FOR WIRE TRANSMISSION: 8:30 A.M. EDT, THURSDAY, OCTOBER 28, 1999

Virginia H. Mannering:	(202) 606-5304 (GDP)		BEA 99-31
Recorded message:	606-5306		
Brent Moulton:	606-9606 (Comprehensive revision)		
Robert P. Parker:	606-9607		

GROSS DOMESTIC PRODUCT: THIRD QUARTER 1999 (ADVANCE)
REVISED ESTIMATES, 1959-99

Real gross domestic product -- the output of goods and services produced by labor and property located in the United States -- increased at an annual rate of 4.8 percent in the third quarter of 1999, according to advance estimates released by the Commerce Department's Bureau of Economic Analysis. In the second quarter, real GDP increased 1.9 percent.

The Bureau emphasized that the third-quarter "advance" estimates are based on source data that are incomplete or subject to further revision by the source agency (see the box on page 3). The third-quarter "preliminary" estimates, based on more comprehensive data, will be released on November 24, 1999.

Comprehensive Revision of the National Income and Product Accounts

This release introduces a comprehensive revision of the national income and product accounts. The revision is described beginning on page 3. The availability of revised estimates and of additional information about the revision is described in a box on page 11.

Regular news release tables 2, 7, 11, and appendix table A, as well as special table 4A are not yet available; they will be posted later on BEA's Web site.

NOTE.--Quarterly estimates are expressed at seasonally adjusted annual rates, unless otherwise specified. Quarter-to-quarter dollar changes are differences between these published estimates. Percent changes are calculated from unrounded data and annualized. "Real" estimates are in chained (1996) dollars. Price indexes are chain-type measures.

- more -

Most of the major components of GDP contributed to the increase in the third quarter. Increases in personal consumption expenditures, nonresidential fixed investment, exports, inventory investment, and government consumption expenditures and gross investment were partly offset by an increase in imports.

The price index for gross domestic purchases, which measures prices paid by U.S. residents, increased 1.6 percent in the third quarter, compared with an increase of 1.9 percent in the second. Excluding food and energy prices, which are normally more volatile than many other prices, the price index increased 1.0 percent in the third quarter, compared with an increase of 1.2 percent in the second.

Real personal consumption expenditures increased 4.3 percent in the third quarter, compared with an increase of 5.1 percent in the second. Durable goods purchases increased 7.1 percent, compared with an increase of 9.1 percent. Nondurable goods increased 3.6 percent, compared with an increase of 3.3 percent. Services expenditures increased 4.1 percent, compared with an increase of 5.2 percent.

Real nonresidential fixed investment increased 14.9 percent in the third quarter, compared with an increase of 7.0 percent in the second. Nonresidential structures decreased 5.0 percent, compared with a decrease of 5.3 percent. Equipment and software increased 21.7 percent, compared with an increase of 11.2 percent. Real residential fixed investment decreased 6.3 percent, in contrast to an increase of 5.5 percent.

Real exports of goods and services increased 12.4 percent in the third quarter, compared with an increase of 4.0 percent in the second. Real imports of goods and services increased 17.2 percent, compared with an increase of 14.4 percent.

Real federal government consumption expenditures and gross investment increased 3.1 percent in the third quarter, compared with an increase of 2.1 percent in the second. National defense increased 9.9 percent, in contrast to a decrease of 2.6 percent. Nondefense decreased 7.8 percent, in contrast to an increase of 10.9 percent. Real state and local government consumption expenditures and gross investment increased 3.4 percent, compared with an increase of 0.9 percent.

The real change in private inventories added $14.1 billion to the third-quarter change in real GDP, after subtracting $36.1 billion from the second-quarter change. Inventories increased $28.1 billion in the third quarter, following increases of $14.0 billion in the second quarter and $50.1 billion in the first.

Real final sales of domestic product -- GDP less change in private inventories -- increased 4.1 percent in the third quarter, compared with an increase of 3.4 percent in the second.

Gross domestic purchases

Real gross domestic purchases -- purchases by U.S. residents of goods and services wherever produced -- increased 5.6 percent in the third quarter, compared with an increase of 3.2 percent in the second.

