

Technical Note

Gross Domestic Product, Fourth Quarter and Year 2020 (Second Estimate)

February 25, 2021

This technical note provides background information about the source data and estimating methods used to produce the estimates presented in the GDP news release; a brief summary of "highlights" is available on BEA's website at www.bea.gov.

COVID-19 Impact on Fourth-Quarter 2020 GDP

Real GDP increased 4.1 percent at an annual rate (1.0 percent at a quarterly rate¹) in the fourth quarter of 2020, following an increase of 33.4 percent at an annual rate (7.5 percent at a quarterly rate) in the third quarter. The increase in fourth quarter GDP reflected both the continued economic recovery from the sharp declines earlier in the year and the ongoing impact of the COVID-19 pandemic, including new restrictions and closures that took effect in some areas of the United States. Real GDP for the fourth quarter of 2020 is 2.4 percent below the level of real GDP for the fourth quarter of 2019².

The increase in real GDP reflected increases in exports, nonresidential fixed investment, consumer spending, residential fixed investment, and private inventory investment that were partly offset by decreases in state and local as well as federal government spending. Imports, which are a subtraction in the calculation of GDP, increased. The full economic effects of the COVID-19 pandemic cannot be quantified in the GDP estimate for the fourth quarter of 2020 because the impacts are generally embedded in source data and cannot be separately identified.

Sources of Revision to Real GDP

The increase in fourth-quarter real GDP was revised up 0.1 percentage point from the "advance" estimate. The updated estimates primarily reflected upward revisions to residential fixed investment, private inventory investment, and state and local government spending. These upward revisions were partly offset by a downward revision to consumer spending.

- Within residential fixed investment, the revision primarily reflected an upward revision to structures, mainly new single-family housing, based on new December and revised October and November Census Bureau Value of Construction Put in Place (VPIP) data.

¹ Percent changes in quarterly seasonally adjusted series are displayed at annual rates, unless otherwise specified. For more information, see the FAQ "[Why does BEA publish percent changes in quarterly series at annual rates?](#)"

² The fourth quarter of 2019 was the most recent quarter prior to the onset of the COVID-19 pandemic. The percent change from the fourth quarter of 2019 to the fourth quarter of 2020 is presented in news release table 6, line 1.

- The revision to private inventory investment reflected an upward revision to nonfarm inventories. Within nonfarm, upward revisions to nondurable goods manufacturing (notably, food and chemicals) and retail trade (notably, motor vehicle dealers) were partly offset by downward revisions to construction, mining, and utilities as well as wholesale trade. For manufacturing, retail, and wholesale, the revisions were based primarily on revised monthly Census inventory data. For construction, mining, and utilities, the revision primarily reflected preliminary Census Quarterly Financial Report data.
- The revision to state and local government primarily reflected an upward revision to structures investment, based on new December and revised October and November Census VPIP data.
- The revision to consumer spending reflected a downward revision to goods, led by motor vehicles and based on revised Census Monthly Retail Trade Survey data. Within services, upward revisions to “other” services as well as housing and utilities were mostly offset by a downward revision to services provided by nonprofits, notably hospital services. For “other” services, the revision primarily reflected upward revisions to legal and cellular telephone services, both based on new Census Quarterly Services Survey (QSS) data. For housing and utilities, the revision reflected an upward revision to electricity and gas, based on updated Energy Information Administration data. For nonprofit hospital services, the revision was based primarily on QSS 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, increased 5.6 percent in the fourth quarter, unrevised from the advance estimate.

Prices

BEA's featured measure of inflation in the U.S. economy, the price index for gross domestic purchases, increased 1.8 percent in the fourth quarter, an upward revision of 0.1 percentage point.

The price index for personal consumption expenditures (PCE) increased 1.6 percent, an upward revision of 0.1 percentage point. Excluding food and energy prices, the PCE price index increased 1.4 percent, unrevised from the advance estimate.

Federal Government Economic Response to the COVID-19 Pandemic

Since the onset of the COVID-19 pandemic, several [legislative acts](#), including the CARES Act and the Coronavirus Response and Relief Supplemental Appropriations 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 were in the form of transfers to individuals, subsidies to businesses, and grants to state and local governments, their effects on GDP show up indirectly through the components of GDP, such as consumer spending, business investment, and government spending. Thus, BEA cannot separately identify the total effect of the acts on changes in GDP.

It is possible, however, to identify the impacts of select recovery programs on aggregate federal government spending. In the fourth quarter, expanded [Unemployment Insurance Program](#) benefits

boosted the level of government social benefits, and the portion of forgivable loans to businesses and nonprofits provided through the [Paycheck Protection Program](#) raised government subsidies and social benefit payments, but both programs were at lower levels than in the second and third quarters. Further information on these and other pandemic response programs, including estimates of the effects of these programs on federal government spending, is available in "[Effects of Selected Federal Pandemic Response Programs on Federal Government Receipts, Expenditures, and Saving](#)" on BEA's website.

Updates to Third-Quarter Wages and Salaries

In addition to presenting updated estimates for the fourth quarter, today's release presents revised estimates of third-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 program.

- Wages and salaries are now estimated to have increased \$434.5 billion in the third quarter, a downward revision of \$66.5 billion.
- Real disposable personal income is now estimated to have decreased 17.4 percent in the third quarter, a downward revision of 1.1 percentage points.
- Real gross domestic income increased 24.1 percent (annual rate) in the third quarter, a downward revision of 1.7 percentage points.

GDP for 2020

Real GDP decreased 3.5 percent in 2020 (from the 2019 annual level to the 2020 annual level), unrevised from the advance estimate.

The decrease in real GDP in 2020 reflected decreases in PCE, exports, private inventory investment, nonresidential fixed investment, and state and local government spending that were partly offset by increases in federal government spending and residential fixed investment. Imports decreased.

More Information

The complete set of statistics for the fourth quarter is available on BEA's website, along with a table presenting the "[Key Source Data and Assumptions](#)" that underlie the statistics. In a few weeks, the Survey of Current Business, BEA's online monthly journal, will present a more detailed analysis of the estimates ("GDP and the Economy").

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