# Economic and Fiscal Projections for Medium to Long Term Analysis

January 17, 2020 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.

#### 1. Introduction

The government decided "the New Plan to Advance Economic and Fiscal Revitalization<sup>1</sup>", maintaining the basic policy "without economic revitalization, there can be no fiscal consolidation," and continuing to accelerate and expand the 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 medium- to long-term analysis, based on the scenarios of economic situations and fiscal assumptions as follows.

## 2. Scenarios and Assumptions in Macroeconomy<sup>2</sup>

The projection on macroeconomy until FY2020 is based on the "Fiscal 2020 Economic Outlook". From FY2021, 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 reflecting the past performance.

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

- •The total factor productivity (TFP) growth rate rises from the current level (around 0.4%) to around 1.3%, 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 on 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>

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

<sup>&</sup>lt;sup>1</sup> "Basic Policy on Economic and Fiscal Management and Reform 2018" (June 15, 2018) Chapter 3

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

<sup>&</sup>lt;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)

#### (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 Economic Growth Achieved Case are as follows:

- The total factor productivity (TFP) growth rate keeps around 0.8%<sup>5</sup>.
- •The labor force participation rate shifts based on the estimates of labor supply and demand on 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 Finances<sup>6</sup>

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

- •Revenues and expenditures in FY2019 and FY2020 reflect the "Supplementary Budget for FY2019" and the "Draft FY2020 Budget".
- •From FY2021, social security expenditures will increase reflecting the aging of population and price and wage developments, and other expenditures will increase along with the inflation rates.
- •Revenues from FY2021 will increase based on the two economic scenarios and assumptions of macroeconomy.

# 4. <u>Progress and Future Prospects of Economic Revitalization and Fiscal Consolidation</u>

#### <Progress>

The Japanese economy has been recovering at a moderate pace in FY2019, mainly driven by domestic demand, despite weakness in external demand due to a slowdown in overseas economies. In FY2019, the GDP growth rate is projected to be around 0.9% in real terms and around 1.8% in nominal terms. In FY2020, the GDP growth rate is projected to be around 1.4% in real terms and around 2.1% in nominal terms with the improvement in employment and income situation continuing, helped by the effects of various policies including a smooth and steady implementation of the "Comprehensive Economic Measures to Create a Future with Security and Growth" (Cabinet Decision, December 5, 2019).

On the fiscal conditions, the primary deficit is projected to be 2.7% of GDP both in FY2019 and FY2020, affected by the deceleration in tax revenues stemming from a slowdown of the world economy, as well as additional expenditures due to the Supplementary Budgets and the Temporal and Special Measures. As a result, the ratio of outstanding debt to GDP is projected to be 192.4% in FY2019 and 189.5% in FY2020.

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 $<sup>^{5}\,</sup>$  Average from January 2002. (From the 14th business cycle.)

<sup>&</sup>lt;sup>6</sup> For further details, see Appendix.

#### <Future Prospects>

In the Economic Growth Achieved Case, the GDP growth rate is projected to achieve around 2% in real terms and over around 3% in nominal terms in the early 2020s along with the increase in the potential growth rate. As a result, the nominal GDP is projected to achieve 600 trillion yen around 2020. The rate of change in consumer prices is projected to reach around 2% from FY2023.

On the fiscal conditions, the primary deficit<sup>7</sup> is projected to be 0.5% of GDP in FY2025 and to turn to surplus in FY2027. The ratio of outstanding debt to GDP is projected to steadily decline in the periods of the projection. 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, however, the GDP growth rate is projected to be around 1% in real terms and low 1% in nominal terms in the medium to long term. The rate of change in consumer prices is projected to be around 0.8%.

On the fiscal conditions, the primary deficit is projected to be 1.3% of GDP in FY2025, and the primary deficit within the projection period improves at a modest pace. The ratio of outstanding debt to GDP is projected to be almost flat in the periods of projection.

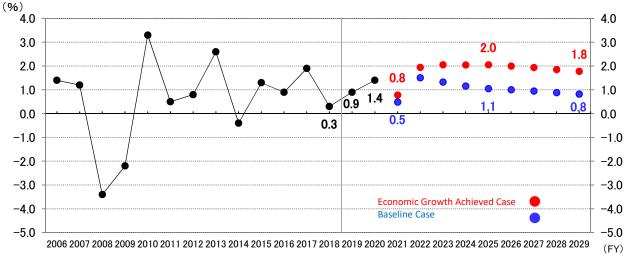
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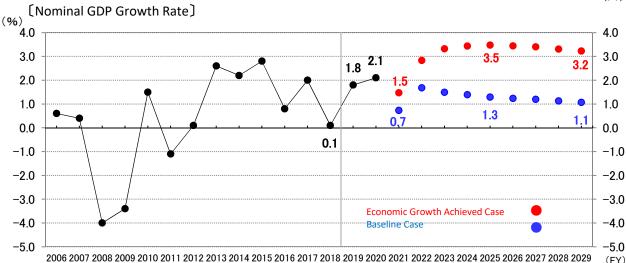
<sup>&</sup>lt;sup>7</sup> Excluding the expenditures and the fiscal resources for the recovery and reconstruction measures.

