

Director's Message

Taking Account

BEA releases new guide to international accounts.

Articles

GDP and the Economy: Advance Estimates for the Second Quarter of 2014

Real GDP increased 4.0 percent after decreasing 2.1 percent in the first quarter of 2014, primarily reflecting upturns in inventory investment and in exports and a pickup in consumer spending.

The 2014 Annual Revision of the National Income and Product Accounts

Details of the annual revision, which incorporated newly available and revised source data and new methods and presentations.

The Revisions to GDP, GDI, and Their Major Components

This analysis confirms that BEA's estimates provide an accurate picture of the economy, indicating among other things, whether growth was positive or negative or whether it was accelerating or decelerating.

Research Spotlight: Integrated Industry-Level Production Account for the United States, Sources of the Ongoing U.S. Recovery

Presenting a new industry-level data set for 1998–2012 that will be useful for analyzing underlying trends in aggregate economic growth.

Activities of U.S. Multinational Enterprises in 2012

The current value added of the U.S. multinational enterprises rose 2.0 percent in 2012 after rising 9.2 percent in 2011. Employment increased 1.1 percent after increasing 2.2 percent.

Upcoming in the Survey...

Direct Investment. Statistics on investment positions, international transactions, and the composition of investments of U.S. and foreign multinational companies.

Director's Message

In July, the Bureau of Economic Analysis (BEA) released its 2014 annual revision of the national income and product accounts. Annual revisions incorporate newly available and more reliable source data as well as various improvements in methodology and presentation. In this issue, we offer an indepth look at the details.

In addition, roughly every 3 years, BEA undertakes a research project to assess the reliability of our estimates to gross domestic product (GDP) and gross domestic income. The findings of the most recent analysis, included in this issue, demonstrate that BEA's estimates provide an accurate picture of the economy.

A *Research Spotlight* presents a new data set that combines industry output and intermediate inputs from BEA with information on capital and labor inputs from the Bureau of Labor Statistics to form an internally consistent production account. The article demonstrates how the data, covering 1998–2012, can be useful for analyzing the underlying trends in aggregate economic growth.

Elsewhere, we take a look at the recently released preliminary 2012 statistics on the activities of U.S. multinational enterprises, based on the results of the 2012 Annual Survey of U.S. Direct Investment Abroad. These data include balance sheet and income statement details, employment and employee compensation, sales, capital expenditures, trade in goods, and expenditures for research and development.

Another article discusses the details of the advance estimate of GDP for the second quarter of 2014.



Brian C. Moyer
Acting Director, Bureau of Economic Analysis

Taking Account...

BEA releases new guide to international accounts

BEA recently updated its guide to the concepts and methods used to prepare the U.S. international economic accounts, which was last released on the BEA Web site in 2011.

The [updated guide](#) includes information on the international transactions accounts (ITAs) as well as the international investment position (IIP) accounts and statistics on the activities of multinational enterprises.

The volume, which is available at no charge on the BEA Web site, also reflects the comprehensive restructuring of the U.S. international economic accounts, which was rolled out in June 2014. The restructuring represents the most significant change to the presentation of the international accounts since 1976.

The comprehensive restructuring was part of a multiyear effort at BEA to modernize and enhance the accounts by introducing changes recommended by new international statistical guidelines along with other improvements. These changes improve the overall comparability of international economic statistics across countries and provide policy makers and others with a stronger statistical foundation for understanding and responding to international economic events.

As with the previous guide, the new version is intended to be a living reference that will be up-

dated to reflect changes in concepts, sources, and methods as they are introduced into the U.S. international economic accounts. In addition, new material may be introduced as needed to provide thorough and up-to-date documentation of important topics and issues related to these accounts.

The international economic accounts provide timely, accurate, and relevant economic statistics that allow policy makers and other decision makers to understand the role of the United States in the global economy and the performance of the U.S. economy relative to other countries.

These statistics provide a comprehensive, integrated, and detailed picture of important and closely followed U.S. international economic activities.

In addition, these statistics are now more comparable across countries and allow assessments of relative economic performance, facilitate trade negotiations, and provide the basis for tracking and analyzing the global economy. BEA's international economic accounts are also used to study international competitiveness and to formulate trade policy.

Statistics on the activities of U.S. multinational enterprises (AMNEs), covering U.S. multinational enterprises (MNEs) and the U.S. affiliates of foreign MNEs, are used by businesses to assist in their decisions on the location of affiliates abroad, the

hiring of foreign labor, and sales and purchases of goods and services abroad.

The guide is organized into 5 parts consisting of 15 chapters, appendixes, and a glossary.

Part I (chapters 1–5) provides an introduction and overview.

Part II (chapters 6–9) is a conceptual framework that provides descriptions of key concepts and principles that underlie the international economic accounts and that are critical for understanding and interpreting the statistics.

Part III (chapters 10–13) provides a summary of statistical methodologies, including key data sources and estimation methods, for the ITAs, the IIP accounts, and AMNE statistics.

Part IV (chapters 14–15) covers special topics in the international economic accounts.

Part V provides supplemental information, including appendixes and a glossary of terms.

Check out BEA's blog for the latest information

Since it was launched in April 2012, the BEA blog has become a key source of information about the Bureau's statistical series and other products. The blog notes all major data releases, delivering the takeaways in nontechnical language. Blog items also note critical background information about statistics, executive appearances, and more.

The blog is available at www.bea.gov.

GDP and the Economy

Advance Estimates for the Second Quarter of 2014

REAL GROSS domestic product (GDP) increased 4.0 percent at an annual rate in the second quarter of 2014 after decreasing 2.1 percent (revised) in the first quarter, according to the advance estimates of the national income and product accounts (NIPAs) (chart 1 and table 1).¹

The NIPA estimates for the first quarter of 2014 and for earlier years have been revised. For more information, see “Results of the Annual NIPA Revision” in this issue.

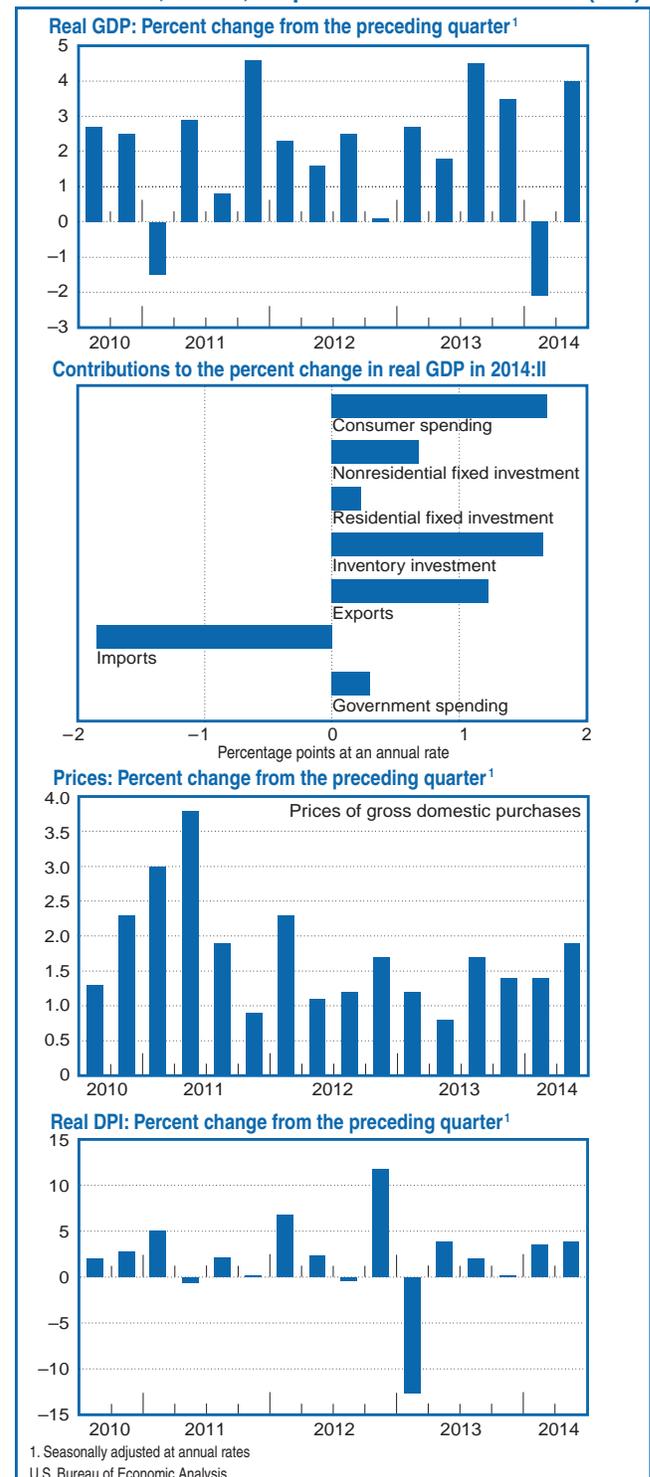
This upturn in the second-quarter percent change in real GDP primarily reflected upturns in inventory investment and in exports, an acceleration in consumer spending, an upturn in state and local government spending, an acceleration in nonresidential fixed investment, and an upturn in residential fixed investment that were partly offset by an acceleration in imports.²

- Prices of goods and services purchased by U.S. residents increased 1.9 percent in the second quarter after increasing 1.4 percent in the first quarter. Both food prices and energy prices accelerated in the second quarter. Excluding food and energy, gross domestic purchases prices increased 1.7 percent in the second quarter after increasing 1.3 percent in the first quarter (see table 3).
- Real disposable personal income (DPI) increased 3.8 percent in the second quarter after increasing 3.5 percent in the first quarter. Current-dollar DPI increased 6.2 percent in the second quarter after increasing 4.9 percent in the first quarter (see table 4). The sharper acceleration in current-dollar DPI than in real DPI reflected an acceleration in the implicit price deflator for consumer spending, which is used to deflate DPI.
- The personal saving rate, personal saving as a percentage of current-dollar DPI, was 5.3 percent in the second quarter; in the first quarter, the rate was 4.9 percent.

1. “Real” estimates are in chained (2009) dollars, and price indexes are chain-type measures. Each GDP estimate for a quarter (advance, second, and third) incorporates increasingly comprehensive and improved source data; for more information, see “Revisions to GDP, GDI, and Their Major Components” in the August 2014 SURVEY OF CURRENT BUSINESS. Quarterly estimates are expressed at seasonally adjusted annual rates, which assumes that a rate of activity for a quarter is maintained for a year.

2. In this article, “consumer spending” refers to “personal consumption expenditures,” “inventory investment” refers to “change in private inventories,” and “government spending” refers to “government consumption expenditures and gross investment.”

Chart 1. GDP, Prices, Disposable Personal Income (DPI)



Marissa J. Crawford prepared this article.

Real GDP Overview

Table 1. Real Gross Domestic Product (GDP) and Related Measures

[Seasonally adjusted at annual rates]

	Share of current-dollar GDP (percent)		Change from preceding period (percent)				Contribution to percent change in real GDP (percentage points)			
	2014		2013		2014		2013		2014	
	II	III	IV	I	II	III	IV	I	II	
Gross domestic product ¹	100.0	4.5	3.5	-2.1	4.0	4.5	3.5	-2.1	4.0	
Personal consumption expenditures	68.6	2.0	3.7	1.2	2.5	1.39	2.51	0.83	1.69	
Goods.....	23.0	3.5	3.7	1.0	6.2	0.80	0.83	0.23	1.38	
Durable goods.....	7.5	4.9	5.7	3.2	14.0	0.36	0.42	0.23	0.99	
Nondurable goods.....	15.4	2.8	2.7	0.0	2.5	0.43	0.41	0.00	0.39	
Services.....	45.7	1.3	3.7	1.3	0.7	0.59	1.69	0.60	0.31	
Gross private domestic investment	16.4	16.8	3.8	-6.9	17.0	2.50	0.62	-1.13	2.57	
Fixed investment.....	15.7	6.6	6.3	0.2	5.9	1.01	0.95	0.03	0.91	
Nonresidential.....	12.5	5.5	10.4	1.6	5.5	0.67	1.23	0.20	0.68	
Structures.....	2.9	11.2	12.8	2.9	5.3	0.29	0.34	0.08	0.15	
Equipment.....	5.8	4.7	14.1	-1.0	7.0	0.27	0.76	-0.06	0.40	
Intellectual property products	3.9	2.8	3.6	4.6	3.5	0.11	0.14	0.18	0.14	
Residential.....	3.2	11.2	-8.5	-5.3	7.5	0.34	-0.28	-0.17	0.23	
Change in private inventories.....	0.6	.....	.....	.....	.....	1.49	-0.34	-1.16	1.66
Net exports of goods and services	-3.3	.....	.....	.....	.....	0.59	1.08	-1.66	-0.61
Exports.....	13.5	5.1	10.0	-9.2	9.5	0.67	1.30	-1.30	1.23	
Goods.....	9.4	5.7	13.6	-11.9	12.9	0.52	1.20	-1.18	1.14	
Services.....	4.1	3.6	2.3	-2.8	2.3	0.15	0.10	-0.12	0.10	
Imports.....	16.8	0.6	1.3	2.2	11.7	-0.09	-0.22	-0.36	-1.85	
Goods.....	14.0	0.1	0.9	2.5	13.3	-0.01	-0.12	-0.33	-1.73	
Services.....	2.8	2.8	3.5	1.0	4.2	-0.08	-0.09	-0.03	-0.12	
Government consumption expenditures and gross investment	18.3	0.2	-3.8	-0.8	1.6	0.04	-0.71	-0.15	0.30	
Federal.....	7.0	-1.2	-10.4	-0.1	-0.8	-0.08	-0.79	-0.01	-0.05	
National defense.....	4.4	0.4	-11.4	-4.0	1.1	0.03	-0.55	-0.18	0.05	
Nondefense.....	2.6	-3.9	-8.6	6.6	-3.7	-0.11	-0.24	0.17	-0.10	
State and local.....	11.3	1.1	0.6	-1.3	3.1	0.13	0.07	-0.14	0.35	
Addenda:										
Final sales of domestic product.....	99.4	3.0	3.9	-1.0	2.3	3.03	3.84	-0.95	2.29	
Goods.....	30.5	10.8	8.1	-8.5	10.5	3.18	2.43	-2.69	3.08	
Services.....	61.9	1.1	1.8	1.4	0.4	0.74	1.10	0.86	0.28	
Structures.....	7.6	8.3	-0.4	-3.8	8.0	0.60	-0.03	-0.29	0.59	
Motor vehicle output.....	2.9	-10.6	18.5	3.3	18.5	-0.31	0.47	0.09	0.48	
GDP excluding motor vehicle output	97.1	5.0	3.1	-2.3	3.6	4.83	3.03	-2.20	3.47	
Final sales of computers.....	0.4	-4.0	6.2	17.8	7.7	-0.02	0.03	0.07	0.03	
GDP excluding final sales of computers.....	99.6	4.6	3.5	-2.2	3.9	4.53	3.47	-2.17	3.92	
Research and development (R&D)	2.5	-2.9	-0.8	2.9	0.8	-0.08	-0.02	0.07	0.02	
GDP excluding R&D.....	97.5	4.7	3.6	-2.2	4.0	4.59	3.52	-2.18	3.93	

1. The estimates of GDP under the contribution columns are also percent changes.

NOTE: Percent changes are from NIPA tables 1.1.1 and 1.2.1, contributions are from NIPA tables 1.1.2 and 1.2.2, and shares are from NIPA table 1.1.10, or they are calculated from NIPA table 1.2.5.

Consumer spending accelerated in the second quarter, reflecting an acceleration in goods that was partly offset by a deceleration in services. The acceleration in goods was primarily due to accelerations in “other” nondurable goods, in clothing and footwear, and in furnishing and durable household equipment. The deceleration in services was more than accounted for by a downturn in electricity and gas services.

Nonresidential fixed investment accelerated, primarily reflecting an upturn in equipment. The largest contributor to the upturn was information processing equipment (specifically, computers and communication equipment).

Residential fixed investment turned up, primarily reflecting an upturn in “other” structures (specifically, brokers’ commissions and other ownership transfer costs).

Inventory investment turned up, primarily reflecting an upturn in nonfarm inventories (mainly retail trade; construction, mining, and utilities; and manufacturing).

Exports turned up, reflecting upturns in both goods and services. The leading contributors to the upturn in goods were industrial supplies and materials (specifically, petroleum and petroleum products); automotive vehicles, engines, and parts; and nonautomotive capital goods. For services, the largest contributor was “other” business services, mostly financial services.

Imports accelerated, reflecting accelerations in both goods and services. In goods, the leading contributors to the acceleration were automotive vehicles, engines, and parts and nonautomotive consumer goods.

Federal government spending decreased more than in the first quarter. Nondefense spending turned down, and national defense spending turned up.

State and local government spending turned up, primarily reflecting an upturn in structures investment.

Real final sales of domestic product, real GDP less inventory investment, increased 2.3 percent in the second quarter after decreasing 1.0 percent in the first quarter.

Prices

Table 2. Prices for Gross Domestic Purchases

[Percent change at annual rates; based on seasonally adjusted index numbers (2009=100)]

	Change from preceding period (percent)				Contribution to percent change in gross domestic purchases prices (percentage points)			
	2013		2014		2013		2014	
	III	IV	I	II	III	IV	I	II
Gross domestic purchases ¹	1.7	1.4	1.4	1.9	1.7	1.4	1.4	1.9
Personal consumption expenditures	1.7	1.0	1.4	2.3	1.12	0.67	0.91	1.54
Goods	1.2	-1.4	-0.6	2.1	0.27	-0.32	-0.12	0.46
Durable goods	-2.5	-2.6	-2.8	-1.1	-0.19	-0.19	-0.21	-0.08
Nondurable goods	3.0	-0.9	0.6	3.6	0.46	-0.13	0.08	0.53
Services	1.9	2.3	2.3	2.5	0.85	0.99	1.03	1.08
Gross private domestic investment	2.1	2.2	2.4	0.8	0.31	0.34	0.38	0.13
Fixed investment	2.0	2.6	2.8	1.0	0.30	0.38	0.42	0.15
Nonresidential	1.2	1.3	1.4	1.2	0.14	0.16	0.17	0.15
Structures	2.2	3.9	2.3	1.1	0.06	0.10	0.06	0.03
Equipment	0.4	-0.2	0.8	1.2	0.02	-0.01	0.04	0.07
Intellectual property products	1.6	1.7	1.7	1.3	0.06	0.06	0.06	0.05
Residential	5.5	7.6	8.6	-0.1	0.16	0.23	0.25	0.00
Change in private inventories .....	.....	.....	.....	.....	0.01	-0.04	-0.05	-0.01
Government consumption expenditures and gross investment	1.4	2.4	0.4	1.3	0.26	0.43	0.07	0.22
Federal	1.2	5.3	-2.5	1.5	0.09	0.36	-0.17	0.10
National defense	1.0	3.1	0.1	1.4	0.04	0.13	0.00	0.06
Nondefense	1.5	9.0	-6.5	1.7	0.04	0.23	-0.18	0.04
State and local	1.5	0.6	2.2	1.1	0.17	0.06	0.24	0.12
Addenda:								
Gross domestic purchases:								
Food	1.1	-1.0	1.3	4.2	0.05	-0.05	0.06	0.21
Energy goods and services	6.8	-2.6	2.8	5.1	0.24	-0.10	0.10	0.18
Excluding food and energy	1.5	1.7	1.3	1.7	1.39	1.59	1.19	1.51
Personal consumption expenditures (PCE):								
Food and beverages purchased for off-premises consumption	1.0	0.0	1.4	4.5	.....	.....	.....	.....
Energy goods and services	6.6	-2.7	4.0	5.2	.....	.....	.....	.....
Excluding food and energy	1.4	1.3	1.2	2.0	.....	.....	.....	.....
Gross domestic product (GDP)	1.7	1.5	1.3	2.0	.....	.....	.....	.....
Exports of goods and services	0.7	0.3	2.8	-0.4	.....	.....	.....	.....
Imports of goods and services	0.8	0.0	2.8	-0.4	.....	.....	.....	.....

1. The estimates of gross domestic purchases under the contribution columns are also percent changes. NOTE: Most percent changes are from NIPA table 1.6.7; percent changes for PCE for food and energy and services and for PCE excluding food and energy are from NIPA table 2.3.7. Contributions are from NIPA table 1.6.8. GDP, export, and import prices are from NIPA table 1.1.7.

Prices paid by U.S. residents, as measured by the gross domestic purchases price index, accelerated, increasing 1.9 percent in the second quarter after increasing 1.4 percent in the first quarter. The acceleration was primarily accounted for by an acceleration in consumer prices and an upturn in prices for federal government spending that were partly offset by a downturn in the prices paid for residential fixed investment.

The acceleration in consumer prices primarily reflected an upturn in prices for goods (mainly for motor vehicle fuels). Within services, prices for household consumption expenditures for health care accelerated.

The downturn in prices paid for residential fixed investment primarily reflected a downturn in prices paid for the construction of new single-family structures.

The upturn in prices paid by the federal government primarily reflected an upturn in the prices paid for federal nondefense spending.

The upturn in prices paid for federal nondefense spending primarily reflected a return to a more normal pattern of change following the effects of the fourth-quarter shutdown (which reduced the hours worked by federal employees but boosted the fourth-quarter prices for employee compensation).

Consumer prices excluding food and energy, a measure of the “core” rate of inflation, picked up, increasing 2.0 percent after increasing 1.2 percent.

Note on Prices

BEA’s gross domestic purchases price index is the most comprehensive index of prices paid by U.S. residents for all goods and services. It is derived from the prices of personal consumption expenditures (PCE), private investment, and government consumption expenditures and gross investment.

BEA also produces price indexes for all the components of GDP. The PCE price index is a measure of the total cost of consumer goods and services, including durable goods, nondurable goods, and services. PCE prices for food, for energy goods and services, and for all items except food and energy are also estimated and reported.

Because prices for food and for energy can be volatile, the

price measure that excludes food and energy is often used as a measure of underlying, or “core,” inflation. The core PCE price index includes purchased meals and beverages, such as restaurant meals and pet food. (See the FAQ “What is the core PCE price index?” on BEA’s Web site.)

BEA also prepares a supplemental PCE price index, the “market-based” PCE price index, that is based on market transactions for which there are corresponding price measures. This index excludes many imputed expenditures, such as financial services furnished without payment, that are included in PCE and in the PCE price index. BEA also prepares a market-based measure that excludes food and energy.

Personal Income

Table 3. Personal Income and Its Disposition

[Billions of dollars; quarterly estimates are seasonally adjusted at annual rates]

	Level		Change from preceding period			
	2014		2013		2014	
	I	II	III	IV	I	II
Personal income	14,488.3	14,696.3	116.1	64.3	176.6	208.0
Compensation of employees.....	9,100.2	9,235.0	45.3	75.2	153.4	134.8
Wages and salaries.....	7,343.6	7,462.2	34.4	63.2	135.1	118.6
Private industries.....	6,129.1	6,242.8	38.3	58.8	130.6	113.7
Goods-producing industries.....	1,237.8	1,259.2	3.8	13.8	27.2	21.4
Manufacturing	768.1	781.0	1.2	6.9	14.0	12.9
Services-producing industries	4,891.3	4,983.6	34.5	45.0	103.4	92.3
Trade, transportation, and utilities	1,148.7	1,171.6	5.5	12.2	13.8	22.9
Other services-producing industries ..	3,742.6	3,812.0	29.0	32.8	89.6	69.4
Government.....	1,214.5	1,219.4	-4.0	4.4	4.5	4.9
Supplements to wages and salaries	1,756.6	1,772.8	10.8	12.1	18.3	16.2
Proprietors' income with IVA and CCAdj.....	1,351.0	1,364.1	15.9	-3.2	8.3	13.1
Farm	58.1	56.9	3.2	-16.7	-12.0	-1.2
Nonfarm	1,292.9	1,307.2	12.7	13.4	20.3	14.3
Rental income of persons with CCAdj	622.9	635.9	13.4	9.1	9.6	13.0
Personal income receipts on assets	2,090.4	2,120.7	25.0	-12.7	-3.8	30.3
Personal interest income.....	1,262.4	1,266.9	5.0	4.7	-0.8	4.5
Personal dividend income	828.0	853.9	20.0	-17.4	-3.0	25.9
Personal current transfer receipts	2,470.9	2,504.4	22.1	5.7	38.6	33.5
Government social benefits to persons.....	2,427.8	2,460.6	21.8	5.7	38.1	32.8
Social security	824.5	833.0	7.5	6.4	15.6	8.5
Medicare.....	582.6	586.9	5.3	4.3	5.3	4.3
Medicaid.....	467.6	474.2	12.6	-1.3	18.9	6.6
Unemployment insurance.....	41.4	37.3	-5.2	-3.2	-14.7	-4.1
Veterans benefits.....	83.4	83.4	1.5	1.5	1.8	0.0
Other	428.4	445.8	0.1	-2.0	11.3	17.4
Other current transfer receipts from business, net	43.1	43.8	0.2	0.1	0.5	0.7
Less: Contributions for government social insurance.....	1,147.0	1,163.7	5.7	9.7	29.5	16.7
Less: Personal current taxes.....	1,712.5	1,727.7	0.9	26.6	24.4	15.2
Equals: Disposable personal income (DPI)	12,775.8	12,968.5	115.1	37.9	152.1	192.7
Less: Personal outlays	12,146.9	12,285.7	109.2	137.7	76.1	138.8
Equals: Personal saving	629.0	682.9	5.9	-99.9	76.1	53.9
Personal saving as a percentage of DPI.....	4.9	5.3				
Addenda: The effects of special factors on changes in DPI						
In government compensation:						
Federal pay raise.....			0.0	0.0	2.6	0.3
Federal civilian furloughs			-4.5	5.0	0.0	0.0
In supplements to wages and salaries:						
FICA increase in maximum taxable wages			0.0	0.0	1.7	0.0
In personal dividend income:						
Accelerated dividends.....			0.0	0.0	0.0	0.0
In government social benefits to persons:						
Cost-of-living adjustments (COLAs) ¹			0.0	0.0	14.2	0.0
Automatic Earnings Reappraisal Operation			-0.3	2.7	-2.7	0.3
Emergency unemployment compensation.....			-5.0	-0.9	-17.5	-0.8
Affordable Care Act premium assistance refundable tax credit.....			0.0	0.0	7.0	10.4
Other refundable tax credits.....			0.0	0.0	3.1	0.0
In employee contributions for government social insurance:						
FICA and SECA increase in maximum taxable wages			0.0	0.0	2.1	0.0
SMI premium increase			0.0	0.0	0.2	0.0
Additional hospital insurance tax			0.0	0.0	0.4	0.0
Expiration of the "payroll tax holiday"			0.0	0.0	2.6	0.0
In personal current taxes:						
Refunds, settlements, and back taxes			0.0	0.0	-6.1	0.0

Personal income, which is measured in current dollars, accelerated in the second quarter, increasing \$208.0 billion after increasing \$176.6 billion in the first quarter. The acceleration primarily reflected an upturn in personal dividend income and a smaller decrease in farm proprietors' income that were partly offset by a deceleration in wages and salaries.

The deceleration in wages and salaries primarily reflected the pattern of monthly employment, hours, and earnings data from the Bureau of Labor Statistics for the second quarter.

The smaller decrease in farm proprietors' income was due to an acceleration in prices received by farmers and a smaller decrease in real farm output.

The upturn in personal dividend income was based on data from publicly traded corporate financial reports.

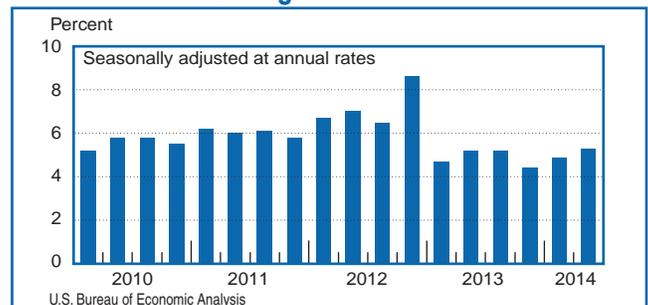
Government social benefits to persons decelerated. The deceleration primarily reflected decelerations in Medicaid and social security benefits. In the first quarter, Medicaid benefits were boosted by expanded coverage under the Affordable Care Act, and social security benefits were boosted by the 1.5 percent cost-of-living adjustment in January. In contrast, unemployment insurance benefits decreased less than in the first quarter following the expiration of Emergency Unemployment Compensation benefits at the end of 2013. Other social benefits increased more, reflecting a larger increase in health insurance premium subsidies.

Personal current taxes decelerated, reflecting a downturn in state and local income taxes that was partly offset by an acceleration in federal income taxes.

Personal saving—disposable personal income less personal outlays—was \$682.9 billion in the second quarter, increasing \$53.9 billion after increasing \$76.1 billion.

The personal saving rate was 5.3 percent in the second quarter; in the first quarter, the rate was 4.9 percent.

Chart 2. Personal Saving Rate



1. Includes COLAs for social security, veterans benefits, railroad retirement, and supplemental security income. In the first quarter, the social security COLA boosted benefits \$12.2 billion.
 Note. Dollar levels are from NIPA tables 2.1 and 2.2B. CCAdj Capital consumption adjustment
 FICA Federal Insurance Contributions Act IVA Inventory valuation adjustment
 SECA Self-Employed Contributions Act SMI Supplementary Medical Insurance

Source Data for the Advance Estimates

Table 4. Source Data and Key Assumptions for the Advance Estimates of GDP and Its Components for the First Quarter of 2014
[Billions of dollars, seasonally adjusted at annual rates]

	2014					
	Jan.	Feb.	March	April	May	June ¹
Private fixed investment:						
Nonresidential structures:						
Value of new nonresidential construction put in place	330.0	328.9	324.2	324.5	328.0	326.3
Residential structures:						
Value of new residential construction put in place:						
Single family	186.9	185.8	186.2	190.2	187.6	185.6
Multifamily	37.6	38.7	39.9	40.7	40.5	40.0
Change in private inventories:						
Change in inventories for nondurable manufacturing	5.3	19.3	-3.5	22.8	17.9	20.2
Change in inventories for merchant wholesale and retail industries other than motor vehicles and equipment	51.9	43.9	56.7	68.2	22.3	75.3
Net exports: ²						
Exports of goods:						
U.S. exports of goods, international-transactions-accounts basis	1,602.9	1,564.7	1,628.6	1,620.6	1,640.2	1,630.0
Excluding gold	1,561.5	1,542.9	1,609.8	1,603.9	1,625.2	1,613.2
Imports of goods:						
U.S. imports of goods, international-transactions-accounts basis	2,316.7	2,288.5	2,378.8	2,408.6	2,399.7	2,393.6
Excluding gold	2,301.2	2,274.7	2,362.2	2,392.5	2,385.1	2,377.8
Net exports of goods	-713.8	-723.8	-750.2	-788.0	-759.5	-763.6
Excluding gold	-739.8	-731.8	-752.4	-788.5	-759.9	-764.7
State and local government structures:						
Value of new construction put in place	238.2	237.4	241.8	247.1	251.9	249.5

1. All the values are assumptions unless otherwise noted.

2. Nonmonetary gold is included in balance-of-payments exports and imports, but it is not

used directly in estimating exports and imports in the national income and product accounts.

Source Data and Key Assumptions for the Advance Estimates of GDP

The advance estimates of many components of GDP are based on 3 months of source data, but the estimates of some components are based on only 2 months of data. For the following items, the number of months for which data are available is shown in parentheses.

Consumer spending: sales of retail stores (3), unit auto and truck sales (3), consumers' shares of auto and truck sales (2), motor vehicle fuels data (3), and electricity and gas usage and unit-value data (3);

Nonresidential fixed investment: unit auto and truck sales (3), construction spending (value put in place) (2), manufacturers' shipments of machinery and equipment (3), and exports and imports of machinery and equipment (2);

Residential fixed investment: construction spending (value put in place) (2), single-family housing starts (3), sales of new homes (3), and sales of existing houses (3);

Inventory investment: trade and nondurable-goods manufacturing inventories (2), durable-goods manufacturing inventories (3), and unit auto and truck inventories (3);

Net exports of goods and services: exports and imports of goods and services (2) and values and quantities of petroleum imports (2);

Government spending: federal government outlays (3), state and local government construction spending (value put in place) (2), and state and local government employment (3);

Compensation: employment, average hourly earnings, and average weekly hours (3); and

Prices: consumer price indexes (3), producer price indexes (3), and values and quantities of petroleum imports (2).

Key assumptions

When source data were unavailable, BEA made various assumptions for June, including the following (table 4):

- A decrease in nonresidential structures,
- A decrease in residential structures,
- An increase in nondurable-goods manufacturing inventories,
- An increase in nonmotor vehicle merchant wholesale and retail inventories,
- A decrease in exports of goods excluding gold,
- A decrease in imports of goods excluding gold, and
- A decrease in state and local government structures.

A more comprehensive list is available on [BEA's Web site](#).

The 2014 Annual Revision of the National Income and Product Accounts

By Stephanie H. McCulla, Alyssa E. Holdren, and Shelly Smith

THE BUREAU of Economic Analysis (BEA) released revised estimates of the national income and product accounts (NIPAs) for 2011–2013 and for the first quarter of 2014 along with the advance estimate for the second quarter of 2014 on July 30. As is usual for annual NIPA revisions, the revised estimates incorporated newly available source data that are more complete, more detailed, and more reliable than those that were previously incorporated.

In addition to the revisions for the more recent years, this year's annual revision included revisions to gross domestic product (GDP) and some of its components beginning with the estimates for 1999.¹ This annual revision has not greatly changed the overall picture of GDP growth over the revision period, consistent with BEA research that shows that annual NIPA revisions do not greatly change the overall economic picture.²

Highlights from this year's revision include the following:

- For 2011–2013, real GDP increased at an average annual rate of 2.0 percent; in the previously published estimates, real GDP had increased at an average

1. For information on BEA's policy of conducting annual revisions that cover more than the 3 most recent years, see "Improving BEA's Accounts Through Flexible Annual Revisions," SURVEY OF CURRENT BUSINESS 88 (June 2008). In this year's annual revision, GDP, personal consumption expenditures, exports, imports, and select income components are revised back to the first quarter of 1999. The reference year for index numbers and chained-dollar estimates remains 2009. In cases for which the estimates for the reference year are revised, the levels of the related index numbers and the chained-dollar estimates are revised beginning with the estimates for 1929; however, revisions to the percent changes before the first quarter of 1999 are small.

2. BEA judges the accuracy of the estimates in terms of long-term growth rates, trends in key components of GDP, and broad features of the business cycle, including the timing and depth of recessions, the strength of recoveries, the major components contributing to growth and to contractions, and the pattern of quarterly growth. For more information about the accuracy of annual revisions, see Dennis J. Fixler, Ryan Greenaway-McGrevy, and Bruce T. Grimm, "Revisions to GDP, GDI, and Their Major Components," SURVEY 94 (August 2014).

age annual rate of 2.2 percent.³

- Contributors to GDP growth for 2011–2013 are little changed from the earlier estimates. Consumer spending remains the driving force behind the growth in GDP, while business investment has increased its influence since 2011; government spending remains a negative factor, and the influence of net exports is small.
- From the second quarter of 2009 through the first quarter of 2014, the current period of expansion, real GDP increased at an average annual rate of 2.1 percent, the same rate as in the previously published estimates.
- Revisions to prices are small; from the fourth quarter of 2010 to the first quarter of 2014, the average annual rate of increase in the price index for gross domestic purchases was revised up to 1.7 percent from 1.6 percent.
- For 2011–2013, real gross domestic income (GDI) increased at an average annual rate of 2.6 percent; in the previously published estimates, real GDI had increased at an average annual rate of 2.5 percent.
- The personal saving rate (personal saving as a percentage of disposable personal income) is revised up for all 3 years: to 6.0 percent from 5.7 percent for 2011, to 7.2 percent from 5.6 percent for 2012, and to 4.9 percent from 4.5 percent for 2013. The upward revisions largely reflect upward revisions to personal income and downward revisions to personal outlays (see page 16).

Why BEA revises its estimates

BEA undertakes revisions on a defined schedule to improve the accuracy and relevance of its estimates and to better reflect the changing economy by incorporating

3. In the annual revisions since 1982, the revisions (without regard to sign) to the annual estimates of the percent change in real GDP have averaged 0.3 percentage point.

the most complete and reliable source data available, by improving estimating methods and definitions underlying the NIPA components, and by changing the presentation of the accounts.

Revised and Newly Available Source Data

Annual revisions provide the opportunity to incorporate data from surveys that are more comprehensive than initial reports. The revised and newly available source data may take the form of indicators that have been benchmarked to more comprehensive and detailed annual surveys than those used in earlier vintages of the estimates, or they may be comprehensive source data that were unavailable for the release of previous vintages of the estimates and that now replace the trends or indicators that were used as proxies. The data underlying the NIPAs come from a variety of sources, including the Census Bureau, the Bureau of

Labor Statistics (BLS), the Internal Revenue Service (IRS), and BEA's international transactions accounts (ITAs).⁴

The NIPA estimates for this annual revision were most impacted by the incorporation of revised and newly available source data. The most notable impacts of incorporating revised and newly available data were on the estimates of personal consumption expenditures (PCE), corporate profits, proprietors' income, and net interest (for more information, see pages 7 and 14). For 1999–2010, the revisions reflect revised estimates of exports and imports, based on the incorporation of revised data from BEA's ITAs.

The major source data that were incorporated as part of this year's annual revision are shown in table 1.

4. For more information on the source data used for each vintage of the estimates, see Alyssa E. Holdren, "Gross Domestic Product and Gross Domestic Income: Revisions and Source Data," SURVEY 94 (June 2014).

Table 1. Major Source Data Incorporated for the 2014 Annual Revision

Source data agency	Data	Years covered by the data	Vintage
Census Bureau	Annual surveys of merchant wholesale trade and retail trade	2011 2012	Revised New
	Monthly indicators of manufactures, merchant wholesale trade, and retail trade	2011–2013	Revised
	Service annual survey	2011 and 2012 2013	Revised New
	Annual surveys of state and local government finances	Fiscal year 2011 Fiscal year 2012	Revised New
	Monthly survey of construction spending (value put in place)	2011–2013	Revised
	Quarterly services survey	2011–2013	Revised
	Current population survey/housing vacancy survey	2011 and 2012 2013	Revised New
Office of Management and Budget	Federal Budget	Fiscal year 2013	Revised
		Fiscal year 2014	Revised
Internal Revenue Service	Tabulations of tax returns for corporations	2011 2012	Revised New
	Tabulations of tax returns for sole proprietorships and partnerships	2012	New
Bureau of Labor Statistics	Quarterly census of employment and wages	2011–2013	Revised
Department of Agriculture	Farm statistics	2011–2013	Revised
Bureau of Economic Analysis	International transactions accounts	1999–2013	Revised

Additional information on the NIPA components impacted by the incorporation of these data is provided in table 13, beginning on page 17.

Source data that significantly affected the NIPA estimates in this revision include the following:

- Newly available data for 2012 from the Census Bureau annual retail trade survey that replaced data from the Census Bureau monthly retail trade survey.⁵ The incorporation of these data is primarily reflected in BEA's revisions to PCE for goods and for food services.
- Newly available Census Bureau tabulations of service annual survey data for 2013 that replaced annual estimates derived from Census Bureau quarterly services survey data.⁶ The incorporation of these data is primarily reflected in BEA's revisions to PCE for services and to private fixed investment in software.
- Newly available IRS tax return tabulations for corporations and for sole proprietorships and partnerships for 2012 that replaced annual estimates based on quarterly indicators from a variety of sources, including data from Census Bureau quarterly financial reports, from company financial reports, and from regulatory agency reports, other NIPA estimates, and judgmental trends. The incorporation of the IRS data is primarily reflected in BEA's revisions to corporate profits, to nonfarm proprietors' income, and to net interest.
- Revised data from the U.S. Department of Agriculture (USDA) for 2013 that replaced USDA projections. The incorporation of these data is reflected in BEA's revisions to farm income and farm inventory investment.

Changes to Methodologies and Presentations

The incorporation of improved estimating methods reflects BEA's continuous efforts to apply methods that yield the most accurate estimates possible and that best reflect changes in the economy.⁷ And as the economy

5. The annual retail trade survey is a mandatory survey with a sample size of about 22,000 large and small retail and accommodation and food services companies in 84 industries. In comparison, the monthly retail trade survey is a voluntary survey with a sample size of about 12,000 large and small retail and food services companies in 79 industries.

6. The service annual survey is a mandatory survey that collects data on operating revenues, operating expenses, and inventories as well as product and class of customer detail from about 72,000 employer firms in service industries. In comparison, the quarterly services survey is a voluntary survey that collects data on revenue from about 19,000 employer firms in service industries.

7. For information about the structure, definitions, presentation, and methodologies that underlie the NIPAs, see "NIPA Handbook: Concepts and Methods of the U.S. National Income and Product Accounts." In addition, the November SURVEY will feature "Updated Summary NIPA Methodologies" that will reflect the changes introduced in this annual revision.

changes, the presentation of the estimates changes accordingly. The most notable changes to the NIPAs for this annual revision include improvements to the presentation of the NIPA estimates of exports and imports and an expanded presentation of the transactions of the pension subsector; an improved method for estimating used motor vehicles transactions; and the incorporation of improved price data used to measure nonresidential structures.

Updated presentation of exports and imports of goods and services

Earlier this year, BEA released revised ITA statistics for 1999–2013. The revised statistics include a comprehensive restructuring of the presentation of the ITAs as well as improvements to ITA methodologies (see the box). The ITA restructuring includes revised presentations of the trade in goods and services; the incorporation of these changes in the NIPAs is described below.⁸

8. The revised NIPA estimates are presented in NIPA tables 4.2.1–4.2.6. Additionally, as part of this year's annual revision, BEA introduced new underlying detail tables 4.2.3U–4.2.6U that display additional detail on exports and imports of goods and services.

The Comprehensive Restructuring of the ITAs

Over the last several years, BEA has introduced changes to bring its international accounts statistics into closer alignment with international statistical guidelines for compiling balance of payments and international investment position (IIP) statistics, including the International Monetary Fund's *Balance of Payments and International Investment Position Manual*, 6th edition. The modernization included the following:

- A restructured presentation of the ITA and the IIP statistics to accommodate more extensive information about international trade and investment,
- New categories of investment that reflect the functions and characteristics of investment,
- Additional detail on financial transactions,
- Additional detail on investment income by sector and maturity,
- Increased emphasis on direct investment in the IIP accounts, and
- An expanded definition of trade in travel services.

For details, see Maria Borga and Kristy L. Howell, "The Comprehensive Restructuring of the International Economic Accounts: Changes in Definitions, Classifications, and Presentations," SURVEY 94 (March 2014).

- The previously presented component “consumer goods, except automotive” was renamed “consumer goods, except food and automotive” to clarify its contents.⁹
- Within exports of goods, the component “other” goods exports was expanded to include “net exports of goods under merchanting” and certain military items; previously, these components were included in exports of services.¹⁰
- A new component, “transport,” was introduced that combines the previously presented components “passenger fares” and “other transportation.”
- The component “travel” was expanded to include both health-related and education-related travel and the expenditures on goods and services by border, seasonal, and other short-term workers, all of which were previously included in the component “other private services.”¹¹
- The previously presented component “royalties and license fees” was renamed “charges for the use of intellectual property products n.e.c.” No change was made to the contents of the category.
- A new component, “other business services” was introduced; it includes maintenance and repair services, insurance services, financial services, telecommunication, computer and information services, and “other” business services; previously, these components were included in “other” private services.
- Within services, a new component “government goods and services n.e.c.” was introduced for both exports and imports. For exports, this component primarily consists of the previously presented category “transfers under U.S. military agency sales con-

9. As part of the restructuring of the ITAs, new categories were introduced for exports and imports of nonmonetary gold; previously, nonmonetary gold was presented in industrial supplies and materials. In addition, the definition of nonmonetary gold in the ITAs was expanded to include certain gold coin transactions; previously, these transactions were included in nonautomotive consumer goods. The ITA estimates of nonmonetary gold exports and imports are not used in the derivation of the NIPA estimates of total exports and imports of goods; instead, NIPA estimates of trade in gold reflect the domestic production and industrial use of gold and are based primarily on quantity data from trade sources and a producer price index from BLS. Consequently, the ITA redefinition of nonmonetary gold only affects the NIPA estimates to the extent that the industrial supplies and materials and consumer goods categories are affected by the redefinitions in the ITAs.

10. The reclassification of these military items affects the NIPA estimates of exports of goods and services for 1959–1998; this reclassification was previously introduced into the ITAs but not into the NIPAs.

11. As part of the restructuring of the ITAs, an improved method for estimating average expenditures by travelers for 1999–2013 was introduced; see Jeffrey R. Bogen, Mai-Chi Hoang, Kristy L. Howell, and Erin M. Whitaker, “Comprehensive Restructuring and Annual Revision of the U.S. International Transactions Accounts,” SURVEY 94 (July 2014). BEA incorporated the ITA data into the NIPAs for 1999 forward and extrapolated the revised estimates back to 1982 in order to preserve the time series for these components.

tracts.” For imports, this component primarily consists of the previously presented category “direct defense expenditures.”

Updated ITA-NIPA reconciliation table

As a result of the restructuring of the ITAs, the entries “adjustment for grossing of parent/affiliate transactions” for income receipts and for income payments were removed from NIPA “Table 4.3. Relation of Foreign Transactions in the National Income and Product Accounts to the Corresponding Items in the International Transactions Accounts.” The removals converted certain income flows that were presented in the ITAs on a net basis to a gross basis, as presented in the NIPAs. These adjustments are no longer necessary because the income flows associated with direct investment income are now presented in the ITAs on a gross basis.

Expanded presentation of the pension subsector

With this year’s annual revision, the transactions of defined contribution pension plans have been included in the pension subsector, consistent with the treatment of defined benefit plans introduced in the 2013 comprehensive revision of the NIPAs.¹²

This new sectoring for defined contributions plans recognizes the imputed interest and dividends paid by the financial corporations sector and received by persons. However, this change does not impact the estimates of the total amount of interest and dividends paid or received.¹³

As a result, several NIPA tables have changed. Specifically,

- NIPA table 7.20 was updated to present the summary transactions of both defined benefit and defined contribution pension plans.
- NIPA tables 7.21–7.24 provide detail on the transactions of defined benefit pension plans for the total

12. As part of the 2013 comprehensive revision of the NIPAs, BEA moved to an accrual-accounting method for recording the transactions of defined benefit pension plans and recording the costs of unfunded liabilities. As part of the new treatment, defined benefit pension plans were recognized as a subsector of financial corporations. See Stephanie H. McCulla, Alyssa E. Holdren, and Shelly Smith, “Improved Estimates of the National Income and Product Accounts: Results of the 2013 Comprehensive Revision,” SURVEY 93 (September 2013).

13. With the new sectoring for defined contribution pension plans, plans receive interest and dividends on their holdings, and these transactions are recorded as monetary flows in the NIPAs. As households have the ultimate claim on the interest and dividends earned by pension plans, the NIPAs impute these flows and record them as interest and dividend receipts of households. The resulting changes to monetary and imputed interest and dividends are offsetting, and aggregate interest and dividend payments and receipts are unaffected. The interest estimates are presented in NIPA table 7.11, and the dividend estimates are presented in NIPA table 7.10.

economy as well as for private, federal government, and state and local government plans.

- A new NIPA table, table 7.25, was added to provide detail on the transactions of defined contribution pension plans; the table consolidates the presentation of transactions of defined contribution plans for private, federal government, and state and local government plans.

Improved estimating method for used auto and truck margins

Used motor vehicles are existing assets, and the production of these assets was captured in GDP in an earlier period. However, the margins associated with the sales of used motor vehicles—that is, the portions of the sales prices that reflect the return to wholesale or retail dealers of used vehicles—do reflect current services, and they are included in GDP as part of PCE and private fixed investment at the time the sales are conducted.

Beginning with 2011, annual current-dollar estimates of PCE and of private fixed investment for used motor vehicle margins are based on data from the Census Bureau surveys of annual retail and wholesale trade.¹⁴ Specifically, annual estimates of retail gross margins for used car dealers and of wholesale gross margins (except for manufacturers' sales branches and offices) are used as indicators in the extrapolation of the margin estimates from BEA's benchmark input-output (I-O) accounts. For periods for which Census Bureau retail and wholesale margin data are unavailable, the estimates are based on Census Bureau data on retail sales and wholesale sales of used autos and light trucks.

Previously, annual measures of margins on autos and light trucks in nonbenchmark I-O years were derived using one methodology for sales of used vehicles

14. Quarterly and monthly estimates of used auto and light truck margins are based on data on retail sales of used motor vehicle dealers from the Census Bureau monthly retail trade survey.

at franchised dealers and another for sales at nonfranchised or independent dealers. Franchised dealers' sales were based on trade source data on the average retail prices of used vehicles and on unit sales of used vehicles. Nonfranchised or independent dealers' sales were based on Census Bureau data on retail sales and on gross margins for used car dealers.

In addition, also beginning with 2011, NIPA estimates of the prices underlying used auto and light truck vehicle margins are derived using a monthly producer price index (PPI) for used motor vehicle sales at new car dealers from BLS. Previously, margin prices were derived from trade source data on unit retail sales of used vehicles at franchised dealers and from Census Bureau retail sales data for nonfranchised or independent dealers.

Adoption of newly available PPIs

BLS has continued to introduce new PPIs that provide price information for detailed products. As part of this annual revision, two new PPIs have been adopted into the NIPA estimates of fixed investment in structures.

- Beginning with estimates for the fourth quarter of 2012, prices for health care structures—which include hospitals, special care structures, and medical buildings—are based on the PPI for health care building construction. Previously, the prices for health care structures were based on a composite of indexes for one-unit houses and for building costs.
- Beginning with the estimates for the first quarter of 2011, prices for nonresidential brokers' commissions are based on the PPI for real estate brokerage, nonresidential property sales and leases. Previously, prices for nonresidential brokers' commissions were based on a PPI for offices of real estate agents and brokers that includes both residential and nonresidential commissions (which exhibit very different trends).¹⁵

15. Brokers' commissions are considered part of the total price paid by the purchaser and are therefore treated as part of the value of investment.

GDP

- With the revised estimates of real GDP, the general picture of economic growth, including the pattern of the current economic recovery, remains largely the same. The most notable revisions are for the period 2011–2013 and largely reflect the incorporation of newly available and revised source data.¹ Because the revisions to prices are small, the revisions to the real estimates primarily reflect current-dollar revisions.
- The percent change in real GDP is revised down for 2011 and 2012 and up for 2013; the largest revision is for 2012 (–0.5 percentage point). Revisions to the estimates before 2011 are small and are primarily downward.
- The revisions did not change the direction of the change (increase or decrease) in real GDP in any period.
- For 2011–2013, real GDP increased at an average annual rate of 2.0 percent, revised down 0.2 percentage point. For the expansion from the second quarter of 2009 to the first quarter of 2014, real GDP increased at an average annual rate of 2.1 percent, the same rate as in the previously published estimates.

1. Select components of current-dollar GDP are revised back to 1999; revisions to the annual estimates are also reflected in the quarterly estimates for the first quarter of 1999 through the first quarter of 2014. The reference year for index numbers and chained-dollar estimates remains 2009. In cases for which the estimates for the reference year are revised, the levels of the related index numbers and the chained-dollar estimates are revised beginning with the estimates for 1929; however, revisions to the percent changes before the first quarter of 1999 are small.

Chart 1. Percent Change From Preceding Quarter in Real Gross Domestic Product

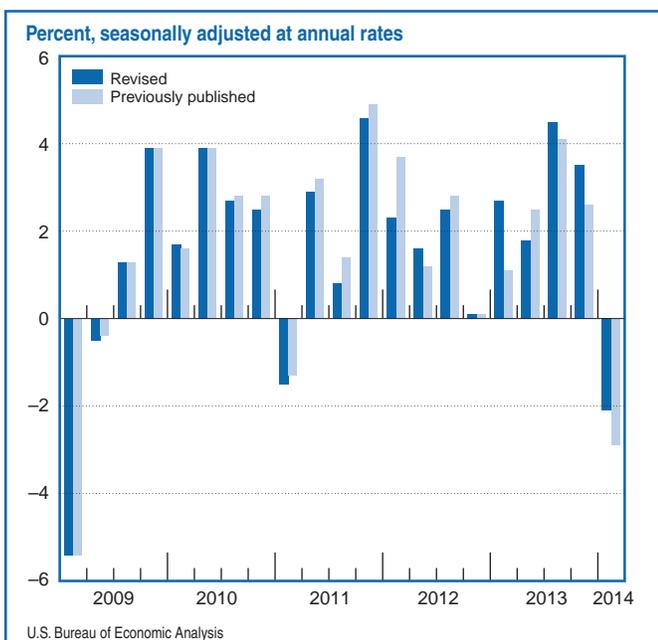


Table 2. Real Gross Domestic Product (GDP)

	Share of current-dollar GDP (percent)	Change from preceding period (percent)			Contribution to percent change in real GDP (percentage points)		
		2013	2011	2012	2013	2011	2012	2013
Gross domestic product¹	100.0	1.6	2.3	2.2	1.6	2.3	2.2
Personal consumption expenditures	68.5	2.3	1.8	2.4	1.55	1.25	1.64
Goods	23.0	3.1	2.8	3.4	0.71	0.64	0.78
Durable goods	7.5	6.1	7.3	6.7	0.43	0.52	0.49
Nondurable goods	15.5	1.8	0.7	1.9	0.28	0.12	0.29
Services	45.5	1.8	1.3	1.9	0.84	0.61	0.86
Gross private domestic investment	15.8	5.2	9.2	4.9	0.73	1.33	0.76
Fixed investment	15.4	6.3	8.3	4.7	0.86	1.17	0.70
Nonresidential	12.2	7.7	7.2	3.0	0.85	0.84	0.37
Structures	2.7	2.3	13.1	-0.5	0.06	0.32	-0.01
Equipment	5.7	13.6	6.8	4.6	0.66	0.37	0.26
Intellectual property products	3.9	3.6	3.9	3.4	0.13	0.15	0.13
Residential	3.1	0.5	13.5	11.9	0.01	0.33	0.33
Change in private inventories	0.4	.....	.....	.....	-0.14	0.15	0.06
Net exports of goods and services	-3.0	.....	.....	.....	-0.02	0.04	0.22
Exports	13.5	6.9	3.3	3.0	0.87	0.44	0.41
Goods	9.3	6.5	3.7	2.8	0.57	0.34	0.26
Services	4.2	7.6	2.4	3.6	0.29	0.10	0.15
Imports	16.5	5.5	2.3	1.1	-0.89	-0.40	-0.19
Goods	13.7	5.8	2.1	0.9	-0.78	-0.30	-0.13
Services	2.8	4.0	3.4	2.2	-0.11	-0.10	-0.06
Government consumption expenditures and gross investment	18.7	-3.0	-1.4	-2.0	-0.65	-0.30	-0.39
Federal	7.3	-2.7	-1.8	-5.7	-0.24	-0.15	-0.45
National defense	4.6	-2.3	-3.3	-6.6	-0.13	-0.18	-0.33
Nondefense	2.8	-3.4	1.0	-4.1	-0.11	0.03	-0.12
State and local	11.4	-3.3	-1.2	0.5	-0.41	-0.15	0.06
Revisions (percentage points)							
Gross domestic product	-0.2	-0.5	0.3	-0.2	-0.5	0.3	
Personal consumption expenditures	-0.2	-0.4	0.4	-0.19	-0.27	0.27	
Gross private domestic investment	0.3	-0.3	-0.5	0.04	-0.03	-0.06	
Fixed investment	0.1	0.0	0.2	0.01	0.00	0.04	
Nonresidential	0.1	-0.1	0.3	0.01	-0.01	0.04	
Residential	0.0	0.6	-0.3	0.00	0.01	0.00	
Change in private inventories .....	.....	.....	.....	.....	0.02	-0.05	-0.10
Net exports of goods and services .....	.....	.....	.....	.....	-0.12	-0.06	0.10
Exports	-0.2	-0.2	0.3	-0.02	-0.04	0.05	
Imports	0.6	0.1	-0.3	-0.10	-0.02	0.05	
Government consumption expenditures and gross investment	0.2	-0.4	0.2	0.03	-0.10	0.04	
Federal	-0.1	-0.4	-0.5	-0.01	-0.03	-0.04	
State and local	0.3	-0.5	0.7	0.05	-0.07	0.08	

1. The estimates under the contribution columns are also percent changes. NOTE: Percent changes are from NIPA table 1.1.1, contributions are from NIPA table 1.1.2, and shares are from NIPA table 1.1.10.

