

# News Release

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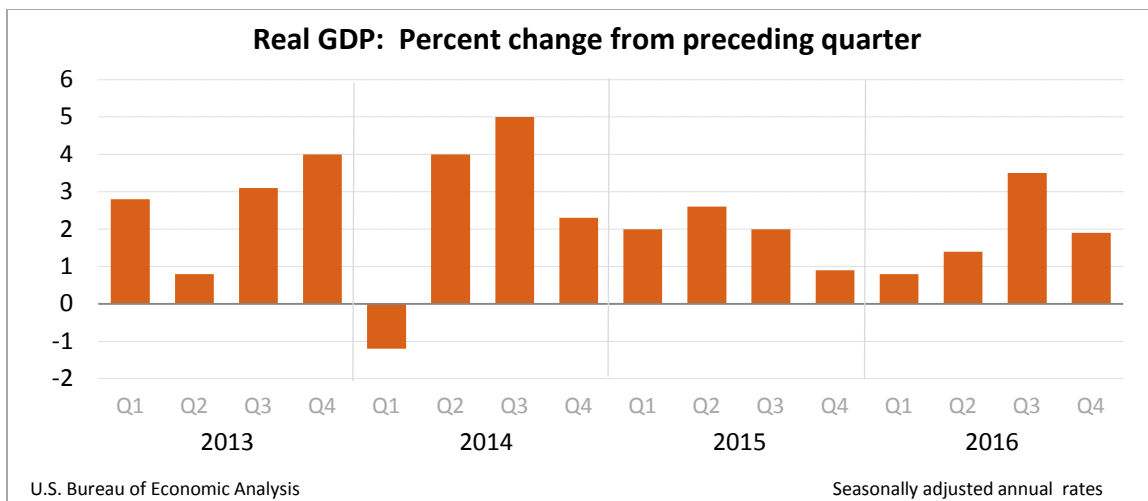
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## Gross Domestic Product: Fourth Quarter and Annual 2016 (Second Estimate)

**Real gross domestic product (GDP)** increased at an annual rate of 1.9 percent in the fourth quarter of 2016 (table 1), according to the "second" estimate released by the Bureau of Economic Analysis. In the third quarter, real GDP increased 3.5 percent.

The GDP estimate released today is based on more complete source data than were available for the "advance" estimate issued last month. In the advance estimate, the increase in real GDP was also 1.9 percent. With the second estimate for the fourth quarter, the general picture of economic growth remains the same; the increase in personal consumption expenditures was larger and increases in state and local government spending and in nonresidential fixed investment were smaller than previously estimated (see "Updates to GDP" on page 2).



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

The deceleration in real GDP in the fourth quarter primarily reflected a downturn in exports, an acceleration in imports, and a downturn in federal government spending that were partly offset by an upturn in residential fixed investment, an acceleration in private inventory investment, and an upturn in state and local government spending.

**Current-dollar GDP** increased 3.9 percent, or \$180.2 billion, in the fourth quarter to a level of \$18,855.5 billion. In the third quarter, current-dollar GDP increased 5.0 percent, or \$225.2 billion (table 1 and table 3).

The **price index for gross domestic purchases** increased 1.9 percent in the fourth quarter, compared with an increase of 1.5 percent in the third quarter (table 4). **The PCE price index** increased 1.9 percent, compared with an increase of 1.5 percent. Excluding food and energy prices, the PCE price index increased 1.2 percent, compared with an increase of 1.7 percent (appendix table A).

### Updates to GDP

The percent change in real GDP was the same as previously estimated. An upward revision to PCE was offset by downward revisions to state and local government spending and to nonresidential fixed investment. For more information, see the [Technical Note](#). For information on updates to GDP, see the “Additional Information” section that follows.

	<u>Advance Estimate</u>	<u>Second Estimate</u>
	(Percent change from preceding quarter)	
Real GDP	1.9	1.9
Current-dollar GDP	4.0	3.9
Gross domestic purchases price index	2.0	1.9
PCE price index	2.2	1.9

### 2016 GDP

Real GDP increased 1.6 percent in 2016 (that is, from the 2015 annual level to the 2016 annual level), compared with an increase of 2.6 percent in 2015 (table 1). Revisions to 2016 real GDP from the advance estimate did not affect the 1.6 percent rate of increase.

The increase in real GDP in 2016 reflected positive contributions from PCE, residential fixed investment, state and local government spending, exports, and federal government spending that were partly offset by negative contributions from private inventory investment and nonresidential fixed investment. Imports, which are a subtraction in the calculation of GDP, increased (table 2).

The deceleration in real GDP from 2015 to 2016 reflected downturns in private inventory investment and in nonresidential fixed investment and decelerations in PCE, in residential fixed investment and in state and local government spending that were partly offset by a deceleration in imports and accelerations in federal government spending and in exports.

Current-dollar GDP increased 2.9 percent, or \$529.0 billion, in 2016 to a level of \$18,565.6 billion, compared with an increase of 3.7 percent, or \$643.5 billion, in 2015 (table 1 and table 3).

The price index for gross domestic purchases increased 1.0 percent in 2016, compared with an increase of 0.4 percent in 2015 (table 4).

During 2016 (that is, measured from the fourth quarter of 2015 to the fourth quarter of 2016), real GDP increased 1.9 percent, the same rate as during 2015. The price index for gross domestic purchases increased 1.4 percent during 2016, compared with an increase of 0.4 percent during 2015 (table 7).

\* \* \*

Next release: March 30, 2017 at 8:30 A.M. EDT  
Gross Domestic Product: Fourth Quarter and Annual 2016 (Third Estimate)  
Corporate Profits: Fourth Quarter and Annual 2016

\* \* \*

## Additional Information

### Resources

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

- Stay informed about BEA developments by reading the BEA [blog](#), signing up for BEA's [email subscription service](#), or following BEA on Twitter [@BEA\\_News](#).
- Historical time series for these estimates can be accessed in BEA's [Interactive Data Application](#).
- Access BEA data by registering for BEA's Data [Application Programming Interface](#) (API).
- For more on BEA's statistics, see our monthly online journal, the [Survey of Current Business](#).
- BEA's [news release schedule](#)
- [NIPA Handbook](#): 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."

**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](#).

### 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?](#)"

**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?](#)"

**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	1.1
Note - Based on estimates from 1993 through 2015. For more information on GDP updates, see <a href="#">Revision Information</a> 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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Appendix Table A. Real Gross Domestic Product and Related Aggregates and Price Indexes: Percent Change From Preceding Period and Contributions to Percent Change

**Table 1. Real Gross Domestic Product and Related Measures: Percent Change From Preceding Period**

Line		2014	2015	2016 <sup>r</sup>	Seasonally adjusted at annual rates																Line
					2013				2014				2015				2016				
					I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III <sup>r</sup>	IV <sup>r</sup>	
1	<b>Gross domestic product (GDP) ....</b>	2.4	2.6	1.6	2.8	0.8	3.1	4.0	-1.2	4.0	5.0	2.3	2.0	2.6	2.0	0.9	0.8	1.4	3.5	1.9	1
2	<b>Personal consumption expenditures .....</b>	2.9	3.2	2.7	1.9	0.8	1.9	3.4	1.9	3.8	3.7	4.6	2.4	2.9	2.7	2.3	1.6	4.3	3.0	3.0	2
3	Goods .....	3.9	4.0	3.6	5.7	1.3	2.9	4.0	2.4	6.7	4.3	5.1	2.7	4.3	4.2	2.1	1.2	7.1	3.5	5.7	3
4	Durable goods .....	6.7	6.9	5.8	10.0	2.1	4.1	4.9	4.6	13.0	8.7	8.5	4.1	7.6	6.2	4.0	-0.6	9.8	11.6	11.5	4
5	Nondurable goods .....	2.6	2.6	2.5	3.7	0.9	2.4	3.6	1.4	3.8	2.3	3.5	1.9	2.7	3.2	1.2	2.1	5.7	-0.5	2.8	5
6	Services .....	2.3	2.8	2.3	0.0	0.6	1.3	3.1	1.7	2.3	3.4	4.3	2.3	2.2	2.0	2.3	1.9	3.0	2.7	1.8	6
7	<b>Gross private domestic investment .....</b>	4.5	5.0	-1.6	13.8	5.0	13.4	5.4	-6.6	11.2	8.9	2.6	9.9	1.0	2.0	-2.3	-3.3	-7.9	3.0	9.2	7
8	Fixed investment .....	5.5	4.0	0.7	7.0	4.3	2.9	6.6	5.3	7.2	7.4	1.3	3.7	4.3	5.7	-0.2	-0.9	-1.1	0.1	3.2	8
9	Nonresidential .....	6.0	2.1	-0.5	5.2	2.5	2.1	9.5	7.0	6.1	8.3	-1.1	1.3	1.6	3.9	-3.3	-3.4	1.0	1.4	1.3	9
10	Structures .....	10.3	-4.4	-3.0	-5.1	10.4	17.1	2.1	25.1	7.4	-2.7	4.1	-12.3	-2.7	-4.3	-15.2	0.1	-2.1	12.0	-4.5	10
11	Equipment .....	5.4	3.5	-2.9	8.7	2.8	-5.2	19.5	0.3	6.5	15.2	-8.9	9.3	-0.3	9.1	-2.6	-9.5	-2.9	-4.5	1.9	11
12	Intellectual property products .....	3.9	4.8	4.9	7.6	-3.2	3.6	1.1	4.9	4.5	7.1	7.8	0.8	8.0	2.1	4.6	3.7	9.0	3.2	4.5	12
13	Residential .....	3.5	11.7	4.9	14.7	12.0	6.0	-4.5	-1.4	11.7	3.6	11.4	13.3	14.9	12.6	11.5	7.8	-7.7	-4.1	9.6	13
14	Change in private inventories .....																				14
15	<b>Net exports of goods and services .....</b>																				15
16	Exports .....	4.3	0.1	0.4	4.0	5.0	3.1	11.8	-2.7	8.7	2.1	4.5	-5.8	2.9	-2.8	-2.7	-0.7	1.8	10.0	-4.0	16
17	Goods .....	4.4	-0.6	0.6	2.6	6.6	3.5	15.7	-7.3	10.7	4.4	3.8	-10.1	4.6	-3.1	-4.6	0.1	1.7	14.4	-6.6	17
18	Services .....	3.9	1.6	0.0	7.1	1.5	2.2	3.7	7.9	4.7	-2.8	6.0	3.8	-0.4	-2.3	1.0	-2.2	1.9	2.0	1.0	18
19	Imports .....	4.4	4.6	1.1	1.3	5.3	1.7	1.6	4.9	9.9	-1.2	11.2	5.6	2.9	1.1	0.7	-0.6	0.2	2.2	8.5	19
20	Goods .....	4.8	4.9	0.7	1.8	5.8	1.7	1.6	5.7	10.7	-1.4	11.7	6.8	3.4	-0.1	0.7	-1.3	0.0	0.5	10.6	20
21	Services .....	2.6	2.9	3.0	-1.1	2.6	1.7	1.3	1.2	6.3	0.1	8.8	-0.2	0.2	6.9	0.7	2.5	1.1	9.8	-0.4	21
22	<b>Government consumption expenditures and gross investment .....</b>	-0.9	1.8	0.8	-4.3	-2.0	-2.0	-2.8	-1.0	0.1	2.5	-0.4	2.6	3.2	1.9	1.0	1.6	-1.7	0.8	0.4	22
23	Federal .....	-2.5	0.0	0.6	-10.5	-5.3	-5.1	-5.7	-0.2	-2.8	3.9	-6.0	1.9	0.2	1.0	3.8	-1.5	-0.4	2.4	-1.2	23
24	National defense .....	-4.1	-2.1	-0.7	-12.0	-5.3	-6.6	-4.2	-5.0	-3.2	4.0	-11.6	-0.4	-0.5	-1.2	4.4	-3.2	-3.2	2.0	-3.6	24
25	Nondefense .....	0.1	3.3	2.6	-8.1	-5.2	-2.6	-8.1	8.3	-2.0	3.9	3.5	5.4	1.1	4.2	2.8	0.9	3.8	3.0	2.3	25
26	State and local .....	0.2	2.9	1.0	0.2	0.3	0.1	-1.0	-1.5	2.0	1.6	3.3	3.0	5.1	2.5	-0.6	3.5	-2.5	-0.2	1.3	26
	<b>Addenda:</b>																				
27	Gross domestic income (GDI) <sup>1</sup> .....	3.0	2.5		-0.2	2.0	0.8	2.5	2.1	5.4	4.5	4.0	1.6	0.6	2.5	1.5	0.8	0.7	5.0		27
28	Average of GDP and GDI .....	2.7	2.6		1.3	1.4	2.0	3.2	0.4	4.7	4.7	3.1	1.8	1.6	2.2	1.2	0.8	1.1	4.3		28
29	Final sales of domestic product .....	2.5	2.4	2.0	1.8	0.6	1.5	4.1	0.8	3.3	4.7	2.1	1.0	3.2	2.6	1.2	1.2	2.6	3.0	0.9	29
30	Gross domestic purchases .....	2.4	3.2	1.7	2.4	0.9	2.9	2.6	0.0	4.3	4.3	3.4	3.6	2.6	2.4	1.3	0.8	1.2	2.6	3.5	30
31	Final sales to domestic purchasers .....	2.6	3.1	2.1	1.5	0.8	1.3	2.7	1.9	3.7	4.1	3.2	2.7	3.2	3.0	1.7	1.2	2.4	2.1	2.6	31
32	Final sales to private domestic purchasers .....	3.4	3.3	2.3	2.8	1.5	2.1	4.0	2.5	4.4	4.4	4.0	2.7	3.2	3.3	1.8	1.1	3.2	2.4	3.0	32
33	Gross national product (GNP) .....	2.3	2.3		2.7	1.2	3.2	3.9	-1.2	3.7	5.3	1.7	1.6	2.3	1.7	1.3	0.0	2.2	3.4		33
34	Disposable personal income .....	3.5	3.5	2.8	-15.7	2.4	2.4	0.9	4.5	5.3	4.1	4.3	2.0	3.9	3.3	3.0	2.1	2.9	2.9	2.0	34
	<b>Current-dollar measures:</b>																				
35	GDP .....	4.2	3.7	2.9	4.4	1.6	5.1	6.1	0.6	6.3	6.7	2.8	2.1	4.9	3.2	1.8	1.3	3.7	5.0	3.9	35
36	GDI .....	4.9	3.6		1.4	2.8	2.8	4.7	3.9	7.7	6.3	4.5	1.6	2.8	3.7	2.4	1.3	3.0	6.5		36
37	Average of GDP and GDI .....	4.5	3.7		2.9	2.2	3.9	5.4	2.2	7.0	6.5	3.7	1.8	3.9	3.5	2.1	1.3	3.4	5.7		37
38	Final sales of domestic product .....	4.4	3.6	3.4	3.3	1.6	3.6	6.4	2.5	5.5	6.5	2.6	1.1	5.5	3.9	2.1	1.8	5.0	4.5	2.9	38
39	Gross domestic purchases .....	4.2	3.7	2.7	4.0	1.4	4.4	4.7	2.1	6.2	5.8	3.7	2.2	4.2	3.5	1.7	1.0	3.3	4.1	5.5	39
40	Final sales to domestic purchasers .....	4.4	3.5	3.1	2.9	1.4	3.0	5.0	4.1	5.6	5.6	3.5	1.3	4.8	4.1	2.0	1.4	4.6	3.7	4.6	40
41	Final sales to private domestic purchasers .....	5.1	3.8	3.4	4.3	2.0	3.7	5.9	4.8	6.3	5.8	4.3	1.4	4.6	4.5	2.2	1.5	5.3	3.9	5.0	41
42	GNP .....	4.2	3.4		4.3	2.0	5.2	6.1	0.5	5.9	7.1	2.2	1.6	4.5	2.9	2.2	0.4	4.5	4.8		42
43	Disposable personal income .....	5.1	3.8	3.9	-14.5	2.5	3.9	2.6	6.6	7.3	5.2	4.3	0.3	5.8	4.4	3.4	2.4	5.0	4.4	4.0	43

