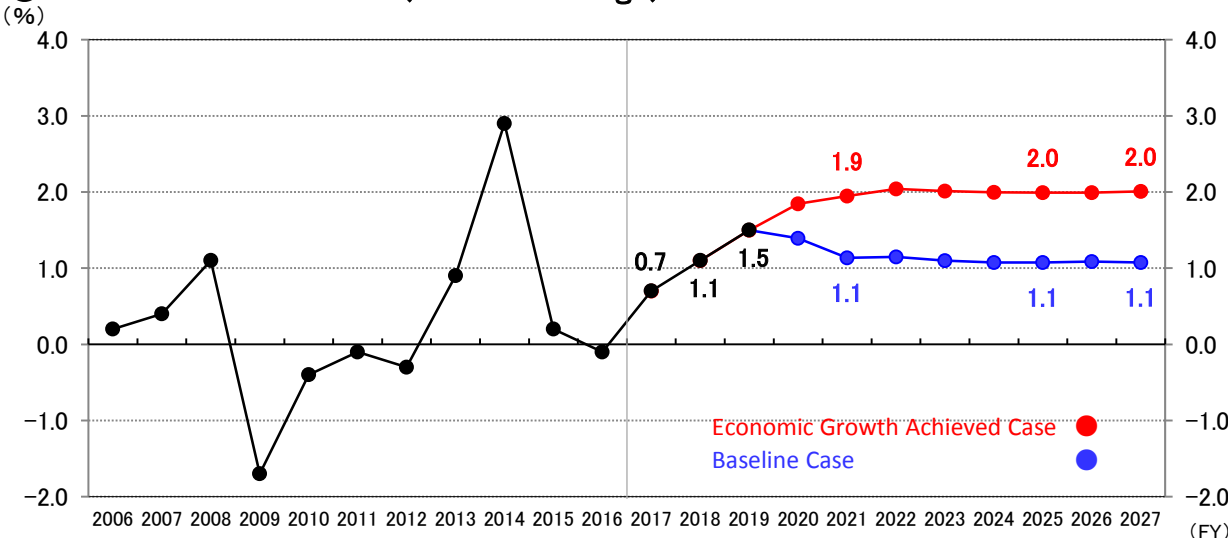


[Nominal GDP Growth Rate]



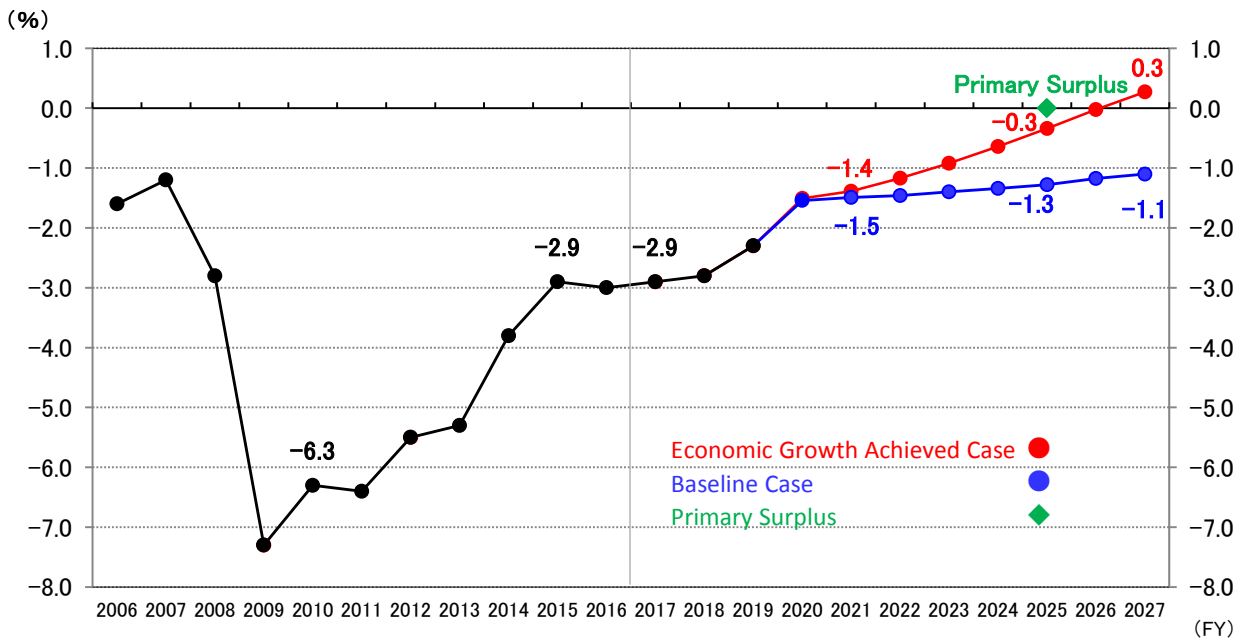
• In the Economic Growth Achieved Case, the GDP growth rate is projected to rise gradually, and achieve 2% in real terms and 3% and over in nominal terms in the early 2020s. As a result, nominal GDP is projected to achieve 600 trillion yen around FY2020.