Disposition of personal income

Current-dollar personal income increased $93.3 billion in the third quarter, compared with an increase of $102.4 billion in the second. Personal tax and nontax payments increased $20.6 billion, compared with an increase of $14.6 billion.

Disposable personal income increased $72.7 billion in the third quarter, compared with an increase of $87.8 billion in the second. Real disposable personal income increased 2.5 percent, compared with an increase of 3.2 percent.

Personal outlays increased $99.4 billion in the third quarter, compared with an increase of $114.9 billion in the second. Personal saving -- disposable personal income less personal outlays -- was $141.3 billion in the third quarter, compared with $168.0 billion in the second. The personal saving rate -- saving as a percentage of disposable personal income -- decreased from 2.5 percent in the second quarter to 2.1 percent in the third.

Current-dollar GDP

Current-dollar GDP -- the market value of the nation's output of goods and services -- increased 5.8 percent, or $130.1 billion, in the third quarter to a level of $9,276.3 billion. In the second quarter, current-dollar GDP increased 3.3 percent, or $73.5 billion.

Information on the assumptions used for unavailable source data is provided in a technical note that is posted with the news release on BEA's and STAT-USA's Web sites. Within a few days after the release, a detailed "Key Source Data and Assumptions" file is also posted on the STAT-USA site. In the middle of each month, an analysis of the current quarterly estimates of GDP and related series is made available on both Web sites; click on Survey of Current Business, "Business Situation."

Comprehensive Revision of the National Income and Product Accounts

Today, BEA is also releasing revised estimates of GDP and other national income and product accounts (NIPA’s) series from 1959 through the second quarter of 1999. Comprehensive revisions, which are carried out about every 4 to 5 years, are an important part of BEA’s regular process for improving and modernizing its accounts to keep pace with the ever-changing U.S. economy. According to the revised estimates:

- The pace of the current expansion is stronger than was shown in the previously published estimates. From the first quarter of 1991 to the second quarter of 1999, real GDP increases at an average annual rate of 3.5 percent, compared with the previous increase of 3.1 percent.

- The personal saving rate is higher than was shown in the previously published estimates, though it continues to show a two-decade long downtrend. For 1982-98, the personal saving rate declines from 10.9 percent to 3.7 percent, compared with the previous decline from 9.0 percent to 0.5 percent.

Additional information about the revised estimates, including the special tables in this news release, follows.

The improvements

A comprehensive revision incorporates three major types of improvements: (1) Definitional and classificational changes that update the accounts to more accurately portray the evolving U.S. economy, (2) statistical changes that update the accounts to reflect the introduction of new and improved methodologies and the incorporation of newly available and revised source data, and (3) presentational changes that update the NIPA tables to reflect the definitional, classificational, and statistical changes and to make the tables more informative. These improvements have been previewed in the August, September, and October 1999 issues of BEA's monthly journal, the Survey of Current Business. An article in the December 1999 issue will provide more detailed information on the effects of the revision.

The major definitional and classificational improvements introduced in this comprehensive revision include the following:

- Business and government expenditures for software, including own-account production of software, are recognized as investment. As a result of the new treatment, GDP is increased by business expenditures for software, by government enterprises expenditures for software, and by the depreciation, or consumption of fixed capital, on general government expenditures for software.

- Government employee retirement plans are now treated similarly to private pension plans. The reclassification -- which covers federal civilian, federal military, and state and local plans -- increases personal saving and decreases government saving by offsetting amounts, and so does not affect GDP, gross domestic income (GDI), or national saving.

- A modified treatment of the property income of private noninsured pension plans eliminates a large negative value that was included in the profits estimate of insurance carriers. The increase in profits is offset by a decrease in net interest; GDP, national income, personal income, personal saving, and business saving are not affected.

- Certain transactions that mainly represent transfers of existing assets and do not affect the level of disposable income in the current period are classified into a new NIPA category "capital transfers." Among these transactions, the reclassification of estate and gift taxes raises personal saving and reduces government saving, and the reclassification of federal government investment grants raises federal government saving and reduces state and local government saving.

- The value of imputed services of regulated investment companies -- that is, mutual funds -- is redefined to equal operating expenses; previously, the value of the imputed services was defined as net property income received. This redefinition affects GDP and gross domestic income (GDI) but not national saving or its components.

