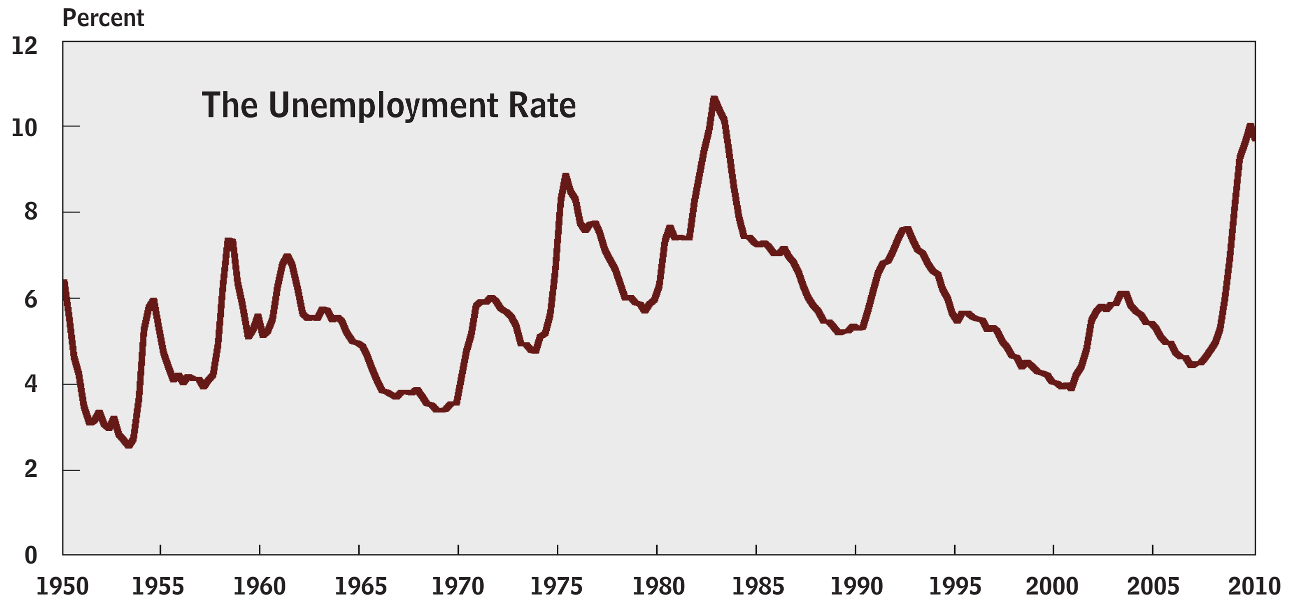
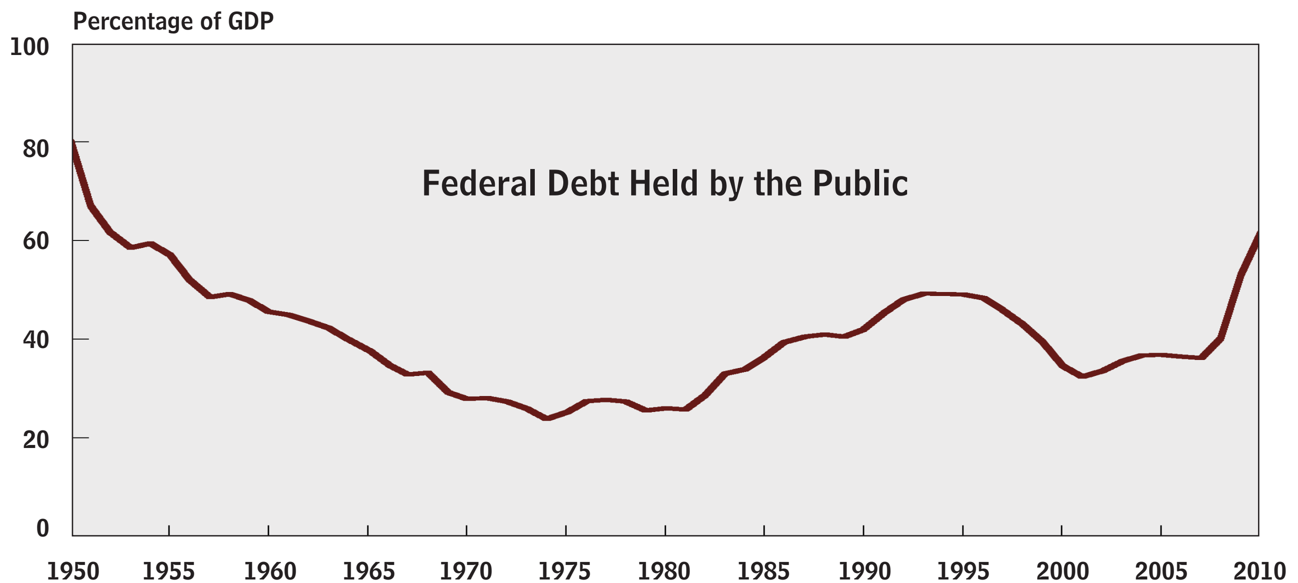
CONGRESS OF THE UNITED STATES
CONGRESSIONAL BUDGET OFFICE

The Budget and Economic Outlook: An Update





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Notes

Unless otherwise indicated, all years referred to in describing the economic outlook are calendar years; other years are federal fiscal years (which run from October 1 to September 30).

Numbers in the text and tables may not add up to totals because of rounding.

Some of the figures use shaded vertical bars to indicate periods of recession. (A recession extends from the peak of a business cycle to its trough.)

Data from the Commerce Department's Bureau of Economic Analysis on gross domestic product and the national income and product accounts are generally as of June 2010. The bureau's revised estimates, released on July 30, 2010, were published too late to be incorporated into the Congressional Budget Office's (CBO's) latest economic forecast. Consequently, in Chapter 2, only figures and discussions of recent events are consistent with the revised data. The revisions to the national income and product accounts are unlikely to have a major effect on CBO's projections.

Supplemental data for this analysis are available on CBO's Web site (www.cbo.gov).

CBO

Preface

This volume is one of a series of reports on the state of the budget and the economy that the Congressional Budget Office (CBO) issues each year. It satisfies the requirement of section 202(e) of the Congressional Budget Act of 1974 for CBO to submit to the Committees on the Budget periodic reports about fiscal policy and to provide baseline projections of the federal budget. In accordance with CBO's mandate to provide impartial analysis, the report makes no recommendations.

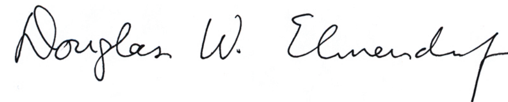
The baseline spending projections were prepared by the staff of CBO's Budget Analysis Division under the supervision of Peter Fontaine, Theresa Gullo, Holly Harvey, Janet Airis, Tom Bradley, Kim Cawley, Jean Hearne, Jeffrey Holland, Sarah Jennings, and Sam Papenfuss. The revenue estimates were prepared by the staff of the Tax Analysis Division under the supervision of Frank Sammartino, Mark Booth, David Weiner, and Janet Holtzblatt, with assistance from the staff of the Joint Committee on Taxation. (A detailed list of contributors to the revenue and spending projections appears in Appendix D.)

CBO's Panel of Economic Advisers commented on an early version of the economic forecast underlying this report. Members of the panel are Henry J. Aaron, Richard Berner, Dan L. Crippen, Stephen J. Davis, Janice C. Eberly, Kristin J. Forbes, Robert E. Hall, Jan Hatzius, Douglas Holtz-Eakin, Simon Johnson, Anil Kashyap, Lawrence Katz, N. Gregory Mankiw, Laurence H. Meyer, Rudolph G. Penner, Adam S. Posen, James Poterba, Carmen M. Reinhart, Alice Rivlin, and Stephen P. Zeldes. Mickey Levy and Susan Urahn attended the panel's meeting as guests. Although CBO's outside advisers provided considerable assistance, they are not responsible for the contents of this report.

Jeffrey Holland wrote the summary. Barry Blom wrote Chapter 1, with assistance from Barbara Edwards and Joshua Shakin. (Phil Ellis and Holly Harvey wrote Box 1-1, Christina Hawley Anthony wrote Box 1-2, and David Newman compiled Box 1-3.) Robert Arnold and David Brauer wrote Chapter 2. (Janet Holtzblatt wrote Box 2-1.) The economic outlook presented in Chapter 2 was prepared by the Macroeconomic Analysis Division under the direction of Robert Dennis and Kim Kowalewski. Robert Arnold and Christopher Williams developed the economic forecast and projections. David Brauer, Juan Contreras, Naomi Griffin, Juann Hung, Mark Lasky, Benjamin Page, Frank Russek, and Steven Weinberg contributed to the analysis. Holly Battelle and Priscila Hammett provided research assistance. Amber Marcellino, along with Mark Booth, wrote Appendix A; Santiago Vallinas, along with

Mark Booth and Pamela Greene, wrote Appendix B; and Holly Battelle and Priscila Hammett compiled Appendix C. Robert Shackleton compiled the glossary.

Christian Howlett, Leah Mazade, John Skeen, and Sherry Snyder edited the report, with assistance from Christine Bogusz and Kate Kelly. Denise Jordan-Williams helped in its preparation. Maureen Costantino designed the cover; she and Jeanine Rees prepared the report for publication. Monte Ruffin printed the initial copies, and Linda Schimmel handled the print distribution. Simone Thomas prepared the electronic version for CBO's Web site (www.cbo.gov).



Douglas W. Elmendorf
Director

August 2010

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Summary

The Congressional Budget Office (CBO) estimates that the federal budget deficit for 2010 will exceed $1.3 trillion—$71 billion below last year's total and $27 billion lower than the amount that CBO projected in March 2010, when it issued its previous estimate.[1] Relative to the size of the economy, this year's deficit is expected to be the second largest shortfall in the past 65 years: At 9.1 percent of gross domestic product (GDP), it is exceeded only by last year's deficit of 9.9 percent of GDP. As was the case last year, this year's deficit is attributable in large part to a combination of weak revenues and elevated spending associated with the economic downturn and the policies implemented in response to it.

This report presents CBO's updated budget and economic projections spanning the 2010–2020 period. Those projections reflect the assumption that current laws affecting the budget will remain unchanged—and thus the projections serve as a neutral benchmark that lawmakers can use to assess the potential effects of policy decisions. As such, CBO assumes that tax reductions enacted earlier in this decade that are currently set to expire at the end of this year do so as scheduled; it also assumes that no new legislation aimed at keeping the alternative minimum tax (AMT) from affecting many more taxpayers is enacted. In addition, CBO assumes that the measures enacted in the past two years to provide fiscal stimulus to the weakened economy will expire as currently scheduled and that future annual appropriations will be kept constant in real (inflation-adjusted) terms. Under those assumptions, the federal budget deficit would decline substantially over the next two years—to 4.2 percent of GDP by 2012—and, consequently, the budget would provide much less support to the economy than has been the case for the past two years.

1. See Congressional Budget Office, *An Analysis of the President's Budgetary Proposals for Fiscal Year 2011* (March 2010).

According to CBO's projections, the recovery from the economic downturn will continue at a modest pace during the next few years. Growth in the nation's output since the middle of calendar year 2009 has been anemic in comparison with that of previous recoveries following deep recessions, and the unemployment rate has remained quite high, averaging 9.7 percent in the first half of this year. Such weak growth tends to occur in recoveries from recessions spurred by financial crises. The considerable number of vacant houses and underused factories and offices will be a continuing drag on residential construction and business investment, and slow income growth as well as lost wealth will weigh on consumer spending.

All of those forces, along with the waning of federal fiscal support, will tend to restrain spending by individuals and businesses—and, therefore, economic growth—during the recovery. CBO projects that the economy will grow by only 2.0 percent from the fourth quarter of 2010 to the fourth quarter of 2011; even with faster growth in subsequent years, the unemployment rate will not fall to around 5 percent until the end of 2014.

In CBO's current-law projections, once the economy has recovered, the federal budget deficit amounts to between 2.5 percent and 3.0 percent of GDP from 2014 to 2020. Projected deficits total $6.2 trillion for the 10 years starting in 2011, raising federal debt held by the public to more than 69 percent of GDP by 2020, almost double the 36 percent of GDP observed at the end of 2007.

Those projections, which are similar in many respects to the ones that CBO prepared in March, reflect assumptions about revenues and spending that may significantly underestimate actual deficits. Because the projections presume no changes in current tax laws, they result in estimates of revenues that, as a percentage of GDP, would be quite high by historical standards. Because of the assump-

tion that future annual appropriations are held constant in real terms, the projections yield estimates of discretionary spending relative to GDP that would be low by historical standards.

Of course, many other outcomes are possible. If, for example, the tax reductions enacted earlier in the decade were continued, the AMT was indexed for inflation, and future annual appropriations remained the share of GDP that they are this year, the deficit in 2020 would equal about 8 percent of GDP, and debt held by the public would total nearly 100 percent of GDP. A different fiscal policy would also yield different economic outcomes. For example, CBO estimates that under an alternative fiscal path similar to the one just mentioned, growth of real GDP in 2011 would be 0.6 to 1.7 percentage points higher than it is in the baseline forecast, and the unemployment rate at the end of 2011 would be 0.3 to 0.8 percentage points lower. However, later in the coming decade, real GDP would fall below the level in CBO's baseline because the larger budget deficits would reduce investment in productive capital.

Beyond the 10-year budget window, the nation will face daunting long-term fiscal challenges posed by the aging of the population and rising costs for health care. Continued large deficits and the resulting increases in federal debt over time would reduce long-term economic growth. Putting the nation on a sustainable fiscal course will require policymakers to restrain the growth of spending substantially, raise revenues significantly above their average percentage of GDP of the past 40 years, or adopt some combination of those approaches.

The Budget Outlook

Fiscal year 2010 will mark a change in the recent trends that have prevailed for both revenues and outlays. After falling sharply during the recession, revenues are projected to increase (in nominal dollars) for the first time in three years, rising by $38 billion, or about 2 percent. Outlays, which have grown rapidly in recent years because of the recession, the turmoil in financial markets, and policies enacted in response to those events, are expected to decline by about 1 percent.

On the basis of tax collections through July 2010, CBO expects federal revenues to total $2.1 trillion this fiscal year, or about 14.6 percent of GDP (see Summary Table 1). Gains in receipts in recent months indicate that federal revenues are beginning to recover from the recession. In the period from October to December 2009, revenues were about 10 percent lower than in the same quarter a year earlier. But from January to July 2010, revenues were about 6 percent greater than in the comparable period of 2009.

Outlays are expected to total $3.5 trillion this year, or nearly 24 percent of GDP—a level slightly lower than the 25 percent share recorded last year but still much higher than the average level of roughly 21 percent of GDP over the past 40 years (see Summary Figure 1). Spending has dropped sharply this year for certain programs related to the federal government's response to the turmoil in the housing and financial markets. For activities other than those programs, overall spending will rise by 10 percent in 2010, CBO estimates.

Over the next few years, federal budget deficits would decline markedly as a share of GDP if the current-law assumptions about fiscal policy in CBO's baseline came to pass. Under those assumptions, the deficit would drop to 7.0 percent of GDP in 2011 and 4.2 percent in 2012 and then would reach a low of 2.5 percent of GDP in 2014. For the rest of the 10-year projection period, deficits would range between 2.6 percent and 3.0 percent of GDP, close to the average of 2.6 percent of GDP experienced over the past 40 years.

In CBO's baseline, total revenues climb sharply in the next few years, from 14.6 percent of GDP in 2010 to 17.5 percent in 2011 and 18.7 percent in 2012. That increase is attributable in part to the scheduled expiration of tax provisions originally enacted in 2001, 2003, and 2009 (including temporary relief from the AMT, which expired at the end of December 2009) and in part to the anticipated economic recovery. Revenues will also be boosted by provisions of the recently enacted health care legislation (the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010), which are estimated to increase receipts by growing amounts over the next few years, reaching 0.6 percent of GDP by 2020. In addition, the structure of the individual income tax will gradually raise receipts over time. Together, all of those factors push federal revenues in CBO's baseline to 21.0 percent of GDP by 2020, compared with an average level of about 18 percent of GDP over the past 40 years.

Summary Table 1.

CBO's Baseline Budget Outlook

	Actual 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total, 2011-2015	Total, 2011-2020
							In Billions of Dollars							
Total Revenues	2,105	2,143	2,648	2,953	3,236	3,561	3,743	3,975	4,201	4,421	4,640	4,856	15,941	36,836
Total Outlays	3,518	3,485	3,714	3,618	3,760	4,000	4,250	4,560	4,780	4,983	5,274	5,541	19,065	42,883
Total Deficit (-) or Surplus	**-1,413**	**-1,342**	**-1,066**	**-665**	**-525**	**-438**	**-507**	**-585**	**-579**	**-562**	**-634**	**-685**	**-3,202**	**-6,246**
On-budget	-1,550	-1,419	-1,154	-766	-639	-569	-650	-732	-727	-711	-777	-817	-3,778	-7,542
Off-budget[a]	137	77	88	101	114	131	143	148	148	149	143	132	576	1,296
Debt Held by the Public at the End of the Year	7,545	9,031	10,007	10,790	11,422	11,950	12,544	13,214	13,885	14,546	15,281	16,073	n.a.	n.a.
							As a Percentage of Gross Domestic Product							
Total Revenues	14.8	14.6	17.5	18.7	19.4	20.1	20.1	20.4	20.6	20.8	20.9	21.0	19.2	20.1
Total Outlays	24.7	23.8	24.5	23.0	22.5	22.5	22.8	23.4	23.4	23.4	23.8	23.9	23.0	23.3
Total Deficit	**-9.9**	**-9.1**	**-7.0**	**-4.2**	**-3.1**	**-2.5**	**-2.7**	**-3.0**	**-2.8**	**-2.6**	**-2.9**	**-3.0**	**-3.8**	**-3.3**
Debt Held by the Public at the End of the Year	53.0	61.6	66.1	68.5	68.4	67.3	67.3	67.7	68.1	68.3	68.8	69.4	n.a.	n.a.
Memorandum:														
Gross Domestic Product (Billions of dollars)	14,230	14,666	15,148	15,764	16,705	17,760	18,630	19,508	20,398	21,293	22,205	23,154	84,008	190,567

Source: Congressional Budget Office.

Note: n.a. = not applicable.

a. Off-budget surpluses comprise surpluses in the Social Security trust funds and the net cash flow of the Postal Service.

In 2011, federal outlays in CBO's baseline total $3.7 trillion (24.5 percent of GDP), almost $230 billion more than the amount anticipated for this year. Much of that increase stems from temporary factors that have held down outlays this year. Net outlays in 2010 for the Troubled Asset Relief Program were reduced by an adjustment to the outlays recorded for the previous year, and premiums paid by banks for deposit insurance were unusually high this year; neither factor is expected to recur next year. Furthermore, because October 1, 2011, falls on a weekend, some benefit payments will shift from fiscal year 2012 into 2011. In the other direction, outlays related to Fannie Mae and Freddie Mac are projected to decline significantly in 2011. With all of those factors excluded, total outlays would be only about $80 billion more than the projection for this year.

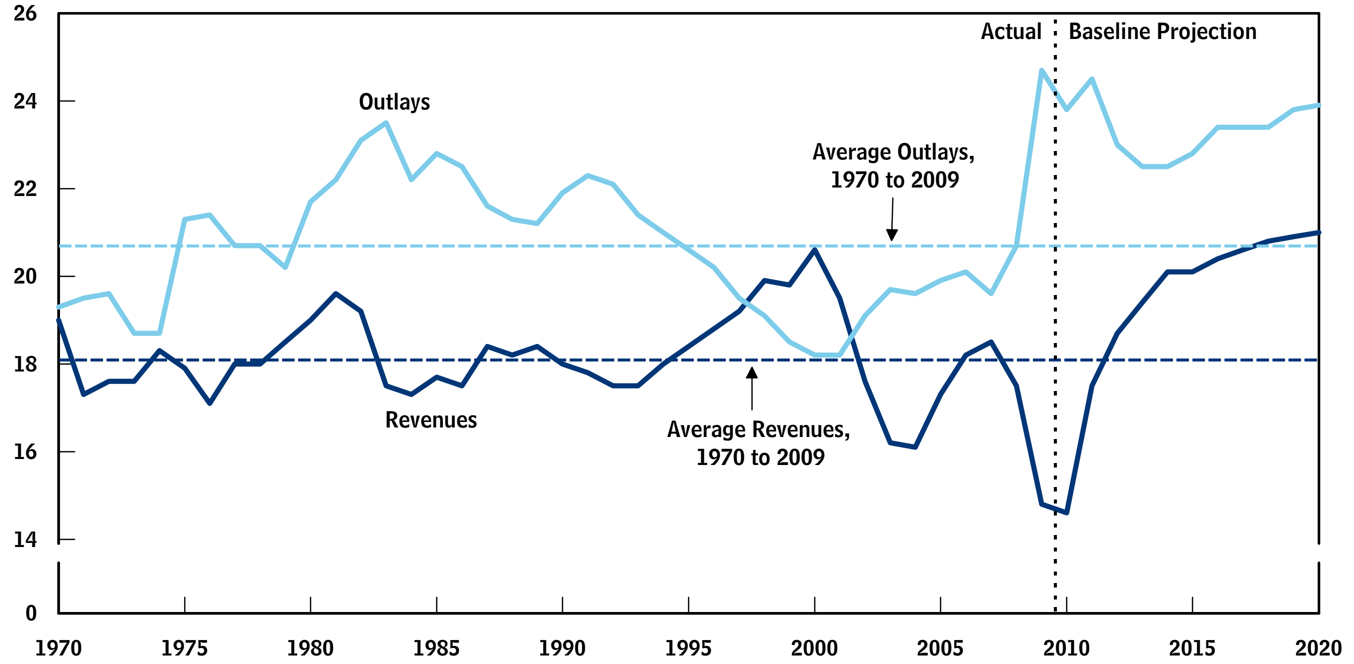
As spending from the American Recovery and Reinvestment Act of 2009 tails off and as the anticipated economic recovery allows payments for unemployment compensation and other benefits that automatically rise during recessions to continue returning toward more typical levels, outlays are projected to decline to 23.0 percent of GDP in 2012 and then to fall a bit further before rising eventually to 23.9 percent by 2020. Relative to GDP, mandatory spending is projected to rise (outlays for Medicare, Medicaid, and Social Security contribute significantly to that increase), and discretionary outlays are projected to fall. From 2012 through 2020, outlays in CBO's baseline average 23.2 percent of GDP—2.5 percentage points higher than the average over the past 40 years.

The federal government's spending on interest is determined largely by the stock of debt and prevailing interest rates. The amount of federal debt held by the public has skyrocketed in the past two years: from 40 percent of

Summary Figure 1.

Total Revenues and Outlays

(Percentage of gross domestic product)



Source: Congressional Budget Office.

GDP at the end of 2008 to nearly 62 percent at the end of this year, CBO estimates. Interest rates, however, have fallen to historically low levels, so despite the higher levels of debt, interest costs have not yet increased significantly.

Interest rates are expected to rise noticeably in the next few years, though, and under the assumptions of CBO's baseline, debt held by the public is projected to exceed 69 percent of GDP by the end of 2020. As a result, over the next decade, the government's annual net spending for interest is projected to more than double as a share of GDP, increasing from 1.5 percent in 2011 to 3.4 percent by 2020 (see Summary Figure 2). Over the 10-year projection period, such spending grows at an average rate of 15 percent a year.

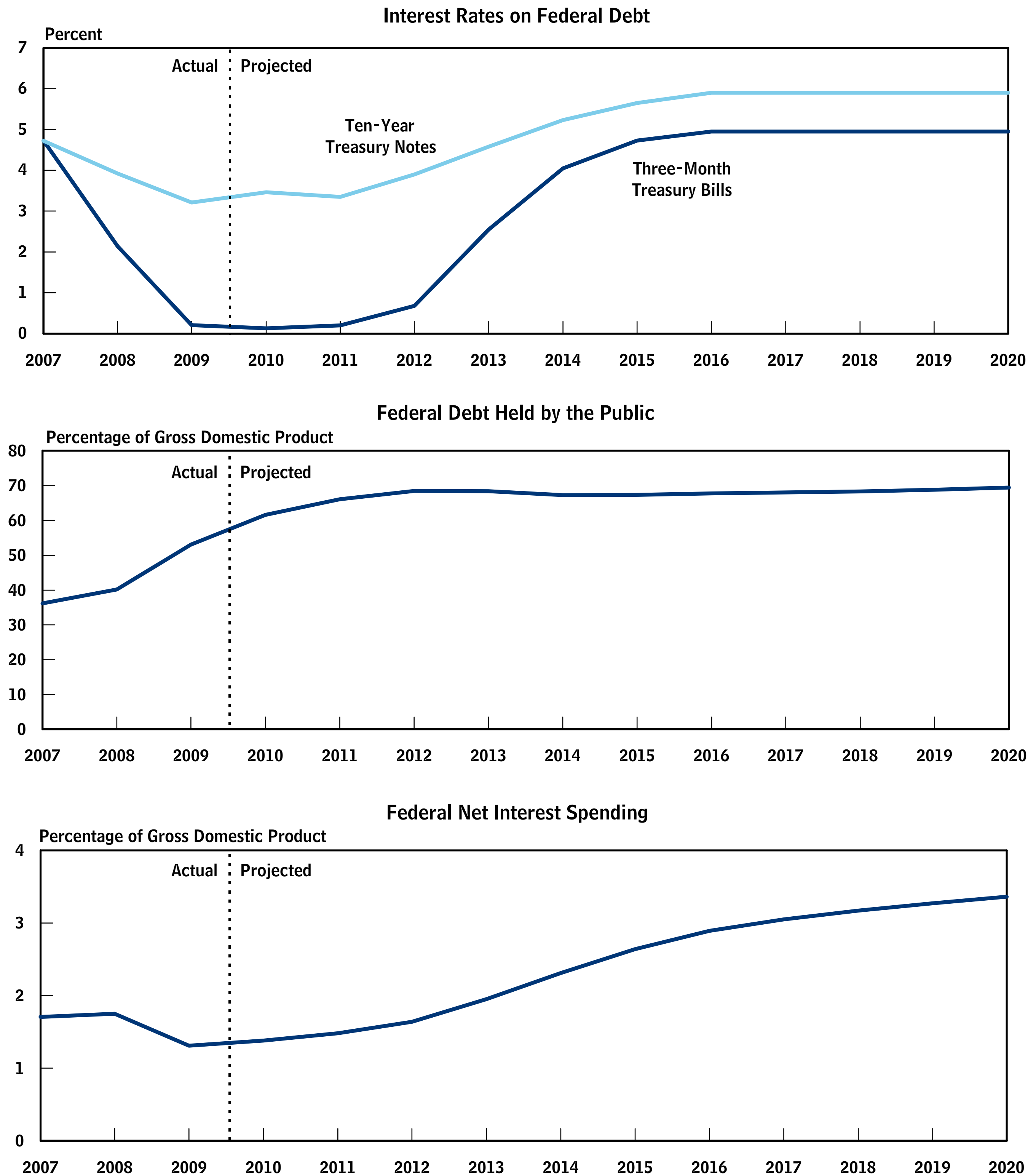
The Economic Outlook

The pace of growth after the recent recession is likely to be slower than usual as the economy recovers from the effects of the financial crisis and as the support to economic activity provided by fiscal policy diminishes. In the past, many recoveries from deep recessions have been quite robust. After deferring purchases during a slump (especially for expensive goods like homes, automobiles, and capital equipment), households and businesses typically boost their spending quickly as economic prospects improve. However, international experience suggests that recoveries from recessions that were spurred by financial crises tend to be slower than average—perhaps because the losses in wealth and damage to the financial system that occur during such crises weigh on spending for a number of years. Following such a crisis, it takes time for consumers to rebuild their wealth, for financial institutions to restore their capital bases, and for nonfinancial firms to regain the confidence required to invest in new plant and equipment; all of those forces tend to restrain spending. In addition, under current law, both the waning of fiscal stimulus and the scheduled increases in taxes will temporarily subtract from growth, especially in 2011.

In CBO's projections, real GDP increases by 2.8 percent between the fourth quarter of calendar year 2009 and the fourth quarter of 2010 and by 2.0 percent in 2011 (see Summary Table 2). Such rates of growth are well below

Summary Figure 2.

Net Interest and Its Determinants in CBO's Baseline



Source: Congressional Budget Office.

Summary Table 2.

CBO's Economic Projections for Calendar Years 2010 to 2020

	Forecast		Projected Annual Average	
	2010	2011	2012–2014	2015–2020
	Calendar Year Average			
Nominal GDP				
Billions of dollars	14,804	15,262	17,987 [a]	23,398 [b]
Percentage change	3.8	3.1	5.6	4.5
Unemployment Rate (Percent)	9.5	9.0	6.7	5.0
Interest Rates (Percent)				
Three-month Treasury bill rate	0.2	0.2	2.8	4.9
Ten-year Treasury note rate	3.4	3.5	4.7	5.9
	Fourth Quarter to Fourth Quarter (Percentage change)			
Real GDP	2.8	2.0	4.1	2.4
GDP Price Index	1.0	1.0	1.6	2.0
PCE Price Index	0.9	1.1	1.6	2.0
Core PCE Price Index[c]	0.9	1.1	1.5	2.0
Consumer Price Index[d]	0.8	1.2	1.8	2.3

Sources: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Department of Labor, Bureau of Labor Statistics; Federal Reserve.

Notes: The dollar values for nominal GDP do not incorporate the July 2010 revisions of the national income and product accounts.

Economic projections for each year from 2010 to 2020 are in Appendix C of this report.

GDP = gross domestic product; PCE = personal consumption expenditures.

a. Value for 2014.

b. Value for 2020.

c. Excludes prices for food and energy.

d. The consumer price index for all urban consumers.

historical norms for a recovery from a severe recession; for example, following the deep recession of 1981 and 1982, real GDP surged by nearly 8 percent in 1983 and by roughly 6 percent in 1984. In CBO's forecast, the growth of real GDP picks up after 2011, averaging 4.1 percent annually from 2012 through 2014 and closing the gap between GDP and its potential level (the amount of production that corresponds to a high use of labor and capital) by the end of 2014.

The modest growth in output projected for the next few years points to sluggish growth in employment during the remainder of this year and next. Consequently, CBO projects that the unemployment rate will decline slowly, falling to 9.3 percent at the end of 2010 and 8.8 percent at the end of 2011. After that, the growth in employment will accelerate, and the unemployment rate will decline more rapidly, reaching 5.1 percent at the end of 2014.

Inflation in the prices of consumer goods and services (calculated using the price index for personal consumption expenditures, or PCE) is projected to be about 1 percent in 2010 and 2011, when measured on a fourth-quarter-to-fourth-quarter basis. Core inflation, which excludes the prices of food and energy, is also projected to be about 1 percent this year and next. CBO projects that inflation will pick up moderately thereafter but remain below 2.0 percent from 2012 through 2014.

Interest rates in CBO's projections remain very low through the end of 2011 and then rise gradually as the recovery continues. The Federal Reserve is unlikely to raise its target for the federal funds rate (the interest rate at which depository institutions lend reserves to each other overnight) from its near-zero level while the recovery remains subdued and inflation stays low. As a result, the interest rate on 3-month Treasury bills will average

0.2 percent in 2010 and 2011, CBO projects. However, given CBO's outlook that the economy will strengthen and inflation will increase somewhat between 2012 and 2014, the projected 3-month Treasury bill rate averages 2.8 percent in those years. In the projections, the interest rate on 10-year Treasury notes, which is influenced by investors' expectations about monetary policy and other factors, edges up from an average of 3.4 percent in 2010 to 3.5 percent in 2011 and then rises to an average of 4.7 percent over the 2012–2014 period.

Beyond 2014, CBO projects, growth in real GDP will match the growth of potential GDP at 2.4 percent. In the agency's projections, the unemployment rate averages 5.0 percent from 2015 through 2020, and inflation (as measured by the PCE price index) averages 2.0 percent. During that period, the interest rates on 3-month Treasury bills and 10-year Treasury notes average 4.9 percent and 5.9 percent, respectively.

Economic forecasts are always subject to considerable uncertainty. The uncertainty regarding CBO's current forecast is especially large, both because forecasting the path of the economy near turning points in the business cycle is always difficult and because the current business cycle has been unusual in a variety of ways. Many developments could lead to outcomes that differ substantially, in one direction or the other, from those CBO has projected.

CHAPTER

1

The Budget Outlook

This year's budget deficit will total more than $1.3 trillion, the Congressional Budget Office (CBO) estimates, $71 billion less than the deficit for fiscal year 2009. Revenues will edge upward in 2010, after falling for two consecutive years, and outlays will decline slightly, after rising sharply last year. Relative to the size of the economy, this year's deficit is expected to be the second largest shortfall in the past 65 years: 9.1 percent of gross domestic product (GDP), exceeded only by last year's deficit of 9.9 percent of GDP (see Table 1-1).

CBO prepares baseline projections of revenues and spending for the coming 10 years under the assumption that current laws and policies affecting the budget will remain unchanged. Those baseline projections serve as a neutral benchmark that legislators and others can use to assess the potential effects of policy decisions. The current baseline projections incorporate the assumptions that various tax provisions will expire as scheduled, boosting revenues substantially, and that Medicare's payments for physicians' services will be reduced to the extent called for in current law. In addition, for the most part, discretionary appropriations are assumed to continue in future years at the level enacted most recently by the Congress and the President, with annual adjustments for inflation.

CBO's updated baseline projections indicate that the nation's budget outlook over the coming decade has not changed materially in the five months since CBO released its previous projections.[1] If the tax and spending policies assumed in the baseline came to pass, budget deficits would decline markedly as a share of GDP over the next few years as the economy gradually improved. (CBO's economic forecast is described in Chapter 2.) Specifically, the deficit would drop to 7.0 percent of GDP in 2011 and 4.2 percent in 2012 (the first full fiscal year after certain tax provisions enacted in 2001, 2003, and 2009 are scheduled to expire) and then would reach a low of 2.5 percent of GDP in 2014. For the rest of the 10-year projection period, deficits would range between 2.6 percent and 3.0 percent of GDP, close to the average of 2.6 percent experienced over the past 40 years (see Figure 1-1).

The decline in deficits in CBO's baseline reflects a substantial increase in projected tax revenues—from 14.6 percent of GDP in 2010 to 18.7 percent in 2012 and to 21.0 percent by 2020. (Outlays, by contrast, are projected to decrease slightly as a percentage of GDP over the next few years but return to about their current percentage by the end of the decade.) Some of the increase in projected revenues stems from CBO's forecast for continued economic growth, but a significant portion results from changes in tax policy that are scheduled to occur under current law. Various tax provisions originally enacted in the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA), the Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA), and the American Recovery and Reinvestment Act of 2009 (ARRA) are scheduled to expire at the end of December 2010. The assumption that those and other expirations will occur as scheduled—and that provisions designed to limit the reach of the individual alternative minimum tax (AMT) that expired at the end of 2009 remain unaltered—accounts for about half of the total growth in revenues (in dollar terms) between 2010 and 2012 in CBO's baseline projections.

The persistent deficits projected in the baseline would cause the amount of federal debt held by the public to grow throughout the next decade. In all, those deficits would total $6.2 trillion between 2011 and 2020. As a result, by 2020, debt held by the public would reach $16.1 trillion, compared with $7.5 trillion at the end of

1. Those projections were included in Congressional Budget Office, *An Analysis of the President's Budgetary Proposals for Fiscal Year 2011* (March 2010).

Table 1-1.

Projected Budget Deficits and Surpluses in CBO's Baseline

(Billions of dollars)

	Actual 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total, 2011-2015	Total, 2011-2020
On-Budget Deficit	-1,550	-1,419	-1,154	-766	-639	-569	-650	-732	-727	-711	-777	-817	-3,778	-7,542
Off-Budget Surplus[a]	137	77	88	101	114	131	143	148	148	149	143	132	576	1,296
Total Deficit	**-1,413**	**-1,342**	**-1,066**	**-665**	**-525**	**-438**	**-507**	**-585**	**-579**	**-562**	**-634**	**-685**	**-3,202**	**-6,246**
Memorandum:														
Total Deficit as a Percentage of GDP	-9.9	-9.1	-7.0	-4.2	-3.1	-2.5	-2.7	-3.0	-2.8	-2.6	-2.9	-3.0	-3.8	-3.3
Debt Held by the Public as a Percentage of GDP[b]	53.0	61.6	66.1	68.5	68.4	67.3	67.3	67.7	68.1	68.3	68.8	69.4	n.a.	n.a.

Source: Congressional Budget Office.

Note: GDP = gross domestic product; n.a. = not applicable.

a. Off-budget surpluses comprise surpluses in the Social Security trust funds and the net cash flow of the Postal Service.

b. Debt held at the end of the year.

last year (see Table 1-2 on page 4). Relative to GDP, federal debt would rise from 53 percent at the end of 2009 to 62 percent this year, 66 percent in 2011, and between 67 percent and 70 percent of GDP during the rest of the projection period—roughly double the average percentage during the past 40 years.[2]

Those baseline projections understate the deficits and debt that would result if lawmakers extended policies that are in effect now (or have been in effect recently), instead of leaving current laws unchanged in future years. Some such changes are widely expected to be made over the next few years—and if they are, they could have significant budgetary consequences. For example, if the tax cuts enacted in EGTRRA and JGTRRA, as well as the provisions limiting the reach of the AMT, were extended, revenues would average 18.2 percent of GDP over the next 10 years, rather than the 20.1 percent projected in the baseline. If, in addition, annual appropriations kept pace with the growth of GDP (as they have, on balance, for the past two decades) instead of shrinking relative to GDP (as assumed in the baseline), the budget deficit would reach 8 percent of GDP by 2020. Under those alternative assumptions, debt held by the public would grow to nearly 100 percent of GDP by 2020 (not including the effects on the economy of such rising debt), CBO estimates.

CBO's current budget projections are similar to the ones it published in March. The deficit for 2010 is now expected to be slightly smaller—by about $27 billion, or 2 percent—than previously estimated. Total revenues this year are expected to be $33 billion lower, but that decrease is more than matched by a decline in estimated outlays for 2010, primarily because of a reduction of about $50 billion in the estimated cost of the Troubled Asset Relief Program (TARP).

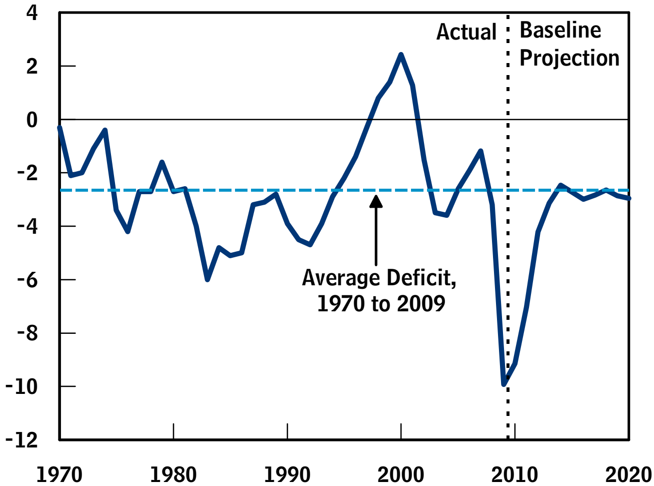
For the 2011–2020 period, CBO's current estimate of the cumulative 10-year deficit is about $260 billion higher than its previous projection, mainly because legislation enacted in the past five months has added more than $400 billion to the deficits projected for the next 10 years. The largest legislative change to CBO's baseline projections involves the recently enacted Supplemental Appropriations Act, 2010 (Public Law 111-212). Under the rules that govern the baseline, the $46 billion that was appropriated in that legislation is assumed to be provided

2. Three years ago, by comparison, debt held by the public equaled 36 percent of GDP. For a more detailed discussion of the growth in federal debt and its possible repercussions, see Congressional Budget Office, *Federal Debt and the Risk of a Fiscal Crisis*, Issue Brief (July 27, 2010).

