

Economic and Fiscal Projections for  
Medium to Long Term Analysis

January 23, 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**

This projection is intended to contribute to the discussion of the Council on Economic and Fiscal Policy by revealing the evaluation of the economic revitalization and fiscal consolidation and providing the basic data necessary to consider further efforts.

The scenarios of economic situations are revised as follows, based on the discussion at the Council on Economic and Fiscal Policy. For the Economic Revitalization case, the scenario should be a more practical one taking the past situations into consideration, and for the Baseline case, the economic growth should be made based on the current economic trend.

## **2. Scenario and Assumptions in Macroeconomy<sup>1</sup>**

For macroeconomy, based on the past performance and the current economic trend, 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 more feasible pace.

Specifically, the Economic Revitalization Case has the following assumptions.

- The total factor productivity (TFP) growth rate rises from the current level (0.7%) to around 1.5% based on the extent and pace<sup>2</sup> the Japanese economy had actually experienced before it entered deflation.
- The labor force participation rate of females and the elderly rises as the current rising trend continues. And the rate of the others rises based on the estimates of labor supply and demand in “Report of Labor Policy Study Group” (2015).

### **(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% over the future.

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<sup>1</sup> For further details, see the Appendix.

<sup>2</sup> Specifically, the total factor productivity (TFP) growth rate rose around 0.8% in 5 years from FY1982 to FY1987.

- 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>3</sup>**

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

- (1) Expenditures and revenues in FY2017 and FY2018 reflect the FY2017 Supplementary Budget<sup>4</sup> and the Draft FY2018 Budget.
- (2) Expenditures and revenues from FY2019 onward have the following assumptions.
  - Social security expenditures are assumed to increase reflecting population aging, wage growth, the inflation rate and others, and other general expenditures are assumed to continue to increase at about the same rate as the inflation rate.
  - Revenues are assumed to increase in line with the macroeconomic conditions based on the two economic scenarios.
  - The consumption tax rate (central and local combined) is assumed to be raised to 10% on October 1, 2019, and the increased revenue will be used for social programs including alleviation of education burden, child-rearing support and securing of long-term care workers, etc. and fiscal reconstruction on an approximately 50-50 basis<sup>5</sup>. In addition to this, the implementation of the reduced rate for consumption tax<sup>6</sup> will be carried out.

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

<Progress>

The real GDP growth rate turned, after 2.6% in FY2013, negative in FY2014 when the consumption tax rate was raised, but it rose to 1.4% in FY2015 and to 1.2% in FY2016. The nominal GDP growth rate is 2.2% on average between FY2013 and FY2016. In FY2017, the economic growth is projected to be 1.9% in real terms and 2.0% in nominal terms, supported by improvements in the employment and income situations, thanks to the “New Economic Policy Package” (Cabinet Decision, December 8, 2017) and various effects of policies such

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<sup>3</sup> For further details, see the Appendix.

<sup>4</sup> The tax revenue in FY2017 reflects the estimated actual value.

<sup>5</sup> “New Economic Policy Package, 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), and “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>6</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.

as the FY2017 Supplementary Budget. And in FY2018, it is projected to be 1.8% in real terms and 2.5% in nominal terms along with further extension of the positive economic cycle.

The primary balance of central and local governments in FY2015 (excluding the expenditures and the fiscal resources for the recovery and reconstruction measures) is ▲ 2.9% and achieved the fiscal target of halving the ratio of deficit to GDP from the FY2010 rate (▲6.3% of GDP). The primary balance is ▲3.0% of GDP in FY2016, however, due to the decline of tax revenues and the increase of the expenditure for the “Economic Measures for Realizing Investment for the Future” (Cabinet Decision , August 2, 2016). In FY2017 and FY2018, the primary balance is projected to be ▲3.4% of GDP and ▲2.9% of GDP, affected by the economic measures in FY2016 and expenditure for the FY2017 Supplementary Budget.

The ratio of outstanding debt to GDP has only gradually increased by approximately 8.6% points from FY2012 to FY2018, due to low interest rates as well as the progress of fiscal consolidation.

#### <Future Prospect>

In the Economic Growth Achieved Case, the GDP growth rate is projected to rise gradually, and achieve 2% in real terms and more than 3% in nominal terms in the early 2020s. As a result, nominal GDP is projected to reach 600 trillion yen around FY2020. The rate of change in the consumer price (excluding the direct effects of the increase in the consumption tax rate) is projected to be stable at around 2% in the medium to long term.

In the Baseline Case, however, the GDP growth rate is projected at over 1% in real terms and a high 1% in nominal terms in the medium to long term. The rate of change in the consumer price (excluding the direct effects of the increase in the consumption tax rate) is projected to be around 1% in the medium to long term.

In the Economic Growth Achieved Case, the primary balance is projected to be ▲1.8% of GDP (▲10.8 trillion yen), affected by the revision of the purposes of use of the tax revenue generated from the consumption tax rate hike, and achieve a fiscal surplus in FY2027. On the other hand, in the Baseline Case, the primary balance is projected to be ▲1.9% in FY2020 and it will be difficult to achieve fiscal surplus in the primary balance within the projection period.