The revised estimates also reflect the incorporation of newly available and revised source data and improved estimating methodologies. The most important source data that affect the current-dollar and "real" estimates prior to 1996 are the following: BEA's benchmark 1992 input-output (I-O) accounts; preliminary data on inventories and sales from the 1997 Censuses of Wholesale Trade and Retail Trade; final fiscal year data for 1992-95 from Census Bureau annual surveys of state and local governments; final data on private employer pension and profit-sharing plans for 1995 from the Department of Labor; and revised data on mortgage debt outstanding, beginning with 1982, and on consumer credit outstanding, beginning with 1989, from the Federal Reserve Board. The revised estimates beginning with 1996 will also reflect the incorporation of other newly available and revised source data that became available since the annual revision released in July 1998. The most important of these data include the following:

Census Bureau data on the value of construction put in place for 1997 (final) and 1998 (preliminary) and on state and local government receipts and expenditures for fiscal years 1996 (final) and 1997 and 1998 (preliminary), BEA international transactions data for 1996-98 (revised), Bureau of Labor Statistics (BLS) tabulations of wages and salaries of employees covered by state unemployment insurance for 1998 (preliminary), U.S. Department of Agriculture (USDA) farm income statistics for 1998 (preliminary), and IRS tabulations of business tax returns for 1997. In addition, newly available information on the commodity composition of personal consumption expenditures (PCE) for goods from BEA's 1996 annual update of the I-O accounts is incorporated.

Two important methodology changes that affect the "real" estimates and the price estimates are also incorporated in this revision:

- Improved estimates of the real value of unpriced bank services reflect the incorporation of a new measure of banking activity that better captures productivity growth in the industry by including such services as ATM transactions and electronic fund transfers. This change mostly affects PCE because these services are predominantly furnished to persons, but it also has small effects on government consumption expenditures and gross investment and on exports of services -- all components of GDP.

- The geometric-mean-type consumer price indexes (CPI's) that have been used to deflate consumer expenditures beginning with 1995 have been carried back to 1978. This change increases the consistency and accuracy of the time series for real PCE and real GDP.

The tables in this release reflect the changes introduced in this comprehensive revision, including an update in the reference year for chain-type quantity and price indexes and for chained-dollar estimates from 1992 to 1996.

This release includes the tables regularly shown in GDP news releases: For most series, annual estimates beginning with 1987, and quarterly estimates beginning with the first quarter of 1994, are shown; for major series, annual estimates beginning with 1959 are shown. In order to present the additional data, tables 3 and 10 are each shown as two separate tables -- 3A and 3B and 10A and 10B. In addition, there are a number of special tables that compare the revised and previously published estimates for selected periods: Table 1A shows percent changes in real GDP and in related measures; table 1B shows revisions to current-dollar GDP, personal income, and national income; table 1C shows revisions to corporate profits by industry; and tables 6A-6C show annual levels, percent changes, and revisions in percent changes for current-dollar GDP, real GDP, and the chain-type price indexes for GDP.

The revisions

For this comprehensive revision, most current-dollar series are revised back to 1988, and many are revised back to 1959, the earliest year for which the revised estimates are now available. Revised estimates for 1929-58 will be released early next year.

Real GDP growth. -- For 1959-98, the average annual growth rate of real GDP is 3.4 percent, 0.2 percentage point higher than in the previously published estimates. The revised estimates over this period show higher growth rates for most major components of GDP. The growth rates for exports of services and for equipment and software are revised up the most. PCE for nondurable goods, nonresidential structures, and national defense consumption expenditures and gross investment are also revised up substantially. Exports of goods and imports of goods are revised down slightly, and PCE for durable goods and residential fixed investment are essentially unrevised.

The revisions to real GDP are concentrated in the years beginning with 1988, because more newly available source data are incorporated that affect the estimates beginning with that year. For 1959-92, the average annual growth rate of real GDP is now 3.4 percent, 0.2 percentage point higher than previously estimated; for 1992-98, the growth rate is 3.6 percent, or 0.4 percentage point higher.