<sup>r</sup> Revised. Revisions include changes to series affected by the incorporation of revised wage and salary estimates for the third quarter of 2016.

<sup>1</sup> Gross domestic income deflated by the implicit price deflator for gross domestic product.

See *Explanatory Note* at the end of the tables.

**Table 2. Contributions to Percent Change in Real Gross Domestic Product**

Line	2014	2015	2016 <sup>r</sup>	Seasonally adjusted at annual rates																Line
				2013				2014				2015				2016				
				I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV <sup>r</sup>	
<b>Percent change at annual rate:</b>																				
1	<b>2.4</b>	<b>2.6</b>	<b>1.6</b>	<b>2.8</b>	<b>0.8</b>	<b>3.1</b>	<b>4.0</b>	<b>-1.2</b>	<b>4.0</b>	<b>5.0</b>	<b>2.3</b>	<b>2.0</b>	<b>2.6</b>	<b>2.0</b>	<b>0.9</b>	<b>0.8</b>	<b>1.4</b>	<b>3.5</b>	<b>1.9</b>	1
<b>Percentage points at annual rates:</b>																				
2	<b>1.95</b>	<b>2.16</b>	<b>1.84</b>	<b>1.32</b>	<b>0.58</b>	<b>1.28</b>	<b>2.29</b>	<b>1.26</b>	<b>2.56</b>	<b>2.52</b>	<b>3.07</b>	<b>1.63</b>	<b>1.94</b>	<b>1.81</b>	<b>1.53</b>	<b>1.11</b>	<b>2.88</b>	<b>2.03</b>	<b>2.05</b>	2
3	<b>0.89</b>	<b>0.91</b>	<b>0.78</b>	<b>1.30</b>	<b>0.67</b>	<b>0.90</b>	<b>0.54</b>	<b>1.50</b>	<b>0.98</b>	<b>1.14</b>	<b>0.59</b>	<b>0.94</b>	<b>0.92</b>	<b>0.47</b>	<b>0.25</b>	<b>1.51</b>	<b>0.77</b>	<b>1.23</b>		3
4	0.49	0.51	0.42	0.72	0.16	0.30	0.36	0.33	0.91	0.62	0.61	0.30	0.55	0.45	0.30	-0.05	0.70	0.84	0.83	4
5	0.16	0.13	0.08	0.26	-0.07	-0.05	0.10	0.17	0.35	0.22	0.19	0.02	0.16	0.07	-0.04	-0.23	0.22	0.47	0.39	5
6	0.12	0.12	0.11	0.15	0.08	0.18	0.08	0.05	0.24	0.11	0.11	0.08	0.11	0.13	0.10	0.08	0.15	0.10	0.07	6
7	0.16	0.19	0.20	0.26	0.15	0.15	0.07	0.09	0.26	0.26	0.20	0.14	0.21	0.18	0.16	0.14	0.29	0.20	0.29	7
8	0.05	0.07	0.04	0.05	0.00	0.02	0.10	0.01	0.07	0.04	0.10	0.06	0.07	0.07	0.08	-0.04	0.05	0.07	0.08	8
9	0.40	0.40	0.36	0.59	0.14	0.37	0.54	0.21	0.59	0.35	0.53	0.28	0.39	0.47	0.17	0.30	0.80	-0.07	0.40	9
10	0.11	0.00	0.14	-0.01	-0.18	0.10	0.22	0.17	0.10	0.02	0.00	-0.02	-0.01	-0.03	-0.01	0.15	0.36	0.13	0.32	10
11	0.04	0.08	0.03	0.12	0.10	-0.03	0.04	-0.05	0.13	0.02	0.19	0.01	0.11	0.04	0.02	-0.02	0.10	-0.02	0.00	11
12	0.01	0.07	0.02	0.17	0.12	0.03	0.04	-0.04	-0.06	0.02	0.13	0.14	-0.01	0.10	-0.02	0.08	0.00	-0.04	-0.09	12
13	0.25	0.25	0.18	0.31	0.10	0.27	0.25	0.13	0.42	0.29	0.21	0.16	0.29	0.35	0.18	0.08	0.35	-0.14	0.18	13
14	<b>1.06</b>	<b>1.26</b>	<b>1.06</b>	<b>0.02</b>	<b>0.28</b>	<b>0.61</b>	<b>1.39</b>	<b>0.73</b>	<b>1.06</b>	<b>1.54</b>	<b>1.93</b>	<b>1.04</b>	<b>1.00</b>	<b>0.89</b>	<b>1.07</b>	<b>0.86</b>	<b>1.37</b>	<b>1.26</b>	<b>0.81</b>	14
15	1.08	1.26	0.99	0.08	0.33	0.67	1.35	0.71	1.13	1.60	2.00	1.08	0.99	0.69	0.92	0.85	1.46	1.02	0.87	15
16	0.17	0.20	0.15	0.22	0.03	-0.11	0.34	0.42	-0.06	0.00	0.39	0.39	0.11	0.21	-0.22	0.09	0.54	0.32	-0.14	16
17	0.36	0.60	0.53	-0.26	0.34	0.18	0.37	-0.15	0.70	0.73	0.90	0.50	0.44	0.43	0.42	0.63	0.83	0.07	0.66	17
18	0.09	0.07	0.02	0.10	0.10	0.09	-0.04	0.19	0.05	0.14	0.06	0.08	0.06	0.01	0.11	-0.03	-0.03	0.05	0.05	18
19	0.05	0.04	0.03	0.05	-0.12	0.20	0.07	0.07	-0.12	0.18	0.08	0.01	-0.05	0.03	0.24	-0.02	-0.18	0.14	0.05	19
20	0.14	0.19	0.12	0.16	-0.17	0.07	0.29	-0.01	0.27	0.19	0.25	0.12	0.29	0.07	0.17	0.11	0.12	0.10	0.00	20
21	0.07	0.01	0.01	0.30	0.11	0.03	0.19	-0.05	0.07	0.21	-0.04	-0.05	0.02	-0.05	0.11	-0.12	-0.03	0.23	0.08	21
22	0.20	0.14	0.13	-0.48	0.05	0.21	0.13	0.23	0.22	0.15	0.36	0.03	0.13	-0.01	0.10	0.18	0.19	0.11	0.16	22
23	-0.02	0.00	0.06	-0.06	-0.06	-0.06	0.04	0.02	-0.07	-0.06	-0.07	-0.04	0.00	0.20	0.15	0.01	-0.08	0.24	-0.05	23
24	0.11	0.18	0.26	-0.15	0.22	0.00	0.29	-0.33	0.36	0.29	0.39	0.01	0.07	0.10	0.25	0.28	0.40	0.27	0.28	24
25	0.14	0.18	0.20	-0.08	0.27	0.06	0.25	-0.35	0.43	0.35	0.46	0.05	0.06	-0.09	0.10	0.27	0.49	0.03	0.33	25
26	<b>0.73</b>	<b>0.82</b>	<b>-0.26</b>	<b>2.04</b>	<b>0.78</b>	<b>2.08</b>	<b>0.91</b>	<b>-1.10</b>	<b>1.79</b>	<b>1.49</b>	<b>0.45</b>	<b>1.62</b>	<b>0.18</b>	<b>0.35</b>	<b>-0.39</b>	<b>-0.56</b>	<b>-1.34</b>	<b>0.50</b>	<b>1.45</b>	26
27	<b>0.87</b>	<b>0.65</b>	<b>0.11</b>	<b>1.12</b>	<b>0.70</b>	<b>0.48</b>	<b>1.01</b>	<b>0.79</b>	<b>1.12</b>	<b>1.16</b>	<b>0.22</b>	<b>0.61</b>	<b>0.70</b>	<b>0.92</b>	<b>-0.03</b>	<b>-0.15</b>	<b>-0.18</b>	<b>0.02</b>	<b>0.51</b>	27
28	0.76	0.27	-0.06	0.72	0.35	0.29	1.16	0.84	0.76	1.05	-0.14	0.18	0.21	0.49	-0.43	-0.44	0.12	0.18	0.17	28
29	0.29	-0.13	-0.08	-0.14	0.27	0.44	0.06	0.66	0.22	-0.08	0.13	-0.39	-0.07	-0.12	-0.45	0.00	-0.06	0.30	-0.12	29
30	0.32	0.21	-0.17	0.57	0.21	-0.29	1.05	0.00	0.37	0.86	-0.57	0.54	-0.02	0.53	-0.16	-0.59	-0.17	-0.26	0.11	30
31	0.05	0.07	0.04	0.26	0.08	-0.02	-0.04	0.05	0.28	-0.25	0.25	0.00	-0.09	0.40	0.02	-0.05	-0.09	0.15	0.07	31
32	0.00	0.00	-0.01	0.02	-0.12	0.02	0.08	-0.08	0.05	0.02	0.02	-0.08	0.06	0.05	-0.13	0.02	0.05	-0.02	-0.04	32
33	0.04	0.07	0.05	0.25	0.20	-0.04	-0.11	0.12	0.22	-0.26	0.23	0.08	-0.15	0.35	0.15	-0.07	-0.13	0.17	0.11	33
34	0.04	0.02	0.03	-0.02	-0.10	0.06	-0.12	0.15	0.13	0.09	-0.14	0.01	0.15	-0.06	0.12	-0.05	0.11	-0.03	0.05	34
35	0.17	0.18	-0.10	0.13	0.38	-0.14	0.49	-0.03	0.12	0.47	-0.13	0.46	-0.02	0.26	-0.11	-0.23	-0.09	-0.29	-0.02	35
36	0.06	-0.06	-0.15	0.19	-0.14	-0.19	0.72	-0.17	-0.16	0.54	-0.54	0.07	-0.06	-0.07	-0.19	-0.26	-0.11	-0.08	0.00	36
37	0.15	0.19	0.19	0.29	-0.13	0.14	0.04	0.18	0.17	0.27	0.29	0.03	0.31	0.08	0.18	0.15	0.35	0.13	0.18	37
38	0.10	0.11	0.08	0.11	-0.13	0.14	0.08	0.09	0.14	0.17	0.13	0.15	0.11	-0.02	0.06	0.13	0.08	0.12	0.06	38
39	0.05	0.06	0.10	0.17	0.00	0.01	-0.04	0.10	0.04	0.09	0.14	-0.13	0.18	0.08	0.11	0.02	0.28	-0.03	0.07	39
40	0.00	0.02	0.01	0.01	0.00	-0.01	0.00	-0.01	0.00	0.01	0.02	0.02	0.02	0.02	0.01	-0.01	-0.01	0.04	0.05	40
41	0.11	0.39	0.18	0.41	0.35	0.18	-0.15	-0.04	0.36	0.12	0.36	0.43	0.49	0.43	0.40	0.29	-0.31	-0.16	0.35	41
42	<b>-0.14</b>	<b>0.17</b>	<b>-0.37</b>	<b>0.92</b>	<b>0.08</b>	<b>1.60</b>	<b>-0.11</b>	<b>-1.89</b>	<b>0.67</b>	<b>0.32</b>	<b>0.23</b>	<b>1.01</b>	<b>-0.52</b>	<b>-0.57</b>	<b>0.36</b>	<b>-0.41</b>	<b>-1.16</b>	<b>0.49</b>	<b>0.94</b>	42
43	-0.07	0.00	-0.01	0.47	0.17	0.14	0.06	-0.39	0.03	0.02	-0.04	0.09	-0.05	0.01	-0.08	-0.05	0.07	0.08	-0.13	43
44	-0.07	0.17	-0.36	0.45	-0.09	1.46	-0.16	-1.50	0.64	0.30	0.28	0.92	-0.47	-0.58	-0.28	-0.35	-1.23	0.41	1.06	44
45	<b>-0.15</b>	<b>-0.71</b>	<b>-0.12</b>	<b>0.30</b>	<b>-0.21</b>	<b>0.13</b>	<b>1.29</b>	<b>-1.16</b>	<b>-0.41</b>	<b>0.50</b>	<b>-1.14</b>	<b>-1.65</b>	<b>-0.08</b>	<b>-0.52</b>	<b>-0.45</b>	<b>0.01</b>	<b>0.18</b>	<b>0.85</b>	<b>-1.70</b>	45
46	<b>0.58</b>	<b>0.01</b>	<b>0.05</b>	<b>0.52</b>	<b>0.65</b>	<b>0.41</b>	<b>1.54</b>	<b>-0.39</b>	<b>1.16</b>	<b>0.29</b>	<b>0.60</b>	<b>-0.78</b>	<b>0.37</b>	<b>-0.36</b>	<b>-0.34</b>	<b>-0.09</b>	<b>0.21</b>	<b>1.16</b>	<b>-0.50</b>	46
47	0.41	-0.06	0.05	0.23	0.59	0.32	1.38	-0.72	0.96	0.41	0.35	-0.94	0.39	-0.26	-0.38	0.01	0.13	1.08	-0.54	47
48	0.17	0.07	0.00	0.29	0.06	0.09	0.16	0.33	0.20	-0.13	0.25	0.16	-0.02	-0.10	0.04	-0.09	0.08	0.08	0.04	48
49	<b>-0.72</b>	<b>-0.73</b>	<b>-0.17</b>	<b>-0.22</b>	<b>-0.86</b>	<b>-0.28</b>	<b>-0.24</b>	<b>-0.77</b>	<b>-1.57</b>	<b>0.21</b>	<b>-1.74</b>	<b>-0.87</b>	<b>-0.44</b>	<b>-0.16</b>	<b>-0.11</b>	<b>0.09</b>	<b>-0.03</b>	<b>-0.31</b>	<b>-1.20</b>	49
50	-0.65	-0.65	-0.09	-0.25	-0.79	-0.23	-0.21	-0.74	-1.40	0.21	-1.50	-0.87	-0.43	0.02	-0.09	0.16	0.00	-0.06	-1.21	50
51	-0.07	-0.08	-0.08	0.03	-0.07	-0.05	-0.03	-0.03	-0.17	0.00	-0.24	0.00	-0.01	-0.18	-0.02	-0.07	-0.03	-0.26	0.01	51
52	<b>-0.16</b>	<b>0.32</b>	<b>0.15</b>	<b>-0.83</b>	<b>-0.37</b>	<b>-0.37</b>	<b>-0.53</b>	<b>-0.19</b>	<b>0.02</b>	<b>0.46</b>	<b>-0.07</b>	<b>0.45</b>	<b>0.57</b>	<b>0.34</b>	<b>0.18</b>	<b>0.28</b>	<b>-0.30</b>	<b>0.14</b>	<b>0.06</b>	52
53	<b>-0.19</b>	<b>0.00</b>	<b>0.04</b>	<b>-0.86</b>	<b>-0.41</b>	<b>-0.39</b>	<b>-0.42</b>													

