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\* See the navigation bar at the right side of the news release text for links to data tables, contact personnel and their telephone numbers, and supplemental

Lisa Mataloni: (301) 278-9083 (GDP) [gdpniwd@bea.gov](mailto:gdpniwd@bea.gov) (<mailto:gdpniwd@bea.gov>)

Dave Wasshausen : (301) 278-9752 (Annual Update)

Jeannine Aversa: (301) 278-9003 (News Media) [Jeannine.Aversa@bea.gov](mailto:Jeannine.Aversa@bea.gov) (<mailto:Jeannine.aversa@bea.gov>)

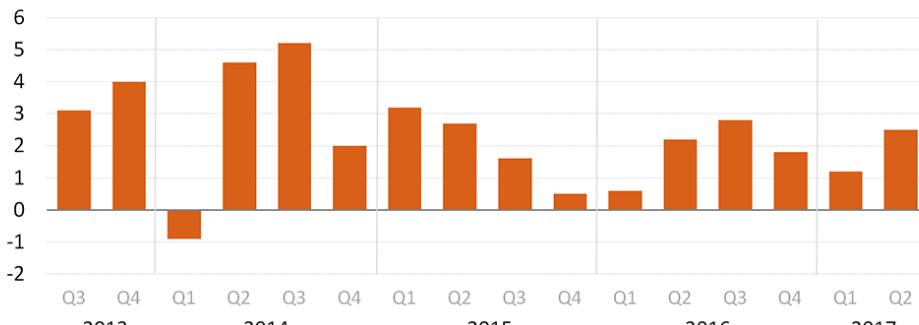
## **National Income and Product Accounts Gross Domestic Product: Second Quarter 2017 (Advance Estimate), and Annual Update**

Real gross domestic product increased at an annual rate of 2.6 percent in the second quarter of 2017 (table 1), according to the "advance" estimate released by the Bureau of Economic Analysis. In the first quarter, real GDP increased 1.2 percent (revised).

The Bureau emphasized that the second-quarter advance estimate released today is based on source data that are incomplete or subject to further revision by the source agency (see "Source Data for the Advance Estimate" on page 3). The "second" estimate for the second quarter, based on more complete data, will be released on August 30, 2017.

The increase in real GDP in the second quarter reflected positive contributions from personal consumption expenditures (PCE), nonresidential fixed investment, exports, and federal government spending that were partly offset by negative contributions from private residential fixed investment, private inventory investment, and state and local government spending. Imports, which are a subtraction in the calculation of GDP, increased (table 2).

### **Real GDP: Percent change from preceding quarter**



([/newsreleases/national/gdp/2017/\\_images/gc](/newsreleases/national/gdp/2017/_images/gc))

Box \_\_\_\_\_

#### Annual Update of the National Income and Product Accounts

The estimates released today reflect the results of the annual update of the national income and product accounts (NIPAs) in conjunction with the "advance" estimate of GDP for the second quarter of 2017. The update covers the first quarter of 2014 through the first quarter of 2017. For more information, see information on the "2017 Annual Update (/national/an1.htm#2017annualupdate)" on BEA's Web site. Additionally, the August Survey of Current Business (/scb/index.htm) will contain an article that describes the results in detail.

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The acceleration in real GDP growth in the second quarter reflected a smaller decrease in private inventory investment, an acceleration in PCE, and an upturn in federal government spending. These movements were partly offset by a downturn in residential fixed investment and decelerations in exports and in nonresidential fixed investment.

Current-dollar GDP increased 3.6 percent, or \$169.0 billion, in the second quarter to a level of \$19,226.7 billion. In the first quarter, current-dollar GDP increased 3.3 percent (revised), or \$152.2 billion (table 1 and table 3).

The price index for gross domestic purchases increased 0.8 percent in the second quarter, compared with an increase of 2.6 percent in the first quarter (revised) (table 4). The PCE price index increased 0.3 percent, compared with an increase of 2.2 percent. Excluding food and energy prices, the PCE price index increased 0.9 percent, compared with an increase of 1.8 percent (appendix table A).

