



Congressional Budget Office

Testimony

**Statement of
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Director**

Policies for Increasing Economic Growth and Employment in 2012 and 2013

**before the
Committee on the Budget
United States Senate**

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Chairman Conrad, Senator Sessions, and Members of the Committee, thank you for inviting me to testify on the outlook for the economy and policy options for boosting economic output and employment during the next few years.

Summary

The U.S. economy has struggled to recover from the deep recession that began in December 2007 and ended in June 2009. Although total output started to expand again more than two years ago, the pace of the recovery in output and employment has been slow compared with the average recovery since World War II, and the economy remains in a severe slump. The Congressional Budget Office (CBO) expects that, under current law, economic growth will continue to be slow and real (inflation-adjusted) gross domestic product (GDP) will stay well below the economy's potential—a level that corresponds to a high rate of use of labor and capital—for several years. As a result, a large portion of the economic and human costs of the recession and slow recovery remains ahead. Those costs fall disproportionately on people who lose their jobs, who are displaced from their homes, or who own businesses that fail.

The slow recovery of output and employment largely reflects the nature of the recession. The collapse of house prices and the financial crisis—conditions unlike anything this country has seen since the Great Depression—pushed the economy into a deep recession. In the aftermath of such a crisis, it takes time for households to rebuild their wealth and pay down their debts, for financial institutions to restore their capital bases and the supply of credit, and for businesses to regain the confidence necessary to invest in new facilities and equipment.

CBO expects real GDP to grow in the vicinity of 1½ percent this calendar year (as measured by the change between the fourth quarter of 2010 and the fourth quarter of 2011) and around 2½ percent next year. With modest growth in output, CBO expects employment to expand very slowly during the rest of this year and next year, leaving the unemployment rate close to 9 percent through the end of 2012. Weakness in the demand for goods and services is the principal restraint on hiring, but structural impediments in the labor market—such as a mismatch between the requirements of existing job openings and the characteristics of job seekers (including their skills and geographic location)—appear to be restraining hiring as well.

So that CBO's projections can serve as a benchmark for assessing the impact of legislative proposals, the agency's economic forecast reflects the provisions of current law. Under current law, the expiration of tax cuts and constraints imposed by the recently enacted Budget Control Act of 2011 (Public Law 112-25)—along with automatic changes in the budget as the economy grows (namely, higher tax revenues and lower spending for some income support programs)—will cause federal fiscal policy to significantly restrain economic growth in 2012 and 2013.

Concerns that the economic recovery will continue to be slow and protracted have prompted the consideration of fiscal policy actions to spur economic growth and increase employment during the next few years. Three key criteria for evaluating such actions are:

- Timing—providing help when it is needed;
- Cost-effectiveness—generating a large amount of additional output and employment per dollar cost to the federal budget; and
- Consistency with long-term fiscal objectives—not worsening the long-run budget outlook.

Other considerations include who would be helped the most by the policy; what would be the value to society of any additional goods and services produced; and how uncertain would the outcomes be.¹

This testimony assesses the potential impact of a variety of temporary fiscal policy actions that might be considered to promote economic growth and increase employment in the near term. CBO estimates that the policies analyzed here would raise real GDP in 2012 and 2013 by an amount ranging from as little as 10 cents per dollar of budgetary cost to as much as \$1.90 per dollar of budgetary cost; the impact of the policies on employment would range from a marginal increase to an increase of as much as 19 years of full-time-equivalent (FTE) employment per million dollars of budgetary cost over that two-year span (see Figure 1). Thus, changes in fiscal policy, if appropriately designed, would promote economic growth and increase employment during the next few years.

