Technical Note and Announcement: Quarterly Estimates of GDP for July-September 2025 (Second 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) have a comprehensive revision by the introduction of the Benchmark Year Revision of 2020 and incorporate the FY2024 Annual Estimates of GDP.

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*<u>Statements Statistics of Corporations by Industry</u> (Ministry of Finance)

have become available.

➤ 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.

> 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If some source statistics have become available or been replaced by fixed estimates or revised for some reason, they are updated.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.

The specifications for seasonal adjustment such as choice of regressors and selection of ARIMA models are revised along with the incorporation of FY2024 Annual Estimates of GDP (see the supplementary material). The selection of optimal models is conducted under criteria such as AIC.

(2) Other Issues

Seasonal Adjustment

With regard to the outlier in the preliminary estimates (from January-March 2025), 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 2025, 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 second preliminary estimates, including the above, is changed based on the following announcement.

https://www.esri.cao.go.jp/jp/sna/data/reference1/siryou/2025/pdf/announce_20251126.pdf

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

In the estimation process of Private Non-Residential Investment for July-September 2025 in Quarterly Estimates of GDP for July-September 2025 (Second Preliminary Estimates), the supply-side estimate of quarter-to-quarter percent change is 7.0% (nominal original series) based on supply-side source statistics and the demand-side estimate of quarter-to-quarter percent change is 9.9% (nominal original series) based on demand-side source statistics such as *Quarterly Financial Statements Statistics of Corporations by Industry*.

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

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

(Billions of Chained (2020) Yen)

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		2024/ 7-9	10-12	2025/ 1-3	4-6	7-9	Contributions to Change in Real GDP at 2025/7-9 (%pt)	
	Change in Private Inventories	864.2	-1,097.8	1,709.8	1,575.6	963.1	-0.1	
	Materials and Supplies	511.3	-396.8	572.9	524.7	-108.8	-0.1	
	Work-in-Progress	900.6	-216.6	270.4	1,036.5	552.0	-0.1	
	Finished Goods	-455.3	-769.3	383.1	-502.7	475.7	0.2	
	Wholesale and Retail Trade	-152.4	334.4	453.1	510.5	121.0	-0.1	

Estimates of real seasonally adjusted series of Change in Private Inventories ("Materials and Supplies" (excluding crude oil and natural gas) and "Work-in-Progress" (excluding petroleum products))

The figures of Change in Private Inventories ("Materials and Supplies" (excluding crude oil and natural gas) and "Work-in-Progress" (excluding petroleum products), real seasonal adjusted series, annualized) projected by the ARIMA model for October-December 2025 will be announced by the time of the pre-announcement for Quarterly Estimates of GDP for October-December 2025 (First Preliminary Estimates).

Announcement:

Release Schedule of the Quarterly Estimates of GDP

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, 2026.

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