#### Personal Income (table 10)

Current-dollar personal income increased \$118.9 billion in the second quarter, compared with an increase of \$217.6 billion in the first quarter (revised). The deceleration in personal income primarily reflected decelerations in wages and salaries, in government social benefits, in nonfarm proprietors' income, and in rental income, and downturns in personal interest income and in farm proprietors' income. These movements were offset by an upturn in personal dividend income.

Disposable personal income increased \$122.1 billion, or 3.5 percent, in the second quarter, compared with an increase of \$176.3 billion, or 5.1 percent, in the first quarter (revised). Real disposable personal income increased 3.2 percent, compared with an increase of 2.8 percent.

Personal saving was \$546.8 billion in the second quarter, compared with \$553.0 billion in the first quarter (revised). The personal saving rate -- personal saving as a percentage of disposable personal income -- was 3.8 percent in the second quarter, compared with 3.9 percent in the first.

#### Source Data for the Advance Estimate

Information on the source data in the advance estimate is provided in a Technical Note (/newsreleases/national/gdp/2017/pdf/tech2q17\_adv) with the news release on BEA's Web site. A detailed "Key Source Data and Assumptions (/national/index.htm#Key)" file is also posted for each release. For information on updates to GDP, see the "Additional Information" section that follows.

#### Annual Update of the National Income and Product Accounts

Updated estimates of the national income and product accounts (NIPAs), which are usually made each July, incorporate newly available and more comprehensive source data, as well as improved estimation methodologies. This year, the notable revisions primarily reflect the incorporation of newly available and revised source data. The timespan of the revisions is the first quarter of 2014 through the first quarter of 2017. The reference year remains 2009.

With the release of the updated statistics, select NIPA tables will be available on BEA's Web site ([www.bea.gov/](http://www.bea.gov/)). Shortly after the GDP release, BEA will post a table on its Web site showing the major current-dollar revisions and their sources for each component of GDP, national income, and personal

income. Additionally, the August 2017 Survey of Current Business will contain an article describing these revisions.

#### Updates for the first quarter of 2017

For the first quarter of 2017, real GDP is now estimated to have increased 1.2 percent; in the previously published estimates, first-quarter GDP was estimated to have increased 1.4 percent. The 0.2-percentage point downward revision to the percent change in first-quarter real GDP reflected downward revisions to nonresidential fixed investment, to private inventory investment, to residential fixed investment, and to federal government spending, and an upward revision to imports. These movements were partly offset by upward revisions to PCE, to state and local government spending, and to exports.

Real GDI is now estimated to have increased 2.6 percent in the first quarter; in the previously published estimates, first-quarter GDI was estimated to have increased 1.0 percent.

#### First Quarter 2017

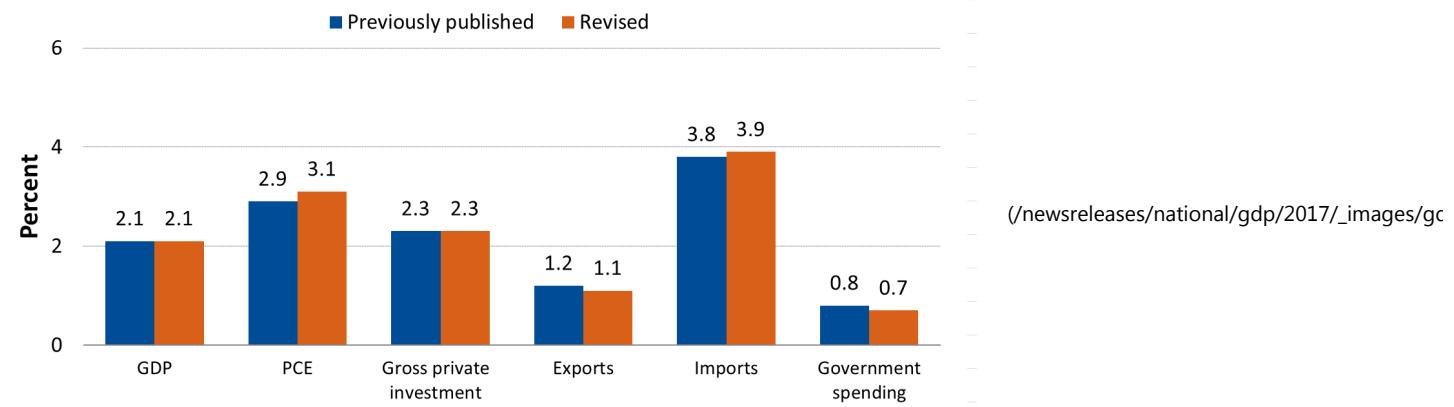
	Previous Estimate	Revised
	(Percent change from preceding quarter)	
Real GDP	1.4	1.2
Current-dollar GDP	3.4	3.6
Real GDI	1.0	2.6
Average of GDP and GDI	1.2	1.9
Gross domestic purchases price index	2.5	2.6
PCE price index	2.4	2.2