Figure 1-1.

The Total Budget Deficit or Surplus

(Percentage of gross domestic product)



Source: Congressional Budget Office.

in each year of the projection period (adjusted for inflation); that extrapolation adds nearly $460 billion to the 10-year deficit (excluding the costs of paying interest on the additional federal debt). In contrast, the recent enactment of major health care legislation—the Patient Protection and Affordable Care Act (P.L. 111-148) and the Health Care and Education Reconciliation Act of 2010 (P.L. 111-152)—has reduced projected deficits over the 2011–2020 period by about $179 billion.[3] (For more information about the effects of those laws, see Box 1-1 on page 6.) All other legislation—primarily involving unemployment benefits, regulation of financial institutions, and aid to states—has added $122 billion to projected deficits. Changes in CBO's economic assumptions have lowered projected deficits by $233 billion, and other, technical, changes have added $85 billion to those deficits. (Changes to the baseline since CBO's March projections are discussed in greater detail in Appendix A.)

Beyond 2020, rapid growth in the costs of the government's health care and retirement programs will pose a significant challenge to the nation's fiscal stability. Under current law, federal health care costs per beneficiary will almost certainly keep growing faster than GDP per person, as they have for several decades. In addition, the share of the population age 65 or older will rise significantly. Consequently, the growth of spending for Medicare, Medicaid, and Social Security will pick up from its already brisk pace. To keep deficits and debt from reaching levels that would substantially harm the economy, policymakers would have to increase revenues significantly as a percentage of GDP, decrease projected spending sharply, or pursue some combination of those two approaches.[4]

The Budget Deficit, Revenues, and Outlays in 2010

In the absence of additional legislation that would affect spending or revenues this year, the deficit will be $71 billion (or 5 percent) smaller this year than the budget imbalance recorded in 2009, CBO estimates. As a percentage of GDP, the 2010 deficit will be about three-quarters of a percentage point lower than last year's shortfall—although still much higher than any other deficit in the past 40 years.

Both revenues and outlays appear likely to change course in 2010. After falling sharply during the recession, revenues are projected to increase for the first time in three years, rising by $38 billion, or nearly 2 percent (see Table 1-3). Outlays, which have grown rapidly in recent years because of the recession, turmoil in financial markets, and policies enacted in response to those events, are expected to decline by $32 billion, or nearly 1 percent.

Revenues in 2010

On the basis of tax collections through July 2010, CBO expects federal revenues to total $2.1 trillion this fiscal year. Gains in receipts in recent months indicate that federal revenues are beginning to recover from the recession. In the period from October to December 2009, revenues were about 11 percent lower than in the same quarter a year earlier. But from January to July 2010, revenues were about 6 percent greater than in the comparable period of 2009.

3. The cost estimate for those two laws that was prepared at the time of their enactment reported estimated savings of $143 billion for the 2010–2019 period; see Congressional Budget Office, letter to the Honorable Nancy Pelosi about the budgetary effects of H.R. 4872, the Reconciliation Act of 2010 (March 20, 2010). The figure reported here for the 2011–2020 period differs from that amount because it excludes the budgetary impact for 2010 and includes an extrapolation of the estimate for 2020.

4. More details about the nation's fiscal challenges in coming decades can be found in Congressional Budget Office, *The Long-Term Budget Outlook* (June 2010).

Table 1-2.

CBO's Baseline Budget Projections

	Actual 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total, 2011-2015	Total, 2011-2020
							In Billions of Dollars							
Revenues														
Individual income taxes	915	891	1,211	1,404	1,589	1,743	1,904	2,055	2,193	2,326	2,461	2,602	7,851	19,489
Corporate income taxes	138	188	307	353	385	449	379	390	407	413	419	419	1,875	3,923
Social insurance taxes	891	862	922	979	1,047	1,117	1,178	1,235	1,291	1,357	1,417	1,475	5,243	12,018
Other revenues	161	203	207	216	214	253	282	296	309	325	343	359	1,172	2,804
Total Revenues	**2,105**	**2,143**	**2,648**	**2,953**	**3,236**	**3,561**	**3,743**	**3,975**	**4,201**	**4,421**	**4,640**	**4,856**	**16,140**	**38,234**
On-budget	1,451	1,512	1,982	2,251	2,489	2,766	2,902	3,092	3,276	3,449	3,624	3,796	12,391	29,628
Off-budget	654	631	665	702	746	795	841	883	925	973	1,016	1,060	3,749	8,607
Outlays														
Mandatory spending	2,093	1,925	2,085	1,971	2,035	2,172	2,316	2,515	2,646	2,766	2,964	3,141	10,579	24,610
Discretionary spending	1,238	1,358	1,404	1,388	1,399	1,418	1,443	1,481	1,511	1,542	1,584	1,622	7,051	14,791
Net interest	187	202	225	259	326	410	492	564	623	676	726	778	1,712	5,079
Total Outlays	**3,518**	**3,485**	**3,714**	**3,618**	**3,760**	**4,000**	**4,250**	**4,560**	**4,780**	**4,983**	**5,274**	**5,541**	**19,342**	**44,480**
On-budget	3,001	2,931	3,136	3,017	3,128	3,335	3,553	3,824	4,002	4,160	4,401	4,613	16,170	37,170
Off-budget	517	554	578	601	632	664	698	735	777	824	874	928	3,173	7,311
Deficit (-) or Surplus	**-1,413**	**-1,342**	**-1,066**	**-665**	**-525**	**-438**	**-507**	**-585**	**-579**	**-562**	**-634**	**-685**	**-3,202**	**-6,246**
On-budget	-1,550	-1,419	-1,154	-766	-639	-569	-650	-732	-727	-711	-777	-817	-3,778	-7,542
Off-budget	137	77	88	101	114	131	143	148	148	149	143	132	576	1,296
Debt Held by the Public	7,545	9,031	10,007	10,790	11,422	11,950	12,544	13,214	13,885	14,546	15,281	16,073	n.a.	n.a.
Memorandum:														
Gross Domestic Product	14,230	14,666	15,148	15,764	16,705	17,760	18,630	19,508	20,398	21,293	22,205	23,154	84,008	190,567
							As a Percentage of Gross Domestic Product							
Revenues														
Individual income taxes	6.4	6.1	8.0	8.9	9.5	9.8	10.2	10.5	10.8	10.9	11.1	11.2	9.3	10.2
Corporate income taxes	1.0	1.3	2.0	2.2	2.3	2.5	2.0	2.0	2.0	1.9	1.9	1.8	2.2	2.1
Social insurance taxes	6.3	5.9	6.1	6.2	6.3	6.3	6.3	6.3	6.3	6.4	6.4	6.4	6.2	6.3
Other revenues	1.1	1.4	1.4	1.4	1.3	1.4	1.5	1.5	1.5	1.5	1.5	1.6	1.4	1.5
Total Revenues	**14.8**	**14.6**	**17.5**	**18.7**	**19.4**	**20.1**	**20.1**	**20.4**	**20.6**	**20.8**	**20.9**	**21.0**	**19.2**	**20.1**
On-budget	10.2	10.3	13.1	14.3	14.9	15.6	15.6	15.9	16.1	16.2	16.3	16.4	14.8	15.5
Off-budget	4.6	4.3	4.4	4.5	4.5	4.5	4.5	4.5	4.5	4.6	4.6	4.6	4.5	4.5
Outlays														
Mandatory spending	14.7	13.1	13.8	12.5	12.2	12.2	12.4	12.9	13.0	13.0	13.3	13.6	12.6	12.9
Discretionary spending	8.7	9.3	9.3	8.8	8.4	8.0	7.7	7.6	7.4	7.2	7.1	7.0	8.4	7.8
Net interest	1.3	1.4	1.5	1.6	2.0	2.3	2.6	2.9	3.1	3.2	3.3	3.4	2.0	2.7
Total Outlays	**24.7**	**23.8**	**24.5**	**23.0**	**22.5**	**22.5**	**22.8**	**23.4**	**23.4**	**23.4**	**23.8**	**23.9**	**23.0**	**23.3**
On-budget	21.1	20.0	20.7	19.1	18.7	18.8	19.1	19.6	19.6	19.5	19.8	19.9	19.2	19.5
Off-budget	3.6	3.8	3.8	3.8	3.8	3.7	3.7	3.8	3.8	3.9	3.9	4.0	3.8	3.8
Deficit (-) or Surplus	**-9.9**	**-9.1**	**-7.0**	**-4.2**	**-3.1**	**-2.5**	**-2.7**	**-3.0**	**-2.8**	**-2.6**	**-2.9**	**-3.0**	**-3.8**	**-3.3**
On-budget	-10.9	-9.7	-7.6	-4.9	-3.8	-3.2	-3.5	-3.8	-3.6	-3.3	-3.5	-3.5	-4.5	-4.0
Off-budget	1.0	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.7	0.7	0.6	0.6	0.7	0.7
Debt Held by the Public	53.0	61.6	66.1	68.5	68.4	67.3	67.3	67.7	68.1	68.3	68.8	69.4	n.a.	n.a.

Source: Congressional Budget Office.

Note: n.a. = not applicable.

Table 1-3.

Average Annual Growth Rates of Revenues and Outlays Since 1999 and as Projected in CBO's Baseline

(Percent)

	Actual		Projected[a]		
	1999–2008	2009	2010	2011	2012–2020
Revenues					
Individual income taxes	3.3	-20.1	-2.7	36.0	8.9
Corporate income taxes	4.9	-54.6	36.0	63.5	3.5
Social insurance taxes	4.6	-1.0	-3.2	6.9	5.4
Other revenues[b]	2.7	-7.6	26.2	2.4	6.3
Total Revenues	**3.9**	**-16.6**	**1.8**	**23.5**	**7.0**
Outlays					
Mandatory spending	6.4	31.2	-8.0	8.3	4.7
Social Security	5.0	10.7	3.4	3.6	5.7
Medicare	8.0	9.4	3.9	8.0	5.8
Medicaid	7.1	24.6	8.7	1.3	7.8
Other mandatory outlays[c]	6.7	104.4	-34.9	20.6	-1.0
Discretionary spending	7.5	9.1	9.7	3.4	1.6
Defense	8.5	7.2	5.3	4.5	2.2
Nondefense	6.4	11.2	14.7	2.3	1.0
Net interest	0.5	-26.1	8.3	11.0	14.8
Total Outlays	**6.1**	**17.9**	**-0.9**	**6.6**	**4.5**
Total Outlays Excluding Net Interest	**6.8**	**22.0**	**-1.4**	**6.3**	**3.5**
Memorandum:					
Consumer Price Index[d]	2.8	-0.3	1.7	0.9	2.1
Nominal GDP	5.2	-1.5	3.1	3.3	4.8
Discretionary Budget Authority	8.3	26.6	-15.4	2.2	2.3
Defense	9.7	1.3	2.9	1.5	2.4
Nondefense	6.7	61.6	-31.3	3.0	2.3

Source: Congressional Budget Office.

Notes: The growth rates in this table do not account for shifts in the timing of certain payments or receipts.

GDP = gross domestic product.

a. When constructing its baseline projections, CBO uses the employment cost index for wages and salaries to inflate discretionary spending related to federal personnel and the GDP price index to adjust other discretionary spending.

b. Includes earnings of the Federal Reserve System, excise taxes, estate and gift taxes, customs duties, and miscellaneous fees and fines.

c. Includes offsetting receipts (funds collected by government agencies from other government accounts or from the public in businesslike or market-oriented transactions that are recorded as offsets to outlays).

d. The consumer price index for all urban consumers.

Box 1-1.

The Effects of Major Health Care Legislation on CBO's Baseline

Two laws that were enacted in late March—the Patient Protection and Affordable Care Act, or PPACA (Public Law 111-148), and the Health Care and Education Reconciliation Act of 2010 (P.L. 111-152)—have had a substantial impact on the Congressional Budget Office's (CBO's) projections of mandatory spending and revenues.[1]

Among other things, those laws will do the following:

- Establish a mandate for most legal residents of the United States to obtain health insurance;
- Create insurance exchanges through which certain individuals and families will receive federal subsidies to substantially reduce the cost of purchasing health insurance coverage;
- Significantly expand eligibility for Medicaid;
- Greatly reduce the growth of Medicare's payment rates for most services (relative to the growth rates projected under prior law);
- Impose an excise tax on insurance plans with relatively high premiums;
- Impose certain taxes on individuals and families with relatively high incomes; and
- Make various other changes to the federal tax code, Medicare, Medicaid, and other programs.

1. CBO's baseline projections do not include the potential effects of PPACA on discretionary spending because such effects are subject to future appropriation action, and no appropriations have yet been made. For more information, see Congressional Budget Office, letter to the Honorable Jerry Lewis about potential effects of the Patient Protection and Affordable Care Act on discretionary spending (May 11, 2010).

In addition, the Reconciliation Act substantially alters federal programs governing loans and grants for postsecondary education, which are discussed in Appendix A. (That appendix also notes the effects of other new laws related to health care that CBO has factored into its projections.)

Incorporating CBO's Original Estimate into the Baseline

In March, CBO and the staff of the Joint Committee on Taxation (JCT) estimated that the net effect of PPACA and the Reconciliation Act would be to reduce federal budget deficits over the 2010–2019 period by a total of $143 billion. That estimate consisted of a net deficit reduction of $19 billion from the education provisions in the Reconciliation Act and a net deficit reduction of $124 billion from the health care and revenue provisions in both bills.

Underpinning that $124 billion, the provisions related to health insurance coverage—which affect both outlays and revenues—were projected to have a gross cost to the federal government of $938 billion over 10 years, offset by $150 billion in savings (primarily revenues from penalties and other sources). The other provisions related to health care and revenues were estimated to decrease outlays by $492 billion and increase revenues by $420 billion. (Taking into account all of the provisions related to health care and revenues, the two pieces of legislation were estimated to increase mandatory outlays by $401 billion and raise revenues by $525 billion.)

Those estimates covered 2010 through 2019, the period used for Congressional budget enforcement procedures when the legislation was being considered. CBO's current baseline projections extend to 2020. To encompass the additional year, the change in the current baseline that is attributable to PPACA

Continued

Box 1-1. Continued

The Effects of Major Health Care Legislation on CBO's Baseline

and the Reconciliation Act includes an extrapolated estimate of the effects of the laws in 2020. On balance, the two laws' health care and revenue provisions are estimated to reduce the projected budget deficit in 2020 by $28 billion. Specifically, the provisions related to insurance coverage are projected to cost the federal government $225 billion in that year, offset by $48 billion in savings (mainly revenues from penalties and other sources). The other provisions related to health care and revenues are projected to lower outlays by $131 billion in 2020 and increase revenues by $74 billion. Those estimates, like the ones for earlier years, are subject to considerable uncertainty.

Technical and Economic Updates

When PPACA and the Reconciliation Act were being considered, CBO and JCT estimated the legislation's effects on mandatory spending and revenues. Consistent with the procedures commonly used for the Congressional budget enforcement process, those estimates were based on the forecast of economic conditions, health care spending, and other technical factors, and on the projections of federal revenues and spending, that CBO published in March 2009.

The projections of mandatory spending and revenues contained in this report reflect not only the enactment of those two laws; they also reflect CBO's latest economic forecast and various technical corrections and other updates to the agency's projection methods and assumptions. In many cases, distinguishing the effects of those economic and technical updates on the budgetary impact of PPACA and the Reconciliation Act from their effects on the projections that would have been made under prior law would be difficult (particularly for ongoing programs). Consequently, CBO does not have a new estimate of the budgetary impact of many provisions of the recent legislation, such as the provisions that alter Medicare's payments to hospitals. If CBO and JCT attempted to prepare a new estimate of the budgetary impact of the legislation, it is not clear whether the net effect on budget deficits would be larger or smaller than originally estimated. However, CBO has no reason to believe that such an estimate would differ substantially from the original one.

In certain cases, updating CBO's baseline for the latest economic forecast and technical assumptions produced identifiable changes in the estimated effects of some of the laws' provisions, such as those affecting insurance coverage. On net, such identifiable changes reduce projected outlays over the 2010–2019 period by about $11 billion and increase projected revenues by about the same amount. Reflecting the partial nature of the updates to CBO's baseline that could be linked to specific provisions of the legislation, CBO has categorized all of those changes as technical revisions. (For more information about those changes, see Appendix A.)

CBO's budget projections will continue to be revised as the outlook for various economic and technical factors changes. In cases where PPACA and the Reconciliation Act created a new flow of spending or revenues that is tracked separately—such as outlays for the subsidies provided through the insurance exchanges or collections of new excise taxes—the direct effects will be observable and can be compared with the original estimates. But any indirect effects of those provisions on other aspects of the budget will not be measurable. In cases where the new laws affected an existing flow of spending or revenues—such as Medicare outlays or income tax receipts—their effects will not be separately identifiable. Therefore, comparing all elements of the laws' ultimate impact with the amounts estimated at the time of their enactment will not be possible.

CBO estimates that federal revenues will equal 14.6 percent of GDP in fiscal year 2010, slightly lower than in 2009 (because revenues have not grown as fast as GDP this year) and the smallest percentage of GDP since 1950. Both in nominal terms and as a share of GDP, individual income taxes and social insurance taxes are each down this year, whereas corporate income taxes and receipts from the Federal Reserve are up.

Individual Income and Social Insurance Taxes. Together, receipts from individual income taxes and from payroll taxes that fund social insurance programs (such as Social Security and parts of Medicare) are estimated to total $1.8 trillion in 2010. That total represents a decrease of $53 billion (3.0 percent) from last year. Individual income tax receipts are expected to decline by $25 billion (2.7 percent) this year, for two reasons: Wages were lower in the first quarter of fiscal year 2010 than in the same quarter of the previous year, and nonwage income (such as income from businesses, realized capital gains, interest, dividends, and pensions) shrank in calendar year 2009.

Receipts from social insurance taxes are also expected to decline this year—by $29 billion (3.2 percent) from last year, mostly because of an adjustment by the Treasury to correct for the allocation of receipts in earlier years. Employers and individuals make payments for individual income and social insurance taxes together; the Treasury initially estimates the allocation of those payments between the two types of taxes and adjusts its estimates later when more information becomes available. The dip in social insurance tax receipts expected in 2010 reflects adjustments to correct the allocation of prior periods' receipts between the two types of taxes. With those adjustments omitted, social insurance receipts this year would be slightly lower than they were last year, and individual income tax receipts would be about $49 billion lower than they were last year.

Individual income and social insurance taxes are generally paid in two forms:

- As amounts that employers withhold from their employees' paychecks and remit to the federal government on behalf of the employees; and

- As nonwithheld amounts that individuals pay directly, either in the form of quarterly estimated installments or as final payments when they file their yearly income tax returns.

Total withholding for income and social insurance taxes is expected to decline by about 2 percent in 2010, compared with a drop of 7 percent in 2009. This year's decline is attributable to a combination of factors, including a decrease in wages and salaries compared with 2009; enactment of the Making Work Pay tax credit, which reduced withholding beginning in March 2009; and, probably, lower effective tax rates (the amount of taxes paid as a percentage of personal income). Total wages and salaries have been roughly flat or growing for more than a year, but they have yet to return to the levels they reached before their sharp decline in late calendar year 2008 and early 2009. From October to December 2009, withheld receipts—which reflect current earnings—were about 9 percent less than in the same period a year earlier. More recently, withheld receipts have been growing. From March to July 2010, they were 4 percent higher than during the same period in 2009, mostly because wages and salaries grew between those periods.

Nonwithheld receipts of individual income and social insurance taxes—including both final payments made with tax returns and quarterly estimated payments—are expected to fall by 10 percent in 2010, after plummeting by 28 percent in 2009. This year's decline is attributable to lower payments of 2009 taxes. Final payments from October 2009 to June 2010 (primarily for tax year 2009) were 15 percent lower than payments in the equivalent period a year earlier. Estimated payments from October 2009 to March 2010 (also mainly for tax year 2009) were 17 percent lower than payments a year earlier. By contrast, estimated payments from April to June 2010 (for tax year 2010) were 1 percent higher than payments in the comparable period of 2009.

Corporate Income Taxes. CBO anticipates that corporate income tax receipts will rise by 36 percent in 2010—to a total of $188 billion from $138 billion last year. That growth is a dramatic change from 2008 and 2009, when such receipts declined by an average of almost 40 percent a year, after growing at an average annual rate of about 30 percent over the previous four years.

Corporate income tax receipts were about 33 percent lower from October to December 2009 than in the same quarter of the previous year, reflecting the effects of weak corporate profits late in calendar year 2008 and in the first half of 2009. (Changes in corporate receipts typically lag changes in profits.) However, receipts have rebounded strongly in recent months. From January to July 2010,

they were about double those from the same period a year earlier. Some of the rebound is attributable to higher corporate profits, which were up by 65 percent in the last quarter of calendar year 2009 and by 50 percent in the first quarter of calendar year 2010 (both compared with the same quarter of the prior year). Corporate income tax receipts in 2010 were also boosted by the expiration at the end of calendar year 2009 of legislated changes that had allowed firms to immediately expense (deduct) certain equipment purchases.

Receipts from the Federal Reserve. Receipts from the Federal Reserve will total about $73 billion in fiscal year 2010, CBO estimates, $38 billion more than last year. The Federal Reserve System remits most of its profits from investments to the Treasury, and those remittances appear in the federal budget as revenues. Traditionally, such profits stem from earnings on Treasury securities that the Federal Reserve purchases as it carries out monetary policy. In recent years, however, the Federal Reserve has almost tripled its portfolio holdings by acquiring other types of securities—particularly mortgage-backed securities issued by Fannie Mae and Freddie Mac. Those purchases were made in an effort to support the housing market, provide liquidity to capital markets, and limit the impact of the recession on the economy. The expansion of its portfolio and the shift to higher-yielding (but riskier) investments have caused the Federal Reserve's profits to grow.

Outlays in 2010

Outlays are expected to total $3.5 trillion this year, or nearly 24 percent of GDP—slightly lower than the 25 percent share recorded last year, but still much higher than the average level of 21 percent of GDP over the past 40 years. Spending has dropped sharply this year for certain programs that are related to the federal government's response to turmoil in the housing and financial markets. For activities other than those programs, overall spending will rise by 10 percent in 2010, CBO anticipates.

Mandatory Spending. Outlays for mandatory programs (which are governed by statutory criteria and are not controlled by the annual appropriation process) are projected to decline by $168 billion (or 8 percent) this year, to a total of $1.9 trillion. Taken together, outlays for the Troubled Asset Relief Program, Fannie Mae, Freddie Mac, and federal deposit insurance will be $361 billion lower in 2010 than they were last year, CBO estimates.[5] All other mandatory spending is estimated to be $194 billion higher.

In 2009, the Administration recorded outlays of $151 billion for the TARP; CBO expects that this year's figure will show the program to have reduced federal outlays by $106 billion in 2010—a swing of $257 billion.[6] That $106 billion reduction in outlays is driven primarily by a $115 billion adjustment that the Office of Management and Budget has already made to this year's total for costs recorded in 2009. (The adjustment reflects an assessment that last year's total turned out to be an overestimate of the cost of the initiatives undertaken in 2009.) Partly offsetting that reduction is the impact of initiatives that the Treasury undertook in 2010, which are estimated to cost about $9 billion. The current estimate of TARP outlays in 2010 is about $50 billion lower than CBO's previous projection because of improved market conditions, legislation that reduced the Treasury's full authority under the program from $699 billion to $475 billion, and revised assumptions about disbursements made under that authority (see Appendix A for more details).[7]

Outlays for Fannie Mae and Freddie Mac will fall from $96 billion in 2009 to $41 billion this year, CBO estimates, mostly because the two entities are expected to recognize fewer losses on their mortgage investments and guarantees.[8] Spending for deposit insurance in 2009

5. Following the procedures specified in law, CBO's estimate of outlays for the TARP is the estimated present value of all future cash flows for the program, with an adjustment for market risk (risk that investors cannot protect themselves against by diversifying their portfolios).

6. For an earlier analysis of the budgetary effects of the transactions made under the authority of the TARP, see Congressional Budget Office, *Report on the Troubled Asset Relief Program—March 2010*.

7. Authority for the TARP was originally set at a maximum of $700 billion outstanding at any one time. That amount was reduced to $699 billion in the Helping Families Save Their Homes Act of 2009 (P.L. 111-22). It was then lowered to $475 billion in the Dodd-Frank Wall Street Reform and Consumer Protection Act (P.L. 111-203), and the reuse of repaid funds was prohibited.

8. CBO's estimate of outlays for Fannie Mae and Freddie Mac in 2010 is based on an estimate of net cash payments from the Treasury to the two entities this year, consistent with the way in which the Administration is reflecting assistance to those two institutions in budget data. (For future years, CBO's baseline projections continue to show the estimated subsidy costs associated with new credit assistance provided by Fannie Mae and Freddie Mac.)

totaled $23 billion; CBO expects this year's figure will reduce the federal deficit by $27 billion, a drop of almost $50 billion. That reduction occurs for two main reasons. In December 2009, the Federal Deposit Insurance Corporation required insured institutions to prepay premiums that otherwise would have been due in calendar years 2010 to 2012. In addition, certain loans made last year to support the corporate credit union system are expected to be repaid this year.

Outlays for unemployment compensation—which soared in 2009 because of the recession and legislation that enhanced benefits for jobless people—have continued to grow significantly this year, albeit at a slower pace than last year. CBO now projects that outlays will rise by 33 percent (or $39 billion) in 2010—to a total of $160 billion—entirely as a result of higher spending for emergency unemployment benefits. (Currently, jobless people in states with high unemployment rates may qualify for up to 99 weeks of benefits.) This year's $160 billion figure represents a substantial increase from just three years ago, when outlays for unemployment benefits totaled $33 billion.

Spending for the federal government's three largest mandatory programs—Social Security, Medicare, and Medicaid—continues to grow faster than the economy as a whole. CBO estimates that outlays for Social Security will rise by 3.4 percent in 2010. That growth rate is lower than in recent years, mainly because, after receiving an unusually large cost-of-living adjustment (COLA) in 2009, Social Security beneficiaries did not get any increase this year. In addition, $13 billion in one-time payments made to Social Security beneficiaries in 2009 under the American Recovery and Reinvestment Act were not repeated in 2010. (For more details on ARRA-related spending, see Box 1-2 on page 12.)

Federal outlays for Medicaid will rise by nearly 9 percent from last year's level, CBO estimates, largely because high unemployment has increased enrollment in the program and because ARRA raised the federal government's share of the program's costs.

Outlays for Medicare are expected to grow more slowly in 2010 than in recent years, increasing by less than 4 percent. The reasons for that slower growth are not entirely clear. Provisions of law that prevented a steep drop in payment rates for physicians expired twice during the past six months, and the submission and processing of claims probably slowed in response. Other factors may also have contributed to the slower growth, but CBO lacks sufficient data to determine the causes at this time.

Discretionary Spending. Spending that is subject to annual appropriation is projected to total almost $1.4 trillion in 2010, a rise of $120 billion (10 percent) from last year's level. More than half of the increase in discretionary outlays stems from funding provided in ARRA.[9] In addition, the Supplemental Appropriations Act, 2010, which was enacted in July, provided additional appropriations of $33 billion this year for defense activities (mostly for the ongoing wars in Iraq and Afghanistan) and $12 billion for nondefense programs. Outlays from those appropriations will total $5 billion in 2010, CBO estimates, with the rest occurring in 2011 and later years.

Nondefense discretionary outlays are expected to climb by $85 billion (15 percent) this year, to $666 billion. Such spending will equal about 4.5 percent of GDP in 2010, the highest share in more than 25 years. Almost three-quarters of the increase in nondefense discretionary spending this year results from provisions in ARRA, primarily those related to the State Fiscal Stabilization Fund and transportation programs.

Defense outlays are expected to increase by 5 percent in 2010—well below the 8.5 percent growth rate they averaged over the 1999–2008 period. CBO estimates that such outlays will total $692 billion this year, or 4.7 percent of GDP, the highest share in almost 20 years. (For more details about funding provided for operations in Iraq and Afghanistan and related activities, see Box 1-3 on page 14.)

Net Interest. Outlays for the budget category "net interest"—which consists of the government's interest payments on debt held by the public offset by interest income that the government receives—will rise to $202 billion this year from $187 billion last year, CBO estimates. Much of that increase results from higher inflation this year, which has increased the cost of the Treasury's inflation-protected securities, as well as from the sharply higher level of government debt.

9. Roughly one-third ($95 billion) of the outlays from ARRA's discretionary funding of $268 billion are expected to occur in 2010. Another $33 billion of that funding was spent in 2009.

Baseline Budget Projections for 2011 to 2020

Under the assumptions that CBO uses to construct its baseline—namely, that current tax and spending laws continue without change—the deficit is projected to shrink substantially over the next four years as the economy improves, higher tax rates take effect, and spending enacted in response to the financial turmoil and the recession abates. In the baseline projections, the deficit falls from $1.1 trillion (7.0 percent of GDP) in 2011 to $0.4 trillion (2.5 percent of GDP) in 2014, assuming that various tax provisions expire as scheduled and that discretionary spending grows at the rate of inflation. Thereafter, baseline deficits are projected to range between 2.6 percent and 3.0 percent of GDP through 2020.[10]

Despite the smaller deficits, debt held by the public continues to grow relative to the size of the economy in CBO's baseline projections: from 62 percent of GDP this year (the highest level since 1952) to 66 percent by the end of 2011 and to nearly 70 percent by the end of 2020. That accumulating federal debt, coupled with rising interest rates, is projected to cause the government's annual net spending for interest to more than double as a share of GDP between 2010 and 2020. Interest costs are projected to reach 3.4 percent of GDP in 2020—only slightly less than the average annual amount the government has spent on all nondefense discretionary programs during the past 20 years.

Revenues in the 2011–2020 Period

Total revenues climb sharply in the next few years in CBO's baseline, from 14.6 percent of GDP in 2010 to 17.5 percent in 2011 and 18.7 percent in 2012. That increase is attributable in part to the scheduled expiration of tax provisions originally enacted in EGTRRA, JGTRRA, and ARRA (including temporary relief from the alternative minimum tax, which expired at the end of 2009) and in part to the anticipated economic recovery. Revenues will also be boosted by provisions of the recently enacted health care legislation (the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010), which are estimated to increase receipts by growing amounts over the next few years, reaching 0.6 percent of GDP by 2020. In addition, the structure of the individual income tax will gradually raise receipts over time. Together, all of those factors push federal revenues in CBO's baseline to 21.0 percent of GDP by 2020, compared with an average level of about 18 percent of GDP over the past 40 years.

Individual Income Taxes. CBO projects that under current law, individual income tax receipts will rise from 6.1 percent of GDP ($0.9 trillion) this year to 11.2 percent (about $2.6 trillion) in 2020. Besides the scheduled expiration of various tax provisions and the features of the current tax system that cause revenues to rise faster than income over time, that increase in individual income tax receipts reflects an expected rebound in taxable income relative to GDP and other effects of the economic recovery.[11]

Expirations of Tax Provisions. Certain tax provisions of EGTRRA, JGTRRA, and ARRA are scheduled to expire at the end of December 2010. Those expirations will have a significant impact on the individual income tax system by returning many of its parameters to the ones in effect a decade ago. For example, the expirations will increase statutory tax rates on ordinary income, capital gains, and dividends; narrow the 15 percent tax bracket for people who file joint returns; reduce the child tax credit; and end the Making Work Pay credit. In addition, higher exemption amounts that temporarily lessened the impact of the AMT expired at the end of 2009. CBO expects that in the absence of future legislation, the resulting increase in tax liabilities stemming from the AMT in 2010 will be paid almost entirely in 2011, pushing up receipts in that year; higher liabilities in future years will raise receipts throughout the coming decade. Altogether, those scheduled changes in tax law will have the effect of boosting income tax receipts as a share of GDP by roughly 1.8 percentage points between now and 2020, CBO estimates.

10. The "primary" deficit or surplus is the budget's bottom line with outlays for net interest excluded. CBO's baseline shows a small primary deficit in 2015 and a small primary surplus (0.4 percent of GDP) by 2020.

11. CBO estimates that the recently enacted health care legislation will increase individual income tax receipts, on net, by less than 0.1 percent of GDP by 2020. Most significantly, the new tax on unearned income of taxpayers with relatively high incomes and the reduction in employers' spending for employment-based health insurance (which results in higher taxable incomes) will increase revenues. Those increases will be partly offset by revenue reductions from the new premium assistance credit.

Box 1-2.

Update on the Budgetary Effects of the American Recovery and Reinvestment Act of 2009

In February 2009, lawmakers enacted the American Recovery and Reinvestment Act, or ARRA (Public Law 111-5), in response to significant weakness in the economy.[1] Most of ARRA's effects on federal spending and revenues have already occurred, and those effects have been roughly in line with the amounts originally estimated by the Congressional Budget Office (CBO) and the staff of the Joint Committee on Taxation (JCT). CBO anticipates that by the close of fiscal year 2010, about 70 percent of ARRA's budgetary impact will have been realized and the law will have added a total of $572 billion to budget deficits in 2009 and 2010 (see the table at right). At the time the legislation was enacted, CBO and JCT estimated that it would increase deficits by $584 billion through 2010.[2]

Looking at the entire 2009–2019 period (the span covered by the original estimates for ARRA), CBO and JCT initially projected that the legislation would increase deficits by a total of $787 billion. Since then, CBO has revised its economic and technical assumptions as they relate to ARRA's provisions. In addition, recently enacted legislation rescinded some of the funds appropriated in ARRA and limited the period in which higher payments under the Supplemental Nutrition Assistance Program will be available. CBO now estimates that ARRA (as later amended) will have a cumulative impact on deficits over the 2009–2019 period of $814 billion—$27 billion higher than originally projected. Most of that upward revision occurs because the values of certain economic variables, such as the unemployment rate and food prices, have proved to be different from the ones used for the original estimate.

Many provisions of ARRA have already expired or will do so by the end of this year. For example, the additional unemployment compensation that the law provided is no longer available (although later legislation has continued certain benefits). CBO expects the $54 billion provided for the State Fiscal Stabilization Fund to be fully obligated (but not all spent) by the end of September 2010. Authority for special payments to Social Security beneficiaries expires in December (nearly all of those payments were made in 2009). Likewise, the increase in the federal share of Medicaid costs that was originally authorized by ARRA will expire at the end of December. (Recently enacted legislation continued enhanced matching rates through June 2011, but at a lower level than that authorized by ARRA.)[3] In addition, most of the discretionary funding provided by ARRA cannot be obligated after September 30, although obligations in place at the end of the year will result in outlays in 2011 and later years. Furthermore, many of the law's provisions that reduce revenues—such as the Making Work Pay tax credit, tax incentives for businesses, and temporary relief from the alternative minimum tax—are slated to expire at the end of December or have already done so.

1. For more details about ARRA's provisions, see Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2010 to 2020* (January 2010), Appendix A. Other legislative efforts in recent years that were intended to bolster the economy include tax rebates early in 2008, the "Cash for Clunkers" program, the establishment and extension of the tax credit for first-time home buyers, extensions and expansions of emergency unemployment benefits and health insurance subsidies for unemployed people, an extension of higher federal matching rates under Medicaid, and new funding for education. Besides those legislative efforts, various actions have been taken by the Federal Reserve and executive branch agencies to support the financial, housing, and manufacturing sectors of the economy.

2. See Congressional Budget Office, cost estimate for the conference agreement for H.R. 1, the American Recovery and Reinvestment Act of 2009 (February 13, 2009). CBO's most recent discussion of the legislation's effects on the economy is contained in Congressional Budget Office, *Estimated Impact of the American Recovery and Reinvestment Act on Employment and Economic Output from January 2010 through March 2010* (May 2010).

3. P.L. 111-226, enacted on August 10, 2010, provides for additional enhanced matching rates under Medicaid through June 2011 as well as more funding to support elementary and secondary education. As with the extensions and expansions of unemployment insurance, the budgetary effects of those new provisions are not considered part of ARRA.

Continued

Box 1-2. **Continued**

Update on the Budgetary Effects of the American Recovery and Reinvestment Act of 2009

Estimated Effect of the Provisions of the American Recovery and Reinvestment Act of 2009

(Billions of dollars)

	Actual 2009	2010	2011–2019	Total, 2009–2019
Outlays				
Department of Health and Human Services programs				
Medicaid	32	40	18	89
Other	2	15	31	48
Refundable tax credits	3	36	35	73
Unemployment compensation[a]	28	35	2	64
Supplemental Nutrition Assistance Program	5	11	34	50
Department of Education programs				
State Fiscal Stabilization Fund	12	26	15	54
Other (Including Pell grants)	9	18	17	44
Department of Transportation programs	4	16	27	46
Department of Energy programs	1	6	31	38
Build America Bonds	*	2	34	36
Social Security	13	*	1	14
Other	7	24	46	78
Total Outlays	114	228	292	634
Revenues	-66 [b]	-164	50	-180
Total Direct Effect on the Deficit	**-180**	**-392**	**-242**	**-814**

Source: Congressional Budget Office.

Notes: The numbers shown here for outlays include only spending directly resulting from ARRA. The effect on spending from regular appropriations or other authorizations (which may have been supplanted in any given year by funding from ARRA) is not included in this table. CBO estimates that the effect on the deficit in 2009 and 2010 is less than the amounts shown here because additional spending from ARRA was partly offset by reduced spending from regular appropriations.

* = between zero and $500 million.

a. Includes about $3 billion in intragovernmental transfers, mostly in 2009, which the Administration recorded as outlays.

b. CBO's estimate of the extent to which ARRA reduced revenues in 2009.

Although CBO expects that spending from ARRA will slow over the next few years, the law will continue to have significant budgetary effects. In CBO's baseline, outlays from ARRA are projected to amount to $143 billion in 2011, $62 billion in 2012, and a total of $87 billion from 2013 to 2019.[4]

Those figures include $35 billion in outlays for refundable tax credits, $34 billion in payments under the Build America Bond program (more than two-thirds of which is offset by higher revenues), $34 billion for the Supplemental Nutrition Assistance Program, and $27 billion in outlays for transportation projects. Although ARRA reduced revenues by substantial amounts in 2009 and 2010, its net effect on revenues after 2011 will generally be to increase tax receipts, CBO projects. For example, firms that took advantage of provisions allowing more-rapid depreciation of certain assets purchased in 2009 will have less remaining depreciation to deduct in future years.

4. ARRA's net budgetary effect in 2020 will probably be less than $1 billion, CBO estimates.

Box 1-3.

Funding for Operations in Iraq and Afghanistan and for Related Activities

Since September 2001, lawmakers have provided slightly more than $1.1 trillion in budget authority for operations in Iraq and Afghanistan and related activities (see the table at right). That amount includes funding for military and diplomatic operations in Iraq, Afghanistan, and certain other regions; for some veterans' benefits and services; and for related actions of the Department of Justice. Appropriations specifically designated for those purposes averaged about $100 billion a year from 2003 through 2006, rose to $171 billion in 2007 and $187 billion in 2008, and then declined to $155 billion last year. For 2010, the Congress has appropriated $164 billion for such activities, including about $34 billion provided in the recently enacted Supplemental Appropriations Act, 2010.