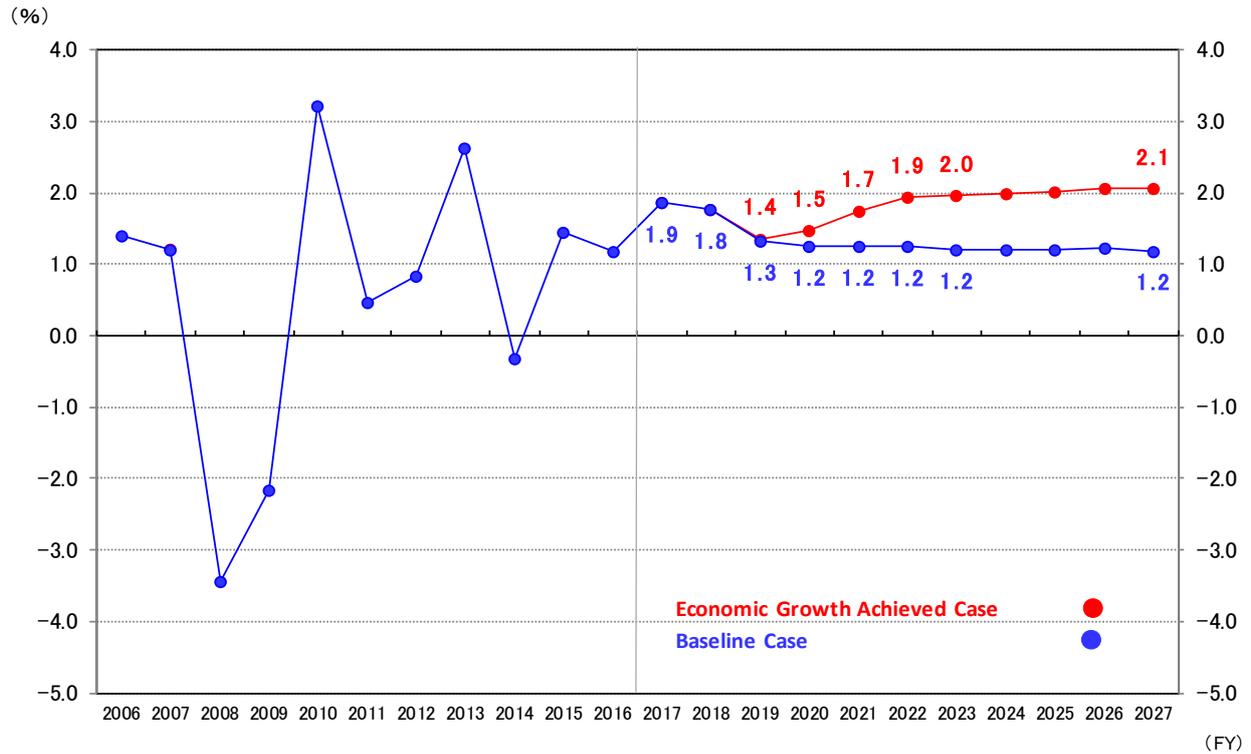
In the Economic Growth Achieved Case, the ratio of outstanding debt to GDP is projected to decline in the future. It should be noted, however, that the long-term interest rate is

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. On the other hand, in the Baseline Case, the pace of decreasing the ratio becomes moderate gradually to the mid-2020s. After FY2027 it turns to increase.

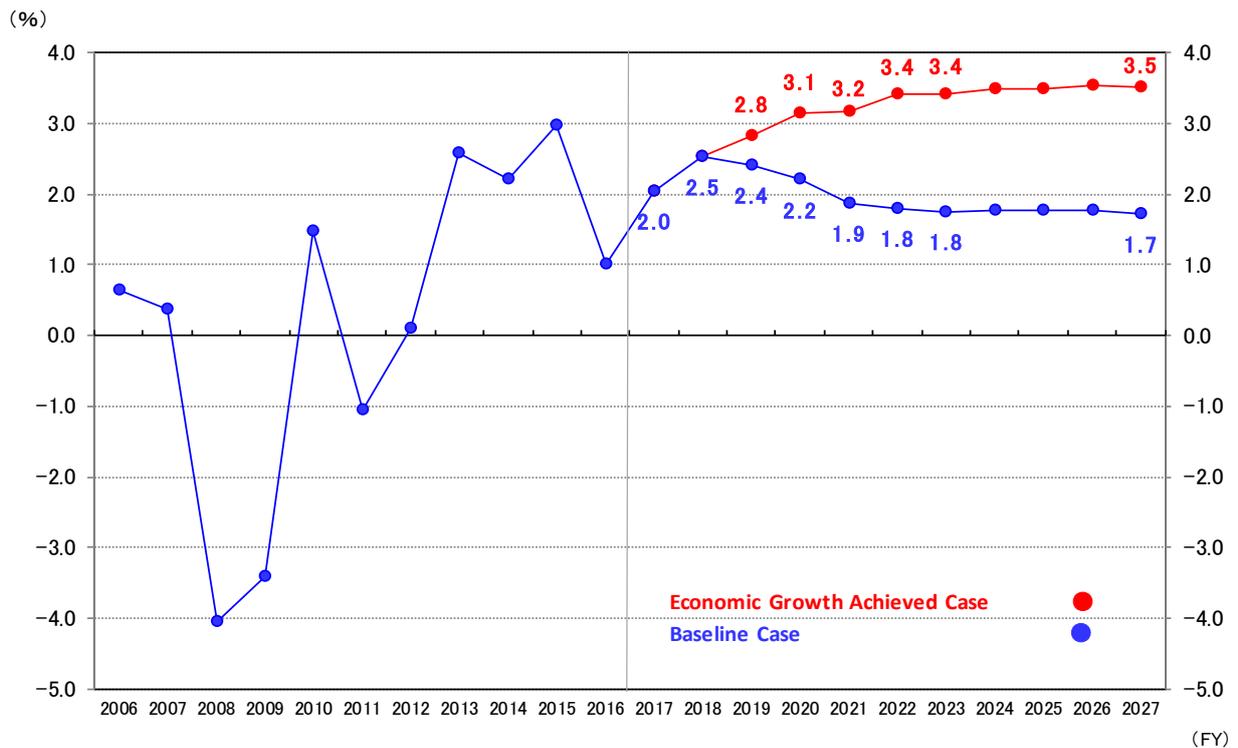
The government aims to achieve a fiscal surplus in the primary balance and at the same time steadily reduce the public debt to GDP ratio. To achieve this target, the government will announce the period of achieving a fiscal surplus in the primary balance and develop a concrete plan to support this in the “Basic Policies on Economic and Fiscal Management and Reform” for this summer upon closely examining the efforts for the integrated reform of finance and economy in the past.