Annually, the rates of change in real GDP for 1959-91 are revised up for most years; the rates for 1961, 1963-65, and 1967 are unrevised, and the rates for 1962, 1971-73, 1976, and 1977 are revised down. Upward revisions of 0.5 percentage point or more are recorded in four years (1979, 1987, 1990, and 1991); the largest revision is for 1991, when the change in real GDP is revised from -0.9 percent to -0.2 percent.

For 1992-98, the rates of change in real GDP for all years are revised up. The largest revisions are for 1992, when the change in real GDP is revised from 2.7 percent to 3.3 percent, and for 1997, when it is revised from 3.9 percent to 4.5 percent. For 1992-98, the average annual growth rate in current-dollar GDP is revised up from 5.3 percent to 5.6 percent. The larger upward revision to the growth rate in real GDP than in current-dollar GDP reflects downward revisions to GDP prices over this period.

Business cycles. -- As in the previously published estimates, the current expansion begins in the first quarter of 1991. From the first quarter of 1991 to the second quarter of 1999, the average annual rate of increase in real GDP is now 3.5 percent; in the previously published estimates, the increase was 3.1 percent. The larger increase reflects widespread upward revisions to the major GDP components. For the last recession, the decrease in real GDP from the peak in the second quarter of 1990 to the trough in the first quarter of 1991 is 1.8 percent; in the previously published estimates, the decrease was 2.7 percent. The smaller decrease in the revised estimates primarily reflects smaller declines in personal consumption expenditures, in change in private inventories, and in equipment and software, as well as a larger increase in state and local government expenditures.

Price changes. -- For 1959-98, the average annual increase in gross domestic purchases prices is 4.1 percent, compared with a 4.2-percent increase in the previously published estimates; for GDP prices, the average annual increase is 4.0 percent, compared with the previous 4.2-percent increase. For 1992-98, the average annual increase in gross domestic purchases prices is 1.8 percent, the same as in the previously published estimates; for GDP prices, the average annual increase is 1.9 percent, compared with the previous 2.0-percent increase.

Real disposable personal income (DPI) growth. -- For real DPI, the average annual increase for 1959-98, at 3.5 percent, is 0.2 percentage point higher than previously estimated. For 1959-92, the average annual increase in revised real DPI is 3.6 percent, 0.2 percentage point higher; for 1992-98, the average increase is 2.8 percent, 0.3 percent higher.

Gross saving, or national saving, is revised down by small amounts for 1959-73; it is revised up by larger amounts for 1974-98, primarily reflecting the recognition of software as investment. The largest revision, $178.0 billion, is for 1998; software accounts for $158.9 billion of this revision. The national saving rate -- gross saving as a percentage of gross national product -- is also revised up substantially; for 1998, it is revised up 1.5 percentage points, to 18.8 percent.

Personal saving is revised up for all years. The upward revisions are primarily accounted for by the reclassification of government employee retirement plans, which shifts the savings associated with these plans from the government to the personal sector; the reclassification of estate and gift taxes also raises personal saving and reduces government saving. The upward revisions to personal saving result in corresponding upward revisions to the personal saving rate -- personal saving as a percentage of DPI -- that range from 0.4 percentage point for 1959 to 3.2 percentage points for 1998. However, the long-term pattern of the rate in the revised estimates is similar to that in the previously published estimates. For example, previously, the rate fell from a peak of 9.0 percent in 1982 to 0.5 percent in

1998; now, the rate falls from 10.9 percent to 3.7 percent. The large upward revision for 1998 also reflects an unusually large upward revision to wages and salaries (see below).

Gross government saving is revised down for all years. The federal surplus or deficit is revised down for most years, and the state and local surplus or deficit is revised down for all years. The reclassifications of government employee retirement plans and of estate and gift taxes each reduce the surplus (or increase the deficit) for both federal and state and local governments. The recognition of software as investment raises gross government saving by the amount of gross government investment in software, which for 1998, amounted to $35.5 billion. The reclassification of federal government investment grants to state and local governments raises federal saving and lowers state and local saving by offsetting amounts.

Revised estimates

The revisions to current-dollar GDP, to personal income and its disposition, and to national income are shown in table 1B; revisions to corporate profits are shown in table 1C. These tables show the "revisions in level," that is, the revised estimates less the previously published estimates; tables 1B and 1C also show the revisions as a percent of the previously published estimates for selected years.

