

Technical Note

Gross Domestic Product First Quarter of 2020 (Second Estimate)

May 28, 2020

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 brief summary of "highlights" is also posted on the Web site. BEA's source data and assumptions for the "second" estimate are shown in a "[Key Source Data and Assumptions](#)" table on the BEA 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").

Coronavirus (COVID-19) Impact on First-Quarter 2020 GDP

Real GDP decreased 5.0 percent (annual rate) in the first quarter of 2020, following a 2.1 percent increase in the fourth quarter of 2019. The decline in first quarter GDP reflected the response to the spread of COVID-19, as governments issued "stay-at-home" orders in March. This led to rapid changes in demand, as businesses and schools switched to remote work or canceled operations, and consumers canceled, restricted, or redirected their spending. The first quarter decrease reflected declines in consumer spending, private inventory investment, nonresidential fixed investment, and exports that were partly offset by increases in residential fixed investment and government spending. Imports, which are a subtraction in the calculation of GDP, decreased. The full economic effects of the COVID-19 pandemic cannot be quantified in the GDP estimate for the first quarter of 2020 because the impacts are generally embedded in source data and cannot be separately identified.

Sources of Revision to Real GDP

The 5.0 percent decrease in first-quarter real GDP reflected a downward revision of 0.2 percentage point from the "advance" estimate. The updated estimates primarily reflected a downward revision to private inventory investment that was partly offset by upward revisions to consumer spending and nonresidential fixed investment.

- Within private inventory investment, nonfarm inventories were revised down. The largest contributors to the downward revision were nondurable goods manufacturing and wholesale trade inventories (led by petroleum products), based primarily on newly available Census Bureau inventory book values for March.
- Within consumer spending for goods, the leading contributors to the upward revision were food and beverages, based primarily on revised Census Bureau Monthly Retail Trade Survey (MRTS)

data, and motor vehicles and parts (specifically, purchases of new light trucks), based on new March registrations data from IHS Automotive/Polk. The upward revisions were partly offset by a downward revision to gasoline and other energy goods, based on revised Short-Term Energy Outlook petroleum supply data for March from the Energy Information Administration.

- Within consumer spending for services, the largest contributors to the upward revision were consumption of healthcare services, by both nonprofit institutions and households, based primarily on new first-quarter Census Bureau Advance Quarterly Services Report (QSR) data. These data on the receipts of hospitals, physicians, and specialty outpatient service providers replaced BEA estimates based primarily on adjusted BLS employment, hours, and earning statistics as well as credit card transactions data. These upward revisions were partly offset by downward revisions to “other” services, notably, spending on international travel by U.S. residents, based primarily on Census QSR data, and to food services, based on updated Census MRTS data for March.
- Within nonresidential fixed investment, the largest contributor to the upward revision was structures, notably, commercial and healthcare structures, based primarily on new March and revised January and February Census Bureau Value of Construction Put in Place data.

Real final sales to private domestic purchasers, which measures private demand in the domestic economy and is derived as the sum of consumer spending and private fixed investment, decreased 5.9 percent in the first quarter, an upward revision of 0.7 percentage point. The upward revision reflected upward revisions to consumer spending and nonresidential fixed investment.

Prices

BEA's featured measure of inflation in the U.S. economy, the price index for gross domestic purchases, increased 1.7 percent in the first quarter, revised up 0.1 percentage point from the advance estimate.

The price index for personal consumption expenditures (PCE) increased 1.3 percent, the same as in the advance estimate. Excluding food and energy prices, the PCE price index increased 1.6 percent, a downward revision of 0.2 percentage point.

Gross Domestic Income and Corporate Profits

Real gross domestic income (GDI), which measures output of the economy as the costs incurred and the incomes earned in the production of goods and services (as measured by GDP), decreased 4.2 percent in the first quarter. The average of real GDP and real GDI decreased 4.6 percent. The decrease in GDI primarily reflected a decline in corporate profits.

Profits from current production decreased \$295.4 billion, or 13.9 percent (quarterly rate), in the first quarter. Domestic profits of financial corporations decreased \$67.4 billion, domestic profits of nonfinancial corporations decreased \$169.5 billion, and rest-of-the-world profits decreased \$58.6 billion.

BEA's profits measure that is conceptually most similar to S&P 500 profits—national after-tax profits without inventory valuation and capital consumption adjustments—decreased \$303.6 billion in the first

quarter. First-quarter national after-tax profits (shown in line 11 of table 9 of the GDP news release) decreased 11.1 percent from the same quarter one year ago.

Updates to Fourth-Quarter Wages and Salaries

Today's release presents revised estimates of fourth-quarter wages and salaries, personal taxes, and contributions for government social insurance, based on new data from the Bureau of Labor Statistics Quarterly Census of Employment and Wages.

- Wages and salaries are now estimated to have increased \$112.3 billion in the fourth quarter, an upward revision of \$25.7 billion.
- Real disposable personal income is now estimated to have increased 2.1 percent in the fourth quarter, an upward revision of 0.5 percentage point.
- The revision to fourth-quarter wages and salaries also resulted in a revision to GDI. Real GDI increased 3.1 percent in the fourth quarter, an upward revision of 0.5 percentage point.

Federal Government Economic Response to the COVID-19 Pandemic

In March and April, four major legislative acts, including the CARES Act, were signed into law. The acts established several temporary programs and provided additional funding for existing federal programs to support individuals, communities, and businesses impacted by the pandemic. Because the effects of the acts may be intermingled with other spending in the source data, BEA does not expect to be able to separately identify the total quarterly or annual effect of the acts on GDP growth. However, given the timing of the passage of the legislation, any impacts on first-quarter GDP growth were small.

BEA is actively tracking specific programs and provisions of the pandemic response legislation to accurately classify the various programs in the National Income and Product Accounts (NIPAs), including provisions associated with [Economic Impact Payments](#) to individuals, the expansion of [Unemployment Insurance Program](#) benefits, and the [Paycheck Protection Program](#). For more details, see "[COVID-19 Pandemic: Federal Recovery Legislation and the NIPAs](#)" on BEA's Web site.

Looking Ahead: 2020 Annual Update Scheduled for July 30th

BEA will release results from the 2020 annual update of the NIPAs on July 30, 2020, in conjunction with the advance estimate of GDP for the second quarter of 2020. For estimates of real GDP and its major components, the span of the update will cover the most recent five years (2015-2019) and the first quarter of 2020. Estimates of income and saving will be subject to revision from 1999 through the first quarter of 2020. More information on the 2020 annual update is included in the May *Survey of Current Business* article, "[GDP and the Economy.](#)"

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