

News Release

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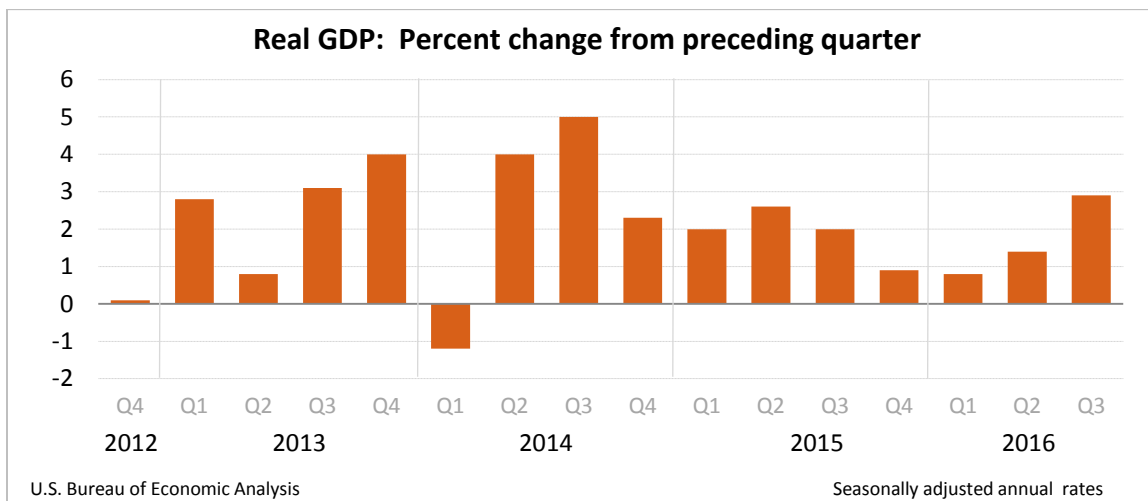
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Gross Domestic Product: Third Quarter 2016 (Advance Estimate)

Real gross domestic product increased at an annual rate of 2.9 percent in the third quarter of 2016 (table 1), according to the "advance" estimate released by the Bureau of Economic Analysis. In the second quarter, real GDP increased 1.4 percent.

The Bureau emphasized that the third-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 third quarter, based on more complete data, will be released on November 29, 2016.



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

The acceleration in real GDP growth in the third quarter reflected an upturn in private inventory investment, an acceleration in exports, a smaller decrease in state and local government spending, and an upturn in federal government spending. These were partly offset by a smaller increase in PCE, and a larger increase in imports.

Current-dollar GDP increased 4.4 percent, or \$201.1 billion, in the third quarter to a level of \$18,651.2 billion. In the second quarter, current dollar GDP increased 3.7 percent, or \$168.5 billion (table 1 and table 3).

The **price index for gross domestic purchases** increased 1.6 percent in the third quarter, compared with an increase of 2.1 percent in the second quarter (table 4). **The PCE price index** increased 1.4 percent, compared with an increase of 2.0 percent. Excluding food and energy prices, the PCE price index increased 1.7 percent, compared with an increase of 1.8 percent (appendix table A).

Personal Income (table 10)

Current-dollar personal income increased \$153.6 billion in the third quarter, compared with an increase of \$153.1 billion in the second.

Disposable personal income increased \$125.3 billion, or 3.6 percent, in the third quarter, compared with an increase of \$140.6 billion, or 4.1 percent, in the second. **Real disposable personal income** increased 2.2 percent, compared with an increase of 2.1 percent.

Personal saving was \$800.6 billion in the third quarter, compared with \$793.5 billion in the second. The **personal saving rate** -- personal saving as a percentage of disposable personal income -- was 5.7 percent in the third quarter, the same as in the second.

Source Data for the Advance Estimate

Information on the assumptions used for unavailable source data in the advance estimate is provided in a [Technical Note](#) that is posted with the news release on BEA's Web site. Within a few days after the release, a detailed "[Key Source Data and Assumptions](#)" file is posted on the Web site. For information on updates to GDP, see the "Additional Information" section that follows.

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Next release: November 29, 2016 at 8:30 A.M. EST
Gross Domestic Product: Third Quarter 2016 (Second Estimate)
Corporate Profits: Third Quarter 2016 (Preliminary Estimate)

Release Dates in 2017

Estimate	2016: IV and annual	2017: I	2017: II	2017: III
Gross Domestic Product				
Advance	January 27	April 28	July 28	October 27
Second	February 28	May 26	August 30	November 29
Third	March 30	June 29	September 28	December 21
Corporate Profits				
Preliminary	...	May 26	August 30	November 29
Revised	March 30	June 29	September 28	December 21

Additional Information

Resources

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- 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.