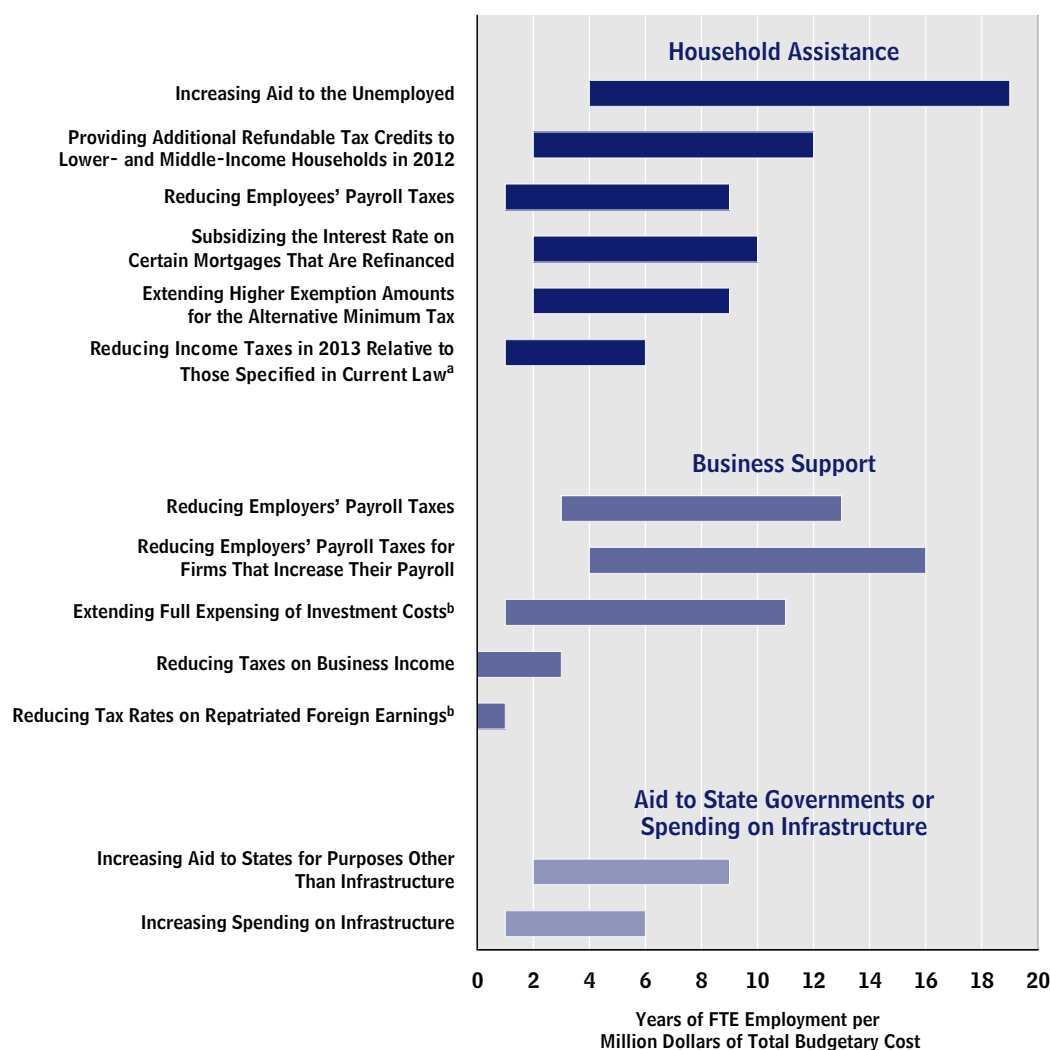
Comparing the estimated effects of different policy actions shows the following:

- Policies that would have the largest effects on output and employment per dollar of budgetary cost in 2012 and 2013 are ones that would reduce the marginal cost to businesses of adding employees or that would be targeted toward people who would be most likely to spend the additional income. Such policies include reducing employers' payroll taxes (especially if limited to firms that increase their payroll), increasing aid to the unemployed, and providing additional refundable tax credits in 2012 for lower- and middle-income households.
- Policies that would primarily affect businesses' cash flow but would have little impact on their marginal incentives to hire or invest would have only small effects. Such policies include reducing business income taxes and reducing tax rates on repatriated foreign earnings.

1. See Congressional Budget Office, *Options for Responding to Short-Term Economic Weakness* (January 2008); and the Statement of Douglas W. Elmendorf, Director, Congressional Budget Office, before the House Committee on the Budget, *The State of the Economy and Issues in Developing an Effective Policy Response* (January 27, 2009).

Figure 1.

Ranges of Cumulative Effects of Policy Options on Employment in 2012 and 2013



Source: Congressional Budget Office.

Notes: The ranges of estimates were chosen, on a judgmental basis, to encompass most economists' views.