Personal Consumption Expenditures

- Current-dollar personal consumption expenditures (PCE) is revised for 1999–2013. For 1999–2010, the revisions primarily reflect the incorporation of revised ITA data.¹ For 2011–2013, the revisions primarily reflect revised and newly available source data. The revisions to real PCE primarily reflect the revisions to the current-dollar estimates.
- For 2011 and 2012, the revisions to goods mainly reflect the incorporation of Census Bureau annual retail trade survey (ARTS) data (revised for 2011 and new for 2012) and, for the estimates of net purchases of used motor vehicles, revised trade source data on vehicles in operation. For services, the largest contributors are food services and financial services and insurance. The revisions to food services reflect the ARTS data. The revisions to financial services and insurance reflect new and revised trade source data on life and health insurance and, for imputed financial services, revised data from the Federal Reserve Board’s financial accounts of the United States.
- For 2013, the revision is driven by an upward revision to services, primarily reflecting new Census Bureau service annual survey (SAS) data and, for the estimates of imputed rental of owner-occupied housing, new Census Bureau current population survey/housing vacancy survey data on housing units.

1. The revised ITA data reflect a new methodology for estimating average expenditures for foreign travel by U.S. residents, which affects the PCE component “net foreign travel.”

Chart 2. Percent Change From Preceding Quarter in Real Personal Consumption Expenditures

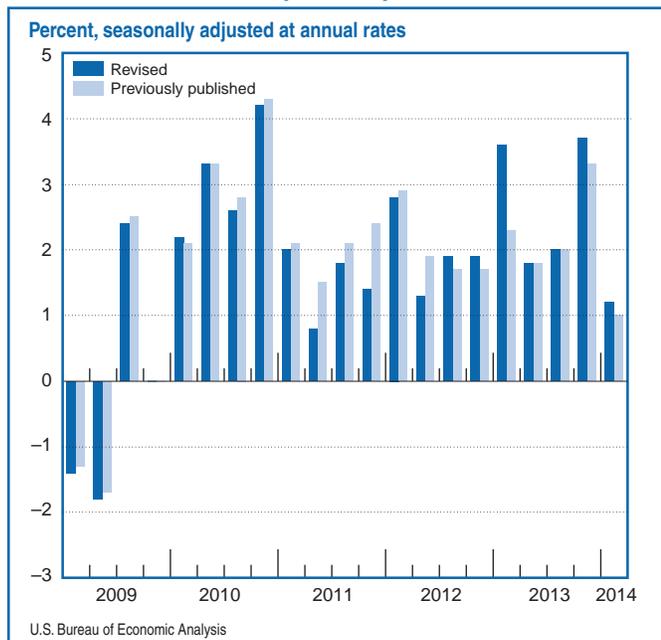


Table 3. Real Personal Consumption Expenditures (PCE)

	Share of current-dollar PCE (percent)	Change from preceding period (percent)			Contribution to percent change in real PCE (percentage points)		
	2013	2011	2012	2013	2011	2012	2013
Personal consumption expenditures¹	100.0	2.3	1.8	2.4	2.3	1.8	2.4
Goods	33.5	3.1	2.8	3.4	1.03	0.93	1.14
Durable goods	10.9	6.1	7.3	6.7	0.63	0.76	0.71
Motor vehicles and parts	3.6	3.2	7.2	5.1	0.11	0.25	0.18
Furnishings and durable household equipment	2.4	5.8	4.3	5.8	0.14	0.10	0.14
Recreational goods and vehicles	3.0	9.9	11.0	10.0	0.29	0.32	0.29
Other durable goods	1.8	5.5	5.5	5.9	0.09	0.09	0.10
Nondurable goods	22.7	1.8	0.7	1.9	0.41	0.17	0.43
Food and beverages for off-premises consumption	7.6	1.1	0.8	1.0	0.09	0.06	0.07
Clothing and footwear	3.1	3.9	0.7	1.0	0.12	0.02	0.03
Gasoline and other energy goods	3.6	-2.8	-1.9	0.9	-0.10	-0.07	0.03
Other nondurable goods	8.4	3.6	1.9	3.4	0.30	0.16	0.28
Services	66.5	1.8	1.3	1.9	1.23	0.88	1.25
Household consumption expenditures (for services)	63.8	2.0	1.2	1.8	1.26	0.75	1.14
Housing and utilities	18.2	1.2	0.6	1.3	0.23	0.12	0.24
Health care	16.7	2.5	3.2	2.1	0.41	0.53	0.35
Transportation services	2.9	2.4	1.9	2.7	0.07	0.05	0.08
Recreation services	3.8	2.3	1.7	2.4	0.09	0.06	0.09
Food services and accommodations	6.2	2.6	2.5	2.2	0.16	0.16	0.14
Financial services and insurance	7.2	1.8	-4.5	2.1	0.13	-0.34	0.15
Other services	8.8	1.9	1.9	1.2	0.17	0.17	0.10
Final consumption expenditures of NPISHs	2.7	-1.1	5.1	4.1	-0.03	0.13	0.11
Gross output of NPISHs	10.8	1.0	3.1	1.8	0.11	0.33	0.19
Less: Receipts from sales of goods and services by NPISHs	8.2	1.7	2.5	1.0	0.14	0.20	0.09
		Revisions (percentage points)					
Personal consumption expenditures		-0.2	-0.4	0.4	-0.2	-0.4	0.4
Goods		-0.3	-0.5	-0.1	-0.09	-0.19	-0.05
Durable goods		-0.5	-0.4	-0.2	-0.05	-0.05	-0.03
Nondurable goods		-0.1	-0.7	-0.1	-0.03	-0.14	-0.02
Services		-0.3	-0.3	0.7	-0.20	-0.20	0.44

NPISHs Nonprofit institutions serving households
 1. The estimates under the contribution columns are also percent changes.
 NOTE: Percent changes are from NIPA table 2.3.1, contributions are from NIPA table 2.3.2, and shares are calculated from NIPA table 2.3.5.

- The trend in quarterly real PCE over the current expansion period is little changed; the average annual rate of change in real PCE from the second quarter of 2009 to the first quarter of 2014 is 2.1 percent, revised down from 2.2 percent.

Private Fixed Investment

- Real private fixed investment is revised for 2011–2013. The revisions are generally upward and are small; the largest revisions are to intellectual property products for 2011, to nonresidential equipment for 2011–2013, and to nonresidential structures for 2013. The revisions to the real estimates primarily reflect revisions to the current-dollar estimates.
- For intellectual property products, the revisions primarily reflect new data from the National Science Foundation (NSF) survey of state government research and development expenditures for 2011, revised SAS data for 2011 and new SAS data for 2012 and 2013, and new NSF business research and development and innovation survey data for 2012.
- For nonresidential structures, the revisions primarily reflect revised Census Bureau construction spending data for 2012 and 2013; for the estimates of petroleum and natural gas structures, the revisions reflect revised trade source data on footage drilled for 2011–2013 and new Census Bureau annual capital expenditures survey data for 2012.
- For nonresidential equipment, the revisions primarily reflect revised Census Bureau annual survey of manufactures data for 2011, revised Census Bureau monthly industry shipments data for 2012 and 2013, revised BEA annual input-output accounts data for 2011 and 2012, and new trade source data on vehicles in operation for 2013.

Chart 3. Percent Change From Preceding Quarter in Real Private Fixed Investment

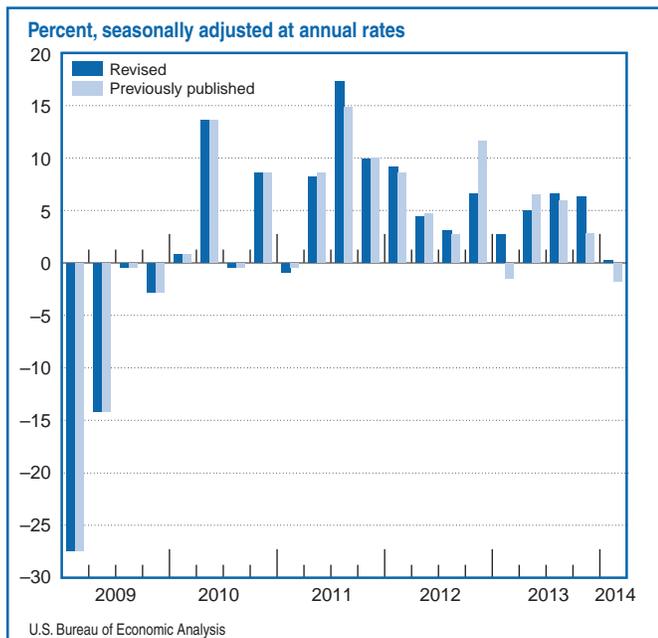


Table 4. Real Private Fixed Investment (PFI)

	Share of current-dollar PFI (percent)			Change from preceding period (percent)			Contribution to percent change in real PFI (percentage points)		
	2013	2011	2012	2013	2011	2012	2013		
Private fixed investment¹	100.0	6.3	8.3	4.7	6.3	8.3	4.7		
Nonresidential	79.8	7.7	7.2	3.0	6.24	5.93	2.48		
Structures	17.8	2.3	13.1	-0.5	0.41	2.30	-0.09		
Commercial and health care.....	4.3	-0.5	8.5	3.4	-0.02	0.36	0.15		
Manufacturing.....	1.8	-4.2	14.8	-1.3	-0.08	0.26	-0.03		
Power and communication.....	3.7	-7.8	21.0	-7.6	-0.33	0.79	-0.32		
Mining exploration, shafts, and wells.....	5.4	26.4	12.3	0.5	1.12	0.64	0.03		
Other structures.....	2.6	-9.4	9.5	3.1	-0.28	0.24	0.08		
Equipment	36.9	13.6	6.8	4.6	4.85	2.59	1.71		
Information processing equipment.....	11.1	1.6	3.2	3.0	0.21	0.40	0.35		
Computers and peripheral equipment.....	3.0	-2.0	4.7	-0.2	-0.08	0.16	-0.01		
Other.....	8.1	3.0	2.6	4.3	0.29	0.24	0.36		
Industrial equipment.....	8.2	21.1	3.8	3.9	1.60	0.33	0.32		
Transportation equipment.....	8.9	33.7	18.9	6.2	2.11	1.50	0.54		
Other equipment.....	8.8	10.9	4.0	5.7	0.93	0.36	0.49		
Intellectual property products	25.1	3.6	3.9	3.4	0.98	1.04	0.86		
Software.....	11.4	6.9	5.6	3.1	0.85	0.68	0.36		
Research and development.....	10.7	1.0	1.9	3.9	0.11	0.22	0.42		
Entertainment, literary, and artistic originals.....	3.0	0.6	4.1	2.5	0.02	0.14	0.08		
Residential	20.2	0.5	13.5	11.9	0.10	2.37	2.22		
Structures	19.8	0.5	13.8	12.0	0.08	2.36	2.19		
Permanent site.....	7.9	-3.6	24.1	25.2	-0.22	1.35	1.64		
Single family.....	6.6	-4.6	21.0	22.6	-0.25	1.03	1.26		
Multifamily.....	1.3	4.4	46.6	40.5	0.03	0.32	0.38		
Other structures.....	12.0	2.5	8.8	4.7	0.30	1.01	0.55		
Equipment	0.4	4.7	1.2	7.0	0.02	0.01	0.03		
		Revisions (percentage points)							
Private fixed investment		0.1	0.0	0.2	0.1	0.0	0.2		
Nonresidential.....		0.1	-0.1	0.3	0.08	-0.08	0.26		
Structures.....		0.2	0.4	-1.8	0.03	0.09	-0.32		
Equipment.....		0.9	-0.8	1.5	0.30	-0.30	0.53		
Intellectual property products.....		-0.8	0.5	0.3	-0.24	0.13	0.05		
Residential.....		0.0	0.6	-0.3	0.01	0.11	-0.02		
Structures.....		0.1	0.7	-0.3	0.01	0.11	-0.02		
Equipment.....		0.2	-1.8	-0.7	0.00	-0.01	0.00		

1. The estimates under the contribution columns are also percent changes.
NOTE: Percent changes are from NIPA table 5.3.1, contributions are from NIPA table 5.3.2, and shares are calculated from NIPA table 5.3.5.

- The quarterly pattern of the revised estimates is generally similar to the pattern of the previously published estimates, with a couple of notable exceptions. Previously, a sharp dip in real nonresidential structures in the first quarter of 2013 was followed by a sharp increase in the second quarter of 2013; in the revised estimates, these movements are dampened. The revised pattern in nonresidential structures primarily reflects revisions to the Census Bureau construction spending data. Additionally, for the third quarter of 2012, the change in real nonresidential equipment is revised to an increase from a decrease.

Change in Private Inventories

- Change in real private inventories, or real inventory investment, is revised for 2011–2013. Revisions to real inventory investment primarily reflect revisions to the current-dollar estimates; revisions to prices are small.
- Revisions to real inventory investment for 2011 and 2012 are small (less than \$5 billion); however, for 2013, the revision is notable and downward (\$18 billion).
- For 2013, the large downward revision is primarily to farm inventory investment, reflecting revised USDA data on farm income and expenditures.
- The quarterly pattern of inventory investment is not notably changed by the revisions, which primarily reflect revisions to the seasonal factors for the underlying source data (mainly Census Bureau monthly inventory data).

Chart 4. Change in Real Private Inventories

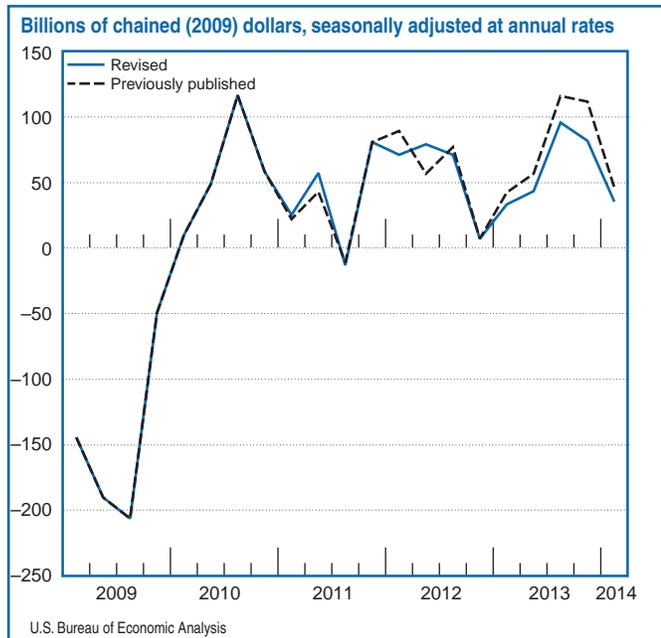


Table 5. Change in Real Private Inventories by Industry

[Billions of chained (2009) dollars]

	Level			Change from preceding period		
	2011	2012	2013	2011	2012	2013
Change in private inventories¹	37.6	57.0	63.5	-20.6	19.4	6.5
Farm	1.4	-5.6	7.6	8.4	-7.0	13.2
Mining, utilities, and construction	-4.4	5.6	-1.6	-5.8	10.0	-7.2
Manufacturing.....	21.2	10.6	7.3	-0.9	-10.6	-3.3
Durable-goods industries.....	20.3	14.3	11.3	3.5	-6.0	-3.0
Nondurable-goods industries.....	1.8	-2.6	-3.1	-3.7	-4.4	-0.5
Wholesale trade	16.6	21.4	21.4	-8.2	4.8	0.0
Durable-goods industries.....	22.9	19.9	15.4	12.5	-3.0	-4.5
Nondurable-goods industries.....	-4.4	2.9	6.6	-18.6	7.3	3.7
Retail trade	-1.1	25.6	28.4	-19.5	26.7	2.8
Motor vehicle and parts dealers	1.2	21.2	17.6	-10.5	20.0	-3.6
Food and beverage stores	-0.1	0.1	1.1	-0.4	0.2	1.0
General merchandise stores.....	0.9	-0.1	2.9	-1.3	-1.0	3.0
Other retail stores	-3.0	4.5	7.0	-7.2	7.5	2.5
Other industries.....	3.3	3.1	-0.1	4.4	-0.2	-3.2
Residual ²	-2.3	-6.3	-1.2	-1.9	-4.0	5.1
	Revisions					
Change in private inventories.....	4.0	-0.6	-18.0	4.0	-4.6	-17.4
Farm	5.9	1.6	-12.0	5.9	-4.3	-13.6
Mining, utilities, and construction	-0.8	-1.4	0.7	-0.8	-0.6	2.1
Manufacturing.....	0.2	0.8	-4.6	0.2	0.6	-5.4
Wholesale trade	-3.4	2.3	-0.6	-3.4	5.7	-2.9
Retail trade.....	0.4	-1.1	-0.1	0.4	-1.5	1.0
Other industries.....	0.4	-3.8	1.5	0.4	-4.2	5.3

1. The levels are from NIPA table 5.7.6B.

2. The residual is the difference between the first line and the sum of the most detailed lines.
 NOTE: The chained-dollar series are calculated as the period-to-period change in end-of-period inventories. Because the formula for the chain-type quantity indexes uses weights of more than one period, chained-dollar estimates are usually not additive.

Exports of Goods and Services

- Current-dollar exports of goods and services is revised for 1999–2013. The revisions primarily reflect revised ITA data, including the incorporation of an improved methodology for estimating average expenditures for travel in the United States by nonresidents. The revisions to real exports primarily reflect revisions to the current-dollar measures.
- The average annual rate of change in real exports of goods for the period of expansion from the second quarter of 2009 to the first quarter of 2014 is 6.7 percent, the same rate as in the previously published estimates. The average annual rate of change in real exports of services is revised up to 4.5 percent from 4.1 percent.

Chart 5. Percent Change From Preceding Quarter in Real Exports of Goods and Services

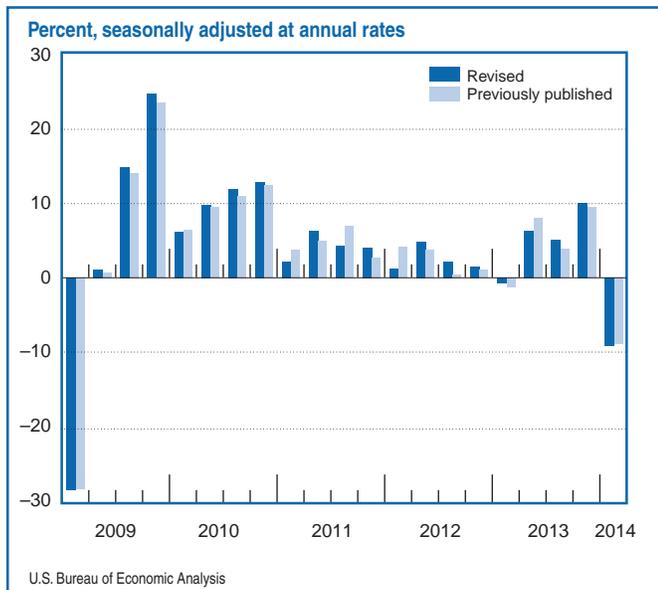


Table 6. Real Exports of Goods and Services

	Share of current-dollar exports (percent)	Change from preceding period (percent)			Contribution to percent change in real exports (percentage points)		
		2013	2011	2012	2013	2011	2012	2013
Exports of goods and services¹....	100.0	6.9	3.3	3.0	6.9	3.3	3.0
Exports of goods	69.1	6.5	3.7	2.8	4.52	2.54	1.96
Foods, feeds, and beverages	6.0	-0.3	-0.9	2.2	-0.02	-0.06	0.13
Industrial supplies and materials	21.8	6.5	1.7	4.1	1.44	0.38	0.89
Capital goods, except automotive	23.6	9.5	5.9	0.7	2.23	1.38	0.16
Automotive vehicles, engines, and parts.....	6.7	16.7	7.9	3.8	0.99	0.50	0.26
Consumer goods, except food and automotive	8.3	4.5	2.1	5.2	0.39	0.17	0.43
Other	2.6	-15.9	6.6	3.7	-0.51	0.17	0.10
Exports of services	30.9	7.6	2.4	3.6	2.33	0.72	1.09
Transport	3.9	2.8	1.6	5.1	0.11	0.06	0.19
Travel (for all purposes including education)	7.7	4.8	3.9	6.4	0.35	0.28	0.47
Charges for the use of intellectual property n.e.c.....	5.7	11.9	0.0	1.7	0.68	0.00	0.10
Other business services.....	12.1	7.5	3.3	2.9	0.90	0.39	0.35
Government goods and services n.e.c.	1.0	19.9	0.8	0.2	0.20	0.01	0.00
Other	0.6	15.6	-3.5	-4.7	0.09	-0.02	-0.03
		Revisions (percentage points)					
Exports of goods and services		-0.2	-0.2	0.3	-0.2	-0.2	0.3
Exports of goods.....		-0.6	-0.1	0.4	-0.45	-0.10	0.32
Exports of services		0.6	-0.6	0.1	0.22	-0.17	0.04

1. The estimates under the contribution columns are also percent changes.
NOTE: Percent changes are from NIPA table 4.2.1, contributions are from NIPA table 4.2.2, and shares are calculated from NIPA table 4.2.5.

Imports of Goods and Services

- Current-dollar imports of goods and services is revised for 1999–2013. The revisions primarily reflect revised ITA data, including the incorporation of an improved methodology for estimating average expenditures for foreign travel by U.S. residents. The revisions to real imports primarily reflect revisions to the current-dollar measures.
- The average annual rate of change in real imports of goods for the period of expansion from the second quarter of 2009 to the first quarter of 2014 is revised down to 6.2 percent from 6.3 percent. The average annual rate of change in real imports of services is revised up to 3.4 percent from 2.8 percent.

Chart 6. Percent Change From Preceding Quarter in Real Imports of Goods and Services

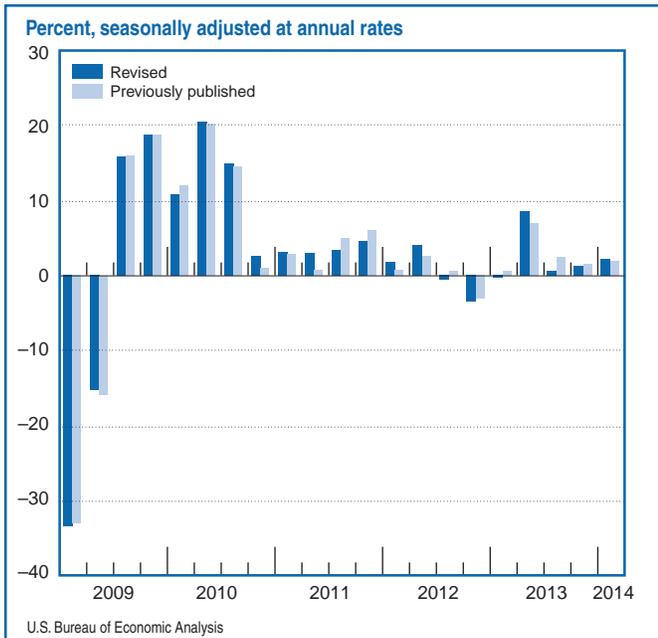


Table 7. Real Imports of Goods and Services

	Share of current-dollar imports (percent)	Change from preceding period (percent)			Contribution to percent change in real imports (percentage points)		
		2013	2011	2012	2013	2011	2012	2013
Imports of goods and services¹.....	100.0	5.5	2.3	1.1	5.5	2.3	1.1
Imports of goods.....	83.1	5.8	2.1	0.9	4.78	1.77	0.78
Foods, feeds, and beverages.....	4.2	1.9	3.7	3.9	0.08	0.15	0.16
Industrial supplies and materials, except petroleum and products.....	10.5	6.4	2.4	1.6	0.68	0.26	0.17
Petroleum and products.....	14.0	-1.9	-8.1	-7.2	-0.31	-1.41	-1.11
Capital goods, except automotive.....	20.1	13.7	7.3	2.1	2.52	1.38	0.42
Automotive vehicles, engines, and parts.....	11.2	9.6	14.5	4.0	0.90	1.39	0.44
Consumer goods, except food and automotive.....	19.3	4.5	-0.9	3.1	0.90	-0.17	0.59
Other.....	3.8	0.5	4.8	3.2	0.02	0.17	0.12
Imports of services.....	16.9	4.0	3.4	2.2	0.69	0.56	0.37
Transport.....	3.3	3.3	2.9	5.9	0.10	0.09	0.18
Travel (for all purposes including education).....	3.8	0.8	11.7	2.7	0.03	0.39	0.10
Charges for the use of intellectual property n.e.c.....	1.4	8.1	7.6	-2.4	0.11	0.10	-0.03
Other business services.....	7.3	7.4	0.8	3.6	0.56	0.06	0.26
Government goods and services n.e.c.....	0.9	-7.0	-7.3	-12.8	-0.09	-0.08	-0.13
Other.....	0.2	-4.0	1.6	-1.6	-0.01	0.00	0.00
		Revisions (percentage points)					
Imports of goods and services.....		0.6	0.1	-0.3	0.6	0.1	-0.3
Imports of goods.....		0.6	0.0	-0.3	0.44	-0.01	-0.24
Imports of services.....		0.9	0.7	-0.3	0.16	0.12	-0.04

1. The estimates under the contribution columns are also percent changes.
 NOTE: Percent changes are from NIPA table 4.2.1, contributions are from NIPA table 4.2.2, and shares are calculated from NIPA table 4.2.5.

Government Consumption Expenditures and Gross Investment

- Real government consumption expenditures and gross investment, or government spending, is revised for 2011–2013. The revisions are small and primarily reflect revisions to the current-dollar measures; revisions to prices are small.
- For 2011 and 2012, the revisions primarily reflect revisions to state and local government spending, based on Census Bureau tabulations of government finances data (revised for fiscal year 2011 and new for fiscal year 2012).
- For 2013, an upward revision to state and local government spending is partly offset by a downward revision to federal government spending (which is more than accounted for by nondefense spending). For state and local government spending, the revision is primarily to intermediate goods and services purchased (reflecting revised judgmental trends, primarily as a result of new and revised Census Bureau government finances data for earlier years) and to compensation (based on tabulations of Census Bureau state and local government employment and payroll data). For federal government spending, the revision primarily reflects revised federal budget data for fiscal year 2013 and preliminary data for fiscal year 2014 from the Office of Management and Budget.
- State and local government spending increased 0.5 percent in 2013; in the previously published estimates, state and local government spending decreased 0.2 percent.

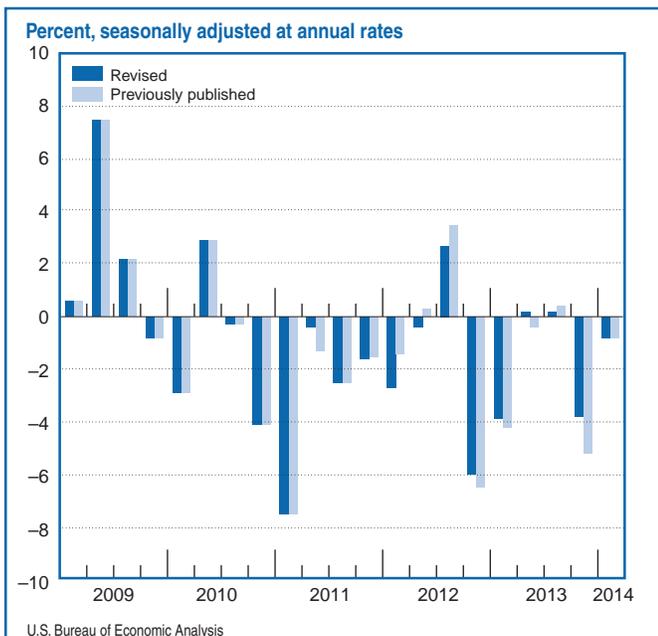
Table 8. Real Government Consumption Expenditures and Gross Investment (CEGI)

	Share of current-dollar CEGI (percent)	Change from preceding period (percent)			Contribution to percent change in real CEGI (percentage points)		
		2013	2011	2012	2013	2011	2012	2013
Government consumption expenditures and gross investment¹	100.0	-3.0	-1.4	-2.0	-3.0	-1.4	-2.0
Consumption expenditures.....	81.0	-2.7	-0.6	-1.3	-2.11	-0.47	-1.04
Gross investment	19.0	-4.5	-4.8	-5.0	-0.93	-0.98	-0.97
Federal	39.2	-2.7	-1.8	-5.7	-1.11	-0.73	-2.32
National defense	24.5	-2.3	-3.3	-6.6	-0.60	-0.87	-1.71
Consumption expenditures.....	19.6	-1.5	-2.8	-6.0	-0.32	-0.59	-1.24
Gross investment	4.9	-5.0	-5.1	-8.9	-0.28	-0.28	-0.47
Nondefense	14.7	-3.4	1.0	-4.1	-0.51	0.14	-0.61
Consumption expenditures.....	11.0	-4.6	2.1	-3.7	-0.51	0.23	-0.41
Gross investment	3.7	0.1	-2.3	-5.2	0.00	-0.09	-0.20
State and local	60.8	-3.3	-1.2	0.5	-1.94	-0.72	0.30
Consumption expenditures	50.4	-2.7	-0.2	1.2	-1.28	-0.11	0.61
Gross investment	10.4	-5.9	-5.6	-2.9	-0.65	-0.61	-0.30
		Revisions (percentage points)					
Government consumption expenditures and gross investment		0.2	-0.4	0.2	0.2	-0.4	0.2
Federal		-0.1	-0.4	-0.5	-0.05	-0.14	-0.21
National defense		0.0	-0.1	0.4	0.01	-0.02	0.11
Nondefense		-0.4	-0.8	-2.2	-0.06	-0.12	-0.32
State and local		0.3	-0.5	0.7	0.21	-0.33	0.42

1. The estimates under the contribution columns are also percent changes.

NOTE: Percent changes are from NIPA table 3.9.1, contributions are from NIPA table 3.9.2, and shares are calculated from NIPA table 3.9.5.

Chart 7. Percent Change From Preceding Quarter in Real Government Consumption Expenditures and Gross Investment



Prices

- Revisions to the percent change in price indexes for gross domestic purchases, GDP, and PCE are small and begin with the estimates for 2011. Revisions to prices reflect revised and newly available source data and revised current-dollar weights.
- For 2011 and 2013, the largest contributors to the upward revisions to gross domestic purchases prices are prices of PCE for financial services and insurance (mainly prices of imputed financial services) and state and local government compensation prices. For 2013, a downward revision to federal defense compensation prices partly offsets the upward revisions to the other components.

Chart 8. Percent Change From the Preceding Quarter in Gross Domestic Purchases Prices and in Prices Excluding Food and Energy

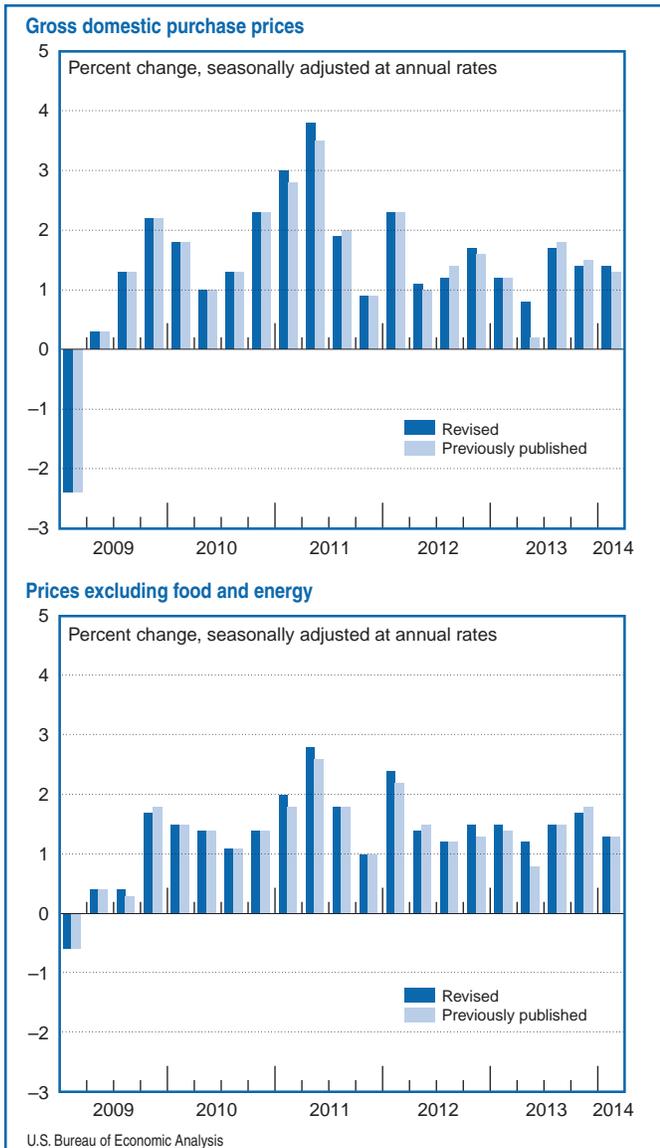


Table 9. Prices for Gross Domestic Purchases

	Change from preceding period (percent)			Contribution to percent change in gross domestic purchases prices (percentage points)		
	2011	2012	2013	2011	2012	2013
Gross domestic purchases¹.....	2.4	1.7	1.3	2.4	1.7	1.3
Personal consumption expenditures	2.5	1.8	1.2	1.62	1.22	0.80
Goods	3.7	1.2	-0.5	0.81	0.28	-0.11
Durable goods	-0.9	-1.3	-1.8	-0.06	-0.09	-0.13
Nondurable goods	5.9	2.4	0.2	0.88	0.37	0.03
Services	1.8	2.1	2.1	0.81	0.94	0.90
Gross private domestic investment	1.4	1.4	1.8	0.19	0.20	0.27
Fixed investment	1.4	1.4	1.8	0.18	0.20	0.27
Nonresidential	1.5	1.5	1.1	0.16	0.18	0.13
Structures	3.0	3.5	2.8	0.07	0.09	0.07
Equipment	0.9	1.0	0.4	0.04	0.05	0.02
Intellectual property products	1.3	1.0	0.8	0.05	0.04	0.03
Residential	0.8	0.9	5.0	0.02	0.02	0.14
Change in private inventories .....	.....	.....	.....	0.00	0.00	0.00
Government consumption expenditures and gross investment	3.0	1.5	1.2	0.59	0.29	0.23
Federal	2.7	0.9	1.1	0.23	0.07	0.08
National defense	2.8	1.1	0.8	0.15	0.05	0.04
Nondefense	2.5	0.5	1.6	0.08	0.01	0.05
State and local	3.1	1.9	1.3	0.37	0.22	0.15
Addenda:						
Gross domestic purchases:						
Food	3.8	2.2	1.0	0.19	0.11	0.05
Energy goods and services	16.0	1.4	-0.8	0.56	0.05	-0.03
Excluding food and energy	1.8	1.7	1.4	1.65	1.54	1.27
Personal consumption expenditures (PCE):						
Food and beverages purchased for off-premises consumption	4.0	2.3	1.0	.....	.....	.....
Energy goods and services	16.0	1.4	-0.8	.....	.....	.....
Excluding food and energy	1.5	1.8	1.3	.....	.....	.....
Gross domestic product (GDP)	2.1	1.8	1.5	.....	.....	.....
Exports of goods and services	6.4	0.9	0.1	.....	.....	.....
Imports of goods and services	7.7	0.5	-0.8	.....	.....	.....
				Revisions (percentage points)		
Gross domestic purchases	0.1	0.0	0.1	0.1	0.0	0.1
Food	0.2	0.0	0.1	0.01	0.00	0.00
Energy goods and services	0.3	0.0	0.0	0.01	0.00	0.00
Excluding food and energy	0.1	0.1	0.1	0.06	0.05	0.10
Personal consumption expenditures	0.1	0.0	0.1	0.04	-0.01	0.04
Food and beverages purchased for off-premises consumption	0.0	0.0	-0.1	.....	.....	.....
Energy goods and services	0.2	0.0	-0.3	.....	.....	.....
Excluding food and energy	0.1	0.0	0.1	.....	.....	.....
Gross domestic product	0.1	0.1	0.1	.....	.....	.....
Exports of goods and services	0.0	0.0	-0.1	.....	.....	.....
Imports of goods and services	-0.1	0.0	0.1	.....	.....	.....

1. The estimates under the contribution columns are also percent changes.
NOTE: Most percent changes are from NIPA table 1.6.7; percent changes for PCE for food and energy goods and services and for PCE excluding food and energy are from NIPA table 2.3.7. Contributions are from NIPA table 1.6.8. GDP, export, and import prices are from NIPA table 1.1.7.

- For both gross domestic purchases prices and GDP prices, the average annual rate of change from the fourth quarter of 2010 to the first quarter of 2014 is revised up to 1.7 percent from 1.6 percent. For PCE prices, the average annual rate of change is 1.7 percent, the same rate as in the previously published estimates.

National Income

- The revisions to national income begin with the estimates for 2003 and are less than \$5 billion until 2011. For 2003–2010, the revisions primarily reflect the incorporation of revised ITA data. For 2011–2013, the revisions reflect revised and newly available source data.
- For 2011, the downward revision to corporate profits and the upward revision to net interest primarily reflect revised IRS tabulations of corporate tax return data.
- For 2012, the upward revisions to net interest, to proprietors' income, and to corporate profits primarily reflect new IRS tabulations of corporate and of sole proprietorship and partnership tax return data. Supplements to wages and salaries is revised down, primarily reflecting new data from the Pension Benefit Guaranty Corporation.
- For 2013, farm proprietors' income is revised down, reflecting revised USDA farm statistics. Private wages and salaries is revised down, and government wages and salaries is revised up, primarily reflecting revised (for private) and newly available (for government) BLS quarterly census of employment and wages data.
- In addition, the incorporation of revised ITA data resulted in downward revisions to corporate profits and interest income received from the rest of the world for 2011–2013.

Table 10. National Income by Type of Income

[Billions of dollars]

	Level			Change from preceding period		
	2011	2012	2013	2011	2012	2013
National income	13,352.3	14,069.5	14,577.1	612.8	717.2	507.6
Compensation of employees	8,269.0	8,606.5	8,844.8	307.6	337.5	238.3
Wages and salaries	6,633.2	6,932.1	7,124.7	255.7	298.9	192.6
Government	1,194.8	1,198.3	1,208.1	3.7	3.5	9.8
Other	5,438.4	5,733.8	5,916.6	252.0	295.4	182.8
Supplements to wages and salaries	1,635.9	1,674.4	1,720.1	52.0	38.5	45.7
Employer contributions for employee pension and insurance funds	1,142.0	1,160.5	1,193.9	27.4	18.5	33.4
Employer contributions for government social insurance	493.9	513.9	526.1	24.5	20.0	12.2
Proprietors' income with IVA and CCAj	1,143.7	1,260.2	1,336.6	111.0	116.5	76.4
Farm	75.5	72.3	83.2	29.5	-3.2	10.9
Nonfarm	1,068.1	1,187.9	1,253.5	81.4	119.8	65.6
Rental income of persons with CCAj	485.3	533.0	595.8	82.5	47.7	62.8
Corporate profits with IVA and CCAj	1,816.6	2,022.8	2,106.9	70.2	206.2	84.1
Taxes on corporate income	379.1	454.8	474.3	8.5	75.7	19.5
Profits after tax with IVA and CCAj	1,437.5	1,568.0	1,632.6	61.6	130.5	64.6
Net dividends	703.7	857.1	959.6	139.7	153.4	102.5
Undistributed profits with IVA and CCAj	733.9	710.9	673.0	-78.0	-23.0	-37.9
Net interest and miscellaneous payments	488.1	491.7	499.8	-1.3	3.6	8.1
Taxes on production and imports	1,102.6	1,132.0	1,162.4	45.5	29.4	30.4
Less: Subsidies	60.1	58.0	60.2	4.2	-2.1	2.2
Business current transfer payments (net)	131.5	106.7	120.6	3.0	-24.8	13.9
To persons (net)	50.2	43.1	42.3	7.2	-7.1	-0.8
To government (net)	89.2	71.9	89.0	2.0	-17.3	17.1
To the rest of the world (net)	-7.9	-8.3	-10.8	-6.2	-0.4	-2.5
Current surplus of government enterprises	-24.5	-25.3	-29.6	-1.6	-0.8	-4.3
	Revisions					
National income	-43.4	97.9	34.7	-43.4	141.3	-63.2
Compensation of employees	-9.5	-5.1	-14.6	-3.6	4.4	-9.5
Proprietors' income with IVA and CCAj	-11.4	35.3	-12.2	-11.4	46.7	-47.5
Rental income of persons with CCAj	0.9	-8.2	5.2	0.9	-9.1	13.4
Corporate profits with IVA and CCAj	-61.1	13.3	4.8	-66.9	74.4	-8.5
Net interest and miscellaneous payments	31.2	52.1	30.6	31.2	20.9	-21.5
Taxes on production and imports	5.5	9.1	15.7	5.5	3.6	6.6
Less: Subsidies	0.1	0.7	1.5	0.1	0.6	0.8
Business current transfer payments (net)	1.9	-0.2	-3.8	1.9	-2.1	-3.6
Current surplus of government enterprises	-0.7	2.4	10.5	-0.7	3.1	8.1

CCAj Capital consumption adjustment

IVA Inventory valuation adjustment

NOTE: Dollar levels are from NIPA table 1.12.

GDI and the Statistical Discrepancy

- Gross domestic income (GDI) measures the value of U.S. output as the sum of income payments and other costs incurred in the production of goods and services. In principle, GDP should equal GDI; however, they differ in practice because each is estimated using different, and largely independent, source data. The statistical discrepancy is current-dollar GDP less current-dollar GDI.
- Current-dollar GDI is revised for 2008–2013. The primary sources of the revisions to current-dollar GDI are the same as those underlying the revisions to national income. The revisions to real GDI primarily reflect the revisions to the current-dollar estimates of GDI; revisions to the implicit price deflator for GDP, which is used to deflate GDI, are small.
- For the expansion period from the second quarter of 2009 to the first quarter of 2014, real GDI increased at an average annual rate of 2.5 percent; in the previously published estimates, real GDI had increased at an average annual rate of 2.4 percent.
- For 2011, the upward revision to the statistical discrepancy reflects downward revisions to both GDI and GDP. For 2012 and 2013, the downward revisions to the discrepancy reflect upward revisions to GDI and downward revisions to GDP.
- The statistical discrepancy as a percentage of GDP is -1.3 percent for 2012 and 2013—the largest discrepancy since 2006 (-1.6 percent). The discrepancy as a percentage of GDP has exceeded 1.3 percent in absolute terms in 15 years since 1929; the largest discrepancy is in 1993 (2.2 percent).

Table 11. Relation of GDP, GDI, Gross National Income, National Income, and Personal Income
[Billions of dollars]

	Level			Change from preceding period		
	2011	2012	2013	2011	2012	2013
Gross domestic product	15,517.9	16,163.2	16,768.1	553.5	645.3	604.9
Less: Statistical discrepancy	-38.3	-209.2	-211.9	-87.5	-170.9	-2.7
Equals: Gross domestic income	15,556.3	16,372.3	16,980.0	641.1	816.0	607.7
Plus: Income receipts from the rest of the world.....	792.6	793.8	810.4	72.6	1.2	16.6
Less: Income payments to the rest of the world.....	546.0	566.5	586.1	31.9	20.5	19.6
Equals: Gross national income	15,802.9	16,599.7	17,204.3	681.8	796.8	604.6
Less: Consumption of fixed capital.....	2,450.6	2,530.2	2,627.2	69.0	79.6	97.0
Equals: National income	13,352.3	14,069.5	14,577.1	612.8	717.2	507.6
Less:						
Corporate profits with IVA and CCAj.....	1,816.6	2,022.8	2,106.9	70.2	206.2	84.1
Taxes on production and imports less subsidies.....	1,042.6	1,074.0	1,102.3	41.4	31.4	28.3
Contributions for government social insurance, domestic	917.8	951.2	1,104.5	-66.3	33.4	153.3
Net interest and miscellaneous payments on assets.....	488.1	491.7	499.8	-1.3	3.6	8.1
Business current transfer payments (net).....	131.5	106.7	120.6	3.0	-24.8	13.9
Current surplus of government enterprises.....	-24.5	-25.3	-29.6	-1.6	-0.8	-4.3
Plus: Personal income receipts on assets.....	1,913.9	2,088.6	2,079.7	174.3	174.7	-8.9
Plus: Personal current transfer receipts.....	2,307.9	2,350.7	2,414.5	31.0	42.8	63.8
Equals: Personal income	13,202.0	13,887.7	14,166.9	772.7	685.7	279.2
	Revisions					
Gross domestic product.....	-15.9	-81.4	-31.6	-22.0	-65.5	49.8
Statistical discrepancy.....	15.4	-192.2	-80.5	9.3	-207.6	111.7
Gross domestic income.....	-31.2	110.7	48.8	-31.2	141.9	-61.9

CCAj Capital consumption adjustment IVA Inventory valuation adjustment
NOTE: Dollar levels are from NIPA table 1.7.5.

Chart 9. Gross Domestic Product and Gross Domestic Income

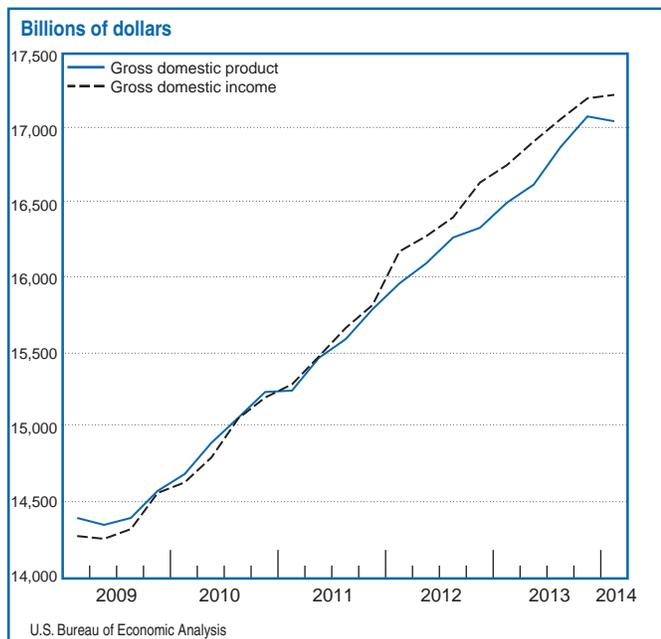
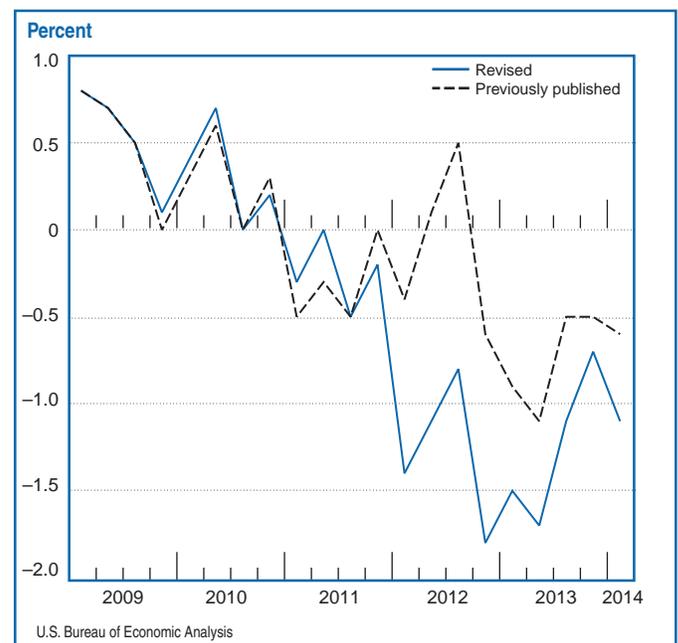


Chart 10. Statistical Discrepancy as a Percentage of Gross Domestic Product



Personal Income and Personal Saving

- Revisions to personal income begin with 2003 and are small (less than \$10 billion) until 2011. For 2003–2010, the revisions primarily reflect revised ITA data. For 2011–2013, the revisions reflect revised and newly available source data.
- For 2012, personal income is revised up, due to large upward revisions to personal income receipts on assets and to nonfarm proprietors' income, reflecting new IRS tabulations of tax return data on dividend payments, on interest payments and receipts, and on the earnings of proprietorships and partnerships.
- The personal saving rate (personal saving as a percentage of disposable personal income) is revised up for 2011–2013; revisions for 2003–2010 are small, reflecting upward revisions to personal income.
- The large upward revision to personal income for 2012, combined with a downward revision to personal outlays (primarily to PCE), results in a notable upward revision to the personal saving rate (to 7.2 percent from 5.6 percent).

Chart 11. Personal Saving as a Percentage of Disposable Personal Income

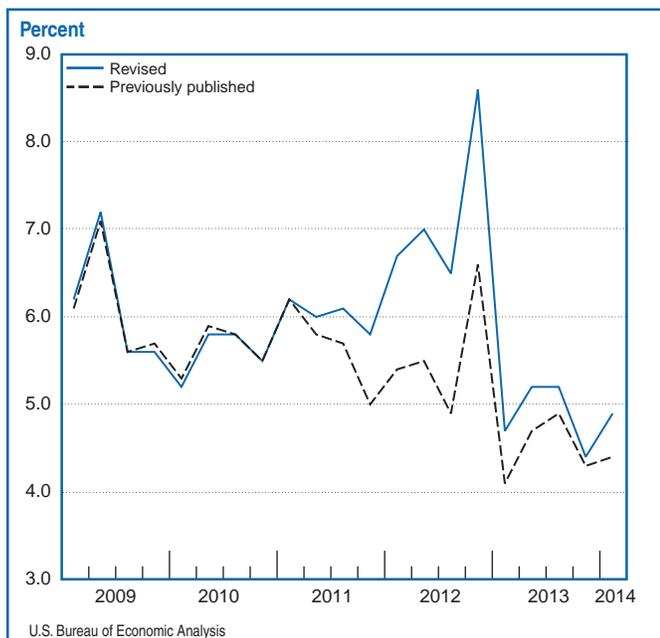


Table 12. Personal Income and Its Disposition

[Billions of dollars]

	Level			Change from preceding period		
	2011	2012	2013	2011	2012	2013
Personal income	13,202.0	13,887.7	14,166.9	772.7	685.7	279.2
Compensation of employees	8,269.0	8,606.5	8,844.8	307.6	337.5	238.3
Wages and salaries.....	6,633.2	6,932.1	7,124.7	255.7	298.9	192.6
Private industries	5,438.4	5,733.8	5,916.6	252.0	295.4	182.8
Government.....	1,194.8	1,198.3	1,208.1	3.7	3.5	9.8
Supplements to wages and salaries	1,635.9	1,674.4	1,720.1	52.0	38.5	45.7
Proprietors' income with IVA and CCAj.....	1,143.7	1,260.2	1,336.6	111.0	116.5	76.4
Farm	75.5	72.3	83.2	29.5	-3.2	10.9
Nonfarm	1,068.1	1,187.9	1,253.5	81.4	119.8	65.6
Rental income of persons with CCAj.....	485.3	533.0	595.8	82.5	47.7	62.8
Personal income receipts on assets.....	1,913.9	2,088.6	2,079.7	174.3	174.7	-8.9
Personal interest income	1,231.6	1,255.9	1,255.2	36.6	24.3	-0.7
Personal dividend income	682.2	832.7	824.5	137.6	150.5	-8.2
Personal current transfer receipts.....	2,307.9	2,350.7	2,414.5	31.0	42.8	63.8
Government social benefits to persons	2,257.7	2,307.6	2,372.2	23.7	49.9	64.6
Other current transfer receipts, from business (net)	50.2	43.1	42.3	7.2	-7.1	-0.8
Less: Contributions for government social insurance, domestic.....	917.8	951.2	1,104.5	-66.3	33.4	153.3
Less: Personal current taxes	1,400.6	1,503.7	1,661.8	209.1	103.1	158.1
Equals: Disposable personal income (DPI)	11,801.4	12,384.0	12,505.1	563.5	582.6	121.1
Less: Personal outlays	11,090.2	11,487.9	11,897.1	480.4	397.7	409.2
Equals: Personal saving	711.1	896.2	608.1	83.1	185.1	-288.1
Personal saving as a percentage of DPI (percent)	6.0	7.2	4.9	.....	.....	.....
	Revisions					
Personal income	10.7	143.9	32.2	16.6	133.2	-111.7
Less: Personal current taxes.....	-3.4	5.7	3.3	-3.4	9.1	-2.4
Equals: DPI.....	14.0	138.2	28.9	19.8	124.2	-109.3
Less: Personal outlays.....	-28.9	-70.5	-17.8	-29.2	-41.6	52.7
Equals: Personal saving	42.9	208.8	46.8	49.1	165.9	-162.0
Personal saving as a percentage of DPI (percentage points).....	0.3	1.6	0.4	.....	.....	.....

CCAj Capital consumption adjustment IVA Inventory valuation adjustment
NOTE: Dollar levels are from NIPA table 2.1.

