Executive Summary:
Economic and Fiscal Projections
for Medium to Long Term Analysis
(July 2023)

July 25th, 2023
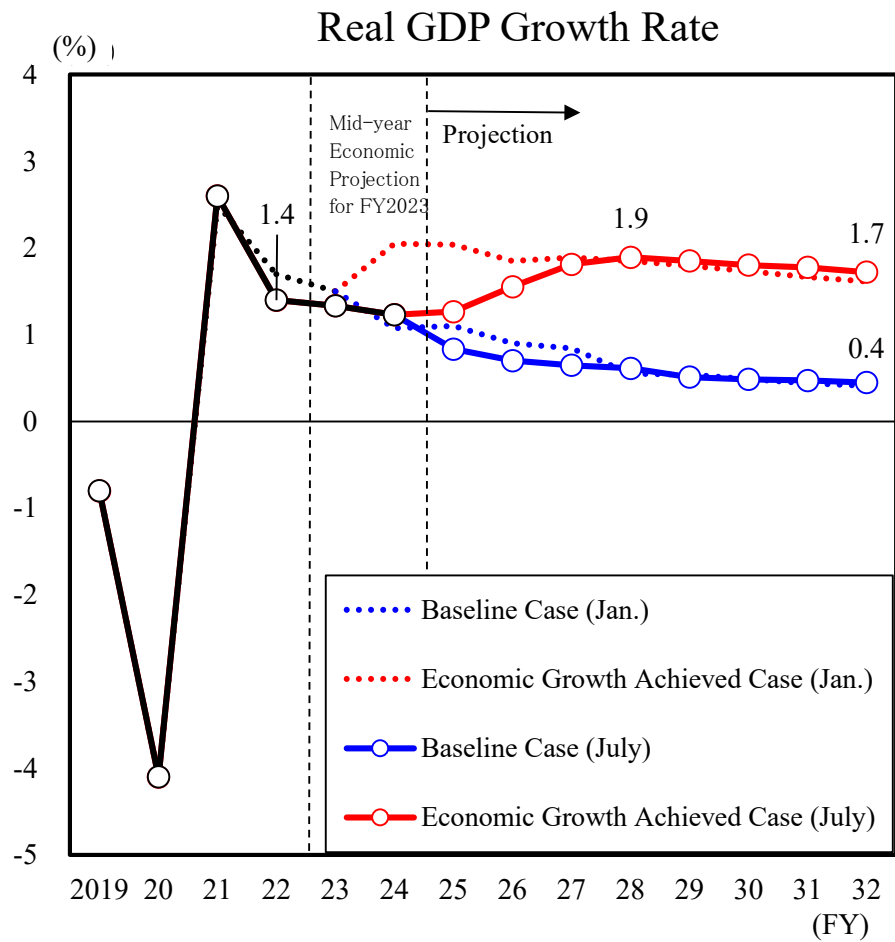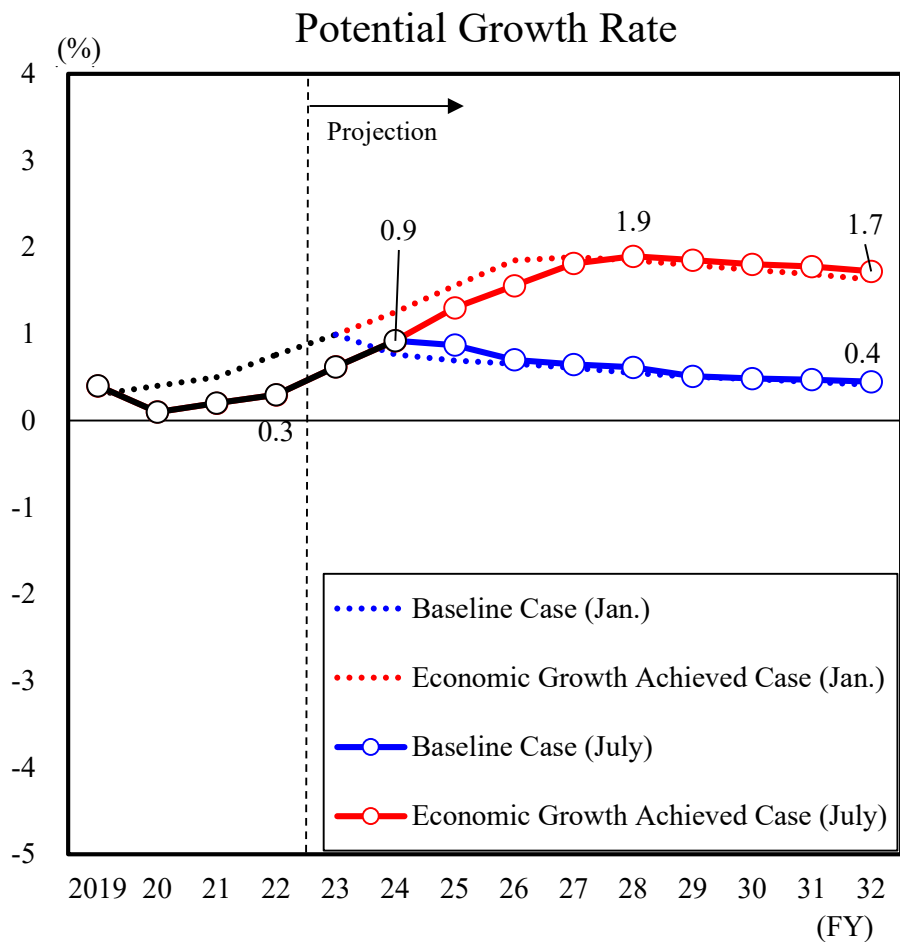Cabinet Office