Funding to date for military operations and other defense activities totals $999 billion, most of which has gone to the Department of Defense (DoD). Lawmakers have also provided $53 billion to train and equip indigenous security forces in Iraq and Afghanistan. In addition, $54 billion has been provided for diplomatic operations and foreign aid to Iraq, Afghanistan, and other countries that are assisting the United States in those efforts.

DoD reports that in fiscal year 2010, obligations for operations in Iraq and Afghanistan and for related activities have averaged $10.6 billion per month (through May, the last month for which data are available). That monthly average is about $800 million less than the amount reported for 2009. Operation Enduring Freedom (in and around Afghanistan) accounts for 51 percent of the obligations in 2010—up from 34 percent in 2009 and 20 percent in 2008. Operation Iraqi Freedom accounts for 49 percent of those obligations, down from 65 percent in 2009 and 80 percent in 2008. Additional security missions that have taken place in the United States since the terrorist attacks of September 11, 2001—such as combat air patrols over Washington, D.C., and New York City, known as Operation Noble Eagle—account for less than 1 percent of obligations in 2010.

Because most appropriations for operations in Iraq and Afghanistan and for related activities appear in the same budget accounts as appropriations for DoD's other functions, it is impossible to determine precisely how much has been spent on those activities. The Congressional Budget Office (CBO) estimates that the $1,052 billion appropriated since 2001 for military operations, other defense activities, and indigenous security forces in those two countries resulted in outlays of about $730 billion through 2009, with about $155 billion of that amount spent in 2009. Of the $54 billion appropriated for international affairs activities related to the war efforts, about $40 billion was spent through 2009, CBO estimates, including $5 billion in 2009. In total, outlays for all of those activities amounted to about $160 billion last year. On the basis of the sums appropriated for 2010, outlays will total about $170 billion this year, in CBO's estimation.

Continued

Box 1-3. **Continued**

Funding for Operations in Iraq and Afghanistan and for Related Activities

Estimated Appropriations Provided for U.S. Operations in Iraq and Afghanistan and for Other War-Related Activities, 2001 to 2010

(Billions of dollars of budget authority)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total, 2001-2010
Military Operations and Other Defense Activities											
Iraq[a]	0	0	46	68	53	89	113	134	91	58	652
Afghanistan and other[b]	14	18	34	21	18	22	39	42	49	91	347
Subtotal	14	18	80	88	71	111	152	175	140	150	999
Indigenous Security Forces[c]											
Iraq	0	0	0	5	5	3	6	3	1	1	24
Afghanistan	0	0	0	0	1	2	7	3	6	9	29
Subtotal	0	0	0	5	7	5	13	6	7	10	53
Diplomatic Operations and Foreign Aid[d]											
Iraq	0	0	3	15	1	3	3	2	2	2	31
Other	*	2	5	2	2	1	2	2	6	2	23
Subtotal	*	2	8	17	3	4	5	4	8	4	54
Other Services and Activities[e]											
Iraq	0	0	0	0	*	*	1	1	*	0	2
Other	0	0	0	0	*	*	*	*	*	0	1
Subtotal	0	0	0	0	*	*	1	2	*	0	2
Total Budget Authority	**14**	**19**	**88**	**111**	**81**	**120**	**171**	**187**	**155**	**164**	**1,109**

Source: Congressional Budget Office.

Note: * = between zero and $500 million.

a. CBO estimated the funding provided for Operation Iraqi Freedom by allocating funds on the basis of information in budget justification materials from the Department of Defense and in monthly reports on the department's obligations.

b. Includes Operation Enduring Freedom (in and around Afghanistan), Operation Noble Eagle (homeland security missions, such as combat air patrols, in the United States), the restructuring of Army and Marine Corps units, classified activities other than those funded by appropriations for the Iraq Freedom Fund, efforts to increase the size of the Army and Marine Corps, and other operations. (For 2005 through 2010, funding for Operation Noble Eagle has been intermingled with regular appropriations for the Department of Defense; that funding is not included in this table.)

c. Funding for indigenous security forces is used to train and equip local military and police units in Iraq and Afghanistan. That funding was appropriated in accounts for diplomatic operations and foreign aid (budget function 150) in 2004 and in accounts for defense (budget function 050) starting in 2005.

d. In 2010, most funding for diplomatic operations in, and foreign aid to, countries helping the United States fight terrorism has been in regular appropriations and cannot be separated from appropriations for activities unrelated to those operations. Numbers shown here for 2010 include only funding provided in the Supplemental Appropriations Act, 2010 (Public Law 111-212).

e. Includes funding for some veterans' benefits and services, as well as certain activities of the Department of Justice. Excludes about $8 billion in spending by the Department of Veterans Affairs (VA) for the incremental costs of medical care, disability compensation, and survivor benefits for veterans of operations in Iraq and Afghanistan and related activities. That amount was based on CBO's estimates of spending from regular appropriations for VA and was not explicitly appropriated for war-related expenses.

Real Bracket Creep. Even if there were no changes in statutory rates and credits, various features of the income tax code would cause effective tax rates to rise over time. For example, income tax brackets and exemptions are indexed for inflation but not for growth in real (inflation-adjusted) income. As a result, the overall growth of real income causes more income to be taxed in higher brackets, a phenomenon known as real bracket creep. That factor is projected to raise receipts relative to GDP by about 1.0 percentage point over the next 10 years. Moreover, as nominal income rises, the AMT will claim a growing share of income.[12] CBO estimates that without changes in law, the AMT will increase tax revenues as a share of GDP by about 0.3 percentage points over the 2011–2020 period.

Taxable Retirement Income. Taxable distributions from tax-deferred retirement accounts, such as individual retirement accounts and 401(k) plans, are expected to grow more rapidly than other income as the population ages. By CBO's estimate, taxation of those sources of retirement income will cause revenues as a share of GDP to rise by about 0.4 percentage points over the next decade.

Economic Recovery and Other Factors. Factors related to the projected economic recovery are expected to raise revenues as a share of GDP by about 1.5 percentage points between now and 2020. Taxable sources of income—including wages and salaries, dividends, interest, capital gains distributions, rental income, and proprietors' income—fell relative to GDP over the past several years. CBO expects that as the economy recovers, those sources of income will rebound more quickly than the economy as a whole, boosting revenues by 0.7 percentage points relative to GDP.

In addition, collections of individual income tax receipts have fallen further in 2009 and 2010 than can be explained by the economic data that were available when CBO completed its economic projections (in early July). CBO assumes that the unexplained weakness in receipts will gradually dissipate over the next several years. That assumption increases projected tax revenues as a share of GDP by 0.8 percentage points between 2010 and 2020.

Corporate Income Taxes. CBO estimates that corporate income tax receipts will nearly double as a percentage of GDP in the next four years—from 1.3 percent this year to 2.5 percent in 2014. Several factors contribute to that increase:

- Corporate profits are projected to rise sharply in calendar year 2010 relative to GDP, resulting in higher corporate income tax receipts next fiscal year (because much of the increase in tax payments on this year's income will occur next year).
- Some provisions of law that have reduced corporate tax receipts in recent years have either recently expired or are scheduled to expire at the end of this year. They include an allowance for additional refunds in 2010 for firms with current losses, and provisions that let firms immediately deduct as expenses the cost of certain equipment purchased in 2008 and 2009. The expiration of those provisions is expected to increase corporate income tax receipts as a share of GDP by about 0.4 percentage points over the 2011–2020 period; the largest impact would be in 2011.
- Legislation has shifted some corporate tax payments from years beyond 2014 into that year, causing projected receipts in 2014 to be higher than they would be otherwise.
- Despite their anticipated rebound in 2010, corporate income tax receipts remain below the level that could be explained by currently available data on profits. CBO expects that the factors causing that disparity will gradually disappear and that corporate income tax receipts will rise to more closely match their historical relationship to profits. That expectation increases projected revenues relative to GDP by about 0.3 percentage points, all between 2011 and 2014.

In the later years of the projection period, profits are expected to decline relative to GDP as higher interest rates and growing private-sector debt increase U.S. businesses' interest payments and as labor income rises as a percentage of GDP. The decline in profits is expected to

12. As with the regular income tax, the effective tax rates under the AMT increase as rising real income pushes taxpayers into higher tax brackets. But unlike with the regular income tax, the tax brackets and exemption amounts under the AMT are not indexed for inflation. So as income grows each year with the overall price level, more taxpayers become subject to the AMT. For a more thorough discussion of the expanding scope of the AMT under current law and the types of taxpayers affected by it, see Congressional Budget Office, *The Individual Alternative Minimum Tax*, Issue Brief (January 15, 2010).

reduce corporate income tax receipts to 1.8 percent of GDP by 2020—close to the average of 1.9 percent seen between 1980 and 2007.

Social Insurance Taxes. Receipts from social insurance taxes are projected to grow from 5.9 percent of GDP this year to 6.2 percent in 2012 and to 6.4 percent by 2020. Part of that increase stems from the fact that receipts from social insurance taxes in 2010 were reduced by adjustments to correct the allocation of prior periods' receipts between those taxes and individual income taxes. The growth over the next two years also comes from a projected increase in wages and salaries as a share of GDP and from anticipated actions by states to replenish their unemployment insurance trust funds. The increase in social insurance tax receipts relative to GDP after 2012 is attributable mainly to continued increases in wages and salaries as a percentage of GDP and to the additional Hospital Insurance tax enacted as part of the recent health care legislation.

Receipts from the Federal Reserve and Other Sources. The amounts that the Federal Reserve remits to the Treasury are determined largely by the central bank's earnings on the assets that it holds, and thus on the size and composition of its portfolio. On the basis of announcements by the Federal Reserve, CBO anticipates that the size of the system's portfolio of assets will remain roughly stable in the near term and then shrink. As a result, remittances from the Federal Reserve to the Treasury are projected to decline from 0.5 percent of GDP in 2010 and 2011 to 0.3 percent of GDP in 2012. In CBO's baseline projections, receipts from the Federal Reserve remain at about 0.2 percent of GDP through the rest of the 10-year projection period, consistent with their historical average.

Revenues from sources other than income and social insurance taxes and the Federal Reserve's earnings are projected to rise from 0.9 percent of GDP in 2010 and 2011 to about 1.3 percent by 2015 and remain at that level thereafter. More than half of that rise results from excise taxes, fees, and penalties enacted in the recent health care legislation. The remainder reflects changes to estate and gift taxes under current law. The estate tax, which was repealed for 2010, is scheduled to come back into force in 2011, causing projected receipts from estate and gift taxes to grow from 0.1 percent of GDP this year to 0.2 percent in 2012 and 0.3 percent after 2014.

Outlays in the 2011–2020 Period

In CBO's baseline projections, federal outlays total $3.7 trillion in 2011, almost $230 billion more than this year. Much of that increase stems from temporary factors. Net outlays for the TARP in 2010 were reduced by the $115 billion adjustment to outlays recorded for the previous year, and premiums paid by banks for deposit insurance were unusually high this year; neither factor is expected to recur in 2011. In addition, because October 1, 2011, falls on a weekend, some benefit payments will shift from fiscal year 2012 into 2011. In the other direction, outlays related to Fannie Mae and Freddie Mac are projected to decline significantly in 2011. With all of those factors excluded, total outlays would be only about $80 billion more next year than this year.

Outlays are projected to fall in 2012 (both in nominal terms and relative to GDP) as spending from ARRA tails off and as the anticipated economic recovery allows payments for unemployment compensation and other benefits that automatically rise during recessions to decline. (The shift in the timing of some benefit payments also contributes to the drop in outlays in 2012). Total projected spending (in nominal terms) heads up again the following year, however, and increases steadily thereafter. Outlays for Medicare, Medicaid, and Social Security contribute significantly to that growth.

In CBO's baseline, total outlays equal 24.5 percent of GDP in 2011, decline to a low of 22.5 percent of GDP by 2013, and then gradually rise to 23.9 percent by 2020. Mandatory spending rises relative to GDP, and discretionary outlays fall (reflecting the assumption that discretionary funding will grow only at the rate of inflation). From 2011 through 2020, outlays in CBO's baseline average 23.3 percent of GDP—well above the 20.8 percent averaged over the past 40 years.

Mandatory Spending. After declining by 8.0 percent this year, outlays for mandatory programs are expected to increase by 8.3 percent in 2011, to a total of $2.1 trillion (see Table 1-4). Much of the growth from this year's level, however, stems from unusually large negative outlays (offsets to spending) recorded in 2010 for the TARP and deposit insurance, as well as from a drop in outlays related to Fannie Mae and Freddie Mac. Excluding outlays for those programs (as well as the outlays resulting from the shift in the timing of certain benefit payments from 2012 to 2011), mandatory spending would increase by only about half a percent in 2011. Growth in total

Table 1-4.

CBO's Baseline Projections of Mandatory Outlays

(Billions of dollars)

	Actual 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total, 2011-2015	Total, 2011-2020
Social Security	678	701	726	753	789	831	878	931	989	1,052	1,119	1,191	3,978	9,259
Medicare[a]	499	519	560	563	611	645	677	733	763	797	869	929	3,056	7,148
Medicaid	251	273	276	263	279	324	369	416	450	476	508	542	1,510	3,902
Other Health Programs														
Health insurance subsidies, exchanges, and related spending	0	0	2	2	2	15	34	57	71	81	87	91	55	442
MERHCF	8	8	9	9	10	11	11	12	13	14	15	16	50	120
Children's Health Insurance Program	8	8	9	9	8	9	9	10	9	6	6	6	44	80
Other	1	1	8	10	6	18	23	22	26	29	33	36	65	211
Subtotal	17	18	27	30	27	53	77	101	119	129	141	149	214	853
Income Security														
SNAP	56	70	75	76	74	69	66	66	66	65	65	64	360	685
Unemployment compensation	120	160	93	65	55	49	48	51	53	55	57	60	311	587
Supplemental Security Income	45	47	53	46	52	53	54	61	58	54	61	63	258	555
Earned income and child tax credits	67	77	75	42	43	44	44	45	44	45	45	45	248	473
Family support[b]	26	27	26	25	25	25	25	25	25	25	25	25	125	249
Child nutrition	16	17	18	19	20	21	22	23	24	25	26	27	99	222
Foster care	7	7	7	7	8	8	8	8	9	9	9	10	38	82
Making Work Pay and other tax credits[c]	13	29	17	*	*	*	*	*	*	*	*	*	18	18
Subtotal	350	435	365	280	276	268	267	278	278	277	288	293	1,456	2,870
Civilian and Military Retirement														
Federal civilian[d]	80	82	84	87	90	93	96	100	104	108	112	116	449	988
Military	50	51	51	52	53	54	55	57	59	60	62	64	265	568
Other	8	7	7	7	8	9	9	10	11	11	12	12	40	96
Subtotal	138	140	142	146	150	155	161	167	173	179	186	192	754	1,651
Veterans[e]														
Income security	46	49	64	51	57	58	59	66	62	58	65	66	289	606
Other	4	9	10	11	12	12	13	14	14	15	16	16	58	133
Subtotal	50	58	74	61	68	70	72	80	76	73	80	83	346	739
Other Programs														
Troubled Asset Relief Program	151	-106	7	6	5	4	*	*	*	*	*	*	22	22
Fannie Mae and Freddie Mac[f]	96	41	14	9	5	4	4	4	4	4	4	4	35	53
Higher education	-27	-16	-10	-2	-9	-3	2	6	8	9	9	9	-21	19
Agriculture	16	17	18	12	17	16	15	16	16	16	16	16	78	158
Universal Service Fund	8	9	9	9	9	9	9	9	9	10	10	10	46	94
Social services	5	5	5	5	5	5	5	5	5	5	6	6	26	53
Deposit insurance	23	-27	15	-1	-13	-15	-15	-14	-11	-12	-8	-7	-29	-81
Other	28	39	47	43	35	32	32	32	30	29	29	30	188	338
Subtotal	300	-38	104	80	53	53	53	58	61	61	65	68	344	656

Continued

Table 1-4. **Continued**

CBO's Baseline Projections of Mandatory Outlays

(Billions of dollars)

	Actual 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total, 2011-2015	Total, 2011-2020
Offsetting Receipts														
Medicare[g]	-74	-71	-78	-84	-89	-95	-100	-107	-113	-121	-131	-141	-446	-1,060
Employers'share of employees' retirement	-56	-61	-63	-63	-65	-67	-69	-72	-75	-79	-82	-85	-327	-721
Other	-60	-46	-50	-59	-64	-65	-68	-70	-75	-78	-79	-81	-307	-688
Subtotal	-190	-179	-190	-206	-219	-227	-238	-249	-264	-278	-292	-306	-1,080	-2,469
Total Mandatory Outlays	**2,093**	**1,925**	**2,085**	**1,971**	**2,035**	**2,172**	**2,316**	**2,515**	**2,646**	**2,766**	**2,964**	**3,141**	**10,579**	**24,610**
Memorandum:														
Mandatory Outlays Excluding Offsetting Receipts	2,283	2,104	2,275	2,177	2,254	2,399	2,553	2,764	2,909	3,044	3,257	3,447	11,659	27,079
Medicare Outlays Net of Offsetting Receipts	425	447	483	479	522	550	577	626	650	675	738	788	2,610	6,088

Source: Congressional Budget Office.

Notes: Spending for the benefit programs shown above generally excludes administrative costs, which are discretionary.

MERHCF = Department of Defense Medicare-Eligible Retiree Health Care Fund (including TRICARE for Life); SNAP = Supplemental Nutrition Assistance Program; * = between zero and $500 million.

a. Excludes offsetting receipts (funds collected by government agencies from other government accounts or from the public in businesslike or market-oriented transactions that are recorded as offsets to outlays).

b. Includes Temporary Assistance for Needy Families and various programs that involve payments to states for child support enforcement and family support, child care entitlements, and research to benefit children.

c. Includes outlays for the first-time homebuyer credit, the American Opportunity credit, acceleration of research and experimentation credits used in lieu of bonus depreciation, and payments made when the credit for the alternative minimum tax exceeds a taxpayer's liability.

d. Includes Civil Service, Foreign Service, Coast Guard, and other, smaller retirement programs as well as annuitants' health benefits.

e. Income security includes veterans' compensation, pensions, and life insurance programs. Other benefits are primarily education subsidies.

f. The amounts recorded for 2009 and 2010 reflect cash transfers from the Treasury to Fannie Mae and Freddie Mac. The amounts shown for 2011 through 2020 reflect CBO's estimate of the subsidy cost of new loans and guarantees made by those two entities in each year, adjusted for market risk.

g. Includes Medicare premiums and amounts paid by states from savings on Medicaid prescription drug costs.

mandatory outlays is projected to pick up in subsequent years. Over the rest of the decade, such outlays are projected to grow by an average of 4.7 percent annually.

Because of improvements in financial market conditions and in the financial situation of some of the largest firms that received TARP funds, the Office of Management and Budget made an adjustment to the estimate of the program's costs that was recorded in the budget in 2009; that adjustment reduced recorded outlays in 2010 by $115 billion. CBO does not expect a similar adjustment to occur in the future. Instead, CBO estimates that outlays for the TARP will range between $4 billion and $7 billion a year from 2011 to 2014, representing disbursements for aid to homeowners.

Spending for deposit insurance is projected to increase by about $40 billion in 2011, mostly because of the sharp drop in outlays in 2010—which resulted from the required prepayments of insurance premiums and the

repayment of loans made in 2009 to support the corporate credit union system—is not anticipated to recur.

Outlays for Fannie Mae and Freddie Mac will fall to $14 billion in 2011 under CBO's baseline projections. That figure is less than the outlays expected for this year because losses on the two entities' activities in 2011 are projected to be smaller than the cash payments made to them by the Treasury in 2010. In the baseline, outlays for Fannie Mae and Freddie Mac continue to decline each year until 2015, when they are projected to stabilize at about $4 billion annually for the rest of the 10-year projection period.

Three programs—Social Security, Medicare, and Medicaid—account for the bulk of the government's mandatory spending. Outlays for Social Security are expected to grow at below-average rates this year and for the next two years. CBO estimates that those outlays will rise by 3.4 percent in 2010, by 3.6 percent in 2011, and by 3.8 percent in 2012—much lower than the 5.0 percent average annual rate seen over the 1999–2008 period. The most significant factor curbing the growth of Social Security spending in the short term relates to the cost-of-living adjustment that beneficiaries usually receive each January. Because CBO expects inflation to remain very low over the next few years, it anticipates that beneficiaries will not receive a COLA again next year and will receive only a 0.4 percent COLA in 2012.[13] (Annual COLAs averaged about 3.6 percent over the 2005–2009 period.) As the nation's elderly population grows and inflation increases, spending for Social Security benefits will grow at an average rate of 5.7 percent a year from 2012 to 2020, CBO projects. By the end of that period, Social Security outlays will total $1.2 trillion (5.1 percent of GDP), CBO estimates, up from $701 billion (4.8 percent of GDP) this year.

Outlays for Medicare are projected to grow at an average rate of 6 percent a year during the 2011–2020 period, lower than the 8 percent average rate of the past decade. Under current law, some of Medicare's payments for physicians' services are limited by a system known as the sustainable growth rate mechanism. That system is currently projected to reduce payments to physicians by about 20 percent in 2011 and more thereafter. (If legislation was enacted to override those reductions—as has happened every year since 2003—spending on Medicare would be significantly higher than projected in the baseline.) Changes to the Medicare program made by the recently enacted health care legislation will also restrain the growth of spending. Even with those constraining effects, CBO anticipates that spending for Medicare will expand faster than the economy. As a result, by the end of the decade, outlays for Medicare are projected to total $929 billion (4.0 percent of GDP), compared with $519 billion (3.5 percent of GDP) this year.

Federal outlays for Medicaid will grow by only about 1 percent in 2011, CBO projects, as the current increase in the federal share of the program's costs expires in June 2011 and as employment increases.[14] Over the rest of the decade, however, Medicaid outlays are projected to rise at an average annual rate of almost 8 percent as a growing and aging population—as well as changes made in the recent health care legislation—boosts enrollment. By 2020, federal spending on Medicaid is projected to reach $542 billion (2.3 percent of GDP), compared with $273 billion (1.9 percent of GDP) in 2010.

The recently enacted health care legislation provides health insurance subsidies for certain individuals and families beginning in 2014. The legislation also provides funding before that date to establish new insurance exchanges and to implement certain other provisions related to health insurance coverage. Outlays for those programs will total $2 billion in 2011 and increase to $91 billion by 2020, according to estimates by CBO and the staff of the Joint Committee on Taxation (JCT).

Spending for unemployment compensation is projected to decline by $66 billion in 2011, to a total of $93 billion. That drop results mainly from the scheduled expiration in December 2010 of emergency benefits, which

13. Social Security benefits are indexed for inflation, as measured by the consumer price index for urban wage earners and clerical workers (the CPI-W). The Social Security Administration generally adjusts benefits paid in January of each year on the basis of the annual change in the CPI-W through the third quarter of the previous calendar year.

14. Medicaid is a joint federal and state program in which the federal government shares costs with states for approved services. That share varies from state to state but has typically averaged about 57 percent. Provisions enacted in ARRA increased that share to an average of about 68 percent through December 2010. Subsequent legislation continued enhanced matching rates for an additional six months at an average of about 64 percent. Under PPACA, the federal matching rate will average between 60 percent and 62 percent beginning in 2014.

Table 1-5.

CBO's Baseline Projections of Discretionary Spending

(Billions of dollars)

	Actual 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total, 2011-2015	Total, 2011-2020
Budget Authority														
Defense	695	715	726	737	752	770	789	811	832	853	874	895	3,774	8,038
Nondefense	798	549	565	572	583	596	611	628	645	661	678	694	2,928	6,234
Total	**1,493**	**1,263**	**1,291**	**1,309**	**1,335**	**1,366**	**1,400**	**1,439**	**1,477**	**1,514**	**1,552**	**1,589**	**6,701**	**14,272**
Outlays														
Defense	657	692	723	727	744	759	776	802	817	833	859	880	3,729	7,919
Nondefense	581	666	681	661	655	659	666	679	694	709	725	742	3,322	6,872
Total	**1,238**	**1,358**	**1,404**	**1,388**	**1,399**	**1,418**	**1,443**	**1,481**	**1,511**	**1,542**	**1,584**	**1,622**	**7,051**	**14,791**
Memorandum:														
Outlays as a Percentage of GDP														
Defense	4.6	4.7	4.8	4.6	4.5	4.3	4.2	4.1	4.0	3.9	3.9	3.8	4.4	4.2
Nondefense	4.1	4.5	4.5	4.2	3.9	3.7	3.6	3.5	3.4	3.3	3.3	3.2	4.0	3.6
Total	**8.7**	**9.3**	**9.3**	**8.8**	**8.4**	**8.0**	**7.7**	**7.6**	**7.4**	**7.2**	**7.1**	**7.0**	**8.4**	**7.8**

Source: Congressional Budget Office.

Notes: Nondefense discretionary outlays are usually higher than budget authority because of spending from the Highway Trust Fund and the Airport and Airway Trust Fund, which is subject to obligation limitations set in appropriation acts. The budget authority for such programs is provided in authorizing legislation and is not considered discretionary.

When constructing its baseline projections, CBO uses the employment cost index for wages and salaries to inflate discretionary spending related to federal personnel and the GDP price index to adjust other discretionary spending.

GDP = gross domestic product.

currently allow people who exhaust their regular benefits to collect emergency unemployment compensation for as long as 53 additional weeks. Furthermore, improvements in the economy are expected to cause the unemployment rate to decline, reducing the number of people filing for benefits. Outlays for unemployment compensation will continue falling through 2015, to a low of $48 billion, CBO projects, before starting to grow slowly in the second half of the projection period.

Discretionary Spending. In CBO's baseline projections, total discretionary outlays rise from $1.4 trillion in 2011 to $1.6 trillion in 2020 (see Table 1-5). After growing by more than 9 percent in each of the past two years, such outlays are projected in the baseline to rise by 3.4 percent in 2011 and by an average of 1.6 percent over the following nine years. (The budgetary effects of alternative assumptions about the growth of discretionary spending are discussed later in this chapter). That slowing in the rate of growth results from a steady decline in spending of ARRA funds over the next several years and from the assumption that future funding for discretionary programs will increase at the rate of inflation.

The starting point for CBO's projections of discretionary spending is the most recent funding provided by lawmakers, including both regular and supplemental appropriations. The current projections therefore reflect the enactment, in July, of the Supplemental Appropriations Act, 2010, which provided $46 billion in budget authority for 2010, mostly for operations in Afghanistan and Iraq and related activities. The extrapolation of that supplemental funding boosts CBO's projection of total discretionary outlays over the 2011–2020 period by about $460 billion relative to the outlays projected in March.

Table 1-6.

CBO's Baseline Projections of Federal Interest Outlays and Debt

(Billions of dollars)

	Actual 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total, 2011-2015	Total, 2011-2020
						Net Interest Outlays								
Interest on Treasury Debt Securities (Gross interest)[a]	383	422	438	463	543	637	739	835	914	995	1,070	1,149	2,820	7,783
Interest Received by Trust Funds														
Social Security	-118	-120	-116	-114	-116	-122	-130	-140	-152	-163	-175	-186	-598	-1,415
Other trust funds[b]	-64	-71	-67	-55	-59	-52	-54	-55	-55	-61	-65	-70	-287	-592
Subtotal	-182	-191	-183	-169	-175	-174	-184	-196	-206	-224	-240	-256	-884	-2,007
Other Interest[c]	-15	-28	-30	-35	-42	-52	-63	-74	-85	-95	-104	-114	-221	-693
Other Investment Income[d]	*	-1	*	*	*	-1	-1	-1	-1	-1	*	*	-2	-5
Total Net Interest Outlays	**187**	**202**	**225**	**259**	**326**	**410**	**492**	**564**	**623**	**676**	**726**	**778**	**1,712**	**5,079**
						Federal Debt[e]								
Debt Held by the Public	7,545	9,031	10,007	10,790	11,422	11,950	12,544	13,214	13,885	14,546	15,281	16,073	n.a.	n.a.
Debt Held by Government Accounts														
Social Security	2,504	2,583	2,672	2,771	2,882	3,011	3,151	3,295	3,440	3,585	3,724	3,852	n.a.	n.a.
Other accounts[b]	1,827	1,923	1,964	2,030	2,117	2,222	2,357	2,498	2,653	2,826	3,013	3,207	n.a.	n.a.
Subtotal	4,331	4,506	4,636	4,800	5,000	5,233	5,507	5,793	6,093	6,411	6,737	7,059	n.a.	n.a.
Total Gross Federal Debt	**11,876**	**13,538**	**14,642**	**15,591**	**16,421**	**17,183**	**18,051**	**19,007**	**19,978**	**20,956**	**22,018**	**23,132**	**n.a.**	**n.a.**

Continued

Net Interest and Federal Debt

Federal interest costs are largely determined by the stock of government debt and prevailing interest rates. The amount of federal debt held by the public has skyrocketed in the past few years: from 40 percent of GDP at the end of 2008 to nearly 62 percent at the end of this year, CBO estimates. Interest rates, however, have fallen to historically low levels, so despite the higher levels of debt, interest costs have not yet increased significantly.

Interest rates are expected to rise noticeably in the next few years, and under the assumptions of CBO's baseline, debt held by the public is projected to reach almost 70 percent of GDP by the end of 2020. As a result, the government's annual net spending for interest is projected to more than double over the next decade as a share of GDP (from 1.5 percent in 2011 to 3.4 percent by 2020) and to more than triple in nominal terms (from $225 billion to $778 billion, as shown in Table 1-6). Between 2012 and 2020, such spending grows at an average rate of about 15 percent a year.

CBO's baseline reflects the assumption that the statutory limit on federal borrowing will be raised as necessary to cover debt sold to the public to finance projected deficits as well as debt issued to federal accounts. CBO estimates that debt subject to limit (which includes both debt held by the public and intragovernmental debt) will reach the current statutory ceiling of $14.294 trillion in the summer of 2011.

Budgetary Effects of Alternative Policy Actions

To illustrate how different assumptions about future policies might affect budgetary outcomes, CBO

Table 1-6. **Continued**

CBO's Baseline Projections of Federal Interest Outlays and Debt

(Billions of dollars)

	Actual 2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total, 2011-2015	Total, 2011-2020
Memorandum:														
Total Debt Subject to Limit[f]	11,853	13,515	14,620	15,569	16,400	17,163	18,031	18,987	19,958	20,937	21,999	23,113	n.a.	n.a.
Debt Held by the Public as a Percentage of GDP	53.0	61.6	66.1	68.5	68.4	67.3	67.3	67.7	68.1	68.3	68.8	69.4	n.a.	n.a.
Debt Held by the Public Net of Financial Assets[g]	6,526	7,930	9,003	9,679	10,207	10,657	11,174	11,780	12,372	12,937	13,568	14,250	n.a.	n.a.
Debt Held by the Public Net of Financial Assets as a Percentage of GDP[g]	45.9	54.1	59.4	61.4	61.1	60.0	60.0	60.4	60.7	60.8	61.1	61.5	n.a.	n.a.

Source: Congressional Budget Office.

Note: * = between -$500 million and $500 million; n.a. = not applicable; GDP = gross domestic product.

a. Excludes interest costs on debt issued by agencies other than the Treasury (primarily the Tennessee Valley Authority).

b. Mainly the Civil Service Retirement, Military Retirement, Medicare, and Unemployment Insurance Trust Funds.

c. Primarily interest on loans to the public.

d. Earnings on investments by the National Railroad Retirement Investment Trust.

e. Debt held at the end of the year.

f. Differs from gross federal debt primarily because most debt issued by agencies other than the Treasury and the Federal Financing Bank is excluded from the debt limit.

g. Subtracts the value of financial assets (such as preferred stock) purchased from institutions participating in the Troubled Asset Relief Program, preferred stock holdings in Fannie Mae and Freddie Mac, purchases of mortgage-backed securities by the Treasury, cash holdings, and other financial instruments.

estimated the impact of some alternative policy actions (see Table 1-7). The discussion below focuses on the policies' direct effects on revenues and outlays. Such changes would also affect the cost of paying interest on federal debt, which is shown separately in Table 1-7 (labeled "debt service").

Operations in Iraq and Afghanistan and Other War-Related Activities

CBO's projections of discretionary spending for the next 10 years include outlays for operations in Afghanistan and Iraq and for related activities. The outlays projected in the baseline come from budget authority provided for those purposes in 2009 and prior years, the $164 billion in budget authority provided for 2010, and the $1.8 trillion that is assumed to be appropriated over the 2011–2020 period (under the assumption that annual funding is set at $164 billion plus adjustments for anticipated inflation, in accordance with the rules governing baseline projections).

In coming years, the funding required for war-related activities—in Iraq, Afghanistan, or other countries—may eventually be smaller than the amounts in the baseline if the number of deployed troops and the pace of operations diminish over time. Considerable uncertainty exists about future military operations; thus, CBO has formulated two budget scenarios involving reduced deployment of U.S. forces to Afghanistan and Iraq or to future military actions elsewhere in the world. (Many other scenarios—some costing more and some less—are also possible.)

In 2009, the number of U.S. active-duty, Reserve, and National Guard personnel deployed for war-related activities averaged about 220,000, CBO estimates. The

Table 1-7.

Budgetary Effects of Selected Policy Alternatives Not Included in CBO's Baseline

(Billions of dollars)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total, 2011-2015	Total, 2011-2020
Policy Alternatives That Affect Discretionary Outlays													
Reduce the Number of Troops Deployed for Certain Overseas Military Operations to 30,000 by 2013[a]													
Effect on the deficit[b]	0	7	54	99	126	141	150	156	161	165	168	428	1,228
Debt service	0	*	1	3	9	17	27	38	49	61	74	30	280
Reduce the Number of Troops Deployed for Certain Overseas Military Operations to 60,000 by 2015[c]													
Effect on the deficit[b]	0	1	6	34	72	104	124	135	141	146	150	218	914
Debt service	0	*	*	1	3	8	15	24	33	43	53	13	181
Increase Discretionary Appropriations at the Rate of Growth of Nominal GDP[d]													
Effect on the deficit[b]	0	-11	-33	-72	-120	-161	-198	-234	-270	-307	-346	-397	-1,752
Debt service	0	*	-1	-2	-7	-15	-27	-42	-58	-77	-99	-26	-329
Freeze Discretionary Appropriations at the Level Provided for 2010													
Effect on the deficit[b]	0	13	28	51	80	112	149	186	222	260	298	284	1,399
Debt service	0	*	1	2	5	11	20	31	44	59	78	19	251
Policy Alternatives That Affect the Tax Code													
Extend EGTRRA and JGTRRA[e]													
Effect on the deficit[b]	0	-113	-218	-250	-263	-278	-288	-297	-305	-315	-325	-1,123	-2,652
Debt service	0	-1	-4	-13	-28	-46	-67	-90	-113	-136	-162	-92	-660
Extend Other Expiring Tax Provisions[f]													
Effect on the deficit[b]	0	-197	-224	-229	-224	-221	-217	-217	-220	-224	-230	-1,095	-2,204
Debt service	0	-2	-6	-15	-29	-46	-63	-81	-99	-118	-138	-97	-596
Index the AMT for Inflation[g]													
Effect on the deficit[b]	0	-72	-32	-36	-40	-45	-52	-60	-70	-81	-94	-226	-583
Debt service	0	-1	-2	-3	-6	-9	-13	-18	-23	-28	-35	-21	-137
Extend EGTRRA and JGTRRA and Index the AMT for Inflation[h]													
Effect on the deficit[b]	0	-198	-295	-338	-362	-388	-411	-435	-460	-488	-517	-1,583	-3,893
Debt service	0	-2	-6	-19	-40	-65	-95	-128	-161	-196	-236	-131	-947

Continued

Table 1-7. **Continued**

Budgetary Effects of Selected Policy Alternatives Not Included in CBO's Baseline

(Billions of dollars)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total, 2011–2015	Total, 2011–2020
Memorandum:													
Total Outlays for Operations in Iraq and Afghanistan in CBO's Baseline	169	169	169	170	172	173	177	181	184	188	192	853	1,776
Total Discretionary Outlays in CBO's Baseline	1,358	1,404	1,388	1,399	1,418	1,443	1,481	1,511	1,542	1,584	1,622	7,051	14,791
Total Deficit in CBO's Baseline	-1,342	-1,066	-665	-525	-438	-507	-585	-579	-562	-634	-685	-3,202	-6,246

Sources: Congressional Budget Office; Joint Committee on Taxation.

Notes: Positive numbers indicate a reduction in the deficit.

* = between -$500 million and $500 million; GDP = gross domestic product; EGTRRA = Economic Growth and Tax Relief Reconciliation Act of 2001; JGTRRA = Jobs and Growth Tax Relief Reconciliation Act of 2003; AMT = alternative minimum tax.

a. This alternative does not extrapolate the $164 billion in funding for military operations and associated costs in Iraq and Afghanistan provided for 2010. Future funding for operations in Iraq, Afghanistan, or elsewhere would total $134 billion in 2011, $70 billion in 2012, $39 billion in 2013, $29 billion in 2014, and then about $25 billion a year from 2015 on—for a total of $416 billion over the 2011–2020 period.

b. Excluding debt service.

c. This alternative does not extrapolate the $164 billion in funding for military operations and associated costs in Iraq and Afghanistan provided for 2010. Future funding for operations in Iraq, Afghanistan, or elsewhere would total $162 billion in 2011, $145 billion in 2012, $107 billion in 2013, $70 billion in 2014, $50 billion in 2015, and about $40 billion a year from 2016 on—for a total of $747 billion over the 2011–2020 period.

d. Under this alternative, appropriations for 2010 for operations in Iraq and Afghanistan are extrapolated according to the rules that govern CBO's baseline.

e. These estimates do not include the effects of extending the increased exemption amount or the treatment of personal credits for the AMT that expired at the end of December 2009. The effects of that alternative are shown separately.

f. These estimates include the impact of extending expiring provisions that have been in effect for a number of years (such as the research and experimentation tax credit) as well as expiring provisions that have recently been enacted (such as the Making Work Pay tax credit, the American Opportunity tax credit, and the allowance for businesses to partially expense equipment purchases).

g. This alternative incorporates the assumption that the exemption amount for the AMT (which was increased through December 2009) is extended at its higher level and, together with the AMT tax brackets, is indexed for inflation after 2009. In addition, the treatment of personal credits against the AMT (which was also continued through the end of 2009) is assumed to be extended. The estimates shown are relative to figures under current law.

h. The combination of extending EGTRRA and JGTRRA and indexing the AMT reduces revenues by more than the sum of those alternatives considered alone. The total shown here includes an additional revenue loss of $658 billion over the 2011–2020 period resulting from the interaction of the two policies.

average number of personnel deployed in 2010 would decrease from that number in one scenario and increase in the other. Force levels would decline thereafter in both scenarios but at different rates and to different sustained levels. (Those levels could represent various allocations of forces among Afghanistan, Iraq, and other areas.)

In the first scenario, average troop levels would drop significantly over a three-year period—from roughly 200,000 this year to 150,000 in 2011, 65,000 in 2012, and 30,000 by the beginning of 2013. That number of deployed personnel would be sustained through 2020 (although not necessarily in Afghanistan and Iraq). Under that scenario, total discretionary outlays between 2011 and 2020 would be about $1.2 trillion less than the amount projected in CBO's baseline.

