



**Technical Note**  
Gross Domestic Product  
Second Quarter of 2010 (Advance)  
July 30, 2010

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 second quarter is available on BEA's Web site at [www.bea.gov](http://www.bea.gov); a brief summary of "highlights" is also posted on the Web site. In a few weeks, the 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 2.4 percent (annual rate) in the second quarter of 2010, following an increase of 3.7 percent (revised) in the first quarter. The deceleration in real GDP in the second quarter reflected an acceleration in imports and a deceleration in inventory investment that were partly offset by an upturn in residential fixed investment, an acceleration in nonresidential fixed investment, an upturn in state and local government spending, and an acceleration in federal government spending.

### **Source data for the advance estimate**

The advance GDP estimate for the second quarter of 2010 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,
- a decrease in exports of goods, excluding gold, and
- an increase in imports of goods, excluding gold.

### **Prices**

The price index for gross domestic purchases increased 0.1 percent in the second quarter, following an increase of 2.1 percent in the first. Excluding food and energy, the price index for gross domestic purchases increased 0.9 percent in the second quarter, following an increase of 1.6 percent in the first.

### **American Recovery and Reinvestment Act of 2009**

BEA's national accounts include the effects of the federal outlays and tax cuts included in the American Recovery and Reinvestment Act of 2009. Most of the effects of ARRA

on GDP show up indirectly through the effects on GDP components such as consumer spending, residential investment, and state and local government spending. Thus, BEA's accounts do not directly identify the portion of GDP expenditures that is funded by ARRA. It is possible, however, to identify the effects of ARRA on selected federal government transactions, which are shown on table B.

During the second quarter of 2010, ARRA provisions lowered personal taxes about \$120 billion (annual rate) and raised government social benefits to persons about \$61½ billion, thus raising disposable personal income (income after taxes) about \$181½ billion. In addition, ARRA funded about \$102½ billion in current grants to state and local governments (such as Medicaid and education grants), about \$47½ billion in capital transfers to state and local governments, to home buyers, and to businesses, about \$22½ billion in federal consumption expenditures and gross investment, and about \$2 billion in subsidies for housing and energy. Further information, including estimates of the effects of ARRA for 2009, is available at <http://www.bea.gov/recovery/index.htm>.

### **Annual revision**

Today's GDP news release presents results from the regular annual revision of the national income and product accounts. This year's revision covers the estimates for the most recent three years—from 2007 to 2009—and the first quarter of 2010. The revision incorporates source data that are more complete and reliable than those previously available. Shortly after the GDP release, BEA will post a table on its Web site, [www.bea.gov](http://www.bea.gov), showing selected component detail and major source data for the revisions. A detailed discussion of the results will be published in the August issue of the *Survey*.

For 2006–2009, real GDP decreased at an average annual rate of 0.2 percent, which was 0.2 percentage point less than in the previously published estimates. This revision reflected a downward revision to personal consumption expenditures, an upward revision to imports, and downward revisions to state and local government spending and to residential fixed investment that more than offset an upward revision to exports. The GDP revisions reflected the incorporation of regular annual source data, such as the 2009 Services Annual Survey and the 2008 Annual Retail Trade Survey from the Census Bureau.

The revised estimates show a sharper cyclical contraction in GDP during 2008 and the first half of 2009 than in the previously published estimates. From the fourth quarter of 2007 to the second quarter of 2009, real GDP decreased at an average annual rate of 2.8 percent; in the previously published estimates, it had decreased at an average annual rate of 2.5 percent. The cumulative decrease in real GDP over the six quarters of contraction was 4.1 percent. From the second quarter of 2009 through the second quarter of 2010, real GDP increased 3.2 percent.