Outline of the Projections

- **"Economic and Fiscal Projections for Medium to Long Term Analysis"**
  - Contributes to **the discussion of the Council on Economic and Fiscal Policy (CEFP*)** by assessing **the progress towards targets of economic revitalization and fiscal consolidation** twice a year
  - Provides 10-year projections, such as **GDP, government's primary balance and outstanding debt,** for two different economic scenarios, based on "Economic and Fiscal Model**"

- In July 2023 projection, **in light of discussions in the CEFP, a series of new analyses** are added:
  1. **<u>Reference Case</u>**
     - ✓ Alternative assumption on TFP growth rate
  2. **<u>Evaluation of Uncertainty</u>**
     - ✓ Fan chart of real GDP and explanation/evaluation of risks surrounding the projection
  3. **<u>Additional Release of the Series</u>**
     - ✓ Factor decomposition of potential growth rate, growth rate of wages, etc.
  4. **<u>Analysis of the Government's Primary Balance</u>**
     - ✓ Revenue and expenditure decomposition of the primary balance, etc.

(*) The CEFP is a council-based body established in 2001 to ensure that the Prime Minister exercises his/her leadership with regard to economic and fiscal policy. Surveys and discussions on important economic and fiscal policies, including the analysis of medium to long term economic and fiscal projections and fiscal targets, are carried out with the participation of academic experts, business executives, and others with specialized and neutral knowledge.

(**) The "Economic and Fiscal Model" is a time-series macroeconomic model developed to make the medium to long term macroeconomic and fiscal projections, and it has a structure that enables integrated and consistent projections of the macroeconomy, national and local finances, and social security.

Main Results 1: Macroeconomic Projection

- In the Baseline Case, the growth rate of TFP (total factor productivity) is assumed to stay around 0.5%, which is its average of the most recent business cycle. The GDP growth rate is projected to be around mid-0% in both real and nominal terms in the medium to long term.