In the second scenario, the number of military personnel deployed for war-related purposes would rise to an average of 230,000 in 2010 and 2011 and then decline more gradually and to a higher sustained level than in the first scenario. The average number of deployed troops would decrease to 195,000 in 2012, 135,000 in 2013, 80,000 in 2014, and 60,000 in 2015 and thereafter. Under that scenario, total discretionary outlays over the 2011–2020 period would be $914 billion less than the amount in the baseline.

Other Discretionary Spending

Many assumptions are possible about the future growth of other discretionary spending. For example, if appropriations (other than those for operations in Iraq and Afghanistan) were assumed to grow through 2020 at the same rate as nominal GDP instead of at the rate of inflation, total projected discretionary spending would be $1.8 trillion higher than the amount in the current baseline. In contrast, if lawmakers did not increase appropriations after 2009 to account for inflation, cumulative discretionary outlays would be $1.4 trillion lower. Under that scenario (sometimes referred to as a "freeze" in appropriations), total discretionary spending would fall from 9.3 percent of GDP this year to 5.7 percent in 2020. By comparison, discretionary spending has averaged 7.5 percent of GDP over the past 20 years.

Revenues

CBO's baseline incorporates the assumption that major provisions of EGTRRA, JGTRRA, and ARRA will expire as scheduled at the end of 2010. If those and all other tax provisions scheduled to expire during the projection period were extended through 2020 (and the AMT provisions remained unchanged), total revenues over the next decade would be $4.9 trillion lower than in the baseline, according to estimates by JCT and CBO.[15] That estimate reflects the fact that an increase in the number of taxpayers subject to the AMT would partly offset the effect of lowering the amount of taxpayers' regular liabilities. Of that $4.9 trillion reduction, $2.7 trillion represents the impact of extending only the tax provisions enacted in EGTRRA and JGTRRA. If certain income tax provisions of those two laws were extended just for married taxpayers with income below $250,000 and single taxpayers with income below $200,000—as the President has proposed—the revenue reductions would total almost $2 trillion over the 2011–2020 period.

Another alternative policy that could affect revenues involves a modification of the alternative minimum tax. The AMT's exemption amount and brackets are not indexed for inflation, and provisions enacted in recent years to restrain the growing reach of the AMT expired at the end of 2009. As a result, under current law, the impact of the tax will grow sharply in coming years as more taxpayers become subject to it. If the AMT was indexed for inflation after 2009, with no other changes to the tax code, federal revenues over the next 10 years would be $583 billion lower than the amount in the baseline, according to CBO and JCT. The number of taxpayers who are subject to the AMT will depend on whether the tax provisions enacted in 2001 and 2003 remain in effect. The combination of extending those expiring provisions and indexing the AMT for inflation would reduce revenues by $3.9 trillion over 10 years, which is $658 billion more than the sum of those two policy alternatives considered alone.

The Long-Term Budget Outlook

Under CBO's baseline projections, even after the economy fully recovers from the recent recession, annual deficits will remain near 3 percent of GDP, and federal debt will equal nearly 70 percent of GDP by the end of the decade. Further increases in federal debt relative to GDP almost certainly lie ahead if current policies remain in

15. The estimate includes increases in outlays for refundable tax credits but excludes any macroeconomic effects. CBO's baseline projection, in contrast, incorporates the effects of the tax provisions' expiration on the economy.

place.[16] The aging of the population and rising costs for health care will push federal spending as a percentage of GDP well above the levels experienced in recent decades.

Although running deficits during or shortly after a recession generally hastens economic recovery, persistent deficits and ever-growing debt would have several negative consequences for the United States. National saving and investment would be lower than they would be otherwise, reducing output, wages, and incomes in the long run. If the payment of interest on the extra debt was financed by imposing higher marginal tax rates, those higher rates would discourage work and saving and further reduce output. Alternatively, policymakers could choose to offset rising interest costs, at least in part, with reductions in benefits and services. Moreover, growing debt would increasingly restrict policymakers' ability to use fiscal policy to respond to unexpected challenges, such as economic downturns or international crises.[17]

Unless policymakers restrain the growth of spending substantially, raise revenues significantly above their average percentage of GDP of the past 40 years, or adopt some combination of those two approaches, persistent budget deficits will cause federal debt to rise to unsupportable levels. Making such changes while economic activity and employment remain well below their potential levels would probably slow the recovery. Nevertheless, the sooner that long-term changes to spending and revenues are agreed on, and the sooner they are carried out once the current economic weakness ends, the smaller will be the damage to the economy from growing federal debt.

16. Two scenarios for the growth of federal debt through 2035 are discussed in Congressional Budget Office, *The Long-Term Budget Outlook*. In the extended-baseline scenario, tax cuts enacted in 2001 and 2003 are assumed to expire as scheduled (as in the baseline projections in this report), and other aspects of current law are assumed to remain in place as well. Under that scenario, debt held by the public would reach about 80 percent of GDP by 2035. The alternative fiscal scenario incorporates several changes to current law, including extensions of the 2001 and 2003 tax cuts, broad relief from the AMT, and increases in Medicare's payment rates for physicians. Under that scenario, debt held by the public would soar to 185 percent of GDP by 2035.

17. See Congressional Budget Office, *Federal Debt and the Risk of a Fiscal Crisis*.

CHAPTER

2

The Economic Outlook

The Congressional Budget Office projects that the economic recovery will continue at a modest pace during the next few years. Growth in the nation's output since mid-2009 has been anemic in comparison with previous recoveries that followed a deep recession, and the unemployment rate has remained quite high, averaging 9.7 percent in the first half of this year. That weak performance reflects several factors that are likely to remain in place over the next few years. The considerable number of vacant houses and underused factories and offices will be a continuing drag on residential construction and business investment. In addition, although conditions in financial markets have improved markedly from the depths of the recent crisis, household wealth remains below prerecession levels, and some potential borrowers still have significant trouble obtaining credit; both factors are likely to restrain consumer spending in the near term.

Because CBO's baseline projections serve as a benchmark for measuring the potential effects of policy changes, they are based on the assumption that current laws remain in effect. Under that assumption, another factor slows the recovery in CBO's projections: Fiscal policy will provide much less support to economic activity in 2011 and 2012 than it has in the past few years. In particular, the scheduled expiration of the tax cuts enacted in 2001 and 2003, and the waning of the additional government spending and tax cuts enacted in last year's stimulus legislation, will slow economic growth next year relative to what it would otherwise be.

Given its assumptions about fiscal policy, CBO projects that real (inflation-adjusted) gross domestic product will increase by 2.8 percent between the fourth quarters of 2009 and 2010 and by 2.0 percent in 2011 (see Table 2-1). After 2011, the projected growth of real GDP picks up, averaging 4.1 percent annually from 2012 through 2014 and closing the gap between GDP and its potential level (the amount of production that corresponds to a high rate of use of labor and capital resources) by the end of 2014 (see Figure 2-1).

The modest growth in output projected for the next two years points to sluggish growth in employment during the remainder of this year and next. Consequently, the unemployment rate in CBO's projections declines slowly, falling to 9.3 percent at the end of 2010 and 8.8 percent at the end of 2011 (see Figure 2-2 on page 32). After 2011, growth in employment picks up along with growth in output, and the unemployment rate declines more rapidly, reaching 5.1 percent at the end of 2014.

Inflation in the prices of consumer goods and services is projected to be about 1 percent in 2010 and 2011, when measured on a fourth-quarter-to-fourth-quarter basis using the price index for personal consumption expenditures (PCE). Core inflation, which excludes the prices of food and energy, also is expected to be about 1 percent this year and next. In CBO's projections, inflation picks up moderately thereafter but remains below 2 percent from 2012 through 2014.

Interest rates will remain very low through the end of 2011 and then rise gradually as the recovery continues, CBO projects. The Federal Reserve is unlikely to raise its target for the federal funds rate (the interest rate at which depository institutions lend reserves to each other overnight) from its near-zero level while the recovery remains subdued and inflation stays low; therefore, the interest rate on 3-month Treasury bills averages 0.2 percent in 2010 and 2011 in CBO's projections. However, given CBO's projection that the economy will strengthen and inflation will increase somewhat between 2012 and 2014, the projected 3-month Treasury bill rate averages 2.8 percent in those years. The rate on 10-year Treasury notes,

Table 2-1.

CBO's Economic Projections for Calendar Years 2010 to 2020

	Forecast		Projected Annual Average	
	2010	2011	2012–2014	2015–2020
	Year to Year (Percentage Change)			
Nominal GDP	3.8	3.1	5.6	4.5
Real GDP	3.0	2.1	4.1	2.4
GDP Price Index	0.8	1.0	1.5	2.0
PCE Price Index	1.5	1.0	1.5	2.0
Core PCE Price Index[a]	1.1	1.0	1.4	2.0
Consumer Price Index[b]	1.6	1.0	1.7	2.3
Core Consumer Price Index[a]	0.9	0.7	1.6	2.3
Employment Cost Index[c]	1.5	2.1	3.2	3.5
	Calendar Year Average			
Unemployment Rate (Percent)	9.5	9.0	6.7	5.0
Three-Month Treasury Bill Rate (Percent)	0.2	0.2	2.8	4.9
Ten-Year Treasury Note Rate (Percent)	3.4	3.5	4.7	5.9
Tax Bases (Billions of dollars)				
Domestic economic profits	1,326	1,342	1,554 [d]	1,572 [e]
Wages and salaries	6,415	6,629	8,066 [d]	10,644 [e]
Tax Bases (Percentage of GDP)				
Domestic economic profits	9.0	8.8	8.8	7.2
Wages and salaries	43.3	43.4	44.6	45.4
	Fourth Quarter to Fourth Quarter (Percentage Change)			
Nominal GDP	3.8	3.0	5.8	4.4
Real GDP	2.8	2.0	4.1	2.4
GDP Price Index	1.0	1.0	1.6	2.0
PCE Price Index	0.9	1.1	1.6	2.0
Core PCE Price Index[a]	0.9	1.1	1.5	2.0
Consumer Price Index[b]	0.8	1.2	1.8	2.3
Core Consumer Price Index[a]	0.5	0.9	1.7	2.3
Employment Cost Index[c]	1.7	2.1	3.4	3.4
Memorandum:				
Nominal GDP (Billions of dollars)	14,804	15,262	17,987 [d]	23,398 [e]

Sources: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Department of Labor, Bureau of Labor Statistics; Federal Reserve.

Notes: The dollar values for nominal GDP and the tax bases do not incorporate the July 2010 revisions of the national income and product accounts.

Economic projections for each year from 2010 to 2020 are in Appendix C of this report.

GDP = gross domestic product; PCE = personal consumption expenditures.

a. Excludes prices for food and energy.

b. The consumer price index for all urban consumers.

c. The employment cost index for wages and salaries of workers in private industry.

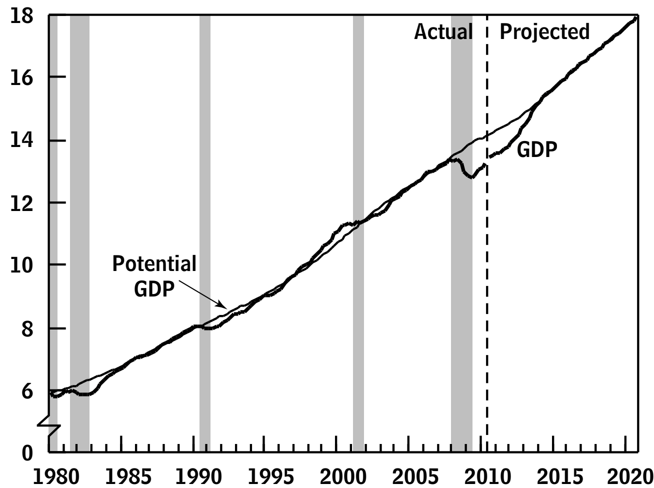
d. Value for 2014.

e. Value for 2020.

Figure 2-1.

Real Gross Domestic Product

(Billions of 2005 dollars)



Sources: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

Notes: Real gross domestic product (GDP) is the output of the economy adjusted to remove the effects of inflation.

Potential GDP is CBO's estimate of the output the economy would produce with a high rate of use of its capital and labor resources.

Actual data for GDP incorporate the July 2010 revisions of the national income and product accounts; projections are based on data issued before the revisions.

Data are quarterly. Actual data for GDP are plotted through the second quarter of 2010; projected GDP and potential GDP are plotted through the fourth quarter of 2020.

which is influenced by investors' expectations about monetary policy and other factors, is projected to average 3.5 percent in 2011 and 4.7 percent during the 2012–2014 period.

Beyond 2014, CBO projects that growth in real GDP will average 2.4 percent, equal to the rate of growth of potential GDP. The unemployment rate is projected to average 5.0 percent from 2015 through 2020, and inflation (as measured by the PCE price index) to average 2.0 percent. CBO projects that the interest rate on 3-month Treasury bills and 10-year Treasury notes will be about 4.9 percent and 5.9 percent, respectively, during that period.

CBO's current economic projections are similar to those the agency issued in January, which were also based on the assumption that future fiscal policy will follow current law. In the near term, growth in real GDP is a little faster, and inflation and unemployment are somewhat lower, in the current forecast; those differences primarily reflect actual developments during the first half of 2010 rather than a material change in CBO's views about future developments. CBO's projection of the growth in real GDP beyond 2014 is unchanged since January, but its projections of the rate of inflation and nominal interest rates are somewhat higher. Compared with the forecasts of other analysts, CBO generally projects both a lower rate of growth in real GDP and a lower rate of inflation over the next two years. The differences in the forecasts for economic growth are probably attributable for the most part to differences in assumptions about fiscal policy.

Economic forecasts are subject to a considerable degree of uncertainty, and many factors could lead to economic performance that is substantially different from CBO's projections. In fact, new information has already become available since CBO completed its forecast in early July. The latest data for the second quarter suggest that spending by households and businesses has been weaker than anticipated in CBO's forecast. Net exports, in particular, have taken a sharp turn for the worse, and several monthly indicators of the housing market have also deteriorated. In addition, the national income and product accounts (NIPAs) have been revised through the first quarter of 2010. That revision altered CBO's views about some sectors of the economy (and created discontinuities between actual data and projections that are visible in some of the figures in this chapter), but it did not significantly change CBO's outlook for the economy and the budget going forward.

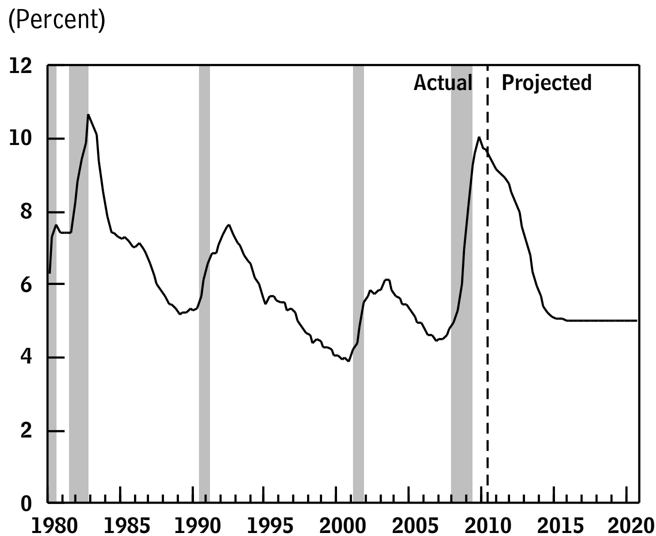
Factors Affecting the Pace of the Recovery

The pace of growth is likely to remain slow while the economy recovers from the effects of the financial crisis and as the support to economic activity provided by fiscal policy diminishes. In the past, recoveries from deep recessions have tended to be quite robust. After deferring purchases during a slump, especially for expensive goods like homes, autos, and capital equipment, households and businesses typically boost spending quickly as economic prospects improve. However, international experience suggests that recoveries from recessions spurred by financial crises tend to be slower than average, perhaps because

Figure 2-2.

Unemployment Rate

(Percent)



Sources: Congressional Budget Office; Department of Labor, Bureau of Labor Statistics.

Note: Data are quarterly. Actual data are plotted through the second quarter of 2010; projections are plotted through the fourth quarter of 2020.

the losses in wealth and the damage to the financial system that occur during such crises weigh on spending for a number of years. In the aftermath of a crisis, it takes time for consumers to rebuild their wealth, for financial institutions to restore their capital bases, and for nonfinancial firms to regain the confidence required to invest in new plant and equipment; all of those forces tend to restrain spending. Indeed, a substantial excess of vacant homes and underused business capacity remains in the economy at this point, and consumers continue to cope with slow employment and income growth and significant losses of wealth. In addition, under CBO's assumptions about fiscal policy described in Chapter 1, both the waning of fiscal stimulus and the scheduled tax increases will temporarily restrain growth, especially in 2011.

Financial Markets and Monetary Policy

Conditions in financial markets generally are supportive of economic activity. Many markets improved substantially last year and early this year as the effects of the financial crisis diminished and the economy strengthened. However, conditions deteriorated a bit during the second quarter of 2010, apparently reflecting concerns about the strength and durability of the economic recovery in the United States and about the debt burden of European governments and the health of some financial institutions in Europe. The interest rate spread on corporate debt (the difference between the interest rate on corporate bonds and the rate on U.S. Treasury securities of comparable maturity) rose slightly, reflecting a combination of greater expected losses on corporate debt and higher compensation for the risk of such losses. In addition, the stock market gave up its first-quarter gains. (At the same time, interest rates on medium- and long-term U.S. government securities fell as investors sought securities carrying a lower risk.) Nevertheless, the cost to corporations of raising funds remains quite favorable relative to long-term historical averages.

Although conditions have normalized in many parts of the financial system since the crisis, some markets have yet to recover fully—especially the banking sector and the markets for asset-backed securities. Those securities, which are backed by loans on real estate or other assets, provided a significant amount of funding for loans to consumers and other borrowers before the crisis. With markets for such securities still troubled, some potential borrowers still have difficulty obtaining loans for which they would qualify under normal conditions. In such an environment, and given CBO's projection of continued high unemployment and low inflation next year, CBO assumes that the Federal Reserve will not begin to raise the federal funds rate until 2012.

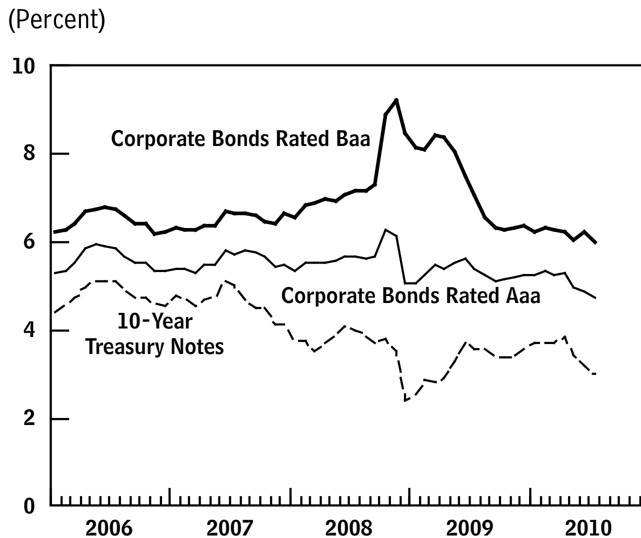
Markets for Asset-Backed and Other Debt Securities. The cost to businesses of short-term borrowing remains at historically low levels. For businesses with a high credit rating, for instance, the interest rate on 30-day commercial paper (a short-term money market security sold by a large bank or corporation to meet short-term funding needs) is about the same as the rate for Treasury securities of comparable maturity. Borrowers with a lower rating continue to pay higher rates, but the difference between rates paid by higher- and lower-rated borrowers is back to precrisis levels and is substantially smaller than it was in early 2009.

Interest rates on long-term corporate debt also are generally quite low, despite a slight increase in risk premiums in late spring (see Figure 2-3). Corporations—especially those with credit ratings below investment grade—have taken advantage of those relatively low interest rates to issue a substantial amount of debt.

Figure 2-3.

Interest Rates

(Percent)



Sources: Congressional Budget Office; Federal Reserve.

Notes: Interest rates on corporate bonds are computed by Moody's Investors Service; the bonds have remaining maturities of at least 20 years.

The Aaa rating denotes the highest investment grade of corporate securities; the Baa rating denotes the lowest investment grade.

Data are monthly and are plotted through July 2010.

In contrast, markets for asset-backed securities are far from complete recovery. Issuance of securities backed by commercial real estate ground to a halt during the crisis, and since the second half of 2007 there has been almost no issuance of securities backed by residential mortgages that do not have the additional backing of the federal government through Fannie Mae, Freddie Mac, the Federal Housing Administration, or some other government entity. Moreover, issuance of securities backed by assets other than commercial real estate and prime residential mortgages—including securities backed by pools of home equity loans, student loans, automobile loans, and credit card loans—has declined markedly from its peak in 2006, although that decline also partly reflects weak demand for such loans (see Figure 2-4).

Banks. The banking system has continued to recover slowly, but many banks, particularly smaller ones, have yet to regain the financial strength they had before the crisis and recession. Banks have adequate access to short-term credit, although the risk premium they pay to borrow from other banks has risen a little since May. (The risk premium is still well below levels seen during the worst of the financial crisis and is only slightly above its normal precrisis range.) Banks continue to report substantial additional losses on their outstanding loans, but the net percentage of loans written off as losses rose only slightly in the second half of last year and the first quarter of this year, after two years of rapid increases. CBO expects new losses on bank loans to remain elevated for some time because reductions in loan losses tend to lag improvements in the overall economy. The magnitude of those losses has led to a sharp increase in the number of bank failures, and more failures will probably occur during the next few years.

The total amount of bank loans outstanding has increased by less than $200 billion in the first half of this year, after falling by $580 billion in 2009. The weakness in banks' lending reflects a combination of tight lending standards and tepid demand for loans. One reason for tight lending standards is that banks want to improve the quality of their loan portfolios in order to reduce their future losses on those loans. Another probable reason is that banks want to limit the amount of assets and liabilities they hold; because of the slow recovery of markets for asset-backed securities, banks have been forced to hold most new loans themselves rather than sell them to investors. Nevertheless, according to surveys reported by the Federal Reserve Board, banks are beginning to relax their lending standards and terms for some types of loans and are reporting that the demand for loans is no longer weakening. Small businesses, in addition, report to the National Federation of Independent Business that although they face tighter-than-usual credit conditions, they need few loans for inventory and capital investment while their sales remain soft.

A significant, ongoing source of losses for banks is loans on commercial real estate.[1] Weak macroeconomic conditions and a substantial amount of unoccupied commercial space are likely to boost losses on those loans and on securities backed by commercial real estate. About $1.4 trillion of commercial real estate loans will come due between now and 2014, and for about half of those loans, the outstanding balance is greater than the borrower's equity in the property.[2] Although an index of commercial

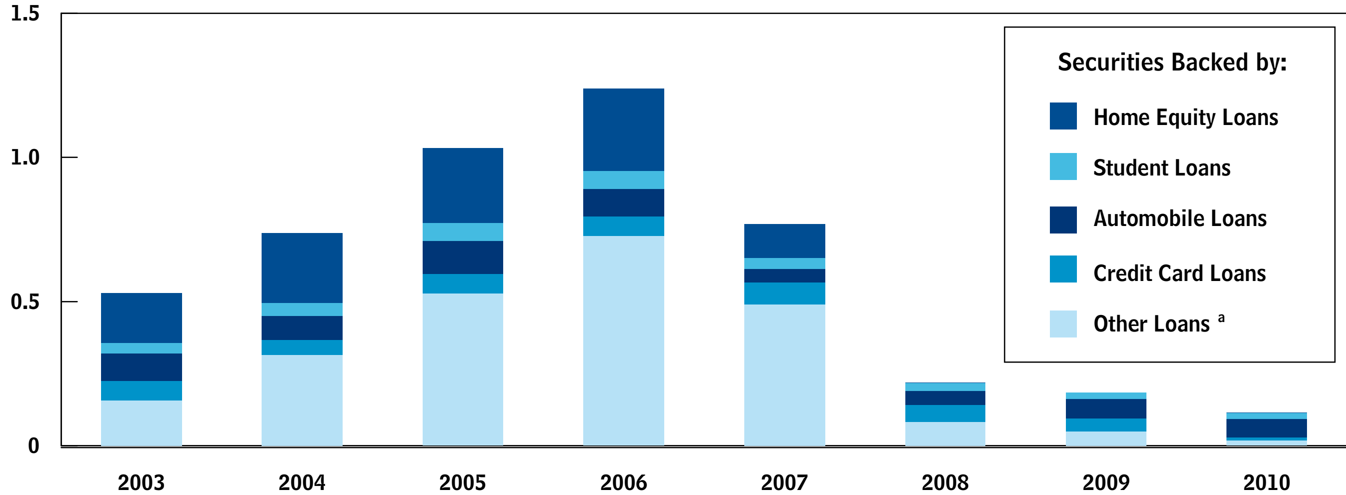
1. U.S. banks have minimal direct exposure to losses on the debt of several European governments, such as the Greek government, that face significant fiscal problems.

2. See Congressional Oversight Panel, *Commercial Real Estate Losses and the Risk to Financial Stability: Federal Oversight Report* (February 10, 2010), http://cop.senate.gov/documents/cop-021110-report.pdf.

Figure 2-4.

Issuance of Asset-Backed Securities

(Trillions of dollars)



Sources: Congressional Budget Office; Bloomberg.

Notes: Asset-backed securities shown in the figure do not include securities backed by mortgages on commercial real estate or low-risk mortgages on residential properties.

Data for 2003 through 2009 are the amount of securities issued during the year; data for 2010 are the annualized amount issued through July.

a. Consists primarily of subprime residential real estate loans.

real estate prices bottomed out in the fourth quarter of 2009, gains since then have been small.

Monetary Policy. During the recession, the Federal Reserve worked to stabilize the financial system and provide support to the economy (that is, monetary stimulus) by lowering its target for the federal funds rate to near zero and extending loans and other support to financial markets and institutions that more than doubled its assets and liabilities.[3] Given the slow economic recovery and persistent low inflation that CBO projects, CBO assumes that the Federal Reserve will not begin increasing the federal funds rate until early 2012. The amount of the Federal Reserve's assets and liabilities will probably remain much larger than normal for several years after that.

The Federal Reserve's policy actions will depend on economic developments. On the one hand, if the economy recovers more quickly than the Federal Reserve projects, or if inflation shows signs of increasing significantly, the Federal Reserve will probably remove its monetary stimulus more aggressively than CBO is projecting. Because the central bank has never conducted monetary policy with such large holdings of assets and liabilities, it might have some operational difficulty in calibrating the removal of that stimulus as closely as it would like.

On the other hand, if economic activity falters further or inflation drops more, the Federal Reserve will probably look for ways to provide additional monetary stimulus. In early August, for example, it decided to postpone the date when it would allow its asset holdings to decrease by reinvesting in Treasury securities the principal payments it is receiving from its holdings of mortgage-related securities. Indeed, given current economic conditions and its own projections of future conditions, the Federal Reserve would probably prefer to lower the federal funds rate today if there were still room to do so.[4] Although the

3. See Congressional Budget Office, *The Budgetary Impact and Subsidy Costs of the Federal Reserve's Actions During the Financial Crisis* (May 2010).

4. Analysts can gauge the Federal Reserve's preferred level of the federal funds rate using a model of its past responses to inflation and recessions. Such models are now widely termed “Taylor rules.” Named after economist John Taylor, who published one of the first estimates of such models, those rules estimate the prescribed level of the federal funds rate on the basis of two factors: the difference between the rate of inflation and the Federal Reserve's target for inflation, and the percentage difference between GDP and potential GDP. Most specifications of those models imply that the prescribed level of the federal funds rate today is below zero.

funds rate is essentially as low as it can go, the Federal Reserve has other tools it could use to provide additional support for the economy, such as lowering the interest rate paid on banks' reserves held at the Federal Reserve and further increasing its assets and liabilities in various ways.

Compared with conducting monetary policy only through movements in the federal funds rate, using those other tools would involve greater uncertainty about their effects. For example, the Federal Reserve could further increase banks' reserves (and the money supply) and reduce certain interest rates by purchasing additional long-term mortgage and Treasury securities. The Federal Reserve could also purchase assets that more directly target areas of the financial system that have been slow to recover—for example, by reviving programs designed to encourage securitizations of loans. Because the Federal Reserve has less experience with the effects of such actions, forecasting the economic effects of such purchases and calibrating the purchases to the amount of stimulus needed would be considerably more difficult than predicting the effects of changes in monetary policy accomplished through changes in the federal funds rate.

Fiscal Policy

Through both higher federal spending and lower tax receipts, the federal budget has provided substantial support to economic activity (that is, fiscal stimulus) during the recession. Under current laws regarding taxes and spending, that support will diminish very rapidly over the next few years: CBO projects that between fiscal years 2010 and 2012, the federal budget deficit will decline by about $675 billion (or from 9.1 percent to 4.2 percent of GDP). That reduction would be the sharpest two-year decline in the deficit relative to GDP since shortly after World War II. CBO's economic projections are based on those current laws and therefore reflect that sharp reduction in fiscal stimulus.

Sources of Reduced Fiscal Stimulus. Several factors contribute to the coming reduction in fiscal stimulus, including the expiration of numerous tax and spending provisions of current law and the diminishing effects of the automatic fiscal stabilizers.

Temporary relief from the alternative minimum tax, which was enacted most recently in the American Recovery and Reinvestment Act of 2009 (Public Law 111-5), expired at the end of last year. (The AMT limits the extent to which higher-income people can reduce the amount of taxes they owe by using preferences in the tax code.) Without the relief from the AMT, tax rates and liabilities for 2010 are already higher for some people than they were last year. But CBO estimates that almost all of the economic effects of those increases will not occur until 2011, when nearly all of the additional taxes will be paid if further relief from the AMT is not enacted.

In addition, tax reductions enacted in the Economic Growth and Tax Relief Reconciliation Act of 2001 and the Jobs and Growth Tax Relief Reconciliation Act of 2003 are scheduled to expire at the end of this year. Altogether, the collection of expirations will deliver a significant dose of fiscal restraint in 2011: They will reduce disposable personal income by $250 billion relative to what it would otherwise be (thereby reducing people's spending) and increase marginal tax rates for some workers (thereby reducing the expected after-tax wages of those workers and modestly dampening the supply of labor).

Adding to the dampening effect of those expirations, the stimulative impact of the spending increases and other tax reductions (besides relief from the AMT) enacted in ARRA peaked in the first half of 2010, by CBO's estimate. That impact is steadily diminishing in the second half of 2010 and in 2011.[5]

Reduced federal fiscal stimulus will also result from the automatic responses of federal tax revenues and spending to cyclical changes in the economy—the so-called automatic stabilizers—which will begin to provide less support as the economy strengthens and output starts to move closer to its potential level. That is, tax payments to the government will begin to rise, and transfer payments to households (such as unemployment insurance) will decline as output rises.[6]

5. In a report issued in May, CBO estimated that, including the temporary AMT relief, ARRA raised real GDP during the first half of 2010 by 1.7 percent to 4.4 percent. See Congressional Budget Office, *Estimated Impact of the American Recovery and Reinvestment Act on Employment and Economic Output from January 2010 Through March 2010* (May 2010). According to those estimates, ARRA will increase GDP by 1.3 percent to 3.9 percent in the second half of 2010, by 0.7 percent to 2.2 percent in 2011, and by lesser amounts in subsequent years; it will lower the rate of unemployment by 0.7 percent to 1.8 percent in 2010 and by 0.5 percent to 1.4 percent in 2011. Because the impact of ARRA on the level of GDP is diminishing, it is now subtracting from the rate of GDP growth rather than adding to it.

6. See Congressional Budget Office, *The Effects of Automatic Stabilizers on the Federal Budget* (May 2010).

The Effects of an Alternative Fiscal Scenario. CBO's baseline projections assume that current laws and policies remain unchanged. CBO has also examined an alternative fiscal scenario reflecting several changes to current law that are widely expected to occur or that would modify some provisions of law that might be difficult to sustain for a long period.[7] That alternative scenario embodies small differences in outlays relative to those projected under current law but significant differences in revenues: Under that scenario, most of the cuts in individual income taxes enacted in 2001 and 2003 and now scheduled to expire at the end of this year (except the lower rates applying to high-income taxpayers) are extended through 2020; relief from the AMT, which expired after 2009, continues through 2020; and the 2009 estate tax rates and exemption amounts (adjusted for inflation) apply through 2020. Federal budget deficits would be much higher in that alternative fiscal scenario than in CBO's baseline budget projections, and government debt held by the public (that is, debt held by nonfederal investors and the Federal Reserve) would accumulate much more rapidly.

Under those alternative assumptions, real GDP would be higher in the first few years of the projection period but lower in subsequent years than under CBO's baseline forecast. Specifically, growth in real GDP between the fourth quarters of 2010 and 2011 would be 0.6 to 1.7 percentage points higher than in the baseline forecast; thus, real GDP growth would be between 2.6 percent and 3.7 percent, compared with 2.0 percent in CBO's baseline forecast. In 2012, the level of real GDP would remain higher, but its rate of growth would be reduced slightly, from 4.0 percent in CBO's baseline forecast to between 3.7 percent and 3.8 percent. Higher real GDP would result in a lower unemployment rate over the next few years under that alternative scenario. For example, CBO estimates that the unemployment rate would be lower by 0.3 to 0.8 percentage points at the end of 2011—that is, 8.0 percent to 8.5 percent. Under the alternative scenario, CBO's forecast of the level of real GDP at the end of 2011 would be roughly in line with the *Blue Chip* consensus forecast (the average of about 50 forecasts by private-sector economists) and near the lower end of the "central tendency" of the forecasts made by members of the Federal Reserve's Board of Governors and the presidents of the Federal Reserve Banks (that is, the range that encompasses most of those forecasts).

Under that alternative fiscal scenario, real GDP would fall below the level in CBO's baseline projections later in the coming decade because the larger budget deficits would reduce or "crowd out" investment in productive capital and result in a smaller capital stock.[8] Offsetting part of the impact of lower investment would be a modest increase in labor supply, because tax rates that are lower than those in CBO's baseline budget assumptions would raise people's incentive to work.

Investment

After falling to extraordinarily low levels during the recession, total investment began to recover in late 2009 and continued to grow during the first half of 2010. CBO expects that the recovery in investment will continue during the second half of 2010 and increase its pace in 2011 and 2012 as the demand for goods and services picks up and the excess stock of residential housing is whittled down. In previous business cycles, the rebound of investment from sharp recessions has generally been quite strong. However, the magnitude of the excess stock of housing and ongoing problems in financial markets, especially in the market for mortgages on commercial real estate, will probably restrain the near-term pace of the current recovery in investment.

Housing. Home builders began construction on residential housing units at an annual rate of 610,000 during the first half of 2010. Although better than the 550,000 units started in 2009—the lowest number since at least 1958—that level was well below the estimated 1.5 million units that normally would be necessary to keep up with the growth of the population and the replacement of obsolete units. Those unusually low rates of housing starts primarily reflect the unusually high rate of vacancies among existing housing units (see Figure 2-5). CBO estimates that there were roughly 2.6 million excess vacant housing

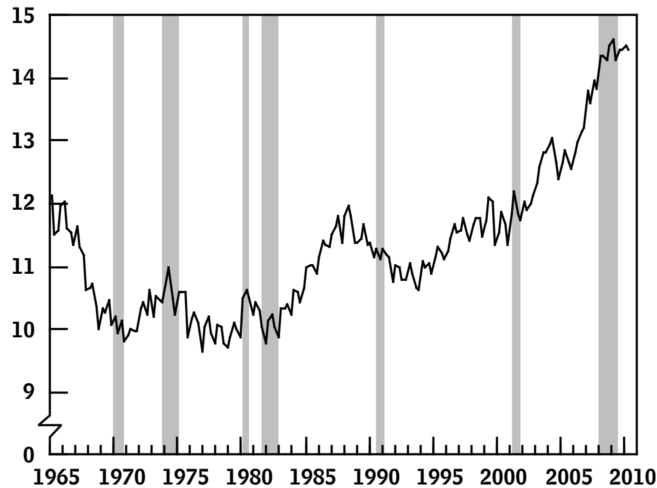
7. For more details on this alternative fiscal scenario and its long-run implications for the budget and the economy, see Congressional Budget Office, *The Long-Term Budget Outlook* (June 2010, revised August 2010). That scenario does not represent a prediction or recommendation about future fiscal policy; rather, it is used to illustrate how different fiscal policies can have different effects on the budget and the economy.

8. See the discussion in Congressional Budget Office, *The Long-Term Budget Outlook*, pp. 18–22. Additional growth in the debt would also raise the risk of a fiscal crisis. See Congressional Budget Office, *Federal Debt and the Risk of a Fiscal Crisis*, Issue Brief (July 27, 2010).

Figure 2-5.

Vacant Housing Units

(Percentage of total units)



Sources: Congressional Budget Office; Department of Commerce, Census Bureau.

Notes: Housing units comprise rental and owner-occupied dwellings.

Data are quarterly and are plotted through the second quarter of 2010.

units during the first half of 2010.[9] Low levels of construction over the past two years have failed to diminish that number because the recession and a sharp rise in mortgage foreclosures have reduced the number of individuals and families able to maintain independent households.

CBO expects that the number of vacant units will soon begin to decline and that housing starts will therefore pick up during the second half of 2010 and continue to grow, reaching almost 950,000 in 2011. However, because so many vacant units need to be absorbed and the difficulty of obtaining credit for commercial real estate is inhibiting the building of multifamily housing, housing starts will probably not return to levels consistent with population growth and demand for replacement units until late 2012.

House prices are also unlikely to start rising significantly until the inventory of unsold homes shrinks considerably. Those prices have been falling since 2007, and although the recent data show some evidence that prices are stabilizing, CBO forecasts that the national average price of a house will drop by an additional 7 percent between the middle of 2010 and the fall of 2011.

Business Fixed Investment. Businesses invest in new equipment, software, and structures to replace worn-out items, to meet increased demand for goods and services, and to implement new technologies. In response to a sharp fall in demand during the recession, net business fixed investment—measured as investment in new equipment, software, and structures minus depreciation—declined in 2009 to the lowest level relative to GDP since World War II (see Figure 2-6).

With demand beginning to rebound, firms have started to boost their capital spending: Real investment in equipment and software increased by 15 percent between the second quarters of 2009 and 2010. Even so, net investment in equipment and software still has a lot of room to grow before it reaches historical levels, and CBO projects that growth in such investment will be one of the main drivers of economic recovery through 2013.

Investment in nonresidential structures (such as factories and shopping malls) is lagging investment in equipment and software. Construction projects require longer lead times to plan and execute, and so they generally lag other forms of business fixed investment. In this recovery, the lag is likely to be longer than usual, because financing for such projects is difficult to obtain; indeed, leading indicators of nonresidential construction suggest further weakness in that sector during the second half of 2010. Nevertheless, investment in nonresidential structures is likely to pick up eventually as economic and financial conditions improve; CBO projects that such investment will begin to recover in 2011 and 2012 and will grow vigorously in 2013.