Current-Dollar NIPA Measures

This table shows NIPA components with revisions of \$4.0 billion or more (in absolute value) for 2011–2013. The table also lists the major source data that were incorporated as part of this annual revision. Note that

the incorporation of newly available and revised source data for a year usually results in a revision to the level of an estimate both for that year and for subsequent years.

**Table 13. 2014 Annual Revision of the National Income and Product Accounts
Revisions to Selected Components and Major Source Data Incorporated, 2011–2013—Continues**

Line	NIPA component	Billions of dollars				Major source data incorporated ¹
		Revision in level			Revised level	
		2011	2012	2013	2013	
1	Gross domestic product	-15.9	-81.4	-31.6	16,768.1	
2	Personal consumption expenditures	-22.5	-66.5	-17.2	11,484.3	
3	Goods.....	-6.2	-27.8	-34.7	3,851.2	
4	Durable goods	-4.6	-10.6	-13.7	1,249.3	
5	Motor vehicles and parts	-5.2	-6.6	-6.8	417.7	
	<i>Of which:</i>					
6	Net purchases of used motor vehicles	-5.4	-6.7	-7.7	104.7	Revised trade source data on cars in operation for 2011; revised trade source data on cars and trucks in operation for 2012; new trade source data on cars and trucks in operation for 2013; revised Census Bureau monthly retail trade survey (MRTS) data on retail sales of used motor vehicle dealers for 2013.
7	Furnishings and durable household equipment	0.6	-4.0	-4.9	280.9	
	<i>Of which:</i>					
8	Furniture and furnishings	0.4	-3.6	-4.3	165.6	Revised Census Bureau annual retail trade survey (ARTS) data for 2011; new ARTS data for 2012; revised MRTS data for 2013.
9	Recreational goods and vehicles	-0.1	0.3	0.9	348.7	
10	Other durable goods.....	0.3	-0.2	-3.0	202.0	
11	Nondurable goods	-1.7	-17.2	-21.0	2,601.9	
12	Food and beverages purchased for off-premises consumption	-3.9	-8.4	-11.8	872.2	
	<i>Of which:</i>					
13	Food and nonalcoholic beverages purchased for off-premises consumption	-3.7	-8.8	-9.6	747.0	Revised ARTS data for 2011; new ARTS data for 2012; revised MRTS data for 2013; revised trade source retail scanner data for 2011 and 2012; new trade source retail scanner data for 2013.
14	Clothing and footwear.....	0.6	-0.9	-2.0	360.7	
15	Gasoline and other energy goods	0.7	-1.5	-0.4	408.3	
16	Other nondurable goods.....	0.9	-6.4	-6.8	960.7	
	<i>Of which:</i>					
17	Recreational items.....	0.0	-3.7	-3.5	142.6	Revised ARTS data for 2011; new ARTS data for 2012; revised MRTS data for 2013.
18	Services	-16.3	-38.6	17.5	7,633.2	
19	Household consumption expenditures (for services)	-13.4	-36.6	1.3	7,327.5	
20	Housing and utilities	-1.0	-4.9	3.8	2,086.3	
21	Housing	0.2	-1.7	12.4	1,780.9	
	<i>Of which:</i>					
22	Rental of tenant-occupied nonfarm housing	-0.2	-1.4	-4.8	445.5	Revised Census Bureau current population survey/housing vacancy survey (CPS/HVS) household data for 2011 and 2012; new CPS/HVS data for 2013; revised Bureau of Economic Analysis (BEA) household utilities data for 2011 and 2012; new BEA household utilities data for 2013; new Bureau of Labor Statistics (BLS) consumer expenditure survey data on tenant expenditures for 2012.
23	Imputed rental of owner-occupied nonfarm housing	0.3	0.5	17.6	1,309.1	Revised CPS/HVS data for 2011 and 2012; new CPS/HVS data for 2013; revised BEA real housing stock data for 2011 and 2012; new real housing stock data for 2013.
24	Household utilities	-1.2	-3.2	-8.5	305.5	
	<i>Of which:</i>					
25	Natural gas	0.0	-0.2	-5.0	51.1	Revised Energy Information Administration (EIA) residential quantity and price data for 2012; new EIA data for 2013.

See the footnotes at the end of the table.

Current-Dollar NIPA Measures

**Table 13. 2014 Annual Revision of the National Income and Product Accounts
Revisions to Selected Components and Major Source Data Incorporated, 2011–2013—Continues**

Line	NIPA component	Billions of dollars				Major source data incorporated ¹
		Revision in level			Revised level	
		2011	2012	2013	2013	
26	Health care.....	-3.1	7.1	1.7	1,920.3	
	<i>Of which:</i>					
27	Physician services.....	0.0	4.3	7.9	456.3	Revised Census Bureau service annual survey (SAS) taxable and tax-exempt revenue data for 2011 and 2012; new SAS data for 2013.
28	Paramedical services.....	0.7	4.4	2.5	298.9	Revised SAS taxable and tax-exempt revenue data for 2011 and 2012; new SAS data for 2013.
29	Hospitals.....	-3.1	-3.9	-12.3	893.0	Revised SAS taxable and tax-exempt revenue data for 2011 and 2012; new SAS data for 2013.
30	Transportation services.....	-0.1	1.8	8.3	332.6	
	<i>Of which:</i>					
31	Motor vehicle maintenance and repair.....	-0.2	-0.8	7.3	169.0	Revised SAS taxable revenue data for 2011 and 2012; new SAS data for 2013; new ARTS data for 2012; revised MRTS data for 2013.
32	Ground transportation.....	0.2	3.0	4.7	42.3	Revised SAS taxable revenue data for 2011 and 2012; new SAS data for 2013; new annual trade source data on passenger revenue for 2012; revised monthly trade source data on passenger revenue for 2013.
33	Recreation services.....	0.9	1.8	8.8	436.0	
	<i>Of which:</i>					
34	Membership clubs, sports centers, parks, theaters, and museums.....	0.8	1.3	7.9	160.9	Revised SAS taxable revenue data and admissions revenue data for 2011 and 2012; new SAS data for 2013.
35	Food services and accommodations.....	-9.2	-16.7	-21.8	714.7	
	<i>Of which:</i>					
36	Purchased meals and beverages.....	-8.9	-16.1	-21.3	594.0	Revised ARTS data for 2011; new ARTS data for 2012; revised MRTS data for 2013.
37	Financial services and insurance.....	-5.3	-32.6	-22.5	826.7	
38	Financial services.....	-2.8	-8.1	2.0	517.1	
39	Financial services furnished without payment.....	-1.5	-2.0	5.3	271.2	Revised Federal Reserve Board (FRB) financial accounts of the United States data for 2011 and 2012; new FRB data for 2013; revised Internal Revenue Service (IRS) tabulations of corporate tax return data for 2011; new IRS tabulations of corporate and of sole proprietorship and partnership tax return data for 2012; new Federal Deposit Insurance Corporation (FDIC) data for 2013; new trade source data on credit unions and on investment companies for 2013.
40	Financial service charges, fees, and commissions.....	-1.3	-6.2	-3.4	245.9	Revised SAS product revenue data on portfolio management and investment advice services for 2011 and 2012; new SAS data for 2013; revised FRB financial accounts of the United States data for 2011 and 2012; new FRB data for 2013.
41	Insurance.....	-2.4	-24.5	-24.5	309.6	
	<i>Of which:</i>					
42	Life insurance.....	-7.4	-9.5	-10.4	95.0	Revised trade source data on life insurance company expenses for 2011; new trade source data for 2012; new BLS quarterly census of employment and wages data for 2013.
43	Net health insurance.....	3.4	-15.8	-15.3	145.1	Revised benefits-to-premiums ratio based on new trade source data on medical insurance for 2012; revised trade source data on workers' compensation insurance for 2012; new trade source data on workers' compensation insurance for 2013.
44	Other services.....	4.5	7.0	23.0	1,010.9	
45	Communication.....	2.0	-0.3	6.5	266.6	
	<i>Of which:</i>					
46	Internet access.....	0.9	1.4	6.8	91.1	Revised SAS product revenue data on Internet access for 2011 and 2012; new SAS data for 2013.

See the footnotes at the end of the table.

Current-Dollar NIPA Measures

**Table 13. 2014 Annual Revision of the National Income and Product Accounts
Revisions to Selected Components and Major Source Data Incorporated, 2011–2013—Continues**

Line	NIPA component	Billions of dollars				Major source data incorporated ¹
		Revision in level			Revised level	
		2011	2012	2013	2013	
47	Education services	-4.0	-9.0	-8.3	267.8	
	<i>Of which:</i>					
48	Higher education	-4.8	-9.7	-8.6	182.4	Revised Census Bureau government finances fiscal year (FY) 2011 tabulations of state and local government sales of higher education services for 2011; new FY 2012 tabulations for 2011 and 2012; new National Center for Education Statistics data on tuition and fees for private higher education services for 2012.
49	Professional and other services	1.9	1.5	1.1	173.2	
50	Personal care and clothing services...	1.3	1.0	5.7	127.3	Revised SAS taxable revenue data for 2011 and 2012; new SAS data for 2013.
51	Social services and religious activities	-0.5	0.2	3.2	154.1	
52	Household maintenance.....	-0.2	-1.3	-0.4	67.9	
53	Net foreign travel	3.9	14.9	15.4	-45.9	
	<i>Of which:</i>					
54	Foreign travel by U.S. residents ²	7.0	15.5	15.7	130.2	Improved methodology for estimating personal travel imports; revised BEA international transactions accounts estimates for 1999–2013.
55	Final consumption expenditures of NPISH	-2.9	-2.0	16.1	305.6	
56	Gross output of nonprofit institutions.....	-2.0	2.0	7.7	1,242.9	Revised SAS tax-exempt expenses data for 2011 and 2012; new SAS data for 2013.
57	<i>Less:</i> Receipts from sales of goods and services by nonprofit institutions	0.9	4.0	-8.5	937.2	See entries for components under Household consumption expenditures (for services), line 19.
58	Gross private domestic investment.....	7.8	4.0	-22.0	2,648.0	
59	Fixed investment	2.5	5.2	9.9	2,573.9	
60	Nonresidential	2.2	2.0	6.9	2,054.0	
61	Structures	1.0	9.6	0.8	457.2	
	<i>Of which:</i>					
62	Power.....	0.0	3.2	0.6	78.5	
63	Electric.....	0.0	2.2	-6.0	54.8	Revised Census Bureau construction spending (value-put-in-place) data for 2012 and 2013.
64	Other power	0.0	1.1	6.6	23.8	Revised Census Bureau construction spending (value-put-in-place) data for 2012 and 2013.
65	Petroleum and natural gas.....	-0.9	6.1	0.8	130.1	Revised trade source data on footage drilled for 2011–2013; new Census Bureau annual capital expenditures survey data for 2012.
66	Equipment.....	5.5	-3.5	10.0	949.7	
67	Information processing equipment	-2.7	-3.7	-3.6	286.5	
68	Industrial equipment	8.5	6.1	7.0	209.8	
	<i>Of which:</i>					
69	Special industry machinery, n.e.c.	4.8	3.3	4.1	44.4	Revised Census Bureau annual survey of manufactures (ASM) data for 2011; revised Census Bureau monthly industry shipments data for 2012 and 2013; revised BEA annual input-output accounts data for 2011 and 2012.
70	Transportation equipment.....	2.1	-3.0	9.3	228.2	
	<i>Of which:</i>					
71	Light trucks (including utility vehicles).....	0.6	0.5	12.7	77.5	New trade source data on trucks in operation for 2013.
72	Other equipment.....	-2.4	-2.2	-2.5	235.8	
	<i>Of which:</i>					
73	Construction machinery.....	-5.8	-6.0	-6.4	61.4	Revised ASM data for 2011; revised Census Bureau monthly industry shipments data for 2012 and 2013; revised BEA annual input-output accounts data for 2011 and 2012.
74	<i>Less:</i> Sale of equipment scrap, excluding autos.....	0.0	0.7	0.3	10.6	

See the footnotes at the end of the table.

Current-Dollar NIPA Measures

**Table 13. 2014 Annual Revision of the National Income and Product Accounts
Revisions to Selected Components and Major Source Data Incorporated, 2011–2013—Continues**

Line	NIPA component	Billions of dollars				Major source data incorporated ¹
		Revision in level			Revised level	
		2011	2012	2013	2013	
75	Intellectual property products	-4.4	-4.0	-3.9	647.1	
76	Software	2.2	2.5	0.1	294.5	
77	Research and development	-5.2	-8.0	-5.8	274.9	
78	Business	-3.8	-7.5	-5.5	254.5	
79	Manufacturing	-2.1	-1.0	-0.9	210.5	
	<i>Of which:</i>					
80	Pharmaceutical and medicine manufacturing	-1.3	-2.6	-4.4	61.6	New National Science Foundation (NSF) FY 2010 and FY 2011 survey of state government research and development expenditures data for 2011; revised service annual survey (SAS) data on expenses and receipts of tax-exempt scientific research and development services establishments for 2011; new SAS data for 2012; new NSF business research and development and innovation survey data for 2012.
81	Nonmanufacturing	-1.8	-6.5	-4.5	44.1	
82	Scientific research and development services	-0.5	-0.2	-1.3	8.2	
83	All other nonmanufacturing	-1.2	-6.4	-3.2	35.9	New NSF FY 2010 and FY 2011 survey of state government research and development expenditures data for 2011; revised SAS data on expenses and receipts of tax-exempt scientific research and development services establishments for 2011; new SAS data for 2012; new NSF business research and development and innovation survey data for 2012.
84	Nonprofit institutions serving households	-1.4	-0.5	-0.3	20.4	
85	Entertainment, literary, and artistic originals	-1.4	1.5	1.9	77.7	
86	Residential	0.2	3.1	3.0	519.9	
87	Structures	0.3	3.3	3.3	510.8	
88	Equipment	0.0	-0.2	-0.2	9.1	
89	Change in private inventories	5.4	-1.2	-32.0	74.1	
90	Farm	8.5	3.0	-28.0	12.4	Revised U.S. Department of Agriculture (USDA) data for 2011–2013.
91	Nonfarm	-3.1	-4.3	-4.0	61.7	
92	Change in book value	-1.1	-4.2	0.8	67.6	Revised Census Bureau annual wholesale trade survey (AWTS) data on inventory book values for 2011; new AWTS data for 2012; revised Census Bureau annual retail trade survey (ARTS) data on inventory book values for 2011; new ARTS data for 2012; revised Census Bureau monthly inventory data for 2013.
93	Mining, utilities, and construction	-0.5	-1.8	1.7	3.1	
94	Manufacturing	0.0	0.0	-1.4	13.2	
95	Wholesale trade	-3.6	1.7	-0.5	19.2	
96	Merchant wholesale	0.3	-1.0	-0.5	19.0	
97	Nonmerchant wholesale	-3.9	2.5	0.1	0.3	
98	Retail trade	2.7	1.0	-0.1	31.5	
	<i>Of which:</i>					
99	Motor vehicle and parts dealers ...	3.2	1.3	2.0	18.6	
100	Other industries	0.3	-5.1	1.2	0.6	
101	IVA	-2.0	-0.1	-4.8	-5.9	Revised AWTS and ARTS data on accounting methods used for inventory reporting for 2011; new AWTS and ARTS data for 2012; revised BEA unit labor cost indexes for 2011–2013.

See the footnotes at the end of the table.

Current-Dollar NIPA Measures

**Table 13. 2014 Annual Revision of the National Income and Product Accounts
Revisions to Selected Components and Major Source Data Incorporated, 2011–2013—Continues**

Line	NIPA component	Billions of dollars				Major source data incorporated ¹
		Revision in level			Revised level	
		2011	2012	2013	2013	
102	Net exports of goods and services ²	-11.3	-21.1	-10.9	-508.2	Comprehensive restructuring and annual revision of the BEA international transactions accounts; revised international transactions accounts estimates for 1999–2013.
103	Exports of goods and services	5.2	-1.7	2.3	2,262.2	
104	Exports of goods	-6.7	-8.8	-4.2	1,562.8	
105	Foods, feeds, and beverages	0.0	0.1	4.1	136.2	
106	Industrial supplies and materials	0.6	0.1	-0.3	492.1	
107	Capital goods, except automotive	0.9	-0.2	-0.3	534.6	
108	Automotive vehicles, engines, and parts	0.2	0.1	0.5	152.6	
109	Consumer goods, except food and automotive	-0.3	-0.7	-0.3	188.4	
110	Other	-8.2	-8.1	-7.8	59.1	Revised estimates of exports of goods from Puerto Rico for 2011 and 2012; new exports of goods from Puerto Rico estimates for 2013.
111	Exports of services	11.9	7.1	6.5	699.4	
112	Transport ³				87.3	New category (combines components previously classified as “other” transportation and as passenger fares).
113	Travel (for all purposes including education) ³				173.1	Redefined category (now includes education, medical services, and expenditures of short-term workers that were previously classified as “other” private services); improved methodology for estimating average expenditures for travel in the United States by nonresidents.
114	Charges for the use of intellectual property n.e.c.	2.6	1.3	0.6	129.2	Renamed category (previously referred to as “royalties and license fees”).
115	Other business services ³				273.3	New category (includes select components previously classified as “other” private services).
116	Government goods and services n.e.c. ³				23.6	New category (combines components previously classified as transfers under military sales contracts and as U.S. government miscellaneous services and select components previously classified as “other” private services).
117	Other	-1.2	-1.4	-1.6	12.9	
118	Imports of goods and services	16.5	19.4	13.2	2,770.4	
119	Imports of goods	10.1	10.6	6.3	2,302.3	
120	Foods, feeds, and beverages	0.0	0.0	-0.1	116.0	
121	Industrial supplies and materials, except petroleum and products	-0.3	-1.1	-0.6	291.2	
122	Petroleum and products	0.0	0.4	0.9	387.6	
123	Capital goods, except automotive	-0.1	0.1	0.2	557.8	
124	Automotive vehicles, engines, and parts	0.0	0.0	-0.4	309.6	
125	Consumer goods, except food and automotive	-1.6	-0.8	-2.0	533.9	
126	Other	12.0	12.0	8.2	106.1	Revised estimates of imports of goods from Puerto Rico for 2011 and 2012; new imports of goods from Puerto Rico estimates for 2013.
127	Imports of services	6.3	8.7	6.9	468.1	
128	Transport ³				90.8	New category (combines components previously classified as “other” transportation and as passenger fares).
129	Travel (for all purposes including education) ³				104.7	Redefined category (now includes education, medical services, and expenditures of short-term workers that were previously classified as “other” private services); improved methodology for estimating average expenditures for foreign travel by U.S. residents.

See the footnotes at the end of the table.

Current-Dollar NIPA Measures

**Table 13. 2014 Annual Revision of the National Income and Product Accounts
Revisions to Selected Components and Major Source Data Incorporated, 2011–2013—Continues**

Line	NIPA component	Billions of dollars				Major source data incorporated ¹
		Revision in level			Revised level	
		2011	2012	2013	2013	
130	Charges for the use of intellectual property n.e.c.	1.3	-0.4	-2.9	39.0	Renamed category (previously referred to as "royalties and license fees").
131	Other business services ³				202.3	New category (includes select components previously classified as "other" private services).
132	Government goods and services n.e.c. ³				25.3	New category (combines components previously classified as direct defense expenditures and as U.S. government miscellaneous services).
133	Other	-3.2	-2.2	-2.1	6.0	
134	Government consumption expenditures and gross investment	10.0	2.2	18.4	3,143.9	
135	Federal government	-0.6	-4.3	-14.4	1,231.5	
136	National defense	1.1	0.9	-0.8	769.9	Revised allocations of FY 2011 and FY 2012 Office of Management and Budget (OMB) Budget data for 2011 and 2012; revised FY 2013 OMB Budget data for 2012 and 2013; new preliminary FY 2014 OMB Budget data for 2013.
137	Consumption expenditures.....	-0.5	-1.5	4.4	616.4	
	<i>Of which:</i>					
138	Compensation of general government employees	0.1	-0.5	-5.2	240.6	
139	Services.....	0.2	1.4	13.4	173.4	
140	Less: Own-account investment.....	1.2	4.2	3.3	23.1	New and revised National Science Foundation (NSF) survey data for 2011 and 2012; revised FY 2013 and new preliminary FY 2014 OMB Budget data for 2013.
141	Gross investment.....	1.7	2.4	-5.2	153.5	
	<i>Of which:</i>					
142	Equipment	0.5	-1.1	-3.6	78.3	
143	Intellectual property products	1.1	3.9	-1.6	68.7	
	<i>Of which:</i>					
144	Research and development.....	1.2	3.7	-1.6	61.0	New and revised NSF survey data for 2011 and 2012; revised FY 2013 and new preliminary FY 2014 OMB Budget data for 2013.
145	Nondefense	-1.7	-5.2	-13.5	461.6	Revised allocations of FY 2011 and FY 2012 OMB Budget data for 2011 and 2012; revised FY 2013 OMB Budget data for 2012 and 2013; new preliminary FY 2014 OMB Budget data for 2013.
146	Consumption expenditures.....	-2.0	-6.6	-12.4	346.6	
	<i>Of which:</i>					
147	Nondurable goods	-2.1	-4.1	-6.0	22.3	
148	Services.....	-1.0	-3.0	-8.7	80.5	
149	Gross investment.....	0.3	1.3	-1.1	115.0	
150	State and local	10.6	6.5	32.8	1,912.4	
151	Consumption expenditures.....	7.4	9.7	36.4	1,584.5	
	<i>Of which:</i>					
152	Compensation of general government employees	3.4	2.2	19.8	1,206.4	Revised BLS quarterly census of employment and wages (QCEW) data for 2011 and 2012; new QCEW data for 2013.
153	Services	-3.6	-4.4	0.7	383.8	Revised Census Bureau government finances FY 2011 tabulations for 2011; new FY 2012 tabulations for 2011 and 2012.
154	Less: Sales to other sectors.....	-9.4	-11.9	-11.1	433.4	Revised Census Bureau government finances FY 2011 tabulations for 2011; new FY 2012 tabulations for 2011 and 2012.

See the footnotes at the end of the table.

Current-Dollar NIPA Measures

**Table 13. 2014 Annual Revision of the National Income and Product Accounts
Revisions to Selected Components and Major Source Data Incorporated, 2011–2013—Continues**

Line	NIPA component	Billions of dollars				Major source data incorporated ¹
		Revision in level			Revised level	
		2011	2012	2013	2013	
155	Gross investment	3.3	-3.3	-3.7	327.8	
	<i>Of which:</i>					
156	Structures	5.3	-1.1	-3.3	255.5	Revised Census Bureau government finances FY 2011 tabulations for 2011; new FY 2012 tabulations for 2011 and 2012; revised Census Bureau construction spending (value put in place) data for 2012 and 2013.
157	Gross domestic product	-15.9	-81.4	-31.6	16,768.1	
158	Less: Statistical discrepancy ⁴	15.4	-192.2	-80.5	-211.9	
159	Equals: Gross domestic income	-31.2	110.7	48.8	16,980.0	
160	Compensation of employees, paid	-9.5	-5.1	-14.1	8,853.6	See entries for components under Compensation of employees, line 182, and additional source data below.
161	Wages and salaries	-5.6	5.4	-12.2	7,133.6	
162	To persons ²	-5.5	5.2	-12.9	7,118.0	Revised BEA international transactions accounts estimates for 2003–2013.
163	To the rest of the world ²	0.0	0.2	0.7	15.6	Revised BEA international transactions accounts estimates for 2003–2013.
164	Supplements to wages and salaries	-3.9	-10.5	-1.8	1,720.1	
165	Taxes on production and imports	5.5	9.1	15.7	1,162.4	See entries for components under Taxes on production and imports, line 243.
166	Less: Subsidies	0.1	0.7	1.5	60.2	
167	Net operating surplus	-25.3	120.0	67.9	4,396.8	
168	Private enterprises	-24.4	117.6	57.5	4,426.4	
169	Current surplus of government enterprises	-0.7	2.4	10.5	-29.6	
170	Consumption of fixed capital	-2.0	-12.7	-19.4	2,627.2	
171	Private	-3.3	-15.1	-20.6	2,120.8	
172	Domestic business	1.2	-9.7	-13.8	1,693.7	Revised BEA fixed investment and price estimates for 2011–2013; revised BEA fixed assets accounts legal form of organization ratios for 2011–2013.
173	Capital consumption allowances	-13.8	68.5	32.5	1,706.4	Revised IRS tabulations of corporate tax return data for 2011; new IRS tabulations of corporate and of sole proprietorship and partnership tax return data for 2012; revised Office of Tax Analysis bonus depreciation estimates for 2011–2013; revised BEA fixed investment estimates for 2011–2013.
174	Less: CCA ^{adj} ⁵	-15.1	78.2	46.3	12.7	
175	Households and institutions	-4.7	-5.4	-6.9	427.1	Revised BEA fixed investment and price estimates for 2011–2013; revised BEA fixed assets accounts legal form of organization ratios for 2011–2013.
176	Government	1.5	2.4	1.3	506.4	
177	Plus: Income receipts from the rest of the world ²	-10.2	-24.8	-16.9	810.4	Revised BEA international transactions accounts estimates for 2007–2013.
178	Less: Income payments to the rest of the world ²	3.9	0.8	16.6	586.1	Revised BEA international transactions accounts estimates for 2003–2013.
179	Equals: Gross national income	-45.4	85.2	15.4	17,204.3	
180	Less: Consumption of fixed capital	-2.0	-12.7	-19.4	2,627.2	See entries for components under Consumption of fixed capital, line 170.
181	Equals: National income	-43.4	97.9	34.7	14,577.1	
182	Compensation of employees	-9.5	-5.1	-14.6	8,844.8	
183	Wages and salaries	-5.5	5.3	-12.8	7,124.7	
184	Government	0.4	1.0	13.1	1,208.1	Revised QCEW data for 2011 and 2012; new QCEW data for 2013; revised FY 2013 OMB Budget data for 2012 and 2013; new preliminary FY 2014 OMB Budget data for 2013.
185	Other ²	-5.9	4.4	-25.9	5,916.6	Revised QCEW data for 2011 and 2012; new QCEW data for 2013; revised BLS noncovered industries data for 2012; revised BEA international transactions accounts estimates for 2003–2013.

See the footnotes at the end of the table.

Current-Dollar NIPA Measures

**Table 13. 2014 Annual Revision of the National Income and Product Accounts
Revisions to Selected Components and Major Source Data Incorporated, 2011–2013—Continues**

Line	NIPA component	Billions of dollars				Major source data incorporated ¹
		Revision in level			Revised level	
		2011	2012	2013	2013	
186	Supplements to wages and salaries	-3.9	-10.5	-1.8	1,720.1	
187	Employer contributions for employee pension and insurance funds	-3.4	-10.1	3.3	1,193.9	New Department of Labor pension data for 2011; revised Pension Benefit Guaranty Corporation (PBGC) data for 2011; new PBGC data for 2012; revised FRB financial accounts of the United States data for 2010–2012; new FRB data for 2013; revised FY 2011 Census Bureau survey of public pensions data for 2011; new FY 2012 survey of public pensions data for 2011 and 2012; new Department of Health and Human Services medical expenditures panel survey data for 2012 and 2013.
188	Employer contributions for government social insurance.....	-0.5	-0.4	-5.1	526.1	New QCEW data on employer contributions for state unemployment insurance programs for 2013.
189	Proprietors' income with IVA and CCAAdj ...	-11.4	35.3	-12.2	1,336.6	
190	Farm	2.9	-3.1	-44.4	83.2	
191	Proprietors' income with IVA	2.9	-3.1	-44.6	88.9	Revised USDA data for 2011–2013.
192	CCAAdj	0.0	0.1	0.0	-5.8	
193	Nonfarm	-14.5	38.3	32.3	1,253.5	
194	Proprietors' income	-6.5	26.8	15.1	1,087.4	Revised IRS tabulations of corporate tax return data for the posttabulation and mining adjustments for 2011; new IRS tabulations of sole proprietorship and partnership tax return data for 2012; new Census Bureau nonfiler income data for 2012.
195	IVA	-1.2	0.2	0.7	0.4	
196	CCAAdj	-6.8	11.4	16.4	165.6	See entries for components under Consumption of fixed capital, line 170.
197	Rental income of persons with CCAAdj	0.9	-8.2	5.2	595.8	
198	Rental income of persons	1.0	-8.2	5.0	611.2	Revised FRB financial accounts of the United States data on residential mortgage loan liabilities for 2011–2013; revised BEA real housing stock data for 2011 and 2012; new real housing stock data for 2013; revised Census Bureau current population survey/housing vacancy survey (CPS/HVS) data for 2011 and 2012; new CPS/HVS data for 2013; revised IRS tabulations of individual tax return data for 2011; new IRS tabulations for 2012; revised trade source data on insurance for 2011; new trade source data on insurance for 2012.
199	CCAAdj	0.0	0.0	0.2	-15.4	
200	Corporate profits with IVA and CCAAdj	-61.1	13.3	4.8	2,106.9	
201	Domestic industries	-46.5	30.5	17.8	1,703.8	
202	Financial	0.1	29.5	33.5	490.0	
203	Nonfinancial	-46.6	0.9	-15.8	1,213.8	
204	Rest of the world ²	-14.7	-17.1	-12.9	403.1	Revised BEA international transactions accounts estimates for 2009–2013.
205	Less: CCAAdj	-8.3	66.7	29.5	-131.8	See entries for components under Consumption of fixed capital, line 170.
206	Equals: Corporate profits with IVA	-52.8	-53.4	-24.7	2,238.7	See entries for components under Corporate profits before tax without IVA and CCAAdj, line 223.
207	Domestic industries	-38.2	-36.3	-11.8	1,835.6	
208	Financial	-8.2	11.5	21.5	533.5	
209	Federal Reserve banks	0.0	0.0	-5.7	79.6	
210	Other financial	-8.1	11.5	27.2	453.9	
211	Nonfinancial	-30.0	-47.8	-33.2	1,302.1	
212	Utilities	-1.3	-24.2	-22.0	20.9	
213	Manufacturing	-5.8	-0.1	1.8	402.4	
214	Durable goods	-3.1	7.1	4.9	206.3	
215	Nondurable goods	-2.7	-7.2	-3.1	196.1	

See the footnotes at the end of the table.

Current-Dollar NIPA Measures

**Table 13. 2014 Annual Revision of the National Income and Product Accounts
Revisions to Selected Components and Major Source Data Incorporated, 2011–2013—Continues**

Line	NIPA component	Billions of dollars				Major source data incorporated ¹
		Revision in level			Revised level	
		2011	2012	2013	2013	
216	Wholesale trade	-1.9	-1.2	2.3	154.5	
217	Retail trade	-1.8	8.0	10.0	171.2	
218	Transportation and warehousing	-1.7	0.4	3.9	62.6	
219	Information	-3.6	-9.5	-16.2	108.3	
220	Other nonfinancial	-13.8	-21.2	-13.0	382.2	
221	Rest of the world ²	-14.7	-17.1	-12.9	403.1	See entries for components under Corporate profits with IVA and CCAAdj, line 200.
222	Less: IVA	-12.3	0.5	3.6	3.3	
223	Equals: Corporate profits before tax without IVA and CCAAdj	-40.6	-53.9	-28.4	2,235.3	Revised IRS tabulations of corporate tax return data for 2011; new IRS tabulations for 2012; revised Census Bureau quarterly financial report data for 2013; new and revised regulatory and public financial reports profits data for 2013.
224	Less: Taxes on corporate income.....	4.9	20.0	55.4	474.3	
225	Equals: Profits after tax	-45.4	-73.9	-83.8	1,761.1	
226	Less: Net corporate dividend payments	2.1	86.8	57.6	959.6	
227	Equals: Undistributed corporate profits	-47.6	-160.7	-141.3	801.5	
228	Net interest and miscellaneous payments	31.2	52.1	30.6	499.8	
229	Net interest	31.0	51.1	30.9	478.0	
230	Domestic business	30.4	58.2	.....	343.2	
	Of which:					
231	Monetary interest paid.....	-4.4	33.8	.....	1,290.6	Revised IRS tabulations of corporate tax return data for 2011; new IRS tabulations of corporate and of sole proprietorship and partnership tax return data for 2012; revised FRB financial accounts of the United States data on nonfinancial corporate liabilities for 2011 and 2012; new FRB data for 2013; revised USDA data on interest paid by farmers for 2011 and 2012; new USDA data for 2013; new FDIC data for 2013; new trade source data on credit unions and on investment companies for 2013.
232	Less: Monetary interest received	10.2	20.1	.....	1,660.2	New treatment of defined contribution pension plans; revised IRS tabulations of corporate tax return data for 2011; new IRS tabulations of corporate and of sole proprietorship and partnership tax return data for 2012; revised FRB financial accounts of the United States data on nonfinancial corporate assets for 2011 and 2012; new FRB data for 2013; new FDIC data for 2013; new trade source data on credit unions and on investment companies for 2013.
233	Imputed interest paid, depositor, insurance, and pension services	52.0	50.7	.....	887.4	
	Of which:					
234	Life insurance carriers	5.0	14.5	.....	248.8	New trade source data on investment income of life insurance carriers for 2012; revised FRB financial accounts of the United States data on life insurance company assets for 2011 and 2012; new FRB data for 2013.
235	Employee pension plans.....	39.7	35.3	.....	360.9	New treatment of defined contribution pension plans; revised PBGC data on defined benefit pension plans for 2011; new PBGC data for 2012; revised FY 2011 Census Bureau survey of public pensions data for 2011; new FY 2012 survey of public pensions data for 2011 and 2012; revised FRB financial accounts of the United States data for 2011 and 2012; new FRB data for 2013.
236	Less: Imputed interest received, depositor, insurance, and pension services	7.8	5.4	.....	244.0	

See the footnotes at the end of the table.

Current-Dollar NIPA Measures

**Table 13. 2014 Annual Revision of the National Income and Product Accounts
Revisions to Selected Components and Major Source Data Incorporated, 2011–2013—Continues**

Line	NIPA component	Billions of dollars				Major source data incorporated ¹
		Revision in level			Revised level	
		2011	2012	2013	2013	
237	Owner-occupied housing	0.1	1.0	.....	295.6	
238	Nonprofit institutions.....	0.0	0.0	.....	9.2	
239	Rest of the world ²	0.5	-8.3	.....	-169.8	Revised BEA international transactions accounts estimates for 2009–2013.
240	Miscellaneous payments.....	0.1	1.0	-0.4	21.7	
241	Federal rents and royalties.....	-0.2	0.6	-0.9	9.0	
242	State and local rents and royalties	0.3	0.4	0.5	12.7	
243	Taxes on production and imports.....	5.5	9.1	15.7	1,162.4	
244	Federal.....	0.0	-3.0	0.7	120.9	
245	State and local	5.5	12.1	15.1	1,041.6	Revised Census Bureau government finances FY 2011 tabulations for 2011; new FY 2012 tabulations for 2011 and 2012; revised FY 2011 and FY 2012 Census Bureau state government tax collections data for 2011 and 2012; new FY 2013 state government tax collections data for 2012 and 2013.
246	Less: Subsidies.....	0.1	0.7	1.5	60.2	
247	Federal.....	0.1	0.8	1.5	59.7	
248	State and local	0.0	0.0	0.0	0.5	
249	Business current transfer payments (net)	1.9	-0.2	-3.8	120.6	
250	To persons (net)	3.5	1.7	-2.3	42.3	
251	To government (net)	-0.9	1.3	10.2	89.0	Revised FY 2013 OMB Budget data for 2012 and 2013; new preliminary FY 2014 OMB Budget data for 2013; new FDIC data on deposit insurance premiums for 2011–2013; revised USDA data on federal flood and crop insurance premiums for 2012; new USDA data for 2013.
252	To the rest of the world (net) ²	-0.7	-3.2	-11.8	-10.8	Revised BEA international transactions accounts estimates for 2011–2013.
253	Current surplus of government enterprises.....	-0.7	2.4	10.5	-29.6	
254	Federal.....	0.2	4.3	9.4	-15.3	Revised FY 2013 OMB Budget data for 2012 and 2013; new preliminary FY 2014 OMB Budget data for 2013; new annual financial reports of federal enterprises data for 2013.
255	State and local	-0.9	-1.9	1.0	-14.3	
	Addenda:					
256	Gross national product.....	-30.0	-106.9	-65.1	16,992.4	
257	Gross saving.....	-25.8	153.3	18.3	3,034.1	
258	Personal income.....	10.7	143.9	32.2	14,166.9	See entries for components under National income, line 181, and additional sources below.
259	Compensation of employees.....	-9.5	-5.1	-14.6	8,844.8	
260	Proprietors' income with IVA and CCAAdj.....	-11.4	35.3	-12.2	1,336.6	
261	Rental income of persons with CCAAdj.....	0.9	-8.2	5.2	595.8	
262	Personal income receipts on assets.....	29.3	130.1	82.0	2,079.7	
263	Personal interest income.....	27.5	44.3	26.0	1,255.2	Revised FRB financial accounts of the United States data for 2011 and 2012; new FRB data for 2013; revised IRS tabulations of corporate tax return data for 2011; new IRS tabulations of corporate and of sole proprietorship and partnership tax return data for 2012; new trade source data on investment income of life insurance carriers for 2013; new FDIC data for 2013; new trade source data on credit unions and on investment companies for 2013; revised PBGC data on defined benefit pension plans for 2011; new PBGC data for 2012; revised FY 2011 Census Bureau survey of public pensions data for 2011; new FY 2012 survey of public pensions data for 2011 and 2012.
264	Personal dividend income ²	1.7	85.8	56.0	824.5	Revised IRS tabulations of corporate tax return data for 2011; new IRS tabulations for 2012; new and revised regulatory agency and public financial statements data on dividends for 2013; revised BEA international transactions accounts estimates for 2009–2013.

See the footnotes at the end of the table.

Current-Dollar NIPA Measures

**Table 13. 2014 Annual Revision of the National Income and Product Accounts
Revisions to Selected Components and Major Source Data Incorporated, 2011–2013—Table Ends**

Line	NIPA component	Billions of dollars				Major source data incorporated ¹
		Revision in level			Revised level	
		2011	2012	2013	2013	
265	Personal current transfer receipts	1.0	-7.6	-29.8	2,414.5	
266	Government social benefits to persons	-2.6	-9.2	-27.5	2,372.2	
267	Federal	-0.9	-5.5	-31.4	1,806.8	Revised FY 2013 OMB Budget data for 2012 and 2013; new preliminary FY 2014 OMB Budget data for 2013; revised Department of Labor data on unemployment benefits for 2011–2013; revised Centers for Medicare and Medicaid Services (CMS) data on incurred Medicare benefits for 2011 and 2012; new CMS data for 2013; revised Department of the Treasury <i>Monthly Treasury Statement (MTS)</i> data for 2013.
268	State and local	-1.6	-3.7	4.0	565.4	Revised Census Bureau government finances FY 2011 tabulations for 2011; new FY 2012 tabulations for 2011 and 2012; revised CMS data on Medicaid benefits for 2013.
269	Other current transfer receipts, from business (net)	3.5	1.7	-2.3	42.3	
270	Less: Contributions for government social insurance, domestic	-0.4	0.5	-1.5	1,104.5	
271	Federal	-0.3	0.3	-1.6	1,086.9	
272	State and local	-0.1	0.2	0.2	17.7	
273	Less: Personal current taxes	-3.4	5.7	3.3	1,661.8	
274	Federal	-0.4	-0.2	4.0	1,286.8	Revised Social Security Administration (SSA) data on taxable earnings for 2012; new SSA data for 2013; revised <i>MTS</i> data for 2013.
275	State and local	-2.9	5.9	-0.7	375.0	Revised Census Bureau government finances FY 2011 tabulations for 2011; new FY 2012 tabulations for 2011 and 2012; revised FY 2011 and FY 2012 Census Bureau state government tax collections data for 2011 and 2012; new FY 2013 state government tax collections data for 2012 and 2013.
276	<i>Equals</i> : Disposable personal income	14.0	138.2	28.9	12,505.1	
277	Less: Personal outlays	-28.9	-70.5	-17.8	11,897.1	
278	Personal consumption expenditures	-22.5	-66.5	-17.2	11,484.3	
279	Personal interest payments	-6.6	-6.8	-0.8	247.1	Revised FRB interest rate data for 2011–2013; revised FRB consumer credit outstanding data for 2011–2013; revised FRB financial accounts of the United States data for 2011 and 2012; new financial accounts of the United States data for 2013.
280	Personal current transfer payments	0.1	2.7	0.2	165.6	
281	To government	0.2	1.5	1.0	91.4	
282	To the rest of the world (net) ²	0.0	1.2	-0.7	74.3	Revised BEA international transactions accounts estimates for 2011–2013.
283	<i>Equals</i> : Personal saving	42.9	208.8	46.8	608.1	

BEA Bureau of Economic Analysis
 BLS Bureau of Labor Statistics
 CCAAdj Capital consumption adjustment
 FDIC Federal Deposit Insurance Corporation
 FRB Federal Reserve Board
 FY Fiscal year
 IRS Internal Revenue Service
 IVA Inventory valuation adjustment
 NIPAs National income and product accounts
 NPISH Nonprofit institutions serving households
 OMB Office of Management and Budget
 USDA U.S. Department of Agriculture

1. In these descriptions, "new" indicates that this is the first time that data from a specific source are being incorporated into the component estimate for a given year, and "revised" indicates that data from the source were incorporated previously, and now revised data from that source are being incorporated. These descriptions also note major statistical and presentational changes.

2. Revisions reflect the restructuring and the annual revision of the BEA international transactions accounts (ITAs); see Jeffrey R. Bogen, Mai-Chi Hoang, Kristy L. Howell, and Erin M. Whitaker, "Comprehensive Restructuring and Annual Revision of the U.S. International Transactions Accounts," *SURVEY OF CURRENT BUSINESS* 94 (July 2014): 1–24. Revisions may also

reflect changes previously incorporated into the ITAs but not into the NIPAs because they affected years outside of the periods open for revision.

3. Revisions are not shown because this component was not previously published.

4. The statistical discrepancy is gross domestic product (GDP) less gross domestic income (GDI); it is also the difference between gross national product (GNP) and gross national income (GNI), which is GDI plus net income receipts from the rest of the world. The statistical discrepancy arises because the product-side measures of GDP and GNP are estimated independently from the income-side measures of GDI and GNI.

5. CCAAdj is calculated as capital consumption allowances less consumption of fixed capital. NOTE: For this annual revision of the NIPAs, selected NIPA components were revised further back in time than the regular 3 years (that is, 2011–2013) to reflect the incorporation of methodological and statistical changes, including the incorporation of revised source data. The new treatment of defined contribution pension plans impacts the estimates of interest and dividends beginning with 1968. The improved methodology for estimating average expenditures for foreign travel impacts the estimates of exports and imports of travel beginning with 1999. The improved methodology for estimating personal travel imports impacts the estimates of consumer spending for foreign travel by U.S. residents beginning with 1999. For components for which revisions reflect the incorporation of revised source data for years prior to 2011, the years impacted by the revised data are noted in the "Major source data incorporated" column.

Data Availability

Annual NIPA estimates for 1929 forward and quarterly estimates for 1947 forward are available on BEA's Web site in more than 350 [interactive tables](#) that are arranged in roughly the same order as the seven summary accounts. The tables can be downloaded in a variety of formats, customized by date and by frequency, and displayed in charts.¹

The following NIPA tables will be released later this fall:

- Table 2.9 (personal income by households and by non-profit institutions serving households (NPISH))
- Tables 3.15–3.17 (government spending by function)
- Tables 3.18 and 3.19 (reconciliation of federal government and of state and local government spending estimates with related source data)
- Tables 3.20 and 3.21 (state government and local government current receipts and expenditures)
- Tables 3.22 and 3.23 (not seasonally adjusted estimates of federal government and of state and local government current receipts and expenditures)
- Table 7.19 (reconciliation of NIPA income and outlays of NPISH with IRS revenue and expenses)

In addition, several other BEA data products will be updated later this year to reflect the results of this year's NIPA revision:

- The [fixed asset accounts](#), which present estimates of capital investment by legal form and by type
- [State personal income](#) and [local area personal income](#)
- The [GDP by industry](#) and [input-output accounts](#)
- The [integrated macroeconomic accounts](#), which relate production, income and spending, capital formation, financial transactions, and asset revaluations to changes in net worth for the major sectors of the U.S. economy and which are jointly published by BEA and the Federal Reserve Board.

1. For a detailed description of the NIPA table numbering system, see the FAQ "How are the NIPA tables organized?"

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Table A. Summary National Income and Product Accounts, 2013

[Billions of dollars]

Account 1. Domestic Income and Product Account

Line		Line	
1	Compensation of employees, paid.....	15	Personal consumption expenditures (3-3)
2	Wages and salaries	16	Goods.....
3	Domestic (3-12)	17	Durable goods.....
4	Rest of the world (5-11)	18	Nondurable goods.....
5	Supplements to wages and salaries (3-14).....	19	Services.....
6	Taxes on production and imports (4-15).....	20	Gross private domestic investment.....
7	Less: Subsidies (4-8)	21	Fixed investment (6-2)
8	Net operating surplus.....	22	Nonresidential.....
9	Private enterprises (2-19)	23	Structures
10	Current surplus of government enterprises (4-25).....	24	Equipment.....
11	Consumption of fixed capital (6-14)	25	Intellectual property products.....
		26	Residential
12	Gross domestic income	27	Change in private inventories (6-4).....
		28	Net exports of goods and services
13	Statistical discrepancy (6-20).....	29	Exports (5-1).....
		30	Imports (5-9)
		31	Government consumption expenditures and gross investment (4-1 plus 6-3)
		32	Federal
		33	National defense
		34	Nondefense
		35	State and local.....
14	Gross domestic product	36	Gross domestic product

Account 2. Private Enterprise Income Account

Line		Line	
1	Income payments on assets.....	19	Net operating surplus, private enterprises (1-9).....
	Interest and miscellaneous payments (2-21 and 3-20 and 4-20 and 5-13).....	20	Income receipts on assets.....
2	Dividend payments to the rest of the world (5-14).....	21	Interest (2-2 and 3-4 and 4-7 and 5-5).....
3	Reinvested earnings on foreign direct investment in the United States (5-15)	22	Dividend receipts from the rest of the world (5-6)
4	Business current transfer payments (net).....	23	Reinvested earnings on U.S. direct investment abroad (5-7)
5	To persons (net) (3-24)		
6	To government (net) (4-23).....		
7	To the rest of the world (net) (5-19)		
8	Proprietors' income with IVA and CCAAdj (3-17).....		
9	Rental income of persons with CCAAdj (3-18)		
10	Corporate profits with IVA and CCAAdj		
11	Taxes on corporate income		
12	To government (4-16)		
13	To the rest of the world (5-19)		
14	Profits after tax with IVA and CCAAdj.....		
15	Net dividends (3-21 plus 4-21).....		
16	Undistributed corporate profits with IVA and CCAAdj (6-12)		
17	Uses of private enterprise income	24	Sources of private enterprise income

Account 3. Personal Income and Outlay Account

Line		Line	
1	Personal current taxes (4-14)	10	Compensation of employees, received.....
2	Personal outlays	11	Wages and salaries
3	Personal consumption expenditures (1-15).....	12	Domestic (1-3)
4	Personal interest payments (2-21 and 3-20 and 4-20 and 5-13).....	13	Rest of the world (5-3).....
5	Personal current transfer payments	14	Supplements to wages and salaries (1-5).....
6	To government (4-24).....	15	Employer contributions for employee pension and insurance funds
7	To the rest of the world (net) (5-17).....	16	Employer contributions for government social insurance
8	Personal saving (6-11)	17	Proprietors' income with IVA and CCAAdj (2-9).....
		18	Rental income of persons with CCAAdj (2-10).....
		19	Personal income receipts on assets
		20	Personal interest income (2-2 plus 3-4 plus 4-7 plus 5-5 less 2-21 less 4-20 less 5-13)
		21	Personal dividend income (2-16 less 4-21)
		22	Personal current transfer receipts.....
		23	Government social benefits (4-4).....
		24	From business (net) (2-6).....
		25	Less: Contributions for government social insurance, domestic (4-18)
9	Personal taxes, outlays, and saving	26	Personal income

Table A. Summary National Income and Product Accounts, 2013

[Billions of dollars]

Account 4. Government Receipts and Expenditures Account					
Line		Line			
1	Consumption expenditures (1-31)	2,547.6	13	Current tax receipts	3,283.6
2	Current transfer payments	2,437.5	14	Personal current taxes (3-1)	1,661.8
3	Government social benefits	2,391.1	15	Taxes on production and imports (1-6)	1,162.4
4	To persons (3-23)	2,372.2	16	Taxes on corporate income (2-13)	440.2
5	To the rest of the world (5-18)	18.9	17	Taxes from the rest of the world (5-18)	19.2
6	Other current transfer payments to the rest of the world (net) (5-18)	46.4	18	Contributions for government social insurance (3-25 and 5-18)	1,109.9
7	Interest payments (2-21 and 3-20 and 4-20 and 5-13)	617.7	19	Income receipts on assets	244.4
8	Subsidies (1-7)	60.2	20	Interest and miscellaneous receipts (2-2 and 3-4 and 4-7 and 5-5)	109.4
9	Net government saving (6-13)	-874.3	21	Dividends (2-16 less 3-21)	135.0
10	Federal	-649.1	22	Current transfer receipts	180.4
11	State and local	-225.1	23	From business (net) (2-7)	89.0
			24	From persons (3-6)	91.4
			25	Current surplus of government enterprises (1-10)	-29.6
12	Government current expenditures and net saving	4,788.6	26	Government current receipts	4,788.6
Account 5. Foreign Transactions Current Account					
Line		Line			
1	Exports of goods and services (1-29)	2,262.2	9	Imports of goods and services (1-30)	2,770.4
2	Income receipts from the rest of the world	810.4	10	Income payments to the rest of the world	586.1
3	Wage and salary receipts (3-13)	6.7	11	Wage and salary payments (1-4)	15.6
4	Income receipts on assets	803.7	12	Income payments on assets	570.5
5	Interest (2-21 and 3-20 and 4-20)	146.6	13	Interest (2-2 and 3-4 and 4-7)	316.5
6	Dividends (2-22)	286.8	14	Dividends (2-3)	154.0
7	Reinvested earnings on U.S. direct investment abroad (2-23)	370.2	15	Reinvested earnings on foreign direct investment in the United States (2-4)	100.1
			16	Current taxes and transfer payments to the rest of the world (net)	138.3
			17	From persons (net) (3-7)	74.3
			18	From government (net) (3-25 plus 4-5 plus 4-6 less 4-17 less 4-18)	40.7
			19	From business (net) (2-8 plus 2-14)	23.3
			20	Balance on current account, NIPAs (7-1)	-422.2
8	Current receipts from the rest of the world	3,072.6	21	Current payments to the rest of the world and balance on current account, NIPAs	3,072.6
Account 6. Domestic Capital Account					
Line		Line			
1	Gross domestic investment	3,244.3	10	Net saving	406.8
2	Private fixed investment (1-21)	2,573.9	11	Personal saving (3-8)	608.1
3	Government fixed investment (1-31)	596.3	12	Undistributed corporate profits with IVA and CCAadj (2-17)	673.0
4	Change in private inventories (1-27)	74.1	13	Net government saving (4-9)	-874.3
5	Capital account transactions (net)	0.8	14	Plus: Consumption of fixed capital (1-11)	2,627.2
6	Transfer payments for catastrophic losses (7-3)	0.0	15	Private	2,120.8
7	Other capital account transactions (7-4)	0.8	16	Government	506.4
8	Net lending or net borrowing (-), NIPAs (7-5)	-423.0	17	General government	444.4
			18	Government enterprises	62.0
			19	Equals: Gross saving	3,034.1
			20	Statistical discrepancy (1-13)	-211.9
9	Gross domestic investment, capital accounts transactions (net), and net lending, NIPAs	2,822.2	21	Gross saving and statistical discrepancy	2,822.2
Account 7. Foreign Transactions Capital Account					
Line		Line			
		2	Capital account transactions (net)	0.8	
		3	Transfer payments for catastrophic losses (6-6)	0.0	
		4	Other capital account transactions (6-7)	0.8	
		5	Net lending or net borrowing (-), NIPAs (6-8)	-423.0	
1	Balance on current account, NIPAs (5-20)	-422.2	6	Capital account transactions (net) and net lending, NIPAs	-422.2

CCAdj Capital consumption adjustment
IVA Inventory valuation adjustment
NIPAs National income and product accounts

NOTE: The seven summary accounts constitute a double-entry accounting system in which each of the entries in a summary account appears again in that account or in one of the other summary accounts. The numbers in parentheses indicate these counterentries. In some cases, an entry may be equal to another entry in the summary accounts. For

example, supplements to wages and salaries appears in account 1, line 5 and in account 3, line 14. In other cases, an entry may be equal to a combination of other entries (or of parts of other entries). For example, for private enterprise interest payments (account 2, line 2), the counterentry includes parts of private enterprise interest receipts (account 2, line 21), of personal interest income (account 3, line 20), of government interest receipts (account 4, line 20), and of interest payments to the rest of the world (account 5, line 13).

Appendix A

Table B. Percent Change From Preceding Period in Real Gross Domestic Product, Real Gross Domestic Income, and Other Major NIPA Aggregates
[Percent]

	Line	2012	2013	Seasonally adjusted at annual rates				
				2013			2014	
				II	III	IV	I	II
Production in the United States:								
Gross domestic product	1	2.3	2.2	1.8	4.5	3.5	-2.1	4.0
Gross domestic income	2	3.4	2.2	2.7	1.9	1.8	-0.7	.....
Net domestic product ¹	3	2.4	2.3	1.7	5.0	3.7	-2.9	4.3
Net domestic income ¹	4	3.7	2.2	2.8	1.9	1.8	-1.2	.....
Production by labor and capital supplied by U.S. residents:								
Gross national product	5	2.1	2.2	1.9	4.8	3.7	-2.8	.....
Gross national income	6	3.2	2.1	2.8	2.3	2.1	-1.4	.....
Net national product ¹	7	2.2	2.2	1.8	5.3	4.0	-3.7	.....
Final expenditures by U.S. residents:								
Gross domestic purchases	8	2.2	1.9	2.2	3.8	2.3	-0.4	4.5
Final sales to domestic purchasers ²	9	2.1	1.9	1.9	2.3	2.7	0.7	2.8
Purchasing power of income: ³								
Command-basis gross domestic product	10	2.4	2.4	2.1	4.5	3.5	-2.1	4.0
Command-basis net domestic product ¹	11	2.5	2.5	2.1	4.9	3.7	-2.9	4.4
Command-basis gross national product	12	2.2	2.3	2.2	4.8	3.7	-2.8	.....
Command-basis net national product ¹	13	2.3	2.4	2.2	5.3	4.0	-3.7	.....
After-tax income received by the personal sector:								
Disposable personal income	14	3.0	-0.2	3.8	2.0	0.2	3.5	3.8

1. In this table, the net measures are the corresponding gross measures excluding the depreciation of fixed assets as measured by the consumption of fixed capital.
2. Gross domestic purchases excluding change in private inventories.
3. The command-basis estimates (lines 10–13) measure the purchasing power of the income

generated by the sale of goods and services produced; they reflect gains or losses in real income resulting from changes in the terms of trade for exports and imports. For more detail on the command-basis measures, see NIPA tables 1.8.3 and 1.8.6.
NOTE: Data in this table are from NIPA table 1.17.1.