# Results of Projections

## ○ GDP Growth Rate [Real GDP Growth Rate]

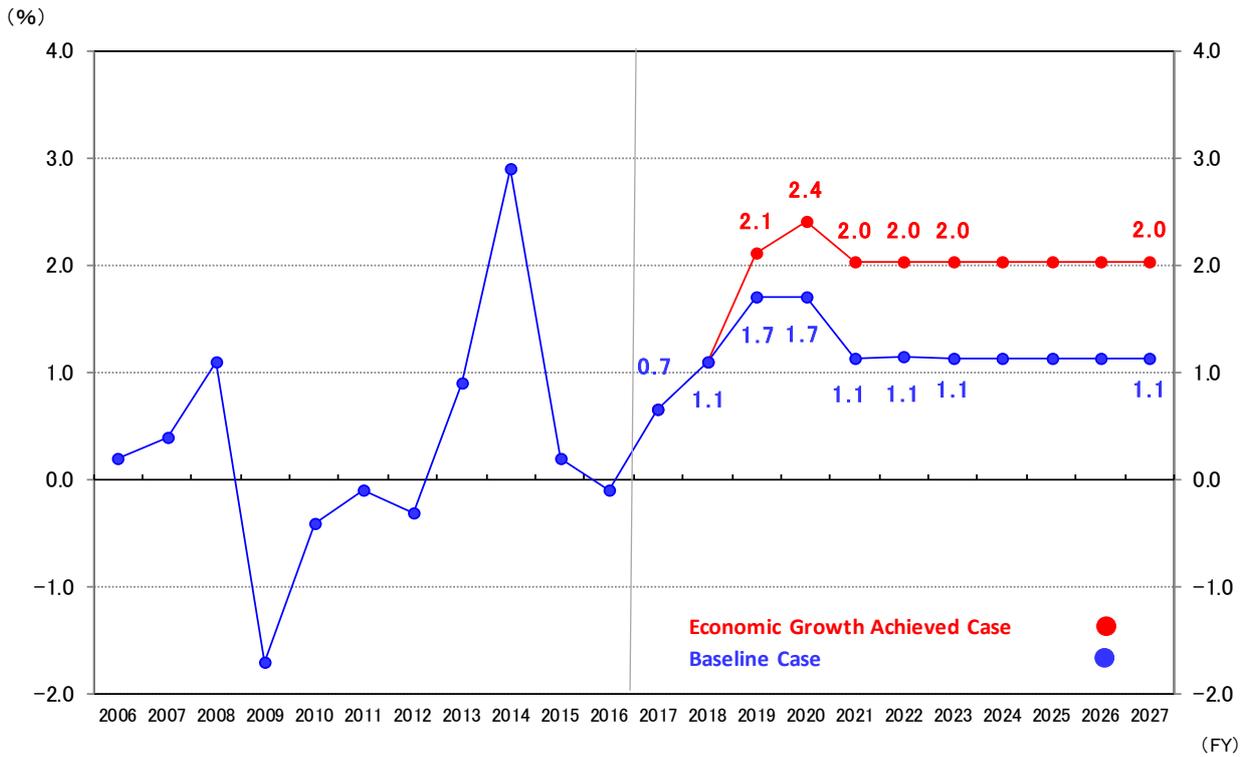


## [Nominal GDP Growth Rate]



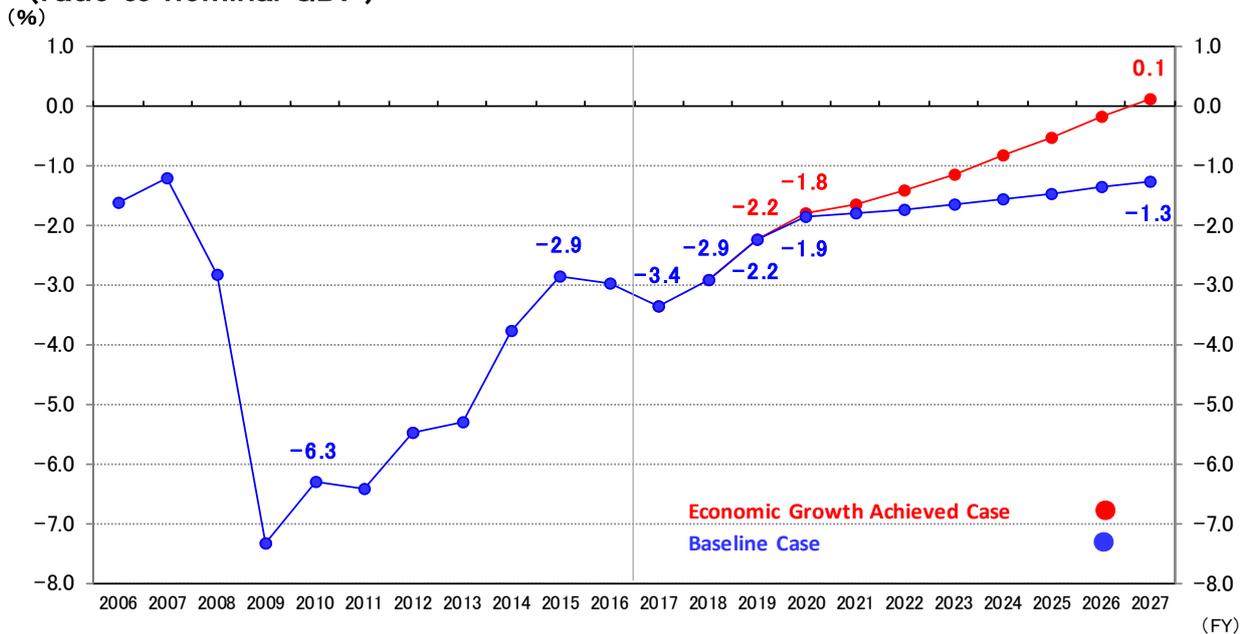
• In the Economic Growth Achieved Case, the GDP growth rate is projected to rise gradually, and reach 2% in real terms and more than 3% in nominal terms in early 2020s. As a result, nominal GDP is projected to achieve 600 trillion yen around FY2020.