#### **Results of Projection**

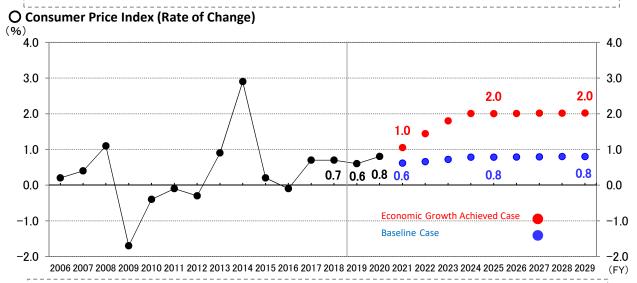
#### O GDP Growth Rate

[Real GDP Growth Rate]



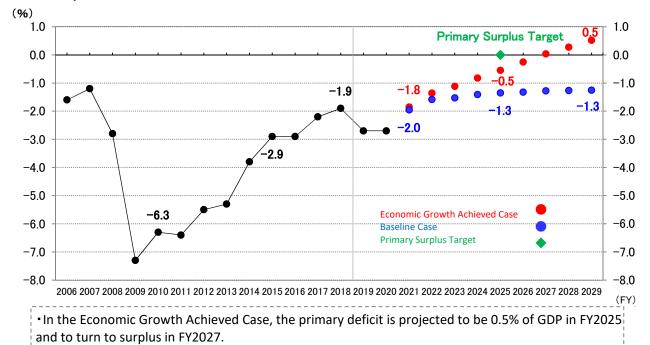


• In the Economic Growth Achieved Case, the GDP growth rate is projected to achieve around 2% in real terms and over around 3% in nominal terms in the early 2020s along with the increase in the potential growth rate. As a result, nominal GDP is projected to achieve 600 trillion yen around 2020.

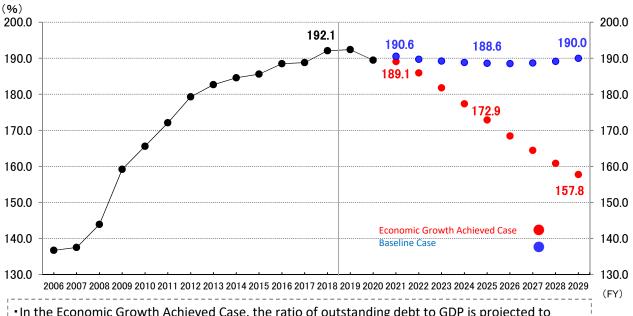


• In the Economic Growth Achieved Case, the rate of change in consumer prices is projected to reach at around 2% from FY2023.

#### **OPrimary Balance of Central and Local Governments Combined**\*



#### O Outstanding Debt\* (Ratio to Nominal GDP)



• In the Economic Growth Achieved Case, the ratio of outstanding debt to GDP is projected to steadily decline in the periods of projection. 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, the ratio is projected to be almost flat in the periods of projection.

<sup>\*</sup> 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, %], T	rillions of Yen

	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
Real GDP Growth	( 0.3)	( 0.9)	(1.4)	(8.0)	( 1.9)	( 2.0)	( 2.0)	( 2.0)	( 2.0)	( 1.9)	( 1.8)	( 1.8)
Real GNI Growth	(▲0.2)	(1.4)	( 1.3)	(0.9)	( 2.1)	( 2.1)	( 2.0)	( 2.0)	(1.9)	( 1.8)	( 1.8)	(1.8)
Nominal GDP Growth	( 0.1)	( 1.8)	( 2.1)	( 1.5)	( 2.8)	( 3.3)	( 3.4)	( 3.5)	( 3.4)	( 3.4)	( 3.3)	( 3.2)
Nominal GDP	548.4	558.3	570.2	578.6	595.0	614.8	635.9	658.1	680.8	703.9	727.2	750.7
Nominal GNI Per Capita Growth	( 0.9)	( 2.0)	( 2.4)	(1.9)	( 3.3)	( 3.7)	( 3.8)	( 3.8)	( 3.8)	( 3.8)	( 3.7)	( 3.7)
Nominal GNI Per Capita (**Ten thousand yen)	452	461	472	481	497	516	535	556	576	598	621	644
Potential GDP Growth	( 1.0)	( 1.0)	( 1.2)	(1.4)	( 1.6)	(1.8)	( 2.0)	( 2.0)	( 2.0)	(1.9)	( 1.8)	( 1.8)
Change of Price												
Consumer Prices	( 0.7)	( 0.6)	(8.0)	( 1.0)	(1.4)	(1.8)	( 2.0)	( 2.0)	( 2.0)	( 2.0)	( 2.0)	( 2.0)
Corporate Goods Prices	( 2.2)	( 0.3)	( 1.0)	(0.6)	( 0.5)	( 0.7)	( 0.6)	( 0.5)	( 0.5)	( 0.6)	( 0.6)	( 0.6)
GDP Deflator	(▲0.2)	(0.9)	(8.0)	( 0.7)	( 0.9)	(1.3)	(1.4)	( 1.4)	(1.4)	(1.4)	(1.4)	(1.4)
Unemployment Rate	( 2.4)	( 2.3)	( 2.3)	( 2.4)	( 2.4)	( 2.4)	( 2.4)	( 2.4)	( 2.5)	( 2.5)	( 2.5)	( 2.6)
Long-term Interest Rate	( 0.0)	(▲0.1)	(0.0)	(0.0)	(0.0)	( 0.4)	( 0.7)	(1.3)	( 2.0)	( 2.5)	( 2.9)	( 3.2)
Balance by Sector												
General Government	[▲2.2]	[▲3.1]	[▲3.0]	[▲1.9]	[▲1.4]	[▲0.9]	[▲0.4]	[ 0.0]	[ 0.5]	[ 0.9]	[ 1.2]	[ 1.5]
Private	[ 5.7]	[ 6.6]	[ 6.3]	[ 5.4]	[ 5.4]	[ 4.8]	[ 4.3]	[ 3.9]	[ 3.4]	[ 3.0]	[ 2.7]	[ 2.3]
Overseas	[▲3.5]	[▲3.5]	[▲3.3]	[▲3.5]	[▲3.9]	[▲3.9]	[▲3.9]	[▲3.9]	[▲3.9]	[▲3.9]	[▲3.8]	[▲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