#### Real GDP (Tables 1A, 1B, and 2A)

The updated statistics largely reflect the incorporation of newly available and revised source data (see the box below) and improvements to existing methodologies.

- \* From 2013 to 2016, real GDP increased at an average annual rate of 2.3 percent; in the previously published estimates, real GDP had increased at an average annual rate of 2.2 percent. From the fourth quarter of 2013 to the first quarter of 2017, real GDP increased at an average annual rate of 2.1 percent, the same as previously published.

#### Average annual rates of change for real GDP: 2013Q4 to 2017Q1



U.S. Bureau of Economic Analysis

- \* The percent change in real GDP was revised up 0.2 percentage point for 2014, was revised up 0.3 percentage point for 2015, and was revised down 0.1 percentage point for 2016.
- o For 2014, upward revisions to nonresidential fixed investment, inventory investment, and state and local government spending were partly offset by an upward revision to imports.
- o For 2015, upward revisions to personal consumption expenditures (PCE), inventory investment, exports, and nonresidential fixed investment were partly offset by downward revisions to state and local government spending and to residential fixed investment, and by an upward revision to imports.
- o For 2016, downward revisions to exports, federal government spending, and inventory investment were partly offset by an upward revision to state and local government spending.
- \* The revisions to the annual estimates typically reflect partly offsetting revisions to the quarters within the year.
  - o For 2014, the annual rate of change in GDP was revised up 0.3 percentage point for the first quarter, 0.6 percentage point for the second quarter, and 0.2 percentage point for the third quarter; these upward revisions were partly offset by a downward revision of 0.3 percentage point for the fourth quarter.
  - o For 2015, upward revisions of 1.2 percentage points for the first quarter and 0.1 percentage point for the second quarter were partly offset by downward revisions of 0.4 percentage point for both the third and fourth quarters.
  - o For 2016, downward revisions of 0.2 percentage point for the first quarter, 0.7 percentage point for the third quarter, and 0.3 percentage point for the fourth quarter were partly offset by an upward revision of 0.8 percentage point for the second quarter.
- \* For the first quarter of 2014 through the first quarter of 2017, the average revision (without regard to sign) in the percent change in real GDP was 0.4 percentage point. The revisions did not change the direction of the change in real GDP (increase or decrease) for any of the quarters.
- \* For the period of economic expansion from the second quarter of 2009 to the first quarter of 2017, real GDP increased at an average annual rate of 2.1 percent, the same as previously published.
- \* Current-dollar GDP was revised up for all three years: \$34.5 billion, or 0.2 percent, for 2014; \$84.1 billion, or 0.5 percent, for 2015; and \$55.4 billion, or 0.3 percent, for 2016.