Current-dollar GDP is revised up for all years. Expressed as a percentage of the level of GDP, the revisions generally increase over time: The revision is only 0.04 percent of GDP for 1959, but it is 1.2 percent for 1992 and 2.9 percent for 1998. Prior to 1995, the revisions are largely accounted for by the definitional change that recognizes software as investment. Excluding the definitional and classificational changes, the revisions to GDP are small during this period, but beginning with 1995, they grow as a result of statistical changes that affect personal consumption expenditures (PCE) and nonresidential structures. Excluding the definitional and classificational changes, GDP shows small mostly downward revisions prior to 1994; beginning with 1994 the revisions are larger and upward. The largest revision is about 1 percent for 1998.

PCE is generally revised up for 1959-89 and revised down for 1990-94; beginning with 1995, it is revised up by increasingly larger amounts, as upward revisions to nondurable goods and to services more than offset downward revisions to durable goods. For nondurable goods, the revisions prior to 1993 are small and primarily reflect the incorporation of the results of the 1992 I-O table. Beginning with 1993, the revisions reflect the extrapolation of the 1992 estimates using data on retail store sales that is newly benchmarked to preliminary results from the 1997 Census of Retail Trade. The largest revisions for this later time period are to the food category. Beginning with 1973, PCE for services is revised up for all years except for 1986. The upward revisions primarily reflect the redefinition of the value of imputed services of regulated investment companies and the reclassification of government employee retirement plans. In addition, there are a number of large offsetting revisions, reflecting the incorporation of newly available and revised source data. PCE for durable goods is revised down, beginning with 1988, primarily reflecting downward revisions to expenditures for furniture and household equipment and for motor vehicles and parts. Beginning with 1993, the revisions to durable goods also reflect the extrapolation of the 1992 estimates using data on retail store sales that is newly benchmarked to preliminary results from the 1997 Census of Retail Trade.

In private fixed investment, nonresidential structures is revised up, beginning with 1988. The largest revisions are to nonresidential buildings and to "mining exploration, shafts, and wells." The revisions to nonresidential buildings reflect the incorporation of revised Census Bureau data on the value of construction put in place for 1987-98. The revisions to "mining exploration, shafts, and wells" reflect the incorporation of data from the 1992 I-O accounts, beginning with 1988, and data from the joint association survey on drilling costs for 1997 and from the American Petroleum Institute on petroleum drilling beginning with 1996.

In private fixed investment, equipment and software (formerly producers' durable equipment) is revised up for all years. The revisions primarily reflect the recognition of business expenditures for software as investment, beginning with 1959. In addition, small upward revisions to expenditures for equipment reflect the incorporation of the results of the 1992 I-O table.

Change in private inventories (formerly change in business inventories) is calculated by adjusting inventories as reported by businesses (book values) to remove inventory profits and losses. The revisions to this component, which reflect revisions to both book values and the prices used calculate the adjustments, show a mixed pattern. For 1959-86, the revisions are generally small and downward and reflect the use of economic census data on inventories for mineral and construction industries in place of data on the stock of inventories from tabulations of IRS tax returns. Beginning with 1987, the revisions are larger and mostly upward and reflect the incorporation of improved source data for both prices and book values. For prices, the revisions reflect the incorporation of BEA's semiconductor price index for 1985-96, an improved price index for computer parts, and commodity weights from the 1992 I-O accounts. For book values, beginning with 1993, newly available data on trade inventories, reflecting preliminary information from the 1997 Censuses of Wholesale Trade and Retail Trade, are incorporated. The large upward revision for 1998 primarily reflects new source data for book values for the motor vehicle and the mineral industries.

Exports of goods and services shows small revisions, beginning with 1986, and imports of goods and services shows small revisions, beginning with 1992; in each case, the largest revision is for 1998. The revisions primarily reflect the incorporation of the most recent estimates from BEA's international transactions accounts.