Table C. Real Gross Domestic Product, Real Gross Domestic Income, and Other Major NIPA Aggregates, Chained Dollars
[Billions of chained (2009) dollars]

	Line	2012	2013	Seasonally adjusted at annual rates				
				2013			2014	
				II	III	IV	I	II
Production in the United States:								
Gross domestic product	1	15,369.2	15,710.3	15,606.6	15,779.9	15,916.2	15,831.7	15,985.7
Gross domestic income	2	15,568.1	15,908.8	15,879.1	15,955.4	16,027.6	16,000.1	.....
Net domestic product ¹	3	12,912.3	13,203.2	13,106.3	13,266.3	13,389.0	13,291.4	13,431.8
Net domestic income ¹	4	13,110.5	13,401.1	13,377.9	13,441.2	13,500.1	13,459.5	.....
Production by labor and capital supplied by U.S. residents:								
Gross national product	5	15,567.3	15,902.4	15,790.6	15,977.6	16,124.3	16,009.8	.....
Gross national income	6	15,766.0	16,100.8	16,062.8	16,152.9	16,235.5	16,178.1	.....
Net national product ¹	7	13,110.3	13,395.3	13,290.3	13,463.9	13,596.9	13,469.5	.....
Final expenditures by U.S. residents:								
Gross domestic purchases	8	15,824.6	16,131.0	16,054.5	16,205.0	16,298.6	16,280.4	16,458.9
Final sales to domestic purchasers ²	9	15,760.1	16,057.9	16,003.8	16,096.7	16,203.6	16,231.7	16,345.2
Purchasing power of income: ³								
Command-basis gross domestic product	10	15,286.0	15,655.6	15,555.7	15,726.8	15,862.1	15,777.2	15,934.1
Command-basis net domestic product ¹	11	12,831.5	13,150.4	13,057.5	13,215.1	13,336.5	13,238.6	13,382.0
Command-basis gross national product	12	15,501.1	15,865.1	15,756.8	15,941.9	16,087.6	15,972.5	.....
Command-basis net national product ¹	13	13,045.5	13,359.1	13,257.8	13,429.4	13,561.3	13,433.3	.....
After-tax income received by the personal sector:								
Disposable personal income	14	11,676.2	11,650.8	11,647.0	11,705.9	11,711.7	11,812.7	11,922.3

1. In this table, the net measures are the corresponding gross measures excluding the depreciation of fixed assets as measured by the consumption of fixed capital.
2. Gross domestic purchases excluding change in private inventories.
3. The command-basis estimates (lines 10–13) measure the purchasing power of the income

generated by the sale of goods and services produced; they reflect gains or losses in real income resulting from changes in the terms of trade for exports and imports. For more detail on the command-basis measures, see NIPA tables 1.8.3 and 1.8.6.
NOTE: Data in this table are from NIPA table 1.17.6.

Appendix A

Table D. Gross Domestic Product, Gross Domestic Income, and Other Major NIPA Aggregates

[Billions of dollars]

	Line	2012	2013	Seasonally adjusted at annual rates				
				2013			2014	
				II	III	IV	I	II
Production in the United States:								
Gross domestic product.....	1	16,163.2	16,768.1	16,619.2	16,872.3	17,078.3	17,044.0	17,294.7
Gross domestic income.....	2	16,372.3	16,980.0	16,909.3	17,060.0	17,197.8	17,225.4	.....
Net domestic product ¹	3	13,633.0	14,140.8	14,006.4	14,232.1	14,407.8	14,345.3	14,573.2
Net domestic income ¹	4	13,842.1	14,352.7	14,296.6	14,419.7	14,527.3	14,526.7	.....
Production by labor and capital supplied by U.S. residents:								
Gross national product.....	5	16,390.5	16,992.4	16,834.0	17,103.1	17,321.2	17,255.0	.....
Gross national income.....	6	16,599.7	17,204.3	17,124.2	17,290.7	17,440.7	17,436.4	.....
Net national product ¹	7	13,860.3	14,365.1	14,221.3	14,462.9	14,650.6	14,556.3	.....
National income ²	8	14,069.5	14,577.1	14,511.5	14,650.5	14,770.2	14,737.7	.....
Final expenditures by U.S. residents:								
Gross domestic purchases.....	9	16,731.5	17,276.2	17,151.2	17,382.2	17,541.2	17,582.0	17,858.7
Final sales to domestic purchasers ³	10	16,666.6	17,202.2	17,100.4	17,271.5	17,450.6	17,541.8	17,748.8
After-tax income received by the personal sector:								
Disposable personal income.....	11	12,384.0	12,505.1	12,470.7	12,585.8	12,623.7	12,775.8	12,968.5

1. In this table, the net measures are the corresponding gross measures excluding the depreciation of fixed assets as measured by the consumption of fixed capital.

2. Equals gross national income less the depreciation of fixed assets as measured by the

consumption of fixed capital.

3. Equals gross domestic purchases less change in private inventories.

NOTE: Data in this table are from NIPA table 1.17.5.

The Revisions to GDP, GDI, and Their Major Components

By Dennis J. Fixler, Ryan Greenaway-McGrevy, and Bruce T. Grimm

THE NATIONAL income and product accounts (NIPAs) provide a timely, comprehensive, and accurate picture of the condition of the U.S. economy. The two featured measures, gross domestic product (GDP) and gross domestic income (GDI), are measures of the same concept of total activity in the U.S. economy. GDP measures activity as the sum of all final expenditures in the economy; it is detailed on the product side of the domestic income and product account. GDI measures activity as the sum of all incomes generated in production; it is detailed on the income side of the account. Thus, in concept GDP and GDI measure the same economic activity, but in practice, they differ because each is constructed using different source data.¹

Measuring the accuracy of the national accounts estimates is a long-standing challenge for several reasons:

- The early GDP and GDI estimates are based on partial and preliminary source data as well as trend projections when data are not available. They are intended to provide an “early read” on the general picture of economic activity for decisionmakers. These early estimates are subsequently revised as more complete information become available.
- The source data used to estimate the national economic accounts come from a mixture of survey, tax, and other business and administrative data. They are subject to a mix of sampling and nonsampling errors and biases that cannot be measured in terms of standard errors.
- The NIPAs are regularly revised to reflect changes in the economic concepts and methods necessary for the accounts to provide a relevant and accurate picture of the evolving U.S. economy. These updates range from expanding the definition of investment to include research and development activity as well as the production of entertainment, literary, and artistic originals to updating seasonal adjustment factors to reflect the most recent seasonal patterns.

1. The difference between GDP and GDI is allocated to the income side of the account, and is known as the statistical discrepancy.

As a result, accuracy cannot be assessed by conventional statistical measures, such as standard errors. Instead, we assess accuracy by examining magnitudes and patterns of NIPA revisions (see the box “Accuracy, Reliability, and Uncertainty”). The NIPAs are revised for a variety of reasons. Some revisions are due to the replacement of early extrapolations for missing source data or preliminary survey data with more complete and accurate annual and benchmark data, such as economic census data.² Other revisions are the result of updates to the concepts on which the accounts are based. These revisions to concepts and definitions can be substantial. In six comprehensive revisions—in 2009, 2003, 1999, 1995, 1991, and 1985—the average percentage change in the levels of current-dollar GDP for selected periods was 2 percent, and of that change, about one-third was from concepts and definitions and two-thirds from statistical revisions. In the 2013 comprehensive revision, the dollar level of GDP was revised up an average of 3.1 percent in 1993–2012, mainly because of the recognition of research and development and creation of artistic and literary originals as investment.³ Another major cause of revisions is updated seasonal adjustment factors, which Fixler and Grimm (2002) reported accounted for an average revision to GDP (without regard to sign) of 1.0 percentage point.

BEA’s principal standard of reliability is based on a comparison of its early estimates to the “latest” estimates, which are revised to incorporate the most up-to-date concepts, statistical methods, and the most complete and accurate source data available. These

2. Economic censuses are conducted by the Census Bureau every 5 years and provide detailed product information on the goods and services produced by each industry in the United States. These data are the basis for BEA’s benchmark input-output accounts, which are used to set the benchmark level of GDP.

3. The end point of this study is 2012 because at the time this study was conducted, there were no annual revision estimates available for 2013. The 1983–92 period, which was included in several earlier studies, has been dropped in order to emphasize more recent issues affecting reliability. In addition, this study was conducted with data that does not reflect the 2014 annual revision of the NIPAs.

The authors would like to thank Carl Fisher and Andrew Craig for their assistance.

comparisons indicate that revisions do not substantively change BEA's measures of long-term growth, the picture of business cycles, and trends in major components of GDP. Economic policy decisions should not need to be reconsidered in the light of revisions to GDP estimates, and policymakers should be able to rely on the early estimates as correctly indicating the state of the economy. More specifically, BEA judges the qualitative reliability of its early estimates by whether they present the same general picture of economic activity as the latest estimates in terms of the following:

- Long-term growth rates
- Trends in saving, investment, government spending, corporate profits, and other key components of GDP and GDI

- Broad features of the business cycle, including the timing and depth of recessions, the strength of recoveries, and the major components contributing to growth and contractions
- The patterns of quarterly growth, including whether growth in any particular period is high or low relative to trend, is accelerating or decelerating, or is positive or negative

Quantitatively, revisions are measured as the changes from an earlier vintage of a given estimate to a later vintage of that estimate, for example, from the third current quarterly estimate to the first annual revision estimate (see the box "Vintages and Timing of Revisions"). Because the latest vintage incorporates the most recent comprehensive revision, they incorporate

Accuracy, Reliability, and Uncertainty

How accurate are the gross domestic product (GDP) estimates? This is a fairly common question, often inspired by the release of revised estimates with the passage of time. From a statistical perspective, when one speaks of the accuracy of an estimate, one is usually referring to the difference between the estimate and some "true" value. For example, the difference between a sample mean and a population mean that is as taken as the true value.

The fact that BEA provides a sequence over time of estimates for a given quarter—which are referred to as vintage estimates—implies that users of the data should understand that there is some uncertainty surrounding the estimates, especially the early estimates. Because the true value of GDP can never be observed, its accuracy cannot be assessed.

However, over time, BEA acquires more and better information about GDP and schedules several revisions to the advance estimate of quarterly GDP. It is therefore able to revise its estimate of GDP. These revisions are believed to be a better estimates of the true value of GDP. The revised estimates can be viewed as repeated estimates of the aggregate economic activity for that quarter. By assessing the performance of these revised estimates, BEA can assess the reliability of estimates.

The reliability of the GDP estimates, as assessed by studying the revision patterns, seeks to answer these questions: how similar are the repeated estimates of GDP for a given quarter? And do they tell the same story? Quantitatively, reliability is assessed by measuring the revision magnitudes and the corresponding means and standard deviations. Qualitatively, it is assessed by looking at such measures as the frequency of directional changes in the estimates. These measures are explained more fully in the text.

By using the means and standard deviations for revisions between different vintages of the GDP estimates given in tables 15 and 16 (page 22), a user can construct confidence intervals for an estimate. For example, consider the difference between the advance and second

quarterly estimate of real GDP for 1993–2012. Table 1 shows that the mean difference between these two estimates is 0.10 percentage point. (Note, however, that this mean revision is statistically indistinguishable from zero). Using the standard deviation of the revision between the advance and second estimates, 0.654 percentage point, and assuming a normal distribution, one can construct a 90 percent confidence interval for the revisions.

$$\bar{x} \pm z_{\alpha/2} s = 0.10 \pm 1.65 \times 0.654 = 0.10 \pm 1.08,$$

where \bar{x} is the mean, $z_{\alpha/2}$ defines a 90 percent confidence interval (1.65), and s is the standard deviation. The same procedure could be used for all revisions between vintages. So what can be said about the uncertainty of the advance estimates? Using a 90 percent confidence criterion, the revision between the advance and second estimates is in the interval (–0.98 to 1.18). One could use this information to estimate the second estimate given the advance estimate. For example, the advance estimate for the first quarter of 2013 was 2.5 percent at an annual rate. Using the above equation, one could say with 90 percent confidence that the second estimate would be between 1.52 percent and 3.68 percent. In fact, the second estimate was 2.4 percent.

Given that BEA routinely revises its estimates during the course of a year, one might ask why BEA produces point estimates of GDP instead of interval estimates. In his review of the then new estimates of national income, Kuznets (1948) remarked, "The very fact that the estimates are cast in the form of unique series and not of ranges, is itself an invitation to treat them as firm results and tend to discourage questioning whether a total of x billion might just as well read $x+a$ or $x-a$." Although interval estimates would inform users of the uncertainty surrounding the estimates, most users prefer point estimates, and so they are featured. However, BEA provides the information that enables an interested user to construct their own interval estimate.

all the available source data that are believed to be the most reliable. Over the long run, this study finds the following:

- Revisions to long-term growth rates are small, averaging less than 0.1 percentage point for average

Vintages and Timing of Revisions

The Bureau of Economic Analysis prepares quarterly and annual estimates of gross domestic product (GDP) and gross domestic income (GDI). It prepares three current quarterly vintages of GDP estimates—advance, second, and third estimates. The advance estimates for a quarter are released about a month after the quarter ends. The second estimates for the quarter are released about 2 months after the quarter ends. And the third estimates are released about 3 months after the quarter ends. In addition, as part of the annual revision of the national income and product accounts (NIPAs) that are released in late July of each year, the quarterly estimates for the 3 preceding years—and possibly more—are revised.

For GDI, BEA prepares a fourth vintage of quarterly estimates. These revised estimates, which incorporate data from the quarterly census of employment and wages, are released with the second estimates of GDP for a quarter. These revised estimates are available beginning with the estimates for the first quarter of 2002.

BEA initially prepares four vintages of annual estimates—early annual, first annual, second annual, and third annual estimates. For GDP and GDI, the early estimates are the sum of the third quarterly estimates for that year. The estimates of GDP are released in March with the third estimates for the fourth quarter of that year. The estimates of GDI are released with the release of the fourth estimates for the fourth quarter of the year in late May. In most years, the quarterly estimates for the first quarter of the previous year are from the first current annual estimate released the previous summer. The current annual estimates for the 3 preceding years are revised as part of the annual NIPA revision. After the third annual revision of the estimates for a year is released, these estimates are generally not revised or released again until the next comprehensive revision. Occasionally, however, revisions extend further back in time.

Annual NIPA revision estimates are superseded by comprehensive NIPA revisions, which occur about every 5 years. These revisions incorporate changes in definitions, in classifications, and in statistical methodology. The most recent comprehensive revision was released in late July 2013. It presented revised annual estimates for 1929–2012 and revised quarterly estimates for 1947–2012. The latest available estimates for 1990–2012 in this study are the comprehensive revision estimates of 2013.

growth rates over the 1993–2012 period.

- With the exception of conceptual revisions like the addition of R&D, there are no substantial revisions, as measured by shares of GDP or GDI for key components such as investment and government expenditures or for the national saving rate.
- The overall pattern of change in GDP over time is little changed by the revisions (chart 1).

In the short run, there are three vintages of “current quarterly” estimates of GDP—the advance, the second, and the third estimates. Each estimate is produced using a wide mix of source data—preliminary survey results, such as the Census Bureau’s surveys of monthly retail trade and quarterly services as well as manufacturers’ shipments and inventories, various indirect indicators, trade industry data, and some trend projections—that are later revised to reflect more complete information.⁴

The three vintages of GDP estimates successfully indicate the following:

- The direction of change in real GDP 96 percent of the time
- The acceleration or deceleration of growth about 75 percent of the time
- The relative magnitude of growth—whether it was above, near, or below trend (near trend is within one standard deviation from the mean) about 83 percent of the time
- The cyclical peaks before five of the seven recessions in 1969–2012
- The cyclical troughs of five of the seven recessions⁵

Early quarterly estimates are replaced successively with three vintages of “current annual” estimates that are primarily based on increasingly complete annual source data. Approximately every 5 years, the annual estimates are replaced with benchmark estimates when BEA conducts its comprehensive revisions of the NIPAs.

The measures of reliability used by BEA and discussed in this article are mean absolute revisions (MARs) and mean revisions (MRs). The MARs to the annual rates of change—that is, taking the average of the revisions without regard to sign—from the current quarterly estimates to the latest estimates for 1993–2012 of both current-dollar and real GDP have averaged somewhat more than 1 percentage point. (See the box “Mean Revisions, Mean Absolute Revisions, and Standard Deviations.”) The MRs—that is taking the

4. For more information on the source data underlying GDP and GDI estimates, see [Holdren \(2014\)](#).

5. No major measure of economic activity captures all of the cyclical peaks and troughs of all of the postwar recessions. This applies to GDP and GDI as well as the four monthly frequency measures emphasized by the Business Cycle Dating Committee of the National Bureau of Economic Research in determining peaks and troughs. See [Grimm \(2005\)](#).

averages and allowing both positive and negative values for the revisions—have averaged about -0.1 percentage point.

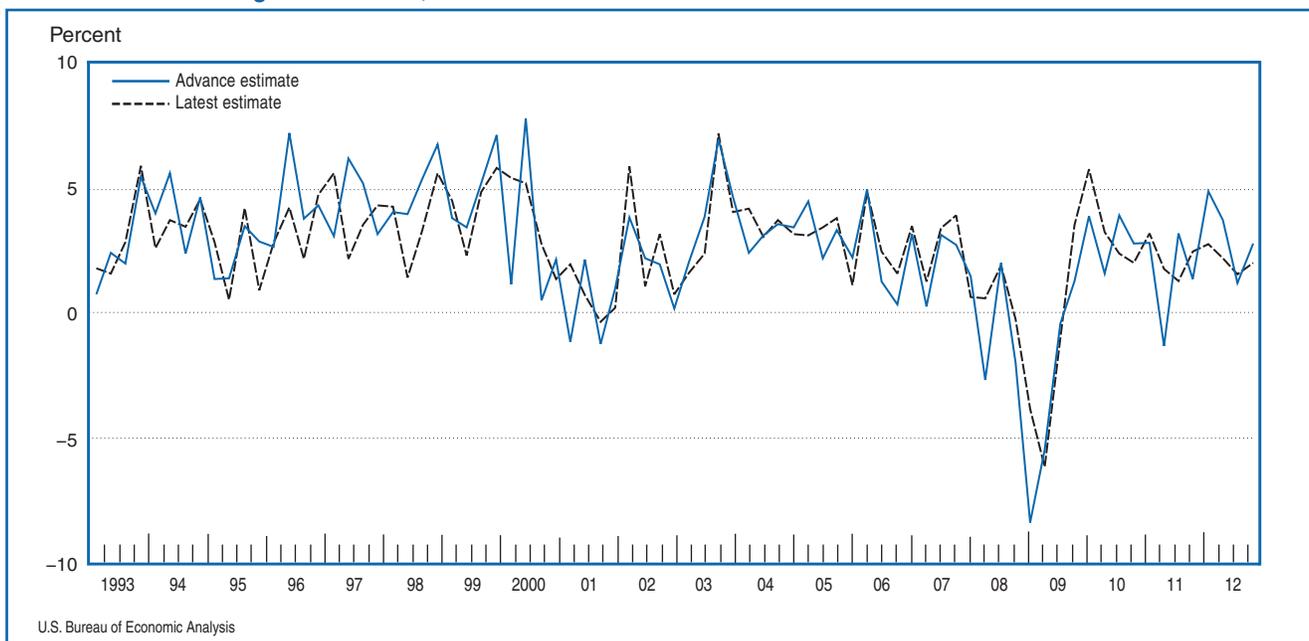
The MARs between the current quarterly estimates are smaller. For example, the MAR from the advance estimates to the second estimates of GDP is 0.5 percentage point, and the MAR from the advance estimates to the third estimates is 0.6 percentage point. The MAR from the second estimates to the third estimates is 0.2 percentage point.

MRs indicate whether the revisions are generally positive or negative. Because revisions may be offsetting, the MRs are much smaller than the MARs. The

MR for real GDP from the advance estimates to the latest estimates is between 0 and -0.1 percentage point, much of which reflects the result of NIPA comprehensive revisions. The MRs from the second and third estimates to the latest estimates are both between 0 and -0.2 percentage point. To put these MRs into context for 1993–2012, the mean growth of real GDP was 2.5 percent, and the growth rates ranged from -8.3 percent to 7.8 percent.

The remainder of this article discusses (1) revisions to quarterly estimates of GDP and its components, (2) revisions to annual estimates of GDP and its components, (3) revisions to quarterly estimates of GDI and

Chart 1. Percent Change in Real GDP, 1993–2012



Mean Revisions, Mean Absolute Revisions, and Standard Deviations

By convention, revisions are calculated as the later vintage estimates less the earlier vintage estimates; that is, for any time t , the revision is

$$R_t = L_t - E_t$$

where L is the percent change in the later vintage quarterly or annual estimates, and E is the percent change in the earlier vintage estimates. Percent changes in quarterly estimates are at annual rates, this corresponds to the convention generally used for the estimates.

The mean revision is the average of the revisions in the sample period.

$$MR = \sum_t R_t / n, t = 1, \dots, n$$

The revisions can be positive or negative, so they may be offsetting. As a result, it is also useful to look at the

mean absolute revision, which is the average of the absolute revisions in the sample period.

$$MAR = \sum_t |R_t| / n, t = 1, \dots, n$$

For some purposes, it is also useful to calculate the standard deviation of the revisions. The standard deviation is the square root of the variance of the revisions. In turn, the variance is the average of the square of the deviation of the revisions about their mean.

$$SD(R) = Var(R)^{1/2}$$

and

$$Var(R) = \sum_t (R_t - MR)^2 / n, t = 1, \dots, n$$

The mean absolute revision and the standard deviations are complementary measure of the distribution of the revision around their mean.

its components, (4) revisions to annual estimates of GDI and its components, and (5) the relationship of quarterly estimates of GDP and GDI and weighted averages of the two measures. These are followed by a brief summary and conclusions.

Revisions to Quarterly Estimates of GDP

The featured reliability measures featured MRs and MARs from the three vintages of current quarterly estimates to the latest estimates. Standard deviations are also shown in selected tables, providing information about the distribution of the revisions.

Mean absolute revisions

The measures of revisions for real and current-dollar GDP and their components are shown in table 1. In

1993–2012, the MARs for both current-dollar GDP and real GDP are somewhat larger than 1.2 percentage points for both the second and third current quarterly estimates, with those for real GDP slightly smaller than those for current-dollar GDP. For both measures, the MARs decline slightly but steadily from the advance estimates to the third estimates.⁶

In general, previous BEA revision studies have found little or no tendency for MARs to decline with successive vintages of estimates, in either real or current dollars. However, this study—which drops the 1983 to 1992 time period included in earlier studies—finds that the MARs for GDP and for many of its

6. This is somewhat different from the results of previous BEA studies, which found no particular tendency of MARs to increase or decrease with successive estimates.

Table 1. Revisions, Current Quarterly Estimates to the Latest Estimates, Changes in Gross Domestic Product and Its Major Components, 1993–2012
[Percentage points]

Vintage	Mean revision		Standard deviation		Mean absolute revision		Vintage	Mean revision		Standard deviation		Mean absolute revision	
	Current dollar	Real	Current dollar	Real	Current dollar	Real		Current dollar	Real	Current dollar	Real	Current dollar	Real
Gross domestic product							Second.....	-1.10	-1.58	6.44	5.84	5.23	4.83
Advance.....	0.12	-0.06	1.69	1.61	1.35	1.29	Third.....	-1.36	-1.40	6.62	6.08	5.44	4.98
Second.....	-0.01	-0.17	1.56	1.53	1.28	1.25	Residential						
Third.....	-0.10	-0.19	1.53	1.49	1.21	1.20	Advance.....	0.67	0.06	6.02	4.88	4.49	3.81
Personal consumption expenditures							Second.....	0.38	-0.22	5.29	4.52	3.89	3.48
Advance.....	-0.06	-0.07	1.27	1.19	1.00	0.95	Third.....	0.09	-0.44	5.34	4.47	3.61	3.45
Second.....	-0.09	-0.10	1.13	1.05	0.89	0.82	Change in private inventories ¹						
Third.....	-0.10	-0.10	1.15	1.05	0.87	0.82	Net exports of goods and services ¹						
Durable goods							Exports						
Advance.....	-0.12	-0.23	5.50	5.53	4.31	4.40	Advance.....	4.98	1.34	12.09	4.64	4.14	3.69
Second.....	-0.06	-0.15	5.35	5.38	4.33	4.42	Second.....	1.29	0.31	5.23	4.00	3.29	3.11
Third.....	-0.15	0.21	5.28	6.00	4.24	4.65	Third.....	0.19	0.24	4.28	3.81	2.69	3.00
Nondurable goods							Imports						
Advance.....	-0.21	0.01	2.59	2.31	1.96	1.68	Advance.....	0.71	0.77	5.53	5.09	4.37	4.16
Second.....	-0.33	-0.02	2.39	2.32	1.82	1.69	Second.....	0.14	-0.18	4.62	3.87	3.28	3.00
Third.....	-0.33	-0.10	2.45	2.25	1.83	1.61	Third.....	0.11	-0.06	4.13	3.78	3.19	2.91
Services							Government consumption expenditures and gross investment						
Advance.....	-0.05	-0.12	1.14	0.99	0.86	0.81	Advance.....	0.30	0.03	2.02	1.88	1.65	1.52
Second.....	-0.04	-0.18	1.09	1.00	0.84	0.79	Second.....	0.08	-0.09	2.06	1.90	1.58	1.48
Third.....	-0.05	-0.14	1.05	1.01	0.80	0.76	Third.....	0.07	-0.02	2.07	1.85	1.59	1.45
Gross private domestic investment							Federal						
Advance.....	0.59	-0.66	6.63	6.97	5.16	5.27	Advance.....	0.10	-0.06	3.40	3.29	2.76	2.60
Second.....	-0.11	-0.99	7.15	7.20	5.82	5.87	Second.....	0.00	0.01	3.58	3.47	2.75	2.76
Third.....	-0.24	-1.03	6.88	6.90	5.61	5.63	Third.....	0.03	0.12	3.51	3.39	2.72	2.71
Fixed investment							Defense						
Advance.....	0.70	-0.34	3.47	3.54	2.71	2.79	Advance.....	-0.14	-0.28	4.61	4.56	3.55	3.39
Second.....	0.06	-0.84	3.44	3.53	2.68	2.85	Second.....	-0.12	-0.10	4.46	4.33	3.43	3.18
Third.....	-0.01	-0.92	3.53	3.50	2.74	2.92	Third.....	-0.05	-0.01	4.39	4.24	3.33	3.04
Nonresidential							Nondefense						
Advance.....	0.08	-0.60	4.36	4.39	3.39	3.51	Advance.....	0.45	0.20	5.79	5.48	4.22	4.16
Second.....	-0.61	-1.18	4.48	4.46	3.61	3.72	Second.....	0.00	-0.05	6.14	5.81	4.43	4.38
Third.....	-0.76	-1.22	4.47	4.43	3.49	3.75	Third.....	-0.05	-0.11	6.17	5.89	4.56	4.61
Structures							State and local						
Advance.....	2.85	1.39	10.81	9.17	8.32	7.10	Advance.....	0.45	0.11	2.67	2.08	2.10	1.59
Second.....	1.47	0.16	10.62	9.46	7.67	6.96	Second.....	0.12	-0.11	2.52	2.00	1.85	1.61
Third.....	0.86	-0.11	10.17	7.92	7.13	5.89	Third.....	0.13	-0.18	2.55	2.14	1.89	1.64
Equipment and intellectual property products													
Advance.....	-0.55	-1.12	6.10	5.72	4.94	4.63							

1. Percent changes cannot be calculated because of the presence of both positive and negative values.

components decline with successive vintages and with more complete and revised source data.⁷

The MARs for current-dollar personal consumption expenditures (PCE) are about 0.3 percentage point smaller than those for the corresponding vintages of current-dollar GDP; they are 1.0 percentage point for the advance estimates and 0.9 percentage point for both the second and third estimates. Those for real PCE are slightly smaller, about 0.8 percent for the second and third vintages. Both measures tend to decline slightly with successive vintages. Within PCE, the MARs for durable goods are noticeably larger, about 4.3 percent for current-dollars and 4.4 percent for real durable goods; the MARs do not decline with succes-

sive vintages.

The MARs for nondurable goods are also larger than those for all PCE, and show some tendency to decline with successive vintages of estimates. The MAR for the advance estimate is 2.0 percentage points. The MARs for the second and third estimates are 1.8 percentage points. The MARs for the real estimates are about 0.2 percentage point smaller than those for current-dollar estimates.

The MARs for PCE services are the smallest of those of any of the major PCE components shown in the table. The MARs for current-dollar PCE are 0.9 percentage point for the advance estimate, and 0.8 percentage point for both the second and third estimates. The MARs for the corresponding real estimates are slightly smaller, but the differences are less than 0.1 percentage point. Again, there is a modest tendency for the MARs to decline with successive vintages. Fixler and Grimm

7. This finding of declines with successive vintages is the expected finding; the absence of this finding in previous studies was puzzling because the later vintages, with more and better source data, would be expected to be closer to the latest estimates.

Revisions to Monthly Estimates of Price Indexes for Personal Consumption Expenditures

The reliability measures used to analyze prices are the mean revisions (MRs) and mean absolute revisions (MARs) for the current monthly estimates to the later vintage estimates of the percent changes in two indexes: (1) the price index for personal consumption expenditures (PCE) and (2) the index for personal consumption expenditures excluding food and energy (PCEX). The MRs and MARs are calculated using monthly data for 1996–2013 for PCE and monthly data for 2000–2013 for PCEX (see the table). Both MRs and MARs increase for any vintage of estimates as progressively later vintages of estimates are used as standards. The revisions are measured in terms of annualized percent changes; for example, the first vintage of estimates to the latest revision estimates of PCE has a MAR of 0.92 percent, which corresponds to a month-to-month rate MAR of 0.07 percent.

The MRs for PCE and PCEX follow similar patterns. All have positive values.¹ Both have progressively larger MRs for the earlier vintages as progressively later vintages are used as standards. The MRs for PCE range from 0.04 for the third estimate to the latest estimate to 0.18 for the first estimate to the latest estimate. A difference in patterns is that the smallest MR for PCE is for the third estimate to the latest estimate, and the smallest MR for PCEX is for the second estimate to the third estimate. In addition, for PCE, the MR for first estimate to the third estimate is larger than the MR for the second estimate to the latest estimate, with values of 0.14 and 0.10, respectively. For PCEX, the MR for the first estimate to third estimate is smaller than the MR for the second estimate to the latest estimate, with values of 0.10 and 0.12,

respectively.

The MARs for PCE and PCEX also follow similar patterns. Both have progressively larger MARs for the earlier vintages as progressively later vintages are used as standards. The MARs for PCE range from 0.36 for the second estimate to third estimate to 0.92 for the first estimate to the latest estimate. The MARs for PCEX range from 0.23 for the second estimate to third estimate to 0.66 for the first estimate to the latest estimate.

Average Revisions to Successive Vintages of Monthly Estimates of Annualized Percent Changes in Price Indexes for Personal Consumption Expenditures (PCE) and PCE Excluding Food and Energy

	Vintage of revision used as standard ¹		
	Second estimate	Third estimate	Latest estimate
Mean revision			
PCE			
First monthly estimate	0.08	0.14	0.18
Second monthly estimate		0.06	0.10
Third monthly estimate			0.04
PCE excluding food and energy			
First monthly estimate	0.07	0.10	0.19
Second monthly estimate		0.03	0.12
Third monthly estimate			0.09
Mean absolute revision			
PCE			
First monthly estimate	0.40	0.50	0.92
Second monthly estimate		0.36	0.86
Third monthly estimate			0.80
PCE excluding food and energy			
First monthly estimate	0.25	0.35	0.66
Second monthly estimate		0.23	0.57
Third monthly estimate			0.53

1. First is the first monthly estimate, second is the second monthly estimate, and third is the third monthly estimate. Latest is the latest estimate.

1. The current quarterly estimates of PCE prices were also found to be positive and not statistically significant; see [Fixler, Greenaway-McGrevy, and Grimm \(2011\)](#), 27.

2011 presented average revisions for price indexes for GDP and major components. They were found to be small and generally not statistically significant. BEA also produces monthly estimates of PCE and prices. These are discussed for the first time in the box “Revisions to Monthly Estimates of Price Indexes for Personal Consumption Expenditures.”

The MARs for the other components of GDP are all considerably larger than those for GDP and PCE. The MARs for gross private domestic investment are relatively large; they range from 5.2 percentage points to 5.9 percentage points for both current-dollar and real investment. Both increase 0.6 percentage point from the advance to the second estimates, then decrease 0.2 percentage point to the third estimates. The MARs for fixed investment are smaller; in current dollars, they cluster near 2.7 percentage points and near 2.8 percentage points in constant dollars. The smaller sizes are the result of the exclusion of inventory investment, which in a previous study were found, using an alternative methodology, to have large revisions; see Fixler and others (2011).

Within private fixed investment, MARs for current-dollar nonresidential structures decrease from 8.3 percentage points for the advance estimates to 7.7 percentage points for the second estimates and 7.1 percentage points for the third estimates. Real structures have a similar pattern, but at values roughly 1 percentage point lower.

The expansion of the category “equipment and software” to include other intellectual property products” influenced the sizes of the MARs for the category.⁸ They are near 5 percentage points for both current-dollar and real estimates for all the current quarterly vintages. In the new estimates, the expansion increased the size of this category by a little more than one fourth, with a generally increasing trend ratio. To the extent that the quarterly pattern of change for R&D plus literary and artistic originals is different from that for equipment and software, the MARs are increased due to the expansion. The MARs for the three current quarterly estimates are roughly 1 percent point higher than those found in the previous study. The MARs for the real estimates are also higher, but by roughly 0.3 percentage point. The change also tends to increase MARs for broader investment categories, but because the shares of the revision in totals is not large, the effects are not easily observed.

The MARs for the various current quarterly vintages of residential structures investment are only modestly smaller than those for equipment and intel-

lectual property products investment. They decline across successive vintages in both real and current dollars. The MARs for real investment are about 0.4 percentage point smaller than those for current dollars.

The MARs for exports and imports, in both current and real dollars, and for the current quarterly vintages range from about 3 percentage points to somewhat more than 4 percentage points.⁹ Each of the four series has MARs that decline steadily across the successive vintages of current quarterly estimates.

The MARs for total government consumption expenditures and gross investment are all roughly 1.5 percentage points in both current and real dollars. They show little tendency to decline with successive vintages. MARs for federal expenditures are about 2.75 percentage points and show no particular tendency to decline with successive vintages. Within federal, defense expenditures’ MARs decline from 3.5 percentage points for the advance estimates to 3.3 percentage points for the third estimates. The MARs for real estimates are somewhat smaller, ranging from 3.4 percentage points for the advance estimates to 3.0 percentage points for the third estimates. Nondefense expenditures’ MARs increase with successive vintages, ranging from 4.1 percentage points for the advance estimates, to 4.6 percentage points for the third estimates, in both real and current dollars.

The MARs for state and local government consumption expenditures and gross investment decline from 2.1 percentage points for the current-dollar advance estimates to 1.9 percentage points for both the second and third estimates. MARs for the real estimates are about 1.6 percentage points and show no tendency to decrease across vintages.

Mean revisions

The MRs for real and current-dollar GDP are rather small, generally much smaller, than the MARs for GDP because the MARs are functions of both the MRs and the variances of the estimates, which by definition are positive. This occurs because individual revisions are both positive and negative and tend to offset one another. For most of the measures shown here, there is little or no tendency for MRs to become smaller with successive vintages of estimates.

The MRs for both current-dollar and real GDP are rather small and generally negative. The MRs for advance estimates of current-dollar GDP and real GDP are 0.1 percentage point and -0.1 percentage point, respectively. The MRs for the second and third current-dollar estimates of GDP are negative. For real GDP, the MRs are -0.2 percentage point. The MRs for the

8. For this study, we combine the NIPA components “equipment” and “intellectual property products.” In previous studies, we used the (now outdated) NIPA component “equipment and software.”

9. BEA has published an extensive analysis of the international transactions accounts (Yorgason and Scott 2012).

components and subcomponents of real and current-dollar GDP are generally small and both positive and negative, and the signs of the MRs sometimes vary with successive vintages. The MRs for current-dollar structures investment and exports are generally much larger than for other components and subcomponents. The MRs for GDP and its components reflect definition changes that are part of comprehensive revisions.

The standard deviations of revisions are somewhat larger than the MARs for GDP and its components, although the standard deviations for vintages have similar patterns and relationships to those of the MARs. The standard deviations can be used to test whether the MRs are statistically significant. For 1993–2012, the MRs for GDP or its components and subcomponents generally are not statistically different from zero and, therefore, are not statistically significant and do not indicate bias.¹⁰

Charts 2 and 3 provide supplemental pictures of the revisions. Chart 2 is a histogram that shows the numbers of times that revisions from the advance to the latest estimates are within various size categories. The chart reflects average revisions (both median and mean) of -0.06 percent. The smallest and largest revisions are -4.53 percent and 4.01 percent, respectively.

Chart 3 is a scatter diagram showing advance estimates of real GDP and the corresponding size of the revisions from those advance estimates to the latest estimates. The scatter shows no apparent relationship between the sizes of the advance estimates and the ultimate extent of revisions to the latest estimate. The chart indicates that there is nothing systematic about revisions available at the time of earlier estimates.

Table 2 presents revisions triangles that show the MARs for the various vintages of current-dollar GDP estimates to later estimates. All tend to increase with later vintages. For example, the MARs for the second estimates increase rapidly to the first annual estimates, and more slowly thereafter. The revisions to each successive vintage decrease steadily; that is, revisions decline with later vintages. Because comprehensive revisions of the NIPAs are made about every 5 years, the first annual revision estimates contain major redefinitions and reclassifications about one-fifth of the time; the second annual revision estimates, two-fifths; and the third annual revision estimates, three-fifths. Thus, the MARs for the successive annual revision estimates increasingly reflect the effects of these changes as well as the incorporation of increasing amounts of annual data that are available with 1-to-3-year lags.

These same patterns generally hold for the five major components of GDP. The MARs for the various

vintages of estimates of PCE to the various later vintages of estimates are modestly lower than those for GDP, but follow the same general patterns. The patterns of MARs for the three components of PCE also generally follow the same patterns. The MARs for PCE durable goods are several times those of total PCE. MARs for PCE nondurable goods are less than half

Chart 2. Frequency of Revisions to Estimates of Real GDP From Advance to Latest Estimates, 1993–2012

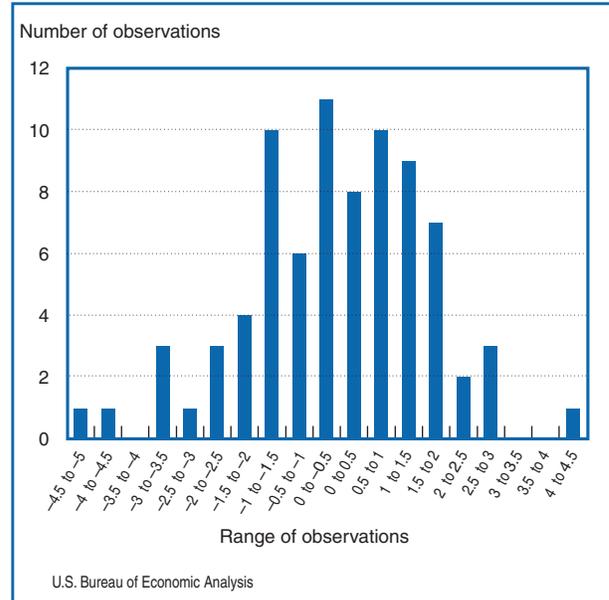
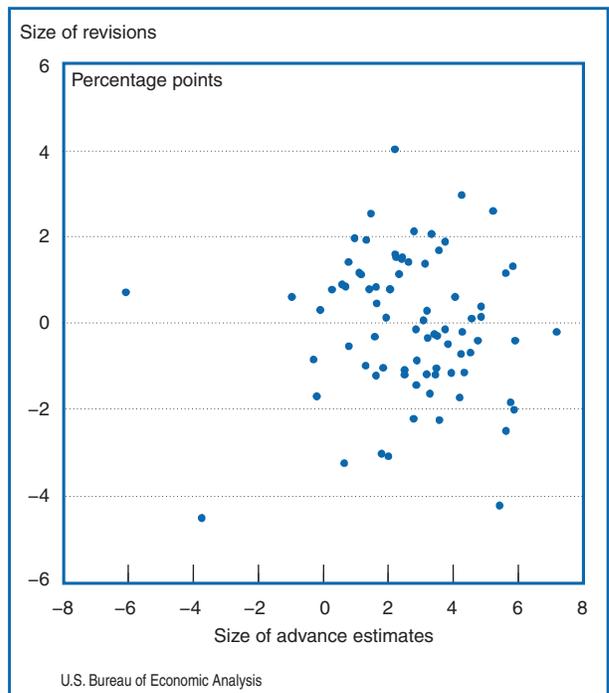


Chart 3: Advance Estimates of Real GDP and Revisions From Advance to Latest Estimates of Real GDP



10. A Jarque-Bera statistic of 1.53 for the group of revisions indicates that the hypothesis of normality cannot be rejected, with a p-value of 0.47.

Table 2. Mean Absolute Revisions, Changes In Current-Dollar GDP and Its Components, 1993–2012

[Percentage points]

Vintage	Vintage of revision used as standard						Vintage	Vintage of revision used as standard					
	Second	Third	First annual	Second annual	Third annual	Latest		Second	Third	First annual	Second annual	Third annual	Latest
Gross domestic product							Equipment and intellectual property investment						
Advance	0.56	0.63	0.93	1.11	1.21	1.35	Advance	1.68	2.02	3.78	4.98	4.07	4.94
Second		0.28	0.79	0.98	1.13	1.28	Second		0.88	3.44	5.24	4.42	5.23
Third			0.72	0.94	1.08	1.21	Third			3.28	5.17	4.70	5.44
First annual				0.64	0.88	0.99	First annual				4.05	3.65	4.41
Second annual					0.55	0.89	Second annual					2.90	3.90
Third annual						0.68	Third annual						2.53
Personal consumption expenditures							Residential investment						
Advance	0.32	0.38	0.72	0.94	1.03	1.00	Advance	1.56	1.94	3.67	4.02	4.14	4.49
Second		0.21	0.64	0.80	0.92	0.89	Second		0.73	2.85	3.38	3.50	3.89
Third			0.60	0.81	0.94	0.87	Third			2.64	3.11	3.23	3.81
First annual				0.59	0.74	0.77	First annual				2.04	2.47	3.35
Second annual					0.49	0.72	Second annual					1.29	2.52
Third annual						0.66	Third annual						1.99
Durable goods							Exports						
Advance	1.10	1.50	2.86	3.37	3.75	4.31	Advance	1.06	2.67	2.42	1.97	1.16	4.14
Second		0.37	2.68	3.16	3.83	4.33	Second		2.56	3.64	4.27	4.55	3.29
Third			2.96	3.22	3.71	4.24	Third			2.71	3.02	3.50	3.20
First annual				2.32	2.88	3.23	First annual				3.06	3.47	2.69
Second annual					2.05	2.66	Second annual					2.91	1.93
Third annual						1.87	Third annual						1.16
Nondurable goods							Imports						
Advance	0.67	0.65	1.14	1.59	1.86	1.96	Advance	2.72	2.74	3.59	3.97	4.03	4.37
Second		0.22	0.92	1.45	1.76	1.82	Second		1.19	2.57	2.86	2.74	3.28
Third			0.87	1.45	1.76	1.82	Third			2.28	2.62	2.47	3.19
First annual				1.08	1.42	1.73	First annual				1.82	2.01	2.58
Second annual					0.86	1.29	Second annual					1.12	1.90
Third annual						1.14	Third annual						1.39
Services							Government consumption expenditures and gross investment						
Advance	0.28	0.42	0.68	0.88	1.00	0.86	Advance	0.72	0.79	1.33	1.36	1.57	1.65
Second		0.32	0.72	0.83	0.96	0.84	Second		0.27	1.20	1.30	1.62	1.58
Third			0.64	0.82	0.89	0.80	Third			1.19	1.27	1.58	1.59
First annual				0.52	0.74	0.68	First annual				0.72	1.26	1.37
Second annual					0.53	0.67	Second annual					0.98	1.22
Third annual						0.61	Third annual						1.10
Gross private domestic investment							Federal government						
Advance	2.90	3.11	4.89	5.50	5.43	5.15	Advance	1.02	0.95	2.66	2.79	3.32	2.76
Second		1.04	4.45	5.36	5.74	5.82	Second		0.31	2.54	2.74	3.37	2.75
Third			4.22	5.07	5.51	5.61	Third			2.60	2.84	3.43	2.72
First annual				3.10	3.60	4.26	First annual				1.49	2.61	2.38
Second annual					2.92	3.71	Second annual					1.67	2.02
Third annual						2.91	Third annual						2.20
Fixed investment							Federal defense						
Advance	1.29	1.68	2.55	2.74	2.85	2.71	Advance	0.96	1.03	2.77	3.45	3.69	3.55
Second		0.82	2.18	2.52	2.73	2.68	Second		0.34	2.70	3.37	3.69	3.43
Third			2.21	2.60	2.78	2.74	Third			2.80	3.40	3.72	3.33
First annual				1.93	2.38	2.42	First annual				1.79	2.41	2.89
Second annual					1.49	1.89	Second annual					1.68	2.77
Third annual						1.80	Third annual						2.44
Fixed nonresidential investment							Federal nondefense						
Advance	1.68	1.90	3.11	3.68	4.08	3.39	Advance	1.95	1.97	4.80	4.81	5.36	4.22
Second		0.85	2.71	3.53	3.97	3.61	Second		0.46	4.78	4.76	5.19	4.43
Third			2.68	3.51	3.95	3.49	Third			4.75	4.70	5.27	4.56
First annual				3.09	3.66	2.94	First annual				3.11	4.40	4.05
Second annual					2.50	2.37	Second annual					3.08	3.65
Third annual						2.32	Third annual						3.95
Nonresidential structures investment							State and local government						
Advance	3.75	4.35	7.33	8.28	8.30	8.32	Advance	0.76	0.95	1.32	1.50	1.79	2.10
Second		1.99	6.91	7.80	8.00	7.67	Second		0.34	1.04	1.33	1.55	1.85
Third			6.00	7.16	7.73	7.13	Third			1.04	1.29	1.58	1.89
First annual				3.95	4.70	4.81	First annual				0.81	1.31	1.58
Second annual					2.82	3.67	Second annual					1.04	1.40
Third annual						3.38	Third annual						1.24

those for all PCE but also show the same patterns. The MARs for PCE services also show similar patterns but are roughly half the size of the corresponding MARs for nondurable goods, and roughly one-third to one-fourth those of durable goods.

The MARs for the various vintages of gross private domestic investment have a generally similar pattern to those of GDP and PCE, but they are four to five times as large as those of GDP. The MARs for the various vintages of fixed investment follow roughly the same patterns but are about half the size of those of the corresponding vintage pairs of gross private domestic investment. The difference is the exclusion of change in private inventories, for which percent changes are not meaningful because the series of estimates switches sign from one quarter to the next. The MARs for the various vintage pairs of fixed nonresidential investment and its three components also show similar patterns but with somewhat larger sizes. The patterns of MARs for the various estimates of residential investment are similar to those for the various estimates of fixed nonresidential investment, and the MARs are of roughly similar sizes.

The pattern of MARs for the various vintages of both imports and exports to later vintages are roughly the same and are similar to the patterns for the other components of GDP. The MARs of the advance estimates to later vintages of imports estimates are considerably larger than those for the corresponding exports estimates. The MARs for later vintages of imports estimates to later intermediate vintages are, however, smaller than the corresponding MARs for exports. The MARs for both exports and imports estimates to the latest estimates, however, are similar in size for each vintage, including the advance estimates.

The MARs for the various vintages of estimates of government consumption expenditures and gross investment also show patterns similar to those for GDP, but they are typically roughly 0.5 percentage point larger. The patterns of MARs for the components and subcomponents of government are roughly similar to the aggregate but with somewhat larger values. The MARs for state and local government are somewhat smaller than those for the other components. This probably does not indicate greater reliability; relatively little new quarterly information comes in at the times of the later estimates, and the sizes of the revisions reflect this.

There are several characteristics of the pattern of the revisions of the various vintages to successive revisions that hold generally but not universally. The revisions from the second to the third vintages of estimates are typically the smallest for any adjacent pair of vintages.

For any given vintage, the MARs tend to increase as later vintages are used as the standards of revisions. For any vintage of later estimates, the MARs tend to decrease in size for all vintages (when later vintages of estimates are used as the earlier estimates). That is, for any row (vintage of earlier estimates), moving across columns of later estimates results in increasingly large MARs. Also, for any given column (vintage of later estimates), going down rows generally results in decreasing MARs.

Table 3 shows MARs for real GDP and its components. The sizes of the MARs are quite close to those of MARs for current-dollar GDP. The patterns are also very similar to the current-dollar patterns. These occur because the revisions to deflators used to construct the real estimates are quite small in comparison with the current-dollar revisions. Most estimates of the components of GDP are made in current dollars and then deflated.

Table 4 (page 12) provides additional information about the revisions from earlier vintages of estimates to the latest estimates. Columns 1 and 2 show the standard deviations of the latest estimates of real and current-dollar GDP and its components and subcomponents at the same level of detail as tables 1 and 2. These are measures of the volatility of the estimates. They range from somewhat less than 3 percentage points for real and current-dollar GDP to about 15 percentage points for current-dollar residential investment.

Columns 2 and 3 expand on columns 3 and 4 of table 1; they show standard deviations of the revisions of the same set of measures, including the three annual revision vintages of estimates. They show a wide variation in size, ranging from 0.9 percentage point for current-dollar GDP and 0.8 percentage point for real GDP to 12.1 percentage points for current-dollar exports and 7.0 percentage points for gross private domestic investment. The revision standard deviations may be scaled by the standard deviations of the estimates in order to facilitate comparisons among components. When the revision standard deviations are scaled by the standard deviations of the latest corresponding estimates, the results are much closer together. For the revisions, the standardized standard deviations have relatively small ranges, 3.1 scaled units for the current-dollar estimates and 1.8 scaled units for the real estimates. Thus, the more volatile series for GDP and components that have larger standard deviations also tend to have larger revision standard deviations.