#### Gross domestic income (GDI) and the statistical discrepancy (Tables 1A and 1B)

- \* From 2013 to 2016 real GDI increased at an average annual rate of 2.3 percent, unrevised from the previous estimate. From the fourth quarter of 2013 to the first quarter of 2017, real GDI increased at an average annual rate of 2.2 percent; in the previously published estimates, real GDI increased at an average annual rate of 2.1 percent.
- \* The statistical discrepancy is current-dollar GDP less current-dollar GDI. GDP measures final expenditures -- the sum of consumer spending, private investment, net exports, and government spending. GDI measures the incomes earned in the production of GDP. In concept, GDP is equal to GDI. In practice, they differ because they are estimated using different source data and different methods.
- \* The statistical discrepancy as a percentage of GDP was revised up from -1.5 percent to -1.3 percent for 2014, was unrevised at -1.4 percent for 2015, and was revised up from -1.3 percent to -0.8 percent for 2016.
- \* The average of GDP and GDI is a supplemental measure of U.S. economic activity. In real, or

inflation-adjusted, terms this measure increased at an average annual rate of 2.3 percent from 2013 to 2016, the same as previously published.

#### Price measures (Table 4A)

- \* Gross domestic purchases - From the fourth quarter of 2013 to the first quarter of 2017, the average annual rate of increase in the price index for gross domestic purchases was 1.2 percent, the same as previously published.
- \* Personal consumption expenditures - From the fourth quarter of 2013 to the first quarter of 2017, the average annual rate of increase in the price index for PCE was 1.2 percent, 0.1 percentage point higher than the previously published estimates. The increase in the "core" PCE price index, which excludes food and energy, was 1.6 percent, the same as previously published.

#### Income and saving measures (Table 1B)

- \* National income was revised down \$9.9 billion, or 0.1 percent, for 2014, was revised up \$74.3 billion, or 0.5 percent, for 2015, and was revised down \$50.0 billion, or 0.3 percent, for 2016.
- o For 2014, downward revisions to proprietors' income and corporate profits were partly offset by upward revisions to taxes on production and imports and rental income of persons.
- o For 2015, upward revisions to net interest, corporate profits, taxes on production and imports, and supplements to wages and salaries were partly offset by a downward revision to proprietors' income.
- o For 2016, downward revisions to wages and salaries, proprietors' income, supplements to wages and salaries, and corporate profits were partly offset by upward revisions to net interest, taxes on production and imports, and the current surplus of government enterprises.
- \* Corporate profits was revised down \$11.5 billion, or -0.5 percent, for 2014, was revised up \$29.4 billion, or 1.4 percent, for 2015, and was revised down \$12.4 billion, or 0.6 percent, for 2016.
- \* Personal income was revised up \$8.5 billion, or 0.1 percent, for 2014, was revised up \$94.5 billion, or 0.6 percent, for 2015, and was revised down \$58.0 billion, or 0.4 percent, for 2016.
- \* From 2013 to 2016, the average annual rate of growth of real disposable personal income was revised down 0.2 percentage point from 3.2 percent to 3.0 percent.
- \* The personal saving rate (personal saving as a percentage of disposable personal income) was revised up from 5.6 percent to 5.7 percent for 2014, was revised up from 5.8 percent to 6.1 percent for 2015, and was revised down from 5.7 percent to 4.9 percent for 2016.

#### New and revised source data

The updated statistics incorporated data from the following major federal statistical sources:

Agency	Data	Years Covered and Vintage
Census Bureau	Annual surveys of wholesale trade	2014 (revised), 2015 (new)
	Annual surveys of retail trade	2014 (revised), 2015 (new)
	Annual survey of manufactures	2014 (revised), 2015 (new)
	Monthly indicators of manufactures, merchant wholesale trade, and retail trade	2014–2016 (revised)
	Service annual survey	2014 and 2015 (revised), 2016 (new)
	Annual surveys of state and local government finances	Fiscal year (FY) 2014 (revised), FY 2015 (new)
	Monthly survey of construction spending (value put in place)	2014–2016 (revised)
	Quarterly services survey	2014–2016 (revised)