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**Table A. KEY ASSUMPTIONS FOR THE ADVANCE ESTIMATE OF GDP  
FOR THE SECOND QUARTER OF 2010**

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 June 2010 are shown in the last column of the table. For most series shown, the data for May 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.

|   |   | 2010   |        |        |        |        |        |
|---|---|--------|--------|--------|--------|--------|--------|
|   |   | Jan.   | Feb.   | Mar.   | Apr.   | May.   | Jun.*  |
| <b>Private fixed investment:</b>  |   |        |        |        |        |        |        |
| Nonresidential structures:  |   |        |        |        |        |        |        |
| 1   | Value of new nonresidential construction put in place.....  | 281.5  | 275.9  | 275.1  | 277.2  | 275.6  | 276.4  |
| Equipment and software:   |   |        |        |        |        |        |        |
| 2   | Manufacturers' shipments of complete aircraft.....  | 29.1   | 33.7   | 33.9   | 33.2   | 27.2   | 31.4   |
| Residential structures:   |   |        |        |        |        |        |        |
| Value of new residential construction put in place:                             |   |        |        |        |        |        |        |
| 3   | Single family.....  | 113.6  | 115.0  | 116.9  | 120.6  | 121.5  | 118.3  |
| 4   | Multifamily.....  | 16.3   | 15.5   | 14.4   | 13.9   | 13.1   | 12.7   |
| <b>Change in private inventories:</b>   |   |        |        |        |        |        |        |
| NOTE: Historical (January--April) data may reflect concurrent seasonal factors. |   |        |        |        |        |        |        |
| 5   | Change in inventories for nondurable manufacturing.....   | 16.9   | 38.0   | 4.9    | 8.9    | -60.8  | 13.5   |
| 5a  | Change in inventories for merchant wholesale and retail industries other than motor vehicles and equipment... | 4.9    | 14.6   | 56.0   | 30.7   | 34.0   | 22.0   |
| <b>Net exports:</b>   |   |        |        |        |        |        |        |
| Exports of goods:   |   |        |        |        |        |        |        |
| 6   | U.S. exports of goods, international-transactions-accounts basis.....   | 1204.4 | 1201.7 | 1261.8 | 1250.9 | 1286.4 | 1278.6 |
| 6a  | Excluding gold.....   | 1185.5 | 1186.8 | 1241.8 | 1234.1 | 1272.8 | 1264.2 |
| Imports of goods:   |   |        |        |        |        |        |        |
| 7   | U.S. imports of goods, international-transactions-accounts basis.....   | 1771.5 | 1821.8 | 1890.1 | 1881.4 | 1939.9 | 1976.9 |
| 7a  | Excluding gold.....   | 1761.6 | 1813.2 | 1879.4 | 1868.6 | 1929.4 | 1965.5 |
| 8   | Net exports of goods.....   | -567.2 | -620.1 | -628.3 | -630.5 | -653.5 | -698.3 |
| 8a  | Excluding gold.....   | -576.2 | -626.4 | -637.6 | -634.4 | -656.6 | -701.3 |
| <b>Government:</b>  |   |        |        |        |        |        |        |
| State and local:  |   |        |        |        |        |        |        |
| Structures:   |   |        |        |        |        |        |        |
| 9   | Value of new construction put in place.....   | 265.0  | 261.3  | 269.6  | 273.5  | 275.1  | 274.3  |

\*Assumption.

## Table B: Effect of the ARRA on Selected Federal Government Sector Transactions

(billions of dollars, seasonally adjusted at annual rates)

