Technical Note

Gross Domestic Product
Second Quarter of 2020 (Second Estimate)

August 27, 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 second 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 Second-Quarter 2020 GDP

Real GDP decreased 31.7 percent at an annual rate (9.1 percent at a quarterly rate[1]) in the second quarter of 2020, following a 5.0 percent annual rate decrease in the first quarter. The decline in second quarter GDP reflected the response to COVID-19, as "stay-at-home" orders issued in March and April were partially lifted in some areas of the country in May and June, and government pandemic assistance payments were distributed to households and businesses. This led to rapid shifts in activity, as businesses and schools continued remote work and consumers and businesses canceled, restricted, or redirected their spending.

The decline in second-quarter real GDP reflected decreases in consumer spending, exports, nonresidential fixed investment, private inventory investment, residential fixed investment, and state and local government spending that were partly offset by an increase in federal 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 second quarter of 2020 because the impacts are generally embedded in source data and cannot be separately identified.

Sources of Revision to Real GDP

The 31.7 percent decrease in second-quarter real GDP reflected an upward revision of 1.2 percentage points from the "advance" estimate. The updated estimates primarily reflected upward revisions to private inventory investment, consumer spending, exports, and nonresidential fixed investment.

[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?"

- Within private inventory investment, the upward revision was widespread. The largest contributors were wholesale trade and manufacturing, notably petroleum inventories, based primarily on revised Census wholesale book values, new nondurable goods manufacturing book values for June, and revised petroleum prices from the Bureau of Labor Statistics (BLS) and the Department of Energy.

- Within consumer spending, both goods and services were revised up. For goods, the upward revision was generally widespread. The leading contributor was “other” nondurable goods, based primarily on revised Census Bureau Monthly Retail Trade Survey (MRTS) data. For services, the largest contributors to the upward revision were consumption of health care services, by both nonprofit institutions and households, based primarily on new second-quarter Census Advance Quarterly Services Report (QSR) data and revenue data from company financial reports. The estimates were also informed by data that was used in the advance estimate including volume data for hospital services and outpatient visits as well as credit card transactions data. In addition, spending on air transportation was revised up, reflecting new Census QSR data.

- Within exports, the leading contributor to the upward revision was industrial supplies and materials, notably petroleum exports, based primarily on revised BLS petroleum export prices.

- The upward revision to nonresidential fixed investment reflected upward revisions to equipment and structures. Within equipment, the largest contributor was information processing equipment, notably computers and communication equipment, based primarily on revised Census trade in goods data on imports for June. Within structures, the leading contributors to the upward revision were commercial and healthcare as well as power structures, based on new June Census 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 33.1 percent in the second quarter, an upward revision of 0.6 percentage point. The upward revision primarily 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, decreased 1.5 percent in the second quarter, the same as in the advance estimate.

The price index for personal consumption expenditures (PCE) decreased 1.8 percent, an upward revision of 0.1 percentage point. Excluding food and energy prices, the PCE price index decreased 1.0 percent, also an upward revision of 0.1 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 33.1 percent in the second quarter. The average of real GDP and real GDI decreased 32.4 percent. The decrease in GDI primarily reflected declines in compensation, proprietors' income, and corporate profits. Subsidies, which are a subtraction in the calculation of GDI, increased.

- Within compensation, the leading contributor to the decrease was wages and salaries. Both private and government wages decreased based primarily on data from the BLS monthly Current Employment Statistics report and information on unemployment insurance claims from the Department of Labor's Employment and Training Administration. For more information, see "How does BEA adjust wages and salaries to account for the effects of COVID-19?".

- Within proprietors' income, the decline was largely accounted for by a decline in nonfarm proprietors' income. Within corporate profits, the decrease was more than accounted for by a decline in nonfinancial industry profits, based primarily on preliminary Census Quarterly Financial Report data and tabulations of publicly traded companies' earnings reports. The declines in proprietors' income and corporate profits were partly offset by provisions from federal government subsidies programs, such as the Paycheck Protection Program and tax credits for employee retention and paid sick leave, which provided income support to businesses impacted by the pandemic in the second quarter. More information on federal subsidy programs that took effect in the second quarter is presented in "Effects of Selected Federal Pandemic Response Programs on Federal Government Receipts, Expenditures, and Saving" on BEA's Web site.

Profits from current production decreased $226.9 billion, or 11.1 percent (quarterly rate), in the second quarter. Domestic profits of financial corporations increased $39.5 billion, domestic profits of nonfinancial corporations decreased $170.1 billion, and rest-of-the-world profits decreased $96.2 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 $203.8 billion in the second quarter. Second-quarter national after-tax profits (shown in line 11 of table 9 of the GDP news release) decreased 20.8 percent from the same quarter one year ago.

Federal Government Economic Response to the COVID-19 Pandemic

Since the onset of the COVID-19 pandemic, several 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 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 quarterly or annual effect of the acts on changes in GDP.

During the second quarter, several provisions from the acts took effect. Most significantly, provisions from the one-time Economic Impact Payments to individuals and expanded Unemployment Insurance Program benefits boosted government social benefits, while the portion of forgivable loans to businesses and nonprofits through the Paycheck Protection Program raised government subsidies and social benefit payments, respectively. 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". Effects of these programs on personal income and outlays is available in "Effects of Selected Federal Pandemic Response Programs on Personal Income".

Updates to First-Quarter Wages and Salaries

In addition to presenting updated estimates for the second quarter, today's release presents revised estimates of first-quarter wages and salaries, personal taxes, and contributions for government social insurance, based on updated data from the BLS Quarterly Census of Employment and Wages program. Wages and salaries are now estimated to have increased $103.6 billion in the first quarter of 2020, a downward revision of $3.4 billion. Real GDI decreased 2.5 percent in the first quarter, unrevised from the previously published estimate.

Looking Ahead: Bringing Together National, Industry, and State GDP Statistics

BEA is speeding up the release of its industry and state GDP statistics to coordinate more closely with the quarterly estimates of national GDP. Starting on September 30, industry GDP statistics will be issued on the same day – and in the same news release – as the third estimate of national GDP. State-by-state GDP statistics will follow in a separate news release within two days. These three major dimensions of GDP will be synchronized to cover the same quarter, giving users a fuller and more timely view of the U.S. economy.

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