	Current population survey/housing vacancy survey	2014 and 2015 (revised), 2016 (new)
Office of Management and Budget	Federal Budget	Fiscal years 2016 and 2017
Internal Revenue Service	Tabulations of tax returns for corporations Tabulations of tax returns for sole proprietorships and partnerships	2014 (revised), 2015 (new) 2015 (new)
BLS	Quarterly census of employment and wages Survey of occupational employment	2014-2016 ( revised) 2016 (new)
Department of Agriculture	Farm statistics	2014-2016 (revised)
BEA	International transactions accounts	2014-2016 (revised)

## Changes in methodology and presentation

The annual update also incorporated improvements to estimating methodologies and to the presentation of the NIPA estimates, including the following:

- \* Estimates for consumer spending incorporated improved allocations of industry-based retail sales to consumer goods, including increased use of retail scanner data and the Census Bureau's E-Commerce Report.
  - \* The price index used to deflate fixed investment in prepackaged software is now based on a more representative Bureau of Labor Statistics Producer Price Index (PPI). In the previously published estimates, the BEA price for prepackaged software was based on the PPI for "Application software publishing." Beginning with this annual update, BEA will use the PPI for "Software publishing, except games" that includes both applications and systems software publishing.
  - \* Publication of key source data and assumptions that are used to estimate quarterly GDP is updated and accelerated. Beginning with this annual update, BEA will post this information with each GDP release. (Previously, BEA released this information after the monthly personal income and outlays release, usually the business day following the GDP release.) Certain monthly data will continue to be released with the monthly personal income and outlays release. Because quarterly key source data and assumptions will now be available on the day of the GDP release, BEA will no longer publish Technical Note Table A.

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Next release: August 30, 2017 at 8:30 A.M. EDT  
Gross Domestic Product: Second Quarter 2017 (Second Estimate)  
Corporate Profits: Second Quarter 2017 (Preliminary Estimate)

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### **Additional Information**

## Resources

Additional resources available at [www.bea.gov](http://www.bea.gov) (/):

- Stay informed about BEA developments by reading the BEA blog (<https://blog.bea.gov/>), signing up for BEA's email subscription service (/subscribe/), or following BEA on Twitter @BEA\_News ([http://www.twitter.com/BEA\\_News](http://www.twitter.com/BEA_News)).
  - Historical time series for these estimates can be accessed in BEA's Interactive Data Application (/itable/).
  - Access BEA data by registering for BEA's Data Application Programming Interface (/API/signup/index.cfm) (API).

- For more on BEA's statistics, see our monthly online journal, the Survey of Current Business (</scb/index.htm>).
- BEA's news release schedule ([/newsreleases/news\\_release\\_schedule.htm](/newsreleases/news_release_schedule.htm))
- NIPA Handbook (</national/pdf/all-chapters.pdf>): Concepts and Methods of the U.S. National Income and Product Accounts

#### Definitions

Gross domestic product (GDP) is the value of the goods and services produced by the nation's economy less the value of the goods and services used up in production. GDP is also equal to the sum of personal consumption expenditures, gross private domestic investment, net exports of goods and services, and government consumption expenditures and gross investment.

Gross domestic income (GDI) is the sum of incomes earned and costs incurred in the production of GDP. In national economic accounting, GDP and GDI are conceptually equal. In practice, GDP and GDI differ because they are constructed using largely independent source data. Real GDI is calculated by deflating gross domestic income using the GDP price index as the deflator, and is therefore conceptually equivalent to real GDP.

Current-dollar estimates are valued in the prices of the period when the transactions occurred—that is, at “market value.” Also referred to as “nominal estimates” or as “current-price estimates.” Real values are inflation-adjusted estimates—that is, estimates that exclude the effects of price changes. The gross domestic purchases price index measures the prices of final goods and services purchased by U.S. residents.

The personal consumption expenditure price index measures the prices paid for the goods and services purchased by, or on the behalf of, “persons.”

Personal income is the income received by, or on behalf of, all persons from all sources: from participation as laborers in production, from owning a home or business, from the ownership of financial assets, and from government and business in the form of transfers. It includes income from domestic sources as well as the rest of world. It does not include realized or unrealized capital gains or losses.