Government consumption expenditures and gross investment is revised up for all years except for 1974-82. This pattern of revisions generally reflects the pattern of revisions for Federal government. Federal government is revised up for all years except 1973-83, when relatively small downward revisions primarily reflect revised prices that are used to calculate consumption of fixed capital for military aircraft. The upward revisions for the other years are widespread in both national defense and nondefense, primarily reflecting the recognition of software as investment. State and local government is revised little for 1959-90; upward revisions that reflect the recognition of software as investment are mostly offset by downward revisions that reflect the reclassification to PCE of the administrative expenses of government retirement plans and the expenditures for certain other programs. Beginning with 1991, the revisions are larger and reflect the recognition of software as investment, and the incorporation of newly available source data, primarily Census Bureau surveys of state and local governments; the particularly large revision for 1998 reflects the incorporation of preliminary Census Bureau data for fiscal year 1998.

Personal income is revised up for most years. The revisions are relatively small prior to 1974; thereafter, they range from 0.8 percent for 1974 to 3.3 percent for 1998. Most of the revisions reflect the reclassification of government employee retirement plans, which raises personal income by (1) the amount of employer contributions to these plans, which are added to other labor income, (2) interest and dividends received by these plans, which are added to personal interest income and to personal dividend income, and (3) personal contributions to these plans, which are no longer included in personal contributions for social insurance -- a component that is deducted in the calculation of personal income. The reclassification reduces personal income by the amount of benefit payments paid by these plans, which are no longer included in government transfer payments to persons. Personal income is also reduced throughout this period by downward revisions to rental income of persons. For 1998, there is also a large upward revision to wages and salaries (see below).

Wages and salaries is generally revised down by small amounts for 1978-97. The large upward revision for 1998 primarily reflects the incorporation of the newly available BLS tabulations of wage and salary data of private and state and local government employees covered by state unemployment insurance.

Other labor income (OLI) is revised up for all years, primarily reflecting the inclusion of employer contributions to government employee retirement plans. These contributions were previously classified as employer contributions for social insurance.

Proprietors' income is revised by relatively small amounts prior to 1990. Beginning with 1990, larger upward revisions reflect upward revisions to nonfarm proprietors' income that more than offset downward revisions to farm proprietors' income. Nonfarm proprietors' income is revised up for most years, reflecting an improved adjustment that removes a double-counting of the income of corporate partners and the recognition of software as investment. Farm proprietors' income is revised down for most years, reflecting improved estimates based on USDA definitions.

Rental income of persons is revised down for all years, primarily reflecting an improved methodology for estimating the income of persons from the rental of nonfarm nonresidential properties. For 1994-98, the downward revisions also reflect the incorporation of the revised and newly available source data from the Census Bureau American Housing Survey.

Personal dividend income is revised up for most years. The upward revisions are largely due to the modified treatment of private noninsured pension plans and to the reclassification of government employee retirement plans. Prior to 1982, the upward revisions are partly offset by downward revisions that reflect the exclusion of distributions of regulated investment companies (mutual funds) that reflect capital gains income. (In the 1998 annual NIPA revision, the exclusion had been carried back only to 1982.)

Personal interest income is revised up for most years. Upward revisions that reflect the inclusion of interest received by government employee retirement plans more than offset downward revisions that reflect the modified treatment of private noninsured pension plans, which reclassified dividend income received by these plans from personal interest income to personal dividend income. The revisions also reflect the incorporation of revised and newly available source data for estimating net interest (see below) and data on consumer debt outstanding from the Federal Reserve Board.

Transfer payments to persons is revised down for all years, primarily reflecting the reclassification of government employee retirement plans; benefits from these plans are no longer treated as transfer payments to persons.

Personal contributions for social insurance, which are deducted in the calculation of personal income, is revised down for all years, because personal contributions to government employee retirement plans are no longer included.

Personal tax and nontax payments, which is deducted in the calculation of disposable personal income, is revised down for all years, primarily because of the reclassification of estate and gift taxes as capital transfers.

<u>Disposable personal income (DPI)</u> is revised up for all years, reflecting the revisions to personal income and to personal tax and nontax payments.

<u>Personal outlays</u> -- PCE, interest paid by persons, and personal transfer payments to the rest of the world (net) -- is revised up for most years, primarily reflecting the upward revisions to PCE that were previously described; the revisions to personal outlays are much smaller than those to DPI.