	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
Primary Balance	▲ 10.5	▲ 15.2	▲ 15.3	▲ 10.7	▲ 8.1	▲ 6.9	▲ 5.2	▲ 3.6	▲ 1.7	0.3	2.0	3.9
(ratio to nominal GDP)	(▲1.9)	(▲2.7)	(▲2.7)	(▲1.8)	(▲1.4)	(▲1.1)	(▲0.8)	(▲0.5)	(▲0.3)	(0.0)	( 0.3)	( 0.5)
Central Government	▲ 12.7	▲ 17.5	<b>▲</b> 17.5	▲ 13.9	▲ 12.4	▲ 11.9	▲ 11.2	▲ 10.5	▲ 9.6	▲ 8.9	▲ 8.2	▲ 7.5
(ratio to nominal GDP)	[ <b>Δ</b> 2.3]	[▲3.1]	[▲3.1]	[▲2.4]	[ <b>▲</b> 2.1]	[▲1.9]	[▲1.8]	[ <b>▲</b> 1.6]	[ <b>▲</b> 1.4]	[▲1.3]	[▲1.1]	[▲1.0]
Local Government	2.2	2.4	2.2	3.3	4.3	5.1	5.9	6.9	7.9	9.2	10.2	11.4
(ratio to nominal GDP)	[0.4]	[0.4]	[0.4]	[0.6]	[0.7]	[8.0]	[0.9]	[1.0]	[1.2]	[1.3]	[1.4]	[1.5]
Fiscal Balance	▲ 17.3	▲ 21.6	▲ 22.1	▲ 16.3	▲ 13.2	▲ 11.5	▲ 9.8	▲ 8.7	▲ 8.0	▲ 7.8	▲ 8.4	▲ 9.0
(ratio to nominal GDP)	[▲3.2]	[▲3.9]	[▲3.9]	[▲2.8]	[ <b>Δ</b> 2.2]	[▲1.9]	[▲1.5]	[▲1.3]	[ <b>1</b> 1.2]	[ <b>▲</b> 1.1]	[▲1.2]	[ <b>1</b> .2]
Central Government	▲ 18.1	▲ 22.7	▲ 23.2	▲ 18.2	▲ 16.3	▲ 15.5	▲ 14.8	▲ 14.6	▲ 15.0	▲ 16.0	▲ 17.6	▲ 19.3
(ratio to nominal GDP)	[▲3.3]	[▲4.1]	[▲4.1]	[▲3.1]	[ <b>Δ</b> 2.7]	[▲2.5]	[▲2.3]	[▲2.2]	[▲2.2]	[ <b>Δ</b> 2.3]	[▲2.4]	[ <b>▲</b> 2.6]
Local Government	0.8	1.1	1.1	1.9	3.1	4.0	4.9	6.0	7.0	8.2	9.2	10.3
(ratio to nominal GDP)	[0.1]	[0.2]	[0.2]	[0.3]	[0.5]	[0.6]	[8.0]	[0.9]	[1.0]	[1.2]	[1.3]	[1.4]
Outstanding Debt	1053.5	1074.4	1080.7	1094.1	1106.3	1117.7	1128.1	1137.8	1146.9	1157.7	1169.9	1184.4
(ratio to nominal GDP)	[192.1]	[192.4]	[189.5]	[189.1]	[185.9]	[181.8]	[177.4]	[172.9]	[168.5]	[164.5]	[160.9]	[157.8]

