



Technical Note
Gross Domestic Product
Fourth Quarter of 2010 (Advance)
January 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 fourth 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 3.2 percent (annual rate) in the fourth quarter of 2010, following an increase of 2.6 percent in the third quarter. The acceleration in real GDP in the fourth quarter reflected a downturn in imports, an acceleration in consumer spending, and an upturn in residential investment that more than offset downturns in inventory investment and in federal government spending and a deceleration in nonresidential fixed investment.

Source data for the advance estimate

The advance GDP estimate for the fourth 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 trade 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 2.1 percent in the fourth quarter, following an increase of 0.7 percent in the third. Excluding food and energy, the price index for gross domestic purchases increased 1.1 percent in the fourth quarter, following an increase of 0.4 percent in the third.

American Recovery and Reinvestment Act of 2009

BEA's national accounts reflect 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 (see table B).

During the fourth quarter of 2010, ARRA provisions lowered personal taxes about \$120 billion (annual rate) and raised government social benefits to persons about \$60 billion, thus raising disposable personal income (income after taxes) about \$180 billion. In addition, ARRA funded about \$94 billion in current grants to state and local governments (such as Medicaid and education grants); about \$30 billion in capital transfers to state and local governments, to home buyers, and to businesses; about \$23 billion in federal consumption expenditures and gross investment; and about \$3 billion in subsidies for housing and energy. Further information, including quarterly estimates of the effects of ARRA beginning with 2009, is available at <http://www.bea.gov/recovery/index.htm>.

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**Table A. KEY ASSUMPTIONS FOR THE ADVANCE ESTIMATE OF GDP
FOR THE FOURTH 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 December 2010 are shown in the last column of the table. For most series shown, the data for November 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					
		Jul.	Aug.	Sep.	Oct.	Nov.	Dec.*
Private fixed investment:							
Nonresidential structures:							
1	Value of new nonresidential construction put in place.....	252.3	253.3	258.3	256.3	256.1	256.2
Equipment and software:							
2	Manufacturers' shipments of complete aircraft.....	47.9	40.0	32.3	34.9	31.3	32.0
Residential structures:							
Value of new residential construction put in place:							
3	Single family.....	115.1	110.2	107.2	106.4	107.1	106.1
4	Multifamily.....	13.8	13.1	13.8	13.6	14.0	13.9
Change in private inventories:							
NOTE: Historical (July-October) data may reflect concurrent seasonal factors.							
5	Change in inventories for nondurable manufacturing.....	46.8	-5.0	43.5	41.2	25.8	36.1
5a	Change in inventories for merchant wholesale and retail industries other than motor vehicles and equipment...	69.9	55.7	92.1	95.0	-8.9	90.0
Net exports:							
Exports of goods:							
6	U.S. exports of goods, international-transactions-accounts basis.....	1292.4	1290.9	1293.5	1346.1	1361.9	1373.1
6a	Excluding gold.....	1275.2	1265.6	1275.9	1326.2	1346.9	1357.8
Imports of goods:							
7	U.S. imports of goods, international-transactions-accounts basis.....	1952.6	1999.5	1978.5	1958.8	1976.0	2040.9
7a	Excluding gold.....	1942.5	1990.0	1967.2	1945.6	1959.5	2024.0
8	Net exports of goods.....	-660.2	-708.6	-685.1	-612.7	-614.1	-667.8
8a	Excluding gold.....	-667.3	-724.4	-691.3	-619.5	-612.6	-666.3
Government:							
State and local:							
Structures:							
9	Value of new construction put in place.....	278.9	285.0	285.0	283.5	283.1	283.3

*Assumption.

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

(billions of dollars, seasonally adjusted at annual rates)

	2010q3		2010q4	
	Level	ARRA	Level	ARRA
1 Current Receipts	2,416.4	-118.4	....	-118.4
2 Current tax receipts	1,320.7	-118.4	....	-118.4
3 Personal current taxes	885.9	-120.1	902.6	-120.1
4 "Making Work Pay" tax credit	-38.6	-38.6	-38.6	-38.6
5 Other ¹	924.4	-81.5	941.2	-81.5
6 Taxes on corporate income ²	313.7	1.7	....	1.7
7 Current Expenditures	3,760.7	182.1	3,778.8	173.6
8 Consumption expenditures	1,061.6	20.9	1,055.8	16.5
9 Current transfer payments	2,352.3	158.6	2,360.7	154.6
10 Government social benefits	1,755.9	58.0	1,759.8	60.3
11 To persons	1,739.4	58.0	1,743.5	60.3
12 Supplemental Nutrition Assistance Program	68.1	11.2	68.7	12.0
13 One-time \$250 payments ³	0.1	0.1	0.1	0.1
14 Unemployment programs	136.9	0.8	129.5	2.3
15 Refundable tax credits ⁴	94.9	32.6	94.9	32.6
16 Other programs	1,439.4	13.3	1,450.3	13.3
17 Student financial assistance		7.8		7.8
18 Other programs ⁵		5.5		5.5
19 Other current transfer payments	596.4	100.6	601.0	94.3
20 Grants-in-aid to state and local governments	539.3	100.6	540.9	94.3
21 Medicaid	284.4	42.7	302.0	48.4
22 Education	73.5	28.5	60.5	20.1
23 Other ⁶	181.4	29.4	178.4	25.8
24 To the rest of the world (net) ⁷	57.1	0.0	60.1	0.0
25 Subsidies ⁸	57.0	2.6	60.4	2.6
26 Net Federal Government Saving	-1,344.3	-300.5	....	-292.0
27 Capital transfer payments	130.9	41.6	123.0	30.2
28 Capital grants ⁹	69.2	30.9	70.0	26.2
29 Capital transfers to business ¹⁰	25.3	10.7	15.7	3.9
30 Gross investment	172.3	6.6	182.9	6.1
31 Addenda:				
32 Total receipts	2,432.2	-118.4	....	-118.4
32 Total expenditures	3,935.6	230.3	3,952.5	209.8
33 Net lending or net borrowing (-)	-1,503.4	-348.6	....	-328.2

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

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

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

⁴ Includes outlays associated with the Making Work Pay, American Opportunity, and other refundable tax credits as well as an

⁵ Includes funding for COBRA premium assistance payments and veterans' benefits, and payments to cover digital converter box

⁶ Includes grants to fund programs related to national defense, public safety, economic affairs, housing and community services,

⁷ Includes grants to fund "Making Work Pay" tax credits in the territories.

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

⁹ Includes grants for highway and public transit infrastructure construction and restoration.

¹⁰ Includes home buyer tax credits and grants for specified energy properties.