**Table 3. Gross Domestic Product: Level and Change From Preceding Period—Continues**

Line		Billions of dollars						Billions of chained (2009) dollars									Line
		2016 <sup>r</sup>	Seasonally adjusted at annual rates					2016 <sup>r</sup>	Seasonally adjusted at annual rates					Change from preceding period			
			2015	2016					2015	2016				2016 <sup>r</sup>	2016		
				IV	I	II	III <sup>r</sup>			IV <sup>r</sup>	IV	I	II		III <sup>r</sup>	IV <sup>r</sup>	
1	<b>Gross domestic product (GDP)</b> .....	<b>18,565.6</b>	<b>18,222.8</b>	<b>18,281.6</b>	<b>18,450.1</b>	<b>18,675.3</b>	<b>18,855.5</b>	<b>16,659.8</b>	<b>16,490.7</b>	<b>16,525.0</b>	<b>16,583.1</b>	<b>16,727.0</b>	<b>16,804.1</b>	<b>262.6</b>	<b>143.8</b>	<b>77.1</b>	1
2	<b>Personal consumption expenditures</b> .....	<b>12,753.1</b>	<b>12,438.8</b>	<b>12,498.0</b>	<b>12,692.7</b>	<b>12,832.2</b>	<b>12,989.5</b>	<b>11,518.5</b>	<b>11,319.3</b>	<b>11,365.2</b>	<b>11,484.9</b>	<b>11,569.0</b>	<b>11,655.0</b>	<b>303.8</b>	<b>84.2</b>	<b>86.0</b>	2
3	<b>Goods</b> .....	<b>4,097.5</b>	<b>4,038.1</b>	<b>4,008.7</b>	<b>4,085.4</b>	<b>4,111.9</b>	<b>4,184.3</b>	<b>4,047.5</b>	<b>3,953.4</b>	<b>3,964.7</b>	<b>4,032.9</b>	<b>4,067.8</b>	<b>4,124.6</b>	<b>140.1</b>	<b>34.9</b>	<b>56.8</b>	3
4	Durable goods.....	1,402.9	1,371.8	1,366.6	1,390.0	1,414.0	1,441.1	1,584.7	1,527.3	1,524.9	1,560.9	1,604.4	1,648.6	86.6	43.5	44.2	4
5	Motor vehicles and parts.....	474.6	465.6	455.7	462.5	481.7	498.5	432.5	421.1	411.8	420.8	440.4	457.0	13.1	19.6	16.7	5
6	Furnishings and durable household equipment.....	316.5	309.6	312.5	317.6	317.5	318.4	374.6	360.4	364.7	372.9	378.4	382.4	23.0	5.5	4.0	6
7	Recreational goods and vehicles.....	393.1	385.1	384.9	391.7	395.1	400.8	587.0	551.5	560.6	579.9	593.5	614.1	52.0	13.6	20.6	7
8	Other durable goods.....	218.7	211.6	213.6	218.3	219.6	223.4	216.6	214.3	212.4	214.6	217.9	221.5	7.5	3.3	3.6	8
9	Nondurable goods.....	2,694.6	2,666.3	2,642.0	2,695.4	2,697.9	2,743.2	2,499.7	2,458.4	2,471.1	2,505.4	2,502.5	2,519.8	60.4	-3.0	17.3	9
10	Food and beverages purchased for off-premises consumption.....	916.9	901.1	904.3	916.5	917.4	929.5	833.9	810.5	816.8	831.6	836.9	850.4	22.6	5.2	13.5	10
11	Clothing and footwear.....	383.6	379.5	381.7	385.5	384.4	382.7	368.2	366.0	365.4	369.7	368.9	369.0	4.8	-0.7	0.0	11
12	Gasoline and other energy goods.....	271.6	292.1	254.4	271.5	268.9	291.5	289.7	287.7	291.8	291.6	289.8	285.4	3.4	-1.8	-4.4	12
13	Other nondurable goods.....	1,122.6	1,093.6	1,101.7	1,121.9	1,127.2	1,139.5	1,018.2	1,005.1	1,008.3	1,023.0	1,017.1	1,024.5	29.1	-5.9	7.4	13
14	<b>Services</b> .....	<b>8,655.5</b>	<b>8,400.6</b>	<b>8,489.3</b>	<b>8,607.3</b>	<b>8,720.3</b>	<b>8,805.3</b>	<b>7,478.0</b>	<b>7,369.8</b>	<b>7,403.9</b>	<b>7,458.5</b>	<b>7,508.5</b>	<b>7,541.2</b>	<b>167.7</b>	<b>50.0</b>	<b>32.7</b>	14
15	Household consumption expenditures (for services).....	8,302.9	8,058.4	8,141.2	8,261.2	8,362.2	8,446.9	7,170.7	7,064.4	7,098.2	7,156.2	7,196.7	7,231.5	157.4	40.6	34.7	15
16	Housing and utilities.....	2,326.2	2,253.5	2,270.5	2,314.4	2,351.7	2,368.2	2,020.5	1,995.5	1,999.0	2,020.9	2,033.9	2,028.1	23.5	13.0	-5.8	16
17	Health care.....	2,189.5	2,105.1	2,138.5	2,184.6	2,197.6	2,237.2	1,973.1	1,912.4	1,938.7	1,973.3	1,976.2	2,004.1	87.0	2.9	27.9	17
18	Transportation services.....	377.5	373.3	375.2	374.8	377.8	382.1	338.4	338.9	337.8	336.4	338.5	340.8	3.7	2.2	2.3	18
19	Recreation services.....	482.8	477.4	479.8	476.7	485.7	489.2	423.9	426.6	425.9	418.8	424.5	426.4	4.7	5.7	1.9	19
20	Food services and accommodations.....	851.9	827.7	838.8	848.4	857.5	862.8	722.7	712.9	717.2	721.9	725.8	725.7	18.9	3.9	-0.1	20
21	Financial services and insurance.....	956.9	931.3	936.1	947.4	968.4	975.5	720.7	720.9	716.7	715.8	723.6	726.5	1.9	7.8	2.9	21
22	Other services.....	1,118.1	1,090.3	1,102.3	1,114.9	1,123.4	1,132.0	979.4	962.6	969.8	977.5	981.8	988.5	21.0	4.3	6.7	22
23	Final consumption expenditures of nonprofit institutions serving households.....	352.7	342.2	348.1	346.1	358.1	358.3	307.5	305.5	305.7	302.4	311.9	309.8	10.5	9.5	-2.1	23
24	Gross output of nonprofit institutions.....	1,412.3	1,357.3	1,378.3	1,403.6	1,423.0	1,444.4	1,226.5	1,195.0	1,206.2	1,222.4	1,233.1	1,244.4	41.6	10.8	11.3	24
25	Less: Receipts from sales of goods and services by nonprofit institutions.....	1,059.7	1,015.1	1,030.3	1,057.5	1,064.8	1,086.1	919.0	889.5	900.4	919.9	921.2	934.6	31.3	1.3	13.3	25
26	<b>Gross private domestic investment</b> .....	<b>3,035.4</b>	<b>3,059.9</b>	<b>3,036.8</b>	<b>2,987.5</b>	<b>3,017.2</b>	<b>3,100.1</b>	<b>2,824.3</b>	<b>2,865.4</b>	<b>2,841.5</b>	<b>2,783.8</b>	<b>2,804.7</b>	<b>2,867.4</b>	<b>-44.7</b>	<b>20.8</b>	<b>62.7</b>	26
27	<b>Fixed investment</b> .....	<b>3,015.4</b>	<b>2,997.2</b>	<b>2,994.8</b>	<b>3,002.5</b>	<b>3,013.1</b>	<b>3,051.3</b>	<b>2,786.5</b>	<b>2,793.3</b>	<b>2,786.7</b>	<b>2,778.8</b>	<b>2,779.3</b>	<b>2,801.3</b>	<b>18.8</b>	<b>0.5</b>	<b>22.1</b>	27
28	Nonresidential.....	2,309.4	2,311.3	2,292.4	2,304.7	2,313.8	2,326.8	2,189.2	2,198.8	2,179.7	2,185.0	2,192.5	2,199.7	-11.0	7.5	7.2	28
29	Structures.....	493.0	487.8	486.0	487.3	500.5	498.1	438.4	435.1	435.2	432.9	445.3	440.3	-13.7	12.4	-5.0	29
30	Equipment.....	1,056.9	1,092.6	1,066.3	1,058.7	1,049.3	1,053.4	1,041.3	1,078.6	1,052.0	1,044.1	1,032.2	1,037.0	-31.1	-11.9	4.8	30
31	Information processing equipment.....	321.0	322.1	319.9	316.8	322.8	324.4	346.9	348.1	345.5	341.2	348.7	352.3	8.2	7.4	3.7	31
32	Computers and peripheral equipment.....	76.4	75.4	76.0	78.2	77.0	74.4	87.7	85.9	86.9	89.3	88.3	86.3	-1.1	-1.0	-2.0	32
33	Other.....	244.6	246.6	243.9	238.6	245.8	250.0	258.2	261.1	257.6	251.2	259.3	264.8	9.0	8.1	5.4	33
34	Industrial equipment.....	226.1	224.7	222.2	227.3	226.1	228.6	212.9	211.5	209.4	214.2	212.8	215.2	5.6	-1.3	2.4	34
35	Transportation equipment.....	293.1	310.7	301.3	297.6	286.7	286.6	283.9	304.0	293.7	289.7	276.5	275.7	-18.2	-13.2	-0.8	35
36	Other equipment.....	216.8	235.1	222.9	217.0	213.7	213.7	205.8	222.5	211.3	206.6	202.8	202.7	-25.0	-3.7	-0.2	36
37	Intellectual property products.....	759.5	730.9	740.1	758.7	763.9	775.4	713.2	690.7	697.1	712.2	717.9	725.8	33.3	5.6	7.9	37
38	Software.....	340.9	330.1	336.0	339.4	342.6	345.5	348.5	336.0	342.2	346.0	351.6	354.3	15.4	5.6	2.7	38
39	Research and development.....	336.1	320.3	323.0	337.9	338.8	344.7	286.0	276.6	277.5	288.6	287.6	290.3	15.8	-1.0	2.8	39
40	Entertainment, literary, and artistic originals.....	82.5	80.6	81.1	81.4	82.5	85.1	79.6	78.9	78.6	78.0	79.7	82.1	1.8	1.6	2.5	40
41	Residential.....	706.0	685.9	702.4	697.8	699.3	724.5	592.0	589.5	600.7	588.7	582.5	596.0	27.4	-6.2	13.5	41