#### [General Account of Central Government]

Trillions of Yen

		FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
Expen	ditures	99.0	104.7	102.7	100.8	102.6	104.6	106.9	109.7	113.3	117.8	122.8	128.0
	General Account Expenditure Excluding Debt Repayment and Interest Payment	76.4	82.1	79.3	78.4	80.3	82.2	84.1	86.0	87.9	90.1	92.3	94.5
	Social Security-related Expenditures	32.6	34.1	35.9	36.5	37.5	38.4	39.3	40.2	41.1	42.0	43.0	44.0
	Local Allocation Tax Grants, etc.	16.0	16.0	15.8	15.9	16.4	17.0	17.4	17.9	18.4	19.0	19.7	20.3
	Others	27.9	32.1	27.6	26.1	26.4	26.9	27.4	27.9	28.5	29.0	29.6	30.2
	Debt Repayment and Interest Payment	22.5	22.5	23.4	22.4	22.3	22.4	22.8	23.7	25.4	27.7	30.5	33.5
Reven	ues	66.0	67.6	70.1	69.5	71.4	73.8	76.4	79.1	81.8	84.6	87.4	90.2
	Tax Revenue	60.4	60.2	63.5	64.2	66.0	68.3	70.8	73.3	75.8	78.5	81.1	83.8
	Other Revenues	5.7	7.4	6.6	5.3	5.4	5.5	5.7	5.8	5.9	6.1	6.2	6.4
Differe	ence between Expenditures and Revenues	34.4	37.1	32.6	31.3	31.1	30.8	30.4	30.7	31.5	33.3	35.4	37.8
Primary	Balance in General Account of Central Government	▲ 10.4	<b>▲</b> 14.6	▲ 9.2	▲ 9.0	▲ 8.9	▲ 8.4	▲ 7.7	▲ 7.0	▲ 6.1	▲ 5.5	<b>▲</b> 4.9	<b>▲</b> 4.3

#### [Ordinary Account of Local Government]

Trillions of Yen

		FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
Expen	ditures	96.1	98.1	97.4	97.5	99.1	101.1	103.1	105.3	107.3	109.9	112.7	116.1
	Debt Repayment and Interest Payment	12.4	11.9	11.7	11.6	11.6	11.7	11.7	11.8	11.7	11.6	11.8	11.8
Reven	ues	83.0	85.6	85.7	86.0	88.1	90.8	93.4	96.4	99.4	102.6	106.0	109.3
	Tax Revenue	43.3	43.6	44.3	44.7	45.8	47.3	48.9	50.7	52.5	54.5	56.4	58.4
Differ	ence between Expenditures and Revenues	13.0	12.4	11.7	11.4	11.0	10.3	9.7	9.0	7.9	7.2	6.8	6.7
Primary	Balance in Ordinary Account of Local Government	1.9	1.6	2.6	2.9	3.4	4.3	5.0	6.0	7.0	8.3	9.5	10.8

Notes 1. In "General Account of Central Government", up to FY2018 is based on the "FY2018 Settlement", FY2019 is based on the "Supplementary Budget for FY2019", and FY2020 is based on the "Draft FY2020 Budget". In "Ordinary Account of Local Government," FY2018 is based on the "FY2018 Settlement".

 $<sup>2. \\ &</sup>quot;General Account Expenditure Excluding Debt Repayment and Interest Payment" excludes carry-back of settlement deficit compensation.$ 

<sup>3.</sup> In "General Account of Central Government," "Other Revenues" in FY2018 consists of non-tax revenues and preceding fiscal year surplus received (excluding the balance of fiscal resources carried forward to the next year (5.1 trillion yen)).

<sup>4.</sup> 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]