- In the Economic Growth Achieved Case, the growth rate of TFP is assumed to steadily go up to around 1.4%, which was the average rate prior to the deflationary period in Japan. The GDP growth rate is projected to be around 2% in real and around 3% in nominal terms in the medium to long term.
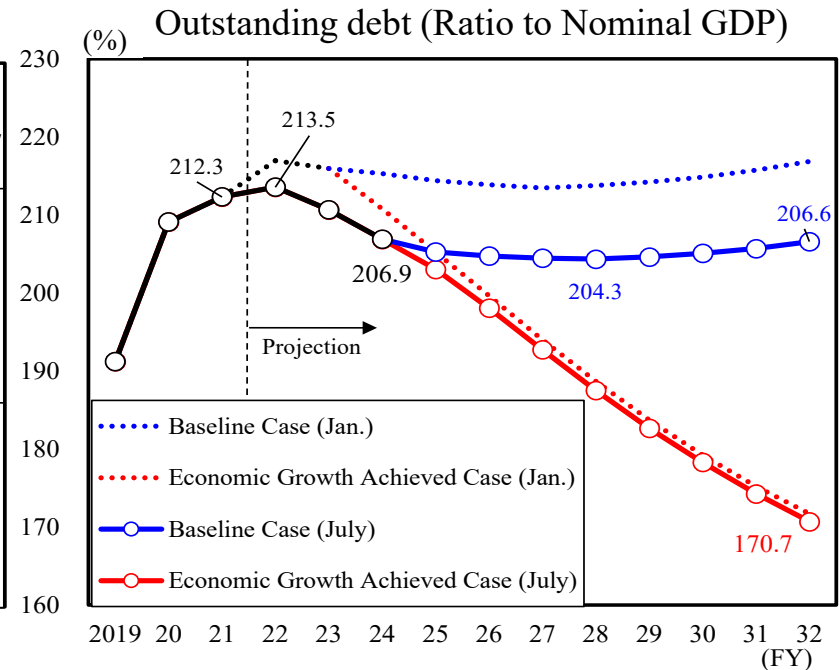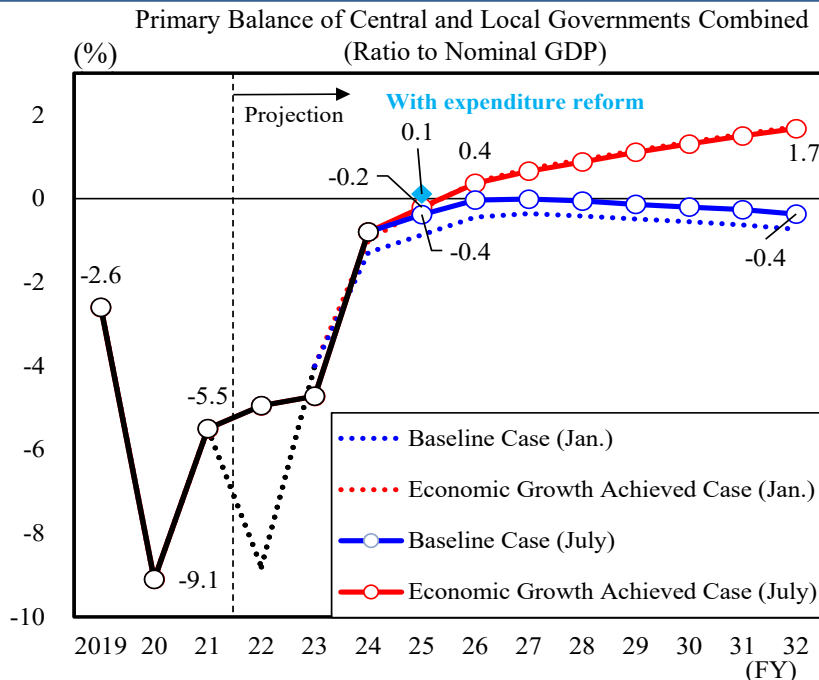
Potential Growth Rate

(%)

0.9

1.9

1.7

0.3

0.4

Projection

- ······ Baseline Case (Jan.)
- ······ Economic Growth Achieved Case (Jan.)
- —O— Baseline Case (July)
- —O— Economic Growth Achieved Case (July)

2019 20 21 22 23 24 25 26 27 28 29 30 31 32 (FY)

Real GDP Growth Rate

(%)

Mid-year Economic Projection for FY2023

Projection

1.4

1.9

1.7

0.4

- ······ Baseline Case (Jan.)
- ······ Economic Growth Achieved Case (Jan.)
- —O— Baseline Case (July)
- —O— Economic Growth Achieved Case (July)

2019 20 21 22 23 24 25 26 27 28 29 30 31 32 (FY)

【**Primary Balance of Central and Local Government (ratio to Nominal GDP)**】
- The upswing of tax revenues, the unused budget in FY2022, and the carryover to FY2023 are reflected based on the provisional fiscal summary in FY2023.
- While the expenditure increased due to a series of economic stimulus measures during the Covid period, the primary balance is projected to recover to the pre-Covid level in FY2024 as private demand will expand and most of the expenditure will have been spent by then.
- In both cases, the primary deficit is projected to remain in FY2025. In the Economic Growth Achieved Case, however, with the expenditure reform thus far, the primary surplus will be achieved in FY2025.

