



Technical Note
Gross Domestic Product
First Quarter of 2011 (Advance)
April 28, 2011

This technical note provides background information about the source data and estimating methods used to produce the estimates presented in the GDP news release. The complete set of estimates for the first quarter is available on BEA's Web site at www.bea.gov; a brief summary of "highlights" is also posted on the Web site. In a few weeks, the estimates will be published in BEA's monthly journal, the *Survey of Current Business*, along with a more detailed analysis of the estimates ("GDP and the Economy").

Real GDP

Real GDP increased 1.8 percent (annual rate) in the first quarter of 2011, following an increase of 3.1 percent in the fourth quarter of 2010. The deceleration in real GDP in the first quarter reflected a sharp upturn in imports, a deceleration in consumer spending, a larger decrease in federal government spending, and decelerations in nonresidential fixed investment and in exports that were partly offset by a sharp upturn in inventory investment.

Source data for the advance estimate

The advance GDP estimate for the first quarter of 2011 is based on source data that are incomplete and subject to revision. Three months of source data were available for consumer spending on goods; shipments of capital equipment other than aircraft; motor vehicle sales and inventories; manufacturing durables inventories; federal government outlays; and consumer, producer, and international prices. Only two months of data were available for most other key data sources; BEA's assumptions for the third month are shown in table A. Among those assumptions are the following:

- an increase in nondurable manufacturing inventories,
- an increase in non-motor-vehicle merchant wholesale and retail inventories,
- an increase in exports of goods, excluding gold, and
- an increase in imports of goods, excluding gold.

Prices

The price index for gross domestic purchases increased 3.8 percent in the first quarter, following an increase of 2.1 percent in the fourth. Excluding food and energy, the price index for gross domestic purchases increased 2.2 percent in the first quarter, following an increase of 1.1 percent in the fourth.

Disposable Personal Income

Real disposable personal income (DPI) increased 2.9 percent in the first quarter, following an increase of 1.9 percent in the fourth. Current-dollar DPI increased 6.9 percent, following an increase of 3.6 percent. First-quarter DPI was affected by two large special factors. Contributions for government social insurance (a subtraction in the calculation of personal income) were reduced by \$105.4 billion, reflecting a 2-percentage point reduction in the social security contribution rate for 2011 based on provisions of the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010. This effect was partly offset by the expiration of the Make Work Pay provision of the American Recovery and Reinvestment Act of 2009, which boosted first-quarter personal current taxes by \$38.6 billion.

Annual Revision Scheduled for July 29

The GDP news release on July 29, in addition to presenting the advance estimate of GDP for the second quarter of 2011, will present the annual revision of the national income and product accounts (NIPAs). In addition to the regular revision of estimates for the most recent 3 years and the first quarter of 2011, GDP and some components will be revised back to the first quarter of 2003. BEA's plans to undertake "flexible annual revisions" that include revisions for longer periods than the traditional 3-year period were described in the June 2008 *Survey of Current Business*, www.bea.gov/scb/pdf/2008/06%20June/0608_flexible.pdf.

In cases for which the estimates for the reference year (2005) will be revised, the levels of the related index numbers and chained-dollar estimates will be revised for the entire historical period, though the percent changes will not be revised for periods before the first quarter of 2003.

The components that will be revised for longer time spans include the following:

- Personal consumption expenditures (PCE) will be revised back to 2003 to incorporate source data from the 2007 Economic Census (specifically, final data on merchandise lines) and data from the Census annual and monthly retail trade and food services surveys and from the Census service annual survey that have been benchmarked to the economic census. In addition, improved price indexes will be used for deflation of PCE for property and casualty insurance.
- The estimates of petroleum imports will be revised back to 2007 to incorporate improvements in the seasonal adjustment methodology for real petroleum imports, which will be derived by directly adjusting the petroleum imports quantity data; currently, BEA seasonally adjusts the petroleum price index and calculates seasonally adjusted real petroleum imports by deflation.