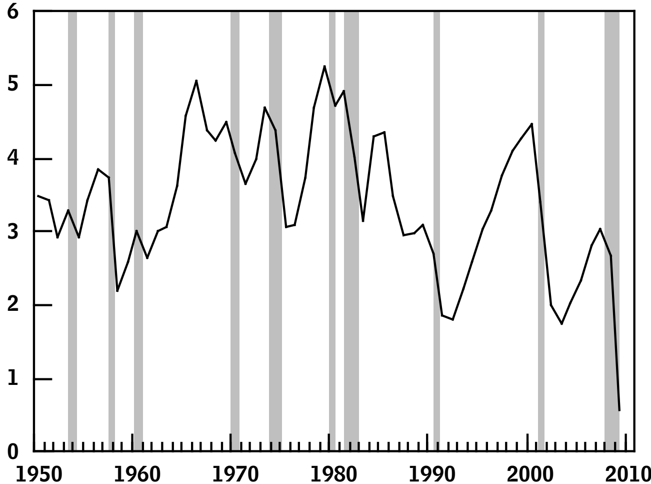
Inventory Investment. The drop in sales during the recession left businesses with too much inventory, resulting in a large jump in the ratio of inventory to sales in 2008 (see Figure 2-7). Businesses responded by cutting production, and inventories fell sharply in 2009. That adjustment set the stage for investment in inventories to turn positive

9. Excess vacant units are measured as the difference between the actual number of vacant units—including units for sale or for rent, second homes, and units held off the market for various reasons—and an estimate of the number that would be vacant under normal market conditions. The number of vacant units probably reflects the excess supply of housing better than does the total inventory of units for sale.

Figure 2-6.

Net Business Fixed Investment

(Percentage of gross domestic product)



Sources: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

Notes: Business fixed investment (nonresidential structures and producers' durable equipment and software) is shown net of depreciation.

Data incorporate the July 2010 revisions of the national income and product accounts.

Data are annual and are plotted through 2009.

again in the first half of 2010. The swing from negative to positive inventory investment, which may have been amplified by changes in financial conditions, added nearly 3 percentage points to annualized growth of real GDP in the fourth quarter of 2009 and nearly 2 percentage points to growth during the first half of 2010. In CBO's projections, inventory investment remains positive during the next few years but contributes only a little to the growth of GDP.

Consumer Spending

Real consumer spending declined during the recession and grew only modestly in the second half of 2009 and the first half of this year, held back by slow growth in household incomes, wealth that is well below prerecession levels, and the difficulty of borrowing for some households. CBO expects consumer spending to expand at a moderate pace during the rest of 2010 but to increase by less than 1 percent in 2011, reflecting the tax increases scheduled under current law, before growing more rapidly in 2012 and beyond.

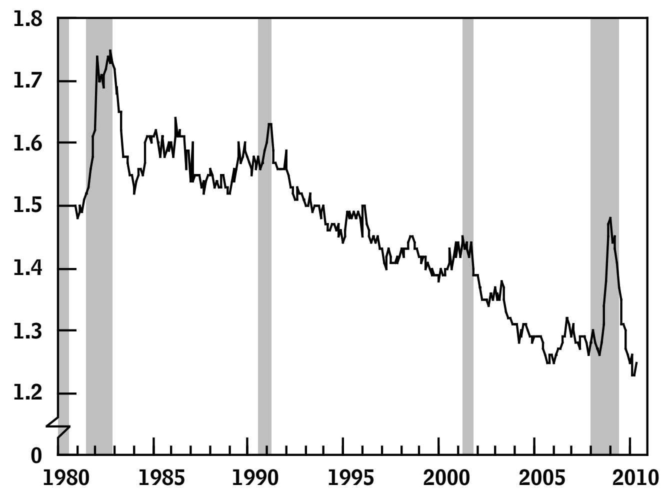
Consumer spending depends importantly on real disposable personal income, which has risen only slightly, on balance, since the recession began. Real income from wages and salaries—the largest component of income—declined during the recession at the fastest rate since the recession of 1973–1975, and it has only recently begun to recover. However, disposable income has received an important boost from the automatic reductions in tax liabilities and increases in government benefit payments that occur when the economy is weak and from changes in policies enacted in ARRA and other legislation.

Looking ahead, CBO projects that, under current law, real disposable personal income will decline by more than 2 percent in 2011. Although real income from wages and salaries is expected to grow as conditions in labor markets slowly improve, that growth will be more than offset by rising tax payments as the tax cuts enacted earlier in this decade expire, the boost from ARRA diminishes, and the automatic fiscal stabilizers begin to unwind. Under current law, CBO expects personal income tax payments to increase from roughly $800 billion in 2010 to nearly $1¼ trillion in 2011.

Figure 2-7.

Inventories

(Ratio to sales)



Sources: Congressional Budget Office; Department of Commerce, Census Bureau.

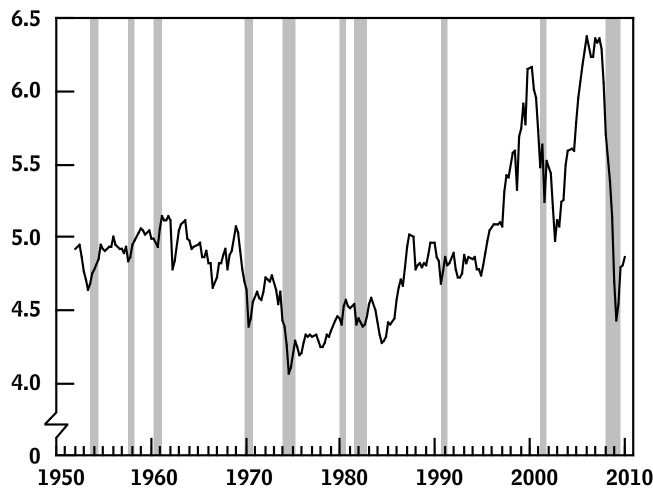
Notes: Data are the ratio of total inventories to total sales of manufacturers, retailers, and merchant wholesalers.

Data are monthly and are plotted through May 2010.

Figure 2-8.

Household Net Worth

(Ratio to disposable personal income)



Sources: Congressional Budget Office; Federal Reserve; Department of Commerce, Bureau of Economic Analysis.

Notes: Data for disposable personal income incorporate the recent revisions of the national income and product accounts.

Data are quarterly and are plotted through the first quarter of 2010.

Consumer spending has been restrained in the past few years by the sharp drop in household wealth relative to disposable income—a drop that was reversed to only a small extent through early 2010 (see Figure 2-8). Stock prices rose sharply during much of 2009 but have retrenched during the past several months and remain about 30 percent below their peak in October 2007. House prices, which reached their highest level in 2007, have dropped considerably since then, and CBO expects them to fall further during the next two years. The loss in wealth is a negative influence on households' spending, in part because households that feel poorer tend to spend less and because the loss in housing wealth is restricting households' ability to borrow in order to finance consumption. During the boom in house prices, borrowing against rising home equity enabled many homeowners to boost their consumption, but such borrowing has fallen substantially along with the drop in house prices. If those prices remain depressed and lending standards for mortgages stay tighter than they were before the recession, borrowing against home equity will probably remain subdued.

More generally, restraints on consumer borrowing appear to have eased somewhat in early 2010, and CBO expects that easing to continue. Nonetheless, standards for borrowing are still tighter than they were before the recession, because banks raised lending standards (through such measures as higher down payments, shorter loan maturities, and higher required credit scores) in response to a rising rate of delinquencies on consumer loans.

International Trade

Net exports declined sharply in the first half of this year. Growth in real exports stepped up from the rate of the past few years, but it was surpassed by even stronger growth in real imports. CBO expects that net exports will continue to be a drag on real GDP growth in the coming year.

The average pace of economic recovery among U.S. trading partners, weighted by their shares of U.S. exports, is expected to be weak, dampening demand for U.S. exports. In the euro zone (the area comprising the 16 member states of the European Union that have adopted the euro as their official currency), economic growth is hampered by various factors, including restraint in government spending in response to concerns about the debt burdens of some governments and the related uncertainty about the strength of some European financial institutions.[10] Growth prospects for other industrial countries, such as Japan and the United Kingdom, are also weak. Economic growth in many emerging economies—including Brazil, China, and India—is expected to be much stronger than that in most industrial economies, but that growth will boost U.S. exports only moderately because the United States sends only a modest share of its exports to those countries.

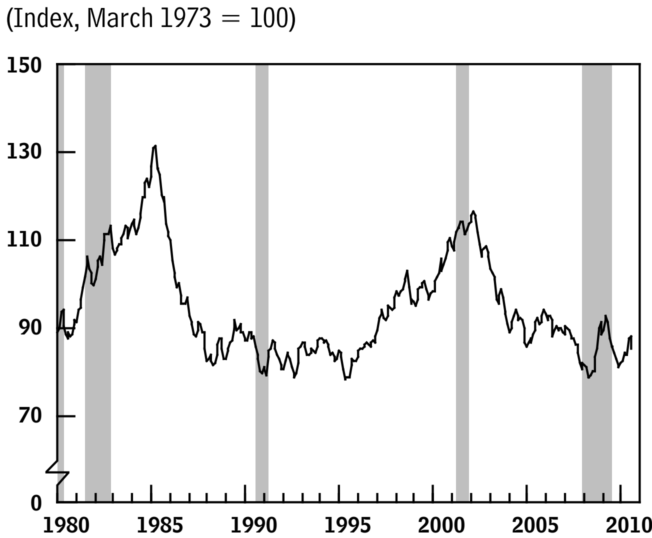
Net exports are also likely to decline in the near term because of the increase in foreign demand for U.S. financial assets stemming from the fiscal crisis in some European countries. That increase in demand pushed up the net inflow of foreign capital and boosted the real exchange value of the dollar, which rose more than

10. Tensions in European financial markets arose during the spring about the prospect that several European countries (most notably Greece), which had experienced a rapid deterioration in their fiscal balances in the past few years, could default on the debt of their central government. As a consequence, European policymakers took a variety of actions that had considerably reduced those tensions by July.

Figure 2-9.

Trade-Weighted Exchange Value of the U.S. Dollar

(Index, March 1973 = 100)



Sources: Congressional Budget Office; Federal Reserve.

Notes: The index is a weighted average of the foreign exchange values of the U.S. dollar against the currencies of a large group of major U.S. trading partners, adjusted for inflation. The index weights, which change over time, are derived from U.S. export shares and from U.S. and foreign import shares. Data are monthly and are plotted through July 2010.

7 percent against the currencies of major U.S. trading partners on a trade-weighted basis in the first half of this year before declining in July (see Figure 2-9). A sustained appreciation of the dollar tends to dampen net exports (after several quarters) by making U.S. goods and services more expensive in foreign currencies and by making foreign goods and services cheaper in dollar terms.

Labor Markets Through 2014

The recession and the early stages of recovery have been marked by extremely weak demand for labor. Payroll employment fell by 7.3 million between December 2007 (when the recession began) and June 2009 (when most observers believe the recession ended) and by an additional 1.1 million during the second half of 2009. The cumulative decline of 8.4 million jobs is the largest drop in employment in percentage terms—6.1 percent—since World War II. The dramatic loss of jobs pushed the unemployment rate to more than 10 percent (nearly matching its peak since World War II) despite a considerable falloff in labor force participation that was undoubtedly spurred by a lack of available jobs.

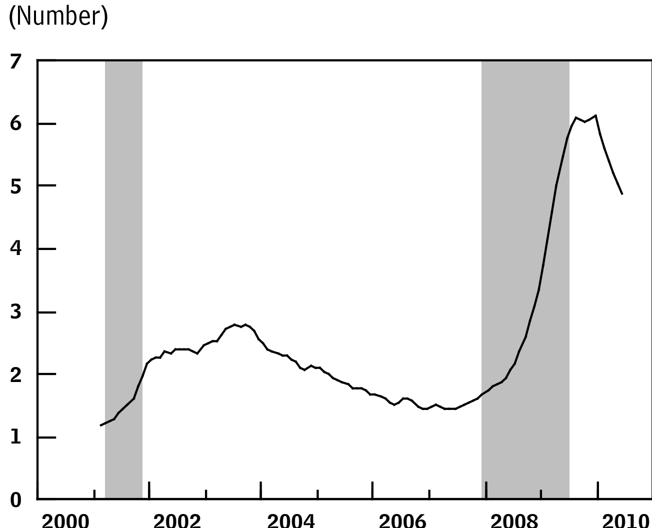
Although employment has now begun to recover, gains in payroll jobs totaled just 473,000 in the first seven months of the year (excluding the temporary jobs associated with the decennial census, which are expected to be nearly gone by the end of the year). If the recession had not occurred, employment would have increased during the past few years, so even with this year's increase, employment now stands roughly 10 million below the level it would have reached. The rate of participation in the labor force—the percentage of people age 16 or older who are working or seeking work—remains well below its prerecession level, and the unemployment rate has fallen a bit but remains very high, at 9.5 percent in July. At midyear, there were about five unemployed workers per job opening, down a little from late 2009 but still well above the peak following the previous recession (see Figure 2-10).

Growth in employment and improvement in other aspects of the labor market will continue at a slow pace for the next few years and then at a somewhat faster pace thereafter, CBO projects. In particular, the unemployment rate is forecast to decline to 9.3 percent at the end

Figure 2-10.

Unemployed Workers per Job Opening

(Number)



Sources: Congressional Budget Office; Department of Labor, Bureau of Labor Statistics.

Note: Data are the average of the current and two preceding months and are plotted through June 2010.

of 2010, 8.8 percent at the end of 2011, 7.6 percent at the end of 2012, and 5.1 percent at the end of 2014.

The most important factor underlying that projection of slow recovery in the labor market is that growth in output is expected to be fairly slow. The early stages of the last two economic recoveries (following the 1990–1991 and 2001 recessions) were similarly characterized by subdued growth in output and lack of growth in employment; in contrast, output and employment recovered quickly following the 1973–1975 and 1981–1982 recessions.

In addition, the movement of unemployed workers into new jobs will probably be more difficult in this recovery than in past ones. The share of unemployed workers whose previous job was permanently lost (or whose temporary job ended) rose much more sharply in the past few years than in previous recessions, and it has dipped only slightly since late 2009. In contrast, workers on temporary layoff have represented a smaller percentage of the unemployed than they did in previous downturns. The incidence of long-term (longer than 26 weeks) unemployment has been the highest by far in the past 60 years, and, despite the decline in the overall unemployment rate since its peak in October 2009, the long-term unemployment rate was still rising through the first half of 2010 (see Figure 2-11). Those developments together suggest that gains in employment in the next several years will rely more than usual on the creation of new jobs in different firms that are located in different places and require workers with different skills than the jobs that have disappeared. The process of acquiring new skills can take considerable time—as can relocating, especially given the problems in the housing market.[11]

The creation of new jobs is also being hindered by various uncertainties that firms face and by limitations on access to credit. Most forecasters anticipate only moderate growth in demand for goods and services in the next few years, and businesses could be waiting to see whether the recovery is sustained before they step up their hiring. Businesses are also unsure and concerned about the extent to which they will be affected by the implementation of recently enacted financial and health care legislation and by possible future changes in tax policy and other federal policies. In addition, small businesses continue to report unfavorable credit conditions, which may be restraining hiring at some firms.

Nonetheless, several indicators suggest that hiring conditions may improve a little in the near term. Job openings, though still well below prerecession levels, increased significantly in the first half of 2010.[12] Employment by temporary-help services, a leading indicator for the labor market, has experienced gains since late 2009. Moreover, the surge in productivity in the nonfarm business sector during the last three quarters of 2009—at an annual rate greater than 7 percent—appears to have ended; productivity rose at a 1.4 percent annualized rate in the first half of 2010. Surges in productivity are typical during the late stages of a recession or the early part of a recovery but are usually not sustained. Consequently, productivity growth is expected to slow further in 2010 and 2011, and if economic activity expands in line with CBO's forecast, employment will increase.

With the unemployment rate high and inflation in the prices of goods and services low, the rate of growth in compensation (wages, salaries, and benefits) has slowed sharply since the recession began, although it has picked up modestly this year. Growth in the employment cost index (ECI) for workers in private industry slowed from 3.1 percent over the year ending in December 2007 to 1.2 percent over the year ending in December 2009 but increased to 1.8 percent during the year ending in June 2010. The growth rate of the wages and salaries component of the ECI was 1.6 percent during the year ending in June 2010, up slightly from 1.3 percent over the year ending in December 2009 but well below its prerecession mark. CBO projects that the ECI for wages and salaries will rise at an average annualized rate of about 2¼ percent through the end of 2011.

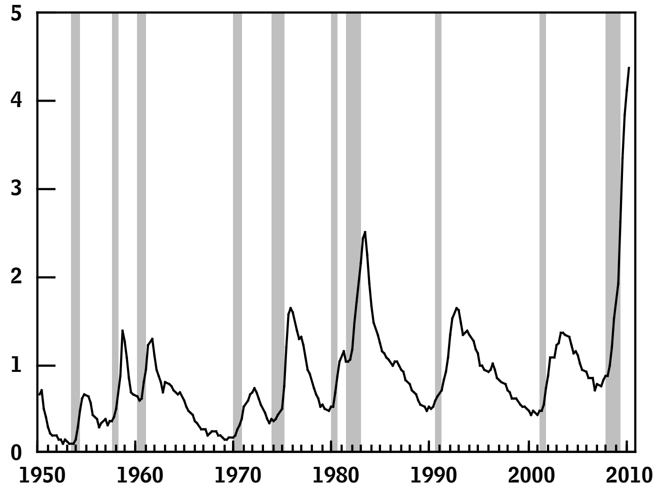
11. Some workers may never return to permanent full-time work, leaving the unemployment rate permanently higher (if they remain in the labor force) or the labor force participation rate permanently lower (if they leave the labor force) than those rates would otherwise be. Partly for that reason, CBO boosted its estimate of the natural rate of unemployment—the rate of unemployment arising from all sources except cyclical fluctuations in economywide demand for goods and services—from 4.8 percent to 5.0 percent in its January forecast and, in this forecast, slightly lowered its medium-term (2015 to 2020) projection of participation in the labor force.

12. Two indicators of online job advertising, the Conference Board's Help Wanted Online series and the Monster Employment Index, have also posted significant gains since late 2009 but remain substantially below prerecession levels.

Figure 2-11.

Long-Term Unemployment

(Percent)



Sources: Congressional Budget Office; Department of Labor, Bureau of Labor Statistics.

Notes: The long-term unemployment rate is the percentage of people in the labor force who have been unemployed for longer than 26 weeks.

Data are quarterly and are plotted through the second quarter of 2010.

Inflation Through 2014

The inflation rate fell during the recession and was very low during the first half of 2010; in CBO's forecast, inflation remains quite low during the next few years. The principal factor behind both the decline in inflation and the forecast for continued low inflation, in CBO's view, is the large amount of excess productive capacity in the economy, including unemployed workers, vacant houses, and unused business equipment and structures. Indeed, the large amount of excess capacity and an outlook for a persistently slow recovery have increased concerns among some analysts that the economy could face a period of deflation that would have significant adverse consequences—although other analysts have the opposite concern, that the Federal Reserve will remove monetary stimulus too slowly and that the rate of inflation will increase to an undesired extent.

The PCE price index will increase at an annual rate close to 1 percent, on average, in the second half of 2010 and in 2011, CBO forecasts. Core consumer prices, which exclude the prices of food and energy, are projected to increase at about the same pace (see Figure 2-12). The core inflation rate has declined from around 2½ percent in early 2008 to just over 1 percent in the first half of 2010.[13]

CBO expects that the rate of inflation will remain low primarily because the high level of unused resources will continue to inhibit businesses from raising prices. For example, the large number of unused houses and apartments has restrained the growth in rents, including implicit rents imputed to owner-occupied housing that are included in measures of consumer prices. The high level of unemployment also has inhibited the growth of wages and salaries, which are significant business costs that affect price inflation.

In addition, prices of imports are expected to put slight downward pressure on inflation this year and next. Prices for imported services and goods other than petroleum fell by about 6 percent during the year ending in the third quarter of 2009 before regaining about half of that decline by the spring of 2010. The appreciation of the dollar since late 2009 will tend to push those prices down again in 2011.

Increases in the prices of commodities such as oil and food will have a countervailing effect. Petroleum prices rose from $39 per barrel in February 2009 to about $84 per barrel in April 2010, but they have since fallen to about $76 in July, lowering the price of motor fuels in the past few months. Futures markets suggest, however, that petroleum prices will probably rise gradually over the next year and a half. Moreover, recovering global demand is expected to put modest upward pressure on food prices over the next year.

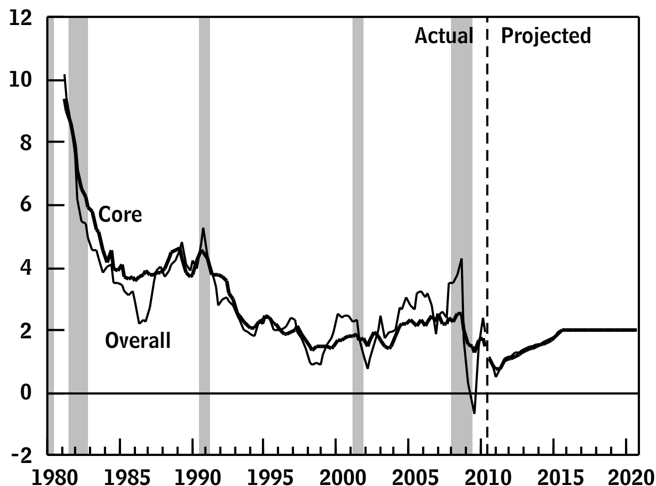
After 2011, CBO projects a gradual increase in the rate of inflation, to not quite 2 percent by 2014. One reason for that increase is that expected trends in long-term inflation have been fairly stable during the past few years, even though actual inflation has fallen. For example, in the Survey of Professional Forecasters, which is conducted quarterly by the Federal Reserve Bank of Philadelphia, the projection for the 10-year average rate of change in

13. By comparison with the PCE core price index, which is discussed in the text and presented in Figure 2-12, the core consumer price index for all urban consumers (the core CPI-U) increased at an annual rate close to ½ percent in the first half of 2010, and CBO projects that it will increase at an annual rate close to ¾ percent during the next year and a half.

Figure 2-12.

Inflation

(Percentage change in prices from previous year)



Sources: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

Notes: The overall inflation measure is based on the price index for personal consumption expenditures; the core rate excludes prices for food and energy.

Actual data incorporate the July 2010 revisions of the national income and product accounts; projections are based on data issued before the revisions.

Data are quarterly. Actual data for inflation are plotted through the second quarter of 2010; projections are plotted through the fourth quarter of 2020.

the PCE price index has stayed between 2.1 percent and 2.3 percent since the second half of 2007. Expectations about inflation affect inflation because workers' wage bargaining and firms' price-setting decisions depend in part on those expectations. Another reason for a slightly higher rate of inflation after 2011 is higher inflation in import prices because the dollar is expected to resume its gradual decline. The anticipated depreciation is expected to be slow, however, and because imports account for a small percentage of consumer spending, the decline in the dollar will probably have only a limited effect on inflation in consumer prices.

Some Uncertainties in the Short-Term Economic Outlook

Economic forecasts are always subject to a considerable degree of uncertainty. The uncertainty regarding CBO's current forecast is especially large, both because forecasting the path of the economy near turning points in the business cycle is always difficult and because the current business cycle has been unusual in a variety of ways. Following its usual practice, CBO constructed its current forecast to be in the middle of the distribution of possible outcomes as perceived by the agency at the time the forecast was constructed. However, economic data that have been released since CBO completed its forecast suggest that economic activity has somewhat less momentum than CBO anticipated. Moreover, many developments could lead to outcomes that differ substantially, in one direction or the other, from those CBO has projected. Four such developments illustrate some of the possibilities (but do not serve as an exhaustive list). The first two developments represent upside and downside risks to CBO's forecast of economic growth, and the next two represent upside and downside risks to CBO's forecast of inflation.

Stronger Investment by Firms

The *Blue Chip* consensus forecast published in early August shows the growth of real GDP to be in the neighborhood of 3 percent in both 2010 and 2011. In CBO's forecast, growth falls below that consensus in 2011—probably because CBO's baseline follows current law whereas private forecasters make different assumptions about future fiscal policy. Even the growth rate in the consensus forecast, however, is well below that experienced at similar points in the recoveries from previous deep recessions. For example, following the recession in 1981 and 1982, during which output fell to 7 percent below its potential, real GDP surged by nearly 8 percent in 1983 and roughly 6 percent in 1984, led by spending on consumer durable goods, housing, and business investment.

Recessions can create the conditions for rapid recoveries in several ways. One mechanism is that businesses cut investment spending and inventories during recessions, which leads to stocks of equipment and inventories that are too low when demand picks up, so spending rebounds strongly.[14] Clearly, investment spending fell dramatically during the recent recession: Net business fixed investment—measured as total investment minus depreciation—dropped below 1 percent of GDP during 2009, compared with an average of roughly 3 percent during the past three decades. At that rate, businesses'

14. The same process also applies to certain other spending categories, such as residential housing and commercial real estate, but those sectors seem unlikely to be the source of faster-than-expected growth in the next few years because the vacancy rates for both types of properties are so high.

spending on plant and equipment was barely sufficient to cover their replacement needs.

Thus, one way in which economic growth might exceed CBO's projections would be a rebound in business spending that is much stronger than CBO anticipates. In CBO's projections, business investment grows at an average annual rate of 11 percent between now and the end of 2012, comparable with the pace experienced during the recoveries from the two previous deepest recessions of the post-World War II period. However, the recent recession had a larger downturn in investment than the previous episodes, so the upswing in investment could be stronger this time.

Higher Saving by Households

Another possible deviation from CBO's forecast is that households' efforts to recover from recent financial setbacks could be more vigorous than CBO anticipates, which would slow economic activity in the near term. CBO projects that the personal saving rate will drop sharply in 2011, as households adjust consumption slowly in response to substantially higher taxes, but then increase again in the next few years.

That outlook reflects the assumption that households will attempt to reduce their debt (especially mortgage debt) and increase their holdings of assets at a measured pace. The forecast also reflects the limitations in the availability of credit to some households in the wake of the financial crisis.

However, households might attempt to rebuild their balance sheets much more aggressively than CBO projects. In the second half of the 2000s, household wealth rose remarkably, to more than 6¼ times disposable personal income by 2006 and 2007 (see Figure 2-8). Recently, however, it has fallen back to its historical range, hovering around 4½ times income. If households decided not to increase spending robustly until they have raised their wealth back toward the levels of several years ago, consumption growth could be held back for some time. Indeed, the annual revision to the NIPAs shows that, for some households, personal saving was much higher in the first half of the year than analysts believed when CBO's forecast was completed.

In the long run, higher saving by households is good for economic growth, because it makes more resources available for investment, but at a time of continuing economic weakness, when businesses are struggling to increase sales, higher saving is likely to slow growth. Faced with a further shortfall of demand for consumer goods and services, and uncertainty about when that demand would pick up, businesses could fail to increase their purchases of capital equipment to the degree anticipated in CBO's forecast. Lower sales of both consumer and capital goods would increase unemployment, lower household incomes, and probably further reduce household spending below CBO's projections.

Excessive Monetary Stimulus

Another risk to CBO's forecast is that the Federal Reserve might not reduce its asset holdings and raise interest rates fast enough to avoid significant inflationary pressures. During the financial crisis and recession, monetary policymakers took aggressive and creative actions to stabilize the financial system and combat the steep economic downturn. The Federal Reserve provided enough reserves to lower the federal funds rate to near zero, established a range of facilities that supported financial markets and institutions, and purchased large amounts of mortgage-related securities and other medium- and long-term debt in open markets. Those efforts greatly expanded both the money supply and the Federal Reserve's asset holdings.

Those actions raise the possibility that the rate of inflation will move up significantly, especially if the economy strengthens more rapidly than most analysts expect. Under that view, the scope and scale of the Federal Reserve's policy actions raised the rate of inflation expected by households, businesses, and financial market participants. Another possibility is that credit has been too readily available, which could be creating the conditions for another asset bubble—in which the prices for some assets, such as houses or financial securities, rise well above the prices implied by their fundamental economic determinants.

Higher inflation, even when it is anticipated, imposes costs on the economy, largely because it decreases the information content of changes in prices and wages. When inflation is higher, determining whether an increase in the price of a good or service occurs because that good or service has become scarcer or because the general price level has increased is more difficult.

Insufficient Monetary Stimulus

Monetary policymakers, however, may not be providing sufficient stimulus to keep inflation from falling and

economic activity from weakening again. Given the large amount of unused and underused resources in the economy, deflation—a sustained decrease in the overall level of prices of goods and services—is a serious possibility in the next few years, and the Federal Reserve could have difficulty arresting deflation if it comes to pass. In CBO's baseline projections, inflation stays low through 2011 and then gradually increases as the economy recovers, reaching not quite 2 percent by 2014. However, the large and persistent amount of slack in the economy that CBO projects will probably generate continued downward pressure on inflation in the prices of goods and services and on the rate of increase in wages and salaries. Indeed, CBO attributes the sharp decline in the core inflation rate during the past two years—from around 2½ percent in early 2008 to just over 1 percent during the first half of 2010, as measured by the core PCE price index—primarily to the large amount of slack that the economy has experienced over that time. The risk of deflation would be even larger if the economy's real growth rate were to fall below what CBO anticipates and the amount of slack remained larger than CBO expects.

The Federal Reserve would need to again pursue unconventional actions to prevent an inadvertent tightening of monetary policy if deflation were to occur, because short-term interest rates are so low that there is little room to lower them further. (As a result, further declines in inflation, let alone actual deflation, would raise short-term real interest rates.) How effective those actions would be is unclear. If they were not effective, growth in GDP might weaken further, a larger amount of slack could exacerbate the deflation, and the economy might enter a self-reinforcing negative cycle.

Deflation is highly disruptive for several reasons. First, it tends to inhibit spending because consumers are encouraged to defer purchases, especially for big-ticket items, in the expectation that prices will be lower in the future than they are at present. Second, it causes the value of debt to rise in real terms; in other words, borrowers would find it more difficult to make debt payments that are fixed in nominal terms if their nominal incomes were falling as a consequence of deflation. Third, it can constrain growth in employment because workers tend to resist reductions in wages, so firms instead would cut costs by deferring hiring, thereby raising the unemployment rate.

Output, Employment, and Inflation from 2015 Through 2020

CBO's medium-term projections, which cover the 2015–2020 period, are based on factors that underlie the potential growth of the economy. CBO takes into account the effects that current-law fiscal policy will probably have on those factors, but it does not project the timing of fluctuations in the business cycle during that period.

On that basis, CBO projects that real GDP will grow at an average annual rate of 2.4 percent during the 2015–2020 period, which matches CBO's projected growth rate for potential output during those years. The unemployment rate is projected to average 5 percent, which is equal to CBO's estimate of the natural rate of unemployment (the rate arising from all sources except fluctuations in economywide demand for goods and services). Inflation—as measured by changes in the PCE price index—will average 2 percent annually in those years, as will core inflation. The projected interest rate on 3-month Treasury bills averages 4.9 percent between 2015 and 2020, and the rate on 10-year Treasury notes averages 5.9 percent.

Potential Output

In CBO's judgment, relatively slow growth in the factors that underlie potential output—potential hours worked, capital services, and potential total factor productivity (TFP)—will keep the economy's potential growth during the coming decade well below the average growth rate of 3.4 percent during the past 60 years (see Table 2-2). Between 2010 and 2014, potential output will grow at an average annual rate of 2.1 percent, CBO projects. (Because GDP is projected to grow faster than potential GDP over that period, the two measures converge by the end of 2014.) Between 2015 and 2020, the projected growth rate of potential output picks up, reflecting the anticipated recovery in businesses' investment in plant and equipment, to an average annual rate of 2.4 percent.

Potential hours worked in the nonfarm business sector (the number of hours worked when the unemployment rate equals the natural rate of unemployment, in a sector that accounts for about three-fourths of total output in the economy) are projected to grow at an average annual rate of 0.5 percent from 2010 through 2020, significantly below the long-term historical average of 1.4 percent. That slower growth in potential hours worked reflects correspondingly slower growth in the potential labor

Table 2-2.

Key Assumptions in CBO's Projection of Potential Output

(By calendar year, in percentage points)

	Average Annual Growth						Projected Average Annual Growth		
	1950-1973	1974-1981	1982-1990	1991-2001	2002-2009	Total, 1950-2009	2010-2014	2015-2020	Total, 2010-2020
				Overall Economy					
Potential Output	3.9	3.2	3.1	3.1	2.7	3.4	2.1	2.4	2.3
Potential Labor Force	1.6	2.5	1.6	1.2	0.9	1.5	0.7	0.5	0.6
Potential Labor Force Productivity[a]	2.3	0.7	1.5	1.9	1.7	1.8	1.4	1.8	1.6
				Nonfarm Business Sector					
Potential Output	4.0	3.5	3.3	3.5	3.0	3.6	2.4	2.8	2.6
Potential Hours Worked	1.4	2.2	1.7	1.2	0.6	1.4	0.5	0.5	0.5
Capital Services	3.8	4.3	4.1	4.7	2.9	4.0	2.4	3.6	3.0
Potential TFP	1.9	0.7	0.9	1.2	1.7	1.4	1.3	1.4	1.3
Potential TFP excluding adjustments	1.9	0.7	0.9	1.2	1.4	1.4	1.4	1.4	1.4
Total adjustments	0	0	0	0.1	0.3	0.1	-0.1	*	*
Effects of the recession[b]	0	0	0	0	0	0	-0.1	*	*
Temporary adjustment[c]	0	0	0	0.1	0.3	0.1	0	0	0
	Contributions to the Growth of Potential Output in the Nonfarm Business Sector								
Potential Hours Worked	0.9	1.6	1.2	0.8	0.4	1.0	0.4	0.4	0.4
Capital Services	1.2	1.3	1.2	1.4	0.9	1.2	0.7	1.1	0.9
Potential TFP	1.9	0.7	0.9	1.2	1.7	1.4	1.3	1.4	1.3
Total Contributions	**4.0**	**3.5**	**3.3**	**3.5**	**3.0**	**3.6**	**2.4**	**2.8**	**2.6**
Memorandum:									
Potential Labor Productivity in the Nonfarm Business Sector[d]	2.6	1.2	1.6	2.3	2.3	2.2	1.9	2.3	2.1

Source: Congressional Budget Office.

Note: TFP = total factor productivity; * = between -0.05 percent and zero.

a. The ratio of potential output to the potential labor force.

b. An adjustment to reflect the effects of the recession on potential output, beyond its impact on capital accumulation and labor supply.

c. An adjustment for the unusually rapid growth of TFP between 2001 and 2003.

d. The estimated trend in the ratio of potential output to potential hours worked in the nonfarm business sector.

force (the labor force adjusted for movements in the business cycle), which is projected to average 0.6 percent annually—considerably lower than its historical average, which CBO estimates at 1.5 percent annually from 1950 through 2009. That outlook reflects slower growth in the working-age population and a falling rate of participation in the labor force as the baby-boom generation approaches retirement age. The participation rate rose during most of the previous 50 years, boosting the growth of the labor force as a share of the population, but has been trending down since 2000.

Policy changes incorporated in current law are also expected to slow the expansion of the labor supply during the next 10 years. Those changes—including the expiration of EGTRRA, JGTRRA, and provisions limiting the impact of the alternative minimum tax—will raise marginal personal tax rates during the next decade relative to what they were in the past decade and will thereby

modestly reduce people's incentive to work. In addition, CBO expects that the major health care legislation enacted in 2010 will reduce the supply of labor slightly (see Box 2-1).

Growth in capital services (the productive services provided by the stock of equipment, software, and structures) in the nonfarm business sector is projected to average 2.4 percent between 2010 and 2014 and 3.6 percent between 2015 and 2020. Those rates of growth are considerably lower than the average rate of 4.0 percent experienced from 1950 through 2009. In the first part of the coming decade, growth in capital services is expected to be constrained by low rates of capital accumulation caused by the low level of business investment. During the second part of the decade, the pace of capital accumulation is projected to pick up but remain below average for two reasons: Some private capital will be displaced by higher federal debt, and the slower projected growth in the labor force means that smaller increases in the stock of plant and equipment will be required to equip the workforce with the same amount of capital per person.

The growth of potential total factor productivity—a measure of the combined productivity of labor and capital when the economy is operating at its potential—is projected to average 1.3 percent annually between 2010 and 2020. That rate is slightly below the average during the past 60 years as a whole but slightly above the average since the major slowdown in productivity growth that occurred in the early 1970s.

Recessions typically do not have a significant influence on potential output beyond the direct effect of lower capital investment (which is automatically reflected in CBO's projections). However, some analysts have raised concerns about the impact on potential output of the recent recession because empirical studies have found that recoveries from recessions stemming from financial crises tend to be more protracted than other recoveries. CBO has incorporated some persistent effects of the recession in its estimate of potential output (see Box 2-2 on page 50).

Inflation, Unemployment, and Interest Rates

Inflation, as measured by the PCE price index and the core PCE price index, is projected to average 2.0 percent annually during the 2015–2020 period. As measured by the consumer price index for all urban consumers (the CPI-U) and the core CPI-U, inflation is projected to be slightly higher, at 2.3 percent. The difference between the rates stems from the way that changes in prices for individual goods and services are combined in each of the price indexes. Looking ahead five years or more, CBO assumes that inflation will be determined generally by monetary policy and that the Federal Reserve will maintain inflation near the top end of the central tendency of long-range forecasts for inflation made by members of the Federal Reserve's Board of Governors and the presidents of the Federal Reserve Banks.

The rate of unemployment is projected to average 5.0 percent during the latter half of the next decade. That projected rate is equal to CBO's estimate of the natural rate of unemployment.

CBO projects nominal interest rates by adding its projection for CPI-U inflation to its projection for real interest rates, which are determined by the rate of national saving and other factors. In CBO's projections, the real rate on 3-month Treasury bills averages 2.6 percent during the latter years of the projection period, and the real rate on 10-year Treasury notes averages 3.6 percent. When combined with the projected rates of CPI-U inflation, those real rates imply average nominal rates of 4.9 percent for 3-month Treasury bills and 5.9 percent for 10-year Treasury notes.

Income from 2010 Through 2020

Projections of federal tax revenues depend on projections of various categories of income—primarily wages and salaries, domestic corporate profits, proprietors' income, and interest and dividend income—as measured in the NIPAs. (Those accounts track the amount and composition of GDP, the prices of its components, and how the costs of production are distributed as income.) CBO forecasts various categories of income by projecting their shares of gross domestic income (GDI).[15]

Domestic income falls into two broad categories: labor income and capital income. CBO's measure of labor income consists of the total compensation that employers pay their employees plus 65 percent of proprietors' income (a commonly used estimate of the proportion of proprietors' income that represents compensation for the labor effort they put into the enterprise). Total

15. GDI is equal to GDP in principle but differs in practice because of errors in measuring each.

Box 2-1.

Effects of Recent Health Care Legislation on Labor Markets

The Patient Protection and Affordable Care Act (Public Law 111-148) and the Health Care Education Reconciliation Act of 2010 (P.L. 111-152) will affect some individuals' decisions about whether and how much to work and employers' decisions about hiring workers.[1] The Congressional Budget Office (CBO) estimates that the legislation, on net, will reduce the amount of labor used in the economy by a small amount—roughly half a percent—primarily by reducing the amount of labor that workers choose to supply. That net effect reflects changes in incentives in the labor market that operate in both directions: Some provisions of the legislation will discourage people from working more hours or entering the workforce, and other provisions will encourage them to work more. Moreover, many people will be unaffected by those provisions and will face the same incentives regarding work as they do under current law.