Revisions around cyclical turning points

Comprehensive revisions have generally preserved the

Table 3. Mean Absolute Revisions, Changes in Real GDP and Its Major Components, 1993–2012

[Percentage points]

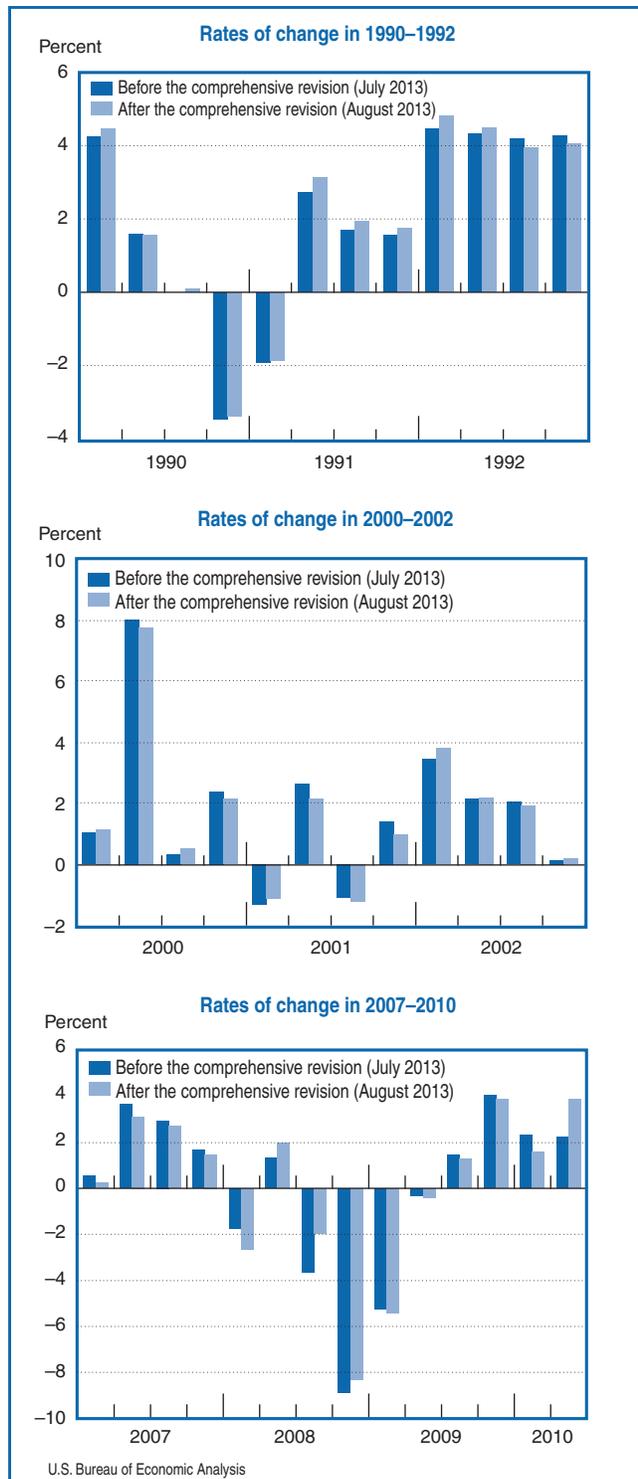
Vintage	Vintage of revision used as standard						Vintage	Vintage of revision used as standard					
	Second	Third	First annual	Second annual	Third annual	Latest		Second	Third	First annual	Second annual	Third annual	Latest
Gross domestic product							Equipment and intellectual property investment						
Advance	0.52	0.56	0.94	1.09	1.22	1.29	Advance	1.76	2.27	3.64	3.86	3.95	4.63
Second		0.21	0.81	1.09	1.19	1.25	Second		1.11	3.10	4.30	4.27	4.83
Third			0.79	1.05	1.12	1.20	Third			3.17	4.22	4.37	4.98
First annual				0.73	0.91	1.00	First annual				3.36	3.98	4.54
Second annual					0.69	1.01	Second annual					2.83	3.82
Third annual						0.62	Third annual						2.60
Personal consumption expenditures							Residential investment						
Advance	0.31	0.38	0.78	0.85	0.94	0.95	Advance	1.43	1.70	3.07	4.05	3.58	3.81
Second		0.17	0.71	0.78	0.82	0.82	Second		0.79	2.60	3.82	3.73	3.48
Third			0.67	0.78	0.85	0.82	Third			2.44	3.68	3.53	3.45
First annual				0.52	0.62	0.74	First annual				2.94	3.30	3.49
Second annual					0.40	0.61	Second annual					2.37	3.10
Third annual						0.51	Third annual						2.21
Durable goods							Exports						
Advance	1.14	1.66	3.10	3.29	3.82	4.40	Advance	2.11	2.51	2.97	3.41	3.59	3.69
Second		0.88	2.72	3.47	3.76	4.42	Second		1.01	2.22	2.63	2.96	3.11
Third			3.16	3.83	3.65	4.65	Third			2.27	2.60	2.91	3.00
First annual				2.80	2.84	3.34	First annual				1.70	2.06	2.35
Second annual					2.17	3.45	Second annual					1.25	1.88
Third annual						2.18	Third annual						1.32
Nondurable goods							Imports						
Advance	0.72	0.64	1.10	1.42	1.56	1.68	Advance	2.68	2.90	4.04	4.19	4.40	4.16
Second		0.28	1.06	1.38	1.53	1.69	Second		0.96	2.60	2.84	2.98	3.00
Third			0.93	1.36	1.52	1.61	Third			2.48	2.82	2.91	2.91
First annual				1.03	1.23	1.55	First annual				1.86	2.31	2.37
Second annual					0.83	1.30	Second annual					1.48	2.37
Third annual						1.08	Third annual						1.67
Services							Government consumption expenditures and gross investment						
Advance	0.29	0.43	0.71	0.90	0.89	0.81	Advance	0.68	0.73	1.09	1.32	1.53	1.52
Second		0.31	0.75	0.89	0.90	0.79	Second		0.25	0.92	1.24	1.52	1.48
Third			0.70	0.84	0.83	0.76	Third			0.87	1.22	1.52	1.45
First annual				0.50	0.66	0.67	First annual				0.75	1.25	1.23
Second annual					0.52	0.67	Second annual					0.95	1.00
Third annual						0.56	Third annual						0.95
Gross private domestic investment							Federal government						
Advance	2.79	2.80	3.90	5.69	6.20	5.27	Advance	1.11	1.02	2.27	2.48	2.73	2.60
Second		1.06	2.39	5.27	6.23	5.87	Second		0.38	2.10	2.48	2.83	2.76
Third			4.45	5.07	6.01	5.63	Third			2.15	2.53	2.89	2.71
First annual				3.30	4.86	4.76	First annual				1.52	2.13	2.05
Second annual					3.29	3.70	Second annual					1.42	1.85
Third annual						3.41	Third annual						1.74
Fixed investment							Federal defense						
Advance	1.19	1.54	2.48	2.74	2.79	2.79	Advance	1.01	1.07	2.59	3.51	3.10	3.39
Second		0.72	2.14	2.58	2.88	2.85	Second		0.39	2.25	3.31	2.97	3.18
Third			2.07	2.59	2.89	2.92	Third			2.21	3.33	2.94	3.04
First annual				2.00	2.42	2.48	First annual				2.46	2.60	2.86
Second annual					1.51	1.94	Second annual					1.75	2.51
Third annual						1.68	Third annual						2.18
Fixed nonresidential investment							Federal nondefense						
Advance	1.61	1.95	3.16	3.55	3.47	3.51	Advance	1.90	1.98	4.48	4.84	4.82	4.16
Second		0.87	2.69	3.38	3.63	3.72	Second		0.62	4.36	4.77	4.82	4.38
Third			2.64	3.29	3.65	3.75	Third			4.46	4.71	4.94	4.61
First annual				2.72	3.25	3.16	First annual				2.59	3.41	3.92
Second annual					1.81	2.13	Second annual					2.35	3.59
Third annual						1.97	Third annual						3.87
Nonresidential structures investment							State and local government						
Advance	3.75	4.28	6.57	6.84	7.03	7.10	Advance	0.68	0.95	1.08	1.41	1.67	1.59
Second		2.38	6.69	6.97	6.62	6.96	Second		0.45	0.89	1.33	1.52	1.61
Third			5.52	5.74	6.01	5.89	Third			0.87	1.23	1.52	1.64
First annual				3.52	4.13	4.56	First annual				0.78	1.34	1.34
Second annual					2.50	3.34	Second annual					1.04	1.09
Third annual						3.03	Third annual						0.94

Table 4. Standard Deviations of Revisions, Early Vintages to the Latest Estimates, Changes in Current-Dollar GDP and Its Components, 1993–2012
[Percentage points]

Vintage	Standard deviation of estimates		Standard deviation of revisions		Scaled standard deviation		Vintage	Standard deviation of estimates		Standard deviation of revisions		Scaled standard deviation	
	Current dollar	Real	Current dollar	Real	Current dollar	Real		Current dollar	Real	Current dollar	Real	Current dollar	Real
Gross domestic product	2.79	2.59					Equipment and intellectual property products	11.65	12.24				
Advance			1.685	1.611	0.603	0.622	Advance			6.104	5.724	0.524	0.468
Second			1.562	1.534	0.559	0.593	Second			6.444	5.837	0.553	0.473
Third			1.534	1.485	0.549	0.574	Third			6.621	6.081	0.568	0.497
First annual			1.259	1.270	0.451	0.491	First annual			5.489	5.761	0.471	0.471
Second annual			1.089	1.206	0.390	0.466	Second annual			5.428	5.178	0.466	0.423
Third annual			0.907	0.765	0.325	0.295	Third annual			3.296	3.428	0.283	0.280
Personal consumption expenditures	2.64	2.07					Residential investment	14.94	13.67				
Advance			1.269	1.187	0.480	0.572	Advance			6.022	4.876	0.403	0.357
Second			1.131	1.047	0.428	0.505	Second			5.286	4.515	0.354	0.330
Third			1.150	1.050	0.435	0.506	Third			5.341	4.468	0.357	0.327
First annual			0.985	0.991	0.373	0.478	First annual			4.338	5.036	0.290	0.368
Second annual			0.981	0.710	0.371	0.342	Second annual			3.374	4.333	0.226	0.317
Third annual			0.941	0.581	0.356	0.280	Third annual			3.641	3.138	0.177	0.230
Durable goods	8.98	9.23					Net exports of goods and services¹						
Advance			5.504	5.525	0.613	0.598	Exports	11.91	9.08				
Second			5.353	5.383	0.596	0.583	Advance			12.067	4.638	1.013	0.511
Third			5.284	6.001	0.588	0.650	Second			5.225	3.999	0.439	0.440
First annual			4.212	4.268	0.469	0.462	Third			4.277	3.810	0.359	0.420
Second annual			3.627	5.394	0.404	0.584	First annual			3.938	3.138	0.331	0.346
Third annual			2.739	3.201	0.305	0.347	Second annual			3.810	2.629	0.320	0.290
Nondurable goods	5.38	2.66					Third annual			2.652	2.315	0.223	0.255
Advance			2.592	2.313	0.482	0.870	Imports	13.31	9.02				
Second			2.389	2.315	0.444	0.871	Advance			5.529	5.088	0.415	0.564
Third			2.450	2.254	0.456	0.848	Second			4.623	3.868	0.347	0.429
First annual			2.317	2.121	0.431	0.798	Third			4.134	3.777	0.310	0.419
Second annual			1.738	1.698	0.323	0.639	First annual			3.482	3.131	0.262	0.347
Third annual			1.501	1.435	0.279	0.540	Second annual			2.523	2.698	0.190	0.299
Services	1.94	1.53					Third annual			2.129	2.116	0.160	0.235
Advance			1.138	0.992	0.586	0.648	Government consumption expenditures and gross investment	3.62	3.27				
Second			1.087	1.003	0.560	0.655	Advance			2.018	1.878	0.558	0.575
Third			1.048	1.008	0.540	0.658	Second			2.055	1.903	0.568	0.582
First annual			0.861	0.830	0.444	0.542	Third			2.066	1.851	0.572	0.566
Second annual			0.855	0.825	0.441	0.539	First annual			1.700	1.556	0.470	0.476
Third annual			0.841	0.693	0.433	0.453	Second annual			1.525	1.301	0.422	0.398
Gross private domestic investment	12.94	12.82					Third annual			1.382	1.181	0.382	0.361
Advance			6.627	6.973	0.512	0.544	Federal	7.96	7.10				
Second			7.153	7.202	0.553	0.562	Advance			3.399	3.292	0.427	0.464
Third			6.879	8.899	0.532	0.538	Second			3.581	3.470	0.450	0.489
First annual			5.620	6.225	0.434	0.486	Third			3.513	3.391	0.442	0.478
Second annual			4.851	4.870	0.375	0.380	First annual			3.032	2.949	0.381	0.416
Third annual			3.697	5.845	0.286	0.456	Second annual			2.537	2.461	0.319	0.347
Fixed investment	8.45	8.01					Third annual			4.107	2.202	0.516	0.310
Advance			3.465	3.543	0.410	0.442	Defense	10.22	9.99				
Second			3.435	3.525	0.406	0.440	Advance			4.605	4.556	0.451	0.456
Third			3.530	3.495	0.418	0.436	Second			4.458	4.333	0.436	0.434
First annual			3.151	3.220	0.373	0.402	Third			4.387	4.241	0.429	0.425
Second annual			2.416	2.459	0.286	0.307	First annual			3.738	4.103	0.366	0.411
Third annual			2.307	2.111	0.273	0.264	Second annual			3.994	3.436	0.391	0.344
Fixed nonresidential investment	8.61	8.25					Third annual			3.530	2.795	0.345	0.280
Advance			4.355	4.393	0.508	0.532	Nondefense	6.64	6.36				
Second			4.476	4.461	0.520	0.541	Advance			5.793	5.484	0.872	0.862
Third			4.457	4.428	0.519	0.537	Second			6.137	5.810	0.924	0.913
First annual			3.893	4.041	0.452	0.490	Third			6.168	5.892	0.929	0.926
Second annual			2.993	2.615	0.347	0.317	First annual			5.189	4.922	0.781	0.773
Third annual			3.171	2.490	0.368	0.302	Second annual			4.730	4.582	0.712	0.720
Structures investment	15.44	13.73					Third annual			4.920	4.908	0.741	0.771
Advance			10.807	9.171	0.700	0.668	State and local	3.38	2.81				
Second			10.620	9.456	0.688	0.689	Advance			2.670	2.077	0.790	0.738
Third			10.171	7.923	0.659	0.577	Second			2.521	2.003	0.746	0.712
First annual			6.046	5.701	0.392	0.415	Third			2.545	2.142	0.753	0.761
Second annual			4.600	4.345	0.298	0.316	First annual			2.004	1.720	0.593	0.611
Third annual			4.259	3.837	0.276	0.279	Second annual			1.763	1.406	0.521	0.500
							Third annual			1.542	1.313	0.456	0.467

patterns of change in and around recessions. The 2013 revision did so, despite the large upward revisions in levels yielded by the inclusion of research and development and artistic originals in investment. Panel 1 of chart 4 shows the rates of change in real GDP before, during, and after the 1990–91 recession. Only minor revisions to the rates of change were introduced, in

Chart 4. Rates of Change in Real GDP Near Recessions

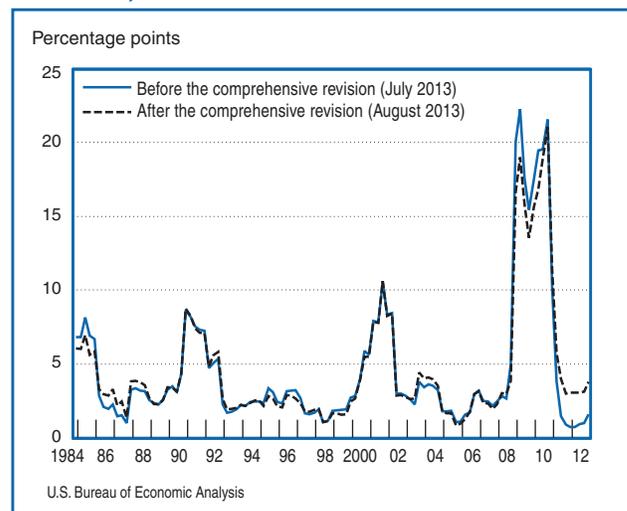


comparison with the overall pattern of change in GDP. Panels 2 and 3 show the revisions to real GDP before, during, and after the 2000 and 2007–2009 recessions. The revisions in and around the 2000 recession are very minor in comparison with the quarter-to-quarter variations in the rates of change in real GDP. The revisions in the 2007–2009 recession are somewhat larger, but the largest is only 1.7 percentage points in third quarter of 2008; this compares with a range of rates of change from 4 percentage points to more than –8 percentage points.

The 2013 comprehensive revision preserved the pattern of volatility of GDP, including the effects of business cycles. Chart 5 shows the paths of eight-quarter moving variances of GDP over the entire period since the ebbing, in the mid-1980s, of a period of higher volatility that has been commented on by a number of observers.¹¹ Both the prerevision and postrevision estimates closely resemble one another. The large movements, indicating increased volatility during and after the three recessions since the mid-1980s are quite similar. In addition, the smaller fluctuations around the larger movements are largely the same. The most notable change is that the comprehensive revision estimates have modestly lower volatility during and immediately after the sharp 2007–2009 recession. (The lags in the volatility patterns following recessions reflect that a given quarter’s percent change stays in the variance calculations for the seven following quarters.) On average, the variances were revised little; the average value was 4.51 percentage points before the comprehensive revision and 4.47 percentage points after the comprehensive revision, for an average

11. The eight-quarter moving average is an adaptation of the method used by Blanchard and Simon (2001) in their study of the volatility of GDP. The value for 1984:IV is the variance of GDP for 1983:I–1984:IV, the value for 1985:I is the variance for 1983:II–1985:I, and so on.

Chart 5. Eight-Quarter Moving Variances of Real GDP, 1984–2012



revision of -0.04 percentage point. Without regard to sign, the average revision in variances was 0.57 percentage point. These compare with variances that range from 1 percentage point to 22 percentage points.

Revisions to Annual Estimates of GDP

Summary statistics for revisions of annual frequency estimates of real and current-dollar GDP and its major components to the latest estimates are shown in table 5. As with the quarterly frequency estimates, the mean revisions are small and are both positive and negative.

Table 5. Average Revisions of Annual Estimates, Changes in Current-Dollar GDP and Its Components, Annual Vintages to Latest Estimates, 1993–2012
[Percentage points]

Vintage	Mean revision		Mean absolute revision	
	Current dollar	Real	Current dollar	Real
Gross domestic product				
Early annual ¹	-0.04	-0.08	0.46	0.56
First annual.....	-0.01	0.06	0.35	0.41
Second annual.....	0.10	0.23	0.31	0.34
Third annual.....	0.13	0.27	0.23	0.29
Personal consumption expenditures				
Early annual ¹	-0.03	0.02	0.41	0.41
First annual.....	-0.06	0.09	0.30	0.32
Second annual.....	0.07	0.24	0.30	0.36
Third annual.....	0.15	0.30	0.26	0.34
Gross private domestic investment				
Early annual ¹	-0.27	-0.80	1.83	2.05
First annual.....	-0.11	-0.47	1.74	1.77
Second annual.....	0.34	0.29	1.25	1.15
Third annual.....	0.35	0.45	1.19	1.19
Fixed investment				
Early annual ¹	-0.35	-0.80	1.26	1.47
First annual.....	-0.25	-0.54	1.11	1.19
Second annual.....	0.38	0.38	1.02	0.89
Third annual.....	0.26	0.31	0.81	0.79
Change in private inventories ²				
Net exports of goods and services ²				
Exports				
Early annual ¹	0.21	0.30	0.57	0.80
First annual.....	0.28	0.18	0.45	0.63
Second annual.....	0.05	-0.07	0.39	0.47
Third annual.....	0.02	-0.15	0.36	0.52
Imports				
Early annual ¹	0.16	0.04	0.47	0.64
First annual.....	0.11	-0.06	0.24	0.33
Second annual.....	0.03	0.19	0.26	0.66
Third annual.....	0.07	-0.47	0.17	0.57
Federal government				
Early annual ¹	0.01	0.13	0.48	0.75
First annual.....	-0.29	-0.03	0.51	0.47
Second annual.....	-0.30	-0.09	0.44	0.36
Third annual.....	-0.26	0.02	0.43	0.32
State and local government				
Early annual ¹	0.13	-0.16	0.93	0.85
First annual.....	0.19	0.07	0.77	0.69
Second annual.....	0.13	0.00	0.66	0.63
Third annual.....	-0.03	-0.06	0.49	0.31

1. Early annual estimates are available in late April of the following year.

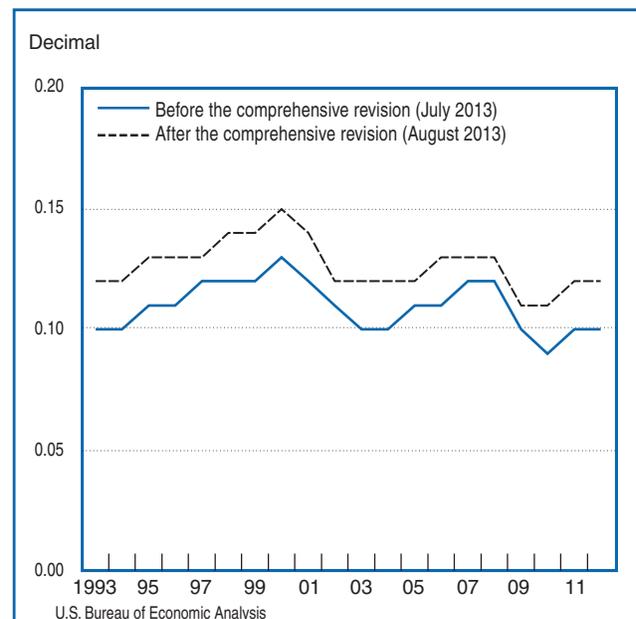
2. Percent changes cannot be calculated because of the presence of both positive and negative values.

The early annual estimates of GDP are those available in March of the following year and are mostly composed of third current quarterly estimates, and their mean revisions are therefore similar to those of those estimates.

The mean absolute revisions are fractions of the sizes of those for the current quarterly estimates for both real and current-dollar GDP. One reason for this is that annual frequency estimates are not subject to revisions to seasonal adjustment factors. The MARs decline with the successive annual estimates of both current-dollar and real GDP. MARs also decline steadily for most vintages of most components of GDP. Exceptions are increases from the previous vintage for the second annual vintage of real personal consumption expenditures, the second annual vintage of both current-dollar and real imports, and the third annual vintage of real exports. As with total GDP, the MARs of components are much smaller than those for quarterly frequency estimates.

Definition changes as part of comprehensive NIPA revisions may change both the levels and growth rates of GDP; for example, the introduction of software as investment in the 1999 comprehensive revision raised both the levels and the growth rates of GDP. The introduction of R&D and artistic originals as investment in the 2013 comprehensive revision raised the levels of GDP but did little to change the growth rates. The ratio of private fixed investment to GDP increased by 0.016 to 0.019, but the pattern of movements of the ratio of private fixed investment to GDP was essentially unchanged (chart 6).

Chart 6. Ratio of Real Fixed Investment to Real GDP, 1993–2012



Revisions to Quarterly Estimates of GDI

Advance estimates of GDI are not prepared, and since 1995, second current quarterly estimates of GDI in the fourth quarter of each year have not been prepared. These estimates of GDI are not prepared mainly because of a lack of source data for estimating corporate profits. Estimates are prepared for the other major components of GDI, such as compensation of employees and proprietors' income. Starting with the first quarter of 2002, a "fourth" vintage of estimates of the previous quarter has been prepared using information from the Bureau of Labor Statistics' quarterly census of employment and wages (QCEW). It is used to revise the estimates of compensation of employees, national income, and GDI. It is released at the time of the second quarterly estimate of the following quarter.

The MAR to the latest estimates from the third estimates of GDI is the same as that for the third estimate to the latest estimate of GDP (table 6), at 1.2 percentage points. The MAR increases in the first annual estimate then declines with the second and third annual estimates. Only the MAR for the third annual estimates is lower than that for the third current quarterly estimate. The MARs for the various vintages of national income are all moderately and increasingly larger than those for GDI with successive vintages, but they also decline steadily with successive vintages. The MARs for compensation of employees increase slightly with successive vintages of current quarterly estimates, reaching 2.9 percentage points for the third estimates, then decrease steadily to 1.3 percentage points for the third annual vintage. MARs for the other components of GDI are larger to much larger, depending on the component. They show little or no tendency to decrease with successive vintages of estimates, but all decline with successive vintages of annual estimates.

The MRs of GDI and its major components are much smaller than the corresponding MARs and have both positive and negative signs. An exception is corporate profits; the MRs are negative for all vintages, and show no tendency to decline with successive vintages of estimates. Standard deviations for the various components and vintages are all larger to much larger than those for GDI and generally tend to diminish in size with successive vintages (table 7). As with the components of GDP, these MRs are not statistically significant.

Table 8 shows the MARs for GDI and most components from each vintage to each subsequent vintage. Entries also include the fourth current quarterly estimates for compensation, national income, and GDI; these incorporate information from the QCEW. Fourth estimates of most other components of GDI are not made, and the missing vintage pairs for the fourth

Table 6. Revisions, Earlier Vintages to the Latest Estimates, Changes in GDI and Its Major Components, 1993–2012
[Percentage points]

Vintage	Mean revision	Mean absolute revision	Standard deviation
Gross domestic income			
Advance.....	.....	.....	.....
Second.....	.....	.....	.....
Third.....	-0.10	1.21	1.85
First annual.....	-0.01	1.57	1.99
Second annual.....	0.22	1.24	1.65
Third annual.....	0.21	0.94	1.29
Private consumption of fixed capital			
Advance.....	-0.10	8.05	20.20
Second.....	-0.15	7.91	20.22
Third.....	-0.89	8.46	24.73
First annual.....	-1.87	9.05	26.40
Second annual.....	-2.11	9.23	27.30
Third annual.....	-1.86	8.95	26.92
Taxes on production and imports			
Advance.....	-0.08	2.67	3.68
Second.....	0.00	2.62	3.53
Third.....	0.09	2.46	3.40
First annual.....	0.30	2.03	2.99
Second annual.....	0.25	1.78	2.79
Third annual.....	0.18	1.58	3.03
National income			
Advance.....	.....	.....	.....
Second.....	.....	.....	.....
Third.....	-0.32	2.33	3.12
First annual.....	0.06	2.17	2.96
Second annual.....	0.22	1.89	2.87
Third annual.....	0.15	1.61	2.71
Compensation of employees			
Advance.....	0.15	2.55	3.63
Second.....	-0.02	2.80	3.92
Third.....	0.09	2.89	4.14
First annual.....	-0.12	1.68	2.26
Second annual.....	0.05	1.34	2.29
Third annual.....	0.07	1.32	1.83
Proprietors' income			
Advance.....	0.45	7.42	9.14
Second.....	0.42	7.66	9.57
Third.....	0.48	7.54	9.55
First annual.....	0.86	7.79	9.83
Second annual.....	0.93	6.42	8.52
Third annual.....	0.69	4.91	6.06
Nonfarm proprietors' income			
Advance.....	0.45	6.12	7.93
Second.....	0.41	6.01	7.84
Third.....	0.45	6.00	7.86
First annual.....	1.16	6.36	7.91
Second annual.....	0.47	6.88	10.97
Third annual.....	0.18	5.05	7.83
Corporate profits with IVA and CCAj			
Advance.....	.....	.....	.....
Second.....	.....	.....	.....
Third.....	-2.28	18.35	26.09
First annual.....	-1.99	15.05	20.77
Second annual.....	-2.23	11.75	19.36
Third annual.....	-3.05	10.36	17.65
Net interest and miscellaneous payments			
Advance.....	-0.06	9.42	26.57
Second.....	0.43	13.21	20.74
Third.....	-0.32	13.35	20.09
First annual.....	1.00	9.57	13.06
Second annual.....	0.85	7.27	9.08
Third annual.....	-1.35	6.44	8.91

CCAj Capital consumption adjustment

IVA Inventory valuation adjustment

Table 7. Standard Deviations, Revisions to Latest Estimates, Changes in GDI and Its Components, 1993–2012
[Percentage points]

Vintage	Standard deviation of estimates	Standard deviation of revisions	Scaled standard deviation
Gross domestic income	3.18		
Advance			
Second			
Third		1.853	0.583
First annual		1.989	0.626
Second annual		1.651	0.520
Third annual		1.291	0.406
Private consumption of fixed capital	2.83		
Advance		20.201	7.127
Second		20.218	7.133
Third		24.734	8.726
First annual		26.395	9.132
Second annual		27.298	9.631
Third annual		26.920	9.497
Taxes on production and imports	3.40		
Advance		3.675	1.082
Second		3.532	1.040
Third		3.396	1.000
First annual		2.988	0.880
Second annual		2.786	0.820
Third annual		3.027	0.891
National income	3.64		
Advance			
Second			
Third		3.115	0.857
First annual		2.953	0.815
Second annual		2.870	0.789
Third annual		2.711	0.746
Compensation of employees	3.81		
Advance		3.631	0.952
Second		3.920	1.026
Third		4.138	1.086
First annual		2.289	0.601
Second annual		1.830	0.480
Third annual		1.828	0.480
Proprietors' income	8.30		
Advance		9.144	1.101
Second		9.566	1.152
Third		9.550	1.150
First annual		9.827	1.184
Second annual		8.515	1.025
Third annual		6.061	0.730
Nonfarm proprietors' income	7.55		
Advance		7.934	1.051
Second		7.843	1.039
Third		7.864	1.042
First annual		7.912	1.048
Second annual		10.972	1.454
Third annual		7.825	1.037
Corporate profits with IVA and CCAAdj	24.33		
Advance			
Second			
Third		26.093	1.072
First annual		20.773	0.854
Second annual		19.360	0.796
Third annual		17.649	0.725
Net interest and miscellaneous payments	16.29		
Advance		26.574	1.632
Second		20.737	1.273
Third		20.094	1.234
First annual		13.057	0.802
Second annual		9.083	0.558
Third annual		8.908	0.547

CCAAdj Capital consumption adjustment
IVA Inventory valuation adjustment

Table 8. Mean Absolute Revisions, Changes in GDI and Its Components, 1993–2012
[Percentage points]

Vintage	Vintage of revision used as standard						
	Second	Third	Fourth ¹	First annual	Second annual	Third annual	Latest
Gross domestic income							
Third			1.31	0.88	1.08	1.34	1.21
Fourth				1.05	1.35	1.56	1.27
First annual					0.99	1.31	1.57
Second annual						0.79	1.24
Third annual							0.94
Private consumption of fixed capital							
Advance	0.43	1.29		4.36	4.57	4.49	8.05
Second		0.96		4.28	4.49	4.42	7.91
Third				3.73	3.91	3.77	8.46
First annual					2.89	3.79	9.05
Second annual						3.01	9.23
Third annual							9.95
Taxes on production and imports							
Advance	0.64	1.07		1.93	1.95	1.88	2.67
Second		0.78		1.74	1.83	1.88	2.46
Third				1.58	1.68	1.80	2.62
First annual					1.17	1.48	2.03
Second annual						0.96	1.78
Third annual							1.58
National income							
Third			1.86	1.25	1.53	1.72	2.33
Fourth				1.86	2.22	2.41	3.41
First annual					1.14	1.79	2.17
Second annual						1.17	1.89
Third annual							1.61
Compensation of employees							
Advance	0.77	0.97	2.48	1.94	1.81	1.94	2.55
Second		0.28	2.98	1.22	1.85	1.94	2.89
Third			3.15	2.09	1.95	1.50	2.89
Fourth				0.85	0.78	1.50	1.72
First annual					1.05	1.22	1.68
Second annual						0.77	1.34
Third annual							1.32
Proprietors' income							
Advance	0.90	1.13		4.67	6.68	5.89	7.42
Second		0.60		4.63	7.01	6.23	7.66
Third				5.15	6.88	6.21	7.54
First annual					5.57	6.41	7.79
Second annual						4.43	6.42
Third annual							4.91
Nonfarm proprietors' income							
Advance	0.54	0.71		3.82	5.70	5.45	6.12
Second		0.37		3.72	5.67	5.32	6.01
Third				3.77	5.61	5.32	5.00
First annual					4.94	5.80	6.36
Second annual						5.67	6.88
Third annual							5.05
Corporate profits with IVA and CCAAdj							
Third				12.43	13.37	16.29	18.35
First annual					7.58	13.17	15.05
Second annual						9.56	11.75
Third annual							10.36
Net interest and miscellaneous payments							
Advance	0.88	2.16		4.82	7.70	8.73	9.42
Second		2.74		7.39	11.44	12.70	13.21
Third				7.60	11.50	12.87	13.33
First annual					7.17	10.23	9.57
Second annual						6.63	7.27
Third annual							6.44

CCAAdj Capital consumption adjustment IVA Inventory valuation adjustment
1. Fourth estimates begin in 2002 and apply only to GDI, national income, and compensation of employees.

estimates are left blank. One must view the fourth estimates with caution because there were no fourth estimates prior to the first quarter of 2002, and the statistics are not fully comparable with the rest of the entries, which are for 1993–2012. Thus, the fourth estimates' MARs are not further discussed.

The patterns of MARs for successive vintages of GDI estimates and vintages of standards are, at most, roughly similar to those found for GDP. For example, there is a decline in the MARs for GDI from the third estimates to the third annual estimates, but the MAR for the first annual estimate to the latest is larger than for any other vintage of estimates. The increases in MARs for the various vintages of GDI estimates are not monotonic with increasingly later vintages of estimates used as standards. The whole set of MARs for GDI tends to be modestly larger than the comparable ones for GDP.

The various MARs for compensation of employees are the smallest for any of the other components of GDI but larger than those of several components of GDP. There are sharp drops in MARs for the fourth and later vintages of estimates, relative to those of the earlier vintages of estimates; the MAR to the latest estimates drops by 40 percent from the third estimates to the fourth estimates. There are, however, the same patterns of increasing MARs with increasingly later vintages of target estimates. The patterns of MARs for national income are roughly similar to those for GDI, but are larger for each vintage/standard pair in the table.

The MARs for other components of GDI are generally larger than those for compensation, and sometimes very much larger. At the extreme, the MARs for the various estimates of corporate profits are several to many times as large as the corresponding ones for compensation (table 6). The MARs for some GDI components are not shown, because definition changes have caused excessive changes in the time series for the components.

The patterns of increases and decreases described for current-dollar GDP hold generally for GDI and components, but there are deviations from them; that is, MARs sometimes decrease from vintage to vintage used as the standards, or increase from vintage to vintage of the estimates for any given standard. Nevertheless, there is a tendency for increases across rows of table 8 and decreases down columns. In general, the MARs for the various components and vintages tend to be larger than those for the various GDP components.

Revisions to Annual Estimates of GDI

Summary statistics for revisions of annual frequency estimates of real and current-dollar GDI and its major components are shown in table 9.¹² The estimates of revisions are expressed in percent changes of the annual estimates. As with the quarterly frequency estimates, the mean revisions are small and both positive

12. Early annual estimates of GDI are available in May of the following year.

Table 9. Average Revisions, Annual Vintages to Latest Estimates, Change in GDI and Its Major Components, 1993–2012

[Percentage points]

Vintage	Mean revision	Mean absolute revision
Gross domestic income		
Early annual.....	0.03	0.56
First annual.....	0.05	0.55
Second annual.....	0.14	0.33
Third annual.....	0.20	0.40
Private consumption of fixed capital		
Early annual.....	0.56	2.07
First annual.....	0.62	1.97
Second annual.....	0.80	1.69
Third annual.....	-0.37	1.53
Taxes on production and imports		
Early annual.....	0.34	1.27
First annual.....	0.22	0.87
Second annual.....	0.13	0.77
Third annual.....	0.02	0.54
National income		
Early annual.....	-0.05	0.60
First annual.....	0.07	0.65
Second annual.....	0.66	0.92
Third annual.....	0.23	0.41
Compensation of employees		
Early annual.....	-0.16	0.73
First annual.....	-0.01	0.35
Second annual.....	0.04	0.35
Third annual.....	0.04	0.40
Proprietors' income		
Early annual.....	1.15	2.69
First annual.....	0.95	3.95
Second annual.....	1.07	3.63
Third annual.....	1.47	3.19
Nonfarm proprietors' income		
Early annual.....	0.80	3.12
First annual.....	0.98	3.81
Second annual.....	1.02	3.76
Third annual.....	1.50	3.27
Corporate profits with IVA and CCAAdj		
Early annual.....	-0.25	5.98
First annual.....	-0.48	4.78
Second annual.....	-0.49	2.70
Third annual.....	0.57	3.04
Net interest and miscellaneous payments		
Early annual.....	-0.44	7.79
First annual.....	0.42	7.16
Second annual.....	0.12	3.53
Third annual.....	-1.74	3.97

CCAAdj Capital consumption adjustment

IVA Inventory valuation adjustment

and negative. The early annual estimates are mostly composed of third current quarterly estimates, and their mean revisions are therefore similar to those of those estimates.

The mean absolute revisions for annual GDI and its components are fractions of the sizes of those for the current quarterly estimates for both real and current-dollar GDI. One reason for this is that annual frequency estimates are not subject to revisions to seasonal adjustment factors. The MARs decline for the successive annual estimates of GDI. The declines also reflect the incorporation of later annual frequency source data that is more complete or revised from earlier data. In particular, the second annual estimates are the first vintage to incorporate data from the *Statistics of Income* from the Internal Revenue Service. MARs also decline steadily for most vintages of most components of GDI.

The MARs for GDI decline 40 percent from the first to second annual estimates, then increase modestly to the third annual estimate. In contrast, the MARs for national income increase 41 percent from the first to the second annual estimates before declining by more than half to the third annual estimate. The MARs for the vintages of the components show little tendency to decline with successive vintages and, with the exception of proprietors' income are lower for the third annual estimates than for the early annual estimates.

The overall size of GDI has changed noticeably due to the recognition of intellectual property products as capital investment; these changes were introduced to the accounts in two phases. Software was introduced to the accounts in 1999, and research and development and artistic originals were introduced in 2013. This may be seen in chart 7, which shows the third current quarterly estimates of GDI, the estimates in place immediately before the 2013 revision, and the latest estimates. The dotted line links the third estimates (but is not a time series). It is consistently lower than the later estimates until the second half of 2009. The solid line shows the latest estimates after the 2013 comprehensive revision; it is consistently above the dashed line of the immediately previous estimates, by somewhat less than 3 percent in 1993 and somewhat less than 4 percent in 2012. Although other definition revisions also occurred, the intellectual property additions to GDI account for the bulk of the revisions to GDI (and GDP).

The effects of capitalizing intellectual property products in the accounts have tended to somewhat lower the ratios of the components of GDI to aggregate GDI simply by increasing the size of the denominator. Among the components, there has been considerable smoothing of the patterns of the ratios over time, but the basic patterns of increases and decreases over time

have been largely maintained. The three panels of chart 8 show the ratios for compensation of employees, corporate profits, and consumption of fixed capital. All three vintages of estimates of the ratios for compensation show a general decline over 1993–2012, with temporary increases around the times of the 2001 and 2007–2009 recessions (panel 1). The shorter-term fluctuations, however, are considerably more pronounced for the third estimates than for the later two sets of estimates. The estimates for the most recent two vintages—immediately before and after the comprehensive revision—have very similar patterns over time, with differences in levels that reflect the increased size of GDI.

The three vintages of estimates of corporate profits likewise show very similar general movements, and again there is a good deal less short-term volatility in the later two vintages (panel 2). The ratios of consumption of fixed capital have two distinct revisions in patterns (panel 3). Until about 2009, the third estimates were much more volatile than either of the later sets of estimates. The smoother pattern thereafter is similar to the later vintages. This reflects a revised treatment of capital losses associated with natural disasters that was introduced in the 2009 comprehensive revision; this included the elimination of a spike in the third quarter of 2005 that was due to the destruction associated with hurricane Katrina. The general upward revision in level in the post-2013 comprehensive estimates is largely due to the introduction of new types of intellectual property, as discussed above. This general upward revision is the income-side twin to the product-side revisions due to the new types of intellectual property.

Chart 7. Gross Domestic Income, 1993–2012

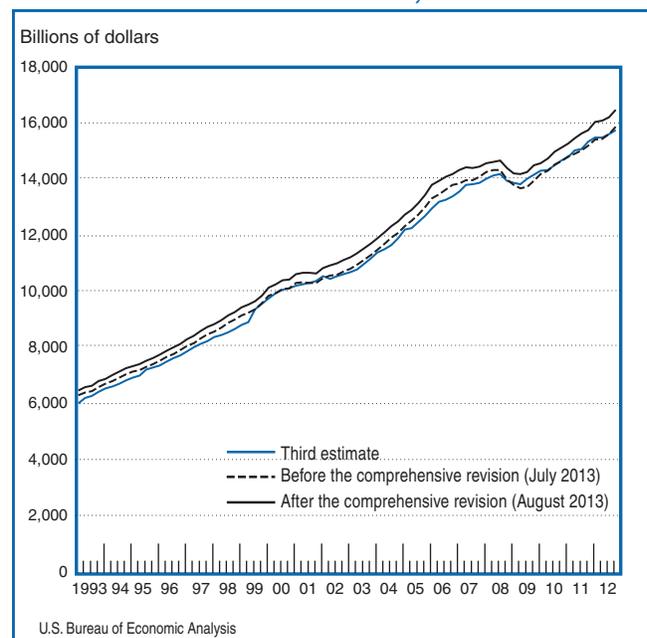
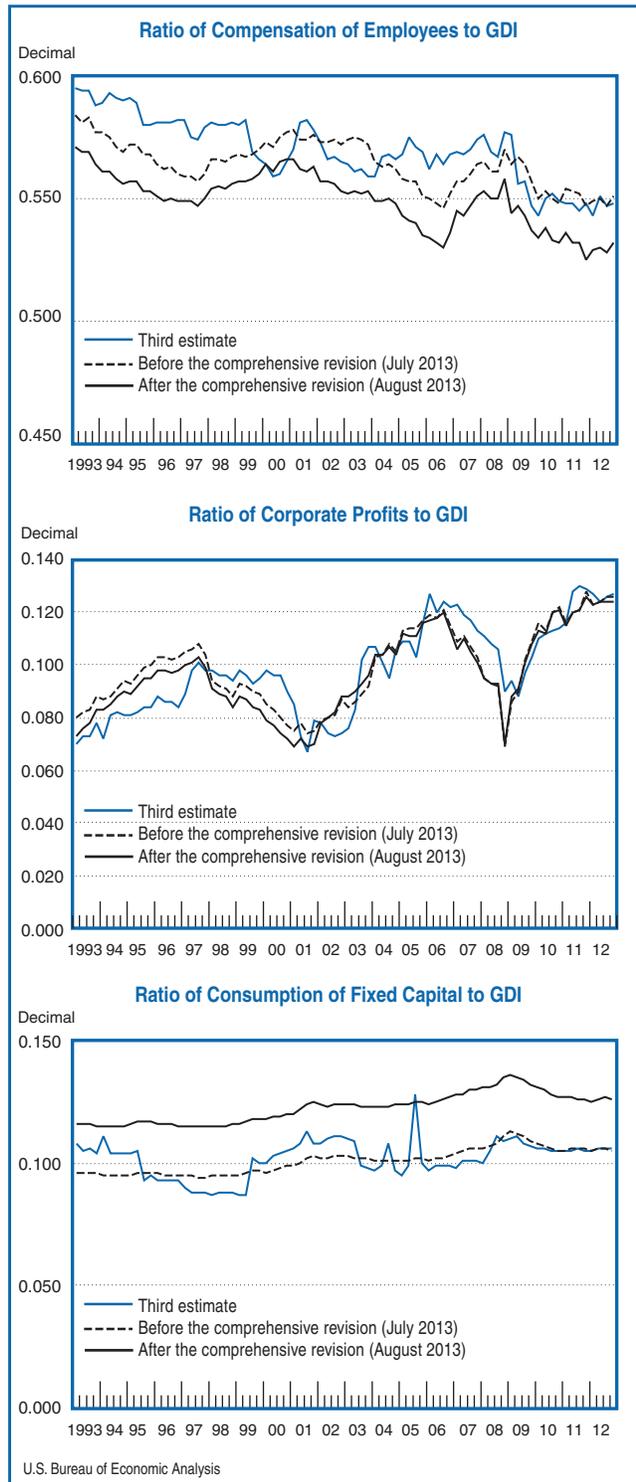


Chart 8. Ratio of Selected Components of GDI, 1983–2012



Comparing GDP and GDI revisions

At the time of the advance NIPA estimates, data are available to allow BEA to calculate estimates of GDP and its major components. Data are also available to allow BEA to calculate estimates of most GDI components. For corporate profits, however, the data are from a too small and unrepresentative sample to per-

mit the estimation. As a result, advance estimates of aggregate GDI are not prepared.

Second estimates of GDP are published for each quarter, and for GDI in the first three quarters of each calendar year. In the fourth quarter of each year, profits reports are delayed sufficiently that no second estimates of profits or GDI are made.

Third estimates of both GDP and GDI are published for each quarter. At the time of the third estimates, about 67 percent of the source data for GDP components are based on comprehensive data or direct indicators, 21 percent on indirect indicators, and 12 percent on trend-based estimates. In comparison, about 14 percent of the source data for the third estimates of GDI components is from direct sources, 56 percent from indirect sources, and 30 percent from trend-based estimates.¹³ As a result, considerably more judgment goes into the construction of the third estimates of GDI than into the third estimates of GDP.

Annual revision estimates are made each year for both GDP and GDI. These use annual frequency data that are superior to the quarterly frequency data that are available to support the current quarterly estimates. Of particular importance, at the time of the second annual revision estimates, data are available from the Internal Revenue Service *Statistics of Income* to support the estimates of GDI. As a result, the second annual estimates of GDI no longer contain trend-based estimates, very little is based on indirect sources, and most direct indicators have also been replaced by comprehensive data, which make up 94 percent of the estimates.

As mentioned earlier, about every 5 years there is a comprehensive revision to GDP. However, no corresponding benchmark estimates of GDI are made because of a lack of information to produce them. As a result, there are statistical discrepancies between GDP and GDI in the benchmark years.

The reliability of the various vintages of quarterly estimates of GDP and GDI is examined in table 10, which shows the MARs of each vintage to the latest-available estimates of GDP and GDI. Smaller MARs indicate greater reliability. Column 1 shows the MARs to the latest GDP estimates for the successive vintages of GDP estimates. They get steadily smaller with the successive vintages and are half as large for the third annual vintage as they are for the advance vintage. Column 4 shows the MARs of the latest GDI estimates to the successive vintages of GDI estimates. They have no tendency to get smaller with successive vintages, although the third current quarterly vintage's MAR is smaller than those of the three annual vintages. The

13. For a discussion of the source data available to estimate GDP and GDI, see Grimm and Weadock (2006), Holdren and Grimm (2008), and Holdren (2014).

MARs for third current quarterly estimates of both GDP and GDI are the same size. The MARs for the three annual vintages of estimates of GDP, however, are noticeably smaller than those for the annual vintages of estimates of GDI.

Table 10. Mean Absolute Revisions, Earlier Vintages to Latest Estimates, Changes in GDP and GDI, 1993–2012
[Percentage points]

Vintage	Latest GDP		Latest GDI	
	Earlier GDP	Earlier GDI	Earlier GDP	Earlier GDI
Advance.....	1.35	.....	1.75	.....
Second.....	1.26	.....	1.74	.....
Third.....	1.21	1.07	1.71	1.21
First annual.....	0.99	1.22	1.69	1.57
Second annual.....	0.89	1.31	1.73	1.24
Third annual.....	0.68	1.38	1.95	1.29
Latest.....	.....	1.75	1.75	.....

NOTE: For example, the mean absolute revision of the third estimates of GDI to the latest estimates of GDP is 1.07.

Column 2 of table 10 shows the MARs of the vintages of GDI estimates to the latest estimates of GDP, and column 3 shows the MARs for the vintages of GDP estimates to GDI. The MARs for successive vintages of GDI to GDP increase. The MARs for successive vintages of GDP to the latest estimates of GDI show no particular tendency to increase or decrease. The MARs for GDP and GDI to their latest vintages are, by definition, the same.

In addition to examining revisions to GDP and GDI in isolation, one may also use ordinary least squares regressions to explain the latest estimates. Table 11 shows this using the third current quarterly estimates of both measures as explanatory variables. Although constant terms are used in half of the regressions, they are never statistically significant and have very little impact on the coefficients of other variables. The first panel shows equations explaining the latest estimates of GDP. The first equation explains the latest estimates of GDP by the third current quarterly estimates of GDP. The regression coefficient of the third estimates is just below one, it is highly statistically significant (t-test statistics are in parentheses below the estimated coefficients), and the R-square indicates that it explains just under seven-tenths of the variance of the latest estimates. Equation 3 uses the third estimate of GDI as the explanatory variable for GDP and finds only marginally different results, with an R-square just 0.017 lower than that of equation 1. This suggests that the third estimate of GDI is only slightly less good as a forecast of the latest estimate of GDP as the third estimate of GDP. Equation 5 uses the third estimates of both GDP and GDI as explanatory variables. Both are statistically significant, with the coefficient of GDP being about one-quarter larger than that of GDI. The R-square of the

equation is modestly larger than those of the equations with only one of the measures as an explanatory variable. This finding is consistent with the hypothesis that the third estimates of GDI contain explanatory power that is in addition to that of the contemporaneous estimates of GDP.

The second panel shows equations explaining the latest estimates of GDI. Equation 7 estimates the latest estimate of GDI as a function of the third estimate of GDI. As with GDP in equation 1, the coefficient of GDI is close to one and highly significant. The R-square is only slightly lower than that for equation 1. Thus, the third estimates of GDI are about as accurate as the latest estimates of GDI, as the third estimates of GDP are about as accurate as the latest estimates of GDP.

Equation 9 estimates of GDI as a function of the third estimates of GDP. GDP is statistically highly significant, but the equation's R-square is about one-sixth lower than those of either equation 7 or equation 1. Thus, although GDP is a good estimator of the latest estimates of GDI, it is less successful than GDI as an estimator of GDP.

Equation 11 estimates GDI as a function of the third estimates of both GDP and GDI. GDP is not statistically significant, but the R-square is only slightly below that for equation 7. The results of equations 9 and 11 together suggest that the third estimates of GDP do not

Table 11. Equations Explaining the Latest Estimates of Changes in GDP Using the Third Estimates of GDP and GDI in 1993–2012

	Constant	GDP (third estimate)	GDI (third estimate)	R square
GDP				
Equation 1.....		0.9729 (30.00)		0.6998
Equation 2.....	0.1466 (0.39)	0.9485 (13.50)		0.7004
Equation 3.....			0.9353 (29.20)	0.6828
Equation 4.....	0.2866 (0.76)		0.8896 (13.03)	0.6851
Equation 5.....		0.5245 (3.83)	0.4248 (3.11)	0.7295
Equation 6.....	-0.0413 (0.11)	0.5467 (-3.72)	0.4276 (3.06)	0.7330
GDI				
Equation 7.....			0.9827 (26.03)	0.6595
Equation 8.....	-0.0634 (0.89)		0.9928 (12.29)	0.6596
Equation 9.....		1.0016 (22.42)		0.5569
Equation 10.....	0.2317 (0.45)	0.9630 (9.92)		0.5580
Equation 11.....		0.1306 (0.72)	0.8598 (4.92)	0.6617
Equation 12.....	-0.1507 (0.33)	0.1456 (0.77)	0.8697 (4.87)	0.6622

NOTE: The t-test statistics are in parentheses.

contain useful information about GDI once estimates of GDI are available.

A further evaluation of the usefulness of early estimates of GDP and GDI as estimators of GDP can be made by calculating the MARs of the latest estimates of GDP and GDI relative to estimators composed of the weighted sums of the third estimates of GDP and GDI.

Table 12 shows MARs to the latest estimates of GDP and GDI of the third estimates of GDP, GDI, and three weighted sums.¹⁴ The weights are chosen for illustrative purposes, and are loosely based on the relative coefficient sizes of the two measures reported as equations 5 and 6 of table 10. The first line shows MARs for the latest estimates of GDP from the third estimates of GDP, GDI, two weighted sums of the measures, and an unweighted average of the two measures. The lower MARs of the weighted sums of GDP and GDI are reflective of the additional information about GDP that is contained in GDI. The MARs reinforce the regression finding that the third estimates of GDI have predictive power for the latest estimates of GDP that is in addition to that of those of the corresponding vintage of GDP. This, in turn, may reflect the notion that the estimates of GDP incorporate judgments that are based on more than just the available source data and that the estimates of GDP and GDI are not made in isolation from one another.¹⁵

The second line shows MARs to the latest estimates of GDI from the third estimates of GDP, GDI, and the same three weighted sums of the two measures. The larger the weight of GDI, the smaller the resulting MARs are. The weighted sums have smaller MARs than those of GDP. These results, combined with the lower R-squares of equations for GDI that include GDP, suggest that there is little or no useful information about the latest estimates of GDI in the third estimates of GDP; that is, the third estimate of GDP does not add to the information provided by the third estimate of GDI.

Weighted averages of GDP and GDI have smaller variances than those for either measure alone. This oc-

curs because the unknown measurement errors in the vintages are unlikely to be perfectly correlated. Table 13 shows the variances of the third and the latest vintages of estimates of GDP, GDI, and selected weighted sums of the two measures. For both vintages, the estimates of GDI have the largest variances (bold), and weighted sums of the two, with weights favoring GDP, have the smallest variances (shaded). Line 3 shows the MARs of the measures and of weighted sums of the third to the latest estimates. The smallest MARs (shaded) are for weighted sums, with weights ranging from half to two-thirds for GDP, and the rest for GDI. All of the weighted sums have smaller MARs than that for GDP, but GDI (bold) has the largest MAR of all those shown. If both GDP and GDI are each interpreted as the sums of the unobserved true economic activity and of measurement errors, it is possible to infer that the weighted averages are more accurate measures of activity than either GDP or GDI alone. This occurs because some of the measurement errors are averaged out, reducing subsequent revisions in the weighted averages.

Another way of comparing GDP and GDI is to look at their performance near turning points. This is done in table 14, which shows MARs from the third to the latest estimates of GDP, GDI, and selected weighted averages of GDP and GDI in the most recent six recessions. The first line shows the MARs for all of the quarters from those immediately before to those

Table 13. Variances and Mean Absolute Revisions, Changes in Current-Dollar GDP and GDI, 1993–2012
[Percentage points]

		Variances						
	GDP	.75P+.25I	.67P+.33I	.5P+.5I	.33P+.67I	.25P+.75I	GDI	
Third	2.46	2.44	2.44	2.46	2.49	2.51	2.59	
Latest	2.79	2.73	2.73	2.78	2.87	2.93	3.18	
		Mean absolute revisions to the latest estimates						
Third	1.21	1.06	1.04	1.04	1.12	1.20	1.45	

NOTES: The variances and mean absolute revisions are for the third estimates to the latest estimates. P is GDP and I is GDI. Shaded backgrounds indicate the weighted sums that yield the smallest MARs.

Table 14. Mean Absolute Revisions Around Cyclical Turning Points, Changes in Current-Dollar GDP and GDI
[Percentage points]

	GDP	.75P+.25I	.67P+.33I	.5P+.5I	.33P+.67I	.25P+.75I	GDI
All quarters	1.48	1.32	1.26	1.17	1.20	1.29	1.59
Prior quarter	1.03	0.87	0.85	0.88	0.95	1.03	1.29
Peak quarter	1.25	1.04	0.98	1.05	1.40	1.57	2.09
After quarter	1.87	1.37	1.21	0.94	0.73	0.74	0.80
Prior quarter	1.12	1.12	1.12	1.19	1.31	1.37	1.56
Trough quarter	1.31	1.28	1.22	1.08	1.25	1.48	2.20
After quarter	1.89	1.78	1.76	1.73	1.69	1.71	1.82

NOTES: The data provide mean absolute revisions for the third estimates to the latest estimates for the six most recent recessions. P is GDP and I is GDI. Shaded backgrounds indicate the weighted sums that yield the smallest MARs.

Table 12. Mean Absolute Revisions Third to the Latest Estimates, Changes in GDP and GDI, 1993–2012
[Percentage points]

Latest	Third				
	GDP	.67GDP+.33GDI	.6GDP+.4GDI	.5GDP+.5GDI	GDI
GDP	1.21	1.16	1.16	1.17	1.39
GDI	1.71	1.58	1.55	1.52	1.45

NOTE: Shaded backgrounds indicate the weighted sums that yield the smallest MARs.

immediately before and after peaks and troughs. The weighted averages generally have lower MARs, with those before and those at turning points generally favoring greater weights for GDP. Weights favoring GDI do best in quarters immediately following troughs. The largest MARs before and at turning points are for GDI, but the largest MARs after turning points are for GDP.

Based on the foregoing, measures of GDP as well as those of GDI should yield improved understanding of the recent course of the economy. The better reliability observed using weighted averages of GDP and GDI will not, however, improve understanding of the detailed workings of the economy because there is no obvious way of distributing the averaging among the major components of GDP and GDI. Thus, averages can only provide supplemental summary information about the recent course of the aggregate economy.

Summary and Conclusions

The results of this review are fully consistent with those of previous BEA studies. The finding that GDI has additional information about GDP is stronger in this study than was previously reported. In summary:

- The estimates of GDP and GDI are accurate; the MARs for early vintages of both measures are somewhat above 1 percentage point.
- The MRs for both GDP and GDI are near zero and reflect the improvements in measures of economic activity and the expansions of the definition of what is included in economic activity that have been introduced in the comprehensive NIPA revisions that have adapted the NIPAs to an evolving economy. Nonzero values are not indications of bias.
- The quarterly estimates are accurate indicators of whether the economy is growing at rates above, near, or below the long-term trend.
- The MARs for the annual estimates of GDP, GDI, and their major components are less than half of those for the current quarterly estimates; they decline steadily in size from the early annual estimates to the third annual estimates.
- The fourth estimates of GDI, national income, and compensation of employees, which are published 5 months after the end of each quarter, reduce the MAR for compensation, but not the MARs for GDI or national income.
- GDI provides additional and reliable information about the course of true economic activity, which is never observed.

Although not discussed here, the finding of the previous study that “revisions in the major components of GDP and GDI have preserved the trends found in the

early estimates” still holds.

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Research Spotlight

Integrated Industry-Level Production Account for the United States

Sources of the Ongoing U.S. Recovery

By Steven Rosenthal, Matthew Russell, Jon D. Samuels, Erich H. Strassner, and Lisa Usher

ECONOMIC GROWTH in the United States since 1995 has been characterized as containing several unique periods: the information technology (IT) investment boom in 1995–2000, the period of jobless growth over 2000–2005, and the Great Recession and Recovery period that began around 2007 and continues through today.¹ At the same time, ongoing structural trends that predate these periods have continued and remain a focal point for both economists and policymakers: increasing globalization of the marketplace, the ongoing spread of information and communications technology, and the continued effect of the skills gap on the U.S. labor market.