<u>National income</u> -- the income that originates from production -- is revised down for most years; it is revised up only for 1983, 1988, and 1998. The revisions range in size from a downward revision of 0.8 percent for 1995 to an upward revision of 0.6 percent for 1998. The preponderance of downward revisions contrasts to the substantial upward revisions to personal income. This difference primarily

reflects the effects of the reclassification of government retirement plans on these two measures. The reclassification, which raises personal income, has no effect on national income because employer contributions are added to OLI (a component of both national income and personal income) and subtracted from employer contributions for social insurance (a component of only national income). The remainder of the difference between the two measures largely reflects revisions to corporate profits and to net interest, which are components of national income but not of personal income.

Corporate profits with inventory valuation and capital consumption adjustments is revised up for all years except 1995. Profits of financial corporations are revised up for all years, primarily reflecting the modified treatment of private noninsured pension plans, the recognition of software as investment, and beginning with 1991, revised source data for interest paid by regulated investment companies. Profits of nonfinancial corporations are revised down for all years beginning with 1985, primarily reflecting revised estimates of the capital consumption adjustment (CCAdj) and an improved adjustment to remove foreign earnings of U.S. corporations that more than offset upward revisions that reflect the recognition of software as investment. The CCAdj, which is the difference between depreciation based on tax return data and consumption of fixed capital (the NIPA estimate of depreciation), is revised down beginning with 1972, primarily reflecting the addition of software as investment and a faster depreciation schedule for personal computers and, beginning with 1986, revisions to the adjustment to the tax-return-based measure that removes amortization of intangibles. Profits from the rest of the world are revised up beginning with 1982.

Net interest is revised down for all years. The downward revisions primarily reflect the modified treatment of private noninsured pension plans and the incorporation of revised source data for interest paid by regulated investment companies; beginning with 1988, the revisions are partly offset by a change in the methodology for adjusting the interest receipts of "captive" finance companies. The revisions also reflect the incorporation of revised and newly available source data from the Federal Reserve Board on mortgage debt outstanding, from BEA's international transactions accounts, and, beginning with 1996, from the IRS tabulations of business tax returns.

Consumption of fixed capital (CFC), which is the NIPA measure of depreciation, is revised up for all years, primarily reflecting the recognition of software as investment. Beginning with 1982, an improved method for depreciating personal computers also contributed to the upward revisions. These upward revisions affect both government and private CFC.

Nonfactor incomes consists of indirect business taxes and nontax liability, subsidies less current surplus of government enterprises, and business transfer payments. Indirect business taxes is revised up for all years beginning with 1986, primarily reflecting the incorporation of improved source data for estimating certain state and local government taxes. Revisions to subsidies less current surplus of government enterprises and to business transfer payments are small.

Statistical discrepancy is the difference between GDP and gross domestic income (GDI), which is measured as the sum of national income, CFC, and nonfactor incomes less net incomes received from the rest of the world. (In theory, GDP should equal GDI; in practice, they differ because their components are estimated using largely independent and less-than-perfect source data.) For 1959-75, GDP is revised up, and GDI is revised down; for all years beginning with 1976, except for 1992, GDP is revised up more than GDI is revised up. As a result, the revised statistical discrepancy is less negative or more positive in all years except for 1992. Beginning with 1994, both the previously published and revised estimates show GDI growing faster than GDP. For 1994-96, the differences between the two growth rates of the two measures are smaller for the revised estimates than for the previously published estimates, and for 1997 and 1998, the differences are larger.

Availability of Revised Estimates and Related Information

On October 29, 1999, revised estimates, beginning with 1959, for selected NIPA tables will be posted on BEA's Web site at <www.bea.doc.gov> and on STAT-USA's Web site at <www.stat-usa.gov>.

The revised estimates will be available on diskette, 1999 Benchmark Selected NIPA Tables, product number NDN-0245, price $20.00. To order, call the BEA Order Desk at 1-800-704-0415 (outside the United States, call (202) 606-9666).

The following issues of the Survey of Current Business contain information about the comprehensive revision:

- August 1999: Definitional and classificational changes.
- September 1999: New and redesigned tables.
- October 1999: Statistical changes.

An article in the December Survey will present a discussion of the impact and sources of revision, tables for GDP and other major aggregates beginning with 1959, and most of the NIPA tables (including annual-only tables), beginning with 1996.