The net reduction in the supply of labor is largely attributable to the substantial expansion of Medicaid and the provision of subsidies that will reduce the cost of insurance obtained through the newly created exchanges, beginning in 2014. In particular:

- The legislation extends Medicaid eligibility to most nonelderly residents whose income is below 138 percent of the federal poverty level (FPL)—including childless adults who are currently ineligible for Medicaid in most states. (The FPL in 2010 is $10,830 for a single person and $22,050 for a family of four.)
- People who purchase insurance through the new exchanges will generally be eligible for tax credits to help them pay their health insurance premiums if their income is between 138 percent and 400 percent of the FPL and they are not offered coverage through an employer. (They may also be eligible for reductions in their cost-sharing requirements.) Those subsidies decline in value as income rises and can, under some circumstances, drop sharply to zero when income exceeds 400 percent of the FPL.

The expansion of Medicaid and the availability of subsidies through the exchanges will effectively increase beneficiaries' financial resources. Those additional resources will encourage some people to work fewer hours or to withdraw from the labor market. In addition, the phaseout of the subsidies as income rises will effectively increase marginal tax rates, which will also discourage work. But because most workers who are offered insurance through their jobs will be ineligible for the exchanges' subsidies and because most people will have income that is too high to be eligible for Medicaid, those effects on financial resources and marginal tax rates will apply only to a small segment of the population.

Other provisions in the legislation are also likely to diminish people's incentives to work. Changes to the insurance market, including provisions that prohibit insurers from denying coverage to people because of preexisting conditions and that restrict how much prices can vary with an individual's age or health status, will increase the appeal of health insurance plans offered outside the workplace for older workers. As a result, some older workers will choose to retire earlier than they otherwise would.

In contrast, another feature of the Medicaid expansion removes an existing disincentive to work for many low-income individuals. People currently lose eligibility for Medicaid if their income rises above a

1. For a general discussion about the potential effects of health care legislation on labor markets, see Congressional Budget Office, *Effects of Changes to the Health Insurance System on Labor Markets,* Issue Brief (July 13, 2009).

Continued

Box 2-1. Continued

Effects of Recent Health Care Legislation on Labor Markets

certain level; for working parents, the median income threshold for eligibility among states was 64 percent of the FPL in 2009. The health care legislation will allow parents to work and still qualify for Medicaid until their income exceeds 138 percent of the FPL. Moreover, parents whose income exceeds the new, higher threshold may be able to work and receive the tax credits and cost-sharing reductions for insurance purchased through the exchanges.[2]

Some other provisions of the legislation may also affect decisions regarding work, but their net effect on the total labor supply will probably be small. For example, the new laws impose an excise tax on high-cost health insurance plans beginning in 2018. CBO expects that the burden of the tax will, over time, be borne primarily by workers, reducing their after-tax compensation and thereby encouraging them to work more. That provision, though, will also increase the effective price of health insurance, making other goods relatively less expensive. Those "other goods" include leisure—which people "purchase" in forgone earnings by choosing to work less—so the change in relative prices will encourage people to work less. The legislation also increases Medicare's Hospital Insurance (HI) tax by 0.9 percentage points on earnings above $200,000 ($250,000 if married and filing a joint return). The net effect of that increase will probably be a slight decline in labor supply.

2. The wider availability of subsidies could also affect the employment decisions of people with disabilities. Disabled individuals whose income is below 400 percent of the FPL will be able to receive subsidized health care without leaving the work force and enrolling in such programs as Disability Insurance (DI) or Supplemental Security Income (SSI). As a result, some disabled workers who would otherwise be out of the work force might stay employed or seek employment; however, other disabled workers might leave the work force earlier than they otherwise would because, unlike DI, neither Medicaid nor subsidies offered through the exchanges will require people to wait before they can receive benefits.

Employers' decisions to hire workers will also be affected in some cases by the health care legislation. Employers with 50 or more employees will be required to pay a penalty if they do not offer insurance or if the insurance they offer does not meet certain criteria and at least one of their workers receives a subsidy from an exchange. Those penalties, whose amounts are based on the number of full-time workers in the firm, will, over time, generally be passed on to workers through reductions in wages or other forms of compensation. However, firms generally cannot reduce workers' wages below the minimum wage, which will probably cause some employers to respond by hiring fewer low-wage workers. Alternatively, because firms are penalized only if their full-time employees receive subsidies from exchanges, some firms may instead hire more part-time or seasonal employees.

More generally, the health care legislation may shape the labor market or the operations of other segments of the economy in ways that are difficult to anticipate or quantify. For example, the legislation could influence labor markets indirectly by making it easier for some employees to obtain health insurance outside the workplace and thereby enabling workers to take jobs that better match their skills. Some firms, however, might invest less in their workers—by reducing training, for example—if the probability of retaining those workers declines. To the extent that changes in the health insurance system lead to improved health status among workers, the nation's economic productivity could be enhanced. It is not clear, however, whether such changes would have a substantial impact on overall economic productivity or output. Moreover, many of the effects of the legislation may not be felt for several years because it will take time for workers and employers to recognize and to adapt to the new incentives.

Box 2-2.

Persistent Effects of the Recent Recession on Potential Output

The recent financial crisis had a very sharp impact on the U.S. economy, nearly freezing credit markets and contributing to one of the deepest recessions since World War II. That experience is broadly similar to the effects of past financial crises in a number of countries; research has typically found that recessions that often follow such crises tend to be deeper than other recessions.[1] Although less widely recognized, the effects of the financial crisis and recession are likely to extend even beyond the point at which output and employment return to their long-run sustainable paths. Specifically, the recession will probably reduce the level of potential output throughout the coming decade, operating through several channels.

First, the recession will probably have a persistent effect on the quantity of productive capital. During the recession, investment plunged as a result of the spike in financing costs and the decline in demand for goods and services. Although investment is already increasing again and CBO projects that it will rebound much further during the next few years, it will probably not be sufficiently strong to offset by 2020 all of the forgone capital accumulation during the recession and early recovery.

Second, the recession will probably have a lingering effect on hours worked. The recession is likely to cause some workers to retire earlier or to stay out of the labor force (for example, because they are receiving disability benefits).[2] Moreover, the recession will probably raise the natural rate of unemployment (the rate of unemployment arising from all sources except cyclical fluctuations in economywide demand for goods and services). In particular, people who are out of work—especially if they are out of work for a long time—tend to suffer from declining skills and may pursue new job possibilities less intensively.

Those factors have been incorporated in CBO's economic forecast. Projected unemployment is higher

1. See, for example, Carmen Reinhart and Kenneth Rogoff, "The Aftermath of Financial Crises," *American Economic Review*, vol. 99, no. 2, May 2009.

2. Applications for disability benefits tend to rise in recessions. See Congressional Budget Office, *Losing a Job During a Recession*, Issue Brief (April 22, 2010).

Continued

compensation is the sum of wages, salaries, and supplemental benefits (which largely comprise employers' payments for health and other insurance premiums, their contributions to pension funds, and their share of payroll taxes for Social Security and Medicare). Capital income, which consists of income derived from wealth, accounts for the rest of GDI. CBO's measure of capital income includes such components as corporate profits, interest and dividend income, and 35 percent of proprietors' income.

Labor income's share of GDI has fallen sharply over the past year (see Figure 2-13 on page 52).[16] The weakness of labor income stems primarily from the behavior of private-sector wages and salaries, which have grown far more slowly than the other components of GDI since the middle of 2009. In CBO's projections, labor income grows faster than GDI over the next decade, bringing labor's share back to its average level over the past 30 years—about 62 percent of GDI.

Domestic corporate profits rebounded sharply over the past year. Corporate profits as a share of GDI fell from a 40-year high of 10.2 percent in 2006 to a low of 4.5 percent in late 2008; by early 2010, that share had recovered to 8.2 percent—above its 30-year average of 7.3 percent.

16. However, the annual revision to the NIPAs, which was released after CBO had completed its economic projections, showed that the drop in labor income's share of GDI was not as large as it had appeared in earlier data.

Box 2-2. **Continued**

Persistent Effects of the Recent Recession on Potential Output

after 2015 than CBO had projected before the recession—up from 4.8 percent to 5.0 percent. In addition, projected growth of the labor force, employment, and hours worked is slightly lower than CBO had projected before the recession.

Finally, the recession will probably have a small effect on the growth of total factor productivity—the average real output per unit of combined labor and capital services—perhaps through its effect on spending for research and development (R&D). It is likely that business spending on R&D, like other forms of investment, was reduced by the increase in the cost of capital, and less investment of this sort will dampen productivity. To reflect the possibility of such an effect, CBO has trimmed its projection of the growth rate of potential total factor productivity by a small amount—0.1 percentage point per year from 2010 through 2014.

By combining estimates of the effects on capital accumulation, potential hours worked, and potential total factor productivity, it is possible to make a rough estimate of the overall impact of the recession on CBO's projection of potential output. Potential output between 2015 and 2020 is currently projected to be about 1¾ percent lower than it would have been had the financial crisis and recession not occurred. Slightly over half of that effect can be attributed to slower capital accumulation, with the rest of the effect divided almost evenly between lower estimates of labor supply and total factor productivity. Some researchers have found empirical evidence of persistent effects from past recessions induced by financial crises that are as large or larger, though other researchers find smaller or no persistent effects. No clear consensus about the size of the long-term effect of financial crises exists.[3]

3. See, for example, European Commission, Directorate-General for Economic and Financial Affairs, *Impact of the Current Economic and Financial Crisis on Potential Output*, Occasional Papers No. 49 (Brussels: European Commission, June 2009); Davide Furceri and Annabelle Mourougane, *The Effect of Financial Crises on Potential Growth: New Empirical Evidence from OECD Countries*, OECD Economics Department Working Paper No. 699 (Paris: Organisation for Economic Co-operation and Development, May 2009); John H. Boyd, Sungkyu Kwak, and Bruce D. Smith, "The Real Output Losses Associated with Modern Banking Crises," *Journal of Money, Credit, and Banking*, vol. 37, no. 6 (December 2005), pp. 977–999.

Both the decline and subsequent rebound in corporate profits were particularly dramatic in the financial sector, but they also occurred in more modest form in the nonfinancial sector. In CBO's forecast, the share of GDI from domestic corporate profits reaches 9 percent by early 2011 and generally remains at that level until 2013. After 2013, that share starts to fall as higher interest rates and the growing accumulation of private debt increase the projected interest costs of domestic businesses and as labor income rises as a share of GDI.

Comparison with the January 2010 Forecast

CBO's current economic projections are similar to those the agency issued in January (see Table 2-3 on page 54). The fairly small changes made since those earlier projections have resulted in projected budget deficits that are smaller by $233 billion over the 2011–2020 period (see Appendix A).

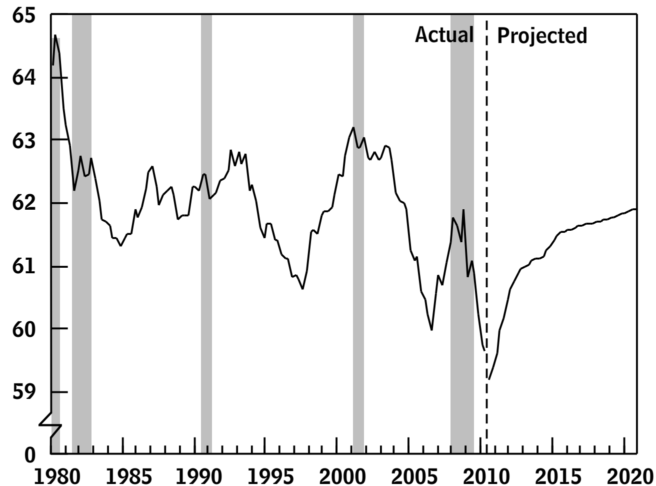
In contrast to the January forecast, CBO now forecasts that real GDP will grow at a faster rate in 2010 and 2011, a somewhat slower rate from 2012 through 2014, and the same rate in 2015 and beyond. The faster projected growth rate in the near term primarily reflects faster-than-anticipated growth in real GDP in the first half of 2010.

CBO currently expects that the unemployment rate will be somewhat lower than it previously projected for 2010 and 2011, because of a lower-than-anticipated rate of unemployment during the first half of 2010. Instead of edging slightly above its late-2009 rate of 10.0 percent as

Figure 2-13.

Labor Income

(Percentage of gross domestic income)



Sources: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

Notes: Actual data incorporate the July 2010 revisions of the national income and product accounts; projections are based on data issued before the revisions.

Data are quarterly. Actual data are reported through the first quarter of 2010; and data for the second quarter are estimated; projections are plotted through the fourth quarter of 2020.

CBO had expected, the unemployment rate fell to an average of 9.7 percent in the first half of 2010. CBO now expects that the unemployment rate will move down gradually from that level rather than from the higher level forecast previously. By the end of 2014, though, the unemployment rate is expected to equal 5.1 percent, about the same as in the forecast issued in January.

Relative to the January projection, inflation in consumer prices is somewhat lower in 2010 and 2011 but somewhat higher in the rest of the decade. The downward revision for the near term mostly reflects the sharper-than-anticipated decrease in inflation that occurred during the first half of 2010. The upward revision for the remaining years of the projection is attributable to CBO's judgment that, in light of recent experience and concerns about deflation, the Federal Reserve will attempt to maintain an inflation rate for consumer prices near the top end of the central tendency of the long-range forecasts for inflation made by members of the Federal Reserve's Board of Governors and the presidents of the Federal Reserve Banks. Because of the higher projected rate of inflation beyond 2011, CBO now projects that nominal GDP will rise somewhat faster over the 2015–2020 period than the agency projected in January.

Short-term interest rates in 2011 and 2012 are lower in the current forecast than in the January forecast, because CBO now expects that the Federal Reserve will wait to begin removing monetary stimulus until early 2012. Longer-term interest rates are also expected to be lower in the second half of 2010 and in 2011 and 2012, largely because actual rates have fallen since late 2009. After 2012, however, short-term and long-term nominal rates are higher in the current forecast, reflecting the higher projected rate of inflation.

Comparison with Other Forecasts

Compared with the outlooks of other forecasters, CBO's projection of real economic growth over the next two years is somewhat less optimistic (see Table 2-4 on page 56 and Table 2-5 on page 57). CBO's projection of growth in real GDP in 2010 is equal to the average projection from the *Blue Chip* survey of private forecasters in early August, slightly below the projection the Administration reported in the *Mid-Session Review of the Budget* issued in July, and slightly below the bottom end of the central tendency of forecasts from the Federal Reserve released in July. However, CBO's projection of growth in real GDP in 2011 is well below the projections of those forecasters. Between 2012 and 2015, CBO projects slightly weaker growth in real GDP than does the Administration; for 2012, CBO projects about the same rate of growth as the central tendency of forecasts from the Federal Reserve.

Differences between the projections of CBO and those of other forecasters probably stem primarily from a difference in assumptions about fiscal policy. Most forecasters appear to assume that the Congress will extend at least some of the tax cuts enacted in 2001 and 2003 as well as some relief from the AMT. In contrast, CBO's forecast is predicated on the assumption that current law is maintained. If CBO had assumed those extensions, the agency's forecast of real GDP at the end of 2011 would be roughly in line with the *Blue Chip* consensus forecast and near the lower end of the central tendency of the Federal Reserve's forecasts (see page 36).

CBO's projection of the unemployment rate in 2010 and 2011 is quite similar to the projections of the *Blue Chip* consensus, the Administration, and the Federal Reserve. For the 2012–2015 period, CBO's projection of the unemployment rate is below that of the Administration; for 2012, CBO's projection is close to that of the Federal Reserve.

CBO's forecast of inflation (as measured by the CPI-U) is very close to the forecasts of the *Blue Chip* consensus and the Administration for 2010 but is below them for 2011. However, CBO's forecast of inflation (as measured by the PCE price index) is very close to the central tendency of forecasts from the Federal Reserve for both years.

Looking beyond the near term, CBO's forecast of inflation is very close to the Administration's for 2012 through 2015 and very close to the Federal Reserve's for 2012.

CBO's forecasts for interest rates on short-term and long-term Treasury securities are comparable with those of the *Blue Chip* consensus and the Administration in 2010 but are considerably lower in 2011. Those differences probably arise in part from a difference in projections of inflation and the stance of monetary policy. CBO's projections of Treasury rates are similar to the Administration's projections for the 2012–2015 period. (The Federal Reserve does not publish its interest rate forecasts.)

Table 2-3.

CBO's Current and Previous Economic Projections for Calendar Years 2010 to 2020

	Forecast		Projected Annual Average	
	2010	2011	2012–2014	2015–2020
Nominal GDP (Billions of dollars)				
August 2010	14,804	15,262	17,987 [a]	23,398 [b]
January 2010	14,706	15,116	17,816 [a]	22,770 [b]
Nominal GDP (Percentage change)				
August 2010	3.8	3.1	5.6	4.5
January 2010	3.2	2.8	5.6	4.2
Real GDP (Percentage change)				
August 2010	3.0	2.1	4.1	2.4
January 2010	2.2	1.9	4.4	2.4
GDP Price Index (Percentage change)				
August 2010	0.8	1.0	1.5	2.0
January 2010	0.9	0.9	1.1	1.7
PCE Price Index (Percentage change)				
August 2010	1.5	1.0	1.5	2.0
January 2010	1.9	1.1	1.2	1.7
Employment Cost Index (Percentage change)				
August 2010	1.5	2.1	3.2	3.5
January 2010	1.6	1.4	2.5	3.0
Consumer Price Index[c] (Percentage change)				
August 2010	1.6	1.0	1.7	2.3
January 2010	2.4	1.3	1.2	1.9
Unemployment Rate (Percent)				
August 2010	9.5	9.0	6.7	5.0
January 2010	10.1	9.5	6.5	5.0
Three-Month Treasury Bill Rate (Percent)				
August 2010	0.2	0.2	2.8	4.9
January 2010	0.2	0.7	2.9	4.6
Ten-Year Treasury Note Rate (Percent)				
August 2010	3.4	3.5	4.7	5.9
January 2010	3.6	3.9	4.5	5.5

Continued

Table 2-3. **Continued**

CBO's Current and Previous Economic Projections for Calendar Years 2010 to 2020

	Forecast		Projected Annual Average	
	2010	2011	2012–2014	2015–2020
Tax Bases (Billions of dollars)				
Domestic economic profits				
August 2010	1,326	1,342	1,554 [a]	1,572 [b]
January 2010	1,263	1,307	1,487 [a]	1,588 [b]
Wages and salaries				
August 2010	6,415	6,629	8,066 [a]	10,644 [b]
January 2010	6,517	6,671	8,061 [a]	10,365 [b]
Tax Bases (Percentage of GDP)				
Domestic economic profits				
August 2010	9.0	8.8	8.8	7.2
January 2010	8.6	8.6	8.6	7.3
Wages and salaries				
August 2010	43.3	43.4	44.6	45.4
January 2010	44.3	44.1	45.0	45.4
Memorandum:				
Real Potential GDP (Percentage change)				
August 2010	1.6	1.8	2.4	2.4
January 2010	1.7	1.6	2.3	2.4

Sources: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Department of Labor, Bureau of Labor Statistics; Federal Reserve.

Notes: The dollar values for nominal GDP and the tax bases do not incorporate the July 2010 revisions of the national income and product accounts.

Percentage changes are measured from one year to the next.

GDP = gross domestic product; PCE = personal consumption expenditures.

a. Value in 2014.

b. Value in 2020.

c. The consumer price index for all urban consumers.

d. The employment cost index of wages and salaries of workers in private industry.

Table 2-4.

Comparison of Economic Projections by CBO, the Administration, and the *Blue Chip* Consensus for Calendar Years 2010 to 2015

	Forecast		Projected Annual Average,
	2010	2011	2012–2015
	Fourth Quarter to Fourth Quarter (Percentage Change)		
Nominal GDP			
CBO	3.8	3.0	5.5
Administration	4.0	5.3	5.7
Blue Chip	4.1	4.6	n.a.
Real GDP			
CBO	2.8	2.0	3.7
Administration	3.1	4.0	4.0
Blue Chip	2.8	3.0	n.a.
GDP Price Index			
CBO	1.0	1.0	1.7
Administration	0.8	1.3	1.7
Blue Chip	1.3	1.5	n.a.
Consumer Price Index[a]			
CBO	0.8	1.2	1.9
Administration	1.0	1.6	2.0
Blue Chip	0.9	1.7	n.a.
	Calendar Year Average (Percent)		
Unemployment Rate			
CBO	9.5	9.0	6.3
Administration	9.7	9.0	6.8
Blue Chip	9.6	9.1	n.a.
Three-Month Treasury Bill Rate			
CBO	0.2	0.2	3.3
Administration	0.2	0.7	3.4
Blue Chip	0.2	0.7	n.a.
Ten-Year Treasury Note Rate			
CBO	3.4	3.5	5.0
Administration	3.5	4.0	5.1
Blue Chip	3.4	3.8	n.a.

Sources: Congressional Budget Office; Office of Management and Budget (July 2010); and Aspen Publishers, Inc., *Blue Chip Economic Indicators* (August 10, 2010).

Notes: The *Blue Chip* consensus is the average of about 50 forecasts by private-sector economists.

GDP = gross domestic product; n.a. = not available.

a. The consumer price index for all urban consumers.

Table 2-5.

Comparison of Forecasts by CBO and the Federal Reserve for Calendar Years 2010 to 2012

	2010	2011	2012
		Fourth Quarter to Fourth Quarter (Percentage change)	
Real GDP			
CBO	2.8	2.0	4.0
Federal Reserve			
Range	2.9 to 3.8	2.9 to 4.5	2.8 to 5.0
Central tendency	3.0 to 3.5	3.5 to 4.2	3.5 to 4.5
PCE Price Index			
CBO	0.9	1.1	1.4
Federal Reserve			
Range	0.9 to 1.8	0.8 to 2.4	0.5 to 2.2
Central tendency	1.0 to 1.1	1.1 to 1.6	1.0 to 1.7
Core PCE Price Index[a]			
CBO	0.9	1.1	1.3
Federal Reserve			
Range	0.7 to 1.5	0.6 to 2.4	0.4 to 2.2
Central tendency	0.8 to 1.0	0.9 to 1.3	1.0 to 1.5
		Average Level, Fourth Quarter (Percent)	
Unemployment Rate			
CBO	9.3	8.8	7.6
Federal Reserve			
Range	9.0 to 9.9	7.6 to 8.9	6.8 to 7.9
Central tendency	9.2 to 9.5	8.3 to 8.7	7.1 to 7.5

Sources: Congressional Budget Office; Board of Governors of the Federal Reserve System, *Monetary Report to the Congress* (July 21, 2010), www.federalreserve.gov/monetarypolicy/mpr_20100721_part4.htm.

Notes: The range of estimates from the Federal Reserve reflects the views of the members of the Board of Governors and the presidents of the Federal Reserve Banks. The central tendency reflects their most common views.

GDP = gross domestic product; PCE = personal consumption expenditures.

a. Excludes prices for food and energy.

APPENDIX

A

Changes in CBO's Baseline Since March 2010

The Congressional Budget Office (CBO) updates its baseline budget projections each summer to reflect revisions to CBO's economic forecast, the effects of legislation that has been enacted, and new information about the operations of various programs (labeled "technical" changes). The paths of federal spending and revenues presented in this report incorporate updates to all of those factors since CBO completed its previous baseline projections in March 2010.[1]

CBO constructs its baseline in accordance with provisions of the Balanced Budget and Emergency Deficit Control Act of 1985 and the Congressional Budget and Impoundment Control Act of 1974. (Although the provisions of the Deficit Control Act that pertain to the baseline expired in 2006, the agency generally continues to follow that law's specifications in preparing its projections.) For revenues and mandatory spending, CBO assumes that current laws will remain unchanged, with only a few exceptions.[2] Currently, that approach includes the assumption that various changes in tax law enacted since 2001 will expire as scheduled—by the end of December 2010—causing revenues to increase thereafter. To project discretionary spending, CBO assumes that future appropriations will equal the current year's appropriations with adjustments (as specified in the Deficit Control Act) to reflect the effects of inflation and certain other factors. The resulting baseline projections are not intended to be a prediction of future budgetary outcomes; rather, they serve as a benchmark that lawmakers can use to measure the effects of spending or revenue proposals.

Since March, CBO has made only small net changes to its projections of the budget deficit for 2010 and for the 2011–2020 period. The agency now anticipates that this year's shortfall will be about $1.34 trillion, $27 billion less than its previous estimate (see Table A-1). CBO now expects that revenues and outlays will be lower than it had previously reported, by $33 billion and $60 billion, respectively. Technical changes account for most of those revisions.

However, CBO has increased its estimate of baseline deficits over the 2011–2020 period. In March, CBO projected a cumulative deficit of nearly $6.0 trillion for that period; the current baseline shows a cumulative deficit of $6.2 trillion. Projected revenues are $1.4 trillion (or about 4 percent) higher than in the previous baseline, but that change is eclipsed by the $1.6 trillion upward revision to outlays (also an increase of about 4 percent). The increase of $256 billion in deficits is more than fully accounted for by recently enacted legislation, the effects of which are offset in part by the effects of changes in CBO's economic forecast. Specifically, legislative changes increase the estimated deficits during the next 10 years by $404 billion, whereas economic changes improve the 10-year outlook by $233 billion. Technical updates to CBO's projections of spending and revenues play a smaller role in the revision to projected deficits, increasing them by $85 billion over the 2011–2020 period.

1. Those projections were published in Congressional Budget Office, *An Analysis of the President's Budgetary Proposals for Fiscal Year 2011* (March 2010).

2. The Deficit Control Act specified that mandatory spending programs whose authorizations are set to expire should be assumed to continue if they have outlays of more than $50 million in the current year and were established on or before the date on which the Balanced Budget Act of 1997 was enacted. Programs established after that date are not assumed to continue beyond the expiration of their authorizations. The Deficit Control Act also specified that expiring excise taxes whose revenues are dedicated to trust funds should be assumed to be extended at their current rates. The law did not provide for the extension of other expiring tax provisions, even if they have been routinely extended in the past.

Table A-1.

Changes in CBO's Baseline Projections of the Deficit Since March 2010

(Billions of dollars)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total, 2011-2015	Total, 2011-2020
Total Deficit as Projected in March 2010	-1,368	-996	-642	-525	-463	-472	-513	-521	-534	-641	-684	-3,097	-5,990
							Legislative Changes						
Changes to Revenue Projections													
PPACA and the Reconciliation Act	-3	3	5	27	57	65	83	89	95	104	115	156	643
Other	-6	-5	1	4	18	5	-9	5	6	12	4	22	40
Subtotal, revenues	-8	-2	6	31	75	69	73	94	102	116	119	179	683
Changes to Outlay Projections													
Mandatory outlays													
PPACA and the Reconciliation Act (Health provisions)	4	5	-9	-23	8	49	89	95	92	91	87	30	485
Reconciliation Act (Education provisions)	*	*	4	-6	-2	-5	-4	-2	-2	-2	-2	-9	-21
Unemployment compensation	21	25	0	0	0	0	0	0	0	0	0	25	25
Financial regulation	-11	4	5	3	1	2	1	1	1	1	2	15	21
Other	3	28	2	1	-2	-3	-1	1	*	1	1	25	27
Subtotal, mandatory	16	61	2	-24	4	42	86	95	91	92	88	86	538
Discretionary outlays													
Defense	5	23	30	32	33	34	35	35	36	37	38	152	333
Nondefense	*	5	9	11	12	13	14	14	14	14	15	50	120
Subtotal, discretionary	5	28	38	43	46	47	49	49	50	51	52	202	454
Net interest outlays (Debt service)	*	1	2	4	4	5	9	13	16	19	22	17	95
Subtotal, outlays	21	90	43	23	54	95	143	156	158	162	162	305	1,086
Total Legislative Changes[a]	**-29**	**-92**	**-37**	**8**	**20**	**-26**	**-70**	**-63**	**-56**	**-45**	**-43**	**-126**	**-404**
							Economic Changes						
Changes to Revenue Projections	-4	15	20	22	47	65	89	110	133	147	147	168	794
Changes to Outlay Projections													
Mandatory outlays													
Medicare and Medicaid	*	-2	-1	*	1	6	11	17	22	27	32	4	113
Social Security	0	-1	-5	-6	-3	2	6	9	13	17	22	-13	53
Student loans	*	-3	-3	*	4	5	5	4	3	3	3	2	20
Unemployment compensation	-5	-15	*	3	2	1	2	2	2	3	3	-10	2
Other	*	1	-1	-2	*	2	3	5	8	9	10	-1	34
Subtotal, mandatory	-5	-20	-11	-5	4	15	27	36	48	58	70	-17	222
Discretionary outlays	*	1	4	9	16	23	32	39	44	49	54	53	271
Net interest outlays													
Debt service	*	*	-1	-3	-6	-8	-9	-10	-11	-12	-12	-19	-72
Effect of rates and inflation	-6	-11	-24	-19	*	17	32	35	35	37	39	-37	141
Subtotal, net interest	-6	-11	-26	-23	-6	10	23	26	24	25	27	-56	69
Subtotal, outlays	-12	-29	-33	-19	14	48	82	100	116	132	150	-20	562
Total Economic Changes[a]	**8**	**45**	**53**	**41**	**33**	**17**	**7**	**10**	**17**	**14**	**-3**	**188**	**233**

Continued

Table A-1. Continued

Changes in CBO's Baseline Projections of the Deficit Since March 2010

(Billions of dollars)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total, 2011-2015	Total, 2011-2020
							Technical Changes						
Changes to Revenue Projections	-21	-38	-40	-38	-29	-20	-5	-3	13	22	23	-165	-115
Changes to Outlay Projections													
Mandatory outlays													
Medicare	-13	-11	*	1	-10	-4	-5	*	5	-7	-8	-25	-41
Social Security	-2	-2	-3	-3	-3	-4	-4	-4	-5	-5	-5	-15	-39
Other health care programs	-2	1	2	2	-1	*	-2	-3	-4	-5	-10	4	-19
Unemployment compensation	-1	-6	-2	-1	-1	-1	-1	-1	-1	-1	-2	-11	-18
Fannie Mae and Freddie Mac	20	1	-2	-3	-3	-3	-2	-1	*	1	*	-10	-11
Deposit insurance	-13	2	-1	4	2	2	1	-2	-4	-4	-1	10	*
Troubled Asset Relief Program	-39	2	2	1	1	*	*	*	0	0	0	7	7
Other	-4	-2	1	1	2	2	2	3	2	2	3	3	16
Subtotal, mandatory	-54	-14	-2	1	-13	-8	-11	-9	-7	-19	-22	-37	-104
Discretionary outlays	-14	2	1	1	1	*	-1	-1	-1	-1	-1	5	*
Net interest outlays													
Debt service	*	*	*	1	3	5	6	6	6	5	3	9	35
Other	*	-3	*	7	10	11	9	5	3	-1	-2	24	39
Subtotal, net interest	*	-3	*	8	13	15	15	12	9	4	1	33	74
Subtotal, outlays	-69	-16	*	10	*	7	3	2	1	-16	-22	1	-30
Total Technical Changes[a]	**48**	**-23**	**-40**	**-49**	**-29**	**-27**	**-8**	**-5**	**11**	**38**	**46**	**-167**	**-85**
							All Changes						
Total Impact on the Deficit[a]	**27**	**-71**	**-24**	*	**24**	**-35**	**-71**	**-58**	**-28**	**7**	**-1**	**-105**	**-256**
Total Deficit as Projected in August 2010	-1,342	-1,066	-665	-525	-438	-507	-585	-579	-562	-634	-685	-3,202	-6,246
Memorandum:													
Total Changes to Revenues	-33	-25	-14	15	93	114	157	201	247	285	289	182	1,362
Total Changes to Outlays	-60	45	10	14	68	150	229	259	275	278	290	287	1,618

Source: Congressional Budget Office.

Note: PPACA = Patient Protection and Affordable Care Act; Reconciliation Act = Health Care and Education Reconciliation Act of 2010; * = between -$500 million and $500 million.

a. Negative numbers indicate an increase in the deficit; positive numbers represent a decrease in the deficit.

Legislative Changes

CBO estimates that legislation enacted since the agency prepared its March baseline will increase the 2010 deficit by $29 billion and will boost the cumulative deficit over the 2011–2020 period by $404 billion (or about 7 percent).

Enactment of the Supplemental Appropriations Act, 2010 (Public Law 111-212) accounts for much of the net change in projected deficits attributable to legislation. That law appropriated $46 billion for 2010; assuming that such funding will continue each year, with adjustments for inflation, adds $459 billion to the baseline for discretionary spending over the 2011–2020 period. Even larger 10-year changes in CBO's projections of revenues and outlays stem from enactment of the Patient Protection and Affordable Care Act (PPACA, P.L. 111-148), as amended by the Health Care and Education Reconciliation Act of 2010 (P.L. 111-152)—but those changes are largely offsetting. The estimated net effects of those laws led CBO to decrease its projection of deficits over the 2011–2020 period by $179 billion.[3] The remainder ($124 billion) of the increase in CBO's cumulative deficit projection that is classified as a legislative change is attributable mostly to interest on the additional borrowing necessary to finance the net cost of legislative actions.

Changes to Projections of Outlays

As a result of recently enacted legislation, CBO has increased its projections of outlays for 2010 by $21 billion and for the 2011–2020 period by $1.1 trillion relative to its estimates in March. Higher mandatory spending dominates the increase in projected outlays, representing three-quarters of the increase for 2010 and nearly half of the increase for the following 10 years.

Discretionary Spending. Three supplemental appropriation acts as well as a set of rescissions of previous appropriations have been enacted since CBO's March baseline was published. On net, they add $41 billion in discretionary budget authority for 2010. Extrapolating that funding throughout the 2011–2020 period leads CBO to increase its projection of discretionary outlays by a total of $454 billion—$333 billion for defense and $120 billion for nondefense programs.

Public Law 111-212 was the largest of the recently enacted supplemental appropriation laws: About $33 billion of the funding provided in July was for defense spending, which includes nearly $30 billion for military operations in Afghanistan and Iraq and an additional $3.5 billion for purposes not related to those wars. Another $12 billion was appropriated for nondefense purposes, including about $5 billion for the Disaster Relief Fund, $3.8 billion for diplomatic operations and foreign aid in Afghanistan and Iraq, and $2.5 billion for other international affairs programs (mainly for reconstruction in Haiti following the January 2010 earthquake). Most of the appropriated money will be spent after 2010; thus, for this year, CBO added $5 billion to its estimate of defense outlays and less than $1 billion to its estimate of nondefense outlays. Under the rules governing baseline projections, such funding is assumed to continue in future years at the same level in real terms (that is, adjusted only for inflation). As a result, the appropriation of $46 billion for 2010 provided by P.L. 111-212 adds a total of $341 billion in outlays for defense and $118 billion in outlays for nondefense programs (plus interest costs) to projected deficits for the next 10 years.

In addition to P.L. 111-212, three additional bills affecting discretionary spending were enacted in August: legislation providing financial assistance to states (P.L. 111-226), legislation providing emergency supplemental funding for border security (P.L. 111-230), and the United States Patent and Trademark Office Supplemental Appropriations Act, 2010 (P.L. 111-224).

- P.L. 111-226 rescinded $5 billion of discretionary budget authority. (The law also increased the federal share of Medicaid costs and provided funds to support teachers' salaries in certain school districts; outlays for those programs are classified as mandatory spending and are discussed in the next section.) Extrapolating the rescissions over the 2011–2020 period removes $12 billion of discretionary outlays from the baseline.

- P.L. 111-230 provided an additional $500 million in discretionary budget authority for 2010—the net result of $600 million in additional funding, largely to pay for more Customs and Border Patrol agents on the

3. The cost estimate for PPACA and the Reconciliation Act at the time of their enactment reported effects on revenues and direct spending for the 2010–2019 period that would yield a net reduction in deficits of $143 billion. The figure reported here for the 2011–2020 period excludes the $6 billion increment to the deficit that was estimated for 2010 and adds an estimated reduction of $30 billion in the deficit for 2020 (including $28 billion for health and revenue provisions and $2 billion for education programs). See Box 1-1 on page 6 for more details.

border with Mexico, and a rescission of $100 million of appropriations for a virtual border fence (a program that has been suspended). On net, extrapolating the effects of P.L. 111-230 over the 10-year period increases discretionary spending by $6 billion.

- P.L. 111-224 provided $129 million in additional budget authority for the U.S. Patent and Trademark Office for the current year, but rescinded the same amount of funding from the operations of the U.S. Census Bureau. The net effects of those two actions mostly offset each other over the 2010–2020 period.

The Patient Protection and Affordable Care Act and the Health Care and Education Reconciliation Act of 2010. Enactment of PPACA and the Reconciliation Act has led CBO to raise its estimate of outlays for 2010 by $3 billion and its projection of outlays for the 2011–2020 period by $464 billion. Of that 10-year increase, the legislation's changes related to health care boost projected outlays by $485 billion, and those related to education reduce them by $21 billion. For its estimates of the laws' effects on outlays for 2010 through 2019, CBO used the amounts published in its final cost estimate for the laws (at the time of their enactment, those years were the period relevant to enforcing budget rules); CBO then extrapolated the 2019 estimates to compute the effects on outlays for 2020. As discussed in the next section, CBO also projects that the legislation will decrease revenues by almost $3 billion in 2010 and will increase revenues by $643 billion between 2011 and 2020. (For additional information about how the effects of PPACA and the Reconciliation Act were incorporated into CBO's baseline projections, see Box 1-1 on page 6.) The projected changes in outlays are as follows:

- **Medicare.** On net, CBO estimates that the legislation will reduce spending for Medicare by $555 billion between 2011 and 2020. Reductions in annual updates to Medicare's payment rates for most providers (other than physicians) in the fee-for-service sector of the program and a change in the way that payment rates are set for beneficiaries enrolled in Medicare Advantage plans generate the bulk of the estimated drop in spending. The establishment of an Independent Payment Advisory Board (IPAB)—which is charged with making changes to the Medicare program that will reduce its spending if the growth of that spending is projected to exceed a target rate specified in the legislation—generates a small share of the overall savings through 2020. The laws also reduce cost sharing for some prescription drugs, increasing CBO's projections of Medicare's spending by about $35 billion over the 10-year period.

- **Medicaid.** Enactment of the two laws will increase outlays for Medicaid, in CBO's estimation, by $476 billion over the 2011–2020 period. Among other changes, the legislation makes most nonelderly people with income below 138 percent of the federal poverty level (FPL) eligible for Medicaid starting in 2014; it also increases the share of federal spending provided for certain new enrollees. Those two changes yield an increase in estimated spending of $517 billion for the 10-year span. In addition, the legislation makes numerous other changes to the program, some of which will increase spending and some reduce it; together, those changes are projected to decrease outlays by about $41 billion through 2020.

- **Children's Health Insurance Program.** CBO has raised its projection of federal spending for the Children's Health Insurance Program or CHIP, whose costs are shared with the states, by $18 billion over the 2011–2020 period as a result of the legislation. Funding for the program above the amounts in CBO's baseline for 2014 and 2015, together with an increase in the share the federal government pays (from an average of 70 percent to an average of 93 percent), account for most of that change.

- **Health Insurance Subsidies and Related Spending.** Subsidies for health insurance and related spending provided in the recently enacted legislation have caused CBO to increase its projection of outlays over the 2011–2020 period by $444 billion. The legislation provides for the establishment of new health insurance exchanges, subsidies for individuals and families with income between 138 percent and 400 percent of the federal poverty level who purchase health insurance through those exchanges, and subsidies for cost sharing for people with income up to 250 percent of the poverty level. (The subsidies for health insurance premiums are structured as refundable tax credits; the portions of refundable credits that exceed taxpayers' liabilities are classified as outlays.)