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

Line		Billions of dollars						Billions of chained (2009) dollars									Line
		2015	Seasonally adjusted at annual rates					2015	Seasonally adjusted at annual rates					Change from preceding period			
			2015		2016				2015		2016			2015	2016		
			III	IV	I	II	III		III	IV	I	II	III		II	III	
52	Government consumption expenditures and gross investment	3,218.3	3,236.3	3,245.0	3,254.3	3,262.3	3,284.4	2,883.7	2,894.4	2,901.7	2,913.2	2,900.9	2,904.5	50.7	-12.3	3.6	52
53	Federal	1,225.0	1,225.0	1,234.0	1,233.8	1,239.2	1,251.8	1,113.8	1,112.7	1,123.0	1,118.7	1,117.7	1,124.6	0.0	-1.0	6.9	53
54	National defense	732.0	729.3	735.6	731.4	729.3	736.0	672.0	669.0	676.3	670.9	665.5	669.0	-14.3	-5.4	3.5	54
55	Consumption expenditures.....	590.6	589.2	590.4	587.0	585.8	591.2	539.3	537.4	539.9	535.3	531.0	533.6	-9.7	-4.4	2.6	55
56	Gross investment	141.3	140.1	145.2	144.3	143.5	144.8	132.4	131.3	136.1	135.3	134.3	135.2	-4.6	-1.0	0.9	56
57	Nondefense.....	493.0	495.7	498.4	502.4	509.9	515.8	441.3	443.1	446.2	447.2	451.4	454.7	14.0	4.2	3.3	57
58	Consumption expenditures.....	373.1	375.9	377.7	382.0	388.8	393.5	330.9	332.8	334.9	336.4	340.4	342.9	11.9	3.9	2.5	58
59	State investment	119.9	119.9	120.8	120.5	121.1	122.3	110.3	110.2	111.1	110.6	110.8	111.6	2.0	0.3	0.8	59
60	State and local	1,993.3	2,011.3	2,011.0	2,020.5	2,023.1	2,032.6	1,768.2	1,779.9	1,777.1	1,792.6	1,781.4	1,778.3	50.1	-11.2	-3.1	60
61	Consumption expenditures	1,641.2	1,652.1	1,658.5	1,654.0	1,669.2	1,686.7	1,452.5	1,458.8	1,461.3	1,463.6	1,466.3	1,470.6	34.8	2.7	4.3	61
62	Gross investment	352.2	359.2	352.6	366.5	353.9	345.9	315.0	320.4	315.0	328.3	314.3	306.8	15.5	-14.0	-7.5	62
63	Residual.....							-87.4	-91.3	-94.0	-98.2	-104.3	-111.6				63
	Addenda:																
64	Gross domestic income (GDI) ¹	18,290.3	18,378.0	18,487.6	18,546.0	18,642.7		16,627.8	16,669.0	16,730.3	16,763.9	16,756.2		408.5	-7.7		64
65	Average of GDP and GDI	18,163.5	18,260.0	18,355.2	18,413.8	18,546.4		16,512.5	16,561.9	16,610.5	16,644.5	16,669.7		411.7	25.2		65
66	Final sales of domestic product	17,943.3	18,065.1	18,160.1	18,239.7	18,465.0	18,641.3	16,300.6	16,371.7	16,422.4	16,473.5	16,579.5	16,673.4	387.7	106.1	93.9	66
67	Gross domestic purchases	18,558.6	18,665.3	18,743.7	18,789.0	18,942.5	19,109.8	16,937.8	17,002.6	17,057.2	17,091.5	17,142.6	17,228.2	529.0	51.1	85.6	67
68	Final sales to domestic purchasers.....	18,465.2	18,588.5	18,681.0	18,747.1	18,957.5	19,099.9	16,841.6	16,919.8	16,989.4	17,040.5	17,139.9	17,200.3	501.7	99.4	60.4	68
69	Final sales to private domestic purchasers...	15,246.9	15,352.2	15,436.0	15,492.8	15,695.2	15,815.6	13,969.1	14,036.7	14,099.1	14,138.7	14,251.0	14,308.0	452.2	112.3	57.0	69
70	Gross domestic product	18,036.6	18,141.9	18,222.8	18,281.6	18,450.1	18,651.2	16,397.2	16,454.9	16,490.7	16,525.0	16,583.1	16,702.1	414.9	58.2	119.0	70
71	Plus: Income receipts from the rest of the world.....	813.1	817.2	798.5	807.0	848.3		679.1	681.2	664.9	671.0	701.8		-32.9	30.7		71
72	Less: Income payments to the rest of the world.....	607.4	626.6	587.1	634.5	640.5		504.8	519.7	486.3	524.0	526.0		0.7	2.0		72
73	Equals: Gross national product	18,242.4	18,332.5	18,434.1	18,454.2	18,657.9		16,570.4	16,614.0	16,668.4	16,668.3	16,757.6		377.9	89.3		73
74	Net domestic product	15,205.9	15,297.8	15,360.0	15,408.1	15,548.3	15,729.3	13,766.2	13,816.2	13,836.9	13,857.5	13,902.9	14,009.8	352.6	45.5	106.9	74