### ○ Consumer Price Index (Rate of Change)



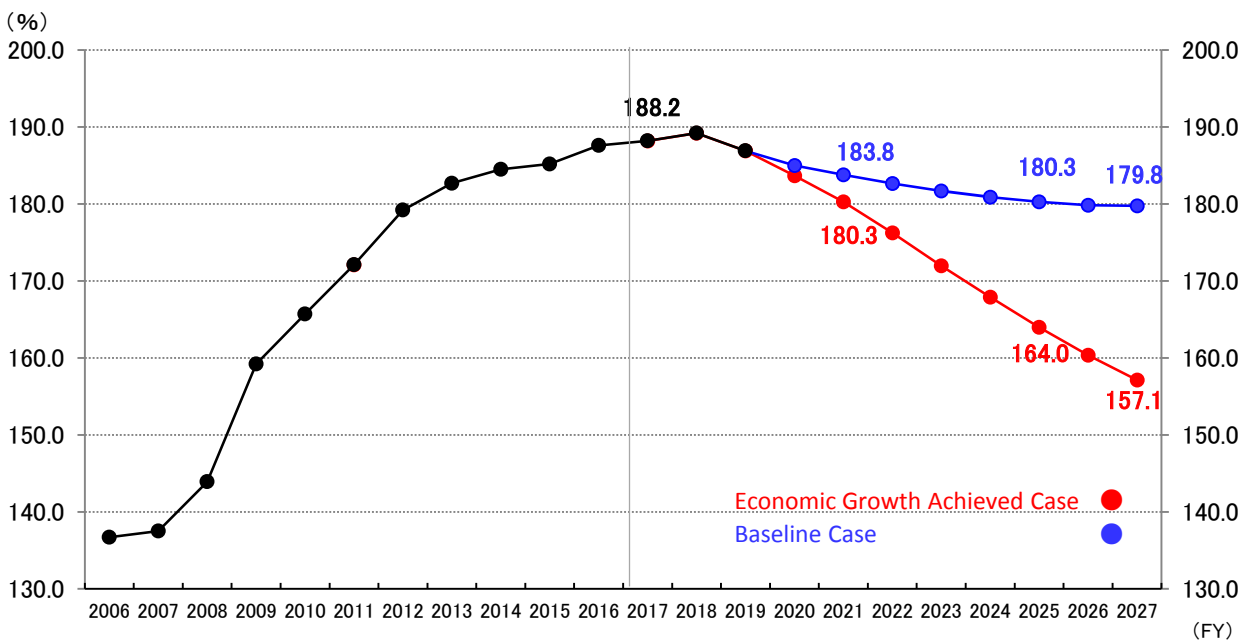
• In the Economic Growth Achieved Case, the rate of change in consumer price is projected to be stable at around 2% in the medium to long term.

## ○ Primary Balance of Central and Local Government Combined\*



• In the Economic Growth Achieved Case, the primary deficit is projected to be 0.3% of GDP, and achieve a fiscal surplus in FY2027.

## ○ Outstanding Debt\*(ratio to nominal GDP)



• In the Economic Growth Achieved Case, the ratio of outstanding debt to GDP is projected to decline in the future. It should be noted, however, that the long-term interest rate is projected to be higher than the nominal GDP growth rate, and the existing bonds issued at lower interest rates will be refinanced at higher interest rates sequentially.

• In the Baseline Case, the ratio is projected to stop declining after the mid-2020s.

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

## Result of Projection (Table)

### Economic Growth Achieved Case

【Macroeconomy】

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

	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Real GDP Growth	(1.2)	(1.6)	(1.5)	(1.5)	(1.4)	(1.6)	(1.8)	(2.0)	(2.0)	(2.0)	(2.1)	(2.0)
Real GNI Growth	(1.1)	(1.3)	(1.0)	(1.7)	(1.5)	(1.6)	(1.8)	(1.8)	(1.8)	(1.9)	(1.8)	(1.8)
Nominal GDP Growth	(1.0)	(1.7)	(1.7)	(2.8)	(2.8)	(3.0)	(3.3)	(3.4)	(3.5)	(3.5)	(3.5)	(3.5)
Nominal GDP	539.4	548.7	558.0	573.5	589.8	607.2	627.1	648.7	671.0	694.4	718.8	743.9
Nominal GNI Per Capita Growth	(0.8)	(2.2)	(2.0)	(3.2)	(3.3)	(3.4)	(3.6)	(3.7)	(3.7)	(3.8)	(3.8)	(3.8)
Nominal GNI Per Capita (※Ten thousand yen)	439	449	458	473	488	505	523	543	563	584	606	629
Potential GDP Growth	(1.0)	(1.0)	(1.2)	(1.5)	(1.7)	(1.9)	(2.0)	(2.0)	(2.0)	(2.0)	(2.1)	(2.0)
Change of Price												
Consumer Prices	(▲0.1)	(0.7)	(1.1)	(1.5)	(1.8)	(1.9)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)
Corporate Goods Prices	(▲2.4)	(2.7)	(2.9)	(2.2)	(1.8)	(1.0)	(0.9)	(0.8)	(0.7)	(0.7)	(0.8)	(0.8)
GDP Deflator	(▲0.2)	(0.1)	(0.2)	(1.3)	(1.4)	(1.3)	(1.5)	(1.4)	(1.4)	(1.4)	(1.4)	(1.4)
Unemployment Rate	(3.0)	(2.7)	(2.5)	(2.4)	(2.5)	(2.6)	(2.6)	(2.7)	(2.7)	(2.7)	(2.8)	(2.8)
Long-term Interest Rate	(▲0.1)	(0.0)	(0.0)	(0.0)	(0.0)	(0.3)	(0.8)	(1.4)	(2.0)	(2.6)	(3.2)	(3.5)
Balance by Sector												
General Government	[▲3.4]	[▲4.0]	[▲4.1]	[▲3.0]	[▲1.7]	[▲1.3]	[▲0.8]	[▲0.5]	[▲0.3]	[▲0.1]	[0.2]	[0.3]
Private	[7.1]	[7.9]	[7.6]	[6.9]	[5.9]	[5.8]	[5.4]	[5.0]	[4.7]	[4.4]	[4.0]	[3.5]
Overseas	[▲3.7]	[▲3.9]	[▲3.5]	[▲3.9]	[▲4.2]	[▲4.5]	[▲4.6]	[▲4.5]	[▲4.4]	[▲4.3]	[▲4.1]	[▲3.8]