42	<b>Change in private inventories</b> .....	<b>20.0</b>	<b>62.7</b>	<b>41.9</b>	<b>-15.0</b>	<b>4.1</b>	<b>48.8</b>	<b>21.1</b>	<b>56.9</b>	<b>40.7</b>	<b>-9.5</b>	<b>7.1</b>	<b>46.2</b>	<b>-62.9</b>	<b>16.5</b>	<b>39.1</b>	42
43	Farm.....	-6.2	-4.8	-8.3	-5.5	-2.7	-8.5	-3.3	-4.1	-5.1	-2.6	0.0	-5.3	-1.7	2.7	-5.3	43
44	Nonfarm.....	26.2	67.5	50.3	-9.4	6.7	57.3	25.0	62.9	47.5	-6.6	7.2	51.8	-63.2	13.7	44.7	44
45	<b>Net exports of goods and services</b> .....	<b>-499.9</b>	<b>-520.9</b>	<b>-507.4</b>	<b>-492.4</b>	<b>-460.0</b>	<b>-539.8</b>	<b>-561.6</b>	<b>-566.6</b>	<b>-566.3</b>	<b>-558.5</b>	<b>-522.2</b>	<b>-599.6</b>	<b>-21.7</b>	<b>36.2</b>	<b>-77.4</b>	45
46	<b>Exports</b> .....	<b>2,233.0</b>	<b>2,211.7</b>	<b>2,179.0</b>	<b>2,209.7</b>	<b>2,276.3</b>	<b>2,267.1</b>	<b>2,128.8</b>	<b>2,105.8</b>	<b>2,102.0</b>	<b>2,111.3</b>	<b>2,162.0</b>	<b>2,139.9</b>	<b>8.2</b>	<b>50.7</b>	<b>-22.2</b>	46
47	Goods.....	1,455.0	1,448.3	1,410.9	1,437.2	1,495.4	1,476.6	1,446.9	1,423.8	1,424.1	1,430.1	1,479.2	1,454.2	8.8	49.0	-25.0	47
48	Services.....	778.0	763.4	768.1	772.5	780.9	790.5	681.8	681.1	677.3	680.5	683.9	685.5	-0.1	3.4	1.6	48
49	<b>Imports</b> .....	<b>2,732.9</b>	<b>2,732.6</b>	<b>2,686.3</b>	<b>2,702.2</b>	<b>2,736.2</b>	<b>2,806.9</b>	<b>2,690.4</b>	<b>2,672.4</b>	<b>2,668.2</b>	<b>2,669.7</b>	<b>2,684.3</b>	<b>2,739.5</b>	<b>29.9</b>	<b>14.5</b>	<b>55.2</b>	49
50	Goods.....	2,225.2	2,235.0	2,185.7	2,199.4	2,222.7	2,293.0	2,209.7	2,201.4	2,194.1	2,194.3	2,197.2	2,253.3	15.6	2.9	56.1	50
51	Services.....	507.7	497.7	500.7	502.7	513.5	513.9	478.3	469.0	471.9	473.2	484.4	483.9	13.9	11.2	-0.5	51

<sup>r</sup> Revised. Revisions include changes to series affected by the incorporation of revised wage and salary estimates for the third quarter of 2016.

1. Real gross domestic income is gross domestic income deflated by the implicit price deflator for gross domestic product.

NOTE: Users are cautioned that particularly for components that exhibit rapid change in prices relative to other prices in the economy, the chained-dollar estimates should not be used to measure the component's relative importance or its contribution to the growth rate of more aggregate series. For accurate estimates of the contributions to percent changes in real gross domestic product, use table 2. See *Explanatory Note* at the end of the tables.



**Table 3. Gross Domestic Product: Level and Change From Preceding Period—Table Ends**

Line		Billions of dollars						Billions of chained (2009) dollars									Line
		2016 <sup>r</sup>	Seasonally adjusted at annual rates					2016 <sup>r</sup>	Seasonally adjusted at annual rates					Change from preceding period			
			2015	2016					2015	2016				2016 <sup>r</sup>	2016		
				IV	I	II	III <sup>r</sup>			IV <sup>r</sup>	IV	I	II		III <sup>r</sup>	IV <sup>r</sup>	
52	<b>Government consumption expenditures and gross investment</b> .....	<b>3,277.1</b>	<b>3,245.0</b>	<b>3,254.3</b>	<b>3,262.3</b>	<b>3,285.9</b>	<b>3,305.7</b>	<b>2,907.3</b>	<b>2,901.7</b>	<b>2,913.2</b>	<b>2,900.9</b>	<b>2,906.4</b>	<b>2,908.9</b>	<b>23.7</b>	<b>5.5</b>	<b>2.6</b>	52
53	<b>Federal</b> .....	<b>1,244.5</b>	<b>1,234.0</b>	<b>1,233.8</b>	<b>1,239.2</b>	<b>1,251.8</b>	<b>1,253.2</b>	<b>1,120.5</b>	<b>1,123.0</b>	<b>1,118.7</b>	<b>1,117.7</b>	<b>1,124.4</b>	<b>1,121.1</b>	<b>6.6</b>	<b>6.7</b>	<b>-3.3</b>	53
54	National defense .....	732.2	735.6	731.4	729.3	736.0	732.0	667.0	676.3	670.9	665.5	668.9	662.8	-5.0	3.3	-6.0	54
55	Consumption expenditures.....	587.6	590.4	587.0	585.8	591.3	586.3	531.7	539.9	535.3	531.0	533.5	526.9	-7.6	2.5	-6.5	55
56	Gross investment .....	144.5	145.2	144.3	143.5	144.7	145.6	135.1	136.1	135.3	134.3	135.1	135.7	2.7	0.8	0.6	56
57	Nondefense.....	512.3	498.4	502.4	509.9	515.8	521.2	452.6	446.2	447.2	451.4	454.7	457.3	11.4	3.3	2.6	57
58	Consumption expenditures.....	390.5	377.7	382.0	388.8	393.7	397.5	341.1	334.9	336.4	340.4	343.0	344.8	10.3	2.7	1.7	58
59	Gross investment .....	121.9	120.8	120.5	121.1	122.2	123.7	111.3	111.1	110.6	110.8	111.5	112.4	1.0	0.6	0.9	59
60	<b>State and local</b> .....	<b>2,032.6</b>	<b>2,011.0</b>	<b>2,020.5</b>	<b>2,023.1</b>	<b>2,034.1</b>	<b>2,052.5</b>	<b>1,785.2</b>	<b>1,777.1</b>	<b>1,792.6</b>	<b>1,781.4</b>	<b>1,780.4</b>	<b>1,786.1</b>	<b>17.0</b>	<b>-1.0</b>	<b>5.7</b>	60
61	Consumption expenditures .....	1,677.1	1,658.5	1,654.0	1,669.2	1,687.4	1,697.6	1,468.3	1,461.3	1,463.6	1,466.3	1,471.6	1,471.6	15.8	5.3	0.0	61
62	Gross investment .....	355.5	352.6	366.5	353.9	346.7	354.8	316.1	315.0	328.3	314.3	308.0	313.8	1.1	-6.4	5.9	62
63	Residual.....							-106.2	-94.0	-98.2	-104.3	-110.0	-112.2				63
	<b>Addenda:</b>																
64	Gross domestic income (GDI) <sup>1</sup> .....	18,487.6	18,546.0	18,684.0	18,979.9			16,730.3	16,763.9	16,793.4	16,999.8			206.5			64
65	Average of GDP and GDI .....	18,355.2	18,413.8	18,567.0	18,827.6			16,610.5	16,644.5	16,688.3	16,863.4			175.1			65
66	Final sales of domestic product .....	18,545.7	18,160.1	18,239.7	18,465.0	18,671.2	18,806.7	16,624.6	16,422.4	16,473.5	16,579.5	16,703.6	16,741.6	323.9	124.0	38.1	66
67	Gross domestic purchases .....	19,065.5	18,743.7	18,789.0	18,942.5	19,135.2	19,395.2	17,222.2	17,057.2	17,091.5	17,142.6	17,252.6	17,402.0	284.4	110.0	149.4	67
68	Final sales to domestic purchasers.....	19,045.5	18,681.0	18,747.1	18,957.5	19,131.2	19,346.5	17,187.6	16,989.4	17,040.5	17,139.9	17,230.0	17,340.1	346.0	90.1	110.0	68
69	Final sales to private domestic purchasers...	15,768.5	15,436.0	15,492.8	15,695.2	15,845.2	16,040.8	14,292.4	14,099.1	14,138.7	14,251.0	14,335.9	14,443.9	323.3	84.9	107.9	69
70	<b>Gross domestic product</b> .....	<b>18,565.6</b>	<b>18,222.8</b>	<b>18,281.6</b>	<b>18,450.1</b>	<b>18,675.3</b>	<b>18,855.5</b>	<b>16,659.8</b>	<b>16,490.7</b>	<b>16,525.0</b>	<b>16,583.1</b>	<b>16,727.0</b>	<b>16,804.1</b>	<b>262.6</b>	<b>143.8</b>	<b>77.1</b>	70
71	Plus: Income receipts from the rest of the world.....		798.5	807.0	848.3	848.9		664.9	671.0	701.8	699.6				-2.2		71
72	Less: Income payments to the rest of the world.....		587.1	634.5	640.5	644.9		486.3	524.0	526.0	527.4				1.4		72
73	<b>Equals: Gross national product</b> .....		<b>18,434.1</b>	<b>18,454.2</b>	<b>18,657.9</b>	<b>18,879.3</b>		<b>16,668.4</b>	<b>16,668.3</b>	<b>16,757.6</b>	<b>16,897.4</b>				<b>139.7</b>		73
74	Net domestic product .....	15,655.6	15,360.0	15,408.1	15,548.3	15,753.6	15,912.4	13,973.8	13,836.9	13,857.5	13,902.9	14,034.6	14,100.4	207.6	131.6	65.8	74

<sup>r</sup> Revised. Revisions include changes to series affected by the incorporation of revised wage and salary estimates for the third quarter of 2016.