Disposable personal income is the income available to persons for spending or saving. It is equal to personal income less personal current taxes.

Personal outlays is the sum of personal consumption expenditures, personal interest payments, and personal current transfer payments.

Personal saving is personal income less personal outlays and personal current taxes.

The personal saving rate is personal saving as a percentage of disposable personal income. (For a comparison of personal saving in BEA's national income and product accounts (NIPAs) with personal saving in the Federal Reserve Board's financial accounts of the United States, go to [www.bea.gov/national/nipaweb/nipa-frb.asp](http://www.bea.gov/national/nipaweb/nipa-frb.asp).

Profits from current production, referred to as corporate profits with inventory valuation adjustment (IVA) and capital consumption adjustment (CCAdj) in the NIPAs, is a measure of the net income of corporations before deducting income taxes that is consistent with the value of goods and services measured in GDP. The IVA and CCAdj are adjustments that convert inventory withdrawals and depreciation of fixed assets reported on a tax-return, historical-cost basis to the current-cost economic measures used in the national income and product accounts.

For more definitions, see the Glossary: National Income and Product Accounts (</national/pdf/glossary.pdf>).

#### Statistical conventions

Annual rates. Quarterly values are expressed at seasonally-adjusted annual rates (SAAR), unless otherwise specified. Dollar changes are calculated as the difference between these SAAR values. For detail, see the FAQ “Why does BEA publish estimates at annual rates? ([/faq/index.cfm?faq\\_id=121](/faq/index.cfm?faq_id=121))”

Percent changes in quarterly series are calculated from unrounded data and are displayed at annual rates, unless otherwise specified. For details, see the FAQ “How is average annual growth calculated? ([/faq/index.cfm?faq\\_id=463](/faq/index.cfm?faq_id=463))”

Quantities and prices. Quantities, or “real” volume measures, and prices are expressed as index numbers with a specified reference year equal to 100 (currently 2009). Quantity and price indexes are calculated using a Fisher-chained weighted formula that incorporates weights from two adjacent

periods (quarters for quarterly data and annuals for annual data). "Real" dollar series are calculated by multiplying the published quantity index by the current dollar value in the reference year (2009) and then dividing by 100. Percent changes calculated from real quantity indexes and chained-dollar levels are conceptually the same; any differences are due to rounding.

Chained-dollar values are not additive because the relative weights for a given period differ from those of the reference year. In tables that display chained-dollar values, a "residual" line shows the difference between the sum of detailed chained-dollar series and its corresponding aggregate.

#### Updates to GDP

BEA releases three vintages of the current quarterly estimate for GDP: "Advance" estimates are released near the end of the first month following the end of the quarter and are based on source data that are incomplete or subject to further revision by the source agency; "second" and "third" estimates are released near the end of the second and third months, respectively, and are based on more detailed and more comprehensive data as they become available.

Annual and comprehensive updates are typically released in late July. Annual updates generally cover at least the 3 most recent calendar years (and their associated quarters) and incorporate newly available major annual source data as well as some changes in methods and definitions to improve the accounts. Comprehensive (or benchmark) updates are carried out at about 5-year intervals and incorporate major periodic source data, as well as major conceptual improvements.

The table below shows the average revisions to the quarterly percent changes in real GDP between different estimate vintages, without regard to sign.

Vintage	Average Revision Without Regard to Sign (percentage points, annual rates)
Advance to second	0.5
Advance to third	0.6
Second to third	0.2
Advance to latest	1.2

Note - Based on estimates from 1993 through 2014. For more information on GDP updates, see Revision Information ([/newsreleases/national/gdp/revision\\_information.htm](/newsreleases/national/gdp/revision_information.htm)) on the BEA Web site.

The larger average revision from the advance to the latest estimate reflects the fact that periodic comprehensive updates include major statistical and methodological improvements.

Unlike GDP, an advance current quarterly estimate of GDI is not released because data on domestic profits and on net interest of domestic industries are not available. For fourth quarter estimates, these data are not available until the third estimate.

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