The ongoing changes to the U.S. economy have reinforced the need for an up-to-date decomposition of gross domestic product (GDP) to the industry-level sources of growth. This decomposition is important not only for analyzing historical growth and identifying industry contributions but also for evaluating the prospects for growth as the economy continues to recover from the financial crisis. For example, Jorgenson, Ho, and Samuels (2014) argue that due to IT, it is important to consider industry-specific sources of growth and to incorporate industry-specific analysis into aggregate projections of labor productivity and GDP growth.

In this *Research Spotlight*, we present a new industry-level data set for 1998–2012 that is useful for analyzing the underlying trends in aggregate economic

growth.² The data set combines industry-level output and intermediate inputs from the GDP by industry accounts of the Bureau of Economic Analysis (BEA) with information on capital and labor inputs from the Bureau of Labor Statistics (BLS) Productivity Program to form an internally consistent industry-level production account. This account is consistent with the aggregate GDP estimates published with the 2013 comprehensive revision of the national income and product accounts (NIPAs) and the January 2014 comprehensive revision of the industry economic accounts.³

One of the most important features of this data set and analysis is that industry-level spending on intellectual property products—for example, research and development (R&D)—is included as an investment good.⁴ Since the seminal contributions of Griliches (1979) and Romer (1994) economists have been stolidly focused on quantifying the role of R&D in economic growth and productivity. By treating R&D as an investment that yields a flow of capital services over time, the contribution of intellectual property products to growth and productivity can be analyzed using the same framework as other capital goods.

The following is a summary of the results:

- R&D capital input contributed about 0.09 percentage point to aggregate value-added growth between 1998 and 2012, about half as much as software.

1. Jorgenson, Ho, and Samuels (2014).

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2. The paper and the data set are available on BEA's Web site at www.bea.gov/industry/index.htm#integrated. This paper was prepared for the Third World KLEMS Conference, Tokyo, Japan, May 19–20, 2014. For more information, see www.worldklems.net/conferences.htm.

3. This industry-level production account is somewhat broader in scope than official GDP. It treats government capital symmetrically with private sector capital input. In particular, in addition to the depreciation cost, there is also a rate of return on government capital assets.

4. The data set presented in this paper is an update of estimates presented in Fleck, Rosenthal, Russell, Strassner, and Usher (2014). The incorporation of investment in R&D and in entertainment, artistic and literary originals expanded the boundary of U.S. GDP and its related measures. R&D capital includes both own-account investment and the R&D produced by industry that is sold to others. Investment in entertainment, artistic and literary originals only includes own-account.

- The incorporation of R&D as capital input reduces estimated aggregate multifactor productivity (MFP) growth from an average of 0.56 percentage point each year in 1998–2012 to 0.47 percentage point each year.
- The smaller contribution of both tangible- and intangible-capital input relative to the prerecession period more than accounts for the slower growth during the recovery.

The remainder of the article consists of an overview of the estimation framework, estimates of the sources of industry growth over the period 1998–2012, and results of an industry decomposition of aggregate growth and productivity. In the last section, the conclusions and next steps are presented.

Overview of the Framework

We use a growth-accounting framework to analyze the sources of growth across industries. The implementation of this framework requires data on outputs produced by industry, the prices received by the producer for these outputs, and the prices and quantities of intermediate and value-added inputs used in production by industry. Because an objective of this analysis is to produce estimates that are consistent with the NIPAs and the GDP by Industry accounts, the industry-level production account maintains the definitional and conceptual framework of the BEA economic accounts.

The industry-level production account and MFP measures presented here reflect output consistent with GDP for the U.S. economy, but they differ in concepts and coverage from the official BLS measures of MFP. For example, the use of a gross output concept for measuring MFP in this project contrasts with the sectoral industry output approach used in the BLS MFP measures for major sectors and industries.⁵

Specific industries are the fundamental economic entities in this analysis.⁶ The economy is divided into 63 industries, each of which produces output using capital and labor inputs, intermediate inputs, and the available level of production technology. It is noteworthy that each of these major input groups at the industry level is, in fact, made up of many heterogeneous inputs, each with its own price and quantity index. For example, under intermediate input, there are all of the detailed commodities that are published in the bench-

mark input-output account. Intermediate inputs include items such as energy, materials, and purchased business services. Capital input includes estimates for approximately 90 assets within the categories of fixed business equipment, structures, inventories, land, and intellectual property products. Labor input is cross classified by gender, age, education, and class of worker.

Productivity is a measure of how efficiently inputs are converted to output. In the industry-level production account, outputs and inputs are measured in constant units exclusive of inflation and adjusted for compositional changes over time.

Using the growth-accounting framework, industry output growth is expressed as the sum of the share-weighted growth rate of industry inputs and the change in MFP. Within this framework, MFP growth measures embed underlying changes in the true economic technology, innovation, changes in production management as well as the effects of inputs that are not properly measured or that are unmeasured. For example, before the 2013 comprehensive revision of the NIPAs, spending on R&D was not measured as investment that could produce future capital services. Therefore R&D was missing as a capital input. The set of accounts presented in this article includes R&D spending as a capital input.

Sources of Industry Growth

The comprehensive results from the industry-level production account are presented in “Table 1. Sources of Industry Output Growth, 1998–2012.” The results in table 1 demonstrate the heterogeneity in industry growth and its sources for that period. For example, the support activities for mining industry grew by

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5. For more details, see “Conceptual and measurement challenges” in Fleck, Rosenthal, Russell, Strassner, and Usher (2014).

6. The account is prepared on a 2007 North American Industry Classification System (NAICS) basis and is published at about the three-digit NAICS level of detail.

about 7.2 percent each year on average over the period (consistent with the expansion of fracking), mostly because of an expansion of labor input and MFP growth. The data processing, internet publishing, and other information services industry grew by a little over 8 percent each year as a result of capital investments and purchases of intermediate inputs that are consistent with anecdotal evidence of shifts to cloud computing. In contrast, the apparel industry shrank by about 10 percent each year over the period, which is consistent with increased purchases of apparel produced abroad, but it became slightly more productive in terms of MFP growth; growth in textile mills was similar. The motor vehicle industry grew by about 0.7 percent over the period; the growth was mostly driven by MFP

growth because declines in labor input dampened growth by about 0.4 percent each year.

The contribution of MFP growth to industry output varied considerably by industry (chart 1 on page 8). In 1998–2012, the largest growth in MFP occurred in computer and electronic products, support activities for mining, water transportation, computer systems design and related services, and pipeline transportation. These productivity gains reflect ongoing innovation in IT and innovative practices in the mining and transportation industries. In contrast, productivity growth in rental and leasing, management of companies, legal services, and other services was negative over the same period. Negative measured MFP reflects decreased capability to manage resources and

Table 1. Sources of Industry Output Growth, 1998–2012

[Average annual growth rates]

	Growth						Growth				
	Output	Contributions			Multi-factor productivity		Output	Contributions			Multi-factor productivity
		Capital	Labor	Inter-mediate			Capital	Labor	Inter-mediate		
Farms.....	0.51	0.18	-0.08	-0.66	1.07	Publishing industries, except internet (includes software).....	1.35	1.28	-0.27	-0.30	0.64
Forestry, fishing, and related activities.....	-0.20	0.36	0.49	-1.92	0.87	Motion picture and sound recording industries.....	1.12	1.15	0.22	-1.77	1.51
Oil and gas extraction.....	1.81	-0.16	0.16	0.53	1.28	Broadcasting and telecommunications.....	4.38	1.69	-0.24	1.64	1.30
Mining, except oil and gas.....	-0.17	0.35	-0.13	-0.68	0.28	Data processing, internet publishing, and other information services.....	8.36	3.16	-0.48	4.97	0.70
Support activities for mining.....	7.18	0.37	2.34	0.96	3.51	Federal Reserve banks, credit intermediation, and related activities.....	1.46	1.11	0.34	-0.27	0.29
Utilities.....	-0.36	0.57	-0.09	-1.19	0.35	Securities, commodity contracts, and investments.....	4.11	0.18	0.45	2.43	1.05
Construction.....	-1.44	0.30	-0.11	-0.60	-1.03	Insurance carriers and related activities.....	3.40	1.08	0.26	2.08	-0.02
Wood products.....	-2.10	0.00	-0.90	-2.02	0.83	Funds, trusts, and other financial vehicles.....	2.56	0.96	0.19	1.12	0.29
Nonmetallic mineral products.....	-1.94	0.17	-0.51	-1.19	-0.41	Real estate.....	2.52	1.42	0.05	0.60	0.44
Primary metals.....	0.39	-0.09	-0.58	0.24	0.82	Rental and leasing services and lessors of intangible assets.....	2.06	2.37	-0.10	1.32	-1.54
Fabricated metal products.....	-0.31	0.06	-0.31	-0.07	0.02	Legal services.....	-0.02	1.00	0.30	0.02	-1.35
Machinery.....	0.57	0.16	-0.47	0.33	0.56	Computer systems design and related services.....	4.98	0.19	1.86	0.57	2.36
Computer and electronic products.....	4.05	0.41	-0.82	-2.01	6.47	Miscellaneous professional, scientific, and technical services.....	2.58	0.87	0.88	1.04	-0.21
Electrical equipment, appliances, and components.....	-1.83	-0.06	-0.62	-2.05	0.90	Management of companies and enterprises.....	2.83	1.07	1.11	2.13	-1.47
Motor vehicles, bodies and trailers, and parts.....	0.67	0.06	-0.44	0.00	1.06	Administrative and support services.....	2.23	0.75	0.59	0.21	0.68
Other transportation equipment.....	1.26	0.11	-0.16	0.60	0.72	Waste management and remediation services.....	1.47	0.19	0.44	0.41	0.44
Furniture and related products.....	-2.60	0.12	-1.21	-1.44	-0.06	Educational services.....	3.29	0.22	1.74	1.75	-0.43
Miscellaneous manufacturing.....	1.62	0.43	-0.33	0.34	1.19	Ambulatory health care services.....	3.19	0.22	1.54	1.11	0.32
Food and beverage and tobacco products.....	0.17	0.16	0.01	-0.07	0.07	Hospitals and Nursing and residential care.....	3.02	0.27	1.13	1.85	-0.23
Textile mills and textile product mills.....	-5.25	-0.20	-1.55	-3.70	0.20	Social assistance.....	3.52	0.11	1.49	1.99	-0.08
Apparel and leather and allied products.....	-9.99	-0.09	-2.80	-8.10	0.99	Performing arts, spectator sports, museums, and related activities.....	2.63	0.14	0.31	1.38	0.80
Paper products.....	-1.73	-0.18	-0.60	-0.87	-0.08	Amusements, gambling, and recreation industries.....	2.13	0.69	0.56	1.12	-0.25
Printing and related support activities.....	-2.49	-0.02	-1.40	-2.58	1.50	Accommodation.....	0.82	0.95	-0.10	0.11	-0.14
Petroleum and coal products.....	0.77	0.09	-0.02	0.59	0.11	Food services and drinking places.....	1.73	0.00	0.55	0.88	0.30
Chemical products.....	0.45	1.12	-0.15	-0.38	-0.14	Other services, except government.....	0.00	0.46	0.11	0.78	-1.35
Plastics and rubber products.....	-0.95	0.13	-0.43	-0.76	0.11	Federal government.....	2.28	0.71	0.01	1.44	0.12
Wholesale trade.....	2.43	0.96	0.13	1.08	0.26	State and local government.....	1.65	0.52	0.62	0.43	0.08
Retail trade.....	2.10	0.94	0.13	1.17	-0.14						
Air transportation.....	-1.74	0.03	-0.38	-1.18	-0.22						
Rail transportation.....	1.21	0.13	-0.40	1.00	0.48						
Water transportation.....	3.17	-0.21	0.21	0.63	2.54						
Truck transportation.....	0.85	0.36	-0.10	0.30	0.29						
Transit and ground passenger transportation.....	1.15	0.39	0.52	0.57	-0.34						
Pipeline transportation.....	-2.13	1.17	-0.16	-5.46	2.33						
Other transportation and support activities.....	1.67	0.01	0.08	1.25	0.33						
Warehousing and storage.....	6.58	0.49	1.25	3.69	1.15						

NOTE: A contribution is a share-weighted growth rate.

decisions to hoard inputs in uncertain times, but it also indicates potential issues in the measurement of outputs and inputs, including but not limited to quality.

This integrated production account is useful for analyzing the economic changes at the industry level that occurred during the time of the Great Recession and that are taking place during the ongoing recovery. In our analysis, the sample period was split into three periods: 1998–2007, 2007–2009, and 2009–2012. According to the National Bureau of Economic Research Business Cycle Dating Committee, the recession began in December 2007; however, because annual GDP growth was relatively strong during 2007, this year was included in the prerecession period of 1998–2007. The recession period covers growth between 2007 and 2009, and the recovery period covers growth between 2009 and 2012.⁷

To analyze how the ongoing recovery compares with the prerecession period, differences in industry output growth and its sources are compared for the period 2009–2012 and 1998–2007 (chart 2 on page 9). Of the 63 industries that are analyzed, 34 industries grew faster during the ongoing recovery period than during the prerecession period, even though GDP growth was slower during the recovery period. The largest relative differences occurred in apparel and leather products, motor vehicles, primary metals, machinery, oil and gas extraction, and support activities for mining. For each of these industries, the sources of growth was mostly attributable to labor input, intermediate input, and MFP growth; the contribution of capital does not show much difference compared with the earlier period. The industries with the slowest output growth relative to the early period were securities, credit intermediation, social assistance, construction, and farms. This slower growth was due to slower accumulation of inputs and MFP growth in all these industries, except for construction, which had higher MFP growth in comparison to the prerecession period, and farms, which had a small increase in capital. Overall, for the industries that grew faster during the recovery period of 2009–2012 relative to 1998–2007, the largest source of increased output growth was increased intermediate growth, followed by MFP growth, labor input growth, and then capital input growth. For those industries that declined during the recovery period relative to the prerecession

period, the largest source, on average, was the decline in intermediate input, followed by capital input, MFP growth, and labor input. These results indicate that the ongoing recovery has not reverted the depth and breadth of the recession.

Decomposition of GDP Growth

GDP growth is decomposed to its sources across industries and factors of production using the direct aggregation of industry approach (Jorgenson, Ho, Samuels, and Stiroh 2007). With this approach, aggregate value-added growth is the share-weighted growth of industry value-added growth. The contribution of primary, or value-added, input growth by industry to aggregate value-added growth is the Domar-weighted input contribution, and the contribution of industry MFP to aggregate MFP is the Domar-weighted industry MFP growth rate.⁸

Between 1998 and 2012, the majority of aggregate value-added growth was due to the accumulation of inputs. Of the 2.01 percent average annual growth in value added, 1.18 percentage points were accounted for by capital (about 60 percent of growth), 0.36 percentage point by labor (18 percent), and 0.47 percentage point by MFP growth (22 percent) (table 2).

8. Each industry's Domar weight is the ratio of the industry's current-dollar gross output to aggregate current-dollar value added. The industry's contribution to aggregate MFP growth is the industry's MFP growth multiplied by its Domar weight. The contribution of industry intermediate input use drops out in the calculation of aggregate value added and its decomposition.

Table 2. Growth in Aggregate Value Added and the Sources of Growth
[Average annual growth rates]

	1998–2012	1998–2007	2007–2012	2007–2009	2009–2012	2009–2012 less 1998–2007
Value added	2.01	2.78	0.62	-1.62	2.11	-0.67
Capital input	1.18	1.55	0.52	0.71	0.40	-1.16
Information technology capital	0.31	0.40	0.14	0.20	0.10	-0.31
R&D capital	0.09	0.09	0.09	0.10	0.08	-0.01
Software capital	0.18	0.23	0.08	0.10	0.06	-0.17
Entertainment originals capital	0.03	0.03	0.02	0.02	0.02	-0.01
Other capital	0.59	0.80	0.19	0.28	0.14	-0.66
Labor input	0.36	0.60	-0.09	-1.31	0.73	0.13
College labor	0.52	0.63	0.34	-0.11	0.63	0.00
Noncollege labor	-0.16	-0.02	-0.42	-1.21	0.10	0.12
Multifactor productivity	0.47	0.62	0.18	-1.02	0.99	0.36

Notes. Aggregate value-added growth is the sum of the share-weighted industry value-added growth. The contribution of capital, labor, and total factor productivity is the domar-weighted industry contributions. Information technology capital is computer, communications and other information technology capital.

7. The unemployment rate peaked in October 2009. However, the Business Cycle Dating Committee recorded the end of the recession in the United States as June 2009; www.nber.org/cycles/recessions_faq.html

Within capital, about 40 percent of the capital contribution was due to IT equipment and software (0.49 percentage point), and about 8 percent was due to R&D capital (0.09 percentage point). The 0.09 percentage point contribution of R&D capital to aggregate value-added growth each year provides a measure of the bias of previously published estimates. If this contribution of capital was excluded, estimated MFP growth would have been higher by about 0.09 percentage point each year; that is, aggregate MFP growth would have been 0.56 percentage point each year instead of 0.47 percentage point. Within labor input, the contribution from workers without a college degree actually fell over the period.

The difference in GDP growth in 2009–2012 relative to the GDP growth in 1998–2007 was more than accounted for by the difference in the contribution of capital (table 2). Comparing the growth during the recovery period of 2009–2012 with the growth in 1998–2007 period, GDP grew slower, by 0.67 percent-

age point each year. Capital input, in particular, contributed 1.16 percentage points less to growth during 2009–2012 than during 1998–2007. This smaller contribution was split between IT-capital, which accounted for 0.31 percentage point, software capital which accounted for 0.17 percentage point, and Other capital which accounted for 0.66 percentage point.

Interestingly, all of the increase in the contribution of labor input during the recovery period was due to the increased contribution of workers without a college degree, reversing the decline in the contribution of noncollege workers that took place beginning in the late 1990s.

In an examination of structural changes at the industry level for 22 major industry groups at the two-digit NAICS-based level of detail, finance and insurance accounted for about 42 percent (0.28 percentage point) of the slower U.S. economic growth during 2009–2012, compared with 1998–2007 (table 3). Capital input accounted for the majority of this slowdown.

Table 3. Contributions to Aggregate Value-Added Growth

[Percentage points]

	1998–2012				1998–2007				2009–2012				2009–2012 less 1998–2007			
	Value added	Capital	Labor	Multi-factor productivity	Value added	Capital	Labor	Multi-factor productivity	Value added	Capital	Labor	Multi-factor productivity	Value added	Capital	Labor	Multi-factor productivity
Total economy	2.01	1.18	0.36	0.47	2.78	1.55	0.60	0.63	2.11	0.40	0.73	0.98	-0.67	-1.16	0.13	0.36
Agriculture, forestry, fishing, and hunting.....	0.03	0.00	0.00	0.02	0.03	0.00	0.01	0.02	-0.01	0.02	0.00	-0.03	-0.04	0.01	0.00	-0.05
Mining.....	0.07	0.00	0.01	0.05	0.02	0.00	0.01	0.01	0.14	0.02	0.04	0.08	0.12	0.02	0.03	0.07
Utilities.....	0.02	0.02	0.00	0.00	0.01	0.02	0.00	0.00	0.07	0.01	-0.01	0.07	0.06	0.00	0.00	0.07
Construction.....	-0.07	0.03	0.00	-0.09	0.00	0.05	0.09	-0.14	-0.02	-0.02	0.02	0.02	-0.02	-0.07	-0.11	0.16
Durable goods.....	0.25	0.03	-0.10	0.31	0.36	0.05	-0.11	0.43	0.44	0.01	0.09	0.35	0.08	-0.04	0.20	-0.08
Nondurable goods.....	0.01	0.06	-0.05	0.00	0.09	0.06	-0.05	0.09	-0.09	0.05	0.01	-0.15	-0.18	0.00	0.06	-0.24
Wholesale trade.....	0.11	0.08	0.01	0.02	0.22	0.12	0.03	0.08	0.13	0.04	0.04	0.05	-0.09	-0.07	0.01	-0.03
Retail Trade.....	0.09	0.09	0.01	-0.01	0.15	0.12	0.02	0.00	0.08	0.02	0.05	0.01	-0.07	-0.10	0.02	0.01
Transportation and warehousing.....	0.03	0.01	0.00	0.02	0.05	0.02	0.00	0.02	0.09	0.00	0.05	0.05	0.04	-0.02	0.04	0.02
Information.....	0.21	0.14	-0.02	0.09	0.28	0.17	-0.01	0.12	0.16	0.09	0.00	0.06	-0.12	-0.07	0.01	-0.06
Finance and insurance.....	0.20	0.12	0.04	0.04	0.31	0.18	0.07	0.05	0.03	-0.02	0.06	-0.01	-0.28	-0.20	-0.02	-0.07
Real estate and rental and leasing.....	0.30	0.26	0.01	0.04	0.37	0.39	0.02	-0.03	0.28	-0.01	0.00	0.29	-0.10	-0.40	-0.02	0.33
Professional, scientific, and technical services.....	0.17	0.08	0.09	0.00	0.20	0.10	0.11	-0.02	0.20	0.00	0.10	0.10	0.00	-0.10	-0.01	0.12
Management of companies and enterprises.....	0.02	0.03	0.03	-0.04	0.01	0.03	0.03	-0.04	0.11	0.02	0.04	0.05	0.11	0.00	0.01	0.09
Administrative and waste management services.....	0.08	0.03	0.02	0.03	0.11	0.04	0.04	0.03	0.12	0.01	0.08	0.02	0.01	-0.03	0.04	0.00
Educational services.....	0.02	0.00	0.03	-0.01	0.02	0.00	0.03	-0.01	0.01	0.00	0.02	-0.01	-0.02	0.00	-0.01	-0.01
Health care and social assistance.....	0.16	0.02	0.14	0.00	0.17	0.02	0.14	0.00	0.10	0.02	0.15	-0.07	-0.06	0.00	0.01	-0.07
Arts, entertainment, and recreation.....	0.02	0.01	0.01	0.00	0.02	0.01	0.01	0.00	0.03	0.00	0.01	0.02	0.01	-0.01	0.00	0.02
Accommodation and food services.....	0.04	0.01	0.02	0.01	0.06	0.01	0.02	0.03	0.09	0.00	0.04	0.05	0.03	-0.01	0.02	0.02
Other services, except government.....	-0.03	0.02	0.00	-0.05	-0.02	0.02	0.01	-0.06	0.00	0.00	0.01	-0.01	0.02	-0.02	-0.01	0.04
Federal government.....	0.07	0.06	0.00	0.01	0.06	0.05	-0.01	0.02	0.07	0.06	0.00	0.01	0.01	0.01	0.01	-0.01
State and local government.....	0.20	0.09	0.10	0.01	0.26	0.10	0.14	0.03	0.07	0.06	-0.02	0.03	-0.19	-0.04	-0.16	0.01
Addenda:																
Private economy components:																
Information technology-producing Industries.....	0.31	0.04	0.00	0.27	0.37	0.05	-0.02	0.34	0.24	0.03	0.07	0.14	-0.13	-0.02	0.08	-0.20
Information technology-using Industries.....	0.98	0.59	0.30	0.09	1.40	0.80	0.42	0.18	0.94	0.19	0.53	0.23	-0.46	-0.61	0.11	0.05
Noninformation technology industries.....	0.46	0.41	-0.04	0.09	0.69	0.56	0.07	0.06	0.79	0.06	0.15	0.57	0.10	-0.50	0.09	0.51

NOTES: A contribution is a share-weighted growth rate. The information technology classification is from Jorgenson, Ho, and Samuels (2014).

State and local government accounted for about 29 percent (0.19 percentage point) of the slower growth, mainly as a result of decreased labor input, and nondurable-goods manufacturing accounted for about 27 percent (0.18 percentage point) as a result of MFP.

In contrast, mining, management of companies, and durable-goods manufacturing exhibited stronger growth during the recovery period relative to the prerecession period. Mining contributed 0.12 percentage point more to growth during 2009–2012, relative to 1998–2007, mainly as a result of gains in MFP but also as a result of stronger contributions of labor and capital input. Management of companies was also led by stronger relative growth in MFP, while durable goods stronger relative growth was more than accounted for by stronger relative growth in labor input.

The framework and data permits an analysis of the industry sources of the aggregate sources of growth. Chart 3 (on page 10) shows the difference in industry contributions to aggregate value-added growth during the recovery period of 2009–2012 relative to the prerecession period of 1998–2007, and provides detail on the results from tables 2 and 3. As noted, aggregate value-added growth has been slower during the recovery period, but this is not the case for all industries. For example, motor vehicles, management of companies, machinery, utilities, oil and gas, and computer systems design are all growing more rapidly during the recovery period than during the prerecession period, as would be expected of most industries during a recovery from a cyclical downturn. Yet all industries are not recovering relative to 1998–2007. State and local governments, computers and electronic products, broadcasting and telecom, and credit intermediation are all growing significantly less rapidly than during the prerecession period.

To understand the sources of slower aggregate value-added growth during the recovery period, charts 4–6 show the differences in industry contributions to aggregate capital, labor, and MFP in 2009–2012 and in 1998–2007. With respect to industry contribution to aggregate capital input, relative to the prerecession period, the contribution of capital input was significantly lower in real estate, credit intermediation, retail trade, rental and leasing, wholesale trade, and construction (chart 4 on page 11). In addition, the small increase in the aggregate contribution of labor input during 2009–2012 compared with the contribution in 1998–2007 was spread broadly across a subset of industries,

including computer and electronic products, machinery, administrative support services, fabricated metals, and motor vehicles (chart 5 on page 12). In each of these industries, the contribution of noncollege workers outpaced that in the 1998–2007 period. Lastly, MFP accelerated over the recovery period relative to the prerecession period, with the strongest gains exhibited by real estate, construction, and motor vehicles, while computer and electronic products, petroleum and coal products, and broadcasting and telecom experienced the sharpest relative decrease in contribution (chart 6 on page 13).

Conclusions and Next Steps

During the ongoing recovery from the financial crisis and Great Recession, U.S. growth continues to be sluggish, compared with the period immediately before the recession. At the aggregate level, this analysis attributes the majority of this sluggishness to a decrease in the contribution of capital services. At the industry level, stronger value-added growth in motor vehicles, management of companies, machinery and utilities is offset by slower growth in state and local government, computer and electronic products, broadcasting, credit intermediation, and real estate. The large decline in capital services relative to 1998–2007 was driven mainly by real estate, credit intermediation, retail trade and wholesale trade.

The purpose of this paper is to lay out a framework for a set of industry-level production accounts that are consistent with GDP and to provide industry detail to analyze the sources of growth. The current update includes an expansion of the scope of the accounts to include investments in R&D and entertainment originals as capital. For the 1998–2012 period, R&D capital input accounted for about 0.09 percentage point of aggregate growth, about half as much as software capital. Entertainment originals capital input accounted for about 0.03 percentage point. Thus, incorporating R&D lowered MFP growth estimates from about 0.56 percentage point each year to about 0.47 percentage point.

This analysis is limited by the time series availability of the industry-level production account. Future work on the integrated BEA-BLS industry level production account includes investigating approaches to extend the account backwards in time following Jorgenson, Ho, and Samuels (2014) and improving estimates of labor composition by incorporating results from the American Community Survey. In any case, the

groundwork for future updates to the industry-level production accounts is now in place, and work is under way to plan for these future updates.

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Chart 1. Industry Multifactor Productivity Growth for 1998–2012

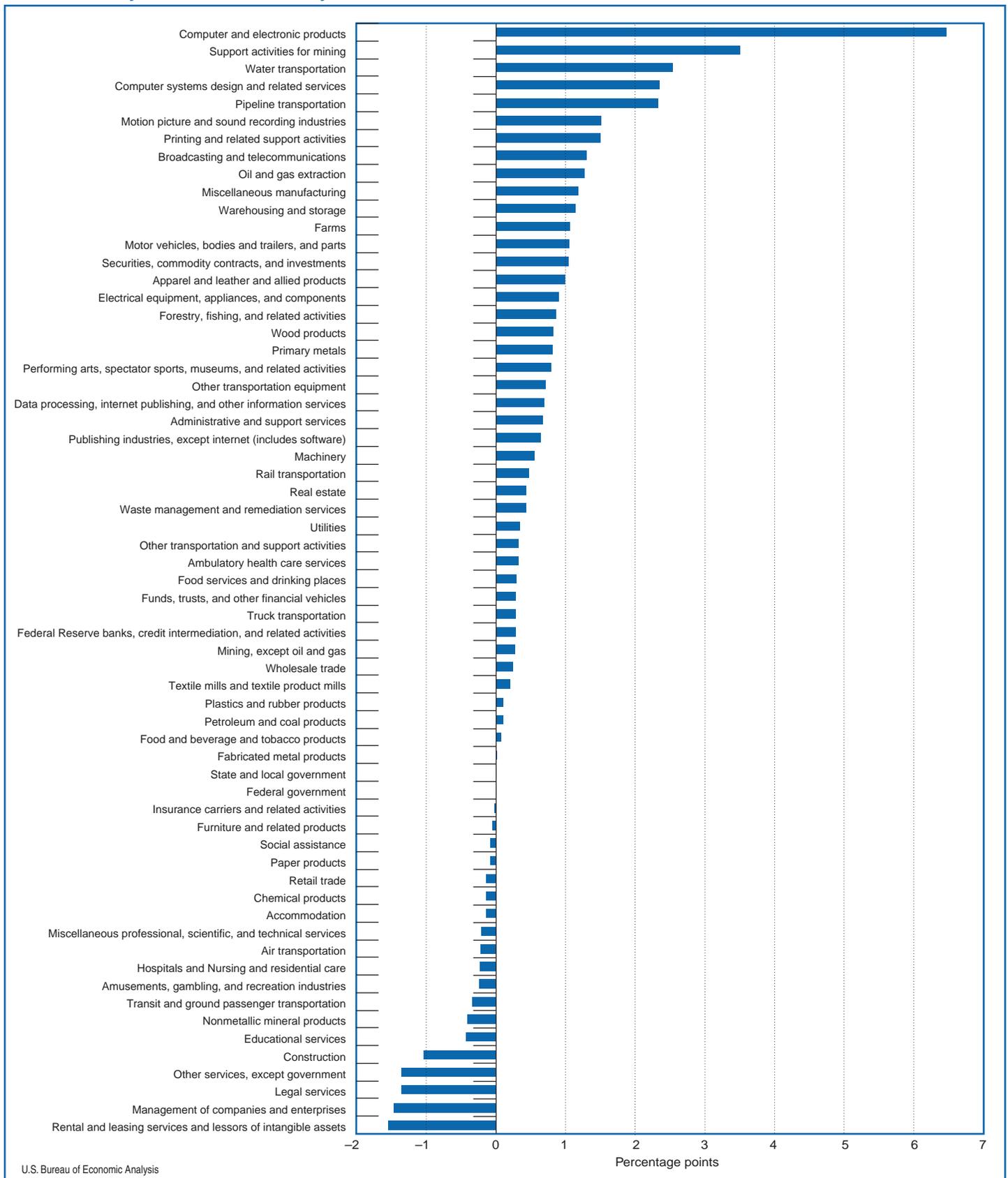


Chart 2. Industry Output Growth Differences for 2009–2012 Less 1998–2007

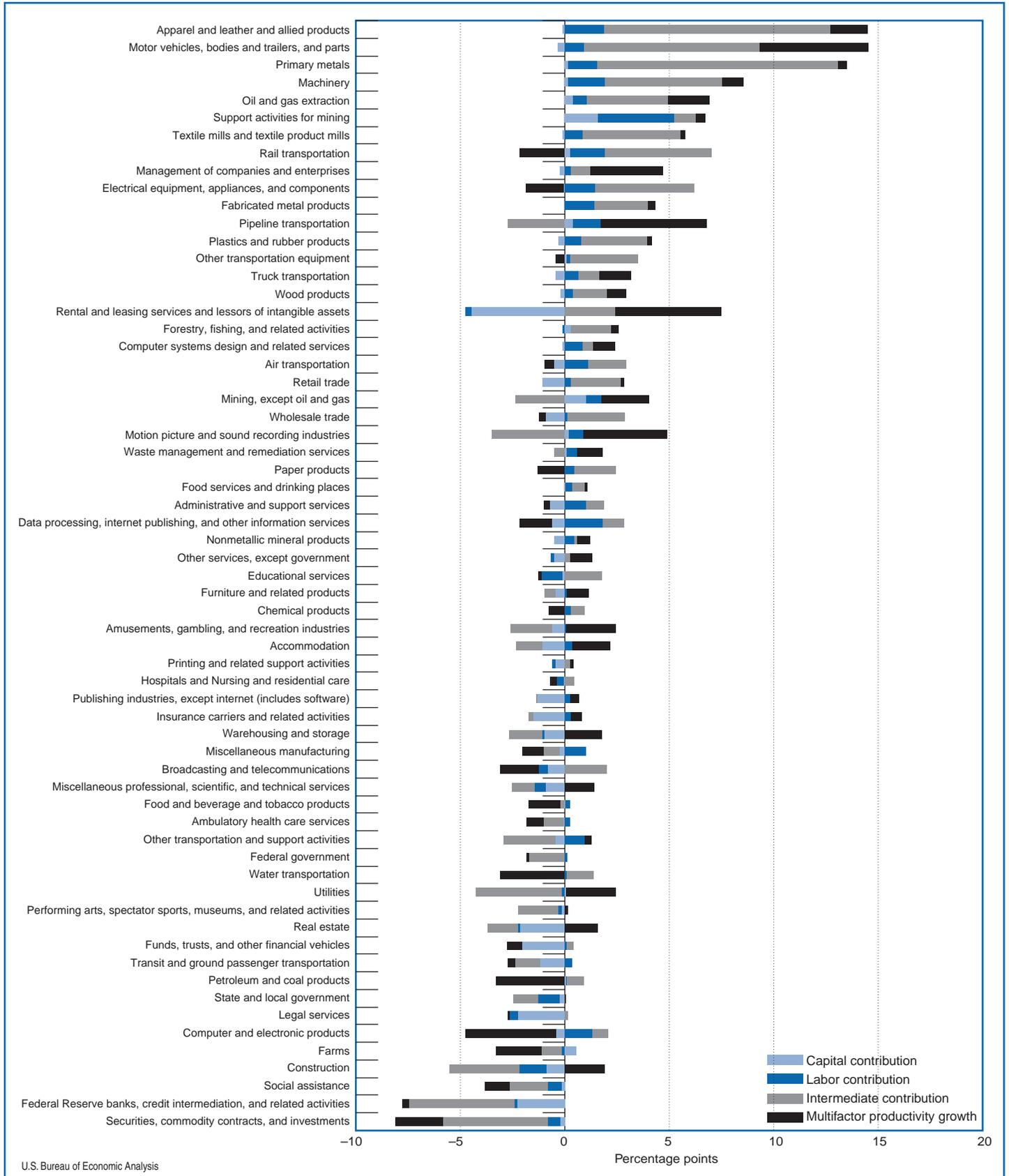


Chart 3. Industry Contributions to Economy-Wide Value-Added Growth for 2009–2012 Less 1998–2007

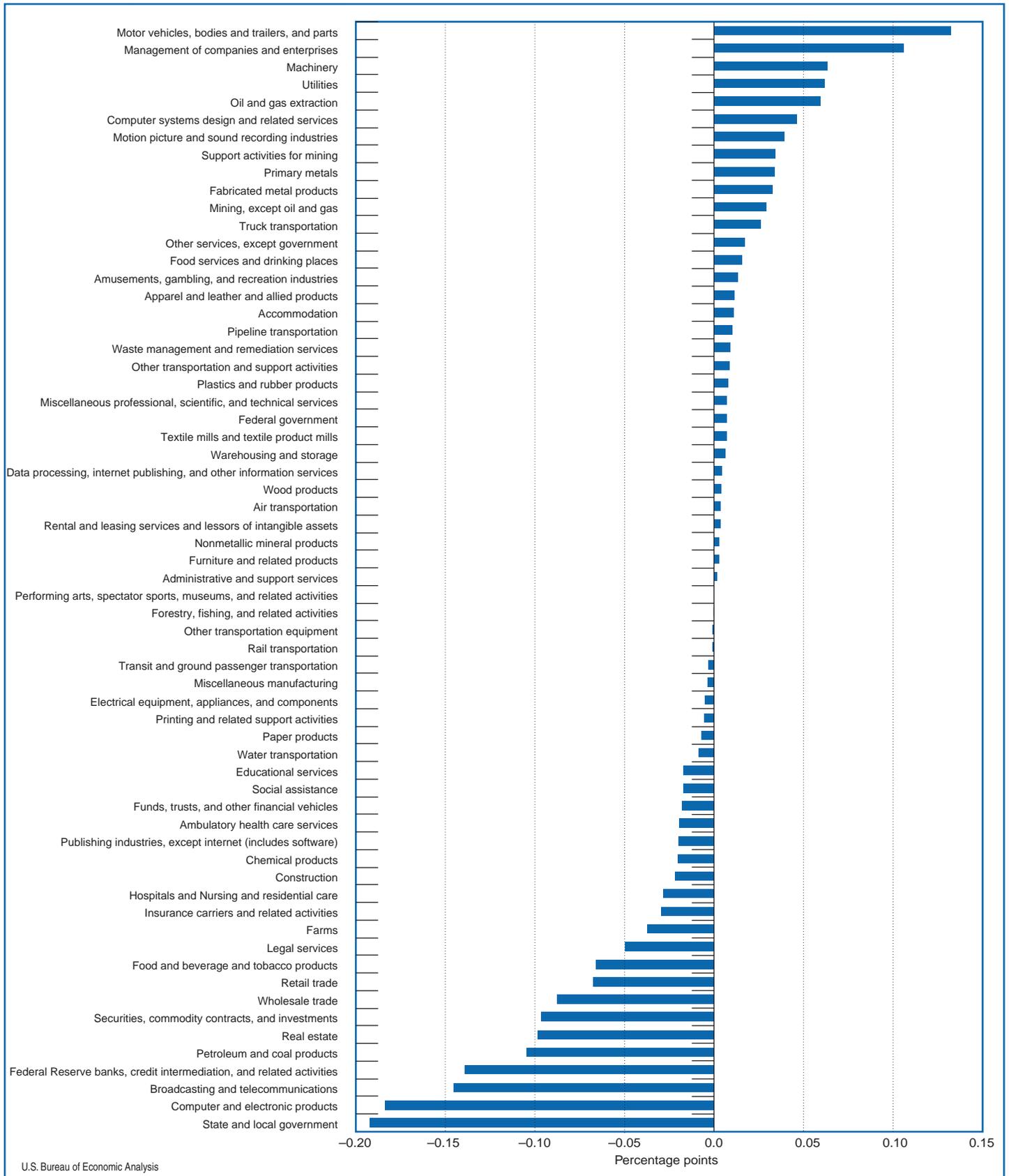


Chart 4. Industry Contributions to Economy-Wide Capital Contribution for 2009–2012 Less 1998–2007

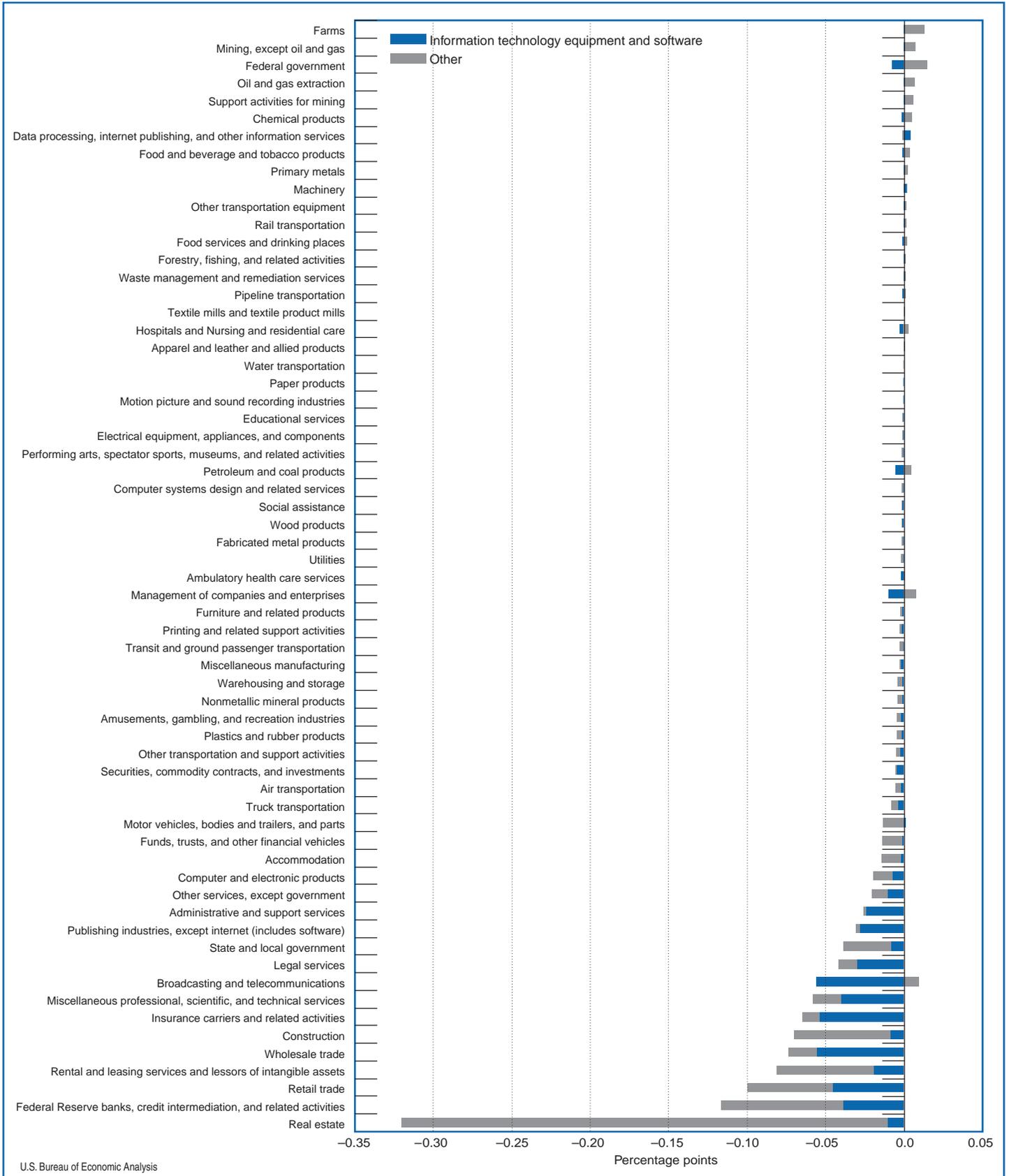


Chart 5. Industry Contributions to Economy-Wide Labor Contribution for 2009–2012 Less 1998–2007

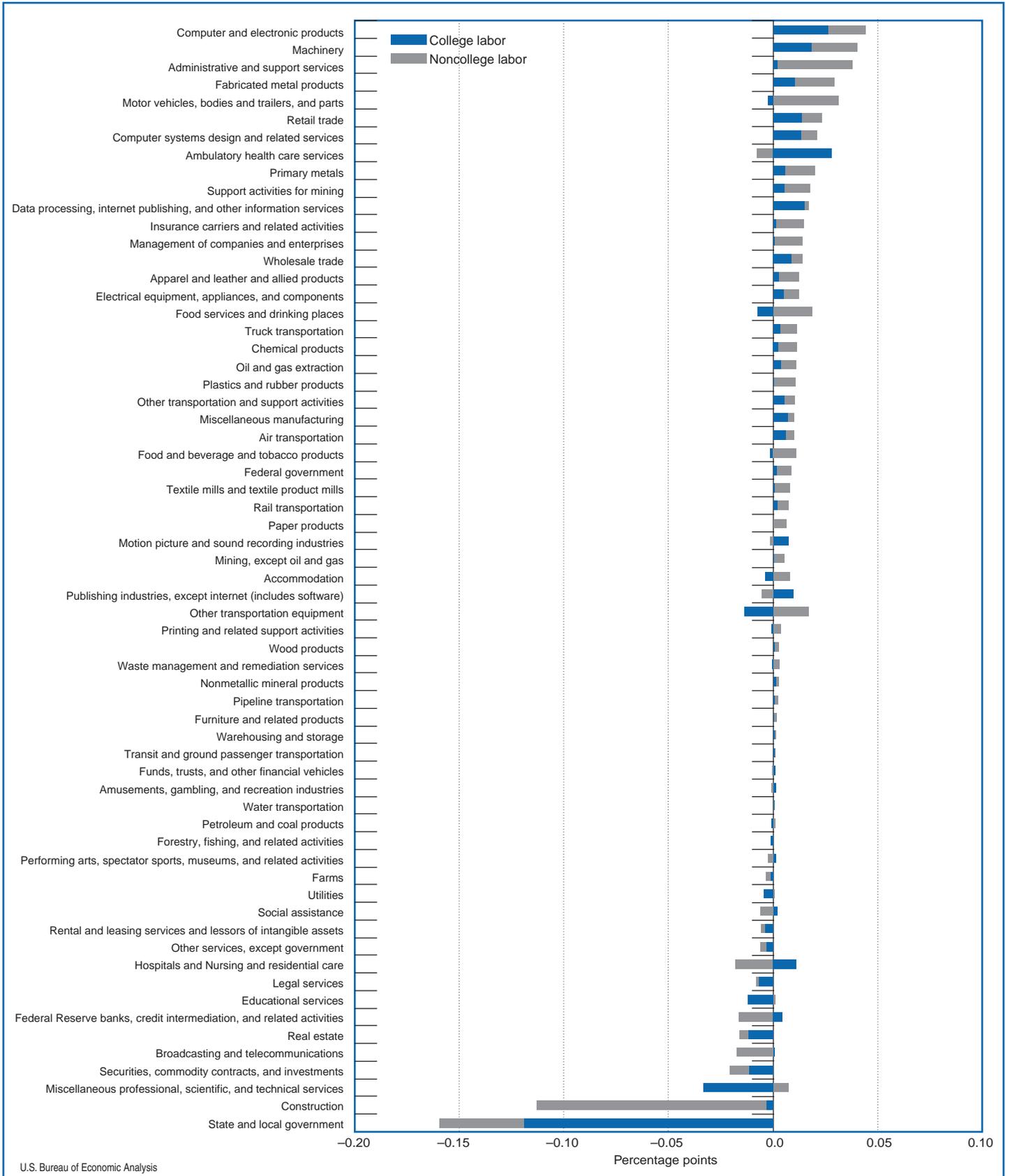
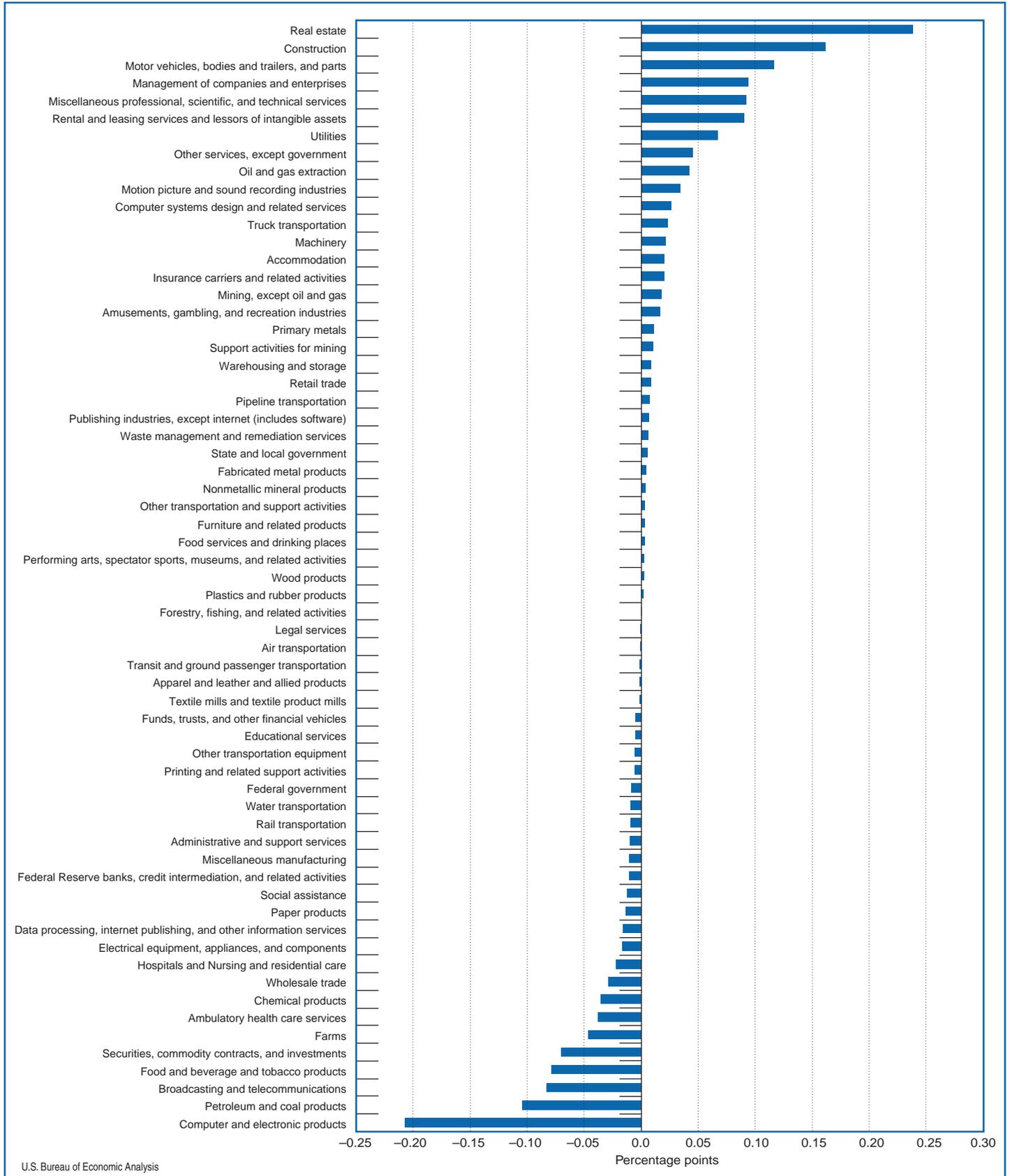


Chart 6. Industry Contributions to Economy-Wide Multifactor Productivity Contribution for 2009–2012 Less 1998–2007



Activities of U.S. Multinational Enterprises in 2012

THE BUREAU of Economic Analysis (BEA) has released preliminary 2012 statistics on the outward activities of multinational enterprises (AMNEs) based on the results from the 2012 Annual Survey of U.S. Direct Investment Abroad. Outward MNE statistics cover the worldwide activities of U.S. multinational enterprises (MNEs). The statistics include information on the finance and operations of U.S. MNEs, including balance sheet and income statement details, employment and employee compensation, sales, capital expenditures, trade in goods, and expenditures for research and development (R&D). BEA also produces inward AMNE statistics that cover U.S. affiliates of foreign MNEs; these statistics will be described in an article later this year.

The worldwide operations of a U.S. MNE can be divided between its domestic operations, represented by the U.S. parent company, and its foreign operations, represented by foreign affiliates. Data for foreign affiliates are presented for two categories—all affiliates and majority-owned foreign affiliates (MOFAs), which are more than 50 percent owned by their U.S. parents. Most foreign affiliates are majority-owned; MOFAs accounted for 86.3 percent of employment by all foreign affiliates in 2012. Data are available in greater detail for MOFAs because some data items are collected only for MOFAs. A focus on MOFAs puts the statistics on foreign affiliates on the same basis as the statistics on U.S. parents, which are defined to include all majority-owned domestic operations of the parent. In this discussion, U.S. MNEs are the combined operations of U.S. parent companies and their MOFAs.

The value added of U.S. MNEs rose 2.0 percent to \$4,667.0 billion in 2012 after rising 9.2 percent in 2011 (table 1). The increase reflected a 2.7 percent increase in the value added of U.S. parents and a 0.3 percent in-

crease in the value added of their MOFAs. U.S. parent value added grew more slowly than overall U.S. gross domestic product (GDP) for private industries in 2012 (5.2 percent). As a result, the share of U.S. private industry GDP accounted for by U.S. parents fell from 24 percent to 23 percent. U.S. parents continued to account for the majority share of U.S. MNE combined value added (69.6 percent), capital expenditures (72.7 percent), R&D (83.8 percent), and employment (65.6 percent).

Employment by U.S. MNEs increased 1.1 percent to 35.2 million workers in 2012 after increasing 2.2 percent in 2011. The increase reflected a 0.5 percent increase in the employment of U.S. parents and a 2.2 percent increase in the employment of MOFAs. U.S. parents accounted for a fifth of total U.S. private industry employment in 2012.

Some additional highlights of the data:

- U.S. MNE capital expenditures rose 12.2 percent in 2012, reflecting growth for both U.S. parents (10.7 percent) and MOFAs (16.4 percent).

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Raymond J. Mataloni Jr. prepared this article.

- U.S. MNE R&D expenditures rose 3.6 percent in 2012, reflecting growth for U.S. parents (4.4 percent) and a slight decline for MOFAs (−0.2 percent).
- Fifteen countries—the United Kingdom, Canada, Germany, Ireland, Australia, Japan, France, China, Brazil, Mexico, Singapore, Switzerland, the Netherlands, Norway, and Italy—accounted for more than two-thirds of value added by MOFAs in 2012.
- U.S. exports of goods shipped by U.S. parents rose 8.8 percent in 2012 (tables 2.1 and 2.2). U.S. imports of goods shipped to U.S. parents rose 4.1 percent.
- U.S. exports of goods shipped to all foreign affiliates rose 2.2 percent in 2012 (table 3). U.S. imports of goods shipped by all foreign affiliates rose 0.2 percent.

Data Availability

Detailed preliminary statistics from the 2012 Annual Survey of U.S. Direct Investment Abroad have been posted in electronic files that can be downloaded free of charge from BEA's Web site at www.bea.gov. Revised statistics will be released in 2015. Detailed statistics for 1983–2011 are also available on BEA's Web site.

More information about these products and how to access them in static files or interactively is available at www.bea.gov/international/di1usdop.htm.

Tables 1 through 6.2 follow.