<sup>1</sup> Real gross domestic income is gross domestic income deflated by the implicit price deflator for gross domestic product.

NOTE: Users are cautioned that particularly for components that exhibit rapid change in prices relative to other prices in the economy, the chained-dollar estimates should not be used to measure the component's relative importance or its contribution to the growth rate of more aggregate series. For accurate estimates of the contributions to percent changes in real gross domestic product, use table 2.

See Explanatory Note at the end of the tables.

**Table 4. Price Indexes for Gross Domestic Product and Related Measures: Percent Change From Preceding Period**

Line		2014	2015	2016 <sup>r</sup>	Seasonally adjusted at annual rates																Line
					2013				2014				2015				2016				
					I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV <sup>r</sup>	
1	<b>Gross domestic product (GDP).....</b>	1.8	1.1	1.3	1.4	0.9	2.1	2.1	1.7	2.1	1.7	0.5	-0.1	2.3	1.3	0.8	0.5	2.3	1.4	2.0	1
2	<b>Personal consumption expenditures.....</b>	1.5	0.3	1.1	1.4	0.2	1.5	1.7	2.0	1.9	1.1	0.0	-1.6	1.8	1.1	0.4	0.3	2.0	1.5	1.9	2
3	Goods.....	-0.4	-2.9	-1.4	-0.5	-3.7	0.3	0.0	0.6	0.2	-1.0	-3.5	-8.0	1.2	-0.9	-2.6	-4.0	0.8	-0.9	1.4	3
4	Durable goods.....	-2.3	-2.1	-2.1	-1.2	-2.4	-2.6	-2.1	-2.4	-1.9	-2.3	-3.0	-2.2	-0.6	-2.6	-1.8	-0.9	-2.5	-4.1	-3.2	4
5	Nondurable goods.....	0.6	-3.3	-1.0	-0.2	-4.3	1.8	1.0	2.0	1.3	-0.3	-3.7	-10.8	2.2	0.0	-2.9	-5.6	2.5	0.8	4.0	5
6	Services.....	2.5	2.0	2.3	2.5	2.2	2.1	2.7	2.7	2.7	2.1	1.8	1.7	2.1	2.2	1.8	2.4	2.6	2.6	2.2	6
7	<b>Gross private domestic investment.....</b>	2.1	0.8	0.9	1.3	1.9	1.9	1.9	3.0	1.4	2.4	1.8	-0.1	-0.1	1.2	0.3	0.6	1.8	1.1	1.9	7
8	Fixed investment.....	2.3	1.0	1.1	1.3	2.0	2.0	2.3	3.2	1.4	2.4	1.7	0.5	-0.3	1.3	0.4	0.6	2.2	1.4	1.9	8
9	Nonresidential.....	1.4	0.6	0.4	0.2	1.2	1.2	1.0	1.8	1.5	1.2	0.9	0.6	-0.3	0.8	-0.1	0.2	1.2	0.2	0.9	9
10	Structures.....	3.8	0.0	0.2	1.3	4.0	2.7	4.8	4.6	3.3	3.2	1.9	-2.3	-2.5	0.9	-0.2	-1.5	3.2	-0.6	2.6	10
11	Equipment.....	0.4	0.8	0.2	-0.4	-0.3	0.5	-1.8	1.2	1.5	0.8	1.1	1.5	0.0	0.1	0.1	0.3	0.1	1.0	-0.3	11
12	Intellectual property products.....	1.0	0.8	0.9	0.4	1.6	1.2	2.7	0.8	0.1	0.4	-0.2	1.6	0.8	1.8	-0.2	1.3	1.4	-0.4	1.6	12
13	Residential.....	6.0	2.4	3.3	6.3	5.3	5.4	7.6	8.7	1.3	7.1	4.9	0.2	-0.1	2.9	2.2	2.0	5.6	5.2	5.1	13
14	Change in private inventories.....																				14
15	<b>Net exports of goods and services.....</b>																				15
16	Exports.....	0.1	-4.8	-1.8	1.2	-2.9	0.7	-0.3	3.2	0.0	-1.0	-6.8	-9.2	-0.9	-4.0	-5.5	-5.1	3.9	2.4	2.5	16
17	Goods.....	-0.9	-6.8	-3.5	0.6	-4.4	0.1	-1.7	3.5	-1.1	-2.4	-9.5	-12.1	-1.8	-5.8	-7.8	-10.0	5.9	2.4	1.8	17
18	Services.....	2.1	-0.5	1.6	2.3	0.5	1.9	2.9	2.4	2.3	2.3	-0.6	-3.2	0.8	-0.4	-1.1	4.8	0.4	2.4	4.0	18
19	Imports.....	-0.2	-7.6	-3.0	1.0	-4.2	-1.8	0.0	5.2	-1.6	-2.1	-7.0	-15.5	-4.8	-4.5	-7.6	-6.0	2.1	2.9	2.1	19
20	Goods.....	-0.6	-8.9	-3.6	1.0	-5.0	-2.4	-0.9	5.9	-2.1	-2.7	-8.0	-17.8	-5.9	-5.0	-9.0	-7.3	2.5	3.7	2.4	20
21	Services.....	1.7	-1.3	-0.5	1.4	-0.1	1.1	4.7	1.9	1.3	0.9	-1.6	-3.7	0.7	-2.2	-1.3	-0.1	0.6	-0.8	0.7	21
22	<b>Government consumption expenditures and gross investment.....</b>	2.0	0.3	1.0	1.5	1.1	1.9	3.7	1.8	1.9	2.0	0.0	-2.1	2.2	0.5	0.1	-0.4	2.7	2.1	2.1	22
23	Federal.....	1.7	0.5	1.0	0.5	0.9	1.6	6.3	-0.7	1.6	1.5	0.2	0.2	0.9	0.0	-0.8	1.5	2.1	1.7	1.6	23
24	National defense.....	1.4	0.2	0.8	0.1	0.4	1.3	4.2	0.4	1.1	1.2	-0.1	-0.3	0.8	-0.2	-0.9	0.9	2.1	1.6	1.5	24
25	Nondefense.....	2.2	1.0	1.3	1.0	1.7	2.1	9.8	-2.6	2.3	2.0	0.7	0.9	1.1	0.3	-0.6	2.3	2.2	1.7	1.9	25
26	State and local.....	2.2	0.2	1.0	2.1	1.2	2.0	2.0	3.4	2.1	2.3	-0.1	-3.5	3.0	0.8	0.6	-1.6	3.1	2.4	2.3	26
	<b>Addenda:</b>																				
27	Final sales of domestic product.....	1.8	1.1	1.3	1.5	0.9	2.1	2.2	1.8	2.1	1.7	0.5	0.0	2.3	1.3	0.9	0.5	2.4	1.5	2.0	27
28	Gross domestic purchases.....	1.7	0.4	1.0	1.4	0.6	1.6	2.1	2.1	1.8	1.5	0.3	-1.4	1.6	1.0	0.3	0.2	2.1	1.5	1.9	28
29	Final sales to domestic purchasers.....	1.7	0.4	1.1	1.4	0.6	1.6	2.2	2.1	1.8	1.4	0.3	-1.4	1.5	1.0	0.3	0.2	2.2	1.6	1.9	29
30	Final sales to private domestic purchasers.....	1.7	0.5	1.1	1.4	0.5	1.6	1.8	2.2	1.8	1.3	0.3	-1.2	1.4	1.2	0.4	0.3	2.0	1.4	1.9	30
31	Gross national product (GNP).....	1.8	1.0		1.5	0.9	2.1	2.1	1.7	2.1	1.7	0.5	-0.1	2.3	1.3	0.8	0.5	2.3	1.4		31
	<b>Implicit price deflators:</b>																				
32	GDP.....	1.8	1.1	1.3	1.6	0.8	1.9	2.1	1.8	2.2	1.7	0.5	0.0	2.2	1.2	0.9	0.5	2.3	1.4	2.0	32
33	Gross domestic purchases.....	1.7	0.4	1.0	1.5	0.5	1.5	2.1	2.2	1.9	1.4	0.3	-1.4	1.5	1.0	0.4	0.2	2.1	1.5	2.0	33
34	GNP.....	1.8	1.0		1.6	0.8	1.9	2.1	1.8	2.2	1.7	0.5	0.0	2.2	1.2	0.9	0.4	2.3	1.4		34

<sup>r</sup> Revised  
See *Explanatory Note* at the end of the tables.

**Table 5. Real Gross Domestic Product, Quantity Indexes**

[Index numbers, 2009=100]

Line		2014	2015	2016 <sup>r</sup>	Seasonally adjusted					Line
					2015	2016				
						IV	I	II	III	
1	<b>Gross domestic product</b> .....	<b>110.844</b>	<b>113.721</b>	<b>115.543</b>	<b>114.370</b>	<b>114.608</b>	<b>115.011</b>	<b>116.009</b>	<b>116.543</b>	1
2	<b>Personal consumption expenditures</b> .....	<b>110.378</b>	<b>113.890</b>	<b>116.975</b>	<b>114.952</b>	<b>115.418</b>	<b>116.633</b>	<b>117.488</b>	<b>118.361</b>	2
3	Goods .....	117.414	122.166	126.546	123.602	123.957	126.089	127.180	128.957	3
4	Durable goods.....	136.919	146.395	154.859	149.251	149.013	152.538	156.784	161.100	4
5	Nondurable goods.....	109.253	112.146	114.922	113.023	113.608	115.185	115.049	115.847	5
6	Services.....	107.004	109.954	112.477	110.849	111.361	112.184	112.935	113.427	6
7	<b>Gross private domestic investment</b> .....	<b>145.549</b>	<b>152.761</b>	<b>150.382</b>	<b>152.570</b>	<b>151.294</b>	<b>148.226</b>	<b>149.336</b>	<b>152.672</b>	7
8	Fixed investment.....	131.342	136.633	137.561	137.895	137.570	137.179	137.202	138.291	8
9	Nonresidential .....	131.967	134.697	134.024	134.611	133.442	133.766	134.223	134.664	9
10	Structures.....	107.918	103.166	100.051	99.291	99.317	98.794	101.623	100.472	10
11	Equipment.....	160.752	166.451	161.621	167.400	163.270	162.053	160.207	160.953	11
12	Intellectual property products .....	117.733	123.422	129.463	125.376	126.532	129.279	130.303	131.736	12
13	Residential .....	128.846	143.923	150.918	150.290	153.133	150.079	148.505	151.955	13
14	Change in private inventories .....									14
15	<b>Exports of goods and services</b> .....	<b>133.414</b>	<b>133.560</b>	<b>134.077</b>	<b>132.629</b>	<b>132.389</b>	<b>132.974</b>	<b>136.170</b>	<b>134.775</b>	15
16	<b>Imports of goods and services</b> .....	<b>128.279</b>	<b>134.155</b>	<b>135.663</b>	<b>134.752</b>	<b>134.544</b>	<b>134.620</b>	<b>135.352</b>	<b>138.136</b>	16
17	<b>Government consumption expenditures and gross investment</b> ..	<b>91.710</b>	<b>93.350</b>	<b>94.116</b>	<b>93.933</b>	<b>94.304</b>	<b>93.907</b>	<b>94.085</b>	<b>94.168</b>	17
18	Federal.....	91.471	91.472	92.017	92.226	91.874	91.791	92.337	92.066	18
19	State and local .....	91.806	94.485	95.391	94.959	95.790	95.192	95.137	95.444	19
	<b>Addenda:</b>									
20	Final sales of domestic product .....	109.245	111.906	114.130	112.743	113.093	113.821	114.673	114.934	20
21	Gross domestic purchases .....	110.765	114.335	116.255	115.141	115.373	115.718	116.460	117.469	21
22	Final sales to domestic purchasers .....	109.212	112.565	114.877	113.552	113.894	114.558	115.161	115.896	22
23	Final sales to private domestic purchasers.....	113.849	117.658	120.381	118.753	119.086	120.032	120.747	121.657	23
24	Gross national product.....	111.138	113.731	.....	114.404	114.403	115.016	115.975	.....	24

<sup>r</sup> Revised  
See *Explanatory Note* at the end of the tables.