【Central and Local Governments' Public Finances】

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

[ratio to GDP, %], Trillions of Yen

	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Primary Balance	▲16.0	▲15.7	▲15.7	▲13.3	▲8.9	▲8.4	▲7.3	▲6.0	▲4.3	▲2.4	▲0.2	2.0
(ratio to nominal GDP)	[▲3.0]	[▲2.9]	[▲2.8]	[▲2.3]	[▲1.5]	[▲1.4]	[▲1.2]	[▲0.9]	[▲0.6]	[▲0.3]	[▲0.0]	[0.3]
Central Government	▲18.7	▲17.9	▲16.6	▲14.5	▲12.7	▲12.6	▲12.2	▲11.7	▲11.1	▲9.9	▲9.0	▲8.4
(ratio to nominal GDP)	[▲3.5]	[▲3.3]	[▲3.0]	[▲2.5]	[▲2.2]	[▲2.1]	[▲1.9]	[▲1.8]	[▲1.6]	[▲1.4]	[▲1.2]	[▲1.1]
Local Government	2.7	2.2	0.8	1.2	3.8	4.2	4.9	5.8	6.8	7.5	8.8	10.4
(ratio to nominal GDP)	[0.5]	[0.4]	[0.1]	[0.2]	[0.6]	[0.7]	[0.8]	[0.9]	[1.0]	[1.1]	[1.2]	[1.4]
Fiscal Balance	▲24.0	▲23.3	▲23.9	▲19.7	▲14.5	▲13.3	▲12.1	▲11.3	▲10.9	▲10.9	▲11.1	▲11.6
(ratio to nominal GDP)	[▲4.5]	[▲4.2]	[▲4.3]	[▲3.4]	[▲2.5]	[▲2.2]	[▲1.9]	[▲1.7]	[▲1.6]	[▲1.6]	[▲1.5]	[▲1.6]
Central Government	▲24.9	▲23.8	▲23.2	▲19.2	▲16.8	▲16.2	▲15.8	▲16.0	▲16.6	▲17.4	▲18.9	▲21.0
(ratio to nominal GDP)	[▲4.6]	[▲4.3]	[▲4.2]	[▲3.4]	[▲2.8]	[▲2.7]	[▲2.5]	[▲2.5]	[▲2.5]	[▲2.5]	[▲2.6]	[▲2.8]
Local Government	0.9	0.5	▲0.7	▲0.5	2.3	2.8	3.7	4.7	5.7	6.5	7.8	9.4
(ratio to nominal GDP)	[0.2]	[0.1]	[▲0.1]	[▲0.1]	[0.4]	[0.5]	[0.6]	[0.7]	[0.9]	[0.9]	[1.1]	[1.3]
Outstanding Debt	1011.7	1032.8	1055.8	1071.8	1083.3	1094.6	1105.3	1115.6	1126.7	1138.8	1152.7	1168.9
(ratio to nominal GDP)	[187.6]	[188.2]	[189.2]	[186.9]	[183.7]	[180.3]	[176.3]	[172.0]	[167.9]	[164.0]	[160.4]	[157.1]

【General Account of Central Government】

Trillions of Yen

	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Expenditures	97.5	98.1	97.7	99.0	101.2	103.0	105.5	108.6	112.4	116.7	121.7	127.3
General Account Expenditure Excluding Debt Repayment and Interest Payment	75.5	75.6	74.4	76.9	79.1	80.9	82.9	84.9	86.9	88.7	90.8	93.1
Social Security-related Expenditures	32.2	32.5	33.0	34.2	36.6	37.4	38.3	39.2	40.2	41.2	42.0	43.0
Local Allocation Tax Grants, etc.	15.3	15.6	15.5	15.8	16.5	16.9	17.5	18.1	18.6	18.9	19.5	20.3
Others	27.9	27.5	25.9	26.8	26.1	26.5	27.0	27.6	28.1	28.6	29.2	29.8
Debt Repayment and Interest Payment	22.1	22.5	23.3	22.1	22.1	22.2	22.6	23.7	25.5	28.0	31.0	34.2
Revenues	59.9	65.7	64.0	67.5	71.1	73.1	75.5	78.1	80.8	83.6	86.5	89.6
Tax Revenue	55.5	58.8	59.1	62.3	66.0	67.9	70.2	72.6	75.2	77.9	80.7	83.6
Other Revenues	4.5	6.9	4.9	5.2	5.1	5.2	5.3	5.4	5.6	5.7	5.8	6.0
Difference between Expenditures and Revenues	38.0	33.6	33.7	31.5	30.1	29.9	30.0	30.6	31.7	33.1	35.2	37.7
Primary Balance in General Account of Central Government	▲15.5	▲9.9	▲10.4	▲9.4	▲8.0	▲7.7	▲7.4	▲6.8	▲6.2	▲5.1	▲4.2	▲3.5