- **Other Mandatory Spending Related to Health Care.** The two laws contain numerous other changes that will increase projected mandatory spending by about $104 billion, on net, between 2011 and 2020. Much of that spending is for payments to health insurance

plans whose pool of enrollees is expected to have above-average costs (known as risk adjustment) and to plans that enroll certain high-cost individuals (known as reinsurance). Under the legislation, those payments will ultimately be offset by revenues of an equal magnitude collected from health insurance plans.

- **Education.** Effective July 1, 2010, the Reconciliation Act eliminated the Federal Family Education Loan Program (a program that provided guarantees for student loans made by private financial institutions). Instead, the government will provide more direct loans through the Department of Education. The legislation also increased funding for the Pell grant program. CBO estimates that those changes, along with other, smaller changes to the loan programs and additional funding for several higher education programs, will reduce federal spending by about $21 billion over the 2011–2020 period.

Unemployment Compensation. Since CBO published its March baseline projections, lawmakers have twice extended emergency benefits for unemployment compensation (in P.L. 111-157 and P.L. 111-205). Before the extensions were enacted, emergency benefits would have expired in April of this year; they are now available through November 2010 to individuals who exhaust their regular benefits. Those provisions have led CBO to increase its estimates of outlays by $21 billion for 2010 and by $25 billion for 2011.

Financial Regulation. The Dodd-Frank Wall Street Reform and Consumer Protection Act (P.L. 111-203) made changes to federal programs and regulations with the aim of reducing the likelihood and severity of financial crises. CBO estimates that those measures will reduce outlays by $11 billion in 2010 but increase outlays by $21 billion in the following 10-year period. (CBO estimates that those additional outlays will be offset by higher revenues as a result of the new law, as discussed below.)

The savings in 2010 stem from a change to the Troubled Asset Relief Program (TARP). P.L. 111-203 reduced total spending authority for that program, thereby preventing the Treasury from incurring any new obligations under the program after June 25, 2010. Based on the amount of money that CBO had previously assumed would be used for new purposes, the subsidy costs for other initiatives under the TARP, and the acceleration of the previous October 3, 2010, expiration date for the program, CBO estimated a savings of $11 billion in 2010 from the legislation.

The increase in projected spending for the 2011–2020 period results largely from the establishment of the Orderly Liquidation Fund to pay the costs of liquidating financial firms that are insolvent or in danger of becoming insolvent. (The legislation provides that such costs will be recovered through the assessment of fees on private firms.)

In addition, P.L. 111-203 would grant new federal regulatory powers and reassign existing regulatory authority among federal agencies. However, the net change in outlays as a result of those provisions is small because the additional costs to some agencies are mostly offset by savings for other agencies.

Other Mandatory Spending. P.L. 111-226 extended (through June 2011) and modified an increase in the federal government's share of Medicaid costs that was scheduled to expire in December of this year—at an estimated cost of $16 billion.[4] It also provided $10 billion for grants to states for teachers' salaries. In addition, the legislation made reductions in spending that total $15 billion, mostly in the Supplemental Nutrition Assistance Program ($12 billion from 2014 through 2018) and Medicaid ($2 billion over 10 years). On net, the effect of the legislation is to increase mandatory outlays by an estimated $11 billion over the 2011–2020 period. (P.L. 111-226 will also affect revenues, as discussed in the next section.)

A number of other pieces of legislation enacted since March will boost mandatory outlays by $16 billion over the 2011–2020 period.

Net Interest. On net, changes to CBO's baseline projections for revenues and noninterest outlays stemming from new legislation raise the estimate of the 10-year cumulative deficit by $309 billion. As a result, CBO has boosted its 10-year projection of outlays for net interest by $95 billion.

4. Provisions enacted in the American Recovery and Reinvestment Act of 2009 increased the federal share of Medicaid spending to an average of 68 percent through December 2010. P.L. 111-226 continued the enhanced matching rates for Medicaid through June 2011, but at lower rates.

Changes to Projections of Revenues

Recently enacted legislation has led CBO to lower its estimate of revenues for 2010 by $8 billion (or 0.4 percent). Legislation has had a much greater effect on projected revenues over the 2011–2020 period, adding $683 billion. Almost all of that 10-year increase in projected revenues is attributable to the health care legislation.

The Patient Protection and Affordable Care Act and the Health Care and Education Reconciliation Act of 2010. The recently enacted legislation made several changes to tax law, including instituting additional taxes on the earned and unearned income of certain high-income taxpayers starting in 2013, creating refundable tax credits to reduce the cost of health insurance purchased through new exchanges starting in 2014, and instituting an excise tax on health insurance plans that have high premiums starting in 2018. The legislation also imposes fees on certain manufacturers of drugs and medical devices, fees on health insurance providers, and penalties on certain employers and uninsured individuals. Furthermore, the legislation will affect revenues by changing the shares of compensation that employers pay as taxable wages and as nontaxed contributions for their employees' health insurance premiums. In total, CBO estimates that the legislation will add $643 billion to revenues over the 2011–2020 period. (That figure equals the amounts for 2011 through 2019 that were published in the final cost estimate for the laws, as estimated by CBO and the staff of the Joint Committee on Taxation, plus an extrapolated effect for 2020.) As discussed in the preceding section, CBO also projects that the legislation's provisions related to health care will increase outlays by $485 billion between 2011 and 2020. (For additional information, see Box 1-1 on page 6.) Following are the major effects on revenues of the two laws:

- **Premium Assistance Credits (revenue portion only).** The legislation creates a new refundable tax credit (the "premium assistance credit") for eligible individuals and families who purchase health insurance through the new exchanges. The credits will reduce revenues by an estimated $134 billion over the 2011–2020 period. (The estimated total cost of the credits over that period, including outlays, is $484 billion.)

- **Small Employer Tax Credit.** The legislation provides a new tax credit for certain small employers to purchase health insurance for their employees. Employers with 25 or fewer employees with average annual earnings of $50,000 or less (measured in both cases on a full-time-equivalent basis) may qualify for the credit; however, the credit's full amount is available only to employers with 10 or fewer employees with average earnings of less than $25,000. CBO expects that the credit will result in a revenue loss of $39 billion between 2011 and 2020.

- **Additional Taxes on High-Income Taxpayers.** The additional taxes that the legislation imposes on high-income individuals and families are estimated to boost revenues by a total of $251 billion over the 2011–2020 period. The legislation levies an additional payroll tax of 0.9 percent on earnings in excess of $200,000 for single taxpayers and $250,000 for married taxpayers who file a joint tax return. (The revenues from the additional tax are allocated to the Hospital Insurance Trust Fund, Part A of Medicare.) The legislation also levies a new tax of 3.8 percent on the net investment income of taxpayers with modified adjusted gross income in excess of those same amounts.

- **Excise Tax on High-Premium Health Insurance Plans.** Starting in 2018 under the new laws, the premiums for employment-based health insurance plans that exceed specified thresholds will generally be subject to an excise tax of 40 percent on that excess amount. The excise tax will increase projected revenues—by $57 billion between 2011 and 2020, CBO estimates—in two ways. First, to the extent that premiums are above the specified thresholds, the tax will generate additional excise tax receipts. Second, to the extent that behavioral changes lead to reductions in premiums, the tax will lead to greater revenues from income and payroll taxes. Specifically, to the degree that workers and employers respond to the excise tax by shifting to lower-cost plans, they will reduce their liability under the excise tax—but the resulting reduction in the compensation of workers in the form of contributions to health insurance will be offset, in CBO's assessment, by a comparable increase in compensation in the form of taxable wages and salaries.

- **Fees on Certain Manufacturers and Insurers.** The legislation imposes new fees on manufacturers and importers of brand-name drugs, an excise tax of 2.3 percent on sales by manufacturers and importers of certain medical devices, and an annual fee on health insurance providers. Those provisions have led CBO

to raise its projection of revenues during the 2011–2020 period by $126 billion.

- **Other Revenues.** The legislation contains many other revenue provisions, including penalties to be paid by larger employers (those with more than 50 employees) that do not offer health insurance to their employees and by uninsured individuals (estimated to raise $80 billion between 2011 and 2020), and collections of reinsurance and risk-adjustment payments from insurers (which would raise an estimated $133 billion over those same 10 years; those receipts will ultimately be offset by payments to insurers). The remaining effects on revenues, including the impact on the share of compensation that employers pay as taxable wages (in addition to the effect attributable to the excise tax on high-premium plans), will raise an estimated $169 billion over the 2011–2010 period.

Other Legislation. Three new laws account for most of the remaining effects of recently enacted legislation on CBO's projections of revenues. The Hiring Incentives to Restore Employment Act (P.L. 111-147) is estimated to reduce revenues by $10 billion in 2010 and 2011, mostly by lowering payroll taxes for employers who hire unemployed workers. That legislation adds to projected revenues in later years, largely because of provisions related to the taxation of foreign income. In addition, the Dodd-Frank Wall Street Reform and Consumer Protection Act (P.L. 111-203) is projected to boost revenues by $13 billion over the 2012–2020 period. The projected increase stems mainly from fees that will be imposed on private firms to cover any future costs of resolving insolvent financial companies and from an increase in revenues from registration and other fees collected by the Securities and Exchange Commission. Finally, CBO projects that the recent legislation providing aid to states (P.L. 111-226) will increase revenues by $10 billion from 2010 to 2020, almost entirely through additional changes to the taxation of the foreign income of businesses.

Economic Changes

CBO's latest economic forecast incorporates updates to the projections of a number of economic variables—including gross domestic product (GDP), the unemployment rate, interest rates, and prices—that affect projections of federal outlays and revenues. Taken together, the changes since March to projections of economic conditions have led CBO to reduce its estimate of the deficit for 2010 by $8 billion and to reduce its projections of deficits over the 2011–2020 period by $233 billion.[5] For that 10-year period, the update to the economic forecast raises projected outlays by $562 billion (or 1.3 percent) and raises revenues by $794 billion (or 2.2 percent). Large parts of those changes to revenues and outlays reflect the changes to CBO's projections of inflation in the prices of goods and services and projections of growth in wages and salaries. (For a discussion of CBO's latest economic forecast, see Chapter 2.)

Changes to Projections of Outlays

The updates to the economic forecast have led CBO to make only modest changes to the agency's estimate of outlays for 2010, resulting in a reduction of $12 billion (or 0.3 percent). For the 2011–2020 period, such changes have caused CBO to raise its estimate of outlays by $562 billion.

Medicare and Medicaid. Payment rates for most services in the fee-for-service sector of Medicare—including hospital care and services furnished by physicians, home health agencies, and skilled nursing facilities—are subject to automatic updates based on changes in the prices of the goods and services that providers purchase. As a result, the upward revision to CBO's forecast for inflation in the latter part of the coming decade (together with much smaller effects from other economic changes) boosts projected outlays for Medicare by $53 billion between 2011 and 2020.

CBO raised its projection of spending for Medicaid by $59 billion over the 10-year period to reflect the new economic forecast. The increase largely results from the higher growth rate that CBO now projects for hospital payment rates and for wages and salaries for health care workers (which will lead to higher spending for labor-intensive long-term care).

Social Security. The downward revision to CBO's forecast for inflation in the next few years reduces the estimated annual cost-of-living adjustments (COLAs) that Social Security beneficiaries will receive in 2011 and 2012 (from 0.1 percent to zero in 2011 and from 1.2 percent to 0.4 percent in 2012). The upward revision to CBO's projection for inflation in subsequent years raises estimated COLAs by an average of 0.4 percentage points. Taken

5. The economic forecast underlying the March 2010 budget baseline was unchanged from the forecast underlying the January budget baseline, as described in CBO's *The Budget and Economic Outlook: Fiscal years 2010 to 2020* (January 2010).

together, those changes decrease estimated benefit payments between 2011 and 2014 by $13 billion and increase estimated payments between 2015 and 2020 by $73 billion—for a net increase of $60 billion over the 2011–2020 period.

Changes in CBO's projections of average wages (which affect initial benefit levels) lower outlays each year through 2019 and raise them in 2020, leading to a $7 billion reduction in estimated benefits over the 10-year period. Combined with the estimated increase in outlays from COLA-related changes, that adjustment results in a net change (from economic factors) in Social Security outlays of $53 billion for 2011 through 2020.

Student Loans. Consistent with the procedures set forth in the Federal Credit Reform Act of 1990, CBO estimates annual outlays for the federal student loan program in terms of the net present value of the federal government's cash flows related to new loans disbursed in each year, using the Treasury's borrowing rates to discount those cash flows.[6]

In updating its economic forecast, CBO has reduced those interest rates for the first few years of the 2011–2020 period, but increased them for the later years. Because CBO projects that the volume of loans will be greater in those later years, incorporating the updated interest rates yields projected outlays for the student loan program that are $20 billion higher than CBO's March 2010 estimate for the 10-year period.

Unemployment Compensation. Relative to its previous forecast, CBO has reduced its projection of the unemployment rate by about one-half of a percentage point for this year and next. Primarily because of that revision, the agency now estimates that outlays for unemployment compensation will be lower by about $5 billion in 2010 and by $15 billion in 2011 than it had previously anticipated. In 2012, the unemployment rate is now projected to be only slightly lower; for 2013 and 2014, CBO currently projects an unemployment rate that is slightly higher than its previous estimate. In addition, the current forecast incorporates faster projected growth in wages and salaries in the coming decade. Those factors together raise CBO's estimate of outlays for unemployment benefits by $16 billion over the 2012–2020 period.

Discretionary Outlays. As originally specified in the Deficit Control Act, CBO projects spending for discretionary programs by adjusting current-year appropriations to reflect increases in the GDP price index and the employment cost index (ECI) for wages and salaries. Compared with the projections it made previously, CBO's current projections of the annual rates of change in both the ECI and the GDP price index are higher over the next decade (by an average of 0.6 and 0.3 percentage points, respectively). Those changes result in a net increase in projected outlays of $271 billion over the 10-year period.

Net Interest. Economic factors have led CBO to increase its estimate of outlays for net interest during the 2011–2020 period by a total of $69 billion. That amount is attributable to higher costs from changes in CBO's forecast of interest rates and inflation ($141 billion) and lower costs from the decline in deficits that CBO is now projecting as a result of economic changes ($72 billion).

CBO now projects that interest rates for nearly all publicly issued securities will be lower through 2012 than the rates it projected previously but higher in 2014 and beyond. Those changes add $157 billion to projected net interest through 2020. In the other direction, higher interest rates over that period raise CBO's estimate of the interest that the Treasury will receive from credit financing accounts by about $10 billion and its estimate of net interest receipts from a number of smaller accounts (such as estimated earnings on the investments of the Department of Defense Retiree Health Care Fund) by $6 billion. (However, much of that $16 billion in additional interest receipts is offset elsewhere in the budget.)

CBO has reduced its estimate of the cumulative deficit for the 10-year period by $160 billion as a result of economic changes to its projections of revenues and outlays (excluding debt service). That reduction in borrowing lowers projected interest payments by $72 billion.

Changes to Projections of Revenues

Changes to its previous economic forecast have led CBO to make very small adjustments to projected revenues in 2010, lowering them by $4 billion. That adjustment stems from the opposing effects of increases in CBO's projection of GDP and reductions in its projection of the share of GDP that is earned in taxable form. In contrast,

6. Net present value is a single number that expresses a flow of current and future income (or payments) in terms of an equivalent lump sum received (or paid) today. The net present value depends on the rate of interest used to translate future cash flows into current dollars (known as the discount rate) as well as on the future cash flows. For the cash flow of a loan program, a higher discount rate reduces the net present value of the loan to the government.

CBO has raised its projection of revenues for 2011 to 2020 by steadily increasing amounts that total about $794 billion (or 2.2 percent) over the period. In 2011, those changes derive mainly from an increase in CBO's projection for GDP, and in 2012 and 2013 from an increase in CBO's estimate of taxable income as a share of GDP; after 2013, they arise largely from an upward revision to projected GDP in nominal terms—which results from higher projected prices rather than from higher real GDP.

For 2010, CBO has lowered its estimate of wages and salaries as a share of GDP but raised its estimate of GDP by about $70 billion (or 0.5 percent); in combination, those changes bring about a slight reduction in projected revenues.

For 2011, CBO has increased its projection of GDP but reduced the wage and salary share. Together, those changes boost the projection of revenues by $15 billion. For 2012 and 2013, CBO has made only minimal changes to its outlook for GDP. However, the agency has increased its estimate of the shares of GDP earned as personal interest income and corporate profits. The effect of those increases on projected revenues more than offsets the effects of a decrease in the wage and salary share.

The economic change that has the greatest effect on revenue projections for the period from 2014 through 2020 is the increase in CBO's projection of nominal GDP, which results from its projection of slightly higher inflation. CBO's current estimates for the period show GDP averaging 1.9 percent greater than in the March estimates, with revenues higher by 2.6 percent, on average. CBO's expectation that taxable income as a share of GDP will be larger than it had estimated in March also contributes to the higher revenue projections for the period.

Technical Changes

Technical updates (those that do not stem from legislation or changes in economic assumptions) to CBO's estimates of revenues and outlays have produced a net decrease of $48 billion in the estimated deficit for 2010 and a net increase of $85 billion in projected deficits for the 2011–2020 period. Technical changes have reduced projected outlays by $69 billion (or about 2 percent) for 2010 and by $30 billion (or 0.1 percent) for 2011 through 2020. Such changes have reduced projected revenues by $21 billion (or about 1 percent) for 2010 and by $115 billion (or 0.3 percent) for the 2011–2020 period.

Changes to Projections of Outlays

Lower estimates of mandatory outlays dominate the technical changes to CBO's projections of outlays, both for the current year and for the 2011–2020 period. For 2010, the $54 billion drop in estimated outlays for mandatory spending is about 80 percent of the total change in outlays ($69 billion). For the following 10-year period, technical changes have caused CBO to lower its projection of mandatory spending by $104 billion; over that period, such changes have almost no net effect on discretionary spending and have raised projected net interest outlays by $74 billion.

Medicare. Since March, CBO has made technical revisions that lower its projections of spending for Medicare by $13 billion for 2010 and by a total of $41 billion for the 2011–2020 period. The smaller estimate for the current year is based primarily on lower-than-expected spending for Part B (Medical Insurance) services during the first half of calendar year 2010. That experience has also led CBO to reduce its estimate of Medicare spending by a total of $11 billion for 2011 and 2012. The remaining $30 billion in technical revisions reflects administrative actions (such as final rules issued since March for hospital inpatient services and other services) and the interaction of technical changes to CBO's previous baseline projections with the estimated effects of provisions related to Medicare in PPACA and the Reconciliation Act.

Other Health Care Programs. Technical changes that can be attributed directly to the recently enacted health care legislation have reduced projected outlays in health programs other than Medicare by about $19 billion for the 2011–2020 period.[7] Accounting for most of that difference, the additional outlays for Medicaid and CHIP generated by that legislation are now projected to be roughly $14 billion lower than projected in CBO's original cost estimate. In addition, projected outlays related to other provisions of the legislation affecting health insurance coverage and spending in other health programs are expected to be about $5 billion lower than originally projected for 2011–2020. Those revisions primarily reflect technical corrections and changes in the agency's projection methods and assumptions since CBO's March 2009 baseline was published. (As discussed in Box 1-1, the changes identified here do not constitute a complete reestimate of the budgetary effects of the legislation.)

7. Those changes reduced projected outlays by $11 billion for the 2010–2019 period.

Social Security. CBO's updated baseline for Social Security lowers projected outlays by $39 billion for the 2011–2020 period. For the Disability Insurance component of the program, CBO has reduced projected benefit payments by $23 billion (or 1.5 percent) because it now estimates that the average benefit for new beneficiaries and the number of new beneficiaries over the next two years will be smaller than it had projected in March. For the Old-Age and Survivors Insurance component of the program, CBO also currently forecasts a slightly lower average benefit and fewer beneficiaries than it forecast in March, leading to a reduction of $15 billion in benefit payments.

Unemployment Compensation. The recent recession has been marked by a historically high rate of long-term unemployment (defined as being out of work for longer than 26 weeks). Consequently, more people have shifted from regular unemployment benefits (which generally cover the first 26 weeks of unemployment) to emergency and extended benefits (which, combined, can provide up to 73 weeks of additional compensation) than CBO foresaw last March. As a result, CBO has significantly lowered its estimate of outlays in 2010 for regular benefits and boosted its estimate of outlays for emergency and extended benefits. The net result of those changes (and a downward revision to average weekly benefits of about 3 percent) is a $1 billion reduction in estimated outlays.

For 2011, technical changes have led CBO to reduce its projection of spending for unemployment compensation by $6 billion. About half of that reduction stems from projecting a lower average weekly benefit. The remaining change results from fewer expected claims for benefits given the projected unemployment rate, because a higher percentage of the unemployed will probably remain out of work longer than 26 weeks. The lower estimate of average weekly benefits also generates downward revisions to projected outlays in later years of the 2011–2020 period. When combined, those changes lower estimated outlays for unemployment compensation by $18 billion for the 10-year period.

Fannie Mae and Freddie Mac. CBO considers the activities of Fannie Mae and Freddie Mac—now under the government's conservatorship (that is, under its direct control)—to be part of the federal budget, and therefore it estimates the subsidy costs of new activity by the two entities as federal outlays. The Administration, in contrast, considers the two entities to be outside the federal government for budgetary purposes and records cash transactions between the Treasury and Fannie Mae and Freddie Mac as federal outlays or receipts (whereas, in CBO's view, those are intragovernmental transactions).

To provide CBO's best estimate of what the Treasury will ultimately report as the federal deficit for 2010, CBO's current baseline includes an estimate of those net cash transactions for fiscal year 2010. That figure is $20 billion higher than CBO's March estimate, reflecting both the shift to a cash-basis estimate for the current year and an increase in the amount of cash assistance that the two entities are expected to receive this year. Specifically, CBO's March 2010 baseline showed an estimated subsidy for Fannie Mae and Freddie Mac for this year of about $21 billion; in the current baseline, CBO shows a net cash infusion of $41 billion (based on Fannie Mae and Freddie Mac's most recent quarterly financial releases).

For 2011 through 2020, CBO's baseline follows the agency's customary approach of showing the projected subsidy costs of credit assistance offered by Fannie Mae and Freddie Mac. Those subsidy estimates are calculated on a fair-value basis, reflecting the market risk associated with the two housing entities. For the 10-year period, those subsidies will cost the government $53 billion, CBO now estimates, about $11 billion less than was projected in March. Most of that reduction in estimated costs is attributable to lower participation in, and lower costs for, the Administration's Making Home Affordable initiative, which seeks to help homeowners refinance mortgages they cannot afford.

Deposit Insurance. CBO has revised its baseline projections for deposit insurance to account for changes in the timing of expenditures and receipts stemming from the failure of federally insured banks, thrift institutions, and credit unions. Such failures increase federal spending in the short run when the Federal Deposit Insurance Corporation and the National Credit Union Association make payments to provide liquidity to failed institutions (essentially making it easier to convert assets to cash) or to cover insured deposits, but they reduce outlays by similar amounts in future years as those two federal agencies sell the acquired assets and raise insurance premiums to offset any losses. Results through July suggest that outlays for failed institutions and disbursements to certain credit unions will be lower in the near term than CBO anticipated in March. As a result, CBO has lowered its estimate of net outlays for 2010 by $13 billion.

The Troubled Asset Relief Program. On the basis of technical revisions, CBO has reduced its projection of outlays for the TARP by $39 billion for 2010, and it has increased them by $7 billion for the 2011–2020 period. The net drop in subsidy costs for the program primarily results from higher repayments of the principal on loans to participants in the TARP's Capital Purchase Program, an improved outlook for the Treasury's investment in major automobile manufacturers, and slower-than-expected disbursements from the Home Affordable Modification Program (which provides government support for mortgage loan modifications).

Discretionary Programs. Technical adjustments to CBO's projections for discretionary programs have resulted in a net decrease of $14 billion in estimated discretionary outlays for 2010. In contrast, changes to such projections throughout the following 10-year period net to nearly zero.

Net Interest. Technical updates have resulted in very little change to CBO's estimate of net interest outlays for 2010. The estimate of net interest outlays for the 2011–2020 period, however, has risen by $74 billion. Just under half (or $35 billion) of that projected increase reflects additional debt-service costs arising from technical changes to revenues and noninterest outlays. Most of the remaining $39 billion in added costs is explained by revised estimates of transactions between the nonbudgetary credit financing accounts and the Treasury and by lower estimates of interest received from states (because CBO has reduced its projection of states' borrowing to fund unemployment benefits).

Changes to Projections of Revenues

Because of various technical factors, the most important of which is the fact that recent tax collections have been slightly weaker than expected, CBO has lowered its projections of revenues by $21 billion for 2010, by about $40 billion per year for 2011 through 2013, and by steadily declining amounts through 2017. In contrast, CBO has raised its revenue projections between 2018 and 2020, by an average of about $20 billion annually.

Net tax collections in recent months have fallen slightly below the amounts that CBO anticipated in its March projections; shortfalls in the receipts from individual income and social insurance taxes have been only partially offset by unexpectedly high receipts from corporate income taxes. Legislation enacted since March and revisions to historical data, including incomes as measured in the national income and product accounts (NIPAs), explain roughly one-third of the net shortfall in collections; the remainder is attributed to technical factors. To reflect those factors, CBO has lowered its projection for 2010 of receipts from individual income and social insurance taxes by about $52 billion and increased its projection of receipts from corporate income taxes by about $33 billion. The factors that are responsible for the deviation of collections relative to incomes as currently measured in the NIPAs will be better understood when additional data from tax returns and other sources become available.

CBO has also lowered its revenue projections for 2011 to 2013, by about $40 billion per year, to reflect some continuation of the factors that have led to lower-than-expected collections this year. The reduction in the estimates for those years is greater than the reduction in the 2010 estimate largely because of slightly different assumptions about how long collections of individual and corporate income tax receipts will continue to deviate from the historical relationship to their tax bases as measured in the NIPAs. CBO projects that those deviations will be fully phased out by 2016.

Technical changes related to the recently enacted health care legislation have increased projected revenues by about $31 billion between 2011 and 2020 (or about $12 billion over the 2010–2019 period; for additional discussion, see Box 1-1 on page 6). On net, projected revenues are higher largely because CBO now anticipates more revenues from reductions in employers' spending for employment-based health insurance (which receives a tax advantage). Those higher revenues are partially offset by a reduction in projected revenues from the additional payroll tax on individuals with relatively high income.

APPENDIX

B

A Comparison of CBO's and OMB's Baselines

Each summer, both the Congressional Budget Office (CBO) and the Administration's Office of Management and Budget (OMB) update their baseline budget projections. This appendix compares CBO's latest baseline projections with those in the Budget Enforcement Act baseline produced by OMB in July 2010.[1]

For 2010, CBO anticipates a deficit of $1.34 trillion—$62 billion lower than OMB's estimate of $1.40 trillion. CBO expects $61 billion less in outlays and about $1 billion more in revenues than does OMB (see Table B-1). For the next 10 years, CBO estimates a cumulative baseline deficit of $6.2 trillion, which exceeds OMB's projection of $5.4 trillion by $842 billion. That gap stems mainly from legislation enacted after OMB completed its baseline. Differences in projections of economic conditions and other factors have effects on estimates of revenues and outlays that are mostly offsetting; on net, the gap in projected deficits between 2011 and 2020 that is attributable to those differences is less than $250 billion (or about 0.6 percent of total projected outlays).

1. OMB's most recent update was published in Office of Management and Budget, *Fiscal Year 2011 Mid-Session Review: Budget of the U.S. Government* (July 23, 2010). In that document, OMB compares the President's proposals with a "baseline projection of current policy," which assumes the continuation of certain policies that are currently in place but would need legislation to be extended. Those policies include maintaining the tax cuts originally enacted in 2001 and 2003 and preventing a reduction in Medicare's payments to physicians. However, OMB also publishes a baseline that follows the guidelines originally laid out in the Deficit Control Act and therefore reflects the provisions of current law. That baseline (which is shown in Table S-7 of the *Mid-Session Review*) is directly comparable with CBO's baseline and, therefore, is used for comparisons in this appendix.

Revenues

CBO's projection of revenues for the current fiscal year, at $2.14 trillion, is just $1 billion more than OMB's. For the 2011–2020 period, however, CBO's projection of revenues is below OMB's by $826 billion (or 2.1 percent). CBO projects lower revenues than does OMB for every year during that period, with differences that average about $30 billion (or 1.0 percent) between 2011 and 2013 and then increase to $159 billion (or 3.2 percent) by 2020. For all of the major sources of revenue, CBO's projections are lower. The largest differences over the 10-year period are in receipts from individual income taxes ($275 billion, or 1.4 percent) and from corporate income taxes ($231 billion, or 5.6 percent); CBO also projects lower receipts from miscellaneous fees and fines ($78 billion), earnings of the Federal Reserve System ($71 billion), social insurance taxes ($62 billion), excise taxes ($58 billion), customs duties ($36 billion), and estate and gift taxes ($17 billion).

The disparities between the two sets of estimates result from differences in both economic and technical assumptions. In its economic projections, CBO expects lower levels of gross domestic product (GDP) and wages and salaries but higher corporate profits than does OMB. Those economic factors account, on net, for just under half of the difference between the two agencies' projections of revenues over the 10-year period. The remainder results almost entirely from technical factors; among those is CBO's estimate of a lower effective tax rate on corporate profits.[2] Some legislation affecting revenues was enacted after OMB completed its baseline, but that legislation accounts for little of the difference in the projections.

2. The effective tax rate on corporate profits is the ratio of corporate income taxes to corporate profits.

Table B-1.

Comparison of CBO's August 2010 Baseline and OMB's July 2010 Baseline

(Billions of dollars)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total, 2011-2015	Total, 2011-2020
							CBO's August 2010 Baseline						
Revenues	2,143	2,648	2,953	3,236	3,561	3,743	3,975	4,201	4,421	4,640	4,856	16,140	38,234
On-budget	1,512	1,982	2,251	2,489	2,766	2,902	3,092	3,276	3,449	3,624	3,796	12,391	29,628
Off-budget	631	665	702	746	795	841	883	925	973	1,016	1,060	3,749	8,607
Outlays													
Mandatory	1,925	2,085	1,971	2,035	2,172	2,316	2,515	2,646	2,766	2,964	3,141	10,579	24,610
Discretionary	1,358	1,404	1,388	1,399	1,418	1,443	1,481	1,511	1,542	1,584	1,622	7,051	14,791
Net interest	202	225	259	326	410	492	564	623	676	726	778	1,712	5,079
Total	3,485	3,714	3,618	3,760	4,000	4,250	4,560	4,780	4,983	5,274	5,541	19,342	44,480
On-budget	2,931	3,136	3,017	3,128	3,335	3,553	3,824	4,002	4,160	4,401	4,613	16,170	37,170
Off-budget	554	578	601	632	664	698	735	777	824	874	928	3,173	7,311
Deficit (-) or Surplus	**-1,342**	**-1,066**	**-665**	**-525**	**-438**	**-507**	**-585**	**-579**	**-562**	**-634**	**-685**	**-3,202**	**-6,246**
On-budget	-1,419	-1,154	-766	-639	-569	-650	-732	-727	-711	-777	-817	-3,778	-7,542
Off-budget	77	88	101	114	131	143	148	148	149	143	132	576	1,296
							OMB's July 2010 Baseline						
Revenues	2,142	2,682	2,980	3,260	3,613	3,789	4,064	4,313	4,552	4,793	5,015	16,325	39,061
On-budget	1,511	2,021	2,271	2,506	2,814	2,946	3,167	3,374	3,569	3,764	3,946	12,557	30,377
Off-budget	631	662	709	754	799	844	897	939	983	1,028	1,069	3,768	8,683
Outlays													
Mandatory	1,969	2,055	1,988	2,071	2,265	2,384	2,540	2,637	2,796	2,996	3,178	10,764	24,910
Discretionary	1,393	1,419	1,375	1,373	1,392	1,421	1,452	1,489	1,523	1,561	1,600	6,979	14,604
Net interest	185	220	286	361	437	499	550	595	634	669	701	1,803	4,951
Total	3,546	3,694	3,649	3,805	4,094	4,303	4,542	4,721	4,952	5,226	5,479	19,546	44,465
On-budget	2,989	3,111	3,043	3,167	3,421	3,593	3,790	3,924	4,108	4,328	4,524	16,335	37,008
Off-budget	557	583	605	639	674	711	752	797	845	898	955	3,211	7,457
Deficit (-) or Surplus	**-1,404**	**-1,012**	**-668**	**-546**	**-481**	**-514**	**-478**	**-408**	**-401**	**-433**	**-464**	**-3,221**	**-5,404**
On-budget	-1,478	-1,091	-773	-661	-607	-647	-623	-549	-539	-564	-578	-3,778	-6,631
Off-budget	74	79	104	115	126	133	145	142	138	131	114	557	1,226

Continued

Table B-1. **Continued**

Comparison of CBO's August 2010 Baseline and OMB's July 2010 Baseline

(Billions of dollars)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total, 2011-2015	Total, 2011-2020
	Difference (CBO's Baseline Minus OMB's)												
Revenues	1	-35	-27	-24	-52	-46	-89	-112	-130	-152	-159	-184	-826
On-budget	1	-38	-20	-16	-48	-43	-75	-99	-120	-140	-150	-166	-750
Off-budget	0	3	-8	-8	-4	-3	-14	-13	-10	-12	-9	-19	-77
Outlays													
Mandatory	-44	30	-17	-36	-94	-68	-25	9	-30	-31	-37	-185	-300
Discretionary	-35	-15	13	26	26	22	29	22	19	23	22	72	188
Net interest	18	4	-27	-35	-27	-7	14	28	42	57	77	-91	127
Total	-61	20	-30	-45	-95	-53	18	59	31	49	62	-203	15
On-budget	-58	25	-26	-38	-85	-40	34	78	52	73	89	-165	162
Off-budget	-3	-5	-4	-7	-9	-13	-16	-19	-21	-24	-27	-38	-146
Deficit or Surplus[a]	**62**	**-54**	**3**	**21**	**43**	**7**	**-107**	**-171**	**-161**	**-201**	**-221**	**19**	**-842**
On-budget	59	-63	6	22	37	-3	-109	-177	-172	-213	-239	*	-911
Off-budget	3	8	-3	-1	5	10	3	6	11	12	18	20	69

Sources: Congressional Budget Office (CBO); Office of Management and Budget (OMB).

Notes: "OMB's baseline" refers to the agency's baseline that is consistent with the rules of the Deficit Control Act.

* = between -$500 million and zero.

a. Positive numbers denote that the Administration's deficit estimate is higher than CBO's, and negative numbers denote the opposite.

Outlays

CBO's estimate of total outlays for the current year is $3.49 trillion, which is $61 billion below OMB's projection of $3.55 trillion. Mandatory spending (which results from provisions of permanent law) in CBO's baseline is $44 billion below OMB's estimate for this year; although CBO estimates higher outlays for deposit insurance and unemployment compensation, it anticipates lower outlays for the Troubled Asset Relief Program (TARP), payments to Fannie Mae and Freddie Mac, and a variety of other programs. Discretionary outlays (spending that stems from annual appropriation actions) for 2010 are $35 billion lower in CBO's baseline, primarily because of slower estimated spending for transportation programs, disaster relief, and other activities. CBO's estimate of net interest is $18 billion higher than OMB's.

For the 2011–2020 period, CBO projects $15 billion more in total outlays than does OMB (a difference of just 0.03 percent). CBO's baseline estimates for discretionary spending and net interest over that period are higher than OMB's projections—by $188 billion and $127 billion, respectively—but its estimates of mandatory spending are $300 billion lower. Legislation enacted after OMB produced its projections added $454 billion to discretionary outlays and close to $60 billion to mandatory outlays in CBO's baseline between 2011 and 2020; additional debt service resulting from changes in both projected revenues and outlays from such recent legislation will total about $130 billion over the 10-year period. Differences in projections of economic variables and other, technical, factors offset most of the differences in outlays attributable to recent legislation.

Discretionary Spending

For 2010, most of the $35 billion difference between the two agencies' estimates of discretionary outlays results from CBO's judgment that many programs will spend their appropriations more slowly than OMB estimates. Nondefense discretionary outlays in CBO's baseline are

$27 billion less than the amount that OMB anticipates. The largest differences are in estimated outlays for highway programs ($4 billion) and disaster relief ($4 billion). CBO's estimate of defense discretionary spending is $8 billion less than OMB's projection—despite the fact that CBO included $5 billion in outlays from the Supplemental Appropriations Act, 2010 (Public Law 111-212). With the effects of the supplemental appropriations excluded, most of the difference stems from estimates of outlays for procurement, military construction, and operation and maintenance that are lower by $6 billion, $2 billion, and $2 billion, respectively.

For projections of discretionary spending through 2020, both CBO's and OMB's baselines are calculated by assuming that appropriations each year will be equal to the funding provided in 2010 with adjustments for inflation. Because CBO's baseline was produced after OMB's, it incorporates the enactment of several laws not accounted for by OMB; on balance, those laws increase discretionary funding. In particular, the supplemental appropriations act provided $46 billion in additional funding for 2010. Extrapolating that amount, as well as other appropriations enacted after OMB completed its estimates, added $454 billion to CBO's baseline. The net difference of $188 billion between CBO's and OMB's projections of discretionary spending is much smaller because CBO has applied inflation adjustments that are lower, on average.

Defense spending accounts for most of the difference in estimates of discretionary spending over the 2011–2020 period. CBO projects defense discretionary spending of $7.9 trillion, exceeding OMB's estimate by $221 billion. That difference reflects the $333 billion in CBO's baseline that results from extrapolating the supplemental appropriations and rescissions enacted in July and August (after OMB had finished its estimates), partly offset by the lower inflation adjustments used by CBO.

Nondefense discretionary outlays over the 2011–2020 period are $33 billion lower in CBO's baseline than in OMB's. The effect of CBO's lower inflation adjustments is largely offset by $120 billion in additional outlays from extrapolating the supplemental appropriations that are not included in OMB's estimates.

Mandatory Spending

CBO estimates that spending on mandatory programs in 2010 will be $1.93 trillion, which is $44 billion less than OMB expects, mostly as a result of lower estimates of spending for the TARP and payments to Fannie Mae and Freddie Mac. CBO's estimate of outlays for the TARP is $27 billion less than the Administration's figure. Much of that difference occurs because the values of the Treasury's investments through the TARP were estimated at different times: CBO derived its market-based valuations from data available and actions taken through mid-July, whereas OMB used information available in late March. In addition, the Dodd-Frank Wall Street Reform and Consumer Protection Act (P.L. 111-203), which prevents the Treasury Department from incurring any new obligations under the TARP after June 25, 2010, was enacted after OMB completed its estimates. CBO's estimate of payments to Fannie Mae and Freddie Mac this year is $16 billion lower than the Administration's estimate, also largely because of timing. For its baseline, CBO was able to incorporate recent financial releases by the two entities, whereas the Administration's numbers were estimated in February 2010. In addition, CBO projects lower outlays than does OMB for student loans ($6 billion less) and for disability compensation and pensions for veterans ($4 billion less).

Conversely, CBO projects higher outlays in 2010 for deposit insurance ($18 billion more) than does OMB, mostly because CBO expects lower receipts from payments of premiums. CBO's estimate of outlays for unemployment compensation is also higher (by $13 billion) because it includes spending resulting from the Unemployment Compensation Extension Act of 2010 (P.L. 111-205), which was enacted after OMB published its baseline. Outlays for all other mandatory programs are lower in CBO's baseline, on net, by $21 billion.

