Technical Note
Gross Domestic Product, Second Quarter 2003 (Preliminary)
August 28, 2003

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 note also provides some perspective on the estimates. Additional material will be posted to BEA's Web site <www.bea.gov> as it becomes available over the next few days. In a few weeks, the estimates will be published in BEA's monthly journal, the *Survey of Current Business.* The *Survey* also will provide a more detailed analysis of the estimates ("The Business Situation").

Real GDP (revised): Real GDP is now estimated to have increased 3.1 percent (annual rate) in the second quarter of 2003 after increasing 1.4 percent in the first quarter. The revised estimate for the second quarter is 0.7 percentage point higher than the advance estimate released a month ago. As in the advance estimate, consumer spending on durable goods and federal spending on national defense were the major contributors to the second-quarter increase.

Real final sales of domestic product -- GDP less change in private inventories -- increased 4.0 percent in the second quarter after increasing 2.3 percent in the first.

Prices (revised): The price index for gross domestic purchases increased 0.2 percent in the second quarter, 0.1 percentage point less than in the advance estimate. This measure of prices increased 3.4 percent in the first quarter. The slowdown from the first quarter to the second mainly reflected a sharp downturn in energy prices; excluding food and energy prices, the index increased 0.6 percent in the second quarter after increasing 1.8 percent in the first.

Corporate Profits and GNP

The news release that presents the preliminary estimate of second-quarter GDP also presents BEA's first estimates of corporate profits and gross national product (GNP) for the quarter.

Corporate Profits: Profits from current production (that is, "corporate profits with inventory valuation and capital consumption adjustments") increased 10.8 percent (quarterly rate) in the second quarter after increasing 2.6 percent in the first. Profits were 15.3 percent higher in the second quarter of 2003 than in the second quarter of 2002.

Estimates of corporate profits for the second quarter reflect provisions of the Jobs and Growth Tax Relief Reconciliation Act of 2003 (signed into law on May 28, 2003) that increased the immediate depreciation writeoff from 30 percent to 50 percent for property acquired after May 5, 2003, and placed in service before January 1, 2005. (The Job Creation and Worker Assistance Act of 2002 had provided for the immediate 30-percent writeoff of certain investments contracted for after September 10, 2001, and before September 11, 2004.)

As table B shows, the additional depreciation provided for by the 2003 act is estimated to have increased depreciation expenses in the second quarter by $75.2 billion (annual rate) and reduced *profits before tax* (PBT)--which is based on earnings reported on tax returns--by the same amount. Reflecting the lower level of PBT, *profits tax liability* was reduced $18.8 billion, and *profits after tax* were reduced $56.4 billion.

Profits from current production were not affected by the act, because, unlike PBT, they do not depend on the depreciation accounting practices used for federal income tax purposes; instead, this measure of profits reflects an estimate of depreciation based on the current value of fixed capital actually used up in the production process. However, because the act reduced tax liability, profits from current production *on an after-tax basis* were raised by $18.8 billion. The capital consumption adjustment (CCAdj) is the difference between the depreciation specified in the tax code and the depreciation underlying profits from current production; because the act raised tax depreciation $75.2 billion, the CCAdj increased by the same amount. (Similarly, the CCAdj related to nonfarm proprietors' income increased $14.2 billion in the second quarter.)

Real GNP: Real GNP increased 3.6 percent in the second quarter after increasing 1.4 percent in the first. GNP equals GDP plus incomes, mainly on investments, earned abroad by U.S. residents less similar incomes earned in the United States by foreign residents. Net income receipts from the rest of the world increased $10.7 billion (chained 1996 dollars) in the second quarter after decreasing $1.2 billion in the first.

Sources of Revision to Real GDP

The upward revision to second-quarter real GDP reflected the incorporation of revised and newly available source data for several major GDP components:

- Exports were revised up and imports were revised down, reflecting the incorporation of newly available Census Bureau goods data for June and revised BEA international transactions data for May.
- Personal consumption expenditures for goods were revised up, reflecting revised Census retail sales data.
- State and local government spending was revised up, reflecting newly available Census construction put-in-place data for June and revised data for April and May.

These revisions were partly offset by a revision to the following GDP component:

- Inventory investment was revised down, reflecting new and revised Census inventory data for June and revised data for May. These estimates reflect the benchmark Census Manufacturers' Shipments, Inventories, and Orders data, which were incorporated on a best-change basis.

Table A shows both the BEA assumptions used for the advance estimate of GDP and the newly available and revised source data incorporated for the preliminary estimate for selected key series.