【Ordinary Account of Local Government】

Trillions of Yen

	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Expenditures	94.8	94.5	94.1	97.1	98.4	100.2	102.2	104.2	106.4	108.8	111.8	115.3
Debt Repayment and Interest Payment	12.5	12.6	12.2	11.8	11.4	11.4	11.3	11.3	10.9	10.8	10.7	10.7
Revenues	82.4	82.6	82.2	84.5	88.8	90.8	93.5	96.3	99.2	101.9	105.2	108.9
Tax Revenue	41.7	42.2	42.8	44.0	45.8	46.8	48.3	49.9	51.6	53.4	55.3	57.3
Difference between Expenditures and Revenues	12.4	11.9	11.9	12.5	9.7	9.3	8.7	7.9	7.3	6.9	6.6	6.5
Primary Balance in Ordinary Account of Local Government	2.7	2.2	2.3	1.3	3.9	4.3	5.0	5.9	6.8	7.5	8.9	10.5

- Notes 1. In "General Account of Central Government," up to FY2016 is based on the Settlement, FY2017 is based on the Settlement highlight, and FY2018 is based on the FY2018 Budget. In "Ordinary Account of Local Government," FY2016 is based on the Settlement.
2. "General Account Expenditure Excluding Debt Repayment and Interest Payment" excludes carry-back of settlement deficit compensation.
3. In "General Account of Central Government," "Other Revenues" in FY2016 and FY2017 consists of non-tax revenues and preceding fiscal year surplus received (excluding the balance of fiscal resources carried forward to the next year (FY2016: 4.7 trillion yen, FY2017: 4.3 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

	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Real GDP Growth	(1.2)	(1.6)	(1.5)	(1.5)	(1.2)	(1.2)	(1.2)	(1.2)	(1.2)	(1.2)	(1.2)	(1.1)
Real GNI Growth	(1.1)	(1.3)	(1.0)	(1.7)	(1.3)	(1.2)	(1.1)	(1.0)	(1.0)	(1.0)	(1.0)	(0.9)
Nominal GDP Growth	(1.0)	(1.7)	(1.7)	(2.8)	(2.1)	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)	(1.6)
Nominal GDP	539.4	548.7	558.0	573.5	585.7	595.8	606.1	616.2	626.6	637.3	648.2	658.7
Nominal GNI Per Capita Growth	(0.8)	(2.2)	(2.0)	(3.2)	(2.6)	(2.2)	(2.1)	(2.0)	(2.0)	(2.0)	(2.1)	(2.0)
Nominal GNI Per Capita (※Ten thousand yen)	439	449	458	473	485	496	506	516	527	537	548	559
Potential GDP Growth	(1.0)	(1.0)	(1.2)	(1.5)	(1.5)	(1.5)	(1.3)	(1.3)	(1.2)	(1.2)	(1.2)	(1.1)
Change of Price												
Consumer Prices	(▲0.1)	(0.7)	(1.1)	(1.5)	(1.4)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)
Corporate Goods Prices	(▲2.4)	(2.7)	(2.9)	(2.2)	(1.5)	(0.6)	(0.6)	(0.5)	(0.5)	(0.5)	(0.6)	(0.6)
GDP Deflator	(▲0.2)	(0.1)	(0.2)	(1.3)	(0.9)	(0.5)	(0.6)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)
Unemployment Rate	(3.0)	(2.7)	(2.5)	(2.4)	(2.5)	(2.6)	(2.6)	(2.7)	(2.7)	(2.7)	(2.8)	(2.8)
Long-term Interest Rate	(▲0.1)	(0.0)	(0.0)	(0.0)	(0.0)	(0.2)	(0.7)	(1.3)	(1.8)	(2.0)	(2.1)	(2.1)
Balance by Sector												
General Government	[▲3.4]	[▲4.0]	[▲4.1]	[▲3.0]	[▲1.7]	[▲1.5]	[▲1.2]	[▲1.1]	[▲1.1]	[▲1.2]	[▲1.2]	[▲1.2]
Private	[7.1]	[7.9]	[7.6]	[6.9]	[5.9]	[5.7]	[5.5]	[5.2]	[5.1]	[5.0]	[4.8]	[4.5]
Overseas	[▲3.7]	[▲3.9]	[▲3.5]	[▲3.9]	[▲4.1]	[▲4.2]	[▲4.3]	[▲4.1]	[▲4.0]	[▲3.8]	[▲3.6]	[▲3.3]