**Table 6. Price Indexes for Gross Domestic Product**

[Index numbers, 2009=100]

Line		2014	2015	2016 <sup>r</sup>	Seasonally adjusted					Line
					2015	2016				
						IV	I	II	III	
1	<b>Gross domestic product</b> .....	<b>108.838</b>	<b>109.999</b>	<b>111.445</b>	<b>110.498</b>	<b>110.635</b>	<b>111.268</b>	<b>111.662</b>	<b>112.216</b>	1
2	<b>Personal consumption expenditures (PCE)</b> .....	<b>109.150</b>	<b>109.532</b>	<b>110.715</b>	<b>109.892</b>	<b>109.969</b>	<b>110.519</b>	<b>110.921</b>	<b>111.452</b>	2
3	Goods .....	105.727	102.680	101.235	102.144	101.109	101.301	101.083	101.445	3
4	Durable goods .....	92.411	90.463	88.551	89.813	89.619	89.045	88.128	87.411	4
5	Nondurable goods .....	112.595	108.920	107.793	108.459	106.917	107.582	107.809	108.864	5
6	Services.....	110.946	113.149	115.744	113.990	114.663	115.405	116.142	116.765	6
7	<b>Gross private domestic investment</b> .....	<b>105.655</b>	<b>106.539</b>	<b>107.514</b>	<b>106.742</b>	<b>106.889</b>	<b>107.366</b>	<b>107.649</b>	<b>108.153</b>	7
8	Fixed investment .....	106.030	107.062	108.212	107.300	107.467	108.048	108.412	108.922	8
9	Nonresidential.....	104.423	105.051	105.489	105.116	105.172	105.476	105.532	105.778	9
10	Structures.....	112.213	112.202	112.444	112.113	111.682	112.566	112.402	113.127	10
11	Equipment.....	100.482	101.277	101.496	101.299	101.366	101.392	101.655	101.573	11
12	Intellectual property products.....	104.772	105.583	106.487	105.825	106.168	106.526	106.416	106.838	12
13	Residential.....	112.795	115.479	119.286	116.371	116.952	118.553	120.070	121.568	13
14	Change in private inventories .....									14
15	<b>Exports of goods and services</b> .....	<b>112.134</b>	<b>106.778</b>	<b>104.896</b>	<b>105.039</b>	<b>103.669</b>	<b>104.671</b>	<b>105.292</b>	<b>105.954</b>	15
16	<b>Imports of goods and services</b> .....	<b>113.368</b>	<b>104.726</b>	<b>101.569</b>	<b>102.252</b>	<b>100.675</b>	<b>101.211</b>	<b>101.933</b>	<b>102.457</b>	16
17	<b>Government consumption expenditures and gross investment</b> .....	<b>111.263</b>	<b>111.605</b>	<b>112.719</b>	<b>111.835</b>	<b>111.713</b>	<b>112.462</b>	<b>113.061</b>	<b>113.640</b>	17
18	Federal .....	109.431	109.979	111.068	109.881	110.286	110.869	111.331	111.784	18
19	State and local.....	112.522	112.732	113.863	113.169	112.715	113.570	114.254	114.914	19
	<b>Addenda:</b>									
20	PCE excluding food and energy <sup>1</sup> .....	108.048	109.540	111.350	110.095	110.657	111.150	111.626	111.965	20
21	Market-based PCE <sup>2</sup> .....	108.219	108.179	109.084	108.450	108.395	108.893	109.249	109.800	21
22	Market-based PCE excluding food and energy <sup>2</sup> .....	106.800	107.957	109.530	108.436	108.911	109.336	109.770	110.105	22
23	Final sales of domestic product.....	108.891	110.077	111.555	110.584	110.724	111.375	111.782	112.337	23
24	Gross domestic purchases .....	109.109	109.569	110.708	109.881	109.936	110.509	110.925	111.461	24
25	Final sales to domestic purchasers .....	109.159	109.640	110.808	109.959	110.017	110.606	111.036	111.573	25
26	Final sales to private domestic purchasers .....	108.637	109.148	110.326	109.484	109.579	110.135	110.530	111.058	26
27	Gross national product .....	108.957	110.090	.....	110.587	110.719	111.350	111.743	.....	27
	<b>Implicit price deflators:</b>									
28	Gross domestic product.....	108.828	109.998	111.440	110.504	110.630	111.258	111.648	112.208	28
29	Final sales of domestic product .....	108.891	110.077	111.556	110.581	110.722	111.372	111.780	112.335	29
30	Gross domestic purchases .....	109.099	109.569	110.703	109.887	109.932	110.500	110.912	111.454	30
31	Final sales to domestic purchasers .....	109.159	109.640	110.810	109.957	110.015	110.604	111.034	111.571	31
32	Gross national product.....	108.947	110.090	.....	110.593	110.714	111.340	111.729	.....	32

<sup>r</sup> Revised

1. Food excludes personal consumption expenditures for purchased meals and beverages, which are classified in food services.

2. This index is a supplemental measure that is based on household expenditures for which there are observable price measures. It excludes most implicit prices (for example, financial services furnished without payment) and the final consumption expenditures of nonprofit institutions serving households. Percentage changes for these series are included in the addenda to table 8 and appendix table A.

See *Explanatory Note* at the end of the tables.

**Table 7. Real Gross Domestic Product: Annual Percent Change**

Line		Percent change from preceding year								Percent change fourth quarter to fourth quarter								Line
		2009	2010	2011	2012	2013	2014	2015	2016 <sup>r</sup>	2009	2010	2011	2012	2013	2014	2015	2016 <sup>r</sup>	
1	<b>Gross domestic product (GDP)</b> .....	-2.8	2.5	1.6	2.2	1.7	2.4	2.6	1.6	-0.2	2.7	1.7	1.3	2.7	2.5	1.9	1.9	1
2	<b>Personal consumption expenditures (PCE)</b> .....	-1.6	1.9	2.3	1.5	1.5	2.9	3.2	2.7	-0.2	3.1	1.5	1.3	2.0	3.5	2.6	3.0	2
3	Goods.....	-3.0	3.4	3.1	2.7	3.1	3.9	4.0	3.6	0.9	5.1	1.7	2.8	3.5	4.6	3.3	4.3	3
4	Durable goods.....	-5.5	6.1	6.1	7.4	6.2	6.7	6.9	5.8	2.5	9.3	4.8	7.2	5.2	8.6	5.5	7.9	4
5	Nondurable goods.....	-1.8	2.2	1.8	0.6	1.7	2.6	2.6	2.5	0.2	3.3	0.4	0.8	2.6	2.8	2.3	2.5	5
6	Services.....	-0.9	1.2	1.8	0.8	0.6	2.3	2.8	2.3	-0.8	2.0	1.4	0.6	1.3	2.9	2.2	2.3	6
7	<b>Gross private domestic investment</b> .....	-21.6	12.9	5.2	10.6	6.1	4.5	5.0	-1.6	-11.0	11.1	9.6	3.7	9.3	3.8	2.6	0.1	7
8	Fixed investment.....	-16.7	1.5	6.3	9.8	5.0	5.5	4.0	0.7	-11.9	5.5	8.4	7.0	5.2	5.3	3.4	0.3	8
9	Nonresidential.....	-15.6	2.5	7.7	9.0	3.5	6.0	2.1	-0.5	-12.2	8.1	9.0	5.2	4.8	5.0	0.8	0.0	9
10	Structures.....	-18.9	-16.4	2.3	12.9	1.4	10.3	-4.4	-3.0	-27.1	-4.0	8.0	4.1	5.8	8.0	-8.8	1.2	10
11	Equipment.....	-22.9	15.9	13.6	10.8	4.6	5.4	3.5	-2.9	-11.5	20.9	13.1	6.9	6.1	2.9	3.7	-3.9	11
12	Intellectual property products.....	-1.4	1.9	3.6	3.9	3.4	3.9	4.8	4.9	1.3	1.8	4.1	3.4	2.2	6.1	3.8	5.1	12
13	Residential.....	-21.2	-2.5	0.5	13.5	11.9	3.5	11.7	4.9	-10.8	-5.2	6.0	15.7	6.8	6.2	13.1	1.1	13
14	Change in private inventories.....																	14
15	<b>Net exports of goods and services</b> .....																	15
16	Exports.....	-8.8	11.9	6.9	3.4	3.5	4.3	0.1	0.4	0.8	10.1	4.2	2.2	5.9	3.1	-2.2	1.6	16
17	Goods.....	-12.1	14.4	6.5	3.6	3.1	4.4	-0.6	0.6	-0.2	10.9	4.8	1.2	7.0	2.7	-3.4	2.1	17
18	Services.....	-1.1	6.8	7.6	3.0	4.4	3.9	1.6	0.0	3.2	8.4	2.7	4.5	3.6	3.9	0.5	0.7	18
19	Imports.....	-13.7	12.7	5.5	2.2	1.1	4.4	4.6	1.1	-6.2	12.0	3.5	0.3	2.5	6.1	2.5	2.5	19
20	Goods.....	-15.8	14.9	5.8	2.1	1.2	4.8	4.9	0.7	-6.7	13.6	3.4	0.1	2.7	6.5	2.7	2.4	20
21	Services.....	-3.8	3.8	4.0	3.0	0.6	2.6	2.9	3.0	-4.2	4.9	3.8	1.2	1.1	4.0	1.9	3.2	21
22	<b>Government consumption expenditures and gross investment</b> .....	3.2	0.1	-3.0	-1.9	-2.9	-0.9	1.8	0.8	2.3	-1.1	-3.0	-2.2	-2.8	0.3	2.2	0.3	22
23	Federal.....	5.7	4.4	-2.7	-1.9	-5.8	-2.5	0.0	0.6	3.9	3.2	-4.0	-2.1	-6.7	-1.3	1.7	-0.2	23
24	National defense.....	5.4	3.2	-2.3	-3.4	-6.8	-4.1	-2.1	-0.7	3.6	2.0	-4.1	-3.9	-7.1	-4.1	0.6	-2.0	24
25	Nondefense.....	6.2	6.4	-3.4	0.9	-4.1	0.1	3.3	2.6	4.6	5.5	-3.9	1.0	-6.0	3.4	3.4	2.5	25
26	State and local.....	1.6	-2.7	-3.3	-1.9	-0.8	0.2	2.9	1.0	1.3	-4.0	-2.3	-2.3	-0.1	1.3	2.5	0.5	26
	<b>Addenda:</b>																	
27	Gross domestic income (GDI) <sup>1</sup> .....	-2.6	2.7	2.2	3.3	1.2	3.0	2.5	.....	0.3	2.6	2.1	2.8	1.3	4.0	1.5	.....	27
28	Average of GDP and GDI.....	-2.7	2.6	1.9	2.7	1.5	2.7	2.6	.....	0.0	2.7	1.9	2.1	2.0	3.2	1.7	.....	28
29	Final sales of domestic product.....	-2.0	1.1	1.7	2.1	1.5	2.5	2.4	2.0	-0.4	2.0	1.5	1.7	2.0	2.7	2.0	1.9	29
30	Gross domestic purchases.....	-3.8	2.9	1.6	2.1	1.3	2.4	3.2	1.7	-1.3	3.2	1.7	1.0	2.2	3.0	2.5	2.0	30
31	Final sales to domestic purchasers.....	-3.1	1.5	1.7	1.9	1.2	2.6	3.1	2.1	-1.4	2.5	1.5	1.4	1.6	3.2	2.6	2.1	31
32	Final sales to private domestic purchasers.....	-4.6	1.9	2.9	2.9	2.1	3.4	3.3	2.3	-2.4	3.5	2.6	2.3	2.6	3.8	2.7	2.4	32
33	Gross national product.....	-2.9	2.8	1.8	2.1	1.7	2.3	2.3	.....	0.1	2.9	2.0	1.0	2.7	2.3	1.7	.....	33
34	Real disposable personal income.....	-0.4	1.0	2.5	3.2	-1.4	3.5	3.5	2.8	-0.7	2.6	1.7	5.1	-2.8	4.5	3.0	2.5	34
	<b>Price indexes:</b>																	
35	Gross domestic purchases.....	-0.2	1.5	2.4	1.8	1.4	1.7	0.4	1.0	0.3	1.6	2.4	1.7	1.4	1.4	0.4	1.4	35
36	Gross domestic purchases excluding food and energy <sup>2</sup> .....	0.5	1.3	1.8	1.8	1.5	1.8	1.1	1.4	0.5	1.4	1.9	1.7	1.7	1.6	1.0	1.6	36
37	GDP.....	0.8	1.2	2.1	1.8	1.6	1.8	1.1	1.3	0.4	1.8	1.9	1.9	1.6	1.5	1.1	1.6	37
38	GDP excluding food and energy <sup>2</sup> .....	0.5	1.4	1.9	1.8	1.7	1.9	1.2	1.6	0.6	1.6	1.9	1.8	1.9	1.7	1.2	1.8	38
39	PCE.....	-0.1	1.7	2.5	1.9	1.3	1.5	0.3	1.1	1.2	1.3	2.7	1.8	1.2	1.2	0.4	1.4	39
40	PCE excluding food and energy <sup>2</sup> .....	1.2	1.3	1.5	1.9	1.5	1.6	1.4	1.7	1.4	1.0	1.9	1.8	1.5	1.6	1.4	1.7	40
41	Market-based PCE <sup>3</sup> .....	0.4	1.5	2.5	1.8	1.0	1.1	0.0	0.8	1.5	1.1	2.8	1.6	0.9	0.9	0.1	1.2	41
42	Market-based PCE excluding food and energy <sup>3</sup> .....	1.9	1.0	1.4	1.8	1.2	1.2	1.1	1.5	1.8	0.7	1.9	1.5	1.1	1.2	1.1	1.5	42