Comprehensive NIPA Revision Scheduled for December 10

On December 10, 2003, BEA will present the results of its 12th comprehensive revision of the national income and product accounts (NIPA's). This part of today's "Technical Note" provides an overview of the major improvements to be introduced. A series of articles in the *Survey of Current Business* discusses the revision in detail; these articles are available on the BEA Web site at <http://www.bea.gov/bea/dn/2003benchmark/CR2003Articles.htm>.

Comprehensive revisions, which are usually prepared once every 5 years, incorporate three major types of improvements: (1) Changes in definitions and classifications that update the accounts to more accurately portray the evolving U.S. economy, (2) statistical changes that update the NIPA estimates by introducing new and improved methodologies and by incorporating newly available and revised source data, and (3) changes in presentation that update the NIPA tables to reflect the aforementioned changes and to make the tables more informative.

For the upcoming comprehensive revision, BEA is planning a number of major improvements, including the following:

- The measure of property and casualty insurance will be changed to better reflect the services provided, and it will be less sensitive to large swings in losses paid or recovered.
- A portion of the implicit services of commercial banks will be allocated to borrowers, in recognition that both borrowers and depositors receive unpriced services from banks.
- The NIPAs will move further toward conformity with international guidelines.
- Industry estimates will be converted from the Standard Industrial Classification (SIC) system to the North American Industry Classification System (NAICS).
- Changes in presentation will include the introduction of many new tables and a revamping of how the tables are organized in order to facilitate use of the estimates.
- New quality-adjusted price indexes will be introduced for photocopy equipment and for nonresidential structures.
- The estimates of corporate profits will reflect available information on the exercise of employee stock options.
- The government's role as a producer of services will be explicitly recognized.
- Transactions of Indian tribal governments will be reclassified as part of state and local governments, reflecting their role in public administration.
- Services of owner-occupied housing will be reclassified from the business sector to the households and institutions sector.

The definition of property and casualty insurance will be changed in several ways that conceptually improve the measurement of the actual services provided by insurers. Implicit services that are funded by investment income will be recognized; *expected* investment income (interest, dividends, and capital gains) will be estimated and treated as an implicit supplement to the premiums paid by policyholders. An improved treatment of insured losses will be implemented by using an estimate of *expected* claims in the measure of the net premiums paid. Because actual claims can fluctuate from period to period in a

way that bears little relation to the services provided, the new measure based on expected claims will be conceptually superior to the earlier measure and less sensitive to catastrophic losses, such as Hurricane Andrew or the terrorist attacks of September 11, 2001.

For the output of commercial banks, the NIPAs currently include imputed expenditures for the services that commercial banks provide without an explicit charge, such as processing checks, disbursing or transferring funds, and bookkeeping. Currently, the value of these implicit services is only attributed to depositors. For the comprehensive revision, BEA will allocate a portion of the implicit services to borrowers. The allocation will be based on the difference between the rates of interest earned by depositors and paid by borrowers and a reference rate of interest that represents the opportunity cost of borrowing or lending funds in the absence of any implicit services. This change will reduce GDP as well as the measured gross output of banks.

Many of the changes in definitions presented in this year's revision will improve consistency with the principal international guidelines for national accounts, the *System of National Accounts 1993*. BEA actively participated in preparing *SNA 1993* and has been moving toward closer conformity with the guidelines. Changes implemented in this year's revision will include a broadening of the definition of national income, the introduction of a number of new aggregates (for example, "net saving" and "operating surplus"), and changing the names of some items (for example, "indirect business taxes" will become "taxes on production and imports"). However, BEA will continue to publish important NIPA aggregates, such as personal income and corporate profits, that do not appear in *SNA 1993*.

NIPA estimates of income and employment by industry will be presented on a NAICS basis beginning with 1998. In comparison to the SIC, NAICS better reflects new and emerging industries, has new classifications for the high-tech and services industries, and provides industry statistics that are more comparable with those of our North American trading partners, Canada and Mexico. The new NAICS estimates will dovetail with estimates of inventories and the input-output accounts that BEA has already converted to a NAICS basis and with the GDP-by-industry estimates that will be presented on a NAICS basis.

Additional tables will be introduced on BEA's Web site and in the *Survey* to show percent changes and contributions to percent change. In addition, these tables will be renumbered to group tables with similar formats together in the same section.

The revised estimates released on December 10 will include annual estimates for 1929 to 2002 and quarterly estimates for 1947 through the second quarter of 2003. On December 23, estimates for the third quarter of 2003 will be revised to reflect the comprehensive revision. The reference year for chain-type quantity and price indexes and chained-dollar estimates will be updated from 1996 to 2000.