【Central and Local Governments' Public Finances】

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

[ratio to GDP, %], Trillions of Yen

	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Primary Balance	▲16.0	▲15.7	▲15.7	▲13.3	▲9.0	▲8.9	▲8.8	▲8.6	▲8.4	▲8.1	▲7.6	▲7.2
(ratio to nominal GDP)	[▲3.0]	[▲2.9]	[▲2.8]	[▲2.3]	[▲1.5]	[▲1.5]	[▲1.5]	[▲1.4]	[▲1.3]	[▲1.3]	[▲1.2]	[▲1.1]
Central Government	▲18.7	▲17.9	▲16.6	▲14.5	▲12.7	▲12.7	▲12.9	▲12.8	▲12.6	▲12.1	▲11.8	▲11.8
(ratio to nominal GDP)	[▲3.5]	[▲3.3]	[▲3.0]	[▲2.5]	[▲2.2]	[▲2.1]	[▲2.1]	[▲2.1]	[▲2.0]	[▲1.9]	[▲1.8]	[▲1.8]
Local Government	2.7	2.2	0.8	1.2	3.7	3.8	4.0	4.2	4.2	3.9	4.2	4.6
(ratio to nominal GDP)	[0.5]	[0.4]	[0.1]	[0.2]	[0.6]	[0.6]	[0.7]	[0.7]	[0.7]	[0.6]	[0.6]	[0.7]
Fiscal Balance	▲24.0	▲23.3	▲23.9	▲19.7	▲14.6	▲13.8	▲13.5	▲13.8	▲14.7	▲15.9	▲17.1	▲18.4
(ratio to nominal GDP)	[▲4.5]	[▲4.2]	[▲4.3]	[▲3.4]	[▲2.5]	[▲2.3]	[▲2.2]	[▲2.2]	[▲2.3]	[▲2.5]	[▲2.6]	[▲2.8]
Central Government	▲24.9	▲23.8	▲23.2	▲19.2	▲16.8	▲16.3	▲16.4	▲16.8	▲17.8	▲18.7	▲20.1	▲21.7
(ratio to nominal GDP)	[▲4.6]	[▲4.3]	[▲4.2]	[▲3.4]	[▲2.9]	[▲2.7]	[▲2.7]	[▲2.7]	[▲2.8]	[▲2.9]	[▲3.1]	[▲3.3]
Local Government	0.9	0.5	▲0.7	▲0.5	2.2	2.5	2.8	3.1	3.1	2.8	3.0	3.2
(ratio to nominal GDP)	[0.2]	[0.1]	[▲0.1]	[▲0.1]	[0.4]	[0.4]	[0.5]	[0.5]	[0.5]	[0.4]	[0.5]	[0.5]
Outstanding Debt	1011.7	1032.8	1055.8	1071.8	1083.5	1095.0	1107.0	1119.7	1133.5	1148.9	1165.7	1184.0
(ratio to nominal GDP)	[187.6]	[188.2]	[189.2]	[186.9]	[185.0]	[183.8]	[182.7]	[181.7]	[180.9]	[180.3]	[179.8]	[179.8]

【General Account of Central Government】

Trillions of Yen

	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Expenditures	97.5	98.1	97.7	99.0	100.9	102.1	103.8	105.9	108.6	111.5	114.7	118.0
General Account Expenditure Excluding Debt Repayment and Interest Payment	75.5	75.6	74.4	76.9	78.7	79.9	81.2	82.4	83.5	84.4	85.5	86.8
Social Security-related Expenditures	32.2	32.5	33.0	34.2	36.5	37.1	37.8	38.5	39.2	39.8	40.4	41.0
Local Allocation Tax Grants, etc.	15.3	15.6	15.5	15.8	16.3	16.6	16.9	17.2	17.4	17.2	17.5	17.9
Others	27.9	27.5	25.9	26.8	25.9	26.2	26.5	26.8	27.0	27.3	27.6	27.9
Debt Repayment and Interest Payment	22.1	22.5	23.3	22.1	22.1	22.2	22.6	23.5	25.1	27.1	29.2	31.2
Revenues	59.9	65.7	64.0	67.5	70.6	71.8	73.0	74.2	75.5	76.8	78.1	79.4
Tax Revenue	55.5	58.8	59.1	62.3	65.5	66.6	67.8	69.0	70.2	71.4	72.7	73.9
Other Revenues	4.5	6.9	4.9	5.2	5.1	5.1	5.2	5.2	5.3	5.4	5.4	5.5
Difference between Expenditures and Revenues	38.0	33.6	33.7	31.5	30.3	30.3	30.8	31.7	33.1	34.7	36.6	38.7
Primary Balance in General Account of Central Government	▲15.5	▲9.9	▲10.4	▲9.4	▲8.2	▲8.2	▲8.2	▲8.2	▲8.1	▲7.6	▲7.4	▲7.4

【Ordinary Account of Local Government】

Trillions of Yen

	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Expenditures	94.8	94.5	94.1	97.1	98.0	99.1	100.4	101.5	102.4	103.6	104.7	106.0
Debt Repayment and Interest Payment	12.5	12.6	12.2	11.8	11.4	11.4	11.3	11.3	10.9	10.8	10.8	10.9
Revenues	82.4	82.6	82.2	84.5	88.3	89.5	91.0	92.3	93.5	94.4	95.8	97.3
Tax Revenue	41.7	42.2	42.8	44.0	45.6	46.2	47.0	47.8	48.7	49.5	50.3	51.2
Difference between Expenditures and Revenues	12.4	11.9	11.9	12.5	9.8	9.6	9.4	9.3	8.9	9.2	8.9	8.7
Primary Balance in Ordinary Account of Local Government	2.7	2.2	2.3	1.3	3.8	3.9	4.1	4.3	4.3	4.0	4.3	4.7

