

**Technical Note and Announcement:
Quarterly Estimates of GDP for January-March 2024
(Second Preliminary Estimates (Revised))**

Technical Note:

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

Quarterly Estimates of GDP for January-March 2024 (Second Preliminary Estimates (Revised)) incorporate *Quick Estimate of Construction Investment (Apr. 2024)* (Ministry of Land, Infrastructure, Transport and Tourism), and the following major factors are revised.

<Original Series>

- Private Residential Investment, Private Non-Residential Investment and Public Investment

Second Preliminary

: Estimates are based on *Quick Estimate of Construction Investment (Mar. 2024)*.

Second Preliminary (Rivised)

: Estimates are based on *Quick Estimate of Construction Investment (Apr. 2024)*.

*Newly available source statistics other than *Quick Estimate of Construction Investment (Apr. 2024)* are not incorporated.

<Seasonally Adjusted Series>

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

With regard to the outlier in the preliminary estimates (from January-March 2023), 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 2023, 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/2024/pdf/announce_20240529.pdf

(2) Other Issues

- Supply-side and demand-side estimates in the estimation process of Private Non-Residential Investment in Quarterly Estimates of GDP for January-March 2024 (Second Preliminary Estimates (Revised))

In the estimation process of Private Non-Residential Investment for January-March 2024 in Quarterly Estimates of GDP for January-March 2024 (Second Preliminary Estimates (Revised)), the supply-side estimate of quarter-to-quarter percent change is 3.1% (nominal original series) based on supply-side source statistics and the demand-side estimate of quarter-to-quarter percent change is 28.3% (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 January-March 2024 (Second Preliminary Estimates (Revised))

Estimates of Change in Private Inventories by four categories in Quarterly Estimates of GDP for January-March 2024 (Second Preliminary Estimates (Revised)) are as follows (real seasonally adjusted series, annualized):

(Billions of Chained (2015) Yen)

	2023/ 1-3	4-6	7-9	10-12	2024/ 1-3	Contributions to Change in Real GDP at 2024/1-3 (%)
Change in Private Inventories	4,031.5	3,764.9	1,000.4	536.2	1,860.0	0.3
Materials and Supplies	973.5	1,318.7	444.6	-141.3	-496.1	-0.1
Work-in-Progress	1,647.0	-178.1	-339.1	-221.2	1,516.8	0.3
Finished Goods	68.7	1,110.9	-363.5	-247.4	271.3	0.1
Wholesale and Retail Trade	1,411.1	1,409.6	1,259.7	1,277.6	801.6	-0.1

- Estimates of real seasonally adjusted series of Change in Private Inventories (“Materials and Supplies” and “Work-in-Progress”) in Quarterly Estimates of GDP for April-June 2024 (First Preliminary Estimates)

Change in Private Inventories (“Materials and Supplies” and “Work-in-Progress”, real seasonal adjusted series, annualized) for April-June 2024 are projected as -100.8 billion yen (411.0 billion yen as quarter-to-quarter difference) for “Materials and Supplies” and 328.6 billion yen (-1,163.2 billion yen as quarter-to-quarter difference) for “Work-in-Progress”, by the ARIMA model based on the information incorporated in Quarterly Estimates of GDP for January-March 2024 (Second Preliminary Estimates (Revised)).

It should be noted that those figures are not continuous to the real seasonally adjusted series in Quarterly Estimates of GDP for January-March 2024 (Second Preliminary Estimates (Revised)) since those are seasonally adjusted up to April-June 2024 after the projection of real original series for April-June 2024 with the ARIMA models. In addition, those figures for April-June 2024 may be revised in Quarterly Estimates of GDP for April-June 2024 (First Preliminary Estimates) since the estimates up to January-March 2024 will be updated by the revision of source statistics etc.

Announcement:

Release Schedule of the Quarterly Estimates of GDP

First Preliminary Estimates for April-June 2024:

8:50 A.M. JST, Thursday, August 15, 2024.

Second Preliminary Estimates for April-June 2024:

8:50 A.M. JST, Monday, September 9, 2024.

First Preliminary Estimates for July-September 2024:

8:50 A.M. JST, Friday, November 15, 2024.

Second Preliminary Estimates for July-September 2024:

8:50 A.M. JST, Monday, December 9, 2024.

First Preliminary Estimates for October-December 2024:

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

Second Preliminary Estimates for October-December 2024:

8:50 A.M. JST, Tuesday, March 11, 2025.

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