## ○ Consumer Price Index (Rate of Change)



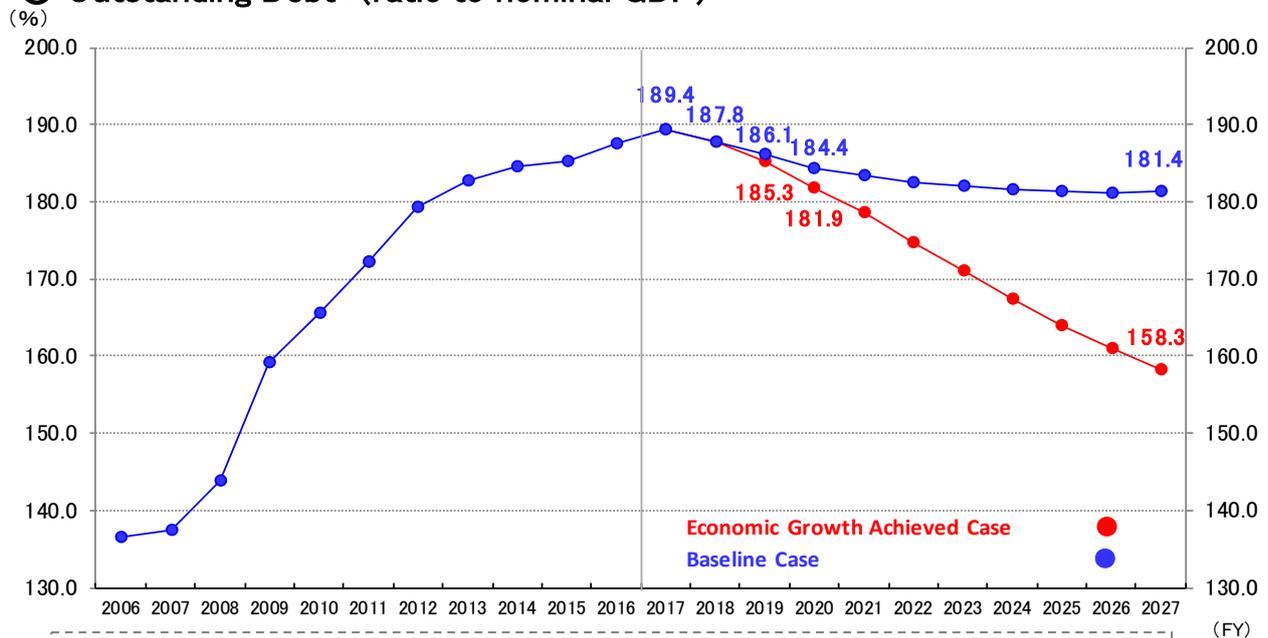
• The rate of change in the Consumer Price Index is projected to be stable at around 2% in the medium to long term in the Economic Growth Achieved Case, although it will temporarily increase, reacting to the consumption tax rate hikes in FY2019 and FY2020.

## ○ Primary Balance of Central and Local Government Combined\* (ratio to nominal GDP)



• In the Economic Growth Achieved Case, the primary balance is projected to be ▲1.8% of GDP (▲10.8 trillion yen) affected by the revision of the purposes of use of the tax revenue generated from the consumption tax rate hike, and to 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 decrease more moderately over the period towards mid-2020s, and then turn to increase after FY2027.

※ The government aims to achieve a fiscal surplus in the primary balance, and at the same time steadily reduce the public debt to GDP ratio. To achieve this target, the government will announce the period of achieving a fiscal surplus in the primary balance and develop a concrete plan to support this in the “Basic Policies on Economic and Fiscal Management and Reform” for the next year upon closely examining the efforts for the integrated reform of finance and economy in the past.

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

# Result of Projections (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)	(1.9)	(1.8)	(1.4)	(1.5)	(1.7)	(1.9)	(2.0)	(2.0)	(2.0)	(2.1)	(2.1)
Real GNI Growth	(0.9)	(1.8)	(1.8)	(1.4)	(1.4)	(1.7)	(1.9)	(1.9)	(1.8)	(1.8)	(1.8)	(1.8)
Nominal GDP Growth	(1.0)	(2.0)	(2.5)	(2.8)	(3.1)	(3.2)	(3.4)	(3.4)	(3.5)	(3.5)	(3.5)	(3.5)
Nominal GDP	539.3	550.3	564.3	580.2	598.4	617.4	638.6	660.4	683.4	707.3	732.2	757.9
Nominal GNI Per Capita Growth	(0.6)	(2.8)	(2.9)	(3.1)	(3.5)	(3.6)	(3.8)	(3.8)	(3.8)	(3.8)	(3.8)	(3.8)
Nominal GNI Per Capita (※Ten thousand yen)	439	451	464	479	495	513	532	553	574	595	618	642
Potential GDP Growth	(1.0)	(1.1)	(1.4)	(1.6)	(1.8)	(1.9)	(2.0)	(2.0)	(2.0)	(2.0)	(2.1)	(2.1)
Change of Price												
Consumer Prices	(▲0.1)	(0.7)	(1.1)	(2.1)	(2.4)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)
Corporate Goods Prices	(▲2.3)	(2.6)	(2.3)	(2.1)	(1.9)	(0.9)	(0.8)	(0.7)	(0.7)	(0.7)	(0.7)	(0.8)
GDP Deflator	(▲0.2)	(0.2)	(0.8)	(1.4)	(1.6)	(1.4)	(1.5)	(1.4)	(1.5)	(1.4)	(1.4)	(1.4)
Unemployment Rate	(3.0)	(2.8)	(2.7)	(2.7)	(2.7)	(2.8)	(2.8)	(2.9)	(2.9)	(2.9)	(3.0)	(3.0)
Long-term Interest Rate	(▲0.1)	(0.0)	(0.0)	(0.0)	(0.4)	(0.9)	(1.4)	(2.0)	(2.6)	(3.2)	(3.6)	(3.8)
Balance by Sector												
General Government	[▲3.4]	[▲4.8]	[▲4.4]	[▲3.2]	[▲2.3]	[▲2.1]	[▲1.6]	[▲1.3]	[▲1.2]	[▲1.0]	[▲0.9]	[▲0.8]
Private	[7.1]	[8.6]	[8.4]	[7.7]	[6.7]	[6.7]	[6.5]	[6.2]	[5.9]	[5.4]	[4.9]	[4.3]
Overseas	[▲3.7]	[▲3.8]	[▲4.0]	[▲4.5]	[▲4.4]	[▲4.7]	[▲4.9]	[▲4.9]	[▲4.7]	[▲4.4]	[▲4.0]	[▲3.6]