- Notes 1. In "General Account of Central Government," up to FY2016 is based on the Settlement, FY2017 is based on the Settlement highlight, and FY2018 is based on the FY2018 Budget. In "Ordinary Account of Local Government," FY2016 is based on the Settlement.
2. "General Account Expenditure Excluding Debt Repayment and Interest Payment" excludes carry-back of settlement deficit compensation.
3. In "General Account of Central Government," "Other Revenues" in FY2016 and FY2017 consists of non-tax revenues and preceding fiscal year surplus received (excluding the balance of fiscal resources carried forward to the next year (FY2016: 4.7 trillion yen, FY2017: 4.3 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)

**Economic Growth Achieved Case**

[ratio to GDP, %], Trillions of Yen

	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Primary Balance	▲ 16.7	▲ 16.5	▲ 16.6	▲ 14.1	▲ 9.7	▲ 8.6	▲ 6.7	▲ 5.2	▲ 3.6	▲ 1.7	0.5	2.7
(ratio to nominal GDP)	[▲ 3.1]	[▲ 3.0]	[▲ 3.0]	[▲ 2.5]	[▲ 1.7]	[▲ 1.4]	[▲ 1.1]	[▲ 0.8]	[▲ 0.5]	[▲ 0.2]	[0.1]	[0.4]
Central Government	▲ 18.9	▲ 18.6	▲ 17.4	▲ 15.2	▲ 13.5	▲ 12.7	▲ 11.6	▲ 11.0	▲ 10.4	▲ 9.2	▲ 8.3	▲ 7.7
(ratio to nominal GDP)	[▲ 3.5]	[▲ 3.4]	[▲ 3.1]	[▲ 2.7]	[▲ 2.3]	[▲ 2.1]	[▲ 1.9]	[▲ 1.7]	[▲ 1.5]	[▲ 1.3]	[▲ 1.2]	[▲ 1.0]
Local Government	2.2	2.1	0.8	1.1	3.7	4.1	4.9	5.8	6.8	7.5	8.8	10.4
(ratio to nominal GDP)	[0.4]	[0.4]	[0.1]	[0.2]	[0.6]	[0.7]	[0.8]	[0.9]	[1.0]	[1.1]	[1.2]	[1.4]
Fiscal Balance	▲ 24.8	▲ 24.1	▲ 24.8	▲ 20.5	▲ 15.3	▲ 13.6	▲ 11.5	▲ 10.6	▲ 10.2	▲ 10.3	▲ 10.5	▲ 11.0
(ratio to nominal GDP)	[▲ 4.6]	[▲ 4.4]	[▲ 4.4]	[▲ 3.6]	[▲ 2.6]	[▲ 2.2]	[▲ 1.8]	[▲ 1.6]	[▲ 1.5]	[▲ 1.5]	[▲ 1.5]	[▲ 1.5]
Central Government	▲ 25.2	▲ 24.5	▲ 24.0	▲ 19.9	▲ 17.6	▲ 16.3	▲ 15.2	▲ 15.3	▲ 16.0	▲ 16.7	▲ 18.3	▲ 20.4
(ratio to nominal GDP)	[▲ 4.7]	[▲ 4.5]	[▲ 4.3]	[▲ 3.5]	[▲ 3.0]	[▲ 2.7]	[▲ 2.4]	[▲ 2.4]	[▲ 2.4]	[▲ 2.4]	[▲ 2.5]	[▲ 2.7]
Local Government	0.4	0.4	▲ 0.7	▲ 0.5	2.3	2.7	3.7	4.7	5.7	6.5	7.8	9.4
(ratio to nominal GDP)	[0.1]	[0.1]	[▲ 0.1]	[▲ 0.1]	[0.4]	[0.5]	[0.6]	[0.7]	[0.9]	[0.9]	[1.1]	[1.3]
Outstanding Debt	1019.6	1039.4	1062.6	1079.1	1091.2	1102.1	1112.4	1122.5	1133.2	1145.0	1158.6	1174.6
(ratio to nominal GDP)	[189.0]	[189.4]	[190.4]	[188.2]	[185.0]	[181.5]	[177.4]	[173.0]	[168.9]	[164.9]	[161.2]	[157.9]