	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
Real GDP Growth	( 0.3)	( 0.9)	(1.4)	( 0.5)	( 1.5)	(1.3)	( 1.2)	( 1.1)	( 1.0)	( 0.9)	( 0.9)	( 0.8)
Real GNI Growth	(▲0.2)	(1.4)	(1.3)	( 0.6)	(1.6)	(1.3)	(1.1)	( 1.0)	( 0.9)	(8.0)	(8.0)	(8.0)
Nominal GDP Growth	( 0.1)	( 1.8)	( 2.1)	( 0.7)	(1.7)	( 1.5)	( 1.4)	( 1.3)	( 1.2)	( 1.2)	(1.1)	(1.1)
Nominal GDP	548.4	558.3	570.2	574.4	584.0	592.8	601.0	608.8	616.3	623.7	630.8	637.5
Nominal GNI Per Capita Growth	( 0.9)	( 2.0)	( 2.4)	( 1.2)	( 2.2)	(1.9)	( 1.8)	(1.7)	( 1.6)	( 1.6)	(1.6)	(1.6)
Nominal GNI Per Capita (**Ten thousand yen)	452	461	472	478	489	498	507	515	524	532	541	549
Potential GDP Growth	( 1.0)	( 1.0)	( 1.2)	( 1.2)	( 1.2)	(1.1)	(1.1)	( 1.0)	( 1.0)	( 0.9)	( 0.9)	( 0.8)
Change of Price												
Consumer Prices	( 0.7)	( 0.6)	(8.0)	( 0.6)	( 0.7)	( 0.7)	( 0.8)	( 0.8)	( 0.8)	( 0.8)	( 0.8)	(8.0)
Corporate Goods Prices	( 2.2)	( 0.3)	( 1.0)	( 0.3)	( 0.2)	( 0.2)	( 0.3)	( 0.2)	( 0.2)	( 0.2)	( 0.3)	( 0.3)
GDP Deflator	(▲0.2)	( 0.9)	( 0.8)	( 0.2)	( 0.2)	( 0.2)	( 0.2)	( 0.2)	( 0.2)	( 0.2)	( 0.2)	( 0.2)
Unemployment Rate	( 2.4)	( 2.3)	( 2.3)	( 2.4)	( 2.4)	( 2.4)	( 2.4)	( 2.4)	( 2.5)	( 2.5)	( 2.5)	( 2.6)
Long-term Interest Rate	( 0.0)	(▲0.1)	( 0.0)	( 0.0)	( 0.0)	( 0.1)	( 0.3)	( 0.7)	( 1.2)	( 1.5)	(1.6)	( 1.6)
Balance by Sector												
General Government	[▲2.2]	[▲3.1]	[▲3.0]	[▲2.1]	[ <b>▲</b> 1.6]	[▲1.4]	[▲1.2]	[▲1.0]	[▲0.8]	[▲0.7]	[▲0.6]	[▲0.7]
Private	[ 5.7]	[ 6.6]	[ 6.3]	[ 5.5]	[ 5.5]	[ 5.2]	[ 5.0]	[ 4.7]	[ 4.4]	[ 4.1]	[ 3.9]	[ 3.9]
Overseas	[▲3.5]	[▲3.5]	[▲3.3]	[▲3.4]	[▲3.9]	[▲3.9]	[▲3.7]	[▲3.6]	[▲3.5]	[▲3.4]	[▲3.3]	[▲3.1]

[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

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	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
Primary Balance	▲ 10.5	▲ 15.2	▲ 15.3	▲ 11.2	▲ 9.2	▲ 9.0	▲ 8.5	▲ 8.2	▲ 8.1	▲ 8.0	▲ 8.0	▲ 8.0
(ratio to nominal GDP)	(▲1.9)	(▲2.7)	(▲2.7)	(▲2.0)	(▲1.6)	(▲1.5)	(▲1.4)	(▲1.3)	(▲1.3)	(▲1.3)	(▲1.3)	(▲1.3)
Central Government	▲ 12.7	▲ 17.5	▲ 17.5	▲ 14.2	▲ 12.6	▲ 12.6	▲ 12.3	▲ 12.2	▲ 12.0	▲ 12.1	▲ 12.2	▲ 12.2
(ratio to nominal GDP)	[▲2.3]	[▲3.1]	[▲3.1]	[▲2.5]	[▲2.2]	[▲2.1]	[▲2.0]	[▲2.0]	[▲2.0]	[▲1.9]	[▲1.9]	[▲1.9]
Local Government	2.2	2.4	2.2	2.9	3.4	3.6	3.8	3.9	3.9	4.1	4.2	4.2
(ratio to nominal GDP)	[0.4]	[0.4]	[0.4]	[0.5]	[0.6]	[0.6]	[0.6]	[0.6]	[0.6]	[0.7]	[0.7]	[0.7]
Fiscal Balance	▲ 17.3	▲ 21.6	▲ 22.1	▲ 16.8	▲ 14.3	▲ 13.7	▲ 12.7	▲ 12.4	▲ 12.9	▲ 13.8	▲ 15.1	▲ 16.5
(ratio to nominal GDP)	[▲3.2]	[▲3.9]	[▲3.9]	[▲2.9]	[▲2.5]	[▲2.3]	[▲2.1]	[▲2.0]	[ <b>A</b> 2.1]	[▲2.2]	[▲2.4]	[ <b>▲</b> 2.6]
Central Government	▲ 18.1	▲ 22.7	▲ 23.2	▲ 18.4	▲ 16.5	▲ 16.2	▲ 15.5	▲ 15.4	▲ 15.8	▲ 16.8	▲ 18.1	▲ 19.2
(ratio to nominal GDP)	[▲3.3]	[▲4.1]	[▲4.1]	[▲3.2]	[▲2.8]	[ <b>▲</b> 2.7]	[▲2.6]	[▲2.5]	[ <b>▲</b> 2.6]	[ <b>Δ</b> 2.7]	[ <b>A</b> 2.9]	[▲3.0]
Local Government	0.8	1.1	1.1	1.6	2.1	2.5	2.8	3.0	2.9	3.1	2.9	2.8
(ratio to nominal GDP)	[0.1]	[0.2]	[0.2]	[0.3]	[0.4]	[0.4]	[0.5]	[0.5]	[0.5]	[0.5]	[0.5]	[0.4]
Outstanding Debt	1053.5	1074.4	1080.7	1094.6	1108.1	1121.7	1135.0	1148.2	1162.1	1177.2	1193.3	1211.3
(ratio to nominal GDP)	[192.1]	[192.4]	[189.5]	[190.6]	[189.7]	[189.2]	[188.8]	[188.6]	[188.5]	[188.7]	[189.2]	[190.0]