【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	▲18.5	▲16.4	▲12.9	▲10.8	▲10.3	▲9.0	▲7.5	▲5.8	▲3.8	▲1.4	0.8
(ratio to nominal GDP)	[▲3.0]	[▲3.4]	[▲2.9]	[▲2.2]	[▲1.8]	[▲1.7]	[▲1.4]	[▲1.1]	[▲0.8]	[▲0.5]	[▲0.2]	[0.1]
Central Government	▲18.7	▲20.4	▲17.2	▲14.4	▲13.6	▲13.5	▲13.0	▲12.5	▲11.8	▲10.7	▲9.8	▲9.2
(ratio to nominal GDP)	[▲3.5]	[▲3.7]	[▲3.1]	[▲2.5]	[▲2.3]	[▲2.2]	[▲2.0]	[▲1.9]	[▲1.7]	[▲1.5]	[▲1.3]	[▲1.2]
Local Government	2.7	1.9	0.8	1.4	2.8	3.3	4.0	4.9	6.1	6.9	8.3	10.0
(ratio to nominal GDP)	[0.5]	[0.3]	[0.1]	[0.2]	[0.5]	[0.5]	[0.6]	[0.7]	[0.9]	[1.0]	[1.1]	[1.3]
Fiscal Balance	▲24.0	▲26.3	▲24.8	▲19.6	▲16.9	▲16.2	▲15.3	▲14.9	▲15.0	▲15.6	▲16.2	▲17.1
(ratio to nominal GDP)	[▲4.5]	[▲4.8]	[▲4.4]	[▲3.4]	[▲2.8]	[▲2.6]	[▲2.4]	[▲2.3]	[▲2.2]	[▲2.2]	[▲2.2]	[▲2.3]
Central Government	▲24.9	▲26.5	▲24.1	▲19.4	▲18.2	▲18.1	▲18.1	▲18.7	▲19.9	▲21.3	▲23.3	▲25.8
(ratio to nominal GDP)	[▲4.6]	[▲4.8]	[▲4.3]	[▲3.3]	[▲3.0]	[▲2.9]	[▲2.8]	[▲2.8]	[▲2.9]	[▲3.0]	[▲3.2]	[▲3.4]
Local Government	0.9	0.2	▲0.7	▲0.2	1.4	1.9	2.8	3.8	4.9	5.7	7.1	8.6
(ratio to nominal GDP)	[0.2]	[0.0]	[▲0.1]	[0.0]	[0.2]	[0.3]	[0.4]	[0.6]	[0.7]	[0.8]	[1.0]	[1.1]
Outstanding Debt	1011.7	1042.5	1059.6	1075.2	1088.7	1102.3	1115.8	1129.4	1144.0	1160.3	1178.4	1200.1
(ratio to nominal GDP)	[187.6]	[189.4]	[187.8]	[185.3]	[181.9]	[178.5]	[174.7]	[171.0]	[167.4]	[164.0]	[160.9]	[158.3]

【General Account of Central Government】

Trillions of Yen

	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Expenditures	97.5	99.1	97.7	98.3	101.9	104.3	107.3	111.1	115.6	120.5	126.1	132.3
General Account Expenditure Excluding Debt Repayment and Interest Payment	75.5	76.4	74.4	76.0	79.5	81.4	83.4	85.5	87.6	89.3	91.4	93.9
Social Security-related Expenditures	32.2	32.4	33.0	34.3	36.7	37.6	38.5	39.4	40.4	41.3	42.2	43.2
Local Allocation Tax Grants, etc.	15.3	15.6	15.5	15.7	16.4	16.9	17.5	18.1	18.7	18.9	19.6	20.4
Others	27.9	28.4	25.9	26.0	26.4	26.9	27.5	28.0	28.5	29.1	29.7	30.3
Debt Repayment and Interest Payment	22.1	22.7	23.3	22.2	22.4	22.9	23.9	25.6	28.1	31.2	34.7	38.4
Revenues	59.9	63.6	64.0	66.8	70.8	73.0	75.5	78.1	80.8	83.7	86.7	89.8
Tax Revenue	55.5	57.7	59.1	61.8	65.7	67.8	70.1	72.6	75.3	78.0	80.8	83.8
Other Revenues	4.5	5.8	4.9	5.0	5.1	5.2	5.3	5.5	5.6	5.7	5.9	6.0
Difference between Expenditures and Revenues	38.0	35.6	33.7	31.4	31.1	31.3	31.9	33.0	34.8	36.8	39.4	42.4
Primary Balance in General Account of Central Government	▲15.5	▲12.8	▲10.4	▲9.2	▲8.7	▲8.4	▲8.0	▲7.4	▲6.7	▲5.6	▲4.7	▲4.0

【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	96.4	99.5	101.3	103.4	105.5	107.6	110.0	112.7	116.4
Debt Repayment and Interest Payment	12.5	12.6	12.2	11.8	11.4	11.4	11.4	11.4	11.2	11.1	10.9	10.2
Revenues	82.4	82.3	82.3	84.1	88.9	91.0	93.8	96.7	99.7	102.6	106.0	109.9
Tax Revenue	41.7	41.9	42.8	43.8	45.7	46.7	48.2	49.9	51.7	53.6	55.6	57.7
Difference between Expenditures and Revenues	12.4	12.2	11.9	12.3	10.6	10.3	9.6	8.8	7.8	7.4	6.6	6.5
Primary Balance in Ordinary Account of Local Government	2.7	1.9	2.2	1.6	2.9	3.3	4.1	5.0	6.0	6.9	8.4	10.0