Estimates represent years of full-time-equivalent employment (FTE-years) with a given policy minus FTE-years without the policy. (An FTE-year is 40 hours of employment per week for one year.) Estimates are per million dollars of total budgetary cost, which is the amount of tax revenues or outlays over the full duration of a policy's effects, except as specified in note b below.

All years are calendar years. Unless otherwise specified, increased spending authority is assumed to be available as of January 2012, and tax options are assumed to be in effect only for 2012.

- Includes the effects of extending higher exemption amounts for the alternative minimum tax in 2012.
- For this option, total budgetary cost is calculated as a discounted present value rather than as the sum of changes in tax revenues over the full duration of the policy's effects.

Despite the near-term economic benefits that would arise from reductions in taxes and increases in government spending, such actions would add to the already large projected budget deficits, either immediately or over time. Unless offsetting actions were taken to reverse the accumulation of additional government debt, the nation's capital stock, its future output, and people's future incomes would tend to be lower than they otherwise would have been. If policymakers wanted to boost the economy in the near term while seeking to achieve long-term fiscal sustainability, a combination of policies would be required: changes in taxes and spending that would widen the deficit now but reduce it later in the decade. Such an approach would work best if the future policy changes were sufficiently specific and widely supported so that households, businesses, state and local governments, and participants in financial markets believed that the future fiscal restraint would truly take effect.

Lawmakers could also influence economic growth and employment during the next few years by changing policies that do not involve, or whose scope extends well beyond, taxation and government spending. For example, legislation could modify existing or proposed regulations, significantly alter the government's role in a particular sector of the economy, or change trade relationships with other countries. Other types of policy changes that do not require legislation, such as those related to monetary policy or those that can be implemented by federal agencies under current law, could also affect economic activity, but they are outside the scope of this testimony.

The near-term economic impact of changing a regulation or other policy apart from fiscal policy would depend importantly on how doing so affected businesses' investment and hiring decisions. In addition, changes in policies that increased or decreased households' purchasing power or wealth would influence how much they spend. Moreover, changes to regulations and other policies could affect expectations about future income or make businesses and households more or less uncertain about future government policies and economic conditions, which would affect economic growth and employment in the near term.

This testimony discusses some potential changes in regulatory policies and other policies related to energy and the environment, the financial and health care sectors, and international trade. But estimating the near-term effects on overall economic activity of such policy changes is exceedingly difficult, and few analytic tools are available for that purpose. Accordingly, CBO did not attempt to quantify the effects of those potential changes with any precision.

Some changes in policies that CBO considered would probably raise output and employment during the next few years; other changes would probably lower output and employment; and some changes would have effects on economic activity whose sign is difficult to determine. However, in CBO's judgment, the economic effects of the specific changes in regulatory policies or other policies apart from fiscal policies that are discussed in this testimony probably would be too small or would occur too slowly to significantly alter overall output or employment in the next two years. (The policy changes examined here are illustrative rather than exhaustive; many others,

which might have larger or smaller economic effects, are possible.) This testimony does not speak to other critical considerations in evaluating such policy changes, including the long-term effects on the economy, on people's health, and on the environment.

The Economic Outlook

The U.S. economy has struggled to recover from the deep recession that, according to the National Bureau of Economic Research, began in December 2007 and ended in June 2009. Although total output started to expand again more than two years ago, the pace of the recovery in output and employment has been quite slow, and the economy remains in a severe slump. Real GDP in the third quarter of 2011 was about 5 percent below CBO's estimate of its potential—a level that corresponds to a high rate of use of labor and capital. By contrast, 2¼ years after the end of previous recessions since 1948 (except after the brief 1980 recession), real GDP was between 3.2 percent below and 3.8 percent above its potential. CBO expects that, under current law, economic growth will continue to be slow and real GDP will stay well below the economy's potential for several years (see Figure 2).

The Slow Recovery

Real GDP rose by 5.6 percent from the second quarter of 2009 through the third quarter of 2011, roughly retracing its 5.1 percent decline during the recession but falling well short of the average of 12.2 percent growth during the same span (the first nine quarters) in previous recoveries since the end of World War II (see Figure 3, top panel). The slow pace of the recovery is particularly unusual given the severity of the recession. It contrasts sharply with the vigorous recoveries that followed the deep recessions that began in 1973 and 1981; for example, after falling by 3.2 percent during the 1973–1975 recession, real GDP grew by almost 12 percent during the first nine quarters of the subsequent recovery.

