Technical Note
Gross Domestic Product
Second Quarter of 2012 (Third Estimate)
September 27, 2012

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; 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").

Sources of Revision to Real GDP

Real GDP increased 1.3 percent (annual rate) in the second quarter, which was 0.4 percentage point less than in last month's estimate. The revision to GDP reflected downward revisions to inventory investment, to consumer spending, and to exports:

- The downward revision to inventory investment was primarily to farm inventories and reflected newly available and revised farm income statistics from the Economic Research Service (ERS) of the U.S. Department of Agriculture. The effects of this summer's hot weather and drought on GDP and GDI are discussed in more detail below in the section, "Effects of the Midwest Drought."
- The downward revision to consumer spending was primarily to services. Within services, the largest contributor to the revision was financial services and insurance, based on newly available Census Bureau quarterly services survey data for the second quarter and on newly available FDIC *Call Report* data.
- The downward revision to exports was mostly to services exports. Within services, the largest contributor was travel, based on revised data from the international transactions accounts.

The price index for gross domestic purchases—the prices paid by U.S. residents for goods and services wherever produced—increased 0.7 percent in the second quarter, 0.1 percentage point less than in last month's estimate.

Gross Domestic Income and Corporate Profits

Real gross domestic income (GDI), which measures the output of the economy as the costs incurred and the incomes earned in the production of GDP, increased 0.2 percent in the second quarter, 0.4 percentage point less than in last month's estimate. Real GDI increased 3.8 percent in the first quarter. For a given quarter, the estimates of GDP and GDI differ due to the incorporation of largely independent source data. Over longer time spans, however, the estimates of GDP and GDI tend to follow similar patterns; over the last four quarters, real GDP increased 2.1 percent and real GDI increased 2.0 percent.

Profits from current production increased $21.8 billion, or 1.1 percent (quarterly rate), in the second quarter. Domestic profits of financial corporations decreased $39.7 billion, domestic profits of nonfinancial corporations increased $27.8 billion, and rest-of-the-world profits increased $33.6 billion.

Effects of the Midwest Drought

BEA's GDP estimates reflect the effects of this summer's extreme hot weather and drought in the Midwest on farm production. For the most part, these effects are embedded in the regular source data that are used by BEA. Where they are not, BEA prepares adjustments to account for the effects using its regular methodologies. While the drought could indirectly affect many components of GDP, such as personal consumption expenditures and exports, it is only possible to separately identify its effects on a few components, such as the change in farm inventories on the expenditure side of GDP and farm proprietors' income on the income side (GDI).

The production of agricultural crops is reflected in the expenditure-side estimates of GDP in the change in farm inventories. Because crop production takes place throughout the year, even if crops are harvested only once a year, BEA's estimates spread the value of crop output throughout the year. For each quarter, the change in farm inventories of crops is calculated as the estimated crop output allocated to that quarter, less crops sold, plus net Commodity Credit Corporation loan transactions.

The regular source data used by BEA for estimating crop output and sales are the U.S. farm income and wealth statistics, which are published by the ERS. The most recent farm income statistics, which were issued on August 28, 2012, form the basis for BEA's revised estimates of farm inventories and farm proprietors' income that were incorporated in today's GDP estimate. BEA also used other ERS reports to adjust the quarterly pattern of crop output to reflect the effects of the extreme hot, dry weather in the Midwest during June and July. (The losses in June are reflected in the second quarter estimates; additional losses during July will be reflected in next month's third-quarter GDP estimate.) In current dollars, second-quarter crop output was revised down about $12 billion, and market sales were revised down about $4 billion, leading to a downward revision in farm inventories of $7.8 billion. After adjusting for inflation, the change in real farm inventories was revised down $5.7 billion (chained 2005 dollars) for the second quarter.

Many farmers participate in crop insurance programs; crop insurance benefits are included in the quarters when the losses occurred on an accrual basis. Crop insurance benefits do not directly affect either GDP or GDI (there are offsetting effects on components of income), but do affect personal income, specifically, farm proprietors' income. In the second quarter, about $6 billion in losses to the farm sector were offset by crop insurance benefits. Consequently, the downward revision to farm proprietors' income of $2.7 billion in the second quarter was smaller than the revisions to crop output and inventories. Federal government funding of crop insurance is reflected in a revision to net insurance settlements within business current transfer payments to government.

Additional information about the methodology is available in an FAQ on BEA's website, "How will the effects of the 2012 Midwest drought be reflected in GDP?"

Brent R. Moulton
Associate Director for National Economic Accounts
Bureau of Economic Analysis
(202) 606-9606