- Notes
1. In "General Account of Central Government," up to FY2016 is based on the Settlement, FY2017 is based on the FY2017 Supplementary Budget, and FY2018 is based on the Draft 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 consists of non-tax revenues and preceding fiscal year surplus received (excluding the balance carried forward fiscal resources to FY2017 (4.7 trillion yen)).
  4. In "Ordinary Account of Local Government," "Revenues" excludes local bonds, reduction of reserve, and the balance carried forward fiscal resources 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)	(1.9)	(1.8)	(1.3)	(1.2)	(1.2)	(1.2)	(1.2)	(1.2)	(1.2)	(1.2)	(1.2)
Real GNI Growth	(0.9)	(1.8)	(1.8)	(1.3)	(1.2)	(1.2)	(1.2)	(1.1)	(1.1)	(1.0)	(1.0)	(1.0)
Nominal GDP Growth	(1.0)	(2.0)	(2.5)	(2.4)	(2.2)	(1.9)	(1.8)	(1.8)	(1.8)	(1.8)	(1.8)	(1.7)
Nominal GDP	539.3	550.3	564.3	577.9	590.6	601.7	612.6	623.4	634.4	645.6	657.1	668.4
Nominal GNI Per Capita Growth	(0.6)	(2.8)	(2.9)	(2.7)	(2.6)	(2.3)	(2.3)	(2.2)	(2.2)	(2.1)	(2.1)	(2.1)
Nominal GNI Per Capita (※Ten thousand yen)	439	451	464	477	489	500	512	523	534	546	557	569
Potential GDP Growth	(1.0)	(1.1)	(1.4)	(1.5)	(1.5)	(1.5)	(1.4)	(1.3)	(1.2)	(1.2)	(1.2)	(1.2)
Change of Price												
Consumer Prices	(▲0.1)	(0.7)	(1.1)	(1.7)	(1.7)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)	(1.1)
Corporate Goods Prices	(▲2.3)	(2.6)	(2.3)	(1.9)	(1.6)	(0.7)	(0.6)	(0.5)	(0.5)	(0.5)	(0.6)	(0.6)
GDP Deflator	(▲0.2)	(0.2)	(0.8)	(1.1)	(0.9)	(0.6)	(0.6)	(0.6)	(0.6)	(0.6)	(0.5)	(0.5)
Unemployment Rate	(3.0)	(2.8)	(2.7)	(2.7)	(2.7)	(2.8)	(2.8)	(2.9)	(2.9)	(2.9)	(3.0)	(3.0)
Long-term Interest Rate	(▲0.1)	(0.0)	(0.0)	(0.0)	(0.3)	(0.7)	(1.2)	(1.6)	(1.9)	(2.0)	(2.1)	(2.2)
Balance by Sector												
General Government	[▲3.4]	[▲4.8]	[▲4.4]	[▲3.3]	[▲2.5]	[▲2.3]	[▲2.0]	[▲2.0]	[▲2.0]	[▲2.1]	[▲2.1]	[▲2.2]
Private	[7.1]	[8.6]	[8.4]	[7.8]	[6.9]	[6.8]	[6.8]	[6.7]	[6.5]	[6.3]	[5.9]	[5.6]
Overseas	[▲3.7]	[▲3.8]	[▲4.0]	[▲4.5]	[▲4.4]	[▲4.5]	[▲4.7]	[▲4.7]	[▲4.5]	[▲4.2]	[▲3.9]	[▲3.4]

【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	▲18.5	▲16.4	▲13.0	▲11.0	▲10.8	▲10.6	▲10.2	▲9.9	▲9.6	▲8.9	▲8.5
(ratio to nominal GDP)	[▲3.0]	[▲3.4]	[▲2.9]	[▲2.2]	[▲1.9]	[▲1.8]	[▲1.7]	[▲1.6]	[▲1.6]	[▲1.5]	[▲1.4]	[▲1.3]
Central Government	▲18.7	▲20.4	▲17.2	▲14.5	▲13.5	▲13.5	▲13.6	▲13.4	▲13.2	▲12.5	▲12.3	▲12.2
(ratio to nominal GDP)	[▲3.5]	[▲3.7]	[▲3.1]	[▲2.5]	[▲2.3]	[▲2.2]	[▲2.2]	[▲2.1]	[▲2.1]	[▲1.9]	[▲1.9]	[▲1.8]
Local Government	2.7	1.9	0.8	1.5	2.5	2.7	2.9	3.1	3.3	2.9	3.4	3.7
(ratio to nominal GDP)	[0.5]	[0.3]	[0.1]	[0.3]	[0.4]	[0.4]	[0.5]	[0.5]	[0.5]	[0.5]	[0.5]	[0.6]
Fiscal Balance	▲24.0	▲26.3	▲24.8	▲19.6	▲17.1	▲16.6	▲16.6	▲17.1	▲18.2	▲19.6	▲20.7	▲22.1
(ratio to nominal GDP)	[▲4.5]	[▲4.8]	[▲4.4]	[▲3.4]	[▲2.9]	[▲2.8]	[▲2.7]	[▲2.7]	[▲2.9]	[▲3.0]	[▲3.2]	[▲3.3]
Central Government	▲24.9	▲26.5	▲24.1	▲19.5	▲18.1	▲18.0	▲18.3	▲19.1	▲20.2	▲21.1	▲22.5	▲24.1
(ratio to nominal GDP)	[▲4.6]	[▲4.8]	[▲4.3]	[▲3.4]	[▲3.1]	[▲3.0]	[▲3.0]	[▲3.1]	[▲3.2]	[▲3.3]	[▲3.4]	[▲3.6]
Local Government	0.9	0.2	▲0.7	▲0.1	1.0	1.4	1.7	2.0	2.0	1.6	1.8	2.0
(ratio to nominal GDP)	[0.2]	[0.0]	[▲0.1]	[0.0]	[0.2]	[0.2]	[0.3]	[0.3]	[0.3]	[0.2]	[0.3]	[0.3]
Outstanding Debt	1011.7	1042.5	1059.6	1075.4	1089.4	1103.8	1118.6	1134.5	1151.7	1170.6	1190.8	1212.6
(ratio to nominal GDP)	[187.6]	[189.4]	[187.8]	[186.1]	[184.4]	[183.4]	[182.6]	[182.0]	[181.5]	[181.3]	[181.2]	[181.4]