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

Line		2013	2014	2015	Seasonally adjusted at annual rates																Line	
					2012	2013				2014				2015				2016				
					IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III		
1	Gross domestic product (GDP).....	1.6	1.8	1.1	1.5	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	1.5	1	
2	Personal consumption expenditures.....	1.3	1.5	0.3	2.2	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	1.4	2	
3	Goods.....	-0.5	-0.4	-2.9	1.5	-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	3	
4	Durable goods.....	-1.9	-2.3	-2.1	-1.5	-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	4	
5	Nondurable goods.....	0.1	0.6	-3.3	2.9	-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	5	
6	Services.....	2.3	2.5	2.0	2.5	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	6	
7	Gross private domestic investment.....	1.5	2.1	0.8	1.0	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	1.3	7	
8	Fixed investment.....	1.6	2.3	1.0	0.9	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	1.6	8	
9	Nonresidential.....	0.8	1.4	0.6	0.2	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	0.3	9	
10	Structures.....	2.1	3.8	0.0	-0.4	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	-0.4	10	
11	Equipment.....	0.2	0.4	0.8	1.3	-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	1.1	11	
12	Intellectual property products.....	0.8	1.0	0.8	-1.0	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	-0.3	12	
13	Residential.....	5.0	6.0	2.4	4.0	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	5.8	13	
14	Change in private inventories.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14
15	Net exports of goods and services.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15
16	Exports.....	0.1	0.1	-4.8	1.3	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	2.3	16	
17	Goods.....	-0.7	-0.9	-6.8	0.6	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	17	
18	Services.....	1.8	2.1	-0.5	2.9	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	2.0	18	
19	Imports.....	-0.9	-0.2	-7.6	4.1	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	2.5	19	
20	Goods.....	-1.3	-0.6	-8.9	4.5	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	3.3	20	
21	Services.....	1.3	1.7	-1.3	2.1	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	-1.0	21	
22	Government consumption expenditures and gross investment.....	1.6	2.0	0.3	1.9	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	2.2	22	
23	Federal.....	1.0	1.7	0.5	0.1	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	1.6	23	
24	National defense.....	0.7	1.4	0.2	0.1	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	1.5	24	
25	Nondefense.....	1.6	2.2	1.0	0.0	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	25	
26	State and local.....	1.9	2.2	0.2	3.1	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	2.6	26	
Addenda:																						
27	Final sales of domestic product.....	1.6	1.8	1.1	1.5	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	1.6	27	
28	Gross domestic purchases.....	1.4	1.7	0.4	1.9	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	1.6	28	
29	Final sales to domestic purchasers.....	1.4	1.7	0.4	1.9	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	29	
30	Final sales to private domestic purchasers.....	1.4	1.7	0.5	1.9	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	1.5	30	
31	Gross national product (GNP).....	1.6	1.8	1.0	1.5	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	.....	31
Implicit price deflators:																						
32	GDP.....	1.6	1.8	1.1	1.6	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	1.5	32	
33	Gross domestic purchases.....	1.4	1.7	0.4	2.1	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	33	
34	GNP.....	1.6	1.8	1.0	1.6	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	.....	34

See Explanatory Note at the end of the tables.

Table 5. Real Gross Domestic Product, Quantity Indexes

[Index numbers, 2009=100]