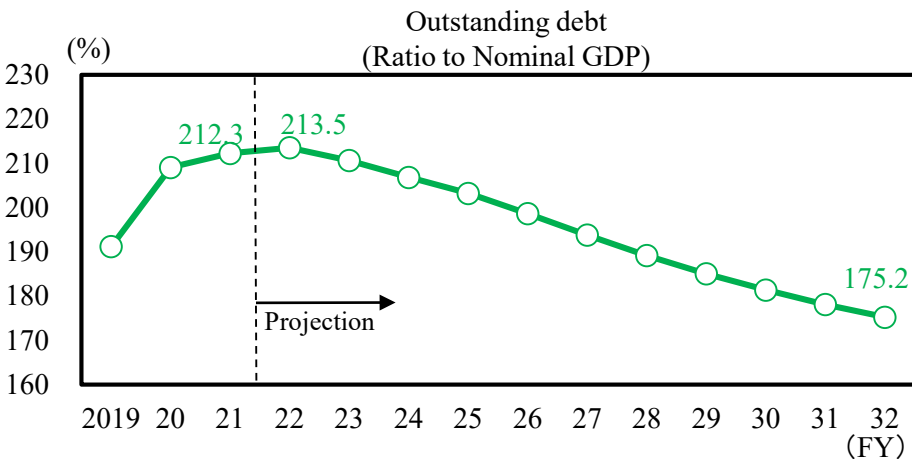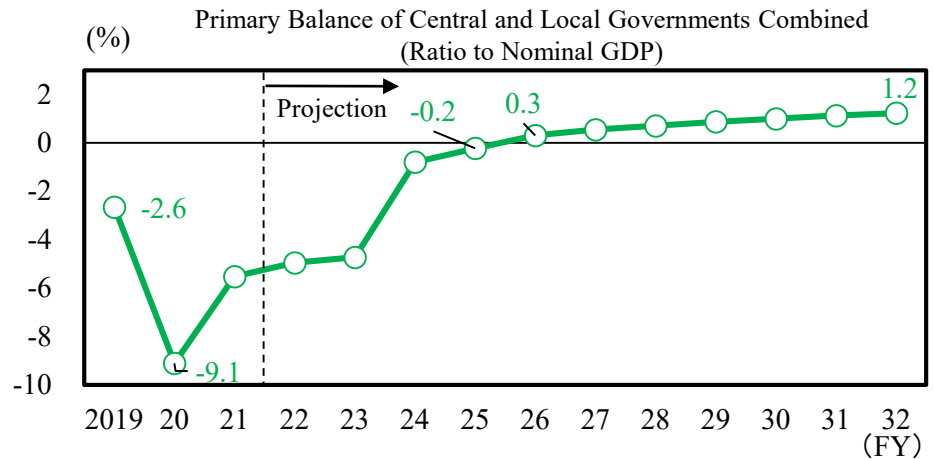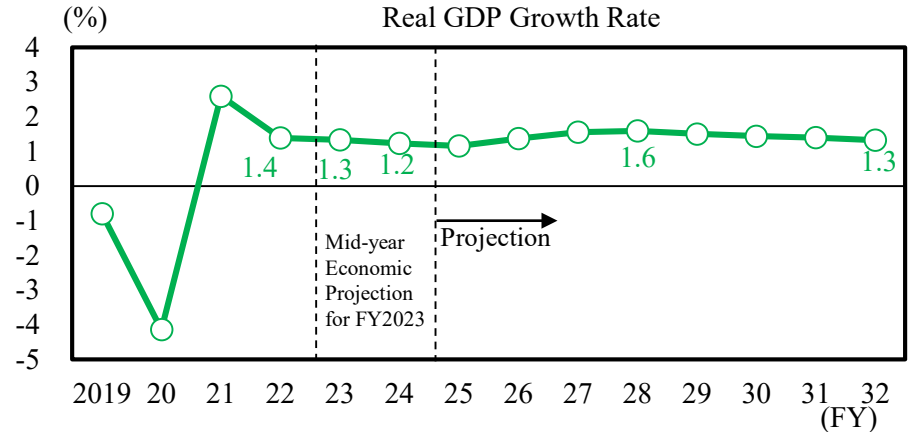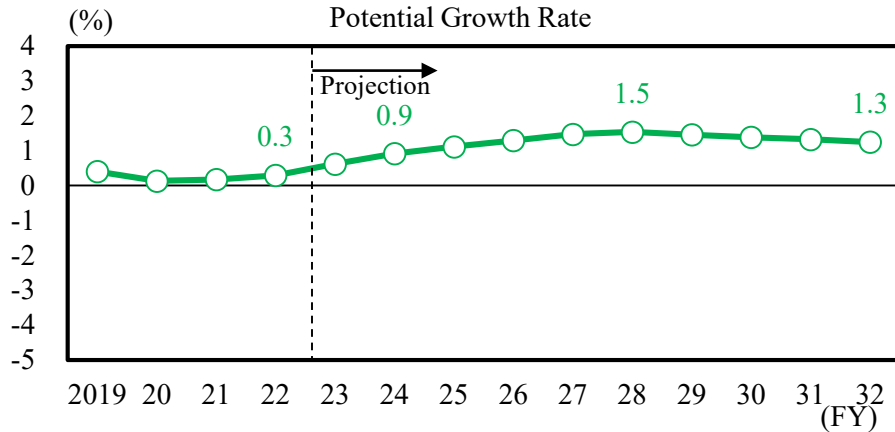【**Outstanding Debt (ratio to Nominal GDP)**】
- The ratio of outstanding debt to GDP is projected to rise in the latter half of the projection periods in the Baseline Case. In the Economic Growth Achieved Case, the ratio is projected to steadily decline in the projection periods as the primary balance steadily improves.