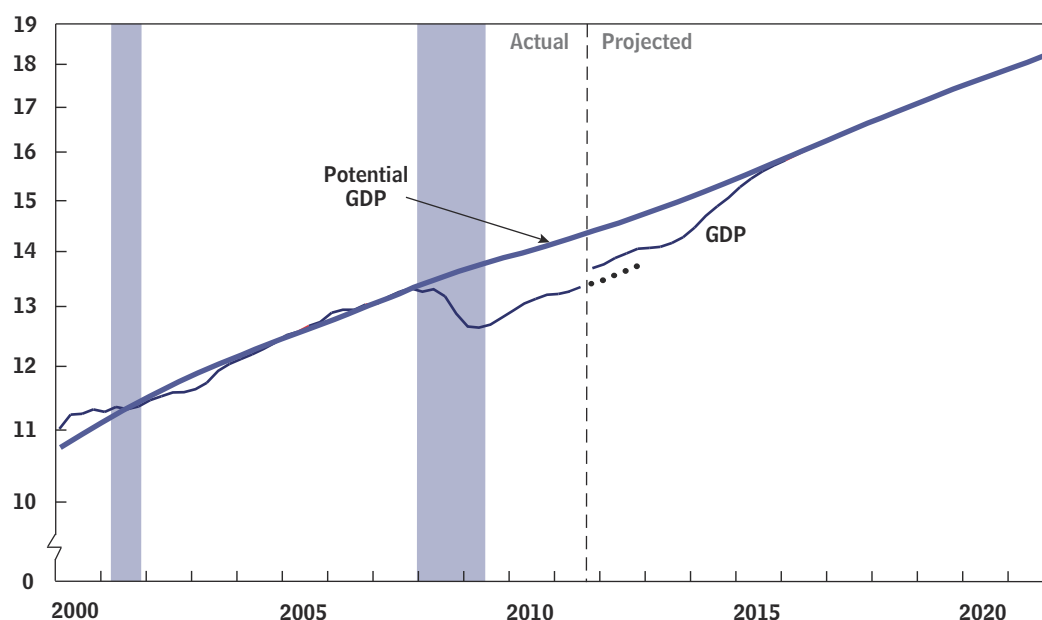
The modest growth of output can be traced in large part to a weak rebound in consumer spending and continued low levels of homebuilding. Consumer spending has increased more slowly in this recovery than it did, on average, following previous post-war recessions, even though it declined more than usual during the most recent recession. Real investment in residential structures (such as houses and apartment buildings) plunged from 2006 through mid-2009 and has edged down further since the end of the recession; in contrast, increases in such investment have played a key role in most past recoveries.

Gains in employment during the recovery have also been much weaker than might have been expected given the sharp drop in employment during the recession and the experience of previous recoveries. After falling by 7.5 million during the recession, employment increased by only about 1 million jobs (or 0.8 percent), on net, between June 2009 and October 2011. By contrast, employment rose by an average of 6.7 percent during the same span in past recoveries (see Figure 3, bottom panel). Moreover,

Figure 2.

Real Gross Domestic Product

(Trillions of 2005 dollars, logarithmic scale)



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 that the economy would produce with a high rate of use of its labor and capital resources.

Data are quarterly. Actual data for GDP, which are plotted through the third quarter of 2011, incorporate the July 2011 revisions of the national income and product accounts. The projections of GDP indicated by the solid line are taken from Congressional Budget Office, *The Budget and Economic Outlook: An Update* (August 2011). They are plotted through the fourth quarter of 2021 and are based on data issued before the revisions. The projections of GDP indicated by the dotted line incorporate the effects of the revisions and events since early July, when the previous forecast was completed; they are plotted through the fourth quarter of 2012.

Shaded vertical bars indicate periods of recession.