#### [General Account of Central Government]

Trillions of Yen

		FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
Expen	ditures	99.0	104.7	102.7	100.6	101.7	102.8	103.7	104.9	106.6	109.0	111.5	114.0
	General Account Expenditure Excluding Debt Repayment and Interest Payment	76.4	82.1	79.3	78.2	79.4	80.5	81.4	82.2	82.9	83.9	84.8	85.7
	Social Security-related Expenditures	32.6	34.1	35.9	36.4	37.3	37.9	38.5	39.0	39.5	40.1	40.6	41.1
	Local Allocation Tax Grants, etc.	16.0	16.0	15.8	15.8	16.0	16.3	16.4	16.5	16.5	16.7	16.9	17.0
	Others	27.9	32.1	27.6	26.0	26.1	26.3	26.5	26.7	26.9	27.1	27.3	27.5
	Debt Repayment and Interest Payment	22.5	22.5	23.4	22.4	22.3	22.3	22.4	22.7	23.7	25.1	26.7	28.3
Reven	ues	66.0	67.6	70.1	69.0	70.0	71.1	72.2	73.1	74.0	74.9	75.8	76.6
	Tax Revenue	60.4	60.2	63.5	63.7	64.7	65.7	66.7	67.6	68.5	69.3	70.1	70.9
	Other Revenues	5.7	7.4	6.6	5.3	5.3	5.4	5.4	5.5	5.5	5.6	5.6	5.7
Differe	fference between Expenditures and Revenues		37.1	32.6	31.6	31.7	31.7	31.6	31.8	32.6	34.1	35.7	37.4
Primar	ry Balance in General Account of Central Government	▲ 10.4	▲ 14.6	▲ 9.2	▲ 9.2	▲ 9.4	▲ 9.4	▲ 9.2	▲ 9.1	▲ 8.9	▲ 8.9	▲ 9.0	▲ 9.1

#### [Ordinary Account of Local Government]

Trillions of Yen

LOIG	nary Account of Local Government												IIIIOII3 OI TCII
		FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
Expen	ditures	96.1	98.1	97.4	97.1	98.1	99.1	100.1	101.1	102.0	103.0	104.3	105.4
	Debt Repayment and Interest Payment	12.4	11.9	11.7	11.6	11.6	11.7	11.7	11.8	11.7	11.8	12.1	12.3
Reven	evenues		85.6	85.7	85.4	86.2	87.4	88.3	89.2	90.2	91.2	92.2	93.2
	Tax Revenue	43.3	43.6	44.3	44.3	44.6	45.2	45.9	46.6	47.2	47.8	48.4	49.0
Differ	fference between Expenditures and Revenues		12.4	11.7	11.7	11.8	11.8	11.8	11.9	11.8	11.8	12.1	12.2
Prima	ry Balance in Ordinary Account of Local Government	1.9	1.6	26	26	24	26	26	26	27	2.8	28	29

Notes 1. In "General Account of Central Government", up to FY2018 is based on the "FY2018 Settlement", FY2019 is based on the "Supplementary Budget for FY2019", and FY2020 is based on the "Draft FY2020 Budget". In "Ordinary Account of Local Government," FY2018 is based on the "FY2018 Settlement".

2. "General Account Expenditure Excluding Debt Repayment and Interest Payment" excludes carry-back of settlement deficit compensation.

<sup>3.</sup> In "General Account of Central Government," "Other Revenues" in FY2018 consists of non-tax revenues and preceding fiscal year surplus received (excluding the balance of fiscal resources carried forward to the next year (5.1 trillion yen)).