For the 2011–2020 period, CBO's projection of total mandatory outlays is $300 billion (1.2 percent) lower than OMB's projection. Much of that difference occurs because CBO forecasts lower inflation. The largest differences for specific programs over the 10-year period are these:

- CBO projects less spending on disability compensation and pensions for veterans than does OMB ($166 billion less) because of differences in estimates of participation in the programs and average benefit payments.

- CBO projects lower Medicaid outlays ($162 billion less), mostly as a result of CBO's lower projections of

inflation for the cost of labor and of goods and services related to medical care.

- CBO projects lower Social Security spending ($144 billion less). Most of the difference arises from smaller projected cost-of-living adjustments through 2015 and a smaller projected number of beneficiaries in the Old-Age and Survivors Insurance program.

- CBO projects higher Medicare outlays than does OMB ($220 billion more). Different projections of the receipts from premiums account for about half of that gap. OMB's baseline incorporates the Part B premiums that would be necessary if payment rates for physicians' services remained frozen through 2020, whereas CBO's projections of premium receipts reflect the sharp drop in payment rates for physicians' services that will occur under current law. Methodological differences and differences in economic assumptions account for the remainder of the gap.

- CBO projects that spending for Fannie Mae and Freddie Mac will exceed OMB's estimate by $109 billion. Fundamental differences between CBO and OMB in the budgetary treatment of Fannie Mae and Freddie Mac account for most of that disparity. CBO views those entities, now under federal conservatorship, as being governmental entities, and it projects outlays for them as the estimated lifetime costs of new loans or guarantees on a fair-value basis as of the year of disbursement.[3] In contrast, the Administration considers Fannie Mae and Freddie Mac to be nongovernmental entities for budgetary purposes, so OMB incorporates in its baseline its projections of the Treasury's cash payments to the two entities.

There are smaller differences between CBO's and OMB's projections of spending for many other activities. In some cases, CBO projects higher spending than does OMB; in other cases, OMB's estimates are higher. On net, CBO's projections of spending for all other programs are $156 billion lower than OMB's.

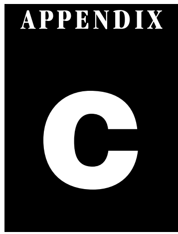
Net Interest

CBO's estimate of net interest outlays for 2010 exceeds OMB's by $18 billion; that difference is largely attributable to differences in calculations of interest paid to and received from credit financing accounts.[4] CBO estimates that, on net, the Treasury will receive less interest from those accounts.

For 2011 through 2020, CBO's estimate of total net interest payments is $127 billion greater than OMB's, primarily because of higher projected interest rates in the latter part of the period. For 2011 through 2013, CBO projects lower rates for 91-day Treasury bills and 10-year Treasury notes—on average, 0.3 percentage points less than OMB's forecast. However, starting in 2014 and extending through 2020, CBO's projected rates are significantly higher, exceeding OMB's projections by an average of 0.6 percentage points each year. Different assumptions about the maturity of Treasury securities and different projections of the deficit also contribute to CBO's higher projections of net interest.

3. The fair value of an asset is the price that would be received from selling the asset in an orderly transaction between market participants at the measurement date; see Financial Accounting Standards Board, *Financial Accounting Standards No. 157: Fair Value Measurements* (September 2006), p. 2.

4. Credit financing accounts are nonbudgetary accounts used for credit programs that reconcile the subsidies calculated on an accrual basis (which are recorded in the budget) with the cash flows associated with credit activities (which are not). Those accounts track flows between the Treasury, the program accounts, and the public.



CBO's Economic Projections for 2010 to 2020

The tables in this appendix expand on the information in Chapter 2 by showing the Congressional Budget Office's (CBO's) year-by-year economic projections for 2010 to 2020 (by calendar year in Table C-1 and by fiscal year in Table C-2). CBO does not forecast cyclical fluctuations in its projections for years after 2014. Instead, the projected values shown in the tables for 2015 through 2020 reflect CBO's assessment of average values for that period. That assessment takes into account economic and demographic trends but does not attempt to forecast the frequency or size of fluctuations in the business cycle.

Table C-1.

CBO's Year-by-Year Projections for Calendar Years 2010 to 2020

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Nominal GDP (Billions of dollars)	14,804	15,262	15,974	16,977	17,987	18,848	19,730	20,621	21,519	22,439	23,398
Nominal GDP (Percentage change)	3.8	3.1	4.7	6.3	6.0	4.8	4.7	4.5	4.4	4.3	4.3
Real GDP (Percentage change)	3.0	2.1	3.4	4.7	4.2	2.7	2.5	2.4	2.3	2.2	2.2
GDP Price Index (Percentage change)	0.8	1.0	1.2	1.5	1.7	2.0	2.1	2.1	2.0	2.0	2.0
PCE Price Index (Percentage change)	1.5	1.0	1.3	1.5	1.7	2.0	2.0	2.0	2.0	2.0	2.0
Core PCE Price Index[a] (Percentage change)	1.1	1.0	1.2	1.4	1.6	1.9	2.0	2.0	2.0	2.0	2.0
Consumer Price Index[b] (Percentage change)	1.6	1.0	1.4	1.7	1.9	2.3	2.3	2.3	2.3	2.3	2.3
Core Consumer Price Index[a] (Percentage change)	0.9	0.7	1.1	1.6	1.9	2.3	2.3	2.3	2.3	2.3	2.3
Employment Cost Index[c] (Percentage change)	1.5	2.1	2.6	3.3	3.6	4.0	3.9	3.4	3.4	3.1	3.1
Unemployment Rate (Percent)	9.5	9.0	8.1	6.6	5.3	5.0	5.0	5.0	5.0	5.0	5.0
Three-Month Treasury Bill Rate (Percent)	0.2	0.2	1.1	3.1	4.2	4.8	5.0	5.0	5.0	5.0	5.0
Ten-Year Treasury Note Rate (Percent)	3.4	3.5	4.1	4.8	5.4	5.8	5.9	5.9	5.9	5.9	5.9
Tax Bases (Billions of dollars)											
Domestic economic profits	1,326	1,342	1,406	1,539	1,554	1,473	1,493	1,496	1,511	1,540	1,572
Wages and salaries	6,415	6,629	7,076	7,568	8,066	8,514	8,946	9,363	9,786	10,207	10,644
Tax Bases (Percentage of GDP)											
Domestic economic profits	9.0	8.8	8.8	9.1	8.6	7.8	7.6	7.3	7.0	6.9	6.7
Wages and salaries	43.3	43.4	44.3	44.6	44.8	45.2	45.3	45.4	45.5	45.5	45.5

Sources: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Department of Labor, Bureau of Labor Statistics; Federal Reserve.

Notes: The dollar values for nominal GDP and the tax bases do not incorporate the July 2010 revisions of the national income and product accounts.

Percentage changes are measured from one year to the next.

GDP = gross domestic product; PCE = personal consumption expenditures.

a. Excludes prices for food and energy.

b. The consumer price index for all urban consumers.

c. The employment cost index for wages and salaries of workers in private industry.

Table C-2.

CBO's Year-by-Year Projections for Fiscal Years 2010 to 2020

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Nominal GDP (Billions of dollars)	14,666	15,148	15,764	16,705	17,760	18,630	19,508	20,398	21,293	22,205	23,154
Nominal GDP (Percentage change)	3.1	3.3	4.1	6.0	6.3	4.9	4.7	4.6	4.4	4.3	4.3
Real GDP (Percentage change)	2.4	2.3	2.9	4.4	4.6	2.9	2.6	2.4	2.3	2.2	2.2
GDP Price Index (Percentage change)	0.7	1.0	1.1	1.5	1.7	1.9	2.1	2.1	2.0	2.0	2.0
PCE Price Index (Percentage change)	1.6	0.9	1.2	1.4	1.6	1.9	2.0	2.0	2.0	2.0	2.0
Core PCE Price Index[a] (Percentage change)	1.3	0.9	1.1	1.4	1.5	1.8	2.0	2.0	2.0	2.0	2.0
Consumer Price Index[b] (Percentage change)	1.7	0.9	1.3	1.7	1.8	2.2	2.3	2.3	2.3	2.3	2.3
Core Consumer Price Index[a] (Percentage change)	1.2	0.6	1.0	1.5	1.9	2.2	2.3	2.3	2.3	2.3	2.3
Employment Cost Index[c] (Percentage change)	1.4	1.9	2.4	3.2	3.6	3.9	4.0	3.5	3.4	3.2	3.1
Unemployment Rate (Percent)	9.7	9.1	8.4	7.0	5.6	5.1	5.0	5.0	5.0	5.0	5.0
Three-Month Treasury Bill Rate (Percent)	0.1	0.2	0.7	2.6	4.1	4.7	5.0	5.0	5.0	5.0	5.0
Ten-Year Treasury Note Rate (Percent)	3.5	3.4	3.9	4.6	5.2	5.7	5.9	5.9	5.9	5.9	5.9
Tax Bases (Billions of dollars)											
Domestic economic profits	1,274	1,352	1,375	1,513	1,566	1,483	1,487	1,494	1,506	1,533	1,565
Wages and salaries	6,322	6,583	6,964	7,436	7,950	8,403	8,841	9,258	9,681	10,100	10,533
Tax Bases (Percentage of GDP)											
Domestic economic profits	8.7	8.9	8.7	9.1	8.8	8.0	7.6	7.3	7.1	6.9	6.8
Wages and salaries	43.1	43.5	44.2	44.5	44.8	45.1	45.3	45.4	45.5	45.5	45.5

Sources: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Department of Labor, Bureau of Labor Statistics; Federal Reserve.

Notes: The dollar values for nominal GDP and the tax bases do not incorporate the July 2010 revisions of the national income and product accounts.

Percentage changes are measured from one year to the next.

GDP = gross domestic product; PCE = personal consumption expenditures.

a. Excludes prices for food and energy.

b. The consumer price index for all urban consumers.

c. The employment cost index for wages and salaries of workers in private industry.

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Glossary

This glossary defines economic and budgetary terms as they apply to *The Budget and Economic Outlook: An Update*; it also acts as a general reference for readers. In some cases, the entries sacrifice technical precision for the sake of brevity and clarity. Where appropriate, entries note the sources of data for economic variables as follows:

- (BEA) refers to the Bureau of Economic Analysis in the Department of Commerce,
- (BLS) refers to the Bureau of Labor Statistics in the Department of Labor,
- (CBO) refers to the Congressional Budget Office,
- (FRB) refers to the Board of Governors of the Federal Reserve System, and
- (NBER) refers to the National Bureau of Economic Research (a private entity).

Aggregate demand: Total purchases by consumers, businesses, governments, and foreigners of a country's output of final goods and services during a given period. (BEA)

alternative minimum tax (AMT): A tax intended to limit the extent to which higher-income people can reduce their tax liability (the amount they owe) through the use of preferences in the tax code. Taxpayers subject to the AMT are required to recalculate their tax liability on the basis of a more limited set of exemptions, deductions, and tax credits than would normally apply. The amount by which a taxpayer's AMT calculation exceeds his or her regular tax calculation is that person's AMT liability.

American Recovery and Reinvestment Act of 2009 (ARRA): This law (Public Law 111-5) was intended to boost aggregate demand during the 2007–2009 recession and subsequent recovery. It provided appropriations for a variety of federal programs and increased or extended some benefits from Medicaid, unemployment compensation, and nutrition assistance programs, among others. ARRA also reduced individual and corporate income taxes and made other changes to tax law.

appropriation act: Legislation under the jurisdiction of the House and Senate Committees on Appropriations that provides authority for federal programs or agencies to incur obligations and make payments from the Treasury. Each year, the Congress considers regular appropriation acts, which fund the operations of the federal government for the upcoming fiscal year. The Congress may also consider supplemental, deficiency, or continuing appropriation acts (joint resolutions that provide budget authority for a fiscal year until the regular appropriation for that year is enacted).

asset-backed security: A financial security whose payments are derived solely from the cash flows of an underlying asset, such as a pool of mortgages or student loans.

asset bubble: An economic development in which the price of a class of physical or financial assets (such as houses or securities) rises to a level that appears to be unsustainable and well above the assets' value as determined by economic fundamentals. Bubbles typically occur when investors purchase assets with the expectation of short-term gains because of rapidly rising prices. The increase in prices continues until investors' sentiment changes, often resulting in a sharp decline in demand and in asset prices.

authorization act: A law or legislation under the jurisdiction of a committee other than the House and Senate Committees on Appropriations that establishes or continues the operation of a federal program or agency, either indefinitely or for a specified period. An authorization act may suggest the budget authority needed to fund the program or agency, which is then provided in a future appropriation act. However, for some programs, the authorization itself may provide the budget authority.

automatic stabilizers: Provisions in law that decrease revenues and increase expenditures when the economy goes into a recession (and vice versa when the economy booms) without requiring any new action on the part of the government. Stabilizers tend to reduce the depth of recessions and dampen booms.

B

Baseline: A benchmark for measuring the budgetary effects of proposed changes in federal revenues or spending. As defined in the Balanced Budget and Emergency Deficit Control Act of 1985, the baseline is the projection of new budget authority, outlays, revenues, and the deficit or surplus into the budget year and outyears on the basis of current laws and policies, calculated following the rules set forth in section 257 of that law. Section 257 expired in September 2006, but CBO continues to prepare baselines following the methodology prescribed in the section.

***Blue Chip* consensus forecast**: The average of about 50 private-sector economic forecasts compiled and published monthly by Aspen Publishers, Inc.

budget authority: Authority provided by law to incur financial obligations that will result in immediate or future outlays of federal government funds. Budget authority may be provided in an appropriation act or authorization act and may take the form of borrowing authority, contract authority, entitlement authority, or authority to obligate and expend offsetting collections or receipts. Offsetting collections and receipts are classified as negative budget authority.

budget function: One of 20 general-subject categories into which budgetary resources are grouped so that all budget authority and outlays can be presented according to the national interests being addressed. There are 17 broad budget functions, including national defense, international affairs, energy, agriculture, health, income security, and general government. Three other functions—net interest, allowances, and undistributed offsetting receipts—are included to complete the budget.

business cycle: Fluctuations in overall business activity accompanied by swings in the unemployment rate, interest rates, and corporate profits. Over a business cycle, real (inflation-adjusted) activity rises to a peak (its highest level during the cycle) and then falls until it reaches a trough (its lowest level following the peak), whereupon it starts to rise again, defining a new cycle. Business cycles are irregular, varying in frequency, magnitude, and duration. (NBER)

business fixed investment: Spending by businesses on structures, equipment, and software. Such investment is labeled "fixed" to distinguish it from investment in inventories.

C

Capital: Tangible and intangible resources that can be used or invested to produce a stream of benefits over time. *Physical capital*—also known as *fixed capital* or the *capital stock*—consists of land and the stock of products set aside to support future production and consumption, including business inventories and *capital goods* (residential and nonresidential structures and producers' durable equipment). *Human capital* is the education, training, work experience, and other attributes that enhance the ability of the labor force to produce goods and services. The *capital* of a business is the sum advanced and put at risk by the business's owners: For example, *bank capital* is the sum put at risk by the owners of a bank. In an accounting sense, capital is a business's net worth or equity—the difference between its assets and liabilities. *Financial capital* is wealth held in the form of financial instruments (such as stocks, bonds, and mortgages) rather than held directly in the form of physical capital.

capital gains and losses: The increase or decrease in the value of an asset that comes from the increase or decrease in the asset's market price after its purchase. A capital gain or loss is "realized" when the asset is sold.

capital income: Income that is derived from capital, such as stock dividends, realized capital gains, an owner's profits from a business, or the interest paid to holders of debt. Compare with **labor income**.

capital services: A measure of how much the stock of physical capital contributes to the flow of production.

central bank: A government-established agency responsible for conducting monetary policy and overseeing credit conditions. The Federal Reserve System fulfills those functions in the United States.

central tendency: The range of projections, truncated to exclude the three highest and the three lowest projections, in the Federal Open Market Committee's quarterly reports on the economic projections of the Federal Reserve's governors and Reserve Bank presidents. Those reports are published twice a year in the minutes of the Federal Open Market Committee meetings and twice a year in the Federal Reserve's *Monetary Policy Report*.

commercial paper: A short-term money market security, generally sold by large institutions or corporations to raise funds. Commercial paper is sometimes backed by collateral or guaranteed by a bank, but more typically it is backed by the good faith of the issuer.

compensation: All of the income due to an employee for his or her work during a given period. In addition to wages, salaries, bonuses, and stock options, compensation includes fringe benefits and the employer's share of payroll taxes for social insurance programs, such as Social Security. (BEA)

conservatorship: The legal process by which an external entity (in the case of Fannie Mae and Freddie Mac, the federal government) establishes control and oversight of a company to put it in a sound and solvent condition.

consumer durable goods: Products that are designed for use by consumers and that have an average life of at least three years. Examples include automobiles and major household appliances.

consumer price index (CPI): An index of the cost of living commonly used to measure inflation. The Bureau of Labor Statistics publishes the CPI-U, an index of consumer prices based on the typical market basket of goods and services consumed by all urban consumers, and the CPI-W, an index of consumer prices based on the typical market basket of goods and services consumed by urban wage earners and clerical workers. (BLS)

consumption: In principle, the value of goods and services purchased and used up during a given period by households and governments. In practice, the Bureau of Economic Analysis counts purchases of many long-lasting goods (such as cars and clothes) as consumption even though the goods are not used up. Consumption by households alone is also called *personal consumption expenditures* or *consumer spending*.

core inflation: A measure of the rate of inflation that excludes changes in the prices of food and energy.

cost-of-living adjustment (COLA): An annual increase in payments to reflect inflation.

D

debt: In the case of the federal government, the total value of outstanding bills, notes, bonds, and other debt instruments issued by the Treasury and other federal agencies. *Debt held by the public* consists primarily of securities that the Treasury issues to raise cash to fund the operations and pay off the maturing liabilities of the federal government that tax revenues are insufficient to cover. Such debt is held by outside investors, including the Federal Reserve System. Other measures include *debt held by government accounts* (debt issued for internal government transactions, to trust funds and other federal accounts, and not traded in capital markets), *gross federal debt* (the sum of debt held by the public and debt held by government accounts), and *debt subject to limit* (which is subject to a statutory ceiling that applies to gross federal debt, with the exception of a small portion of the debt issued by the Treasury and the small amount of debt issued by other federal agencies, such as the Tennessee Valley Authority and the Postal Service). Securities issued by Fannie Mae and Freddie Mac are not included in any of those measures of debt.

debt service: Payment of scheduled interest obligations on outstanding debt. As used in this report, debt service

refers to a change in interest payments resulting from a change in estimates of the deficit or surplus.

deficit: The amount by which the federal government's total outlays exceed its total revenues in a given period, typically a fiscal year.

deflation: A drop in prices that is so broadly based that general indexes of prices, such as the consumer price index, register continuing declines. Deflation is usually caused by a collapse in aggregate demand.

deposit insurance: The guarantee by a federal agency that an individual depositor at a participating depository institution will receive the full amount of the deposit (currently up to $250,000) if the institution becomes insolvent.

depreciation: A decline in the value of a currency, financial asset, or capital good. When applied to a capital good, depreciation usually refers to loss of value because of obsolescence, wear, or destruction (as by fire or flood) and is also called *consumption of fixed capital. Book depreciation* (also known as *tax depreciation*) is the depreciation that the tax code allows businesses to deduct when they calculate their taxable profits. It typically occurs more rapidly than *economic depreciation*, which is the actual decline in the value of an asset. Both measures of depreciation appear as part of the national income and product accounts.

discretionary spending: The budget authority that is provided and controlled by appropriation acts and the outlays that result from that budget authority. Compare with **mandatory spending**.

disposable personal income: Personal income—the income that people receive, including transfer payments—minus the taxes and fees that people pay to governments. (BEA)

E

Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA): This legislation (Public Law 107-16) significantly reduced tax liabilities (the amount of tax owed) between 2001 and 2010 by cutting individual income tax rates, increasing the child tax credit, repealing estate taxes, raising deductions for married couples who file joint returns, increasing tax benefits for pensions and individual retirement accounts, and creating additional tax benefits for education. EGTRRA phased in many of those changes, including some that just became fully effective in 2010. Although some of the law's provisions have been made permanent, most are scheduled to expire on or before December 31, 2010. For legislation that modified provisions of EGTRRA, see **Jobs and Growth Tax Relief Reconciliation Act of 2003**.

economic profits: Corporations' profits, adjusted to remove distortions in depreciation allowances caused by tax rules and to exclude the effect of inflation on the value of inventories. Economic profits are a better measure of profits from current production than are the book profits reported by corporations. Economic profits are referred to as *corporate profits with inventory valuation and capital consumption adjustments* in the national income and product accounts. (BEA)

economic stimulus: Federal fiscal or monetary policies aimed at promoting economic activity, used primarily during recessions. Such policies include reductions in taxes, increases in federal spending, reductions in interest rates, and other support for financial markets and institutions.

effective tax rate: The ratio of taxes paid to a given tax base. For individual income taxes, the effective tax rate is typically expressed as the ratio of taxes paid to adjusted gross income. For corporate income taxes, it is the ratio of taxes paid to book profits. For some purposes—such as calculating an overall tax rate on all income—an effective tax rate is computed on a base that includes the untaxed portion of Social Security benefits, interest on tax-exempt bonds, and similar items. It can also be computed on a base of personal income as measured by the national income and product accounts. The effective tax rate is a useful measure because the tax code's various exemptions, credits, deductions, and tax rates make actual ratios of taxes paid to income different from statutory tax rates.

employment: Work performed or services rendered in exchange for compensation. Two estimates of employment are commonly used. One comes from the so-called establishment survey of employers (the Department of

Labor's Current Employment Statistics Survey), which measures employment as the estimated number of nonfarm wage and salary jobs. (Thus, a person with more than one job may be counted more than once.) The other estimate comes from the so-called household survey (the Census Bureau's Current Population Survey), which measures employment as the estimated number of people employed. (Thus, someone with more than one job is counted only once.) The establishment survey covers only people on the payrolls of nonagricultural establishments, whereas the broader household survey includes self-employed workers, agricultural workers, unpaid workers in family-owned businesses, and employees of private households. However, the household survey is based on a smaller sample than the establishment survey is and therefore yields a more volatile estimate of employment.

employment cost index (ECI): An index of the weighted-average cost of an hour of labor—comprising the cost to the employer of wage and salary payments, employee benefits, and payroll taxes for social insurance programs, such as Social Security. The ECI is structured so that it is not affected by changes in the mix of occupations in the labor force or the mix of employment by industry. (BLS)

estate and gift taxes: A linked set of federal taxes on estates, gifts, and generation-skipping transfers to tax the transfer of wealth from one generation to the next and to limit the extent to which wealth can be given away during life to avoid taxation at death.

euro zone: The area comprising those member states of the European Union (EU) in which the euro has been adopted as the single currency and in which a single monetary policy is conducted under the responsibility of the European Central Bank. Also known as the *euro area*. (Several other countries use the euro as well, but they are not members of the EU. In addition, some members of the EU are not part of the euro zone.) The euro is the world's second largest reserve currency—and the second most-traded currency—after the U.S. dollar.

excise tax: A tax levied on the purchase of a specific type of good or service, such as tobacco products or air transportation services.

F

Fannie Mae (Federal National Mortgage Association): A government-sponsored enterprise founded during the Great Depression and federally chartered in 1968 as a shareholder-owned corporation that operates exclusively in the secondary market for residential mortgages (the market in which such mortgages are bought and sold). Fannie Mae provides liquidity to the mortgage market by purchasing qualifying mortgages from private lenders, pooling and securitizing them, and then selling them as mortgage-backed securities (MBSs) in the secondary market. The company also holds MBSs and whole mortgages in its portfolio. Since September 2008, Fannie Mae has been in federal conservatorship.

federal funds rate: The interest rate that financial institutions charge each other for overnight loans of their monetary reserves. A rise in the federal funds rate (compared with other short-term interest rates) suggests a tightening of monetary policy, whereas a fall suggests an easing. (FRB)

Federal Reserve System: The central bank of the United States. The Federal Reserve is responsible for setting the nation's monetary policy and overseeing credit conditions.

financing account: A nonbudgetary account required for a credit program that reconciles subsidies calculated on an accrual basis with the cash flows associated with credit activities. The account tracks flows between the Treasury, the program account, and the public. The cash flow in each financing account for a fiscal year is shown in the federal budget as an *other means of financing*.

fiscal policy: The government's tax and spending policies, which influence the amount and maturity of government debt as well as the level, composition, and distribution of national output and income.

fiscal stimulus: Changes in tax rates or government spending intended to encourage economic activity. Fiscal stimulus typically takes the form of temporary or permanent reductions in tax rates, or debt-financed increases in the government's transfer payments or purchases of goods and services.

fiscal year: A yearly accounting period. The federal government's fiscal year begins October 1 and ends September 30. Fiscal years are designated by the calendar years in which they end—for example, fiscal year 2011 will begin on October 1, 2010, and end on September 30, 2011.

Freddie Mac (Federal Home Loan Mortgage Corporation): A government-sponsored enterprise founded in 1970 and federally chartered in 1989 as a shareholder-owned corporation that operates exclusively in the secondary market for residential mortgages (the market in which such mortgages are bought and sold). Freddie Mac provides liquidity to the mortgage market by purchasing qualifying mortgages from private lenders, pooling and securitizing them, and then selling them as mortgage-backed securities (MBSs) in the secondary market. The company also holds MBSs and whole mortgages in its portfolio. Since September 2008, Freddie Mac has been in federal conservatorship.

G

GDP price index: A summary measure of the prices of all goods and services that make up gross domestic product. The change in the GDP price index is used as a measure of inflation in the overall economy.

Ginnie Mae (Government National Mortgage Association): A government-owned corporation within the Department of Housing and Urban Development that guarantees the timely payment of principal and interest on securities that are backed by single-family and multifamily residential mortgages insured by government agencies, including the Federal Housing Administration and the Department of Veterans Affairs.

government-sponsored enterprise (GSE): A financial institution created by federal law, generally through a federal charter, to carry out activities such as increasing credit availability for borrowers, reducing borrowing costs, or enhancing liquidity in particular sectors of the economy, notably agriculture and housing. Two of the housing GSEs, Fannie Mae and Freddie Mac, were placed into federal conservatorship in September 2008.

gross debt: See **debt**.

gross domestic income (GDI): The sum of all income earned in the domestic production of goods and services. In theory, GDI should equal gross domestic product, but measurement difficulties leave a statistical discrepancy between the two. (BEA)

gross domestic product (GDP): The total market value of goods and services produced domestically during a given period. That value is conceptually equal to gross domestic income, but measurement difficulties result in a statistical discrepancy between the two. The components of GDP are consumption (household and government), gross investment (private and government), and net exports. (BEA)

H

home equity: The value that an owner has in a home, calculated by subtracting the value of any outstanding mortgages (or other loans) secured by the property from the home's current market value.

I

inflation: Growth in a general measure of prices, usually expressed as an annual rate of change.

inventories: Stocks of goods held by businesses for further processing or for sale. (BEA)

investment: *Physical investment* is the current product set aside during a given period to be used for future production; an addition to the capital stock. As measured by the national income and product accounts, *private domestic investment* consists of investment in residential and nonresidential structures, producers' durable equipment and software, and the change in business inventories. *Financial investment* is the purchase of a financial security, such as a stock, bond, or mortgage. *Investment in human capital* is spending on education, training, health services, and other activities that increase the productivity of the workforce. Investment in human capital is not treated as investment by the national income and product accounts.

J

Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA): This legislation (Public Law 108-27) reduced taxes by advancing to 2003 the effective date of several tax reductions previously enacted in the Economic Growth and Tax Relief Reconciliation Act of 2001. JGTRRA also increased the exemption amount for the individual alternative minimum tax, reduced the tax rates for income from dividends and capital gains, and expanded the portion of capital purchases that businesses could immediately deduct through 2004. Those tax provisions were set to expire on various dates. (The law also provided roughly $20 billion for fiscal relief to states.)

L

Labor force: The number of people age 16 or older in the civilian noninstitutional population who have jobs or who are available for work and are actively seeking jobs. (The civilian noninstitutional population excludes members of the armed forces on active duty and people in penal or mental institutions or in homes for the elderly or infirm.) The labor force participation rate is the labor force as a percentage of the civilian noninstitutional population age 16 or older. (BLS)

labor income: Income that is derived from employment, such as wages and salaries. Compare with **capital income**.

liquidity: With respect to an asset, liquidity is the quality of being readily convertible into cash—that is, the ease with which an asset can be bought and sold in large quantities without affecting its price. Treasury securities are among the most liquid of assets. With respect to an institution, liquidity is the ability to meet financial obligations by virtue of possessing assets that can be readily converted into cash.

long-term interest rate: An interest rate associated with a security that matures in 10 or more years.

M

Mandatory spending: The outlays that result from budget authority provided in laws other than appropriation acts. Compare with **discretionary spending**.

market risk: Risks that investors cannot protect themselves against by diversifying their portfolios; the common component of risk in the prices of all assets. Investors require compensation for market risk because investments exposed to such risk are more likely to have low returns when the economy as a whole is weak and resources are highly valued. Investors are compensated by a higher expected return on assets exposed to market risk, known as the *market risk premium*. See **risk premium**.

monetary policy: The strategy of influencing changes in the money supply and interest rates to affect output and inflation. An "easy" monetary policy suggests faster growth of the money supply and initially lower short-term interest rates intended to increase aggregate demand, but it may lead to higher inflation. A "tight" monetary policy suggests slower growth of the money supply and higher interest rates in the near term in an attempt to reduce inflationary pressure by lowering aggregate demand. The Federal Reserve System sets monetary policy in the United States.

monetary stimulus: A reduction in short-term interest rates (equivalently, an increase in the money supply) intended to encourage economic activity. The Federal Reserve can lower short-term interest rates through its open-market operations by purchasing Treasury or other securities. To a more limited extent, it can provide stimulus by reducing the reserve ratio (the percentage of assets that member banks are required to keep on deposit at the Federal Reserve) or by lowering discount rates (the rates at which member banks can borrow money from it).

mortgage-backed security (MBS): A financial security whose payments of interest and principal are backed by the payments from a pool of mortgages. MBSs are sometimes structured to create multiple classes of claims (or tranches) of different seniority and timing.

N

National income and product accounts (NIPAs): Official U.S. accounts that track the level and composition of gross domestic product, the prices of its components, and the way in which the costs of production are distributed as income. (BEA)

natural rate of unemployment: The rate of unemployment arising from all sources except fluctuations in aggregate demand. Those sources include *frictional unemployment*, which is associated with normal turnover of jobs, and *structural unemployment*, which includes unemployment caused by mismatches between the skills of available workers and the skills necessary to fill vacant positions and unemployment caused when wages exceed their market-clearing levels because of institutional factors, such as legal minimum wages, the presence of unions, social conventions, or employers' wage-setting practices intended to increase workers' morale and effort.

net exports: A country's exports of goods and services minus its imports of goods and services; also referred to as the *trade balance*.

net interest: In the federal budget, net interest comprises the government's interest payments on debt held by the public (as recorded in budget function 900), offset by interest income that the government receives on loans and cash balances and by earnings of the National Railroad Retirement Investment Trust.

nominal: A measure based on current-dollar value. *Nominal income* and *spending* are measured in current dollars. The *nominal interest rate* on debt is the promised dollar return, without an adjustment for inflation. The *nominal exchange rate* is the rate at which a unit of one currency trades for a unit of another currency. Compare with **real**.

Obligation: A legally binding commitment by the federal government that will result in outlays, immediately or in the future.

off-budget: Spending or revenues sometimes excluded from the budget totals by law. The revenues and outlays of the two Social Security trust funds (the Old-Age and Survivors Insurance Trust Fund and the Disability Insurance Trust Fund) and the transactions of the Postal Service are off-budget (but are included in the total budget).

outlays: Spending to pay a federal obligation. Outlays may pay for obligations incurred in a prior fiscal year or in the current year; hence, they flow partly from unexpended balances of prior-year budget authority and partly from budget authority provided for the current year. For most categories of spending, outlays are recorded on a cash accounting basis. However, outlays for interest on debt held by the public are recorded on an accrual accounting basis, and outlays for direct loans and loan guarantees reflect estimated subsidy costs instead of cash transactions.

output gap: The difference between actual and potential gross domestic product, expressed as a percentage of potential GDP.

Potential gross domestic product: The level of real (inflation-adjusted) gross domestic product that corresponds to a high level of resource (labor and capital) use. (Procedures for calculating potential GDP are described in CBO's *Method for Estimating Potential Output: An Update*, August 2001.)

potential hours worked: The number of hours worked by the potential labor force.

potential labor force: The labor force that exists when the unemployment rate equals the natural rate of unemployment.

potential output: The level of production that corresponds to a high level of resource (labor and capital) use. Potential output for the national economy is also referred to as *potential gross domestic product*. (Procedures for calculating potential output are described in CBO's *Method for Estimating Potential Output: An Update*, August 2001.)

premium assistance credit: A refundable tax credit for the purchase of certain health insurance plans through an insurance exchange. In general, the credit is available to nonelderly people with household income between 138 percent and 400 percent of the federal poverty level who do not receive health insurance through an employer or a spouse's employer.

present value: A single number that expresses a flow of current and future income (or payments) in terms of an

equivalent lump sum received (or paid) today. The present value depends on the rate of interest, known as the discount rate, that is used to translate future cash flows into current dollars. For example, if $100 is invested on January 1 at an annual interest rate of 5 percent, it will grow to $105 by January 1 of the next year. Hence, at an annual 5 percent interest rate, the present value of $105 payable a year from today is $100.

price index for personal consumption expenditures (PCE price index): A summary measure of the prices of all goods and services that make up personal consumption expenditures. The Federal Reserve uses measures based on this index as its primary measures of inflation in conducting monetary policy, because they are more representative of current consumer spending patterns than the consumer price index. Also referred to as the *chained price index for personal consumption expenditures*.

primary deficit or surplus: The total budget deficit or surplus excluding net interest.

productivity: Average real (inflation-adjusted) output per unit of input. *Labor productivity* is average real output per hour of labor. The growth of labor productivity is defined as the growth of real output that is not explained by the growth of labor input alone. *Total factor productivity* is average real output per unit of combined labor and capital services. The growth of total factor productivity is defined as the growth of real output that is not explained by the growth of labor and capital. Labor productivity and total factor productivity differ in that increases in capital per worker raise labor productivity but not total factor productivity. (BLS)

Real: Adjusted to remove the effects of inflation. *Real output* represents the quantity, rather than the dollar value, of goods and services produced. *Real income* represents the power to purchase real output. *Real data* at the finest level of disaggregation are constructed by dividing the corresponding nominal data, such as spending or wage rates, by a price index. *Real aggregates,* such as real gross domestic product, are constructed by a procedure that allows the real growth of the aggregate to reflect the real growth of its components, appropriately weighted by the importance of the components. A *real interest rate* is a nominal interest rate adjusted for expected inflation; it is often approximated by subtracting an estimate of the expected inflation rate from the nominal interest rate. Compare with **nominal**.

recession: A significant decline in economic activity spread across the economy, lasting more than a few months, and normally visible in production, employment, real (inflation-adjusted) income, and other indicators. A recession begins just after the economy reaches a peak of activity and ends when the economy reaches its trough. (Between trough and peak, the economy is in an *expansion*.) (NBER)

recovery: A significant, broad-based increase in economic activity that begins just after the economy reaches a trough of activity and ends when the economy reaches the level of its previous peak.

revenues: Funds collected from the public that arise from the government's exercise of its sovereign or governmental powers. Federal revenues come from a variety of sources, including individual and corporate income taxes, excise taxes, customs duties, estate and gift taxes, fees and fines, payroll taxes for social insurance programs, and miscellaneous receipts (such as earnings of the Federal Reserve System, donations, and bequests). Federal revenues are also known as *federal governmental receipts*.

risk premium: The additional return (over the risk-free rate) that investors require to hold assets whose returns are risky. Also referred to as the *risk spread*. The risk on assets can arise from many sources, such as the possibility of default or prepayment or the volatility of interest rates or earnings. The risk premium for equities is also called the *equity premium*.

Securitization: A financial process that involves aggregating a number of assets into a pool (often by selling the assets to an entity specifically created for that purpose) and then issuing a new set of securities backed by the assets and the flows of income they generate. The aggregation of assets is intended to redistribute (and thus dilute) the risk that any of the assets will fail to generate the expected income flows.

short-term interest rate: The interest rate earned by a debt instrument (such as a Treasury bill) that will mature within one year.

surplus: The amount by which the federal government's total revenues exceed its total outlays in a given period, typically a fiscal year.

Taylor rule: A rule for the conduct of monetary policy—specifically, the setting of the federal funds rate on the basis of how much inflation differs from a target inflation rate and how much the unemployment rate differs from an estimated full-employment unemployment rate. In some formulations, the difference between gross domestic product and an estimate of potential gross domestic product is used instead of the unemployment rate. (Named after John Taylor, an economist who proposed such a rule in 1993.)

total factor productivity: See **productivity**.

transfer payments: Payments made to a person or organization for which no current or future goods or services are required in return. Federal transfer payments include Social Security and unemployment benefits. (BEA)

Treasury bill: A security issued by the Treasury with an original maturity of no more than one year. Interest on a Treasury bill is the difference between the purchase price and the value paid at redemption.

Treasury bond: A fixed-rate, interest-bearing security issued by the Treasury with an original maturity of more than 10 years.

Treasury inflation-protected security (TIPS): A security issued by the Treasury that is designed to protect investors from inflation by offering a fixed real (inflation-adjusted) rate of interest. The principal of a TIPS is linked to the consumer price index and is thus adjusted to reflect the change in that index; at maturity, the security pays the greater of the original or the adjusted principal. Holders of TIPS receive semiannual interest payments based on the fixed rate of interest and the adjusted principal amount.

Treasury note: A fixed-rate, interest-bearing security issued by the Treasury with an original maturity of more than a year but not more than 10 years.

Troubled Asset Relief Program (TARP): A program that permits the Secretary of the Treasury to purchase or insure troubled financial assets. Authority for the program was initially set by the Emergency Economic Stabilization Act of 2008 at $700 billion in assets outstanding at any one time (the limit now stands at nearly $475 billion) and remains in effect only for obligations that have already been incurred. The TARP's activities have included the purchase of preferred stock from financial institutions, support to automakers and related businesses, a program to avert housing foreclosures, and partnerships with the private sector.

trust funds: In the federal accounting structure, accounts designated by law as trust funds (regardless of any other meaning of that term). A trust fund records the revenues, offsetting receipts, or offsetting collections earmarked for the purpose of the fund, as well as budget authority and outlays of the fund that are financed by those revenues or receipts. The federal government has more than 200 trust funds. The largest and best known finance major benefit programs (including Social Security and Medicare) and infrastructure spending (such as the Highway Trust Fund and the Airport and Airway Trust Fund).

Unemployment rate: A measure of the number of jobless people who are available for work and are actively seeking jobs, expressed as a percentage of the labor force. (BLS)

Withholding: The deduction of taxes by an employer or other payor from wages or other taxable payments to be transmitted directly to a government. Federal tax withholding includes deductions for income taxes, as well as contributions to Social Security and Medicare (payroll taxes). When taxpayers file their tax returns at the end of the taxable year, they either pay the balance of unpaid tax liability or receive any overpayment as a refund. Federal tax withholding is classified as revenue in the federal budget when received by the Treasury.