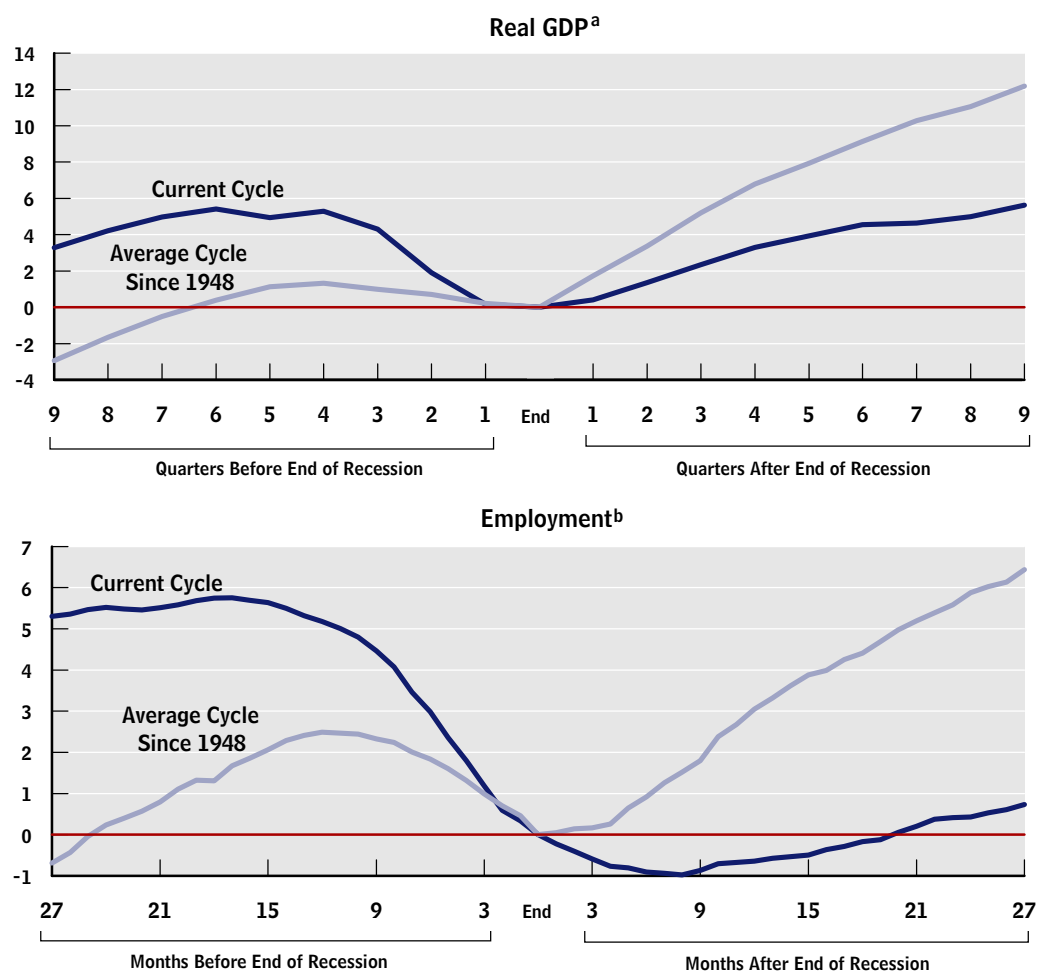
the growth of employment has slowed markedly during the past several months compared with its pace earlier in the year. The total number of jobs increased at an average monthly rate of about 180,000 in the first four months of this year, more than double the average pace in 2010 (see Figure 4); but from May through October, the number of jobs increased at an average monthly rate of only about 90,000.

Consequently, the unemployment rate has fallen by only a small amount. It climbed to 10.1 percent of the labor force in October 2009, approaching the 10.8 percent reached in November and December 1982 (which was the highest rate since 1948, when comparable data first became available), and is still at 9.0 percent (see Figure 5).

Figure 3.