BEA's major national, international, regional, and industry estimates; the Survey of Current Business; and BEA news releases are available without charge on BEA's Web site:

<www.bea.doc.gov>

STAT-USA maintains an Internet site that contains BEA estimates, the Survey of Current Business, and BEA news releases. The information available through STAT-USA is often more detailed and more timely than that available from other sources. For information about STAT-USA, go to <www.stat-usa.gov>, or call (202) 482-1986. Subscriptions for single-user unlimited access to STAT-USA's Internet information are $50.00 for 3 months or $150.00 for 1 year.

Summary BEA estimates are available on recorded messages at the time of public release at the following telephone numbers:

(202)	606-5306	Gross domestic product
	606-5303	Personal income and outlays
	606-5362	U.S. international transactions

Most of BEA's estimates and analyses appear in the Survey of Current Business, BEA's monthly journal. The printed Survey of Current Business is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. First class mail: Annual subscription $120.00 domestic. Second class mail: Annual subscription $48.00 domestic, $60.00 foreign; single issue $17.25 domestic, $21.56 foreign.

Next release -- November 24, 1999, at 8:30 A.M. EST for:
Gross Domestic Product: Third Quarter 1999 (Preliminary)
Corporate Profits: Third Quarter 1999

*   *   *

NOTE.–Regular news release tables 2, 7, 11, and appendix table A, as well as special table 4A are not yet available; they will be posted later on BEA’s Web site.

Explanatory Note: Measures of Output and Prices

This note describes the calculation of chain-type quantity and price indexes used in the NIPA's.

Changes in current-dollar GDP measure changes in the market value of goods, services, and structures produced in the economy in a particular period. These changes 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 1996--equal to 100.

The 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 1997-98 annual percent change in real GDP uses prices for 1997 and 1998 as weights, and the 1997-98 annual percent change in GDP prices uses quantities for 1997 and 1998 as weights. These annual changes are "chained" (multiplied) together to form time series of quantity and price indexes. The Fisher formula also produces percent changes in quantities and prices that are not affected by the choice of reference years. In addition, because the changes in quantities and prices calculated in this way are symmetric, in general, the product of a quantity index and the corresponding price index equals the current-dollar index. (BEA also publishes a measure of the price level known as the "implicit price deflator (IPD)," which is calculated as the ratio of 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 for all periods.)

Chain-type quantity and price indexes for GDP and its major components are presented in this release as index numbers in table 5 and in the form of percentage changes from the preceding period in tables 1, 4, 6A, and 6B. Contributions by major components to changes in real GDP are presented in table 2. BEA also prepares measures of real GDP and its components in a dollar-denominated form, designated " chained (1996) dollar estimates ." For GDP and most other series, these estimates, which are presented in table 3, are computed by multiplying the 1996 current-dollar value by a corresponding quantity index number and then dividing by 100. For example, if a current-dollar GDP component equaled $100 in 1996 and if real output for this component increased 10 percent in 1997, then the chained (1996) dollar value of this component in 1997 would be $110 ($100 x 1.10).

For analyses of changes over time in an aggregate or in a component, the percentage changes calculated from the chained-dollar estimates and from the chain-type quantity indexes are the same; any differences will be small and due to rounding. However, because the relative prices used as weights for any period other than the reference year differ from those used for the reference year, the chained-dollar values for the detailed GDP components will not necessarily sum to the chained-dollar estimate of GDP or to any intermediate aggregate. A measure of the extent of such differences is provided by a "residual" line, which indicates the difference between GDP (or another 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 for the chain-type index, the residuals tend to be small, and the chained (1996) dollar estimates can be used to approximate the contributions to growth and to aggregate the detailed estimates. As one moves further from the reference year, the residual tends to become larger, and the chained-dollar estimates become 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.

References: "A Preview of the 1999 Comprehensive Revision of the NIPA's: Statistical Changes," October 1999 Survey, pp. 6-17; "A Guide to the NIPA's," March 1998 Survey, pp. 36-40;"BEA's Chain Indexes, Time Series, and Measures of Long-Term Economic Growth," May 1997 Survey, pp. 58-68.