Brent R. Moulton
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Table A.--SOURCE DATA FOR THE ADVANCE AND PRELIMINARY ESTIMATES OF GDP FOR THE SECOND QUARTER OF 2003

This table shows the actual data used for the preliminary estimate of GDP for the second quarter of 2003. For these key series, actual data for June were not available in time for inclusion in the advance GDP estimate released on July 31, 2003, and BEA made assumptions for these source data. The numbers in brackets show the June values that had been assumed for the advance estimate. For most series, the data incorporated for May and, in some cases, for April, were preliminary, and the numbers shown in brackets are the values used last month.

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.

	2003					
	Jan.	Feb.	Mar.	Apr.	May	Jun.
Private fixed investment:						
Nonresidential structures:						
1 Value of new total private construction put in place less residential (inc. improvements)...	217.6	216.5	221.6	218.9	217.3	217.3
				{218.9}	{217.3}	{216.9}
Equipment and software:						
2 Manufacturers' shipments of complete aircraft.....	24.3	33.4	30.8	20.0	22.6	34.1
					{22.6}	{32.3}
Residential structures:						
Value of new residential construction put in place:						
3 Single family	290.1	289.1	288.2	287.6	287.3	288.6
				{287.2}	{286.4}	{288.5}
4 Multifamily.....	33.4	33.7	33.4	32.7	32.9	32.4
				{33.4}	{33.9}	{34.1}
Change in private inventories:						
5 Change in inventories for nondurable manufacturing.....	10.3	24.8	4.8	2.4	-3.9	9.8
	{ 9.4}	{24.7}	{5.4}	{0.6}	{15.0}	{-1.2}
5a Change in inventories for merchant wholesale and retail industries other than motor vehicles and equipment..	3.7	28.2	26.3	-14.7	-24.5	6.2
					{-18.3}	{ 7.3}

Net exports:						
Exports of goods:						
6 U.S. exports of goods, international-transactions-accounts basis.....	685.7	694.9	699.5	686.8	693.1	708.5
					{691.0}	{703.5}
6a Excluding gold.....	681.3	691.1	696.4	682.9	687.9	700.8
					{685.8}	{697.7}
Imports of goods:						
7 U.S. imports of goods, international-transactions-accounts basis.....	1224.0	1218.7	1269.7	1243.1	1253.0	1248.1
					{1252.3}	{1263.3}
7a Excluding gold.....	1221.6	1216.1	1267.6	1240.2	1249.4	1242.3
					{1248.7}	{1257.6}
8 Net exports of goods.....	-538.3	-523.9	-570.1	-556.3	-559.8	-539.6
					{-561.3}	{-559.9}
8a Excluding gold.....	-540.3	-525.0	-571.2	-557.3	-561.5	-541.5
					{-563.0}	{-559.9}
Government:						
State and local:						
Structures:						
9 Value of new construction put in place.....	198.8	194.7	190.4	191.5	192.3	194.4
				{190.6}	{188.3}	{189.5}

Table B.-- Effects of the Jobs and Growth Tax Relief Reconciliation Act of 2003 on Selected Measures of Corporate Profits

(Seasonally adjusted at annual rates)

	Billions of dollars					Percent Change 1/	
	Level			Change			
	Q4,2002	Q1,2003	Q2,2003	Q1,2003	Q2,2003	Q1,2003	Q2,2003
Profits before tax	694.9	728.1	707.5	33.2	-20.6	4.8%	-2.8%
Tax effect *	0.0	0.0	-75.2				
Excluding tax effect	694.9	728.1	782.7	33.2	54.6	4.8%	7.5%
Tax liability	222.4	237.8	234.1	15.4	-3.7	6.9%	-1.6%
Tax effect *	0.0	0.0	-18.8				
Excluding tax effect	222.4	237.8	252.9	15.4	15.1	6.9%	6.3%
Profits after tax	472.5	490.2	473.4	17.7	-16.8	3.8%	-3.4%
Tax effect *	0.0	0.0	-56.4				
Excluding tax effect	472.5	490.2	529.8	17.7	39.6	3.8%	8.1%
Profits from current production 2/	796.1	816.5	904.8	20.4	88.3	2.6%	10.8%
Tax effect *	0.0	0.0	0.0				
Excluding tax effect	796.1	816.5	904.8	20.4	88.3	2.6%	10.8%
Profits from current production less tax liability 2/	573.7	578.6	670.7	4.9	92.1	0.9%	15.9%
Tax effect *	0.0	0.0	18.8				
Excluding tax effect	573.7	578.6	651.9	4.9	73.3	0.9%	12.7%

* Estimated impact of the provisions of the Jobs and Growth Tax Relief Reconciliation Act of 2003

1/ At quarterly rates.

2/ Profits from current production are corporate profits with inventory valuation and capital consumption adjustments.