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

(%)

With expenditure reform
Projection
0.1
0.4
1.7
-0.2
-0.4
-0.4
-2.6
-5.5
-9.1

- ·········· Baseline Case (Jan.)
- ·········· Economic Growth Achieved Case (Jan.)
- ──○── Baseline Case (July)
- ──○── Economic Growth Achieved Case (July)

2019 20 21 22 23 24 25 26 27 28 29 30 31 32 (FY)

Outstanding debt (Ratio to Nominal GDP)

(%)

213.5
212.3
206.9
206.6
204.3
170.7

Projection

- ·········· Baseline Case (Jan.)
- ·········· Economic Growth Achieved Case (Jan.)
- ──○── Baseline Case (July)
- ──○── Economic Growth Achieved Case (July)

2019 20 21 22 23 24 25 26 27 28 29 30 31 32 (FY)

(Notes) "Defense Buildup Plan" and "The Five-Year Acceleration Plan for Disaster Prevention, Disaster Mitigation, and Building National Resilience" are included in this projection. The budget and finance scheme addressed in "Children's Future Strategic Policy" is not included in this projection since its concrete items and sizes will be decided later.

New Analysis 1: Reference Case

- Newly computed is the Reference Case, where the growth rate of TFP is assumed to steadily go up to 1.1% (its average in the past 40 years, which includes the deflationary period).
- The real GDP growth rate is projected to be around mid-1% in the medium to long term. The primary deficit is projected to be around 0.2% of GDP in FY2025. With the expenditure reform thus far, the primary surplus will be achieved in FY2025, which is the same as the result in the Economic Growth Achieved Case.