Table 1. Selected Statistics for U.S. Multinational Enterprises (MNEs), U.S. Parents, and Foreign Affiliates for Selected Years

	U.S. MNEs		Parents	Affiliates		
	Parents and all affiliates	Parents and MOFAs		Total	MOFAs	Other
Millions of dollars						
Value added¹						
1989	n.a.	1,401,078	1,076,884	n.a.	324,194	n.a.
1994	n.a.	1,773,288	1,361,792	n.a.	411,496	n.a.
1999 ²	n.a.	2,644,739	2,064,343	n.a.	580,396	n.a.
2004	n.a.	3,220,723	2,366,467	n.a.	854,256	n.a.
2009	n.a.	3,740,733	2,595,776	n.a.	1,144,957	n.a.
2010	n.a.	4,190,898	2,948,661	n.a.	1,242,237	n.a.
2011 ¹	n.a.	4,576,754	3,160,862	n.a.	1,415,892	n.a.
2012 ^p	n.a.	4,667,011	3,246,332	n.a.	1,420,679	n.a.
Percent change at annual rates						
1989-1999	n.a.	6.6	6.7	n.a.	6.0	n.a.
1994-2004	n.a.	6.1	5.7	n.a.	7.6	n.a.
1999-2009	n.a.	3.5	2.3	n.a.	7.0	n.a.
2010-2011	n.a.	9.2	7.2	n.a.	14.0	n.a.
2011-2012	n.a.	2.0	2.7	n.a.	0.3	n.a.
Thousands						
Employees						
1989	26,370.1	24,825.9	19,616.9	6,753.2	5,209.0	1,544.2
1994	26,570.6	25,141.9	19,330.0	7,240.6	5,811.9	1,428.7
1999 ²	33,397.6	31,913.4	23,985.3	9,412.3	7,928.1	1,484.2
2004	32,891.6	31,466.0	22,446.2	10,445.4	9,019.8	1,425.6
2009	35,962.0	33,726.6	22,932.7	13,029.3	10,793.9	2,235.3
2010	36,286.7	34,104.5	22,791.1	13,495.6	11,313.4	2,182.2
2011 ¹	36,746.8	34,844.4	22,994.2	13,752.6	11,850.2	1,902.4
2012 ^p	37,153.2	35,225.6	23,109.8	14,043.4	12,115.8	1,927.6
Percent change at annual rates						
1989-1999	2.4	2.5	2.0	3.4	4.3	-0.4
1994-2004	2.2	2.3	1.5	3.7	4.5	0.0
1999-2009	0.7	0.6	-0.4	3.3	3.1	4.2
2010-2011	1.3	2.2	0.9	1.9	4.7	-12.8
2011-2012	1.1	1.1	0.5	2.1	2.2	1.3
Millions of dollars						
Capital expenditures³						
1989	278,790	262,688	203,808	74,982	58,880	16,402
1994	330,940	306,364	234,617	96,323	71,747	24,976
1999 ²	562,705	531,399	416,795	145,910	114,604	31,306
2004	500,048	476,098	350,919	149,129	125,179	23,950
2009	653,208	598,862	431,796	221,412	167,066	54,345
2010	n.a.	607,437	441,053	n.a.	166,384	n.a.
2011 ¹	n.a.	716,647	527,828	n.a.	188,819	n.a.
2012 ^p	n.a.	804,218	584,402	n.a.	219,816	n.a.
Percent change at annual rates						
1989-1999	7.3	7.3	7.4	6.9	6.9	6.7
1994-2004	4.2	4.5	4.1	4.5	5.7	-0.4
1999-2009	1.5	1.2	0.4	4.3	3.8	5.7
2010-2011	n.a.	18.0	19.7	n.a.	13.5	n.a.
2011-2012	n.a.	12.2	10.7	n.a.	16.4	n.a.
Millions of dollars						
R&D expenditures⁴						
1989	n.a.	90,149	82,227	n.a.	7,922	n.a.
1994	n.a.	103,451	91,574	n.a.	11,877	n.a.
1999 ²	n.a.	144,435	126,291	n.a.	18,144	n.a.
2004	n.a.	190,029	164,189	n.a.	25,840	n.a.
2009	n.a.	246,502	207,297	n.a.	39,205	n.a.
2010	n.a.	245,561	205,674	n.a.	39,887	n.a.
2011 ¹	n.a.	264,963	220,279	n.a.	44,684	n.a.
2012 ^p	n.a.	274,576	229,966	n.a.	44,610	n.a.
Percent change at annual rates						
1989-1999	n.a.	4.8	4.4	n.a.	8.6	n.a.
1994-2004	n.a.	6.3	6.0	n.a.	8.1	n.a.
1999-2009	n.a.	5.5	5.1	n.a.	8.0	n.a.
2010-2011	n.a.	7.9	7.1	n.a.	12.0	n.a.
2011-2012	n.a.	3.6	4.4	n.a.	-0.2	n.a.

See the footnotes on page 22.

Table 2.1. Selected Statistics for U.S. Parents by Industry of U.S. Parent, 2011—Continues

	Millions of dollars									Thousands of employees
	Total assets	Sales	U.S. exports of goods shipped by parents	U.S. imports of goods shipped to parents	Net income	Capital expenditures	R&D expenditures	Value added	Compensation of employees	
All industries	30,597,694	10,593,201	669,231	886,735	1,061,776	527,828	220,279	3,160,862	1,692,811	22,994.2
Mining	546,400	160,702	13,603	7,596	42,669	49,036	712	94,276	21,660	216.1
Oil and gas extraction.....	324,776	78,748	(D)	(D)	20,862	36,497	(D)	44,258	6,385	43.8
Other	221,624	81,954	(D)	(D)	21,807	12,539	(D)	50,018	15,276	172.3
Manufacturing	6,375,179	4,569,686	569,556	651,280	512,296	190,340	159,646	1,278,575	610,983	6,886.0
Food	478,441	459,690	51,092	(D)	45,269	11,342	2,565	103,418	49,322	816.7
Beverages and tobacco products	256,949	95,810	(D)	4,603	19,542	3,540	289	52,562	10,376	144.7
Textiles, apparel, and leather products.....	28,018	25,326	2,071	6,287	1,124	660	203	6,931	4,526	96.3
Wood products	6,392	7,737	252	(D)	237	149	47	1,695	1,349	19.8
Paper	120,447	80,143	12,435	(D)	11,032	3,225	1,229	26,584	15,807	178.6
Printing and related support activities	29,451	27,107	221	150	1,284	613	79	11,655	6,623	105.7
Petroleum and coal products	996,822	1,180,740	(D)	265,213	101,687	47,545	2,967	181,872	39,023	282.9
Chemicals	1,279,040	604,486	94,219	85,442	108,279	21,365	52,480	213,056	94,499	767.0
Basic chemicals	131,959	122,515	27,367	(D)	10,893	4,242	1,169	26,133	9,875	89.9
Resins and synthetic rubber, fibers, and filaments	122,734	59,966	14,095	(D)	8,004	3,284	3,428	17,371	10,210	80.7
Pharmaceuticals and medicines	802,375	295,731	40,162	(D)	62,482	8,407	44,427	115,274	55,164	370.1
Soap, cleaning compounds, and toilet preparations.....	126,328	62,284	3,410	1,807	18,279	2,790	2,131	31,669	8,942	106.7
Other	95,644	63,990	9,186	(D)	8,622	2,642	1,325	22,609	10,308	119.5
Plastics and rubber products.....	90,843	93,902	(D)	13,453	5,848	2,657	1,154	25,840	16,391	280.0
Nonmetallic mineral products	61,292	36,624	3,509	1,790	218	1,913	429	10,952	7,830	97.1
Primary and fabricated metals	240,042	193,530	22,537	(D)	7,161	6,314	1,260	53,327	33,620	426.5
Primary metals.....	170,745	140,237	(D)	(D)	3,671	5,006	520	36,660	22,326	266.3
Fabricated metal products	69,297	53,293	(D)	4,638	3,489	1,308	740	16,666	11,295	160.2
Machinery	371,306	236,353	52,498	24,779	25,557	9,317	8,344	75,251	47,807	563.7
Agriculture, construction, and mining machinery	176,794	98,358	23,984	13,007	12,049	4,379	3,531	17,526	17,526	173.2
Industrial machinery.....	79,931	42,222	10,061	3,725	6,121	2,215	1,899	17,000	10,342	114.3
Other	114,581	95,773	18,453	8,047	7,387	2,723	2,914	29,056	19,939	276.2
Computers and electronic products	739,131	477,887	66,886	49,747	83,672	22,275	42,305	193,336	96,614	921.4
Computers and peripheral equipment.....	170,766	141,255	14,941	10,009	38,030	6,818	6,472	54,082	21,274	210.2
Communications equipment	129,744	68,006	(D)	8,769	9,565	1,766	9,524	25,925	12,427	112.7
Audio and video equipment	(D)	8,136	(D)	(D)	509	281	723	2,537	1,789	21.7
Semiconductors and other electronic components	232,967	135,436	23,282	(D)	21,914	11,239	15,716	57,427	24,916	218.9
Navigational, measuring, and other instruments	196,200	125,054	21,030	(D)	13,655	2,170	9,870	53,365	36,208	357.9
Magnetic and optical media	(D)	(*)	0	0	(*)	2	0	(*)	(*)	(*)
Electrical equipment, appliances, and components	159,496	99,210	16,875	(D)	14,592	4,226	3,623	35,065	19,360	242.2
Transportation equipment.....	1,264,932	820,828	142,703	136,897	72,624	51,251	35,307	230,178	133,781	1,544.3
Motor vehicles, bodies and trailers, and parts	538,258	445,516	(D)	(D)	44,179	39,796	12,433	86,183	38,939	613.8
Other	726,674	375,312	(D)	(D)	28,446	11,455	22,874	143,994	94,842	930.6
Furniture and related products	19,049	22,222	1,524	1,251	96	297	243	6,453	5,094	82.2
Miscellaneous manufacturing.....	233,528	108,091	(D)	(D)	14,076	3,649	7,123	50,401	28,960	316.8
Wholesale trade	974,156	1,233,878	63,726	151,596	39,089	40,005	6,921	160,457	83,186	1,107.6
Professional and commercial equipment and supplies.....	68,040	81,998	2,890	18,747	1,530	1,299	1,915	14,063	9,636	108.3
Petroleum and petroleum products	64,142	106,475	8,060	(D)	2,348	7,533	(D)	7,641	2,649	26.8
Drugs and druggists' sundries	108,517	381,470	975	2,452	4,984	1,173	1,453	21,250	10,167	124.6
Other	733,457	663,935	51,801	(D)	30,227	30,001	(D)	117,502	60,734	847.9
Retail trade	567,272	987,966	4,785	55,608	46,552	23,744	(D)	265,377	128,558	4,405.6
General merchandise stores	252,649	500,639	(D)	(D)	22,126	9,842	0	125,762	58,751	2,182.6
Clothing and clothing accessories stores.....	59,466	87,288	1,351	(D)	6,739	2,475	8	31,340	15,713	702.0
Other	255,157	400,039	(D)	(D)	17,687	11,427	(D)	108,274	54,095	1,521.0
Information	1,633,841	812,543	5,009	(D)	91,820	65,498	24,996	351,739	161,504	1,718.8
Publishing industries	260,723	149,939	3,904	(D)	34,694	4,411	15,188	78,921	42,181	367.3
Motion picture and sound recording industries	72,606	38,790	(D)	(D)	-94	777	(D)	7,185	4,662	62.4
Broadcasting (except Internet) and telecommunications	1,061,852	479,955	65	(D)	41,847	52,738	1,443	213,312	85,588	951.6
Broadcasting (except Internet).....	385,166	167,876	(D)	(D)	19,997	9,237	70	75,633	29,631	354.0
Telecommunications.....	676,687	312,079	(D)	(D)	21,850	43,501	1,374	137,679	55,956	597.6
Data processing, hosting, and related services	46,732	64,073	(D)	0	2,456	1,361	930	13,622	7,096	82.8
Other information services	191,928	79,786	(D)	(D)	12,917	6,211	(D)	38,698	21,978	254.7

See the footnotes on page 22.

Table 2.1. Selected Statistics for U.S. Parents by Industry of U.S. Parent, 2011—Table Ends

	Millions of dollars									Thousands of employees
	Total assets	Sales	U.S. exports of goods shipped by parents	U.S. imports of goods shipped to parents	Net income	Capital expenditures	R&D expenditures	Value added	Compensation of employees	
Finance and insurance	18,077,668	1,545,821	(D)	(D)	189,841	46,431	469	356,920	297,039	2,501.2
Depository credit intermediation (banking)	7,390,446	428,581	0	0	60,609	7,496	(D)	158,792	118,267	1,149.1
Finance, except depository institutions	5,390,607	312,044	(D)	(D)	61,798	28,462	(D)	121,413	92,098	522.0
Insurance carriers and related activities	5,296,614	805,196	0	(D)	67,434	10,473	112	76,715	86,675	830.1
Professional, scientific, and technical services ...	501,978	322,684	(D)	(D)	60,192	8,905	21,614	198,086	127,997	1,273.1
Architectural, engineering, and related services	50,458	48,308	(D)	217	404	693	(D)	21,265	20,461	209.9
Computer systems design and related services	247,487	129,452	(D)	(D)	29,796	4,750	12,737	82,975	47,741	442.7
Management, scientific, and technical consulting	19,845	13,002	(D)	(D)	1,312	293	(D)	8,218	7,071	42.3
Advertising and related services	65,828	24,586	1	2	1,953	620	(D)	14,616	10,890	97.4
Other	118,360	107,335	(D)	(D)	26,727	2,550	7,419	71,012	41,835	480.7
Other industries	1,921,200	959,922	8,211	(D)	79,317	103,869	(D)	455,433	261,882	4,885.8
Agriculture, forestry, fishing, and hunting	20,141	9,299	(D)	(D)	1,898	334	(D)	4,464	1,610	27.5
Construction	59,082	79,442	(D)	(D)	4,043	1,009	(D)	25,105	19,906	197.2
Utilities	499,327	187,044	(D)	(D)	12,531	36,974	15	60,023	17,376	158.8
Transportation and warehousing	460,659	276,721	(D)	(D)	19,507	25,690	36	128,617	71,800	1,007.5
Real estate and rental and leasing	204,325	70,112	(D)	(D)	6,855	24,361	(D)	40,190	17,532	210.6
Management of nonbank companies and enterprises	171,058	1,393	(D)	0	8,114	81	(*)	4,829	243	3.0
Administration, support, and waste management	170,966	131,105	(D)	(D)	4,677	5,640	(D)	76,974	57,666	1,129.1
Health care and social assistance	60,664	54,432	0	(D)	4,648	2,343	(D)	35,196	24,845	399.1
Accommodation and food services	171,888	93,155	(D)	(D)	10,427	4,136	51	52,188	30,805	1,260.9
Miscellaneous services	103,091	57,220	(D)	218	6,617	3,300	372	27,848	20,098	492.2

See the footnotes on page 22.

Table 2.2. Selected Statistics for U.S. Parents by Industry of U.S. Parent, 2012—Continues

	Millions of dollars									Thousands of employees
	Total assets	Sales	U.S. exports of goods shipped by parents	U.S. imports of goods shipped to parents	Net income	Capital expenditures	R&D expenditures	Value added	Compensation of employees	
All industries	32,123,291	10,926,348	728,105	922,661	997,169	584,402	229,966	3,246,332	1,768,780	23,109.8
Mining	617,640	168,883	14,644	7,887	22,155	56,966	686	90,917	23,874	229.4
Oil and gas extraction.....	372,138	79,323	(D)	(D)	8,207	42,854	16	44,244	6,519	45.8
Other	245,502	89,560	(D)	(D)	13,949	14,112	670	46,673	17,355	183.6
Manufacturing	6,791,911	4,677,018	621,484	669,832	452,800	220,200	162,793	1,271,612	628,496	6,826.9
Food	513,478	493,452	58,221	19,216	33,679	11,982	2,654	100,822	49,991	810.0
Beverages and tobacco products	271,672	99,682	(D)	5,105	19,958	4,323	308	54,468	10,318	141.3
Textiles, apparel, and leather products	29,013	25,880	2,201	(D)	1,311	523	203	6,915	4,458	93.4
Wood products	4,369	6,237	279	162	156	98	(D)	1,626	1,225	19.2
Paper	131,501	94,262	(D)	(D)	9,077	4,172	1,283	30,634	16,881	191.0
Printing and related support activities	30,116	26,647	227	154	1,323	620	77	11,198	6,441	101.6
Petroleum and coal products	1,070,295	1,146,733	(D)	263,617	97,995	63,501	2,995	166,727	42,294	281.6
Chemicals	1,384,699	603,622	87,874	86,829	104,094	25,512	54,636	206,221	95,458	761.3
Basic chemicals	142,727	122,486	22,598	20,295	11,578	5,786	1,276	27,947	10,632	91.2
Resins and synthetic rubber, fibers, and filaments	131,909	61,140	14,447	(D)	5,216	3,459	3,680	16,279	9,783	76.9
Pharmaceuticals and medicines	874,079	293,011	35,503	53,086	66,577	10,134	46,594	115,809	56,205	372.4
Soap, cleaning compounds, and toilet preparations	134,397	61,727	3,541	(D)	14,229	3,263	1,823	25,625	8,727	103.4
Other	101,587	65,257	11,783	(D)	6,494	2,870	1,263	20,560	10,111	117.4
Plastics and rubber products	109,322	102,749	(D)	13,527	4,748	3,805	1,244	32,211	19,528	298.6
Nonmetallic mineral products	64,500	37,088	3,240	1,730	1,592	2,040	487	12,666	7,804	93.9
Primary and fabricated metals	234,428	194,766	(D)	(D)	5,161	7,805	1,331	50,560	32,468	397.8
Primary metals	162,208	139,222	(D)	(D)	1,631	6,467	494	33,031	20,902	239.1
Fabricated metal products	72,220	55,544	6,322	4,843	3,530	1,338	837	17,529	11,566	158.7
Machinery	401,598	248,783	54,366	26,333	23,401	10,774	9,085	73,486	48,111	547.9
Agriculture, construction, and mining machinery	195,026	112,029	27,277	14,795	12,807	4,923	3,892	30,656	18,738	178.6
Industrial machinery	83,657	41,192	8,634	3,341	3,870	2,749	2,124	13,506	10,056	110.8
Other	122,914	95,562	18,456	8,196	6,724	3,102	3,069	29,324	19,316	258.6
Computers and electronic products	744,611	498,481	75,525	48,018	73,764	21,182	43,491	203,943	95,380	885.4
Computers and peripheral equipment	181,221	165,006	16,603	(D)	(D)	5,667	7,899	77,515	22,397	211.6
Communications equipment	103,237	53,431	(D)	2,496	(D)	1,241	7,533	23,263	9,645	83.8
Audio and video equipment	(D)	9,029	(D)	(D)	564	247	684	2,673	1,839	23.9
Semiconductors and other electronic components	241,982	140,960	27,248	18,248	15,845	11,223	16,917	45,317	25,101	218.9
Navigational, measuring, and other instruments	208,248	130,055	24,240	(D)	15,144	2,803	10,458	55,176	36,397	347.2
Magnetic and optical media	(D)	(*)	0	0	(*)	2	0	(*)	(*)	(*)
Electrical equipment, appliances, and components	176,195	104,769	(D)	(D)	8,143	4,097	3,825	31,658	20,963	244.1
Transportation equipment	1,369,006	862,514	169,606	152,587	58,309	55,644	33,791	232,183	143,139	1,570.1
Motor vehicles, bodies and trailers, and parts	572,259	474,537	(D)	(D)	24,199	43,379	12,634	85,277	43,151	625.5
Other	796,747	387,977	(D)	(D)	34,110	12,265	21,157	146,906	99,988	944.7
Furniture and related products	18,819	23,430	1,493	1,518	278	339	235	6,933	5,353	79.2
Miscellaneous manufacturing	238,292	107,923	(D)	(D)	9,812	3,783	(D)	49,360	28,684	310.4
Wholesale trade	1,032,991	1,219,272	68,092	164,896	41,334	43,415	6,608	164,004	86,736	1,094.4
Professional and commercial equipment and supplies	69,406	83,013	3,169	18,927	1,693	1,260	1,938	14,683	10,508	110.9
Petroleum and petroleum products	65,311	114,822	9,726	(D)	849	7,433	(D)	7,828	2,842	27.4
Drugs and druggists' sundries	88,406	314,835	742	(D)	3,611	831	1,526	14,832	7,692	88.3
Other	809,868	706,603	54,455	(D)	35,180	33,891	(D)	126,660	65,694	867.8
Retail trade	640,469	1,051,951	5,204	57,603	46,913	31,643	(D)	270,177	132,409	4,319.3
General merchandise stores	248,921	516,865	(D)	(D)	21,686	12,183	0	120,260	58,866	2,051.6
Clothing and clothing accessories stores	63,850	94,370	1,565	(D)	8,256	3,547	(D)	33,918	16,510	732.8
Other	327,698	440,716	(D)	(D)	16,971	15,913	(D)	115,999	57,032	1,534.8
Information	1,783,160	911,687	5,999	104,042	67,216	67,216	29,109	377,740	172,595	1,753.3
Publishing industries	280,390	157,888	3,937	(D)	31,271	5,044	16,373	82,322	44,505	367.5
Motion picture and sound recording industries	76,319	38,665	(D)	(D)	720	820	(D)	7,207	4,504	63.8
Broadcasting (except Internet) and telecommunications	1,101,076	510,038	(D)	(D)	48,628	53,296	1,571	221,448	88,674	949.3
Broadcasting (except Internet)	395,033	176,271	(D)	(D)	20,117	8,973	71	78,398	31,149	367.4
Telecommunications	706,042	333,767	(D)	(D)	28,512	44,323	1,500	143,049	57,525	582.0
Data processing, hosting, and related services	84,085	111,596	(D)	0	2,028	1,149	978	15,812	8,674	99.1
Other information services	241,290	93,500	(D)	(D)	21,394	6,908	(D)	50,952	26,238	273.5

See the footnotes on page 22.

Table 2.2. Selected Statistics for U.S. Parents by Industry of U.S. Parent, 2012—Table Ends

	Millions of dollars									Thousands of employees
	Total assets	Sales	U.S. exports of goods shipped by parents	U.S. imports of goods shipped to parents	Net income	Capital expenditures	R&D expenditures	Value added	Compensation of employees	
Finance and insurance	18,696,756	1,602,651	(D)	(D)	186,985	44,978	522	393,818	310,679	2,587.5
Depository credit intermediation (banking)	7,827,772	410,087	0	0	72,369	7,719	(D)	185,683	122,884	1,157.3
Finance, except depository institutions	5,311,083	311,081	(D)	(D)	61,676	26,378	179	126,807	95,227	523.0
Insurance carriers and related activities	5,557,901	881,483	0	(D)	52,939	10,881	(D)	81,328	92,567	907.2
Professional, scientific, and technical services	523,119	334,342	(D)	(D)	60,458	9,482	22,285	204,397	134,027	1,297.9
Architectural, engineering, and related services	52,587	49,682	(D)	225	1,397	757	(D)	22,058	20,695	207.6
Computer systems design and related services	258,823	132,584	(D)	(D)	27,702	4,904	13,284	82,948	49,156	451.5
Management, scientific, and technical consulting	23,760	14,001	(D)	(D)	1,586	357	(D)	9,083	7,674	45.0
Advertising and related services	71,247	25,787	(D)	3	2,969	832	(D)	15,322	11,351	100.5
Other	116,701	112,288	(D)	(D)	26,805	2,633	7,463	74,986	45,152	493.2
Other industries	2,037,244	960,543	(D)	(D)	82,481	110,502	(D)	473,667	279,964	5,001.2
Agriculture, forestry, fishing, and hunting	20,764	10,456	(D)	(D)	(D)	420	(D)	4,743	1,768	27.3
Construction	65,171	79,365	(D)	(D)	2,912	1,187	112	23,662	19,840	194.4
Utilities	559,531	179,090	(D)	(D)	12,282	40,353	16	61,321	18,738	162.5
Transportation and warehousing	449,222	265,197	428	(D)	12,037	24,995	36	121,561	77,716	1,015.1
Real estate and rental and leasing	232,981	74,686	(D)	(D)	10,010	26,669	(D)	45,697	19,913	235.1
Management of nonbank companies and enterprises	182,942	1,635	(D)	0	18,815	111	0	11,002	274	3.1
Administration, support, and waste management	189,471	136,798	(D)	(D)	9,443	5,445	(D)	81,561	61,603	1,145.2
Health care and social assistance	65,848	63,836	0	(D)	3,894	2,525	(D)	40,860	29,382	446.3
Accommodation and food services	171,037	91,286	(D)	(D)	9,774	5,285	49	53,405	30,146	1,274.7
Miscellaneous services	100,278	58,195	(D)	(D)	(D)	3,513	397	29,855	20,583	497.5

See the footnotes on page 22.

Table 3. Selected Statistics for Foreign Affiliates by Country of Affiliate, 2011 and 2012—Continues

	2011							2012						
	Millions of dollars						Thousands of employees	Millions of dollars						Thousands of employees
	Total assets	Sales	Net income	U.S. exports of goods shipped to affiliates	U.S. imports of goods shipped by affiliates	Compensation of employees		Total assets	Sales	Net income	U.S. exports of goods shipped to affiliates	U.S. imports of goods shipped by affiliates	Compensation of employees	
All countries	23,046,917	6,894,946	1,206,051	281,248	356,940	602,502	13,752.6	23,841,149	6,980,667	1,173,698	287,514	357,761	622,633	14,043.4
Canada	1,309,407	690,950	91,528	80,170	(D)	63,574	1,134.8	1,405,145	702,257	65,997	85,901	(D)	66,888	1,178.9
Europe	13,339,415	3,134,071	632,924	77,564	88,215	310,897	4,725.6	14,086,366	3,092,519	641,657	72,484	87,967	312,429	4,712.6
Austria	(D)	22,011	2,984	263	244	3,586	44.4	42,583	21,045	2,306	289	183	3,669	46.6
Belgium	(D)	154,715	(D)	5,762	5,763	13,489	143.6	(D)	(D)	6,186	5,324	(D)	M	
Czech Republic	(D)	20,346	1,629	(D)	(D)	(D)	L	31,692	19,018	1,502	248	(D)	2,389	89.7
Denmark	(D)	(D)	(D)	356	377	(D)	K	(D)	(D)	(D)	346	455	(D)	K
Finland	16,722	11,999	671	137	246	(D)	22.9	15,856	10,916	579	134	254	(D)	22.4
France	397,821	233,667	9,472	(D)	(D)	37,939	515.2	398,924	223,661	10,115	(D)	4,250	36,243	488.3
Germany	922,403	402,261	19,142	8,071	(D)	54,903	668.4	956,596	380,770	14,052	7,743	7,969	54,653	683.4
Greece	(D)	(D)	(D)	172	5	(D)	L	(D)	(D)	(D)	26	2	(D)	L
Hungary	48,179	(D)	2,925	202	391	(D)	L	51,331	(D)	1,567	353	458	(D)	L
Ireland	1,023,192	302,462	(D)	8,253	30,585	7,745	101.2	1,179,671	324,136	119,792	8,494	30,851	8,347	108.7
Italy	220,641	139,350	5,743	1,220	1,574	17,162	239.2	217,569	130,018	429	(D)	2,435	16,719	235.7
Luxembourg	1,537,578	36,237	(D)	569	356	(D)	J	1,774,335	39,324	(D)	1,130	1,466	(D)	13.9
Netherlands	1,884,581	272,727	163,504	(D)	(D)	18,175	232.8	2,070,568	(D)	180,248	8,357	(D)	18,064	234.9
Norway	119,017	61,509	13,630	1,275	1,434	4,850	42.7	149,594	59,462	20,579	869	1,411	5,123	45.6
Poland	67,434	45,073	3,315	518	358	4,475	188.2	69,458	42,538	2,258	609	321	4,412	183.3
Portugal	(D)	13,980	(D)	53	82	1,532	31.9	(D)	(D)	(D)	61	78	(D)	K
Russia	75,629	50,310	6,004	568	149	4,294	154.5	82,069	54,737	5,293	832	(D)	4,377	159.5
Spain	192,832	105,745	10,247	(D)	(D)	12,529	196.8	165,679	92,357	2,296	(D)	1,025	11,566	189.6
Sweden	(D)	37,489	3,113	466	381	(D)	L	(D)	36,701	(D)	279	449	(D)	L
Switzerland	629,285	313,526	61,010	(D)	(D)	11,682	M	693,604	306,866	56,248	(D)	(D)	13,054	114.2
Turkey	37,371	35,857	-171	265	(D)	2,665	65.8	39,638	36,634	667	(D)	43	2,799	69.2
United Kingdom	5,199,734	745,211	84,833	13,328	16,440	92,850	1,460.1	5,185,101	747,337	73,995	13,695	14,635	96,018	1,447.4
Other	189,354	64,876	24,966	574	(D)	3,718	154.8	226,252	62,320	27,120	619	(D)	3,781	159.4
Latin America and Other Western Hemisphere	3,892,074	827,110	213,318	57,427	74,467	66,169	2,818.4	3,690,768	857,971	192,263	58,154	74,706	69,674	2,886.3
South America	600,479	398,657	36,841	13,227	(D)	38,514	1,120.4	648,413	410,947	31,550	14,750	(D)	41,237	1,154.8
Argentina	61,085	52,670	3,843	1,666	5,292	4,840	150.2	63,299	52,975	3,304	1,648	(D)	5,483	145.1
Brazil	323,440	221,671	14,814	7,511	(D)	23,204	617.5	344,086	218,815	11,941	8,777	(D)	24,229	644.3
Chile	79,784	37,923	5,774	1,040	373	3,373	129.4	87,534	42,430	3,000	1,152	442	3,876	140.6
Colombia	(D)	(D)	(D)	(D)	436	(D)	L	(D)	28,030	(D)	(D)	(D)	(D)	74.3
Ecuador	(D)	(D)	(D)	(D)	(D)	(D)	J	(D)	(D)	286	134	(D)	(D)	J
Peru	(D)	16,029	(D)	(D)	(D)	(D)	K	29,975	(D)	(D)	437	(D)	(D)	K
Venezuela	(D)	29,068	(D)	(D)	(D)	2,478	67.6	(D)	36,120	(D)	(D)	(D)	2,753	69.0
Other	16,079	8,882	808	267	(D)	437	16.2	13,396	8,332	721	139	(D)	490	17.0
Central America	473,425	295,394	25,822	37,901	55,610	25,132	1,586.1	514,576	308,139	23,144	40,826	59,052	25,681	1,619.5
Costa Rica	(D)	(D)	(D)	(D)	1,612	(D)	L	(D)	(D)	(D)	470	1,609	(D)	L
Honduras	(D)	5,596	(D)	737	(D)	505	54.5	(D)	5,253	(D)	427	(D)	489	48.0
Mexico	377,635	252,316	22,078	34,727	51,693	21,789	1,343.7	416,530	267,354	19,375	38,551	55,802	22,281	1,378.9
Panama	(D)	13,610	(D)	(D)	1	(D)	K	(D)	13,914	(D)	(D)	2	(D)	K
Other	14,243	(D)	604	(D)	(D)	884	81.0	13,584	(D)	517	(D)	(D)	850	79.0
Other Western Hemisphere	2,818,170	133,058	150,655	6,298	(D)	2,524	111.9	2,527,778	138,886	137,569	2,578	(D)	2,755	112.0
Barbados	58,616	10,248	(D)	(D)	(D)	51	1.4	53,592	7,935	2,391	(D)	(D)	37	1.2
Bermuda	1,008,674	45,925	75,704	448	(D)	(D)	K	1,040,192	55,985	81,757	406	(D)	(D)	K
Dominican Republic	8,404	6,377	(D)	(D)	454	(D)	L	(D)	5,620	485	(D)	(D)	(D)	L
United Kingdom Islands, Caribbean	1,074,875	40,641	58,515	(D)	94	207	4.7	990,696	44,388	39,738	167	157	(D)	4.7
Other	667,600	29,867	(D)	(D)	(D)	940	K	(D)	24,957	13,198	1,656	(D)	969	27.7

See the footnotes on page 22.

Table 3. Selected Statistics for Foreign Affiliates by Country of Affiliate, 2011 and 2012—Table Ends

	2011							2012						
	Millions of dollars						Thousands of employees	Millions of dollars						Thousands of employees
	Total assets	Sales	Net income	U.S. exports of goods shipped to affiliates	U.S. imports of goods shipped by affiliates	Compensation of employees		Total assets	Sales	Net income	U.S. exports of goods shipped to affiliates	U.S. imports of goods shipped by affiliates	Compensation of employees	
Africa	350,857	140,416	38,501	2,133	8,790	8,653	253.6	377,862	154,798	46,061	2,553	4,849	9,257	287.2
Egypt	26,782	17,671	3,216	(D)	3	915	48.1	29,274	17,960	3,099	(D)	3	880	42.5
Nigeria	(D)	(D)	(D)	25	(D)	(D)	9.3	(D)	(D)	(D)	(D)	(D)	(D)	11.0
South Africa	56,348	45,613	3,821	(D)	(D)	4,379	103.3	64,567	54,774	3,502	(D)	(D)	4,680	136.3
Other	(D)	(D)	(D)	(D)	(D)	(D)	93.0	(D)	(D)	(D)	(D)	2,319	(D)	97.5
Middle East	244,254	196,759	55,864	944	6,180	9,178	139.5	275,484	210,931	63,236	1,337	6,322	9,855	144.0
Israel	39,474	17,227	1,525	161	(D)	4,210	73.6	55,615	20,411	4,836	172	(D)	4,429	74.5
Saudi Arabia	39,285	39,404	(D)	(D)	(D)	1,490	20.0	42,887	40,532	(D)	(D)	(D)	1,671	21.9
United Arab Emirates	30,107	46,862	2,080	(D)	89	(D)	24.7	36,056	49,925	2,691	(D)	(D)	(D)	26.8
Other	135,388	93,266	(D)	13	577	(D)	21.3	140,926	100,064	(D)	(D)	(D)	(D)	20.7
Asia and Pacific	3,910,909	1,905,640	173,916	63,009	(D)	144,031	4,680.6	4,005,525	1,962,191	164,484	67,085	(D)	154,531	4,834.4
Australia	611,035	215,012	25,009	(D)	2,948	27,770	345.2	634,229	229,279	20,649	(D)	(D)	30,250	355.0
China	331,990	299,553	26,360	8,266	7,648	19,619	1,478.0	361,606	332,923	24,887	9,819	8,423	21,770	1,566.6
Hong Kong	388,893	125,387	14,135	4,837	6,824	7,531	132.0	392,393	127,023	15,146	4,822	6,017	7,992	135.1
India	139,205	79,216	5,069	1,329	(D)	14,226	952.9	135,280	84,051	4,069	1,503	(D)	15,354	975.4
Indonesia	66,373	38,367	10,868	393	432	2,288	108.8	74,725	40,644	10,514	436	487	2,435	117.9
Japan	1,207,935	348,305	16,846	12,844	5,260	38,842	530.0	1,188,258	315,424	17,338	12,336	5,139	40,779	521.9
Korea, Republic of	195,830	130,894	7,703	2,770	3,046	7,343	142.7	199,704	130,404	7,246	2,833	2,802	8,108	147.9
Malaysia	78,611	68,762	6,638	1,867	(D)	2,985	161.9	78,991	61,578	6,919	(D)	4,410	3,066	163.7
New Zealand	23,542	16,635	1,220	178	107	1,715	35.0	25,101	17,595	1,166	217	134	1,781	36.9
Philippines	38,944	24,783	2,222	(D)	911	2,349	210.2	36,011	24,582	2,441	(D)	1,056	2,350	213.7
Singapore	569,164	(D)	45,432	(D)	(D)	10,911	185.4	610,128	(D)	42,560	(D)	(D)	11,608	191.0
Taiwan	90,743	40,148	3,152	(D)	(D)	2,957	98.2	85,813	39,165	2,821	3,073	1,371	3,048	98.2
Thailand	106,354	66,971	5,415	(D)	(D)	3,332	202.6	115,419	76,051	5,760	(D)	4,894	3,484	204.7
Other	62,288	(D)	3,847	192	272	2,163	97.6	67,864	(D)	2,970	123	400	2,505	106.5
Addenda:														
European Union (27) ¹	12,332,060	2,632,313	528,309	(D)	(D)	286,311	4,304.9	12,941,338	2,596,310	533,815	(D)	(D)	285,940	4,275.2
OPEC ²	405,088	255,398	77,714	2,277	(D)	9,049	164.6	441,183	279,238	93,304	2,798	6,741	10,020	172.8

See the footnotes on page 22.

Table 4.1. Selected Statistics for Majority-Owned Foreign Affiliates by Country of Affiliate, 2011—Continues

	Millions of dollars												Thousands of employees
	Total assets	Sales				Net income	Capital expenditures	R&D expenditures	U.S. exports of goods shipped to MOFAs	U.S. imports of goods shipped by MOFAs	Value added	Compensation of employees	
		Total	Goods supplied	Services supplied	Other ¹								
All countries	20,834,352	5,912,702	4,346,036	1,347,064	219,603	1,098,520	188,819	44,684	270,023	345,349	1,415,892	538,721	11,850.2
Canada	1,240,463	664,129	511,605	134,017	18,507	87,740	25,670	2,964	76,493	115,758	145,804	61,730	1,116.1
Europe	12,267,816	2,819,923	2,046,001	680,909	93,013	603,152	64,308	27,396	75,387	87,883	668,285	284,026	4,204.0
Austria	40,027	21,909	17,107	4,693	108	2,980	662	289	263	244	5,156	3,568	43.8
Belgium	399,583	145,515	118,023	22,925	4,567	11,979	2,286	2,431	5,760	5,763	24,679	12,232	132.2
Czech Republic	29,394	18,222	14,298	3,592	333	1,313	397	60	184	242	5,860	2,274	86.0
Denmark	60,778	21,079	16,072	4,739	268	2,664	799	185	356	377	9,994	3,073	32.0
Finland	16,409	11,768	9,372	2,291	105	670	266	224	137	246	3,247	1,527	22.7
France	374,838	220,040	166,761	50,054	3,224	9,435	4,764	2,109	5,288	3,992	54,626	35,445	478.0
Germany	672,671	351,754	280,790	64,697	6,268	16,660	7,642	7,230	8,069	8,228	92,594	51,063	620.6
Greece	10,265	7,210	5,454	1,471	285	-248	107	26	172	5	3,102	1,100	17.9
Hungary	46,634	19,137	15,511	3,287	339	2,931	438	77	202	391	5,010	1,694	62.1
Ireland	1,016,955	299,970	198,001	93,829	8,139	119,203	6,623	1,419	8,248	30,585	72,241	7,421	98.3
Italy	169,229	120,439	90,819	28,044	1,575	4,716	3,315	939	1,153	1,516	32,306	15,315	207.9
Luxembourg	1,449,593	33,556	14,524	11,986	7,046	77,336	275	(D)	569	356	3,173	1,216	13.6
Netherlands	1,757,390	223,992	162,498	51,806	9,687	157,483	3,728	1,422	13,539	4,792	31,066	17,021	221.9
Norway	117,911	60,790	54,268	6,341	180	13,461	4,824	146	1,275	1,434	30,684	4,787	41.8
Poland	58,755	39,913	32,206	6,596	1,111	2,610	1,172	197	518	354	14,081	3,929	155.9
Portugal	44,092	11,411	7,757	3,275	379	5,676	243	58	53	82	4,108	1,342	29.7
Russia	61,059	43,719	(D)	(D)	811	5,396	1,776	163	565	149	12,628	4,158	148.1
Spain	169,096	88,740	69,858	16,770	2,112	7,556	1,884	398	1,630	1,028	18,549	11,455	179.2
Sweden	121,894	36,284	26,067	9,662	555	2,981	522	544	466	381	7,379	5,466	72.3
Switzerland	622,317	305,415	237,505	65,538	2,372	60,729	1,881	2,306	13,045	11,032	40,469	11,115	91.9
Turkey	19,362	22,999	18,701	4,003	295	-579	388	61	252	(D)	7,792	1,930	44.6
United Kingdom	4,829,393	654,363	401,228	210,836	42,300	73,652	16,449	6,604	13,068	16,424	158,996	83,414	1,259.2
Other	180,172	61,698	(D)	(D)	955	24,549	3,867	(D)	574	(D)	30,547	3,483	144.3
Latin America and Other													
Western Hemisphere	3,656,554	714,408	507,604	161,400	45,404	198,686	27,319	2,536	54,763	71,125	168,114	56,051	2,293.7
South America	499,970	355,472	271,525	70,190	13,757	31,133	17,930	1,575	12,684	11,477	97,822	35,471	1,013.5
Argentina	56,710	49,609	40,164	8,347	1,098	3,561	3,469	136	1,666	5,289	18,439	4,504	139.0
Brazil	267,711	202,988	155,625	38,575	8,788	13,084	9,238	1,325	7,145	3,068	47,444	21,722	572.6
Chile	71,645	33,106	21,693	10,040	1,372	5,362	2,133	21	1,039	372	10,198	3,000	116.6
Colombia	25,664	23,502	(D)	(D)	796	2,266	1,041	32	1,322	435	7,071	2,247	62.3
Ecuador	4,161	4,657	3,707	884	65	231	92	2	98	(D)	955	301	15.6
Peru	25,231	14,184	11,664	2,377	143	2,626	1,255	8	120	(D)	6,080	1,190	39.9
Venezuela	32,796	18,560	14,039	(D)	(D)	3,196	489	47	1,027	(D)	6,154	2,074	51.4
Other	16,053	8,866	(D)	(D)	(D)	808	211	3	267	(D)	1,481	434	16.1
Central America	393,377	241,501	185,523	48,338	7,640	20,441	6,123	(D)	35,983	52,664	50,965	19,249	1,232.2
Costa Rica	29,898	8,367	6,749	(D)	(D)	718	260	(D)	517	1,612	1,746	821	46.7
Honduras	2,671	4,055	(D)	415	(D)	132	69	3	737	1,337	767	405	45.5
Mexico	337,434	209,582	160,416	42,022	7,144	18,859	5,448	332	32,829	48,907	45,787	16,946	1,061.5
Panama	11,126	9,152	(D)	(D)	100	185	195	2	826	1	628	413	20.6
Other	12,248	10,345	7,455	(D)	(D)	548	151	(D)	1,074	807	2,037	663	58.0
Other Western													
Hemisphere	2,763,207	117,435	50,556	42,871	24,008	147,112	3,266	(D)	6,095	6,983	19,326	1,331	48.0
Barbados	56,660	10,215	5,692	2,960	1,563	3,813	(D)	1	(D)	(D)	2,968	50	1.3
Bermuda	978,601	38,541	(D)	(D)	10,428	73,503	499	(D)	448	(D)	3,330	293	3.0
Dominican Republic	4,178	4,887	3,289	1,592	6	445	176	1	(D)	454	1,158	220	23.2
United Kingdom													
Islands, Caribbean ...	1,063,751	40,248	17,153	12,688	10,407	58,370	652	1	(D)	94	6,424	190	4.3
Other	660,018	23,545	(D)	(D)	1,604	10,981	(D)	1	(D)	6,349	5,447	577	16.2

See the footnotes on page 22.

Table 4.1. Selected Statistics for Majority-Owned Foreign Affiliates by Country of Affiliate, 2011—Table Ends

	Millions of dollars											Thousands of employees	
	Total assets	Sales				Net income	Capital expenditures	R&D expenditures	U.S. exports of goods shipped to MOFAs	U.S. imports of goods shipped by MOFAs	Value added		Compensation of employees
		Total	Goods supplied	Services supplied	Other ¹								
Africa	297,254	112,175	97,423	13,736	1,016	36,057	12,389	102	1,980	8,664	62,920	6,662	184.4
Egypt	22,512	14,337	12,688	1,498	150	2,739	1,737	2	(D)	2	7,305	781	32.0
Nigeria	74,133	26,897	(D)	(D)	(D)	(D)	3,310	3	(D)	(D)	23,212	735	8.4
South Africa	32,458	27,378	21,733	5,275	370	1,364	451	90	1,184	241	6,437	2,817	66.0
Other	168,151	43,563	(D)	(D)	(D)	(D)	6,892	7	587	(D)	25,965	2,329	78.0
Middle East	141,180	70,448	52,862	16,658	928	19,989	6,059	2,060	647	5,983	35,996	7,063	115.5
Israel	38,281	16,120	11,682	4,231	207	1,444	2,744	2,045	161	1,510	7,463	4,066	71.0
Saudi Arabia	18,366	10,797	8,262	2,500	35	2,545	350	1	129	(D)	4,472	885	12.3
United Arab Emirates	24,205	27,608	20,966	6,361	281	1,753	(D)	13	344	89	13,771	1,397	21.5
Other	60,328	15,923	11,952	3,566	405	14,248	(D)	1	13	(D)	10,290	715	10.6
Asia and Pacific	3,231,084	1,531,620	1,130,541	340,344	60,735	152,896	53,074	9,626	60,753	55,936	334,774	123,189	3,936.6
Australia	566,883	176,606	114,515	52,567	9,523	25,019	14,403	1,081	6,434	2,948	57,346	25,062	305.5
China	244,991	210,617	173,048	35,954	1,614	20,215	8,369	1,653	8,031	7,364	45,973	16,127	1,252.7
Hong Kong	297,697	117,494	77,637	37,024	2,834	10,660	1,083	164	4,837	6,824	14,924	6,778	115.8
India	97,533	58,574	32,592	23,394	2,588	4,921	2,593	2,075	1,192	781	19,836	12,282	817.4
Indonesia	57,153	30,465	26,659	3,288	518	9,912	2,696	17	393	430	18,360	2,165	101.8
Japan	1,029,082	289,877	179,095	77,423	33,359	13,467	4,688	2,169	11,876	4,465	60,921	30,828	319.9
Korea, Republic of	136,952	64,424	48,047	12,419	3,958	4,285	2,679	854	2,416	2,645	13,238	6,104	122.4
Malaysia	66,885	57,016	48,534	8,090	392	6,277	3,144	390	1,859	3,410	13,399	2,817	156.8
New Zealand	20,292	14,255	9,851	4,032	371	1,016	443	37	178	107	3,309	1,431	31.6
Philippines	30,732	21,177	16,187	4,782	208	1,862	1,097	60	471	911	5,555	2,215	202.4
Singapore	498,281	373,753	316,186	54,193	3,374	43,155	5,023	772	18,290	20,245	37,073	10,067	167.6
Taiwan	84,794	37,884	29,130	7,356	1,399	3,799	1,001	242	2,151	2,195	7,648	2,730	86.8
Thailand	47,730	55,247	50,153	4,753	341	4,732	2,601	111	2,433	3,340	13,738	2,616	167.3
Other	52,080	24,231	8,907	15,069	255	3,576	3,253	1	192	272	23,455	1,967	88.7
Addenda:													
European Union (27) ²	11,305,574	2,347,189	1,664,029	594,159	89,000	500,289	52,413	24,706	59,972	75,174	552,380	260,967	3,829.7
OPEC ³	267,163	116,621	96,566	18,335	1,720	40,734	9,900	69	1,856	(D)	67,961	6,611	123.4

See the footnotes on page 22.

Table 4.2. Selected Statistics for Majority-Owned Foreign Affiliates by Country of Affiliate, 2012—Continues

	Millions of dollars												Thousands of employees
	Total assets	Sales				Net income	Capital expenditures	R&D expenditures	U.S. exports of goods shipped to MOFAs	U.S. imports of goods shipped by MOFAs	Value added	Compensation of employees	
		Total	Goods supplied	Services supplied	Other ¹								
All countries	21,602,680	5,958,048	4,332,295	1,405,710	220,042	1,062,817	219,816	44,610	276,680	346,397	1,420,679	553,527	12,115.8
Canada	1,297,397	660,601	510,264	135,019	15,319	61,740	32,319	2,862	82,632	120,320	140,073	62,804	1,133.3
Europe	13,031,809	2,784,441	1,989,396	702,022	93,022	609,348	74,865	26,733	70,231	87,512	672,939	284,478	4,192.7
Austria	42,248	20,933	16,099	4,695	139	2,294	853	257	289	183	4,393	3,650	45.9
Belgium	422,521	137,942	111,869	22,405	3,668	10,377	2,129	2,447	6,183	5,324	24,911	11,892	129.7
Czech Republic	28,596	16,870	13,097	3,362	411	1,187	371	75	246	362	5,465	2,169	84.1
Denmark	58,647	20,057	14,709	5,135	213	2,745	811	229	346	455	8,492	3,290	34.2
Finland	15,572	10,807	8,549	2,154	104	577	288	199	134	254	3,165	1,481	22.2
France	376,926	210,743	158,761	48,171	3,810	9,260	4,391	2,048	5,308	4,057	52,211	33,873	451.9
Germany	711,098	331,430	259,706	65,937	5,787	12,100	7,707	8,041	7,741	7,892	87,940	50,744	632.2
Greece	10,049	6,476	4,797	1,411	268	110	135	21	26	2	2,821	1,000	17.0
Hungary	49,919	20,038	16,384	3,401	253	1,551	359	75	353	458	3,460	1,663	62.8
Ireland	1,173,576	321,568	205,183	107,582	8,803	119,437	12,002	1,472	8,490	30,851	81,796	7,970	105.4
Italy	172,911	112,284	83,653	26,880	1,751	2,362	2,493	682	1,090	2,355	30,769	15,001	207.4
Luxembourg	1,701,660	38,382	16,146	13,715	8,521	95,036	358	303	1,130	1,466	4,324	1,222	13.7
Netherlands	1,946,056	230,469	166,082	52,501	11,885	168,279	3,938	1,487	8,356	4,739	32,544	16,995	224.6
Norway	148,470	58,766	51,185	7,208	374	20,428	6,008	291	869	1,411	30,906	5,059	44.7
Poland	62,524	39,645	31,665	6,884	1,096	1,900	1,335	202	609	318	13,582	4,039	158.1
Portugal	46,686	10,576	7,119	3,104	353	5,226	279	52	61	78	3,796	1,330	29.1
Russia	71,558	51,341	(D)	(D)	1,079	4,874	2,412	130	830	(D)	13,368	4,276	153.8
Spain	141,738	75,845	58,703	15,340	1,801	678	2,466	262	1,335	1,022	13,489	10,431	170.7
Sweden	126,122	35,159	24,951	9,656	551	4,285	832	548	279	449	8,381	5,477	71.1
Switzerland	678,605	293,667	223,586	67,599	2,481	55,374	1,796	2,426	12,098	10,623	37,550	11,320	88.5
Turkey	22,099	23,739	18,868	4,463	408	248	376	(D)	329	43	8,934	2,073	48.0
United Kingdom	4,805,625	658,745	407,308	213,468	37,969	64,197	18,843	5,245	13,509	14,633	171,522	85,978	1,248.2
Other	218,604	58,961	(D)	(D)	1,296	26,821	4,685	(D)	619	(D)	29,121	3,546	149.2
Latin America and Other													
Western Hemisphere	3,445,874	743,204	527,957	172,207	43,040	178,780	32,883	2,757	55,801	70,703	164,231	59,333	2,368.9
South America	536,238	365,787	276,393	75,257	14,136	26,144	20,917	1,580	14,250	11,776	93,381	38,119	1,047.3
Argentina	59,277	49,638	39,209	9,206	1,224	2,977	3,558	161	1,643	(D)	17,522	5,156	134.3
Brazil	283,081	201,474	153,111	39,732	8,631	10,763	8,592	1,297	8,424	3,274	44,327	22,698	598.5
Chile	79,197	37,406	24,318	11,589	1,499	2,669	4,247	23	1,151	435	8,160	3,505	128.0
Colombia	30,174	24,741	18,520	5,336	886	2,337	1,150	37	1,160	(D)	7,222	2,390	63.7
Ecuador	4,536	5,442	(D)	(D)	101	217	187	2	133	(D)	1,004	354	16.2
Peru	27,176	15,703	12,845	2,698	160	2,614	1,924	9	437	(D)	6,362	1,205	36.7
Venezuela	39,435	23,067	(D)	(D)	(D)	3,846	975	48	1,164	(D)	7,317	2,324	53.1
Other	13,362	8,315	(D)	(D)	(D)	721	284	2	139	(D)	1,466	487	16.9
Central America	434,173	253,427	194,519	51,082	7,826	17,915	7,917	(D)	39,244	55,502	48,091	19,651	1,273.8
Costa Rica	31,571	8,782	7,279	(D)	(D)	782	218	(D)	469	1,609	1,880	903	52.6
Honduras	2,729	3,578	(D)	407	(D)	117	36	4	427	664	657	387	39.0
Mexico	377,309	224,524	172,403	44,825	7,296	16,364	7,389	405	37,003	52,425	43,274	17,311	1,106.7
Panama	11,152	9,129	(D)	(D)	143	144	142	4	(D)	2	787	432	20.1
Other	11,412	7,415	4,626	(D)	(D)	508	131	(D)	(D)	802	1,493	618	55.5
Other Western													
Hemisphere	2,475,464	123,990	57,045	45,868	21,078	134,722	4,049	(D)	2,306	3,425	22,759	1,564	47.7
Barbados	51,836	7,899	4,038	2,403	1,458	2,393	(D)	(D)	(D)	(D)	1,234	36	1.2
Bermuda	1,011,845	49,037	(D)	(D)	10,220	80,042	455	(D)	406	(D)	8,136	473	4.5
Dominican Republic	4,241	4,048	2,472	1,568	7	290	91	(*)	268	(D)	987	227	22.4
United Kingdom													
Islands, Caribbean ...	980,340	43,979	(D)	(D)	8,051	39,639	1,914	1	167	157	6,597	211	4.3
Other	427,202	19,028	10,432	7,255	1,341	12,358	(D)	1	(D)	2,698	5,805	616	15.3

See the footnotes on page 22.