Line		2013	2014	2015	Seasonally adjusted					Line
					2015		2016			
					III	IV	I	II	III	
1	Gross domestic product	108.277	110.844	113.721	114.121	114.370	114.608	115.011	115.836	1
2	Personal consumption expenditures	107.296	110.378	113.890	114.308	114.952	115.418	116.633	117.252	2
3	Goods	112.977	117.414	122.166	122.955	123.602	123.957	126.089	126.769	3
4	Durable goods.....	128.280	136.919	146.395	147.789	149.251	149.013	152.538	156.036	4
5	Nondurable goods.....	106.483	109.253	112.146	112.695	113.023	113.608	115.185	114.771	5
6	Services.....	104.555	107.004	109.954	110.208	110.849	111.361	112.184	112.774	6
7	Gross private domestic investment	139.317	145.549	152.761	153.461	152.570	151.294	148.226	149.377	7
8	Fixed investment.....	124.469	131.342	136.633	137.956	137.895	137.570	137.179	136.970	8
9	Nonresidential.....	124.455	131.967	134.697	135.754	134.611	133.442	133.766	134.149	9
10	Structures.....	97.855	107.918	103.166	103.456	99.291	99.317	98.794	100.099	10
11	Equipment.....	152.465	160.752	166.451	168.511	167.400	163.270	162.053	160.930	11
12	Intellectual property products.....	113.352	117.733	123.422	123.987	125.376	126.532	129.279	130.559	12
13	Residential.....	124.495	128.846	143.923	146.263	150.290	153.133	150.079	147.691	13
14	Change in private inventories									14
15	Exports of goods and services	127.951	133.414	133.560	133.550	132.629	132.389	132.974	136.194	15
16	Imports of goods and services	122.855	128.279	134.155	134.510	134.752	134.544	134.620	135.403	16
17	Government consumption expenditures and gross investment	92.505	91.710	93.350	93.696	93.933	94.304	93.907	94.023	17
18	Federal.....	93.852	91.471	91.472	91.378	92.226	91.874	91.791	92.355	18
19	State and local.....	91.595	91.806	94.485	95.110	94.959	95.790	95.192	95.024	19
	Addenda:									
20	Final sales of domestic product.....	106.555	109.245	111.906	112.394	112.743	113.093	113.821	114.466	20
21	Gross domestic purchases	108.119	110.765	114.335	114.773	115.141	115.373	115.718	116.295	21
22	Final sales to domestic purchasers	106.447	109.212	112.565	113.087	113.552	113.894	114.558	114.962	22
23	Final sales to private domestic purchasers.....	110.138	113.849	117.658	118.227	118.753	119.086	120.032	120.512	23
24	Gross national product.....	108.596	111.138	113.731	114.030	114.404	114.403	115.016	.....	24

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

Table 6. Price Indexes for Gross Domestic Product

[Index numbers, 2009=100]

Line		2013	2014	2015	Seasonally adjusted					Line
					2015		2016			
					III	IV	I	II	III	
1	Gross domestic product	106.917	108.838	109.999	110.268	110.498	110.635	111.268	111.686	1
2	Personal consumption expenditures (PCE)	107.532	109.150	109.532	109.784	109.892	109.969	110.519	110.917	2
3	Goods	106.116	105.727	102.680	102.806	102.144	101.109	101.301	101.082	3
4	Durable goods	94.590	92.411	90.463	90.231	89.813	89.619	89.045	88.126	4
5	Nondurable goods	111.946	112.595	108.920	109.264	108.459	106.917	107.582	107.807	5
6	Services.....	108.276	110.946	113.149	113.469	113.990	114.663	115.405	116.137	6
7	Gross private domestic investment	103.454	105.655	106.539	106.663	106.742	106.889	107.366	107.712	7
8	Fixed investment	103.670	106.030	107.062	107.184	107.300	107.467	108.048	108.471	8
9	Nonresidential.....	103.023	104.423	105.051	105.141	105.116	105.172	105.476	105.560	9
10	Structures.....	108.116	112.213	112.202	112.168	112.113	111.682	112.566	112.446	10
11	Equipment.....	100.047	100.482	101.277	101.285	101.299	101.366	101.392	101.671	11
12	Intellectual property products.....	103.755	104.772	105.583	105.889	105.825	106.168	106.526	106.451	12
13	Residential.....	106.393	112.795	115.479	115.726	116.371	116.952	118.553	120.248	13
14	Change in private inventories									14
15	Exports of goods and services	112.064	112.134	106.778	106.548	105.039	103.669	104.671	105.267	15
16	Imports of goods and services	113.634	113.368	104.726	104.304	102.252	100.675	101.211	101.839	16
17	Government consumption expenditures and gross investment	109.046	111.263	111.605	111.816	111.835	111.713	112.462	113.082	17
18	Federal	107.581	109.431	109.979	110.096	109.881	110.286	110.869	111.311	18
19	State and local.....	110.063	112.522	112.732	113.003	113.169	112.715	113.570	114.301	19
	Addenda:									
20	PCE excluding food and energy ¹	106.323	108.048	109.540	109.770	110.095	110.657	111.150	111.623	20
21	Market-based PCE ²	107.000	108.219	108.179	108.391	108.450	108.395	108.893	109.242	21
22	Market-based PCE excluding food and energy ²	105.522	106.800	107.957	108.138	108.436	108.911	109.336	109.762	22
23	Final sales of domestic product.....	106.946	108.891	110.077	110.347	110.584	110.724	111.375	111.805	23
24	Gross domestic purchases	107.287	109.109	109.569	109.793	109.881	109.936	110.509	110.937	24
25	Final sales to domestic purchasers	107.314	109.159	109.640	109.865	109.959	110.017	110.606	111.046	25
26	Final sales to private domestic purchasers	106.873	108.637	109.148	109.374	109.484	109.579	110.135	110.539	26
27	Gross national product	107.042	108.957	110.090	110.359	110.587	110.719	111.350	.....	27
	Implicit price deflators:									
28	Gross domestic product.....	106.913	108.828	109.998	110.253	110.504	110.630	111.258	111.670	28
29	Final sales of domestic product	106.946	108.891	110.077	110.344	110.581	110.722	111.372	111.802	29
30	Gross domestic purchases	107.284	109.099	109.569	109.779	109.887	109.932	110.500	110.922	30
31	Final sales to domestic purchasers	107.314	109.159	109.640	109.862	109.957	110.015	110.604	111.044	31
32	Gross national product.....	107.038	108.947	110.090	110.344	110.593	110.714	111.340	.....	32