- The estimates of private fixed investment, exports, and imports of communication equipment will be revised back to 2003 to incorporate quality-adjusted price indexes from the Federal Reserve Board. (During the 2010 NIPA annual revision, the Federal Reserve price indexes were incorporated only back to 2007.)

In addition, the 2011 annual revision will incorporate the usual annual source data for 2008 through 2010 that are more complete and more detailed than those previously available, including:

- Census Bureau annual surveys of manufactures, of merchant wholesale trade, of retail trade, of services, and of state and local governments;
- BEA international transactions accounts data;
- Federal government budget data;
- Internal Revenue Service tabulations of tax returns for corporations and for sole proprietorships and partnerships; and
- Department of Agriculture farm income statistics.

The annual revision will also incorporate improvements to the presentation of the estimates and refinements to estimating methodologies, including the following:

- In the personal income and outlays tables, the presentation of government social benefits will be modified to focus on the largest and most significant programs.
- Starting with the first quarter of 2011, the quarterly and monthly estimates of PCE for portfolio management and investment advice services will be based on newly available Census quarterly services survey data on “other financial investment activities.”

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**Table A. KEY ASSUMPTIONS FOR THE ADVANCE ESTIMATE OF GDP
FOR THE FIRST QUARTER OF 2011**

For many of the key series used to prepare the advance estimate of GDP, including retail sales, unit automobile and truck sales and inventories, manufacturers' shipments of nondefense capital goods (other than aircraft), manufacturers' inventories of durable goods, federal defense spending, and consumer, producer, and international price indexes, actual data are available for all months of the quarter.

For the key series shown in this table, actual data for the third month of the quarter usually are not available in time for inclusion in the advance GDP estimate. BEA makes assumptions for the source data that are not yet available; assumptions for March 2011 are shown in the last column of the table. For most series shown, the data for February are preliminary and subject to further revision. Occasionally, the data for earlier months are also subject to revision.

All series shown in the table are in billions of dollars, seasonally adjusted at annual rates, and are published by the Bureau of the Census.

	Oct.	2010 Nov.	Dec.	Jan.	2011 Feb.	Mar.*
Private fixed investment:						
Nonresidential structures:						
1 Value of new nonresidential construction put in place.....	260.0	266.7	257.9	237.4	239.6	238.5
Equipment and software:						
2 Manufacturers' shipments of complete aircraft.....	34.9	31.3	37.3	31.5	34.1	33.7
Residential structures:						
Value of new residential construction put in place:						
3 Single family.....	106.5	106.5	107.1	108.0	106.1	105.5
4 Multifamily.....	13.5	14.5	13.1	12.8	12.6	12.5
Change in private inventories:						
NOTE: Historical (October-January) data may reflect concurrent seasonal factors.						
5 Change in inventories for nondurable manufacturing.....	42.5	27.2	51.0	63.6	18.8	36.7
5a Change in inventories for merchant wholesale and retail industries other than motor vehicles and equipment...	124.0	4.8	94.2	67.0	49.5	71.5
Net exports:						
Exports of goods:						
6 U.S. exports of goods, international-transactions-accounts basis.....	1346.2	1363.1	1398.2	1445.0	1415.5	1444.6
6a Excluding gold.....	1326.3	1348.1	1380.3	1422.4	1388.0	1419.2
Imports of goods:						
7 U.S. imports of goods, international-transactions-accounts basis.....	1959.8	1980.4	2041.7	2168.6	2127.6	2192.1
7a Excluding gold.....	1946.7	1963.3	2016.8	2156.9	2113.4	2176.4
8 Net exports of goods.....	-613.6	-617.3	-643.5	-723.6	-712.1	-747.5
8a Excluding gold.....	-620.4	-615.2	-636.5	-734.6	-725.4	-757.2
Government:						
State and local:						
Structures:						
9 Value of new construction put in place.....	281.6	274.1	270.0	265.6	261.6	263.6

*Assumption.