<sup>4.</sup> 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

	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
Primary Balance	▲ 10.8	▲ 15.2	▲ 15.2	▲ 10.7	▲ 7.5	▲ 6.2	<b>▲</b> 4.6	▲ 3.4	<b>▲</b> 1.5	0.6	2.4	4.3
(ratio to nominal GDP)	[ <b>Δ</b> 2.0]	[ <b>Δ</b> 2.7]	[▲2.7]	[ <b>1</b> .9]	[▲1.3]	[▲1.0]	[▲0.7]	[▲0.5]	[▲0.2]	[0.1]	[0.3]	[0.6]
Central Government	▲ 12.6	▲ 17.5	▲ 17.4	▲ 14.0	▲ 11.9	▲ 11.3	▲ 10.5	▲ 10.3	▲ 9.3	▲ 8.5	▲ 7.9	▲ 7.1
(ratio to nominal GDP)	[▲2.3]	[▲3.1]	[▲3.0]	[▲2.4]	[▲2.0]	[▲1.8]	[ <b>1</b> .7]	<b>[</b> ▲1.6]	[ <b>▲</b> 1.4]	[ <b>▲</b> 1.2]	<b>[</b> ▲1.1]	[▲1.0]
Local Government	1.8	2.3	2.2	3.3	4.4	5.1	5.9	6.9	7.9	9.2	10.2	11.4
(ratio to nominal GDP)	[0.3]	[0.4]	[0.4]	[0.6]	[0.7]	[8.0]	[0.9]	[1.0]	[1.2]	[1.3]	[1.4]	[1.5]
Fiscal Balance	▲ 17.6	▲ 21.6	▲ 22.0	▲ 16.3	▲ 12.6	▲ 10.8	▲ 9.2	▲ 8.5	▲ 7.7	▲ 7.5	▲ 8.1	▲ 8.7
(ratio to nominal GDP)	[▲3.2]	[▲3.9]	[▲3.9]	[▲2.8]	[ <b>▲</b> 2.1]	[▲1.8]	[ <b>▲</b> 1.4]	[ <b>1</b> .3]	<b>[</b> ▲1.1]	<b>[</b> ▲1.1]	<b>[</b> ▲1.1]	[ <b>▲</b> 1.2]
Central Government	▲ 18.0	▲ 22.7	▲ 23.1	▲ 18.3	▲ 15.8	▲ 14.9	▲ 14.1	▲ 14.4	▲ 14.7	▲ 15.7	▲ 17.2	▲ 18.9
(ratio to nominal GDP)	[▲3.3]	[▲4.1]	[ <b>▲</b> 4.1]	[▲3.2]	[ <b>Δ</b> 2.7]	[▲2.4]	[▲2.2]	[▲2.2]	[▲2.2]	[▲2.2]	[▲2.4]	[▲2.5]
Local Government	0.4	1.1	1.1	2.0	3.2	4.0	4.9	6.0	7.0	8.2	9.2	10.3
(ratio to nominal GDP)	[0.1]	[0.2]	[0.2]	[0.3]	[0.5]	[0.7]	[0.8]	[0.9]	[1.0]	[1.2]	[1.3]	[1.4]
Outstanding Debt	1060.6	1080.8	1087.1	1099.8	1111.9	1123.2	1133.5	1143.2	1151.9	1162.4	1174.3	1188.4
(ratio to nominal GDP)	[193.4]	[193.6]	[190.7]	[190.1]	[186.9]	[182.7]	[178.2]	[173.7]	[169.2]	[165.1]	[161.5]	[158.3]

#### **Baseline Case**

[ratio to GDP, %], Trillions of Yen

	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
Primary Balance	▲ 10.8	▲ 15.2	▲ 15.2	▲ 11.2	▲ 8.7	▲ 8.3	▲ 7.8	▲ 8.0	▲ 7.9	▲ 7.6	▲ 7.6	▲ 7.6
(ratio to nominal GDP)	[▲2.0]	[ <b>1</b> 2.7]	[ <b>Δ</b> 2.7]	[▲2.0]	[ <b>1</b> 1.5]	[ <b>▲</b> 1.4]	[▲1.3]	[ <b>1</b> .3]	[ <b>1</b> .3]	[ <b>1</b> 1.2]	[ <b>1</b> 1.2]	[ <b>1</b> 1.2]
Central Government	▲ 12.6	▲ 17.5	▲ 17.4	▲ 14.2	▲ 12.1	▲ 12.0	▲ 11.6	▲ 11.9	▲ 11.8	▲ 11.7	▲ 11.8	▲ 11.8
(ratio to nominal GDP)	[▲2.3]	[▲3.1]	[▲3.0]	[▲2.5]	[ <b>Δ</b> 2.1]	[▲2.0]	[▲1.9]	[▲2.0]	[ <b>1</b> .9]	[▲1.9]	[▲1.9]	[ <b>1</b> .9]
Local Government	1.8	2.3	2.2	3.0	3.4	3.7	3.8	4.0	3.9	4.1	4.2	4.2
(ratio to nominal GDP)	[0.3]	[0.4]	[0.4]	[0.5]	[0.6]	[0.6]	[0.6]	[0.6]	[0.6]	[0.7]	[0.7]	[0.7]
Fiscal Balance	▲ 17.6	▲ 21.6	▲ 22.0	▲ 16.8	▲ 13.8	▲ 13.0	▲ 12.1	▲ 12.2	▲ 12.7	▲ 13.4	▲ 14.8	▲ 16.1
(ratio to nominal GDP)	[▲3.2]	[▲3.9]	[▲3.9]	[▲2.9]	[ <b>Δ</b> 2.4]	[▲2.2]	[▲2.0]	[ <b>Δ</b> 2.0]	[ <b>Δ</b> 2.1]	[▲2.2]	[▲2.3]	[▲2.5]
Central Government	▲ 18.0	▲ 22.7	▲ 23.1	▲ 18.5	▲ 16.0	▲ 15.5	▲ 14.8	▲ 15.2	▲ 15.6	▲ 16.5	▲ 17.7	▲ 18.9
(ratio to nominal GDP)	[▲3.3]	[ <b>▲</b> 4.1]	[ <b>▲</b> 4.1]	[▲3.2]	[ <b>Δ</b> 2.7]	[ <b>Δ</b> 2.6]	[▲2.5]	[ <b>Δ</b> 2.5]	[ <b>Δ</b> 2.5]	[ <b>Δ</b> 2.6]	[▲2.8]	[▲3.0]
Local Government	0.4	1.1	1.1	1.7	2.2	2.6	2.8	3.0	2.9	3.1	2.9	2.8
(ratio to nominal GDP)	[0.1]	[0.2]	[0.2]	[0.3]	[0.4]	[0.4]	[0.5]	[0.5]	[0.5]	[0.5]	[0.5]	[0.4]
Outstanding Debt	1060.6	1080.8	1087.1	1100.3	1113.7	1127.2	1140.4	1153.6	1167.1	1181.9	1197.6	1215.3
(ratio to nominal GDP)	[193.4]	[193.6]	[190.7]	[191.6]	[190.7]	[190.2]	[189.7]	[189.5]	[189.4]	[189.5]	[189.9]	[190.6]