**Baseline Case**

[ratio to GDP, %], Trillions of Yen

	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Primary Balance	▲ 16.7	▲ 16.5	▲ 16.6	▲ 14.1	▲ 9.9	▲ 9.1	▲ 8.2	▲ 7.9	▲ 7.7	▲ 7.5	▲ 6.9	▲ 6.5
(ratio to nominal GDP)	[▲ 3.1]	[▲ 3.0]	[▲ 3.0]	[▲ 2.5]	[▲ 1.7]	[▲ 1.5]	[▲ 1.4]	[▲ 1.3]	[▲ 1.2]	[▲ 1.2]	[▲ 1.1]	[▲ 1.0]
Central Government	▲ 18.9	▲ 18.6	▲ 17.4	▲ 15.2	▲ 13.5	▲ 12.9	▲ 12.3	▲ 12.1	▲ 11.9	▲ 11.4	▲ 11.1	▲ 11.1
(ratio to nominal GDP)	[▲ 3.5]	[▲ 3.4]	[▲ 3.1]	[▲ 2.7]	[▲ 2.3]	[▲ 2.2]	[▲ 2.0]	[▲ 2.0]	[▲ 1.9]	[▲ 1.8]	[▲ 1.7]	[▲ 1.7]
Local Government	2.2	2.1	0.8	1.1	3.6	3.8	4.1	4.3	4.2	3.9	4.2	4.6
(ratio to nominal GDP)	[0.4]	[0.4]	[0.1]	[0.2]	[0.6]	[0.6]	[0.7]	[0.7]	[0.7]	[0.6]	[0.6]	[0.7]
Fiscal Balance	▲ 24.8	▲ 24.1	▲ 24.8	▲ 20.5	▲ 15.5	▲ 14.0	▲ 12.9	▲ 13.0	▲ 14.0	▲ 15.3	▲ 16.5	▲ 17.8
(ratio to nominal GDP)	[▲ 4.6]	[▲ 4.4]	[▲ 4.4]	[▲ 3.6]	[▲ 2.6]	[▲ 2.4]	[▲ 2.1]	[▲ 2.1]	[▲ 2.2]	[▲ 2.4]	[▲ 2.5]	[▲ 2.7]
Central Government	▲ 25.2	▲ 24.5	▲ 24.0	▲ 19.9	▲ 17.6	▲ 16.4	▲ 15.8	▲ 16.2	▲ 17.1	▲ 18.1	▲ 19.4	▲ 21.0
(ratio to nominal GDP)	[▲ 4.7]	[▲ 4.5]	[▲ 4.3]	[▲ 3.5]	[▲ 3.0]	[▲ 2.8]	[▲ 2.6]	[▲ 2.6]	[▲ 2.7]	[▲ 2.8]	[▲ 3.0]	[▲ 3.2]
Local Government	0.4	0.4	▲ 0.7	▲ 0.5	2.2	2.4	2.9	3.1	3.2	2.8	3.0	3.2
(ratio to nominal GDP)	[0.1]	[0.1]	[▲ 0.1]	[▲ 0.1]	[0.4]	[0.4]	[0.5]	[0.5]	[0.5]	[0.4]	[0.5]	[0.5]
Outstanding Debt	1019.6	1039.4	1062.6	1079.1	1091.4	1102.5	1114.2	1126.5	1140.0	1155.1	1171.6	1189.6
(ratio to nominal GDP)	[189.0]	[189.4]	[190.4]	[188.2]	[186.3]	[185.1]	[183.8]	[182.8]	[181.9]	[181.3]	[180.7]	[180.6]

(Notes)

1. "Consumer Prices" refers to the general index (nationwide), and excludes 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 (hereafter SNA).
3. "Fiscal Balance" (hereafter FB) of the central and local governments represents "Net lending/net borrowing" in the SNA. "Primary Balance" (hereafter 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 (hereafter 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 the "Revenues" minus "Expenditure" excluding "Debt Repayment and Interest Payment" and "Reserves."

4. The figures for "Balance by Sector" for general government, "Fiscal Balance" and "Primary Balance" of central and local government 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, special bonds for covering public pension funding, 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 the recovery and reconstruction measures" is the amount of the expenditures for recovery and reconstruction from the Great East Japan Earthquake that exceeds the transfer from the general account, which is compensated by the reduction of other existing expenditures, and is securely financed by such fiscal resources as the 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 which has been reimbursed from Tokyo Electric Power Company (TEPCO) also includes the expenditures for the recovery and reconstruction measures, deemed to ensure the corresponded resources, considering the progress of payment from TEPCO.

## Appendix: Key Assumptions

The GDP growth rate and inflation rate up to FY2016 are from the Annual Report on National Accounts for 2016 and others, those for FY2017 are from Quarterly Estimates of GDP January-March 2018, and those for FY2018 are from the Cabinet Office's Mid-Year Economic Projection for FY2018 (July 6, 2018) and others.

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

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

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

\* The TFP growth rate rises from the current level (0.6%) to around 1.5%, based on the extent and pace the Japanese economy actually experienced before it entered deflation. (Specifically, the total factor productivity (TFP) growth rate rose around 0.9% in 5 years from FY1982 to FY1987.)

##### b) Labor Force

\*The labor force participation (LFP) rate of females aged 25-44 rises based on a trend to eliminate the "M-shaped curve" in FY2022, and the rate of the elderly rises based on the current rising trend. The rates of others rise gradually to FY2027 based on the estimates of labor supply and demand for the "case in which desirable economic growth and LFP are achieved" in "Report of Labor Policy Study Group" (December 1, 2015) (for example, the LFP rate among females aged 25-44 gradually rises from around 77% in FY2017 to 89% in FY2027, the LFP rate among males aged 65-69 gradually rises from around 57% in FY2017 to 71% in FY2027, and the LFP rate among females aged 65-69 gradually rises from around 35% in FY2017 to 49% in FY2027).

##### 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 3.3% to 3.6% annually from FY2020 to FY2023, based on the World Economic Outlook (WEO) by the IMF (April 2018). From FY2024 onward, the growth rate remains constant, at around 3.3%.

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

The inflation rate moves at around 1.9% to 2.0% annually from FY2020 to FY2023, based on the WEO (April 2018). From FY2024 onward, the inflation rate remains constant, at around 2.0%.