Table 4.2. Selected Statistics for Majority-Owned Foreign Affiliates by Country of Affiliate, 2012—Table Ends

	Millions of dollars											Thousands of employees	
	Total assets	Sales				Net income	Capital expenditures	R&D expenditures	U.S. exports of goods shipped to MOFAs	U.S. imports of goods shipped by MOFAs	Value added		Compensation of employees
		Total	Goods supplied	Services supplied	Other ¹								
Africa	323,602	126,967	109,499	16,420	1,048	43,287	13,546	131	2,436	4,715	67,086	7,061	217.0
Egypt	25,603	14,644	13,214	1,275	155	2,717	1,933	2	(D)	3	7,168	742	26.6
Nigeria	83,693	28,032	(D)	(D)	(D)	(D)	3,765	(D)	(D)	(D)	23,543	861	10.0
South Africa	41,564	36,488	28,678	7,436	375	1,129	635	102	1,646	1,018	6,437	3,011	98.6
Other	172,742	47,804	(D)	(D)	(D)	(D)	7,213	(D)	584	(D)	29,938	2,447	81.9
Middle East	169,951	75,053	55,736	18,273	1,044	24,572	7,938	2,035	897	6,206	38,956	7,573	118.8
Israel	54,454	19,221	14,458	4,553	210	4,759	3,219	2,015	172	1,682	10,174	4,283	72.0
Saudi Arabia	19,606	11,153	7,876	3,235	43	2,196	416	7	163	(D)	4,227	1,046	13.6
United Arab Emirates	30,375	29,598	22,442	6,809	347	2,425	(D)	(D)	(D)	81	15,438	1,468	23.3
Other	65,516	15,080	10,961	3,677	443	15,192	(D)	(D)	(D)	(D)	9,118	776	9.9
Asia and Pacific	3,334,045	1,567,782	1,139,443	361,768	66,571	145,090	58,265	10,092	64,683	56,939	337,393	132,278	4,085.2
Australia	580,094	187,923	123,401	56,556	7,967	20,398	18,510	1,157	7,884	2,541	60,073	27,077	308.5
China	263,377	234,322	191,607	40,875	1,839	19,044	8,817	2,022	8,800	8,015	46,491	17,908	1,338.7
Hong Kong	315,827	119,105	78,508	37,163	3,435	12,506	1,132	155	4,821	6,017	14,982	7,212	118.7
India	102,770	63,829	35,440	25,713	2,676	4,230	3,328	2,303	1,341	1,000	21,007	13,373	838.4
Indonesia	65,001	32,244	28,679	3,237	328	9,615	3,765	18	436	484	20,235	2,310	110.5
Japan	1,018,579	245,997	125,879	80,246	39,873	13,148	3,036	2,102	11,804	4,288	52,802	32,303	320.4
Korea, Republic of	142,024	66,832	49,899	12,703	4,229	4,589	2,599	899	2,577	2,234	14,013	6,851	126.9
Malaysia	66,718	52,154	43,503	8,193	458	6,748	4,207	454	1,852	4,410	14,337	2,880	157.9
New Zealand	21,555	15,321	10,634	4,306	381	986	550	37	217	134	3,975	1,481	33.4
Philippines	32,451	21,144	15,962	4,973	209	2,069	744	67	2,426	1,056	5,838	2,216	205.3
Singapore	539,471	403,817	342,496	58,050	3,272	40,596	3,288	516	17,315	20,099	38,462	10,783	172.6
Taiwan	80,565	36,845	28,050	7,533	1,262	3,279	1,326	272	3,063	1,367	7,454	2,829	86.7
Thailand	51,928	62,763	56,671	5,721	371	5,148	3,152	89	2,024	4,894	15,106	2,741	169.1
Other	53,685	25,485	8,715	16,499	271	2,734	3,811	2	123	400	22,619	2,314	97.9
Addenda:													
European Union (27) ²	11,933,958	2,319,174	1,621,575	609,563	88,036	503,458	60,450	23,772	55,797	75,136	559,327	260,638	3,810.6
OPEC ³	292,631	129,329	106,462	20,756	2,111	52,627	11,793	92	2,233	6,648	75,491	7,362	130.4

See the footnotes on page 22.

Table 5.1 Employment of Majority-Owned Foreign Affiliates, Country by Industry of Affiliate, 2011—Continues

[Thousands of employees]

	All industries	Mining	Manufacturing								Wholesale trade	Retail trade	Information	Finance and insurance	Professional, scientific, and technical services	Other industries
			Total	Of which:												
				Food	Chemicals	Primary and fabricated metals	Machinery	Computers and electronic products	Electrical equipment, appliances, and components	Transportation equipment						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
All countries	11,850.2	207.8	4,793.2	447.9	620.7	223.4	435.6	738.2	207.0	919.8	804.0	1,226.0	448.5	626.6	1,045.9	2,698.2
Canada	1,116.1	22.8	287.3	35.1	32.7	16.1	19.7	22.4	5.8	64.0	86.4	364.8	23.7	36.8	64.9	229.3
Europe	4,204.0	38.9	1,782.5	130.1	261.0	123.2	207.1	183.8	68.2	372.1	371.5	328.0	163.6	245.1	297.4	976.9
Austria	43.8	0.1	23.8	1.5	2.1	0.6	3.8	2.4	2.1	4.4	6.0	1.1	1.4	0.6	2.8	8.1
Belgium	132.2	0.1	63.8	7.1	17.7	2.5	7.3	2.3	1.3	10.5	15.0	1.6	4.0	5.9	9.1	32.8
Czech Republic	86.0	0.0	52.1	G	2.9	1.4	5.2	8.3	2.7	21.6	6.5	0.7	2.0	4.7	2.4	17.5
Denmark	32.0	0.3	11.6	0.5	0.8	1.0	2.7	1.6	0.3	0.1	4.3	1.2	0.9	0.7	7.8	5.3
Finland	22.7	0.0	11.0	0.2	1.9	(*)	2.8	2.2	0.3	0.3	2.8	0.1	0.9	0.2	3.0	4.7
France	478.0	0.6	199.7	9.7	34.8	13.6	32.6	19.2	4.7	28.3	51.3	16.6	10.7	15.2	23.7	160.3
Germany	620.6	4.3	356.5	9.5	36.4	22.8	46.6	41.7	15.6	106.4	65.7	16.1	15.2	14.3	41.4	107.1
Greece	17.9	(*)	6.9	1.6	2.3	0.6	0.1	0.5	0.0	(*)	3.4	0.2	0.4	2.2	1.1	3.8
Hungary	62.1	(*)	40.0	0.6	1.4	H	2.8	6.4	I	13.6	4.3	0.7	2.2	4.3	5.5	5.0
Ireland	98.3	0.3	48.7	1.1	15.8	0.4	1.0	11.9	0.2	0.4	4.6	1.2	6.9	12.7	9.0	15.1
Italy	207.9	0.7	95.5	3.7	19.6	7.0	18.3	11.3	7.5	14.0	21.0	8.1	11.8	6.1	19.6	45.1
Luxembourg	13.6	0.0	6.7	0.0	0.8	0.2	0.2	(*)	0.0	0.0	(*)	0.2	G	3.0	0.8	G
Netherlands	221.9	3.4	91.8	10.2	28.1	4.5	10.0	4.2	2.4	8.5	28.2	6.6	9.6	4.7	16.5	61.2
Norway	41.8	8.9	14.4	F	0.9	0.9	6.4	0.8	0.3	0.3	2.0	2.8	1.0	1.2	2.2	9.4
Poland	155.9	(*)	100.1	16.5	8.8	6.5	2.7	5.9	4.5	34.1	12.2	0.9	4.9	15.8	5.8	16.2
Portugal	29.7	0.0	14.1	1.6	1.9	0.9	0.9	2.2	0.2	3.6	2.8	1.4	0.7	0.9	1.5	8.3
Russia	148.1	4.4	72.8	14.5	4.5	I	4.5	2.1	0.2	6.2	9.4	0.2	1.5	7.2	3.1	49.5
Spain	179.2	0.2	90.0	8.3	15.8	5.9	6.0	9.3	3.7	25.7	17.9	5.5	4.7	7.0	10.3	43.5
Sweden	72.3	0.0	28.8	1.1	3.1	3.1	3.3	2.8	0.7	5.1	7.6	2.2	2.6	3.1	6.8	21.3
Switzerland	91.9	G	30.1	G	7.1	1.0	3.1	3.7	1.9	1.2	26.3	2.1	5.6	4.3	7.0	J
Turkey	44.6	(*)	27.7	3.5	7.4	0.1	F	0.1	(*)	9.2	4.4	0.1	0.5	3.1	0.9	7.9
United Kingdom	1,259.2	10.4	308.9	26.8	40.5	19.3	42.5	40.4	8.7	54.4	64.6	258.1	69.8	125.8	111.2	310.5
Other	144.3	H	87.6	7.9	6.4	J	H	4.7	H	24.2	11.4	0.3	I	2.2	6.1	27.3
Latin America and Other Western Hemisphere	2,293.7	62.1	1,104.7	157.2	129.9	33.9	68.9	79.4	50.6	308.0	89.5	M	65.1	120.6	82.5	M
South America	1,013.5	45.3	458.9	77.6	84.7	12.8	36.3	15.1	19.4	106.5	52.5	M	42.4	45.6	52.6	M
Argentina	139.0	6.8	52.5	12.8	11.9	0.7	1.3	0.7	(*)	11.5	7.3	J	8.8	10.0	8.2	K
Brazil	572.6	13.8	319.7	43.3	50.6	10.0	31.7	12.5	J	82.1	25.4	L	19.0	20.0	31.4	L
Chile	116.6	5.4	12.1	G	4.3	0.1	2.0	0.4	0.0	0.2	4.3	K	7.0	3.9	6.2	K
Colombia	62.3	8.3	21.0	4.3	4.7	1.3	0.1	0.5	A	H	3.1	0.7	1.9	6.8	2.2	18.4
Ecuador	15.6	1.1	8.5	G	1.5	(*)	(*)	0.1	0.0	G	2.7	0.7	0.3	0.3	0.2	1.8
Peru	39.9	6.9	6.8	1.7	2.5	0.2	0.1	0.1	(*)	0.0	5.8	0.1	G	G	G	14.7
Venezuela	51.4	2.3	31.1	9.2	8.4	0.3	1.1	0.8	0.1	I	3.3	0.8	1.9	2.4	1.9	7.6
Other	16.1	0.7	7.3	2.4	0.7	0.1	0.1	0.1	0.0	0.6	0.7	0.2	G	G	A	4.7
Central America	1,232.2	14.2	625.1	77.9	42.4	20.1	32.5	64.3	31.2	201.5	34.7	224.9	17.6	72.7	29.2	213.9
Costa Rica	46.7	0.0	20.0	0.9	6.3	0.1	0.0	H	1.1	0.0	2.1	0.9	0.6	G	H	16.8
Honduras	45.5	0.0	34.1	G	0.3	0.0	0.0	0.1	0.0	H	0.6	0.5	0.1	G	0.0	I
Mexico	1,061.5	13.9	536.1	71.4	33.0	19.8	32.5	56.7	29.9	M	29.5	220.4	16.2	60.4	24.5	160.4
Panama	20.6	0.2	1.6	0.7	0.6	0.0	0.0	(*)	0.0	0.0	1.4	0.6	0.4	0.5	0.1	15.7
Other	58.0	(*)	33.2	H	2.2	0.1	0.0	H	0.3	0.0	1.0	2.5	0.4	I	A	J
Other Western Hemisphere	48.0	2.6	20.7	1.7	2.8	1.0	0.2	(*)	0.0	0.0	2.3	H	5.1	2.3	0.8	J
Barbados	1.3	(*)	(*)	(*)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	(*)	0.1	(*)	0.8
Bermuda	3.0	F	(*)	0.0	(*)	0.0	(*)	0.0	0.0	0.0	0.5	0.0	0.2	0.8	0.1	F
Dominican Republic	23.2	0.0	17.1	G	2.1	0.1	(*)	(*)	0.0	0.0	0.8	G	G	0.1	0.1	2.0
United Kingdom Islands, Caribbean ...	4.3	0.7	0.7	0.1	0.3	0.0	0.0	(*)	0.0	0.0	0.2	(*)	0.1	0.3	0.2	2.1
Other	16.2	G	2.8	A	0.4	1.0	0.1	0.0	0.0	0.0	0.7	G	H	0.9	0.4	5.7

See the footnotes on page 22.

Table 5.1 Employment of Majority-Owned Foreign Affiliates, Country by Industry of Affiliate, 2011—Table Ends

[Thousands of employees]

	All industries	Mining	Manufacturing								Wholesale trade	Retail trade	Information	Finance and insurance	Professional, scientific, and technical services	Other industries
			Total	Of which:						Transportation equipment						
				Food	Chemicals	Primary and fabricated metals	Machinery	Computers and electronic products	Electrical equipment, appliances, and components							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
Africa	184.4	26.3	92.1	J	7.8	2.3	4.4	1.6	2.1	20.1	17.9	1.6	2.7	5.5	5.2	33.1
Egypt.....	32.0	2.6	18.9	5.6	1.6	A	F	(*)	0.4	0.0	2.6	(*)	0.3	1.0	0.7	6.0
Nigeria.....	8.4	6.6	0.8	(*)	0.3	(*)	0.4	0.1	0.0	0.0	0.2	0.0	(*)	0.3	(*)	0.5
South Africa.....	66.0	0.4	32.2	3.9	4.9	0.7	2.8	1.1	1.5	8.7	12.3	1.5	2.1	2.8	4.0	10.6
Other.....	78.0	16.8	40.2	H	1.0	G	F	0.4	0.1	11.4	2.8	(*)	0.2	1.4	0.5	16.0
Middle East	115.5	10.5	39.9	H	3.2	1.0	7.2	16.6	0.4	0.5	15.5	A	5.1	4.6	17.0	J
Israel.....	71.0	0.1	28.0	0.1	1.6	0.2	4.9	15.3	0.4	0.5	13.4	A	3.5	1.5	8.4	J
Saudi Arabia.....	12.3	3.8	4.4	G	0.9	0.3	0.9	A	(*)	0.0	0.4	0.0	0.5	0.2	2.1	1.0
United Arab Emirates.....	21.5	2.9	4.8	A	0.7	A	1.2	G	(*)	0.0	1.7	(*)	G	2.0	5.1	H
Other.....	10.6	3.8	2.7	G	0.1	A	0.2	0.0	0.0	0.1	0.0	A	0.9	1.4	1.4	G
Asia and Pacific	3,936.6	47.1	1,486.8	109.8	186.0	46.9	128.3	434.3	79.9	155.1	223.2	161.2	188.3	214.0	578.9	1,037.1
Australia.....	305.5	9.4	97.6	22.3	13.8	9.9	8.3	4.7	2.7	14.3	28.1	10.2	22.4	20.1	38.6	79.2
China.....	1,252.7	2.5	592.4	35.8	70.2	28.9	56.6	165.3	51.8	60.3	52.7	52.8	18.7	8.3	52.8	472.7
Hong Kong.....	115.8	0.0	39.6	0.1	3.4	0.7	2.5	6.0	8.3	0.1	12.3	0.8	4.6	19.6	11.4	27.6
India.....	817.4	0.9	147.8	9.7	25.9	2.0	23.1	24.1	3.1	24.6	28.1	J	76.7	48.8	384.0	M
Indonesia.....	101.8	24.9	54.8	6.1	5.1	(*)	0.7	4.1	F	0.7	3.2	0.1	0.4	4.1	0.3	14.0
Japan.....	319.9	0.1	77.0	0.8	25.1	0.3	13.7	14.8	2.5	5.4	32.8	67.1	10.9	56.1	33.8	42.1
Korea, Republic of.....	122.4	(*)	58.5	0.9	5.5	1.1	5.5	15.4	0.1	25.3	10.4	5.0	1.9	8.5	6.4	31.9
Malaysia.....	156.8	2.4	110.8	2.2	5.1	0.6	3.2	82.8	H	2.3	5.9	0.9	1.9	4.8	5.5	24.6
New Zealand.....	31.6	0.3	9.2	3.0	1.5	A	0.3	0.8	0.4	0.6	2.9	1.9	1.1	2.2	3.7	10.2
Philippines.....	202.4	0.1	62.8	8.8	4.6	0.1	0.3	22.8	2.7	4.9	4.2	G	37.6	I	20.0	71.2
Singapore.....	167.6	2.9	63.2	0.8	8.2	1.1	7.6	29.8	1.8	4.4	21.8	0.3	6.6	18.5	9.7	44.6
Taiwan.....	86.8	(*)	31.4	0.8	4.3	0.7	2.0	15.2	G	G	9.5	3.7	3.4	9.8	4.7	24.2
Thailand.....	167.3	2.7	105.5	15.6	9.9	0.6	4.1	43.1	0.5	9.7	8.0	3.6	0.5	5.5	5.2	36.3
Other.....	88.7	1.2	36.2	2.9	3.5	F	0.4	5.3	0.0	F	3.3	F	1.5	G	2.8	K
Addenda:																
European Union (27) ¹	3,829.7	20.5	1,615.3	106.5	239.0	107.6	190.7	177.0	65.9	355.0	326.3	322.8	154.2	228.8	281.9	879.8
OPEC ²	123.4	26.3	51.4	13.2	11.9	2.0	4.0	2.3	0.1	8.0	8.4	1.5	3.8	5.4	10.2	16.4

See the footnotes on page 22.

Table 5.2 Employment of Majority-Owned Foreign Affiliates, Country by Industry of Affiliate, 2012—Continues

[Thousands of employees]

	All industries	Mining	Manufacturing								Wholesale trade	Retail trade	Information	Finance and insurance	Professional, scientific, and technical services	Other industries
			Total	Of which:												
				Food	Chemicals	Primary and fabricated metals	Machinery	Computers and electronic products	Electrical equipment, appliances, and components	Transportation equipment						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
All countries	12,115.8	233.1	4,794.7	464.5	616.2	217.6	446.4	732.5	211.1	949.7	806.1	1,334.5	470.9	659.2	1,088.7	2,728.6
Canada	1,133.3	37.7	283.3	36.1	31.4	16.7	20.4	21.8	8.6	63.7	88.2	368.7	23.3	35.1	64.7	232.2
Europe	4,192.7	44.0	1,762.7	128.9	261.3	117.1	205.6	185.0	66.6	377.7	377.5	373.5	172.6	240.5	298.8	923.0
Austria	45.9	0.1	24.5	1.3	1.9	0.6	3.9	2.3	2.1	4.8	6.1	1.2	1.4	0.7	2.7	9.2
Belgium	129.7	0.1	61.9	7.3	17.2	2.4	7.4	2.8	0.6	9.8	15.9	1.7	4.0	5.6	9.1	31.5
Czech Republic	84.1	0.0	49.6	G	2.9	1.4	5.8	7.9	2.6	19.5	6.9	0.7	2.3	4.5	2.5	17.6
Denmark	34.2	0.3	11.9	0.3	1.0	1.0	3.2	2.2	0.3	0.1	4.2	1.1	4.3	0.7	7.4	4.3
Finland	22.2	0.0	10.7	(*)	2.1	0.2	2.8	1.9	0.3	0.4	2.9	0.1	0.9	0.2	2.9	4.6
France	451.9	0.5	189.0	9.7	36.6	13.1	27.1	18.8	4.0	23.6	51.5	17.8	10.7	12.8	23.4	146.2
Germany	632.2	4.3	355.5	10.6	35.9	19.9	44.9	44.2	15.8	108.7	67.0	40.8	16.1	13.8	39.3	95.2
Greece	17.0	(*)	6.3	1.5	2.2	0.6	0.1	0.4	0.0	(*)	3.2	0.3	0.4	2.0	1.0	3.7
Hungary	62.8	(*)	40.7	0.3	1.4	G	2.9	6.9	I	14.1	3.6	0.9	2.2	4.4	6.5	4.5
Ireland	105.4	H	47.7	0.4	15.0	0.4	0.9	12.0	0.2	0.4	4.6	1.1	7.1	15.4	9.6	J
Italy	207.4	0.7	91.9	3.6	18.6	6.7	18.2	10.2	7.3	13.0	20.8	8.3	11.8	7.6	19.0	47.3
Luxembourg	13.7	0.0	6.7	0.0	0.8	0.0	0.4	(*)	0.0	0.0	(*)	0.2	1.3	2.9	0.8	1.8
Netherlands	224.6	H	97.3	10.7	29.7	4.7	10.3	4.4	2.5	13.6	26.7	6.9	9.6	4.4	15.8	L
Norway	44.7	9.9	15.0	F	0.9	0.8	7.2	0.7	0.3	0.1	1.8	2.7	1.0	1.1	2.7	10.6
Poland	158.1	(*)	102.7	17.3	8.7	9.1	3.5	5.7	4.7	34.5	12.8	2.1	5.2	14.6	5.8	14.8
Portugal	29.1	0.0	14.2	1.6	1.9	0.9	0.9	G	0.6	3.6	2.7	1.3	0.7	0.9	1.5	7.8
Russia	153.8	4.6	69.9	12.8	4.5	I	4.6	2.2	0.2	6.9	12.1	0.1	1.7	8.3	3.7	53.3
Spain	170.7	0.1	82.5	6.4	14.2	5.5	5.9	9.1	3.5	24.5	18.2	5.7	4.7	6.7	10.2	42.6
Sweden	71.1	0.0	27.8	1.0	3.0	2.8	3.2	2.8	0.7	5.2	7.4	2.1	2.4	3.1	7.5	20.7
Switzerland	88.5	F	28.7	2.5	7.1	0.9	4.1	3.7	1.6	1.0	25.0	1.5	6.5	4.6	7.0	J
Turkey	48.0	(*)	29.1	3.5	8.6	0.4	F	0.2	(*)	8.9	4.4	0.1	0.5	3.5	1.0	9.5
United Kingdom	1,248.2	10.3	311.3	27.7	40.4	21.8	43.9	39.9	8.5	54.7	67.5	276.6	71.3	120.3	113.4	277.6
Other	149.2	4.2	87.8	I	6.7	16.0	H	H	H	30.2	12.2	0.2	6.5	2.4	6.1	29.8
Latin America and Other Western Hemisphere	2,368.9	65.2	1,114.5	169.1	127.7	33.8	70.5	76.8	51.4	321.1	86.6	398.0	66.4	141.0	89.8	407.5
South America	1,047.3	47.6	461.7	84.4	83.9	13.9	36.4	15.5	19.6	103.9	51.1	M	43.5	66.6	55.4	M
Argentina	134.3	7.2	52.0	13.3	12.0	0.8	1.8	0.7	(*)	11.7	7.7	J	9.3	10.0	8.3	K
Brazil	598.5	13.2	319.5	47.4	49.4	11.0	30.7	12.8	J	79.8	26.4	L	19.2	41.1	35.3	L
Chile	128.0	I	12.5	H	4.5	0.1	2.2	0.4	0.0	0.2	4.2	K	7.0	4.3	6.2	44.2
Colombia	63.7	9.1	22.9	4.7	4.9	1.3	0.1	0.5	0.2	I	3.1	0.6	G	5.7	2.7	J
Ecuador	16.2	1.3	8.3	2.8	1.6	(*)	(*)	0.1	0.0	0.3	3.4	0.2	0.3	0.7	0.2	1.7
Peru	36.7	6.9	7.1	2.0	2.4	0.2	0.1	0.1	(*)	0.0	2.7	0.1	2.2	G	0.7	J
Venezuela	53.1	2.6	31.9	9.2	8.3	0.4	1.4	0.8	A	5.9	3.1	0.9	2.3	2.5	1.9	7.8
Other	16.9	G	7.4	G	0.7	0.1	0.2	0.1	0.0	F	0.5	0.2	G	G	0.3	H
Central America	1,273.8	15.0	633.1	83.0	41.4	18.8	34.0	61.3	31.8	217.2	33.4	M	18.2	70.7	33.4	M
Costa Rica	52.6	0.0	23.8	H	6.3	0.1	0.0	H	1.1	0.0	1.1	G	0.6	G	I	19.5
Honduras	39.0	0.0	28.1	G	0.3	0.0	0.0	0.1	0.0	H	0.2	0.5	0.1	G	0.0	I
Mexico	1,106.7	14.7	546.5	71.3	32.2	18.6	34.0	53.7	30.5	M	30.5	247.7	16.8	60.6	28.2	161.7
Panama	20.1	0.2	1.3	0.7	0.4	0.0	0.0	(*)	0.0	0.0	0.9	0.7	0.4	0.7	A	J
Other	55.5	(*)	33.4	5.0	2.2	0.1	0.0	H	0.3	0.0	0.8	G	0.4	I	(*)	12.7
Other Western Hemisphere	47.7	2.5	19.7	1.7	2.5	1.0	0.2	(*)	0.0	0.0	2.2	H	4.8	3.6	0.9	J
Barbados	1.2	(*)	(*)	(*)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	(*)	0.1	(*)	0.6
Bermuda	4.5	0.6	0.1	0.0	(*)	0.0	(*)	0.0	0.0	0.0	0.5	0.0	0.2	2.3	0.1	0.8
Dominican Republic	22.4	0.0	16.5	G	1.8	0.1	(*)	(*)	0.0	0.0	0.7	G	G	0.1	0.1	2.0
United Kingdom Islands, Caribbean	4.3	0.5	0.7	0.1	0.3	0.0	0.0	(*)	0.0	0.0	0.2	(*)	0.1	0.3	0.4	2.2
Other	15.3	1.4	2.4	A	0.4	0.9	0.1	0.0	0.0	0.0	0.7	G	H	0.8	0.4	I

See the footnotes on page 22.

Table 5.2 Employment of Majority-Owned Foreign Affiliates, Country by Industry of Affiliate, 2012—Table Ends

[Thousands of employees]

	All industries	Mining	Manufacturing								Wholesale trade	Retail trade	Information	Finance and insurance	Professional, scientific, and technical services	Other industries
			Total	Of which:												
				Food	Chemicals	Primary and fabricated metals	Machinery	Computers and electronic products	Electrical equipment, appliances, and components	Transportation equipment						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
Africa	217.0	25.6	96.1	J	8.0	2.3	4.8	1.6	2.0	21.7	17.4	K	2.6	5.2	4.8	K
Egypt	26.6	2.6	17.3	5.9	1.7	A	0.5	(*)	A	0.0	2.7	0.1	0.3	0.9	0.7	2.1
Nigeria	10.0	6.9	2.0	(*)	A	(*)	0.5	0.1	0.0	0.0	0.2	0.0	(*)	0.3	(*)	0.5
South Africa	98.6	0.4	33.4	4.0	5.0	0.7	3.1	1.1	G	9.7	11.6	K	2.0	2.6	3.6	J
Other	81.9	15.7	43.3	H	F	G	0.7	0.4	0.1	12.0	2.8	(*)	0.2	1.4	0.5	17.8
Middle East	118.8	10.7	40.6	H	3.0	1.0	7.4	17.7	0.4	0.5	15.6	0.5	5.8	4.9	17.4	23.3
Israel	72.0	A	29.2	0.1	1.8	0.2	5.0	16.2	0.3	0.5	13.3	0.4	3.7	1.6	8.2	J
Saudi Arabia	13.6	4.1	4.0	G	0.4	0.3	0.9	A	(*)	0.0	0.5	0.0	0.7	0.2	2.8	1.2
United Arab Emirates	23.3	2.6	5.3	A	0.8	A	1.3	G	(*)	0.0	1.8	0.1	1.2	2.1	5.2	5.1
Other	9.9	H	2.1	A	0.1	A	0.2	0.0	0.0	0.1	0.0	0.1	1.0	1.2	1.2	G
Asia and Pacific	4,085.2	49.9	1,497.5	114.8	184.8	46.6	137.7	429.6	82.0	165.0	220.9	M	200.2	232.4	613.3	M
Australia	308.5	10.5	94.3	21.7	13.4	9.0	9.2	5.5	2.6	14.2	26.0	9.9	19.1	20.5	38.6	89.7
China	1,338.7	2.4	588.0	34.0	70.5	29.2	62.8	163.1	54.5	63.6	52.9	61.0	19.7	8.9	59.0	546.9
Hong Kong	118.7	0.0	38.9	0.1	3.4	0.6	2.6	6.6	7.8	0.1	13.6	1.3	4.6	20.3	12.3	27.7
India	838.4	0.9	155.4	14.6	27.7	2.2	24.6	20.8	3.0	25.2	30.0	J	86.3	51.9	407.5	L
Indonesia	110.5	25.2	62.5	6.0	4.7	(*)	0.8	4.1	F	0.9	2.7	0.1	0.4	4.7	0.3	14.7
Japan	320.4	0.1	73.7	0.7	24.7	0.3	13.7	14.0	G	4.9	31.9	54.9	11.2	69.5	35.2	43.9
Korea, Republic of	126.9	(*)	60.8	0.9	5.5	1.1	5.5	15.8	0.1	26.6	10.8	5.2	1.8	8.2	7.1	32.9
Malaysia	157.9	2.5	112.0	2.2	4.9	0.7	3.4	83.0	H	2.9	5.6	0.9	1.9	4.6	5.5	24.9
New Zealand	33.4	0.3	9.0	3.0	1.5	A	0.3	0.8	0.4	0.6	2.6	4.0	1.3	2.3	3.8	10.2
Philippines	205.3	0.1	61.8	8.9	3.5	0.1	0.3	23.7	2.7	5.1	3.5	1.2	41.8	I	19.5	L
Singapore	172.6	3.1	65.8	0.4	7.6	1.2	7.9	33.2	1.9	4.4	20.5	0.3	6.7	18.8	10.7	46.6
Taiwan	86.7	(*)	31.4	0.8	4.2	0.8	2.1	17.3	G	G	8.7	4.2	3.4	9.6	4.9	24.4
Thailand	169.1	3.0	105.1	18.1	9.8	0.6	4.2	36.9	0.5	14.1	8.6	3.6	0.5	5.4	6.2	36.6
Other	97.9	1.7	39.0	3.4	3.5	F	0.4	4.9	0.0	F	3.3	0.9	1.5	G	2.8	K
Addenda:																
European Union (27) ¹	3,810.6	24.6	1,601.5	104.1	237.8	108.3	187.3	178.0	64.5	360.5	330.7	369.1	162.1	222.6	282.1	817.8
OPEC ²	130.4	27.5	53.4	14.7	11.5	2.0	4.6	2.5	A	6.2	9.0	1.2	4.7	6.0	10.7	17.8

See the footnotes on page 22.

Table 6.1 Value Added of Majority-Owned Foreign Affiliates, Country by Industry of Affiliate, 2011—Continues

[Millions of dollars]

	All industries	Mining	Manufacturing								Wholesale trade	Retail trade	Information	Finance and insurance	Professional, scientific, and technical services	Other industries
			Total	Of which:												
				Food	Chemicals	Primary and fabricated metals	Machinery	Computers and electronic products	Electrical equipment, appliances, and components	Transportation equipment						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
All countries	1,415,892	234,013	592,658	37,127	125,701	19,198	44,015	72,630	12,520	63,106	175,601	71,925	61,252	73,697	88,223	118,523
Canada	145,804	16,694	62,208	4,779	9,258	2,084	2,753	2,892	613	9,331	13,833	19,066	3,196	5,679	8,113	17,014
Europe	668,285	66,037	313,245	14,305	68,899	11,567	26,437	36,266	6,738	30,171	92,434	31,732	36,810	33,737	42,359	51,931
Austria	5,156	8	3,267	281	378	54	616	338	197	523	1,097	162	265	-9	356	11
Belgium	24,679	(D)	13,491	1,111	4,750	251	828	349	190	1,567	5,236	64	1,478	679	1,333	(D)
Czech Republic	5,860	0	3,969	204	336	33	275	305	66	1,024	597	(D)	284	(D)	192	269
Denmark	9,994	5,671	1,699	241	154	111	399	197	21	8	687	19	126	22	1,261	510
Finland	3,247	0	1,552	(D)	490	(*)	288	304	(D)	1,062	3	82	5	5	414	130
France	54,626	347	30,134	1,296	6,813	1,678	4,094	2,219	744	2,885	8,868	1,488	1,362	1,745	3,717	6,965
Germany	92,594	1,572	57,174	2,218	6,634	2,823	4,783	5,550	1,802	10,233	11,032	5,287	2,941	2,568	5,297	6,723
Greece	3,102	1	2,675	130	400	(D)	6	(D)	0	(*)	68	6	41	14	139	159
Hungary	5,010	(D)	3,713	34	126	(D)	(D)	217	(D)	622	474	16	265	195	241	(D)
Ireland	72,241	8	47,265	(D)	24,427	19	146	16,562	23	17	3,471	74	10,830	1,407	1,158	8,030
Italy	32,306	89	12,191	699	3,055	760	2,684	1,091	543	951	4,145	(D)	1,712	984	2,947	(D)
Luxembourg	3,173	(D)	1,286	0	(D)	(D)	108	(D)	0	(D)	1,264	(D)	-434	1,171	151	-1,391
Netherlands	31,066	779	15,964	1,544	3,171	622	1,210	1,034	366	(D)	4,357	613	2,682	-128	3,798	3,002
Norway	30,684	22,602	5,559	82	(D)	(D)	2,206	147	24	(D)	782	199	182	184	418	756
Poland	14,081	(D)	5,368	685	730	374	110	179	188	1,480	6,795	78	429	652	386	(D)
Portugal	4,108	0	1,145	140	419	71	40	130	(D)	83	2,173	71	66	51	264	337
Russia	12,628	(D)	5,789	484	723	(D)	201	96	6	65	1,224	-8	179	572	464	(D)
Spain	18,549	43	11,739	777	3,452	673	592	1,407	301	1,602	2,404	432	475	685	937	1,833
Sweden	7,379	0	3,148	174	-284	316	417	319	99	487	2,038	159	276	1,244	1,312	-798
Switzerland	40,469	(D)	11,170	176	3,974	191	1,412	775	989	237	19,595	2,629	2,278	834	1,568	(D)
Turkey	7,792	(D)	6,956	306	647	(D)	(D)	-2	3	(D)	(D)	(*)	78	112	128	(D)
United Kingdom	158,996	10,689	63,010	4,148	7,484	1,922	4,553	4,823	728	5,714	11,642	11,955	11,044	19,993	15,441	15,222
Other	30,547	(D)	4,982	385	(D)	902	(D)	147	100	645	(D)	(D)	170	(D)	437	(D)
Latin America and Other Western Hemisphere	168,114	29,765	72,821	9,959	16,061	2,030	3,984	2,076	1,901	13,977	17,960	12,446	7,661	6,506	5,267	15,688
South America	97,822	22,543	48,577	6,753	12,103	1,172	2,806	(D)	1,097	7,680	6,442	2,612	5,828	2,732	3,375	5,712
Argentina	18,439	5,873	8,724	2,154	1,351	27	63	20	(*)	788	558	(D)	811	669	284	(D)
Brazil	47,444	3,584	30,345	3,295	7,477	1,014	2,514	714	1,033	5,575	3,140	(D)	3,758	1,287	2,221	(D)
Chile	10,198	(D)	1,555	(D)	582	6	139	20	0	(D)	420	(D)	522	-140	467	1,183
Colombia	7,071	(D)	2,092	298	778	33	7	(D)	(D)	(D)	1,196	224	74	382	189	(D)
Ecuador	955	184	480	44	159	1	(*)	5	0	(D)	157	(D)	13	-8	(D)	94
Peru	6,080	4,647	564	79	151	(D)	(D)	9	(*)	0	287	7	97	(D)	74	(D)
Venezuela	6,154	268	4,288	616	1,548	(D)	61	105	(D)	(D)	421	42	(D)	338	113	(D)
Other	1,481	158	529	(D)	57	(D)	(D)	4	(*)	(D)	263	(D)	(D)	(D)	(D)	154
Central America	50,965	3,088	23,495	3,098	3,776	754	(D)	1,180	803	6,296	3,377	9,566	1,430	4,242	1,613	4,154
Costa Rica	1,746	0	1,138	17	305	6	0	346	(D)	0	258	(D)	35	(D)	130	126
Honduras	767	0	410	74	26	0	0	(D)	0	(D)	96	(D)	4	5	0	(D)
Mexico	45,787	3,067	21,113	2,873	3,300	743	(D)	799	727	(D)	2,541	(D)	1,364	3,975	1,453	(D)
Panama	628	(D)	74	23	37	0	(*)	1	(*)	0	185	(D)	14	34	(D)	221
Other	2,037	(D)	760	111	108	5	(*)	(D)	(D)	0	298	(D)	13	(D)	(D)	525
Other Western Hemisphere	19,326	4,134	749	108	183	104	(D)	(D)	0	1	8,140	269	402	-468	278	5,822
Barbados	2,968	6	(D)	(D)	(*)	0	0	0	0	0	2,142	7	8	249	(D)	549
Bermuda	3,330	93	-82	0	(D)	0	(D)	0	0	1	2,492	0	77	-2,379	153	2,976
Dominican Republic	1,158	0	546	(D)	142	1	(*)	(*)	0	0	104	32	23	(D)	(D)	419
United Kingdom Islands, Caribbean	6,424	623	62	(D)	(D)	0	0	(D)	0	0	(D)	(D)	64	836	77	1,477
Other	5,447	3,413	(D)	(D)	33	103	(D)	0	0	0	(D)	(D)	230	(D)	(D)	402

See the footnotes on page 22.

Table 6.1 Value Added of Majority-Owned Foreign Affiliates, Country by Industry of Affiliate, 2011—Table Ends

[Millions of dollars]

	All industries	Mining	Manufacturing								Wholesale trade	Retail trade	Information	Finance and insurance	Professional, scientific, and technical services	Other industries
			Total	Of which:												
				Food	Chemicals	Primary and fabricated metals	Machinery	Computers and electronic products	Electrical equipment, appliances, and components	Transportation equipment						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
Africa	62,920	52,151	5,057	(D)	962	127	383	153	72	(D)	1,889	(D)	163	607	542	(D)
Egypt	7,305	(D)	755	174	129	(D)	28	(D)	(D)	0	497	(D)	4	(D)	(D)	61
Nigeria	23,212	(D)	145	(*)	50	3	29	(D)	0	0	(D)	0	2	(D)	(D)	78
South Africa	6,437	88	2,723	303	658	85	238	77	(D)	341	983	(D)	144	281	401	(D)
Other	25,965	23,471	1,434	(D)	126	(D)	87	25	(*)	(D)	(D)	(D)	12	214	46	491
Middle East	35,996	17,218	8,045	(D)	816	84	1,180	2,057	30	(D)	6,701	23	618	574	1,972	846
Israel	7,463	(D)	3,792	6	179	(D)	992	1,969	(D)	(D)	1,414	(D)	288	34	1,149	(D)
Saudi Arabia	4,472	3,516	572	(D)	324	(D)	52	(D)	1	0	(D)	0	62	17	157	(D)
United Arab Emirates	13,771	6,565	(D)	(D)	309	8	(D)	(D)	(D)	0	(D)	(D)	(D)	315	524	235
Other	10,290	(D)	(D)	(D)	4	(D)	(D)	(*)	0	0	22	0	(D)	207	143	123
Asia and Pacific	334,774	52,148	131,282	7,094	29,704	3,305	9,278	29,185	3,165	9,112	42,785	(D)	12,804	26,594	29,970	(D)
Australia	57,346	14,061	17,060	3,272	2,209	1,748	1,067	1,037	345	1,789	6,988	397	3,259	5,593	5,797	4,191
China	45,973	3,568	27,162	1,373	6,889	1,030	2,799	7,532	1,229	2,548	5,403	1,147	1,179	276	3,257	3,980
Hong Kong	14,924	0	2,825	39	342	60	194	950	197	(D)	4,509	227	459	3,396	1,534	1,974
India	19,836	162	5,023	298	1,207	63	891	663	120	545	1,503	58	1,903	1,654	8,793	741
Indonesia	18,360	11,944	5,573	(D)	(D)	(D)	(D)	(D)	(D)	(D)	218	(D)	21	609	-5	(D)
Japan	60,921	8	26,117	185	7,426	42	1,957	2,045	603	728	11,235	3,305	2,875	7,674	6,955	2,752
Korea, Republic of	13,238	(D)	7,546	145	940	92	731	1,551	4	2,231	1,550	589	255	1,325	907	(D)
Malaysia	13,399	5,180	6,109	169	581	29	263	4,287	(D)	162	821	121	83	441	324	322
New Zealand	3,309	45	932	271	189	(D)	(D)	81	13	(D)	950	(D)	32	417	321	(D)
Philippines	5,555	(D)	2,366	228	502	4	8	1,072	75	30	249	(D)	384	270	377	1,177
Singapore	37,073	429	18,432	278	7,419	100	915	6,369	281	684	6,394	33	1,910	3,884	827	5,165
Taiwan	7,648	(*)	4,435	165	843	(D)	139	1,527	57	97	1,021	241	400	730	380	440
Thailand	13,738	(D)	6,727	404	768	13	225	1,924	(D)	217	1,452	147	22	224	355	(D)
Other	23,455	(D)	975	(D)	(D)	(D)	(D)	(D)	(*)	(D)	492	(D)	23	102	148	(D)
Addenda:																
European Union (27) ¹	552,380	19,936	281,568	13,065	63,255	10,694	22,544	35,249	5,715	29,521	69,482	28,908	34,066	31,920	39,697	46,804
OPEC ²	67,961	49,409	9,104	806	2,394	81	327	231	(D)	(D)	6,012	59	745	753	961	917

See the footnotes on page 22.

Table 6.2 Value Added of Majority-Owned Foreign Affiliates, Country by Industry of Affiliate, 2012—Continues

[Millions of dollars]

	All industries	Mining	Manufacturing								Wholesale trade	Retail trade	Information	Finance and insurance	Professional, scientific, and technical services	Other industries
			Total	Of which:						Transportation equipment						
				Food	Chemicals	Primary and fabricated metals	Machinery	Computers and electronic products	Electrical equipment, appliances, and components							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
All countries	1,420,679	221,329	563,149	36,835	125,984	18,047	43,690	75,776	13,220	59,249	184,093	75,558	65,205	92,623	89,119	129,603
Canada	140,073	11,698	56,563	4,468	9,284	1,810	2,734	2,760	1,024	10,337	17,120	19,496	3,592	5,657	8,478	17,469
Europe	672,939	59,960	296,264	14,328	72,101	10,462	25,178	36,940	6,599	23,416	99,447	37,394	41,186	43,309	40,360	55,019
Austria	4,393	8	2,685	246	330	44	339	263	170	489	985	144	279	-17	354	-44
Belgium	24,911	(D)	12,319	966	4,625	242	751	435	128	1,291	5,558	96	1,573	1,694	1,352	(D)
Czech Republic	5,465	0	3,575	200	307	48	291	291	97	782	582	(D)	251	510	211	(D)
Denmark	8,492	4,699	1,505	54	207	124	470	223	21	8	937	33	616	163	1,167	-628
Finland	3,165	0	1,524	(D)	415	(D)	360	320	(D)	(D)	1,077	4	59	-2	374	130
France	52,211	88	26,905	1,188	6,198	1,221	3,113	2,045	568	2,219	8,745	1,397	1,479	2,870	3,753	6,975
Germany	87,940	1,557	40,500	2,182	7,121	2,194	4,630	6,120	1,906	7,965	18,835	9,138	3,339	2,573	5,359	6,639
Greece	2,821	1	2,222	85	349	(D)	6	(D)	0	(*)	291	12	87	-44	92	161
Hungary	3,460	(D)	2,710	17	100	(D)	380	193	(D)	622	402	(D)	562	233	311	-608
Ireland	81,796	(D)	51,800	95	27,167	19	108	16,844	(D)	16	4,088	62	12,405	2,378	436	(D)
Italy	30,769	92	10,967	672	2,679	678	2,850	1,050	550	756	3,841	(D)	1,951	703	2,698	(D)
Luxembourg	4,324	(D)	1,462	0	(D)	3	131	(D)	0	(D)	1,431	(D)	-536	2,314	-62	-1,049
Netherlands	32,544	1,044	19,305	1,973	5,747	649	1,506	1,110	299	1,634	4,957	802	2,504	525	2,260	1,147
Norway	30,906	21,438	5,655	47	204	(D)	2,098	133	27	(D)	1,165	211	278	508	595	1,056
Poland	13,582	(D)	4,687	456	756	470	142	205	114	1,091	6,738	103	445	890	416	(D)
Portugal	3,796	0	1,125	133	398	71	38	100	(D)	136	1,980	47	78	54	266	245
Russia	13,368	(D)	6,286	594	494	(D)	209	115	6	67	1,461	6	188	684	436	(D)
Spain	13,489	30	7,063	556	2,707	434	663	1,315	228	-210	2,516	190	562	287	1,128	1,712
Sweden	8,381	0	3,585	156	73	269	392	405	83	528	2,190	142	345	416	1,214	487
Switzerland	37,550	(D)	10,903	193	4,167	162	1,425	696	1,156	60	16,862	1,635	2,292	804	1,820	(D)
Turkey	8,934	(D)	7,976	(D)	783	(D)	(D)	(*)	3	111	736	(*)	96	165	110	(D)
United Kingdom	171,522	9,266	66,453	3,972	6,488	2,011	5,112	4,687	667	5,083	11,219	13,982	12,016	25,286	15,666	17,633
Other	29,121	(D)	5,050	284	(D)	1,037	(D)	(D)	108	749	2,851	(D)	318	315	406	(D)
Latin America and Other Western Hemisphere	164,231	25,828	70,680	10,267	15,448	1,964	4,057	2,608	1,844	14,174	16,560	9,320	7,109	10,789	5,771	18,174
South America	93,381	18,647	46,113	7,311	11,220	1,369	2,761	(D)	1,083	7,574	6,187	2,921	5,998	3,051	3,670	6,793
Argentina	17,522	5,187	8,082	2,339	1,747	31	(D)	20	(*)	766	563	(D)	899	683	249	(D)
Brazil	44,327	2,603	27,978	3,174	6,376	1,176	2,346	1,112	1,022	5,217	2,724	(D)	3,690	1,735	2,447	(D)
Chile	8,160	(D)	1,438	(D)	553	6	150	19	0	(D)	504	(D)	500	-332	468	1,857
Colombia	7,222	2,644	2,022	326	751	31	7	29	(D)	1,196	(D)	72	241	243	(D)	(D)
Ecuador	1,004	214	511	85	151	1	(*)	5	0	(D)	168	(D)	13	5	(D)	67
Peru	6,362	4,716	639	117	151	(D)	6	9	(*)	0	273	7	137	(D)	71	(D)
Venezuela	7,317	302	4,831	913	1,431	(D)	47	95	(D)	(D)	610	(D)	(D)	561	162	280
Other	1,466	(D)	612	(D)	61	(D)	(D)	(D)	(*)	(D)	150	(D)	(D)	(D)	(D)	115
Central America	48,091	3,388	23,722	2,836	4,046	532	(D)	1,286	760	6,599	2,842	6,135	1,184	4,999	1,812	4,009
Costa Rica	1,880	0	1,313	(D)	354	6	0	398	(D)	0	167	(D)	35	(D)	144	168
Honduras	657	0	348	63	27	0	0	(D)	0	(D)	28	(D)	4	(D)	0	156
Mexico	43,274	3,368	21,340	2,506	3,523	521	(D)	854	703	(D)	2,441	5,737	1,118	4,700	1,639	2,930
Panama	787	(D)	74	15	32	0	(*)	1	(*)	0	109	(D)	14	48	(D)	437
Other	1,493	(D)	646	(D)	111	5	(*)	(D)	(D)	0	97	(D)	13	(D)	(D)	319
Other Western Hemisphere	22,759	3,794	845	120	182	64	(D)	(D)	0	1	7,531	265	-73	2,738	289	7,372
Barbados	1,234	6	(D)	(D)	(*)	0	0	0	0	(*)	(D)	8	8	105	2	(D)
Bermuda	8,136	39	47	0	(D)	0	3	(D)	0	1	3,602	0	-69	467	161	3,889
Dominican Republic	987	0	533	(D)	118	(D)	(*)	(*)	0	0	69	19	-15	(D)	(D)	331
United Kingdom Islands, Caribbean	6,597	957	51	(D)	(D)	0	0	(D)	0	0	(D)	(D)	65	901	84	1,448
Other	5,805	2,791	(D)	(D)	34	(D)	(D)	0	0	0	207	(D)	-63	(D)	(D)	(D)

See the footnotes on page 22.

Table 6.2 Value Added of Majority-Owned Foreign Affiliates, Country by Industry of Affiliate, 2012—Table Ends

[Millions of dollars]

	All industries	Mining	Manufacturing								Wholesale trade	Retail trade	Information	Finance and insurance	Professional, scientific, and technical services	Other industries
			Total	Of which:						Transportation equipment						
				Food	Chemicals	Primary and fabricated metals	Machinery	Computers and electronic products	Electrical equipment, appliances, and components							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
Africa	67,086	54,853	5,678	(D)	973	131	414	159	86	(D)	1,978	(D)	221	513	494	(D)
Egypt	7,168	(D)	776	154	159	(D)	28	(D)	0	586	(D)	(D)	(D)	(D)	(D)	(D)
Nigeria	23,543	(D)	(D)	(*)	45	3	47	(D)	0	0	(D)	0	2	(D)	(D)	96
South Africa	6,437	(D)	2,560	287	644	85	276	81	(D)	313	855	(D)	128	239	351	442
Other	29,938	26,320	(D)	(D)	125	(D)	63	27	(*)	(D)	(D)	(D)	(D)	188	60	767
Middle East	38,956	17,938	9,412	(D)	654	105	1,108	4,261	30	(D)	7,423	33	631	601	1,972	946
Israel	10,174	(D)	6,017	6	213	(D)	913	4,134	(D)	(D)	1,614	(D)	323	196	1,227	464
Saudi Arabia	4,227	(D)	400	(D)	111	(D)	55	(D)	1	0	-5	0	83	15	199	(D)
United Arab Emirates	15,438	7,549	(D)	(D)	326	17	(D)	(D)	(D)	0	5,786	(D)	(D)	357	514	218
Other	9,118	(D)	(D)	(D)	4	(D)	(D)	(*)	0	0	27	0	(D)	34	31	(D)
Asia and Pacific	337,393	51,051	124,553	6,688	27,524	3,576	10,200	29,049	3,638	10,830	41,564	(D)	12,466	31,754	32,045	(D)
Australia	60,073	13,306	17,390	2,992	2,239	1,933	1,263	1,138	332	1,698	7,545	505	2,850	5,655	6,292	6,530
China	46,491	2,761	27,145	1,478	6,755	1,009	3,125	6,472	1,426	2,873	6,341	1,008	1,135	162	3,523	4,415
Hong Kong	14,982	0	2,689	33	443	50	185	870	111	(D)	4,350	220	549	3,569	1,744	1,861
India	21,007	72	5,243	475	1,281	57	873	492	120	516	1,583	31	1,916	2,042	9,199	920
Indonesia	20,235	12,525	6,421	129	(D)	(*)	(D)	50	(D)	(D)	175	(D)	21	529	-6	(D)
Japan	52,802	8	17,893	196	7,214	39	1,926	2,357	820	878	8,204	3,467	2,966	10,346	7,125	2,793
Korea, Republic of	14,013	(D)	8,851	139	1,091	92	629	1,570	7	3,459	1,467	557	177	1,365	916	(D)
Malaysia	14,337	6,171	6,160	76	530	33	318	4,452	(D)	170	580	(D)	82	457	363	(D)
New Zealand	3,975	44	944	282	216	(D)	39	95	13	(D)	1,423	204	83	446	355	475
Philippines	5,838	(D)	2,456	171	394	4	8	1,096	95	38	170	(D)	441	297	412	1,309
Singapore	38,462	564	17,424	76	5,371	172	1,374	7,218	425	631	6,576	32	1,860	5,555	1,240	5,212
Taiwan	7,454	(*)	4,027	85	712	(D)	140	1,461	61	59	1,040	255	341	904	388	499
Thailand	15,106	(D)	6,826	405	801	(D)	(D)	1,773	(D)	452	1,567	150	22	359	380	(D)
Other	22,619	(D)	1,084	153	(D)	(D)	9	4	(*)	(D)	543	(D)	24	68	115	(D)
Addenda:																
European Union (27) ¹	559,327	16,945	263,159	13,096	66,411	9,452	21,368	35,997	5,407	23,144	78,477	35,538	38,304	41,031	37,314	48,559
OPEC ²	75,491	55,938	8,865	1,193	2,068	107	314	259	(D)	(D)	6,874	62	828	1,002	918	1,004

See the footnotes on page 22.

Table Footnotes

Table 1

p Preliminary
r Revised

1. For the years shown prior to 2009, the data items needed to calculate value added for individual U.S. parents and foreign affiliates were collected for nonbank businesses only. The value added statistics for bank parents and affiliates for those years are estimates.

2. Break in series. (Beginning with 1999, BEA expanded its statistics to include data for “very small” foreign affiliates and for parents that had only “very small” foreign affiliates. For details, see the technical note on page 121 of the December 2002 SURVEY OF CURRENT BUSINESS.)

3. For 1989, 1994, 1999, and 2004, the capital expenditure data for individual U.S. parents and foreign affiliates were collected for nonbank businesses only. The capital expenditure statistics for bank parents and affiliates for those years are estimates that are not based on survey data.

4. For the years shown prior to 2009, data on R&D expenditures were collected for nonbank U.S. parents and foreign affiliates only. R&D expenditures are assumed to be zero for bank U.S. parents and foreign affiliates in those years.

MOFA Majority-owned foreign affiliate.

n.a. Not available.

Tables 2.1 and 2.2

* Between zero and +/- \$500,000, or fewer than 50 employees.

D Suppressed to avoid disclosure of data of individual companies.

NOTE. The following ranges are given in employment cells that are suppressed: A—1 to 499; F—500 to 999; G—1,000 to 2,499; H—2,500 to 4,999; I—5,000 to 9,999; J—10,000 to 24,999; K—25,000 to 49,999; L—50,000 to 99,999; M—100,000 or more.

Table 3

* Between zero and +/- \$500,000, or fewer than 50 employees.

D Suppressed to avoid disclosure of data on individual companies.

1. The European Union (27) comprises Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, and the United Kingdom.

2. OPEC is the Organization of Petroleum Exporting Countries. In the time period covered by this table, its members were Algeria, Angola, Ecuador, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

NOTE. Size ranges are given in employment cells that are suppressed. The size ranges are: A—1 to 499; F—500 to 999; G—1,000 to 2,499; H—2,500 to 4,999; I—5,000 to 9,999; J—10,000 to 24,999; K—25,000 to 49,999; L—50,000 to 99,999; M—100,000 or more

Tables 4.1 and 4.2

* Between zero and +/- \$500,000, or fewer than 50 employees.

D Suppressed to avoid disclosure of data of individual companies.

1. “Other” consists largely of investment income that is included in “sales or gross operating revenues” in the income statement. In finance and insurance, investment income is included in sales because it is generated by a primary activity of the company. For insurance, “other” consists of investment income remaining after BEA’s estimate of investment income earned on funds insurers hold on behalf of policyholders is removed (and included in their services supplied measure) plus the portion of premiums set aside for the settlement of expected or “normal” losses. For banks, “other” consists of the investment income remaining after BEA’s estimate of the value of implicit services provided by banks is excluded (and included in services supplied). In industries other than finance and insurance, investment income is generally considered to be an incidental revenue source; this income is included in the income statement in a separate “other income” category, but is not included in sales or in this column.

2. The European Union (27) comprises Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, and the United Kingdom.

3. OPEC is the Organization of Petroleum Exporting Countries. In the time period covered by this table, its members were Algeria, Angola, Ecuador, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

NOTE. The following ranges are given in employment cells that are suppressed: A—1 to 499; F—500 to 999; G—1,000 to 2,499; H—2,500 to 4,999; I—5,000 to 9,999; J—10,000 to 24,999; K—25,000 to 49,999; L—50,000 to 99,999; M—100,000 or more.

Tables 5.1, 5.2, 6.1, and 6.2

* Fewer than 50 employees.

1. The European Union (27) comprises Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, and the United Kingdom.

2. OPEC is the Organization of Petroleum Exporting Countries. In the time period covered by this table, its members were Algeria, Angola, Ecuador, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

NOTE. Size ranges are given in employment cells that are suppressed. The size ranges are: A—1 to 499; F—500 to 999; G—1,000 to 2,499; H—2,500 to 4,999; I—5,000 to 9,999; J—10,000 to 24,999; K—25,000 to 49,999; L—50,000 to 99,999; M—100,000 or more.