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
		2008	2009	2010	2011	2012	2013	2014	2015	2008	2009	2010	2011	2012	2013	2014	2015	
1	Gross domestic product (GDP)	-0.3	-2.8	2.5	1.6	2.2	1.7	2.4	2.6	-2.8	-0.2	2.7	1.7	1.3	2.7	2.5	1.9	1
2	Personal consumption expenditures (PCE)	-0.3	-1.6	1.9	2.3	1.5	1.5	2.9	3.2	-2.0	-0.2	3.1	1.5	1.3	2.0	3.5	2.6	2
3	Goods.....	-2.5	-3.0	3.4	3.1	2.7	3.1	3.9	4.0	-6.2	0.9	5.1	1.7	2.8	3.5	4.6	3.3	3
4	Durable goods.....	-5.1	-5.5	6.1	6.1	7.4	6.2	6.7	6.9	-12.9	2.5	9.3	4.8	7.2	5.2	8.6	5.5	4
5	Nondurable goods.....	-1.1	-1.8	2.2	1.8	0.6	1.7	2.6	2.6	-2.7	0.2	3.3	0.4	0.8	2.6	2.8	2.3	5
6	Services.....	0.8	-0.9	1.2	1.8	0.8	0.6	2.3	2.8	0.3	-0.8	2.0	1.4	0.6	1.3	2.9	2.2	6
7	Gross private domestic investment	-9.4	-21.6	12.9	5.2	10.6	6.1	4.5	5.0	-15.9	-11.0	11.1	9.6	3.7	9.3	3.8	2.6	7
8	Fixed investment.....	-6.8	-16.7	1.5	6.3	9.8	5.0	5.5	4.0	-12.5	-11.9	5.5	8.4	7.0	5.2	5.3	3.4	8
9	Nonresidential.....	-0.7	-15.6	2.5	7.7	9.0	3.5	6.0	2.1	-8.9	-12.2	8.1	9.0	5.2	4.8	5.0	0.8	9
10	Structures.....	6.1	-18.9	-16.4	2.3	12.9	1.4	10.3	-4.4	-1.2	-27.1	-4.0	8.0	4.1	5.8	8.0	-8.8	10
11	Equipment.....	-6.9	-22.9	15.9	13.6	10.8	4.6	5.4	3.5	-19.0	-11.5	20.9	13.1	6.9	6.1	2.9	3.7	11
12	Intellectual property products.....	3.0	-1.4	1.9	3.6	3.9	3.4	3.9	4.8	0.0	1.3	1.8	4.1	3.4	2.2	6.1	3.8	12
13	Residential.....	-24.0	-21.2	-2.5	0.5	13.5	11.9	3.5	11.7	-24.3	-10.8	-5.2	6.0	15.7	6.8	6.2	13.1	13
14	Change in private inventories.....																	14
15	Net exports of goods and services																	15
16	Exports.....	5.7	-8.8	11.9	6.9	3.4	3.5	4.3	0.1	-2.8	0.8	10.1	4.2	2.2	5.9	3.1	-2.2	16
17	Goods.....	6.1	-12.1	14.4	6.5	3.6	3.1	4.4	-0.6	-3.2	-0.2	10.9	4.8	1.2	7.0	2.7	-3.4	17
18	Services.....	4.8	-1.1	6.8	7.6	3.0	4.4	3.9	1.6	-1.8	3.2	8.4	2.7	4.5	3.6	3.9	0.5	18
19	Imports.....	-2.6	-13.7	12.7	5.5	2.2	1.1	4.4	4.6	-6.0	-6.2	12.0	3.5	0.3	2.5	6.1	2.5	19
20	Goods.....	-3.7	-15.8	14.9	5.8	2.1	1.2	4.8	4.9	-7.9	-6.7	13.6	3.4	0.1	2.7	6.5	2.7	20
21	Services.....	3.7	-3.8	3.8	4.0	3.0	0.6	2.6	2.9	4.7	-4.2	4.9	3.8	1.2	1.1	4.0	1.9	21
22	Government consumption expenditures and gross investment	2.8	3.2	0.1	-3.0	-1.9	-2.9	-0.9	1.8	3.3	2.3	-1.1	-3.0	-2.2	-2.8	0.3	2.2	22