【General Account of Central Government】

Trillions of Yen

	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Expenditures	97.5	99.1	97.7	98.1	101.1	102.7	104.8	107.5	110.5	113.5	116.7	120.1
General Account Expenditure Excluding Debt Repayment and Interest Payment	75.5	76.4	74.4	75.8	78.7	80.0	81.2	82.4	83.6	84.4	85.5	86.9
Social Security-related Expenditures	32.2	32.4	33.0	34.3	36.5	37.1	37.8	38.5	39.1	39.8	40.3	40.9
Local Allocation Tax Grants, etc.	15.3	15.6	15.5	15.7	16.1	16.4	16.7	17.0	17.2	17.1	17.4	17.8
Others	27.9	28.4	25.9	25.8	26.1	26.4	26.7	27.0	27.3	27.6	27.9	28.2
Debt Repayment and Interest Payment	22.1	22.7	23.3	22.2	22.4	22.8	23.6	25.0	26.9	29.0	31.1	33.2
Revenues	59.9	63.6	64.0	66.4	69.7	71.0	72.3	73.6	75.0	76.3	77.7	79.1
Tax Revenue	55.5	57.7	59.1	61.4	64.7	65.9	67.1	68.4	69.6	70.9	72.2	73.6
Other Revenues	4.5	5.8	4.9	5.0	5.1	5.1	5.2	5.3	5.3	5.4	5.4	5.5
Difference between Expenditures and Revenues	38.0	35.6	33.7	31.6	31.4	31.7	32.5	33.9	35.6	37.2	39.0	41.1
Primary Balance in General Account of Central Government	▲15.5	▲12.8	▲10.4	▲9.4	▲9.0	▲8.9	▲8.9	▲8.8	▲8.7	▲8.1	▲7.9	▲7.9

【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	96.0	98.6	99.7	101.0	102.2	103.4	104.5	105.6	106.3
Debt Repayment and Interest Payment	12.5	12.6	12.2	11.8	11.4	11.4	11.4	11.4	11.2	11.1	11.0	10.4
Revenues	82.4	82.3	82.3	83.7	87.6	88.9	90.4	91.8	93.1	94.0	95.5	97.1
Tax Revenue	41.7	41.9	42.8	43.5	45.0	45.6	46.5	47.3	48.2	49.1	50.0	50.9
Difference between Expenditures and Revenues	12.4	12.2	11.9	12.3	10.9	10.8	10.6	10.4	10.3	10.5	10.1	9.1
Primary Balance in Ordinary Account of Local Government	2.7	1.9	2.2	1.5	2.5	2.7	3.0	3.2	3.2	2.9	3.3	3.7

- Notes
1. In "General Account of Central Government," up to FY2016 is based on the Settlement, FY2017 is based on the FY2017 Supplementary Budget, and FY2018 is based on the Draft 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 consists of non-tax revenues and preceding fiscal year surplus received (excluding the balance carried forward fiscal resources to FY2017 (4.7 trillion yen)).
  4. In "Ordinary Account of Local Government," "Revenues" excludes local bonds, reduction of reserve, and the balance carried forward fiscal resources 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	▲ 19.3	▲ 17.3	▲ 13.7	▲ 11.6	▲ 10.5	▲ 8.4	▲ 6.8	▲ 5.1	▲ 3.1	▲ 0.7	1.5
(ratio to nominal GDP)	[▲3.1]	[▲3.5]	[▲3.1]	[▲2.4]	[▲1.9]	[▲1.7]	[▲1.3]	[▲1.0]	[▲0.7]	[▲0.4]	[▲0.1]	[0.2]
Central Government	▲ 18.9	▲ 21.1	▲ 18.0	▲ 15.1	▲ 14.4	▲ 13.7	▲ 12.5	▲ 11.8	▲ 11.1	▲ 10.0	▲ 9.1	▲ 8.5
(ratio to nominal GDP)	[▲3.5]	[▲3.8]	[▲3.2]	[▲2.6]	[▲2.4]	[▲2.2]	[▲2.0]	[▲1.8]	[▲1.6]	[▲1.4]	[▲1.2]	[▲1.1]
Local Government	2.2	1.8	0.7	1.4	2.7	3.2	4.1	5.0	6.1	6.9	8.3	10.0
(ratio to nominal GDP)	[0.4]	[0.3]	[0.1]	[0.2]	[0.5]	[0.5]	[0.6]	[0.8]	[0.9]	[1.0]	[1.1]	[1.3]
Fiscal Balance	▲ 24.8	▲ 27.1	▲ 25.7	▲ 20.4	▲ 17.7	▲ 16.4	▲ 14.7	▲ 14.2	▲ 14.4	▲ 15.0	▲ 15.6	▲ 16.6
(ratio to nominal GDP)	[▲4.6]	[▲4.9]	[▲4.6]	[▲3.5]	[▲3.0]	[▲2.7]	[▲2.3]	[▲2.1]	[▲2.1]	[▲2.1]	[▲2.1]	[▲2.2]
Central Government	▲ 25.2	▲ 27.2	▲ 24.9	▲ 20.1	▲ 19.0	▲ 18.3	▲ 17.6	▲ 18.1	▲ 19.3	▲ 20.7	▲ 22.7	▲ 25.2
(ratio to nominal GDP)	[▲4.7]	[▲5.0]	[▲4.4]	[▲3.5]	[▲3.2]	[▲3.0]	[▲2.7]	[▲2.7]	[▲2.8]	[▲2.9]	[▲3.1]	[▲3.3]
Local Government	0.4	0.1	▲ 0.8	▲ 0.3	1.3	1.9	2.9	3.9	4.9	5.7	7.1	8.6
(ratio to nominal GDP)	[0.1]	[0.0]	[▲0.1]	[0.0]	[0.2]	[0.3]	[0.5]	[0.6]	[0.7]	[0.8]	[1.0]	[1.1]
Outstanding Debt	1019.6	1050.0	1066.4	1082.5	1096.6	1109.8	1123.0	1136.3	1150.6	1166.6	1184.4	1205.9
(ratio to nominal GDP)	[189.1]	[190.8]	[189.0]	[186.6]	[183.3]	[179.8]	[175.9]	[172.1]	[168.4]	[164.9]	[161.8]	[159.1]