<Crude Oil Prices>

From FY2020 onward, the price moves based on the rate of the World Energy Outlook by the IEA (November 2017), at around 5.1%.

#### **Baseline Case**

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

##### a) TFP Growth Rate

\* The TFP growth rate converges to around 1.0%.

## b) Labor Force

- \* Based on the estimates of labor supply and demand for the “case in which desirable economic growth and labor force participation (LFP) are achieved” in “Report of Labor Policy Study Group” (December 1, 2015), each gender and age group gradually rises (for example, the LFP rate among females aged 25-44 gradually rises from around 77% in FY2017 to 86% in FY2027, the LFP rate among males aged 65-69 gradually rises from around 57% in FY2017 to 68% in FY2027, and the LFP rate among females aged 65-69 gradually rises from around 35% in FY2017 to 41% in FY2027).

## 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 2.7% annually, about 0.6 percentage points\* lower than the rate based on the WEO (April 2018) after FY2020 (from around 3.3% to 3.6% annually).

\* Difference between the baseline projection and the lower bound of the 50% confidence interval in the WEO (April 2018).

## (2) Tax System

- \* Tax revenues of the general account of central government in FY2016 are based on the FY2016 Settlement, in FY2017 on the FY2017 settlement highlight, and in FY2018 on the FY2018 Budget.

- \* Based on the FY2017 Tax Reform (Cabinet Decision, December 22, 2017), and other sources, the legislated tax 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 (date of promulgation and enforcement: December 2, 2011) and the 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 (date of promulgation and enforcement: December 2, 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 consumption tax rate (central and local combined) is assumed to be raised to 10% on October 1, 2019, along with the implementation of the reduced rate for the consumption tax. The projection incorporates the financial sources funded by deferring the introduction of the total aggregate system in social security as a part of the stable and permanent financial sources secured based on the Act for Partial Revision of the Income Tax Act and Other Acts in response to the decline in tax revenue due to implementing the reduced rate for the consumption tax. As for the unincorporated remainder of the necessary amounts, the above act provides that it will be secured by taking legislative measures on revenues or expenditures, or other measures by the end of FY2018.

The distribution of the increase in consumption tax revenue from 5% to 10% (central and local combined) is assumed to be 346/500 for central and 154/500 for local. It is assumed that the increase in the revenue of the government from the consumption tax hikes will be gradually realized by FY2021 due to the gap between the time of the hikes (October 2019) and the taxable period of enterprises, interim measures concerning long-term contracts and the amount of time until the local consumption tax is delivered to the local governments.

### **(3) Expenditures**

- \* Expenditures of the general account of central government in FY2016 are based on the FY2016 Settlement, in FY2017 on the FY2017 Settlement Highlight, and in FY2018 on the FY2018 Budget.
- \* Expenditures in FY2019 are calculated by taking changes in wages, prices, expenditure reform and other factors into consideration, with an assumption that the rate of increase of the expenditure excluding the increase due to population aging and other factors will consequently be half as high as the inflation rates and wage growth. In addition, based on “the Mid-Year Economic Projection,” public-fixed capital formation is assumed to be the same amount as in FY2018 at a nominal level, and the ratio of central government and local government of related expenditure is mechanically assumed based on past expenditures. The reflection of expenditure reforms in “Basic Policy on Economic and Fiscal Management and Reform 2018” (Cabinet Decision, June 15, 2018) in the Draft Budget of FY2019 will be embodied in the process of the budget formulation for FY2019.
- \* From FY2020 onward, it is assumed that social security expenditures will increase reflecting population aging, inflation rate and wage growth and others, and that other general expenditures will continue to increase at about the same rate as the inflation rate (constant in real terms).
- \* It is assumed that after the hikes of the consumption tax rate, legislation related to the Comprehensive Reform of Social Security and Tax will enable the gradual addition of certain new expenditures related to the implementation of social security reform and others, under the consideration on enhancement of stabilization of social security and fiscal consolidation in each fiscal year.
- \* As details of the expenditure concerning the Human Resource Development Revolution of the “New Economic Policy Package” are undecided at the moment, it is assumed to include the Social Security Expenditures under the supposition of full implementation in FY2020. Since the ratio of the expenditure of central government and local governments is also undecided, it is mechanically assumed that the ratio of central government and local governments is 7 to 3, based on the distribution of the consumption tax revenue.
- \* The series of “Social Security Related Expenditures” is endogenously obtained within the Economic and Fiscal Model based on future demographics and macroeconomic dynamics, and considerable leeway should be given when interpreting the projection since the series is significantly affected by policy and other external factors.

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

- \* From FY2019 onward, an expenditure pattern is assumed based on “Recovery and Reconstruction Work for the Five-Year Period Starting in FY2016” (Reconstruction Promotion Conference Decision, June 24, 2015), “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) and others, such as the implementation so far.

In the projections, it is assumed that 32 trillion yen is 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 on October 7, 2011), “Scale and Funding Sources for Recovery and Reconstruction Work from Now On” (Reconstruction Promotion Conference Decision, January 29, 2013), “Recovery and Reconstruction Work for the Five-Year Period Starting in FY2016” (Reconstruction Promotion Conference Decision, June 24, 2015), “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), and others.

\* The expenditure concerning the decontamination and interim storage project facility which will be reimbursed from TEPCO and the actual payment corresponding with it is assumed to be approximately 5.6 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.