|  | 2010q1          |               | 2010q2         |               |
|--|-----------------|---------------|----------------|---------------|
|  | Level           | ARRA          | Level          | ARRA          |
| <b>Current Receipts</b>                      | <b>2,326.6</b>  | <b>-118.4</b> | <b>...</b>     | <b>-118.4</b> |
| <b>Current tax receipts</b>                  | 1,255.7         | -118.4        | ...            | -118.4        |
| <b>Personal current taxes</b>                | 845.3           | -120.1        | 858.5          | -120.1        |
| "Making Work Pay" tax credit                 | -38.6           | -38.6         | -38.6          | -38.6         |
| Other <sup>1</sup>                           | 883.9           | -81.5         | 897.0          | -81.5         |
| <b>Taxes on corporate income<sup>2</sup></b> | 297.1           | 1.7           | ...            | 1.7           |
| <b>Current Expenditures</b>                  | <b>3,637.1</b>  | <b>212.3</b>  | <b>3,700.0</b> | <b>185.0</b>  |
| <b>Consumption expenditures</b>              | 1,017.3         | 15.9          | 1,038.7        | 18.7          |
| <b>Current transfer payments</b>             | 2,292.3         | 194.7         | 2,310.0        | 164.0         |
| <b>Government social benefits</b>            | 1,715.2         | 102.6         | 1,732.2        | 61.5          |
| To persons                                   | 1,699.5         | 102.6         | 1,716.1        | 61.5          |
| Supplemental Nutrition Assistance Program    | 64.8            | 10.8          | 65.8           | 11.3          |
| One-time \$250 payments <sup>3</sup>         | 0.1             | 0.1           | 0.1            | 0.1           |
| Unemployment programs                        | 147.1           | 46.2          | 137.9          | 4.6           |
| Refundable tax credits <sup>4</sup>          | 94.9            | 32.6          | 94.9           | 32.6          |
| Other programs                               | 1,392.4         | 12.9          | 1,417.4        | 12.9          |
| Student financial assistance                 |                 | 7.3           |                | 7.3           |
| Other programs <sup>5</sup>                  |                 | 5.6           |                | 5.6           |
| <b>Other current transfer payments</b>       | 577.1           | 92.1          | 577.8          | 102.5         |
| Grants-in-aid to state and local governments | 514.6           | 92.1          | 525.0          | 102.5         |
| Medicaid                                     | 267.3           | 40.7          | 271.9          | 38.9          |
| Education                                    | 82.1            | 34.7          | 72.1           | 40.2          |
| Other <sup>6</sup>                           | 165.2           | 16.8          | 181.0          | 23.4          |
| To the rest of the world (net) <sup>7</sup>  | 62.5            | 0.0           | 52.8           | 0.0           |
| <b>Subsidies<sup>8</sup></b>                 | 55.8            | 1.7           | 56.3           | 2.2           |
| <b>Net Federal Government Saving</b>         | <b>-1,310.4</b> | <b>-330.7</b> | <b>...</b>     | <b>-303.3</b> |
| <b>Capital transfer payments</b>             | 158.3           | 21.8          | 196.4          | 47.4          |
| Capital grants <sup>9</sup>                  | 51.4            | 14.0          | 59.1           | 23.8          |
| Capital transfers to business <sup>10</sup>  | 70.7            | 7.8           | 101.0          | 23.6          |
| <b>Gross investment</b>                      | 160.8           | 2.2           | 167.9          | 3.7           |
| <b>Addenda:</b>                              |                 |               |                |               |
| Total receipts                               | 2,348.9         | -118.4        | ...            | -118.4        |
| Total expenditures                           | 3,828.7         | 236.4         | 3,934.7        | 236.0         |
| <b>Net lending or net borrowing (-)</b>      | <b>-1,479.9</b> | <b>-354.7</b> | <b>...</b>     | <b>-354.4</b> |

<sup>1</sup> Includes an increase to the individual AMT exemption amount, and business tax incentives claimed by individuals.

<sup>2</sup> Includes special allowances for certain property acquired during 2009 and other business tax incentives.

<sup>3</sup> Payments to recipients of Social Security, Supplemental Security Income, veterans' benefits, and railroad retirement benefits.

<sup>4</sup> Includes outlays associated with the Making Work Pay, American Opportunity, and other refundable tax credits as well as an expansion of the earned income and child tax credits.

<sup>5</sup> Includes funding for COBRA premium assistance payments and veterans' benefits, and payments to cover digital converter box redemptions.

<sup>6</sup> Includes grants to fund programs related to national defense, public safety, economic affairs, housing and community services, income security, and unemployment.

<sup>7</sup> Includes grants to fund "Making Work Pay" tax credits in the territories.

<sup>8</sup> Includes funding to supplement Section 8 housing subsidies and to promote the use of efficient and renewable energy.

<sup>9</sup> Includes grants for highway and public transit infrastructure construction and restoration.

<sup>10</sup> Includes home buyer tax credits and grants for specified energy properties.