

# Technical Note

## Gross Domestic Product Third Quarter of 2017 (Advance Estimate)

October 27, 2017

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 third 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").

### Real GDP

Real GDP increased 3.0 percent (annual rate) in the third quarter of 2017, following an increase of 3.1 percent in the second quarter of 2017. The increase in real GDP in the third quarter reflected positive contributions from personal consumption expenditures (PCE), private inventory investment, nonresidential fixed investment, exports, and federal government spending. These increases were partly offset by negative contributions from residential fixed investment and state and local government spending. Imports, which are a subtraction in the calculation of GDP, decreased.

The deceleration in real GDP growth in the third quarter primarily reflected decelerations in PCE, in nonresidential fixed investment, and in exports that were partly offset by an acceleration in private inventory investment and a downturn in imports.

### Key Source Data and Assumptions for the Advance Estimate

The advance GDP estimate for the third quarter of 2017 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 are available, BEA's key assumptions for the third month are shown in the "[Key Source Data and Assumptions](#)" table on the BEA Web site.

### Prices

The PCE price index increased 1.5 percent in the third quarter, following an increase of 0.3 percent in the second quarter. Excluding food and energy prices, the PCE price index increased 1.3 percent after increasing 0.9 percent.

## Disposable Personal Income

Real disposable personal income increased 0.6 percent in the third quarter, following an increase of 3.3 percent in the second. The personal saving rate was 3.4 percent in the third quarter, compared with 3.8 percent in the second.

## Impact of Hurricanes on Third Quarter 2017 Estimates

During the third quarter, two major hurricanes caused severe damage and flooding in several states along the Gulf Coast. Hurricane Harvey made its initial landfall on August 25 in Texas, and made a second landfall in Louisiana on August 30 as a tropical storm. On September 10, Hurricane Irma hit the lower Florida Keys and the southern mainland of Florida. These disasters disrupted production at facilities such as factories, offices, and transportation centers. For example, oil and gas extraction and petroleum and petrochemical production in Texas and agricultural production in Florida were impacted. Other types of production, such as emergency services and rebuilding activities, increased. These impacts on production are included, but not separately identified, in the source data that BEA uses to prepare the estimates of GDP; consequently, it is not possible to estimate the overall impact of Hurricanes Harvey and Irma on 2017 third quarter GDP.

A third hurricane, Maria, made its initial landfall on the U.S. Virgin Islands and Puerto Rico on September 20 causing catastrophic damage to these island areas. Because BEA's estimates of GDP do not include commonwealths or territories of the United States, the impacts of Maria are not directly reflected in the estimate of U.S. GDP. For more information, see the FAQ ["Are Puerto Rico and the U.S. Territories included in the estimates of U.S. GDP?"](#)

While the destruction of fixed assets, such as residential and nonresidential structures, does not directly affect GDP, national income, or personal income, BEA does estimate disaster losses as part of its fixed assets accounts. BEA's preliminary estimates show that Hurricanes Harvey and Irma resulted in [disaster losses](#) of \$121.0 billion in privately-owned fixed assets (\$484.0 billion at an annual rate) and \$10.4 billion in government-owned fixed assets (\$41.8 billion at an annual rate).

BEA also prepares estimates of the insurance benefits paid or received due to major disasters. These benefits are recorded on an accrual basis in the quarter in which the disaster occurred and are classified as [capital transfers](#); therefore they do not affect the measures of GDP, personal income, or saving. BEA's preliminary estimates show domestic insurance companies expect to pay benefits for disaster losses related to Hurricanes Harvey, Irma, and Maria in the amount of \$64.7 billion (\$258.7 billion at an annual rate). The federal government's National Flood Insurance Program expects to pay an additional \$19.0 billion (\$76.0 billion at an annual rate); Florida Citizens Property Insurance Corporation expects to pay \$1.2 billion (\$4.9 billion at an annual rate); and foreign insurance companies expect to pay \$17.4 billion (\$69.4 billion at an annual rate).

For additional information, see ["How are the measures of production and income in the national accounts affected by a natural or man-made disaster?"](#)

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