

Technical Note

Gross Domestic Product Second Quarter of 2018 (Advance Estimate)

July 27, 2018

This technical note provides background information about the source data and estimating methods used to produce the estimates presented in the GDP news release. The complete set of estimates for the first quarter is available on BEA's Web site at www.bea.gov; a summary of "highlights" is also posted on the Web site. In a few weeks, the *Survey of Current Business*, BEA's online monthly journal, will publish a more detailed analysis of the estimates ("GDP and the Economy").

Key Source Data and Assumptions for the Advance Estimate

The advance GDP estimate for the second quarter of 2018 is based on source data that are incomplete and subject to updates. Three months of source data were available for consumer spending on goods; shipments of capital equipment; motor vehicle sales and inventories; durable goods manufacturing inventories; wholesale and retail trade inventories; exports and imports of goods; federal government outlays; and consumer, producer, and international prices. For major source data series for which only two months of data were available, BEA's key assumptions for the third month are shown in the "[Key Source Data and Assumptions](#)" table on the BEA Web site.

Real GDP

Real GDP increased 4.1 percent (annual rate) in the second quarter of 2018, following an increase of 2.2 percent (revised) in the first quarter of 2018. The increase in real GDP in the second quarter reflected positive contributions from consumer spending, exports, nonresidential fixed investment, federal government spending, and state and local government spending that were partly offset by a negative contribution from private inventory investment.

The acceleration in real GDP growth in the second quarter reflected accelerations in consumer spending and exports, and a deceleration in imports. These movements were partly offset by a downturn in private inventory investment and a deceleration in nonresidential fixed investment.

- The acceleration in consumer spending reflected an upturn in goods and an acceleration in services. Within goods, the leading contributor to the upturn was motor vehicles and parts, reflecting an upturn in purchases of new motor vehicles. Within services, accelerations in spending on health care, on housing and utilities, and on food services and accommodations were the leading contributors.

- Within exports, the acceleration reflected an upturn in petroleum and products and an acceleration in exports of foods, feeds, and beverages, primarily exports of soybeans.
- Within inventory investment, the leading contributor to the downturn was wholesale trade industries, notably drugs and sundries, petroleum and products, and farm products, which include soybean inventories.

Prices

The price index for personal consumption expenditures (PCE) increased 1.8 percent in the second quarter, following an increase of 2.5 percent (revised) in the first quarter. Excluding food and energy prices, the PCE price index increased 2.0 percent after increasing 2.2 percent (revised).

Disposable Personal Income

Real disposable personal income increased 2.6 percent in the second quarter, following an increase of 4.4 percent (revised) in the first. The personal saving rate was 6.8 percent in the second quarter, compared with 7.2 percent (revised) in the first.

Comprehensive Update

Today's release presents results from the comprehensive update of the national income and product accounts. The updated estimates reflect previously announced improvements, including updates to BEA's [seasonal adjustment practices](#), improved measures of private nonresidential fixed investment, and the introduction of new [not seasonally adjusted estimates](#) for GDP, GDI, and their major components. The comprehensive update also incorporates source data that are more complete and reliable than those previously available, including results from BEA's 2012 Benchmark Input-Output Accounts (available November 1, 2018). The reference year for chain-type price and quantity indexes and chained-dollar estimates has been updated to 2012.

- The updated estimates show that real GDP increased 1.5 percent at an average annual rate from 2007-2017; in the previously published estimates, real GDP had increased 1.4 percent. Over the same period, real GDI increased 1.5 percent, compared with the previously published 1.4 percent. Revisions to real GDP and real GDI for years prior to 2007 were small.
- The improvements to private nonresidential fixed investment were twofold. BEA introduced newly available and revised prices for high-tech products, notably software, medical equipment, and communications equipment. In addition, improved measures of current-dollar investment in information and communications technology (ICT) investment were introduced as part of the benchmarking process. As a result, real private nonresidential fixed investment increased 3.7 percent at an average annual rate from 2002-2017, an upward revision of 0.8 percentage point. Of that upward revision, the improved prices accounted for over half. The improved current-dollar ICT investment accounts for much of the remainder.
- Over the most recent business cycle, the updated estimates show the economy contracted an average annual rate of 2.7 percent during the last recession; in the previously published estimates, the rate of contraction was 2.8 percent. As part of this current expansion the

economy grew an average annual rate of 2.2 percent through the first quarter of 2018, the same growth as in previous estimates.

Shortly after the release, BEA will [make available on its Web site](#) materials that discuss the results in more detail and include a table showing selected component detail and major source data incorporated as part of the update. The upcoming *August Survey* will feature an article describing the results of BEA's multi-year seasonal adjustment improvement initiative, and the *September Survey* will include a detailed discussion of the results of the comprehensive update.

Updates to GDP and GDI for 2018Q1

For the first quarter of 2018, real GDP is now estimated to have increased 2.2 percent; in the previously published estimates, first-quarter GDP was estimated to have increased 2.0 percent. The leading contributor to the upward revision to first-quarter real GDP was private inventory investment. Within private inventory investment, both wholesale trade and "other" industries were revised up, primarily reflecting revised data from the Census Bureau and the Bureau of Labor Statistics.

For the first quarter of 2018, real GDI is now estimated to have increased 3.9 percent, an upward revision of 0.3 percentage point. The upward revision primarily reflected upward revisions to net interest and proprietors' income that were partly offset by a downward revision to corporate profits.

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