(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 (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 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 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, 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 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 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 (hereafter TEPCO) also includes the expenditures for the recovery and reconstruction measures, deemed to ensure the corresponding resources, considering the progress of payment from TEPCO.

#### Appendix: Key Assumptions

The GDP growth rate and inflation rate up to FY2018 are from the "Annual Report on National Accounts for 2018" and those for FY2019 and FY2020 are from the Cabinet Office's "Fiscal 2020 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 0.4 %) to around 1.3%, 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 to FY2029 based on the estimates of labor supply and demand on 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 79% in FY2018 to 88% in FY2029, the LFP rate among males aged 65-69 gradually rises from around 59% in FY2018 to 68% in FY2029, and the LFP rate among females aged 65-69 gradually rises from around 38% in FY2018 to 48% in FY2029).

#### < Foreign Workers>

- Based on the "Population Projection for Japan" by the National Institute of Population and Social Security Research, the non-Japanese population increases (from 1.97 million in 2018 to 2.68 million in 2029). 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), the labor force increases to 345 thousand persons in five years with expansion of acceptance of foreign workers.

#### 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 3.4% annually from FY2021 to FY2024, based on the "World Economic Outlook" (WEO) by the IMF (October 2019). From FY2025 onward, the growth rate remains constant at around 3.4%.
- <Inflation Rate (considering the export shares from Japan [10 major destination countries])>
- The inflation rate moves at around 1.8% to 2.1% annually from FY2021 to FY2024, based on the WEO (October 2019). From FY2025 onward, the inflation rate remains constant at around 2.1%.

#### <Crude Oil Prices>

- From FY2021 onward, the price moves based on the rate of the "World Energy Outlook" by the IEA (November 2019), at around 2.2%.

#### **Baseline Case**

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

- a) TFP Growth Rate
  - The TFP growth rate keeps around 0.8 %. (Average from January 2002. (From the 14th business cycle.))

#### b) Labor Force

<Labor Force Participation (LFP) Rate>

- Based on the estimates of labor supply and demand on 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 79% in FY2018 to 87% in FY2029, the LFP rate among males aged 65-69 gradually rises from around 59% in FY2018 to 62% in FY2029, and the LFP rate among females aged 65-69 gradually rises from around 38% in FY2018 to 44% in FY2029).

#### 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 2.6% annually from FY2021, which is about 0.8 percentage points\* lower than the rate based on the WEO (October 2019) (around 3.4%).
- \* 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 FY2018 are based on the "FY2018 Settlement", those in FY2019 are based on the "Supplementary Budget for FY2019", and those in FY2020 are based on the "Draft FY2020 Budget".
- Based on the "FY2020 Tax Reform" (Cabinet Decision, December 20, 2019) 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 "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" (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 distribution of the increase in consumption tax revenue from 5% to 10% (central and local combined) is 346/500 for central and 154/500 for local. It is assumed that the increase in 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 local governments.

#### (3) Expenditures

- The expenditures of the general account of the central government in FY2018 are based on the "FY2018 Settlement", and those in FY2019 are based on the "Supplementary Budget for FY2019", and those in FY2020 are based on the "Draft FY2020 Budget".
- From FY2021 onward, it is assumed that social security expenditures will increase reflecting the aging of population and price and wage developments, 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.
- 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) <u>Assumptions on the Expenditures and Revenue Resources for Recovery and Reconstruction</u> from the Great East Japan Earthquake

- Expenditures are assumed to be low 31 trillion yen until FY2020 and mid 1 trillion yen in five years from FY 2021, 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 "Basic Guidelines for Reconstruction in Response to the Great East Japan Earthquake after the 'Reconstruction and Revitalization Period.'"(Cabinet Decision, December 20, 2019) and others such as the progress of implementation so far.
- In the projections, it is assumed that high 32 trillion yen of revenue resources are 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 "Basic Guidelines for Reconstruction in Response to the Great East Japan Earthquake after the 'Reconstruction and Revitalization Period.'"(Cabinet Decision, December 20, 2019) 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 are 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.