Potential Growth Rate

Real GDP Growth Rate

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

Outstanding debt (Ratio to Nominal GDP)

(Remark) The TFP growth rate of 1.1% is comparable to the one used in the Budget and Economic Outlook of the CBO (Congressional Budget Office, US), which projects from 2023 to 2033. This TFP growth rate corresponds to the current rate (appx. 0.5%) and the growth enhancing effects studied in the previous research of investment in human capital (appx. 0.3%pt; vocational training in the company, conversion of non-regular type to regular type of jobs, etc.), GX and DX related investment (appx. 0.2%pt), and the promotion of startups (appx. 0.2%pt) put together

- The fan chart is a method of showing the uncertainty (forecast error) of an estimate. It is also used by international and foreign institutions, including OBR in the UK and CBO in the US.
- In this estimation, implementing stochastic simulation using historical economic data, the forecast error is applied to each year of the analysis period (FY2025 to FY2029) with the baseline case estimate as reference (the median of the probability distribution). As the baseline growth rate declines, the probability of a swing to negative growth increases.
- Additionally, the explanations/evaluations of risks surrounding the projection are discussed in the body text.

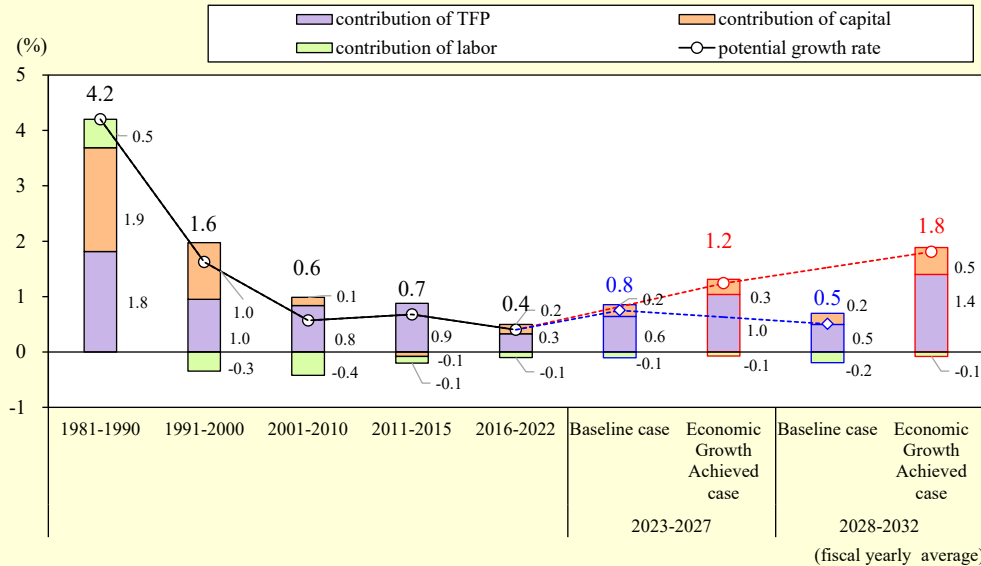## A Fan Chart Analysis of the Real GDP Growth
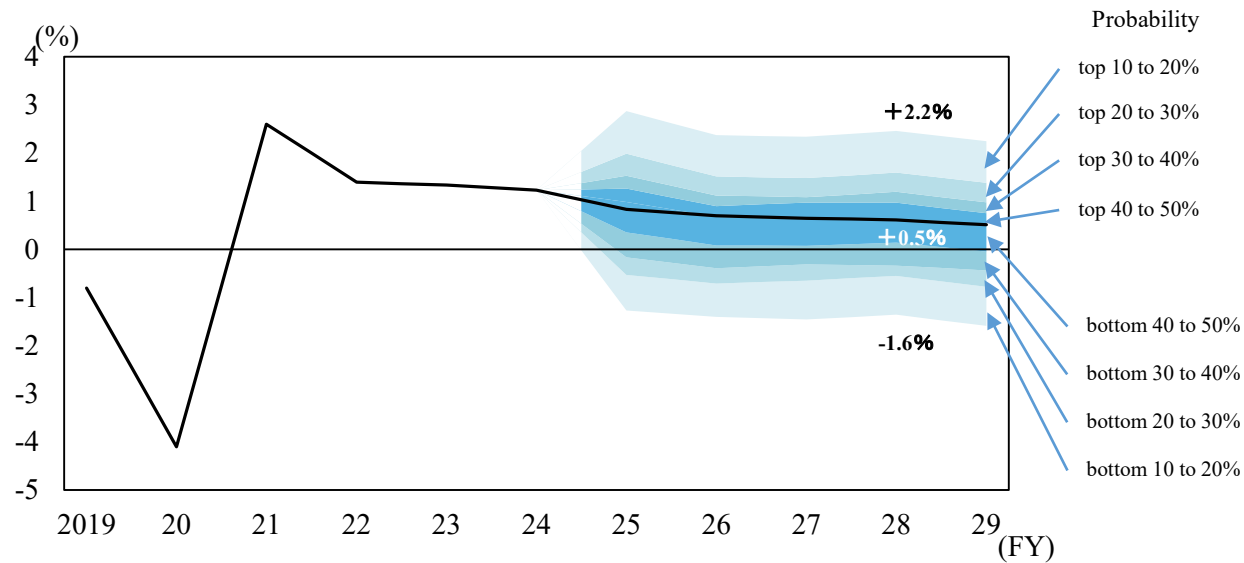
(Notes)
1. Computed using a stochastic simulation based on vector auto regression and bootstrap methods.
2. Data from FY 1981 to FY 2022 is used.
3. The analysis period is, according to the custom of international and foreign institutions, set for five years in the future.
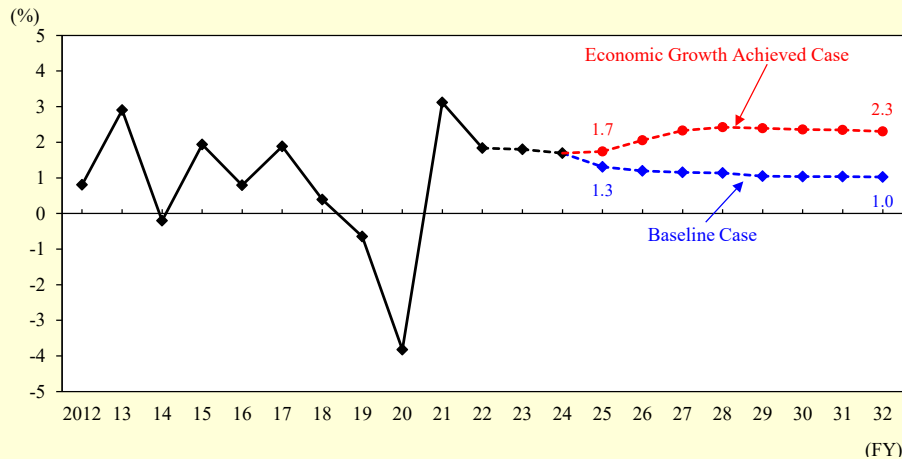
New Analysis 3: Additional Release of the Series