<sup>r</sup> Revised

1. Gross domestic income deflated by the implicit price deflator for gross domestic product.

2. Food excludes personal consumption expenditures for purchased meals and beverages, which are classified in food services.

3. This index is a supplemental measure that is based on household expenditures for which there are observable price measures. It excludes most implicit prices (for example, financial services furnished without payment) and the final consumption expenditures of nonprofit institutions serving households.

NOTE: Estimates under the *Percent change from the preceding year* columns are calculated from annual data. Estimates under the *Percent change fourth quarter to fourth quarter* columns are calculated from fourth quarter values relative to the same quarter one year prior.

See *Explanatory Note* at the end of the tables.

Table 8. Real Gross Domestic Product: Percent Change From Quarter One Year Ago

Line	2013				2014				2015				2016				Line
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III <sup>r</sup>	IV <sup>r</sup>	
1	<b>Gross domestic product (GDP)</b>																1
2	<b>Personal consumption expenditures (PCE)</b>																2
3	Goods																3
4	Durable goods																4
5	Nondurable goods																5
6	Services																6
7	<b>Gross private domestic investment</b>																7
8	Fixed investment																8
9	Nonresidential																9
10	Structures																10
11	Equipment																11
12	Intellectual property products																12
13	Residential																13
14	Change in private inventories																14
15	<b>Net exports of goods and services</b>																15
16	Exports																16
17	Goods																17
18	Services																18
19	Imports																19
20	Goods																20
21	Services																21
22	<b>Government consumption expenditures and gross investment</b>																22
23	Federal																23
24	National defense																24
25	Nondefense																25
26	State and local																26
27	<b>Addenda:</b>																27
28	Gross domestic income (GDI) <sup>1</sup>																28
29	Average of GDP and GDI																29
30	Final sales of domestic product																30
31	Gross domestic purchases																31
32	Final sales to domestic purchasers																32
33	Final sales to private domestic purchasers																33
34	Gross national product																34
35	Real disposable personal income																35
36	<b>Price indexes:</b>																36
37	Gross domestic purchases																37
38	Gross domestic purchases excluding food and energy <sup>2</sup>																38
39	GDP																39
40	GDP excluding food and energy <sup>2</sup>																40
41	PCE																41
42	PCE excluding food and energy <sup>2</sup>																42
43	Market-based PCE <sup>3</sup>																43
44	Market-based PCE excluding food and energy <sup>3</sup>																44

<sup>r</sup> Revised. Revisions include changes to series affected by the incorporation of revised wage and salary estimates for the third quarter of 2016.

1. Gross domestic income deflated by the implicit price deflator for gross domestic product.

2. Food excludes personal consumption expenditures for purchased meals and beverages, which are classified in food services.

3. This index is a supplemental measure that is based on household expenditures for which there are observable price measures. It excludes most implicit prices (for example, financial services furnished without payment) and the final consumption expenditures of nonprofit institutions serving households.

See *Explanatory Note* at the end of the tables.

**Table 9. Relation of Gross Domestic Product, Gross National Product, and National Income**

[Billions of dollars]

Line		2014	2015	2016 <sup>r</sup>	Seasonally adjusted at annual rates					Line
					2015	2016				
					IV	I	II	III <sup>r</sup>	IV <sup>r</sup>	
1	<b>Gross domestic product (GDP)</b> .....	17,393.1	18,036.6	18,565.6	18,222.8	18,281.6	18,450.1	18,675.3	18,855.5	1
2	Plus: Income receipts from the rest of the world.....	852.1	813.1		798.5	807.0	848.3	848.9		2
3	Less: Income payments to the rest of the world.....	604.0	607.4		587.1	634.5	640.5	644.9		3
4	<b>Equals: Gross national product</b> .....	<b>17,641.2</b>	<b>18,242.4</b>		<b>18,434.1</b>	<b>18,454.2</b>	<b>18,657.9</b>	<b>18,879.3</b>		4
5	Less: Consumption of fixed capital.....	2,745.2	2,830.8	2,910.0	2,862.8	2,873.6	2,901.8	2,921.7	2,943.1	5
6	Less: Statistical discrepancy.....	-257.9	-253.7		-264.8	-264.3	-233.9	-304.7		6
7	<b>Equals: National income</b> .....	<b>15,153.9</b>	<b>15,665.3</b>		<b>15,836.2</b>	<b>15,844.9</b>	<b>15,990.1</b>	<b>16,262.3</b>		7
8	Compensation of employees.....	9,253.4	9,693.1	10,101.6	9,892.4	9,892.6	10,046.5	10,186.8	10,280.5	8
9	Wages and salaries.....	7,476.3	7,854.8	8,189.4	8,024.6	8,011.3	8,142.9	8,262.3	8,341.1	9
10	Supplements to wages and salaries.....	1,777.1	1,838.2	1,912.2	1,867.8	1,881.3	1,903.6	1,924.5	1,939.4	10
11	Proprietors' income with inventory valuation and capital consumption adjustments.....	1,337.7	1,376.8	1,417.7	1,400.9	1,403.9	1,407.8	1,420.8	1,438.1	11
12	Rental income of persons with capital consumption adjustment.....	606.1	659.6	705.1	677.3	692.8	700.6	705.9	721.3	12
13	Corporate profits with inventory valuation and capital consumption adjustments.....	2,152.1	2,088.1		1,967.5	2,033.5	2,021.0	2,138.8		13
14	Net interest and miscellaneous payments.....	533.7	524.1	485.3	503.7	493.1	485.5	485.5	477.0	14
15	Taxes on production and imports less subsidies.....	1,153.5	1,181.0	1,197.0	1,190.0	1,191.5	1,187.4	1,200.8	1,208.4	15
16	Business current transfer payments (net).....	137.6	161.4	161.1	224.5	158.1	164.6	146.9	174.8	16
17	Current surplus of government enterprises.....	-20.2	-18.8	-22.4	-20.1	-20.5	-23.3	-23.2	-22.6	17
	<b>Addenda:</b>									
18	Gross domestic income (GDI).....	17,651.1	18,290.3		18,487.6	18,546.0	18,684.0	18,979.9		18
19	Average of GDP and GDI.....	17,522.1	18,163.5		18,355.2	18,413.8	18,567.0	18,827.6		19
20	Statistical discrepancy as a percentage of GDP.....	-1.5	-1.4		-1.5	-1.4	-1.3	-1.6		20

<sup>r</sup> Revised. Revisions include changes to series affected by the incorporation of revised wage and salary estimates for the third quarter of 2016.

**Table 10. Personal Income and Its Disposition**

[Billions of dollars]

Line		2014	2015	2016 <sup>r</sup>	Seasonally adjusted at annual rates					Line
					2015	2016				
					IV	I	II	III <sup>r</sup>	IV <sup>r</sup>	
1	<b>Personal income</b> <sup>1</sup> .....	14,809.7	15,458.5	16,011.8	15,690.2	15,740.1	15,929.4	16,111.1	16,266.8	1
2	Compensation of employees.....	9,253.4	9,693.1	10,101.6	9,892.4	9,892.6	10,046.5	10,186.8	10,280.5	2
3	Wages and salaries.....	7,476.3	7,854.8	8,189.4	8,024.6	8,011.3	8,142.9	8,262.3	8,341.1	3
4	Supplements to wages and salaries.....	1,777.1	1,838.2	1,912.2	1,867.8	1,881.3	1,903.6	1,924.5	1,939.4	4
5	Proprietors' income with inventory valuation and capital consumption adjustments.....	1,337.7	1,376.8	1,417.7	1,400.9	1,403.9	1,407.8	1,420.8	1,438.1	5
6	Farm.....	68.5	39.9	28.1	38.1	32.3	29.8	28.3	21.8	6
7	Nonfarm.....	1,269.2	1,336.8	1,389.6	1,362.8	1,371.6	1,378.0	1,392.4	1,416.3	7
8	Rental income of persons with capital consumption adjustment.....	606.1	659.6	705.1	677.3	692.8	700.6	705.9	721.3	8
9	Personal income receipts on assets.....	2,227.0	2,253.8	2,262.4	2,235.5	2,235.9	2,255.8	2,270.3	2,287.8	9
10	Personal interest income.....	1,300.9	1,302.7	1,314.1	1,293.0	1,296.1	1,310.2	1,317.8	1,332.3	10
11	Personal dividend income.....	926.1	951.1	948.3	942.5	939.8	945.5	952.5	955.6	11
12	Personal current transfer receipts.....	2,540.4	2,678.6	2,775.4	2,708.2	2,744.0	2,763.6	2,786.5	2,807.5	12
13	Less: Contributions for government social insurance, domestic.....	1,154.9	1,203.5	1,250.4	1,224.1	1,229.0	1,244.8	1,259.1	1,268.5	13
14	Less: Personal current taxes.....	1,787.0	1,938.7	1,966.4	1,963.8	1,932.7	1,952.1	1,982.4	1,998.3	14
15	<b>Equals: Disposable personal income</b> .....	<b>13,022.7</b>	<b>13,519.8</b>	<b>14,045.5</b>	<b>13,726.4</b>	<b>13,807.4</b>	<b>13,977.3</b>	<b>14,128.7</b>	<b>14,268.5</b>	15
16	Less: Personal outlays.....	12,296.7	12,736.2	13,221.3	12,899.6	12,961.9	13,154.5	13,300.7	13,467.9	16
17	<b>Equals: Personal saving</b> .....	<b>726.0</b>	<b>783.6</b>	<b>824.2</b>	<b>826.8</b>	<b>845.5</b>	<b>822.8</b>	<b>828.0</b>	<b>800.6</b>	17
18	Personal saving as a percentage of disposable personal income.....	5.6	5.8	5.9	6.0	6.1	5.9	5.9	5.6	18
	<b>Addenda:</b>									
19	Personal income excluding current transfer receipts, billions of chained (2009) dollars <sup>2</sup> .....	11,240.8	11,667.7	11,955.1	11,813.7	11,818.2	11,912.9	12,012.9	12,076.5	19
20	Disposable personal income, billions of chained (2009) dollars <sup>2</sup> .....	11,931.0	12,343.3	12,685.8	12,491.0	12,556.0	12,647.2	12,737.9	12,802.6	20

<sup>r</sup> Revised. Revisions include changes to series affected by the incorporation of revised wage and salary estimates for the third quarter of 2016.

