Technical Note and Announcement: Quarterly Estimates of GDP for July-September 2025 (First Preliminary Estimates)

Technical Note:

(1) Major Factors of the Revision from the First Preliminary Estimates to the Second Preliminary Estimates

Quarterly Estimates of GDP for July-September 2025 (Second Preliminary Estimates) <u>will incorporate the FY2024 Annual Estimates of GDP along with the benchmark year revision from 2015 to 2020.</u>

In addition, the regular revision through incorporating newly available source statistics replaces the first preliminary estimates by the second preliminary estimates and its major factors are as follows.

<Original Series>

Private Non-Residential Investment

First Preliminary: Estimates for the latest quarter are based on supply-side source statistics.

Second Preliminary: Estimates for the latest quarter integrate supply-side and demand-side

source statistics, since demand-side statistics such as *Quarterly Financial Statements Statistics of Corporations by Industry* (Ministry of Finance) *etc.* have become available. The supply-side estimates are also revised

due to addition and revision of source statistics.

➤ Change in Private Inventories

First Preliminary: Estimates of "Materials and Supplies" and "Work-in-Progress" (nominal

and real original series) for the latest quarter are provided by time-series

projection with the ARIMA model used in the seasonal adjustment.

Second Preliminary: Estimates of "Materials and Supplies" and "Work-in-Progress" for the

latest quarter incorporate Quarterly Financial Statements Statistics of Corporations by Industry etc. Estimates of "Finished Goods" and "Wholesale and Retail Trades" are also revised due to revision of source

statistics etc.

Other addition and revision of source statistics

First Preliminary: If any source statistics are not yet available for any months in the latest

quarter, extrapolation is conducted. If preliminary figures are available but final figures are not, the former are incorporated. Estimates incorporate source statistics which are available on the day *Balance of Payments (Preliminary)* for the third month of the latest quarter are

released.

Second Preliminary: If some source statistics have become available or been replaced by fixed

estimates or revised for some reason, they are updated. Estimates incorporate source statistics which are available on the day *Quarterly Financial Statements Statistics of Corporations by Industry* for the latest

quarter are released.

<Seasonally Adjusted Series>

Seasonally adjusted series are <u>revised from January-March 1994</u> (both nominal and real), since the seasonal adjustment is conducted with the latest estimates of original series updated as above.

In the Quarterly Estimates of GDP for July-September 2025 (Second Preliminary Estimates), the specifications for seasonal adjustment such as choice of regressors and selection of ARIMA models will be revised along with the incorporation of FY2024 Annual Estimates of GDP.

(Note) Mean absolute revision from the first preliminary estimates to the second preliminary estimates

The mean absolute revision of Quarterly Real GDP Growth Rate (Seasonally Adjusted Series) from the first preliminary estimates to the second preliminary estimates is 0.18 % points for the quarters from April-June 2010* to April-June 2025 (0.75 % points for annualized rate**).

(2) Other Issues

> Incorporation of the retroactive revision of source statistics

In addition to the regular revision of source statistics, the first preliminary estimates incorporate the following revision in source statistics.

Source Statistics Revised	Periods of Incorporation	Released	Revised Estimates	
Balance of Payments	From April-June 2023	November	Income from/to the Rest	
	From April-June 2023	2025	of the World estimates	
Corporate Goods Price Index	From January-March 2024	September	Supply-side estimates	
	From January-Watch 2024	2025	Deflator estimates	
Services Producer Price Index	From January-March 2024	September	Supply-side estimates	
services Producer Price flidex	From January-Waten 2024	2025	Deflator estimates	
Survey by the Food Industry	From January-March 2024	October	Supply-side estimates	
Dynamics	From January-Watch 2024	2025		

> Seasonal Adjustment

With regard to the outlier in the preliminary estimates (from January-March 2024), provisional dummies are set in case that the estimated value is out of the forecast range of X-12-ARIMA. More specifically, in each period from January-March 2024, additive outlier (AO) is applied on the period if the estimated value of original series falls outside the 99% confidence interval of the forecast series starting from the previous period.

The methodology of the first preliminary estimates, including the above, are changed based on the following announcement.

https://www.esri.cao.go.jp/jp/sna/data/reference1/siryou/2025/pdf/announce 20251028.pdf

^{*} Since the first preliminary estimates for this quarter, the method for extrapolation of the demand-side estimates in the estimation process of Private Non-Residential Investment has been changed to the current one.

^{**}The annualized rate is the annual growth rate under the assumption such that the quarterly growth rate in the quarter repeats itself for four quarters.

Estimates of Change in Private Inventories by four categories in Quarterly Estimates of GDP for July-September 2025 (First Preliminary Estimates)

Estimates of Change in Private Inventories by four categories in Quarterly Estimates of GDP for July-September 2025 (First Preliminary Estimates) are as follows (real seasonally adjusted series, annualized):

(Billions of Chained (2015) Yen)

	2024/ 7-9	10-12	2025/ 1-3	4-6	7-9	Contributions to Change in Real GDP at 2025/7-9 (%)
Change in Private Inventories	1,718.4	-107.9	2,952.5	2,984.8	1,764.0	-0.2
Materials and Supplies	880.1	-263.1	902.3	997.3	44.6	-0.2
Work-in-Progress	699.3	50.0	559.4	1,300.1	702.9	-0.1
Finished Goods	-73.8	-345.5	809.3	-175.2	609.6	0.2
Wholesale and Retail Trade	126.8	523.3	642.6	838.9	492.4	-0.1

Supply-side and demand-side estimates in the estimation process of Private Non-Residential Investment in Quarterly Estimates of GDP for July-September 2025 (First Preliminary Estimates)

In the estimation process of Private Non-Residential Investment for July-September 2025 in Quarterly Estimates of GDP for July-September 2025 (First Preliminary Estimates), the supply-side estimate of quarter-to-quarter percent change is 6.8% (nominal original series) based on supply-side source statistics and the demand-side estimate of quarter-to-quarter percent change is 12.4% (nominal original series) based on a tentative extrapolation with the information from supply-side estimates.

Announcement:

Release Schedule of the Quarterly Estimates of GDP

Second Preliminary Estimates for July-September 2025:

8:50 A.M. JST, Monday, December 8, 2025.

First Preliminary Estimates for October-December 2025:

8:50 A.M. JST, Monday, February 16, 2026.

Second Preliminary Estimates for October-December 2025:

8:50 A.M. JST, Tuesday, March 10, 2026.

First Preliminary Estimates for January-March 2026:

8:50 A.M. JST, no later than the later day of the following two: (a) the day 10 working days after the release of *Preliminary Report on Indices of Industrial Production* for March 2026 and (b) the day 10 working days after the release of *Export (Detailed) of Trade Statistics* for March 2026. (The exact date of release will be announced on the website no later than 10 days before the release date.)

Second Preliminary Estimates for January-March 2026:

8:50 A.M. JST, Monday, June 8, 2025.

The above schedule may be changed due to changes in the release schedule of source statistics etc.