Recovery in Real Gross Domestic Product and Employment

(Percentage difference from value at end of recession)



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

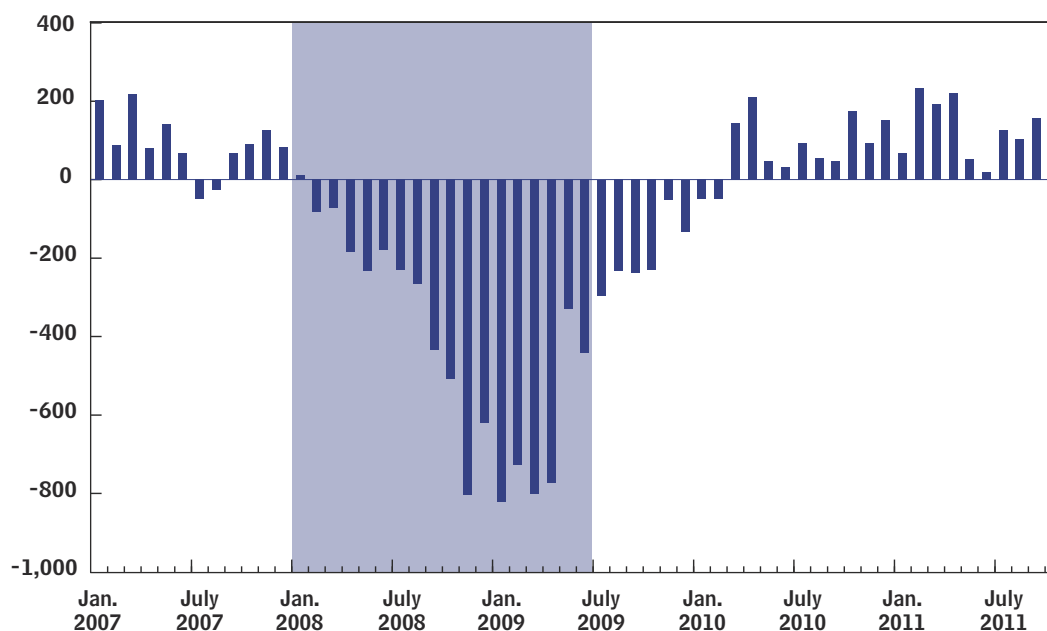
Note: The average cycle since 1948 excludes the 1980 cycle (because the subsequent quarters included another recession) and the current cycle.

- a. Real gross domestic product (GDP) is the output of the economy adjusted to remove the effects of inflation.
- b. Employment comprises all nonfarm payroll employees. The data exclude temporary census workers in 1990, 2000, and 2010.

Figure 4.

Net Job Growth per Month

(Thousands of jobs)



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

Notes: Data are monthly and are plotted through October 2011. They exclude temporary jobs associated with the 2010 census.

The shaded vertical bar indicates a period of recession.

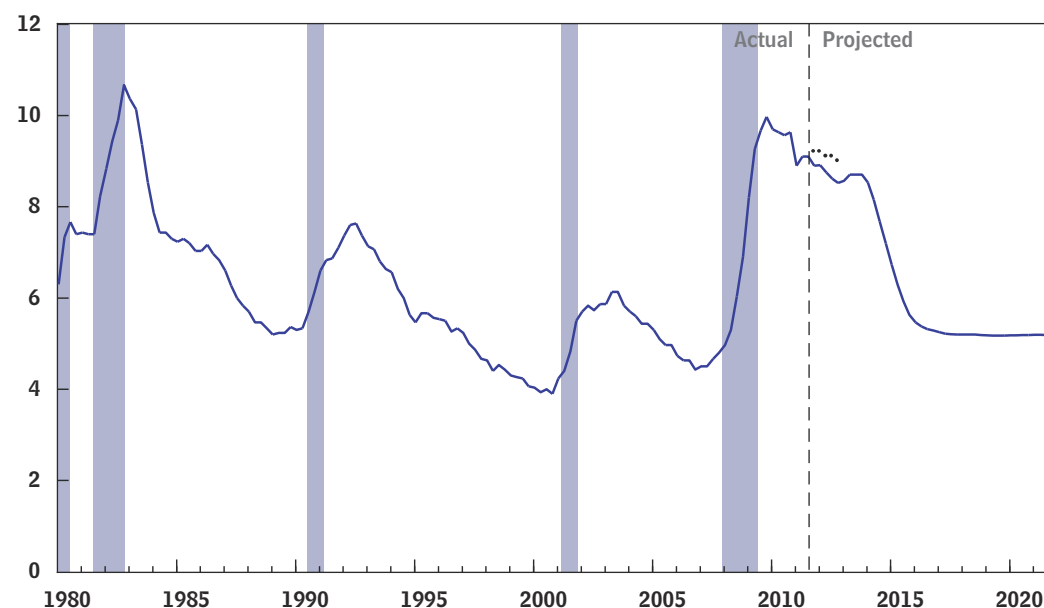
The unemployment rate would have been even higher during the past few years had the size of the labor force not fallen as much as it did. The decline in the labor force is partly owing to a marked rise in the number of unemployed workers who report dropping out of the labor force because they were discouraged about their job prospects. If those discouraged workers were counted as being in the labor force and unemployed, the unemployment rate in October would have been 9.6 percent rather than the actual 9.0 percent; in November 2007, before the recession, counting discouraged workers would have added only about 0.2 percentage points to the reported 4.7 percent unemployment rate.