23	Federal.....	6.8	5.7	4.4	-2.7	-1.9	-5.8	-2.5	0.0	8.4	3.9	3.2	-4.0	-2.1	-6.7	-1.3	1.7	23
24	National defense.....	7.5	5.4	3.2	-2.3	-3.4	-6.8	-4.1	-2.1	9.4	3.6	2.0	-4.1	-3.9	-7.1	-4.1	0.6	24
25	Nondefense.....	5.5	6.2	6.4	-3.4	0.9	-4.1	0.1	3.3	6.5	4.6	5.5	-3.9	1.0	-6.0	3.4	3.4	25
26	State and local.....	0.3	1.6	-2.7	-3.3	-1.9	-0.8	0.2	2.9	0.2	1.3	-4.0	-2.3	-2.3	-0.1	1.3	2.5	26
	Addenda:																	
27	Gross domestic income (GDI) ¹	-0.8	-2.6	2.7	2.2	3.3	1.2	3.0	2.5	-2.3	0.3	2.6	2.1	2.8	1.3	4.0	1.5	27
28	Average of GDP and GDI.....	-0.6	-2.7	2.6	1.9	2.7	1.5	2.7	2.6	-2.5	0.0	2.7	1.9	2.1	2.0	3.2	1.7	28
29	Final sales of domestic product.....	0.2	-2.0	1.1	1.7	2.1	1.5	2.5	2.4	-2.1	-0.4	2.0	1.5	1.7	2.0	2.7	2.0	29
30	Gross domestic purchases.....	-1.3	-3.8	2.9	1.6	2.1	1.3	2.4	3.2	-3.3	-1.3	3.2	1.7	1.0	2.2	3.0	2.5	30
31	Final sales to domestic purchasers.....	-0.9	-3.1	1.5	1.7	1.9	1.2	2.6	3.1	-2.7	-1.4	2.5	1.5	1.4	1.6	3.2	2.6	31
32	Final sales to private domestic purchasers.....	-1.7	-4.6	1.9	2.9	2.9	2.1	3.4	3.3	-4.1	-2.4	3.5	2.6	2.3	2.6	3.8	2.7	32
33	Gross national product.....	0.0	-2.9	2.8	1.8	2.1	1.7	2.3	2.3	-3.3	0.1	2.9	2.0	1.0	2.7	2.3	1.7	33
34	Real disposable personal income.....	1.5	-0.4	1.0	2.5	3.2	-1.4	3.5	3.5	1.1	-0.7	2.6	1.7	5.1	-2.8	4.5	3.0	34
	Price indexes:																	
35	Gross domestic purchases.....	2.9	-0.2	1.5	2.4	1.8	1.4	1.7	0.4	1.9	0.3	1.6	2.4	1.7	1.4	1.4	0.4	35
36	Gross domestic purchases excluding food and energy ²	2.3	0.5	1.3	1.8	1.8	1.5	1.8	1.1	2.0	0.5	1.4	1.9	1.7	1.7	1.6	1.0	36
37	GDP.....	1.9	0.8	1.2	2.1	1.8	1.6	1.8	1.1	1.9	0.4	1.8	1.9	1.9	1.6	1.5	1.1	37
38	GDP excluding food and energy ²	2.1	0.5	1.4	1.9	1.8	1.7	1.9	1.2	1.7	0.6	1.6	1.9	1.8	1.9	1.7	1.2	38
39	PCE.....	3.1	-0.1	1.7	2.5	1.9	1.3	1.5	0.3	1.5	1.2	1.3	2.7	1.8	1.2	1.2	0.4	39
40	PCE excluding food and energy ²	2.1	1.2	1.3	1.5	1.9	1.5	1.6	1.4	1.6	1.4	1.0	1.9	1.8	1.5	1.6	1.4	40
41	Market-based PCE ³	3.4	0.4	1.5	2.5	1.8	1.0	1.1	0.0	1.9	1.5	1.1	2.8	1.6	0.9	0.9	0.1	41
42	Market-based PCE excluding food and energy ³	2.3	1.9	1.0	1.4	1.8	1.2	1.2	1.1	2.2	1.8	0.7	1.9	1.5	1.1	1.2	1.1	42

