

# Technical Note

## Gross Domestic Product First Quarter of 2018 (Advance Estimate)

April 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](http://www.bea.gov); a brief 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 first 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 2.3 percent (annual rate) in the first quarter of 2018, following an increase of 2.9 percent in the fourth quarter of 2017. The increase in real GDP in the first quarter reflected positive contributions from nonresidential fixed investment, consumer spending, exports, and private inventory investment. Imports, which are a subtraction in the calculation of GDP, increased.

The deceleration in real GDP growth in the first quarter reflected slowdowns in consumer spending, residential fixed investment, exports, and state and local government spending. These movements were partly offset by an upturn in private inventory investment. Imports, which are a subtraction in the calculation of GDP, decelerated.

- Real consumer spending slowed in the first quarter, reflecting a downturn in new motor vehicles, based on Ward's Automotive unit sales data and registrations data from R.L. Polk & Company. In addition, a downturn in spending on clothing and footwear and a deceleration in spending on food and beverages contributed to the deceleration, based on data from the Census Bureau's Advance and Monthly Retail Trade Surveys.
- Real residential fixed investment slowed, primarily reflecting a downturn in brokers' commissions, based on data from the National Association of Realtors' Existing Homes Sales and from the Census Bureau's New Residential Sales reports.

- Real private inventory investment turned up in the first quarter, most notably in wholesale trade industries. The upturn in the first quarter was relatively widespread, based on the Census Bureau's Monthly Wholesale Trade Report and the "inventory valuation adjustment," which is the difference between the historical costs at which businesses value their inventories and the current costs that are used for measuring the contribution of inventories to GDP during the quarter.

## Prices

Gross domestic purchases prices increased 2.8 percent in the first quarter of 2018, after increasing 2.5 percent in the fourth quarter of 2017. Excluding food and energy, prices increased 2.7 percent in the first quarter of 2018, compared with an increase of 2.0 percent.

The PCE price index increased 2.7 percent in the first quarter, unchanged from the fourth quarter. Excluding food and energy prices, the PCE price index increased 2.5 percent after increasing 1.9 percent. Accelerations in prices for clothing and footwear and for healthcare services contributed to the acceleration, based on CPIs and PPIs from the Bureau of Labor Statistics.

## Disposable Personal Income

Real disposable personal income increased 3.4 percent in the first quarter, following an increase of 1.1 percent in the fourth quarter. The personal saving rate was 3.1 percent in the first quarter, compared with 2.6 percent in the fourth quarter.

## Impact of the 2017 Tax Cuts and Jobs Act

***Personal income and the personal saving rate.*** Increases in the first quarter estimates of disposable personal income and the personal saving rate mostly result from a decrease in personal current taxes, which reflect the effects of the Tax Cuts and Jobs Act (TCJA). BEA estimates that the TCJA reduced personal current taxes by \$115.5 billion at an annual rate. BEA's preliminary estimates of the effects of the TCJA are based in part on projections prepared by the Treasury Department's Office of Tax Analysis. For more information on the TCJA's effects on personal taxes, see: "[How will the 2017 Tax Cuts and Jobs Act impact personal taxes?](#)"

Wages and salaries in the first quarter were adjusted up by \$10.0 billion (annualized rate) to account for bonuses that are not included in the monthly source data in the Current Employment Statistics from the Bureau of Labor Statistics. This adjustment reflects one-time bonuses paid by businesses reported publicly in response to the TCJA and was derived based on news releases covering estimates of the number of employees receiving bonuses and payment amounts. BEA will release QCEW-based estimates of wages and salaries, that will include both regular and TCJA-related bonus activity, for the first quarter of 2018 on July 27.

## Looking Ahead: Comprehensive Update Scheduled for July 27

On July 27, BEA will present the results of its 15th comprehensive (or benchmark) update of the National Income and Product Accounts (NIPAs), in addition to presenting the advance estimate of GDP for the second quarter of 2018. The full, historical time span of the NIPAs, 1929–2017 and the first quarter of 2018, will be open for revision. Details on the statistical, definitional, and presentational changes planned are available in the April *Survey of Current Business* article "[Preview of the 2018 Comprehensive Update of the National Income and Product Accounts](#)."

The comprehensive update will reflect:

- The incorporation of new and revised source data, including the 2012 benchmark input-output accounts, which provide the most thorough and detailed information on the structure of the U.S. economy
- Changes in methodologies that address data gaps or implement other improvements, including enhanced seasonally adjusted measures and improved quality adjusted price indexes for fixed investment in software, medical equipment, and communications equipment.
- Reclassification of research and development (R&D) for software originals from own-account software to R&D
- Recognition of capital services in own-account investment in software and R&D
- The introduction of new not seasonally adjusted estimates for GDP, GDI, and their major components

Additionally, the reference year for chain-type quantity and price indexes and chained-dollar estimates will be updated from 2009 to 2012.

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