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

Technical Note:

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

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Second Preliminary: If some source statistics have become available or been replaced by fixed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

(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 January-March 2025 (0.74 % points for annualized rate**).

- * 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.

(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	
Quick Estimate of Construction Investment	From January-March 2022	June 2025	Supply-side estimates Public investment estimates etc.	
Flow of Funds	From April-June 2023	June 2025	FISIM estimates	
Index Numbers of Commodity Prices in Agriculture	From January-March 2024	July 2025	Supply-side estimates Deflator estimates	

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 20250728.pdf

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

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

(Billions of Chained (2015) Yen)

	2024/ 4-6	7-9	10-12	2025/ 1-3	4-6	Contributions to Change in Real GDP at 2025/4-6 (%)
Change in Private Inventories	926.0	1,132.7	-331.8	2,718.4	1,049.5	-0.3
Materials and Supplies	-300.6	595.0	-339.9	867.8	94.1	-0.2
Work-in-Progress	707.9	413.7	59.0	222.7	321.2	0.0
Finished Goods	672.4	51.2	-408.7	797.9	-193.0	-0.2
Wholesale and Retail Trade	-49.2	8.1	434.8	789.6	894.4	0.0

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

In the estimation process of Private Non-Residential Investment for April-June 2025 in Quarterly Estimates of GDP for April-June 2025 (First Preliminary Estimates), the supply-side estimate of quarter-to-quarter percent change is -10.6% (nominal original series) based on supply-side source statistics and the demand-side estimate of quarter-to-quarter percent change is -33.0% (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 April-June 2025:

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

First Preliminary Estimates for July-September 2025:

8:50 A.M. JST, Monday, November 17, 2025.

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.

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