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

Table with columns for Line, 2012, 2013 (I, II, III, IV), 2014 (I, II, III, IV), 2015 (I, II, III, IV), 2016 (I, II, III), and Line. Rows include GDP, PCE, Gross private domestic investment, Net exports of goods and services, Government consumption expenditures and gross investment, and Addenda.

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		2013	2014	2015	Seasonally adjusted at annual rates					Line
					2015		2016			
					III	IV	I	II	III	
1	Gross domestic product (GDP)	16,691.5	17,393.1	18,036.6	18,141.9	18,222.8	18,281.6	18,450.1	18,651.2	1
2	Plus: Income receipts from the rest of the world.....	825.5	852.1	813.1	817.2	798.5	807.0	848.3		2
3	Less: Income payments to the rest of the world.....	581.3	604.0	607.4	626.6	587.1	634.5	640.5		3
4	Equals: Gross national product	16,935.8	17,641.2	18,242.4	18,332.5	18,434.1	18,454.2	18,657.9		4
5	Less: Consumption of fixed capital.....	2,628.9	2,745.2	2,830.8	2,844.2	2,862.8	2,873.6	2,901.8	2,921.9	5
6	Less: Statistical discrepancy.....	-137.9	-257.9	-253.7	-236.1	-264.8	-264.3	-192.6		6
7	Equals: National income	14,444.8	15,153.9	15,665.3	15,724.4	15,836.2	15,844.9	15,948.8		7
8	Compensation of employees.....	8,842.4	9,253.4	9,693.1	9,740.0	9,892.4	9,892.6	10,005.1	10,118.7	8
9	Wages and salaries.....	7,116.7	7,476.3	7,854.8	7,893.9	8,024.6	8,011.3	8,104.3	8,198.9	9
10	Supplements to wages and salaries.....	1,725.8	1,777.1	1,838.2	1,846.1	1,867.8	1,881.3	1,900.8	1,919.8	10
11	Proprietors' income with inventory valuation and capital consumption adjustments.....	1,284.7	1,337.7	1,376.8	1,389.0	1,400.9	1,403.9	1,407.8	1,415.5	11
12	Rental income of persons with capital consumption adjustment.....	567.1	606.1	659.6	668.1	677.3	692.8	700.6	707.5	12
13	Corporate profits with inventory valuation and capital consumption adjustments.....	2,032.9	2,152.1	2,088.1	2,095.4	1,967.5	2,033.5	2,021.0		13
14	Net interest and miscellaneous payments.....	504.6	533.7	524.1	525.2	503.7	493.1	485.5	488.0	14
15	Taxes on production and imports less subsidies.....	1,115.6	1,153.5	1,181.0	1,182.5	1,190.0	1,191.5	1,187.4	1,197.8	15
16	Business current transfer payments (net).....	118.4	137.6	161.4	143.2	224.5	158.1	164.6	146.5	16
17	Current surplus of government enterprises.....	-20.9	-20.2	-18.8	-18.9	-20.1	-20.5	-23.3	-23.3	17
	Addenda:									
18	Gross domestic income (GDI).....	16,829.5	17,651.1	18,290.3	18,378.0	18,487.6	18,546.0	18,642.7		18
19	Average of GDP and GDI.....	16,760.5	17,522.1	18,163.5	18,260.0	18,355.2	18,413.8	18,546.4		19
20	Statistical discrepancy as a percentage of GDP.....	-0.8	-1.5	-1.4	-1.3	-1.5	-1.4	-1.0		20

Table 10. Personal Income and Its Disposition

[Billions of dollars]