1. Personal income is also equal to national income less corporate profits with inventory valuation and capital consumption adjustments, taxes on production and imports less subsidies, contributions for government social insurance, net interest and miscellaneous payments, business current transfer payments (net), and current surplus of government enterprises, plus personal income receipts on assets, and personal current transfer receipts.

2. The current-dollar measure is deflated by the implicit price deflator for personal consumption expenditures.

**Appendix Table A. Real Gross Domestic Product and Related Aggregates and Price Indexes:  
Percent Change From Preceding Period and Contributions to Percent Change**

Line		2014	2015	2016 <sup>r</sup>	Seasonally adjusted at annual rates																Line
					2013				2014				2015				2016				
					I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV <sup>r</sup>	
	<b>Percent change from preceding period</b>																				
	<b>Gross domestic product (GDP) and related aggregates:</b>																				
1	GDP.....	2.4	2.6	1.6	2.8	0.8	3.1	4.0	-1.2	4.0	5.0	2.3	2.0	2.6	2.0	0.9	0.8	1.4	3.5	1.9	1
2	Goods.....	3.1	2.5	1.4	10.2	0.6	7.5	10.0	-8.9	7.9	10.0	-0.2	0.8	2.3	2.5	-0.8	-1.4	2.2	7.6	2.3	2
3	Services.....	1.7	2.4	1.8	-0.5	0.0	0.4	1.8	1.9	1.4	3.1	2.9	2.9	1.9	1.5	2.1	1.1	2.4	2.1	1.2	3
4	Structures.....	5.2	4.3	1.0	1.8	8.7	8.6	-2.6	7.3	9.3	0.6	7.7	0.4	9.6	3.9	-1.9	7.4	-8.7	-0.6	5.3	4
5	Motor vehicle output.....	7.6	5.0	2.0	20.9	4.1	-13.8	25.5	3.2	14.2	14.5	-5.2	4.5	7.6	16.5	-15.2	2.2	7.5	3.2	7.1	5
6	GDP excluding motor vehicle output.....	2.2	2.5	1.6	2.4	0.7	3.6	3.4	-1.3	3.7	4.7	2.5	2.0	2.5	1.6	1.4	0.8	1.2	3.5	1.7	6
7	Final sales of computers <sup>1</sup> .....	9.4	9.8	17.0	-4.0	12.3	-4.7	12.7	15.0	19.4	11.4	-22.3	19.3	40.7	4.7	2.9	54.3	17.8	-9.0	-3.5	7
8	GDP excluding final sales of computers.....	2.3	2.6	1.5	2.9	0.7	3.2	3.9	-1.2	3.9	4.9	2.4	2.0	2.5	2.0	0.9	0.7	1.3	3.6	1.9	8
9	Research and development.....	0.4	2.2	4.3	6.9	-0.7	-1.0	-3.7	2.0	0.5	3.1	5.3	-5.2	7.6	3.3	4.7	0.6	11.8	-0.1	4.1	9
10	GDP excluding research and development.....	2.4	2.6	1.5	2.7	0.8	3.2	4.2	-1.3	4.1	5.0	2.2	2.2	2.5	2.0	0.8	0.8	1.2	3.6	1.8	10
11	Farm gross value added <sup>2</sup> .....	-1.9	3.1	10.8	90.5	37.3	28.2	-9.2	-18.6	2.1	-6.9	10.5	-5.5	-3.0	32.7	5.9	6.6	11.5	26.5	-10.1	11
12	Nonfarm business gross value added <sup>3</sup> .....	3.0	3.1	1.7	2.8	0.6	3.8	5.6	-1.8	5.1	6.5	2.7	2.4	3.1	1.8	0.8	0.7	1.6	4.2	2.4	12
	<b>Price indexes:</b>																				
13	GDP.....	1.8	1.1	1.3	1.4	0.9	2.1	2.1	1.7	2.1	1.7	0.5	-0.1	2.3	1.3	0.8	0.5	2.3	1.4	2.0	13
14	GDP excluding food and energy <sup>4</sup> .....	1.9	1.2	1.6	1.8	1.4	2.0	2.3	1.9	2.0	1.8	1.0	0.5	1.8	1.4	0.9	1.5	2.1	1.9	1.7	14
15	GDP excluding final sales of computers.....	1.8	1.1	1.4	1.5	1.0	2.1	2.1	1.8	2.2	1.8	0.6	0.0	2.3	1.3	0.9	0.6	2.4	1.5	2.0	15
16	Gross domestic purchases.....	1.7	0.4	1.0	1.4	0.6	1.6	2.1	2.1	1.8	1.5	0.3	-1.4	1.6	1.0	0.3	0.2	2.1	1.5	1.9	16
17	Gross domestic purchases excluding food and energy <sup>4</sup> ...	1.8	1.1	1.4	1.6	1.3	1.6	2.2	1.9	1.9	1.7	1.0	0.4	1.5	1.2	0.8	1.4	2.0	1.7	1.5	17
18	Gross domestic purchases excluding final sales of computers to domestic purchasers.....	1.7	0.5	1.1	1.5	0.6	1.7	2.1	2.2	1.8	1.5	0.3	-1.4	1.6	1.1	0.3	0.3	2.1	1.5	2.0	18
19	Personal consumption expenditures (PCE).....	1.5	0.3	1.1	1.4	0.2	1.5	1.7	2.0	1.9	1.1	0.0	-1.6	1.8	1.1	0.4	0.3	2.0	1.5	1.9	19
20	PCE excluding food and energy <sup>4</sup> .....	1.6	1.4	1.7	1.7	1.1	1.4	1.8	1.6	2.0	1.5	1.1	1.1	1.8	1.4	1.2	2.1	1.8	1.7	1.2	20
21	Market-based PCE <sup>5</sup> .....	1.1	0.0	0.8	1.3	-0.5	1.4	1.3	1.7	1.5	0.8	-0.4	-2.3	1.7	0.8	0.2	-0.2	1.9	1.3	2.0	21
22	Market-based PCE excluding food and energy <sup>5</sup> .....	1.2	1.1	1.5	1.5	0.5	1.3	1.2	1.2	1.5	1.2	0.8	0.7	1.6	1.1	1.1	1.8	1.6	1.6	1.2	22
	<b>Contributions to percent change in real gross domestic product</b>																				
	<b>Percent change at annual rate:</b>																				
23	<b>Gross domestic product.....</b>	<b>2.4</b>	<b>2.6</b>	<b>1.6</b>	<b>2.8</b>	<b>0.8</b>	<b>3.1</b>	<b>4.0</b>	<b>-1.2</b>	<b>4.0</b>	<b>5.0</b>	<b>2.3</b>	<b>2.0</b>	<b>2.6</b>	<b>2.0</b>	<b>0.9</b>	<b>0.8</b>	<b>1.4</b>	<b>3.5</b>	<b>1.9</b>	23
	<b>Percentage points at annual rates:</b>																				
24	Goods.....	0.94	0.77	0.43	2.98	0.17	2.26	3.02	-2.85	2.39	3.02	-0.03	0.24	0.71	0.75	-0.24	-0.42	0.66	2.22	0.69	24
25	Services.....	1.04	1.49	1.09	-0.28	-0.01	0.24	1.14	1.13	0.87	1.89	1.75	1.77	1.17	0.92	1.26	0.68	1.48	1.34	0.75	25
26	Structures.....	0.39	0.34	0.08	0.13	0.61	0.62	-0.20	0.54	0.70	0.06	0.59	0.04	0.74	0.31	-0.15	0.57	-0.73	-0.05	0.41	26
27	Motor vehicle output.....	0.21	0.14	0.06	0.52	0.11	-0.41	0.63	0.09	0.38	0.40	-0.15	0.13	0.22	0.46	-0.49	0.06	0.21	0.09	0.20	27
28	Final sales of computers.....	0.04	0.04	0.07	-0.02	0.05	-0.02	0.05	0.06	0.07	0.05	-0.10	0.07	0.14	0.02	0.01	0.18	0.07	-0.04	-0.01	28
29	Research and development.....	0.01	0.05	0.11	0.17	-0.02	-0.03	-0.10	0.05	0.01	0.08	0.13	-0.13	0.19	0.08	0.12	0.01	0.29	0.00	0.11	29

<sup>r</sup> Revised  
1. For some components of final sales of computers, includes computer parts.  
2. Farm output less intermediate goods and services purchased.  
3. Consists of GDP less gross value added of farm, of households and institutions, and of general government.  
4. Food excludes personal consumption expenditures for purchased meals and beverages, which are classified in food services.  
5. This index is a supplemental measure that is based on household expenditures for which there are observable price measures. It excludes most implicit prices (for example, financial services furnished without payment) and the final consumption expenditures of nonprofit institutions serving households.  
See *Explanatory Note* at the end of the tables.



## Explanatory Note: NIPA Measures of Quantities and Prices

Current-dollar GDP is a measure of the market value of goods, services, and structures produced in the economy in a particular period. Changes in current-dollar GDP can be decomposed into quantity and price components. Quantities, or "real" measures, and prices are expressed as index numbers with the reference year -- at present, the year 2009 -- equal to 100.

Annual changes in quantities and prices are calculated using a Fisher formula that incorporates weights from two adjacent years. (Quarterly changes in quantities and prices are calculated using a Fisher formula that incorporates weights from two adjacent quarters; quarterly indexes are adjusted for consistency to the annual indexes before percent changes are calculated.) For example, the 2008-09 annual percent change in real GDP uses prices for 2008 and 2009 as weights, and the 2008-09 annual percent change in GDP prices uses quantities for 2008 and 2009 as weights. These annual changes are "chained" (multiplied) together to form time series of quantity and price indexes. Percent changes in Fisher indexes are not affected by the choice of reference year. (BEA also publishes a measure of the price level known as the implicit price deflator (IPD), which is calculated as the ratio of the current-dollar value to the corresponding chained-dollar value, multiplied by 100. The values of the IPD are very close to the values of the corresponding "chain-type" price index.)

Index numbers of quantity and price indexes for GDP and its major components are presented in this release in tables 5 and 6. Percent changes from the preceding period are presented in tables 1, 4, 7, 8, and appendix table A. Contributions by major components to the percent change in real GDP are presented in table 2.

Measures of real GDP and its major components are also presented in dollar-denominated form, designated "chained (2009) dollar estimates." For most series, these estimates, which are presented in table 3, are computed by multiplying the current-dollar value in 2009 by a corresponding quantity index number and then dividing by 100. For example, if a current-dollar GDP component equaled \$100 in 2009 and if real output for this component increased 10 percent in 2010, then the chained (2009) dollar value of this component in 2010 would be \$110 (= \$100 x 110 / 100). Percent changes calculated from chained-dollar estimates and from chain-type quantity indexes are the same; any differences will be small and due to rounding.

Chained-dollar values for the detailed GDP components will not necessarily sum to the chained-dollar estimate of GDP (or to any intermediate aggregate). This is because the relative prices used as weights for any period other than the reference year differ from those of the reference year. A measure of the extent of such differences is provided by a "residual" line, which indicates the difference between GDP (or other major aggregate) and the sum of the most detailed components in the table. For periods close to the reference year, when there usually has not been much change in the relative prices that are used as weights, the residuals tend to be small, and the chained-dollar estimates can be used to approximate the contributions to growth and to aggregate the detailed estimates. For periods further from the reference year, the residuals tend to be larger, and the chained-dollar estimates are less useful for analyses of contributions to growth. Thus, the contributions to percent change shown in table 2 provide a better measure of the composition of GDP growth. In particular, for components for which relative prices are changing rapidly, calculation of contributions using chained-dollar estimates may be misleading even just a few years from the reference year.

*Reference* "Chained-Dollar Indexes: Issues, Tips on Their Use, and Upcoming Changes," November 2003 *Survey*, pp. 8-16.