- The factor decomposition of the potential growth rate, the per capita real GDP, and the per employee nominal wage are newly issued with further explanations regarding each indicator in the body text.
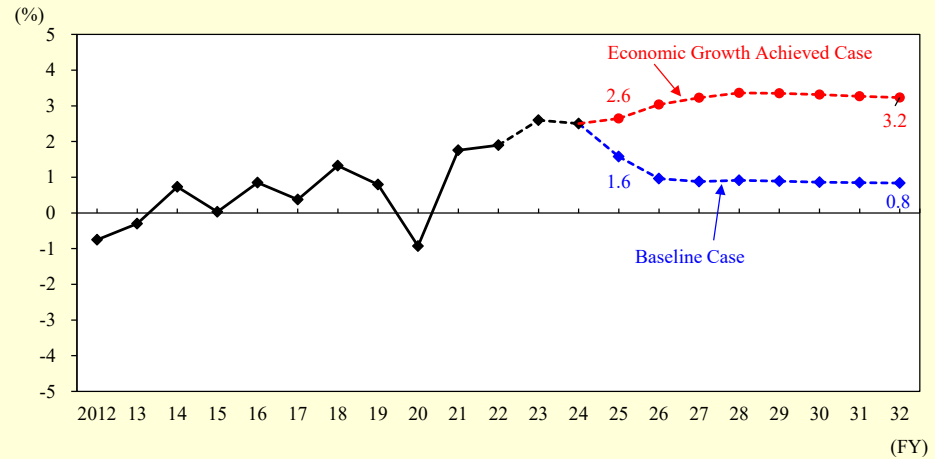
Decomposition of Potential Growth Rate


Growth Rate of Per Capita Real GDP

Growth Rate of Nominal Wage

- The decomposition (primary revenue and expenditure) of primary balance is visually depicted.
- The changes in the primary balance from January 2023 projection to July 2023 projection are shown.