**Baseline Case**

[ratio to GDP, %], Trillions of Yen

	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Primary Balance	▲ 16.7	▲ 19.3	▲ 17.3	▲ 13.8	▲ 11.9	▲ 11.0	▲ 10.0	▲ 9.5	▲ 9.2	▲ 8.9	▲ 8.2	▲ 7.8
(ratio to nominal GDP)	[▲3.1]	[▲3.5]	[▲3.1]	[▲2.4]	[▲2.0]	[▲1.8]	[▲1.6]	[▲1.5]	[▲1.5]	[▲1.4]	[▲1.2]	[▲1.2]
Central Government	▲ 18.9	▲ 21.1	▲ 18.0	▲ 15.2	▲ 14.3	▲ 13.7	▲ 13.0	▲ 12.7	▲ 12.5	▲ 11.8	▲ 11.6	▲ 11.5
(ratio to nominal GDP)	[▲3.5]	[▲3.8]	[▲3.2]	[▲2.6]	[▲2.4]	[▲2.3]	[▲2.1]	[▲2.0]	[▲2.0]	[▲1.8]	[▲1.8]	[▲1.7]
Local Government	2.2	1.8	0.7	1.4	2.4	2.6	3.0	3.2	3.3	2.9	3.4	3.7
(ratio to nominal GDP)	[0.4]	[0.3]	[0.1]	[0.2]	[0.4]	[0.4]	[0.5]	[0.5]	[0.5]	[0.5]	[0.5]	[0.6]
Fiscal Balance	▲ 24.8	▲ 27.1	▲ 25.7	▲ 20.4	▲ 17.9	▲ 16.8	▲ 16.0	▲ 16.4	▲ 17.5	▲ 19.0	▲ 20.1	▲ 21.5
(ratio to nominal GDP)	[▲4.6]	[▲4.9]	[▲4.6]	[▲3.5]	[▲3.0]	[▲2.8]	[▲2.6]	[▲2.6]	[▲2.8]	[▲2.9]	[▲3.1]	[▲3.2]
Central Government	▲ 25.2	▲ 27.2	▲ 24.9	▲ 20.2	▲ 18.9	▲ 18.1	▲ 17.8	▲ 18.4	▲ 19.6	▲ 20.5	▲ 21.9	▲ 23.5
(ratio to nominal GDP)	[▲4.7]	[▲5.0]	[▲4.4]	[▲3.5]	[▲3.2]	[▲3.0]	[▲2.9]	[▲3.0]	[▲3.1]	[▲3.2]	[▲3.3]	[▲3.5]
Local Government	0.4	0.1	▲ 0.8	▲ 0.2	1.0	1.3	1.8	2.0	2.0	1.5	1.8	2.0
(ratio to nominal GDP)	[0.1]	[0.0]	[▲0.1]	[0.0]	[0.2]	[0.2]	[0.3]	[0.3]	[0.3]	[0.2]	[0.3]	[0.3]
Outstanding Debt	1019.6	1050.0	1066.4	1082.8	1097.3	1111.3	1125.8	1141.3	1158.3	1176.9	1196.8	1218.3
(ratio to nominal GDP)	[189.1]	[190.8]	[189.0]	[187.4]	[185.8]	[184.7]	[183.8]	[183.1]	[182.6]	[182.3]	[182.1]	[182.3]

(Notes)

1. "Consumer Prices" refers to the general index (nationwide).
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 (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 the "Revenues" minus "Expenditure" excluding "Debt Repayment and Interest Payment" and "Reserves."

4. The figures for "Balance by Sector" for the general government, "Fiscal Balance" and "Primary Balance" of the 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 project of decontamination and interim storage facilities 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, and those for FY2017 and FY2018 are from the Fiscal 2017 Economic Outlook and Basic Stance for Economic and Fiscal Management (Cabinet Decision, January 22, 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 (0.7%) to around 1.5%, based on the extent and pace the Japanese economy had actually experienced before it entered deflation. (Specifically, the total factor productivity (TFP) growth rate rose around 0.8% 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 rate of the others rises 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 76% in FY2016 to 88% in FY2027, the LFP rate among males aged 65-69 gradually rises from around 55% in FY2016 to 70% in FY2027, and the LFP rate among females aged 65-69 gradually rises from around 34% in FY2016 to 51% 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 3.4% annually from FY2019 to FY2022, based on the World Economic Outlook (WEO) by the IMF (October 2017). From FY2023 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 FY2019 to FY2022, based on the World Economic Outlook (October 2017). From FY2023 onward, the inflation rate remains constant, at around 2.0%.

<Crude Oil Prices>

From FY2019 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 Revitalization 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 76% in FY2016 to 84% in FY2027, the LFP rate among males aged 65-69 gradually rises from around 55% in FY2016 to 68% in FY2027, and the LFP rate among females aged 65-69 gradually rises from around 34% in FY2016 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 World Economic Outlook (October 2017) after FY2019 (from around 3.3% to 3.4% annually).

\* Difference between the baseline projection and the lower bound of the 50% confidence interval in the World Economic Outlook (October 2017).

## (2) Tax System

- \* Tax revenues of the general account of the central government in FY2016 are based on the FY2016 Settlement, in FY2017 on the estimated actual value, and in FY2018 on the Draft 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 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 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 government.

### **(3) Expenditures**

- \* Expenditures of the general account of the central government in FY2016 are based on the FY2016 Settlement, in FY2017 on the FY2017 Supplementary Budget, and in FY2018 on the Draft FY2018 Budget.
- \* From FY2019 onward, it is assumed that social security expenditures will increase reflecting population aging, wage growth, the inflation rate 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 concerned with the Human Resource Development Revolution of the “New Economic Policy Package” are undecided at the moment, it is assumed to include the Social Security-related Expenditures under the supposition of full implementation in FY2020. Since the ratio of the expenditure of the central government and the local government is also undecided, it is mechanically assumed that the ratio of the central government and the local government 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 project of decontamination and interim storage facilities which will be reimbursed from TEPCO and the actual payment corresponding therewith is assumed 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.