Line		2013	2014	2015	Seasonally adjusted at annual rates					Line
					2015		2016			
					III	IV	I	II	III	
1	Personal income ¹	14,073.7	14,809.7	15,458.5	15,556.1	15,690.2	15,740.1	15,893.2	16,046.8	1
2	Compensation of employees.....	8,842.4	9,253.4	9,693.1	9,740.0	9,892.4	9,892.6	10,005.1	10,118.7	2
3	Wages and salaries.....	7,116.7	7,476.3	7,854.8	7,893.9	8,024.6	8,011.3	8,104.3	8,198.9	3
4	Supplements to wages and salaries.....	1,725.8	1,777.1	1,838.2	1,846.1	1,867.8	1,881.3	1,900.8	1,919.8	4
5	Proprietors' income with inventory valuation and capital consumption adjustments.....	1,284.7	1,337.7	1,376.8	1,389.0	1,400.9	1,403.9	1,407.8	1,415.5	5
6	Farm.....	87.8	68.5	39.9	44.6	38.1	32.3	29.8	28.4	6
7	Nonfarm.....	1,197.0	1,269.2	1,336.8	1,344.4	1,362.8	1,371.6	1,378.0	1,387.1	7
8	Rental income of persons with capital consumption adjustment.....	567.1	606.1	659.6	668.1	677.3	692.8	700.6	707.5	8
9	Personal income receipts on assets.....	2,056.1	2,227.0	2,253.8	2,275.1	2,235.5	2,235.9	2,255.8	2,270.0	9
10	Personal interest income.....	1,261.6	1,300.9	1,302.7	1,336.1	1,293.0	1,296.1	1,310.2	1,317.6	10
11	Personal dividend income.....	794.4	926.1	951.1	939.0	942.5	939.8	945.5	952.5	11
12	Personal current transfer receipts.....	2,428.0	2,540.4	2,678.6	2,692.1	2,708.2	2,744.0	2,763.6	2,785.8	12
13	Less: Contributions for government social insurance, domestic.....	1,104.6	1,154.9	1,203.5	1,208.3	1,224.1	1,229.0	1,239.7	1,250.7	13
14	Less: Personal current taxes.....	1,677.8	1,787.0	1,938.7	1,944.4	1,963.8	1,932.7	1,945.2	1,973.5	14
15	Equals: Disposable personal income	12,395.8	13,022.7	13,519.8	13,611.7	13,726.4	13,807.4	13,948.0	14,073.3	15
16	Less: Personal outlays.....	11,775.7	12,296.7	12,736.2	12,813.2	12,899.6	12,961.9	13,154.5	13,272.7	16
17	Equals: Personal saving	620.1	726.0	783.6	798.5	826.8	845.5	793.5	800.6	17
18	Personal saving as a percentage of disposable personal income.....	5.0	5.6	5.8	5.9	6.0	6.1	5.7	5.7	18
	Addenda:									
19	Personal income excluding current transfer receipts, billions of chained (2009) dollars ²	10,830.0	11,240.8	11,667.7	11,717.8	11,813.7	11,818.2	11,880.2	11,956.1	19
20	Disposable personal income, billions of chained (2009) dollars ²	11,527.6	11,931.0	12,343.3	12,398.9	12,491.0	12,556.0	12,620.7	12,688.4	20

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		2013	2014	2015	Seasonally adjusted at annual rates															Line				
					2012				2013				2014				2015				2016			
					IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II		III			
Percent change from preceding period																								
Gross domestic product (GDP) and related aggregates:																								
1	GDP.....	1.7	2.4	2.6	0.1	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	2.9	1			
2	Goods.....	4.5	3.1	2.5	-0.7	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	7.4	2			
3	Services.....	0.1	1.7	2.4	0.3	-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	1.7	3			
4	Structures.....	3.4	5.2	4.3	2.2	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	-4.1	4			
5	Motor vehicle output.....	5.3	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	2.0	5			
6	GDP excluding motor vehicle output.....	1.6	2.2	2.5	0.1	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	2.9	6			
7	Final sales of computers ¹	10.8	9.4	9.8	46.3	-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	-6.4	7			
8	GDP excluding final sales of computers.....	1.6	2.3	2.6	-0.1	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	2.9	8			
9	Research and development.....	2.1	0.4	2.2	4.7	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	2.1	9			
10	GDP excluding research and development.....	1.7	2.4	2.6	0.0	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	2.9	10			
11	Farm gross value added ²	21.2	-1.9	3.1	-1.8	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	20.0	11			
12	Nonfarm business gross value added ³	2.0	3.0	3.1	0.2	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	3.4	12			
Price indexes:																								
13	GDP.....	1.6	1.8	1.1	1.5	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	1.5	13			
14	GDP excluding food and energy ⁴	1.7	1.9	1.2	1.8	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	14			
15	GDP excluding final sales of computers.....	1.7	1.8	1.1	1.5	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	15			
16	Gross domestic purchases.....	1.4	1.7	0.4	1.9	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	1.6	16			
17	Gross domestic purchases excluding food and energy ⁴ ...	1.5	1.8	1.1	1.6	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	1.8	17			
18	Gross domestic purchases excluding final sales of computers to domestic purchasers.....	1.4	1.7	0.5	2.0	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	1.6	18			
19	Personal consumption expenditures (PCE).....	1.3	1.5	0.3	2.2	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	1.4	19			
20	PCE excluding food and energy ⁴	1.5	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	20			
21	Market-based PCE ⁵	1.0	1.1	0.0	1.7	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	21			
22	Market-based PCE excluding food and energy ⁵	1.2	1.2	1.1	1.1	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	22			
Contributions to percent change in real gross domestic product																								
Percent change at annual rate:																								
23	Gross domestic product	1.7	2.4	2.6	0.1	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	2.9	23			
Percentage points at annual rates:																								
24	Goods.....	1.36	0.94	0.77	-0.24	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	2.15	24			
25	Services.....	0.08	1.04	1.49	0.17	-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	1.08	25			
26	Structures.....	0.25	0.39	0.34	0.15	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	-0.33	26			
27	Motor vehicle output.....	0.14	0.21	0.14	-0.05	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	0.06	27			
28	Final sales of computers.....	0.04	0.04	0.04	0.16	-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	-0.03	28			
29	Research and development.....	0.05	0.01	0.05	0.12	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	0.05	29			

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.