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

Baseline Case

Economic Growth Achieved Case
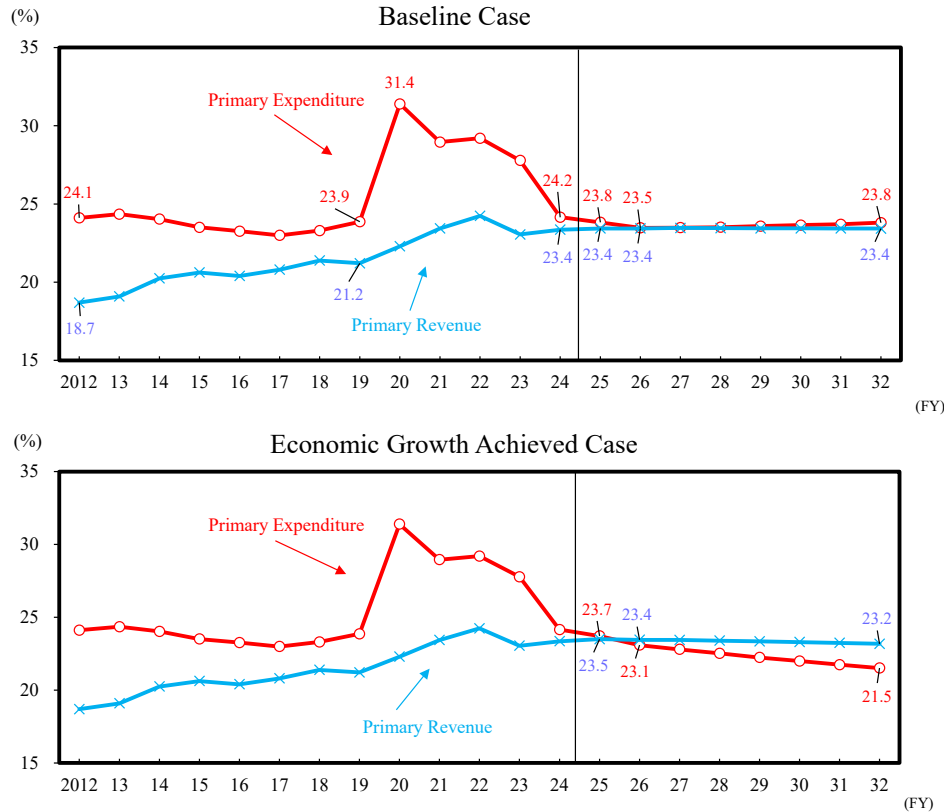
The PB Changes in FY2025
from the previous projection

(appx. trillion Yen)

	Contribution to the PB	Primary balance in FY 2025
Primary balance in January 2023 projection		− 1.5
Factors on revenue side ・assumption on the underlying tax revenue growth ・downswing of the nominal GDP growth rate	＋ 1.2 − 1.4	
Factors on outlays side ・upswing of the inflation rate ・assumption on the expenditure reform	− 0.2 ＋ 0.7	
Primary balance in July 2023 projection		− 1.3

(Notes) 1. The table should be understood with considerable breadth, including assumptions of the projection.
   2. Figures in the table are rounded to the nearest table unit, so the sum of factors does not equal the PB improvement.

(Notes) 1. The classification is based on Government Finance Statistics manual 2014.
   2. The primary revenue is "revenue" minus "interest income."
   3. The primary expenditure is "expenditure" minus "interest payment."
   4. Excluding revenue and expenditure for recovery and reconstruction measures and GX measures.
   5. Central and local primary revenue and expenditure remove transfers between central and local governments.