The weakness of the recovery largely reflects the nature of the recession. An extraordinary surge in house prices and favorable borrowing conditions encouraged an unprecedented run-up in household debt and high levels of home construction and consumer spending relative to income by the mid-2000s. The subsequent plunge in house prices and the financial crisis—conditions unlike anything this country has seen since the Great Depression—pushed the economy into a deep recession. Despite the strong international evidence that recoveries following financial booms and busts

Figure 5.

Unemployment Rate

(Percent)



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

Notes: The unemployment rate is 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.

Data are quarterly. Actual data are plotted through the third quarter of 2011. The projections indicated by the solid line are taken from Congressional Budget Office, *The Budget and Economic Outlook: An Update* (August 2011) and are plotted through the fourth quarter of 2021. The projections indicated by the dotted line incorporate the effects of events since early July, when the previous forecast was completed; they are plotted through the fourth quarter of 2012.

Shaded vertical bars indicate periods of recession.

tend to be very protracted, the importance of the various factors involved is unclear. For the United States today, the following factors appear to be playing some role:

- The large drop in household wealth before and during the recession and a desire by households to reduce their indebtedness, which is causing them to increase their saving and reduce their spending;
- Difficulty for some households and businesses in obtaining credit because lenders have imposed standards and terms for loans that are generally stricter than those in the years immediately before the recession and, in some instances, stricter even than those seen in prior years—leading potential borrowers to reduce their consumption and investment;

- A large glut of vacant homes, which has pushed the construction of new homes to the lowest levels since at least 1959;
- Uncertainty and worries about future economic activity and government policies in the United States and about the stability of the European financial system, leading households to spend less and businesses to undertake less investment and hiring;
- The very low level of the interest rate the Federal Reserve usually adjusts to implement monetary policy (the federal funds rate) and a reduced responsiveness of the economy to a decline in interest rates (because of the oversupply of vacant homes and the desire of households to lower their debt)—resulting in less ability for monetary policy to support economic growth; and
- A decreased share of national income going to the compensation of workers, which reduces consumer spending overall.

The Economic Outlook for 2011 and 2012

CBO expects the pace of economic recovery to remain modest for the next few years if current laws governing taxes and spending remain in effect. Growth slowed and inflation increased in the first half of 2011, in part because of developments that have proved temporary, including jumps in energy and food prices and disruptions to the global supply chain caused by the earthquake and nuclear accident in Japan. As the effects of those developments faded, the U.S. economy rebounded a little, supported by continued strength in business investment, small increases in consumer spending, and expansions in net exports (exports minus imports) and residential investment. Nevertheless, the pace of growth will probably be restrained for several more years by the lingering effects of the financial crisis and the recession and by the path of federal fiscal policy under current law.

Economic Growth and the Labor Market. CBO published its most recent economic forecast in August.² The agency initially completed that forecast in early July, and it updated its projections in August to reflect the policy changes enacted in the Budget Control Act of 2011 but no other developments. The news since CBO completed that work suggests that economic growth for the remainder of this year and next is likely to be weaker than the agency anticipated in that forecast—with growth in the vicinity of 1½ percent this calendar year (as measured by the change between the fourth quarter of 2010 and the fourth quarter of 2011) and around 2½ percent next year. Other forecasters have also modified their expectations. For example, between early July and early November, the *Blue Chip* consensus forecast (compiled from about 50 forecasts by private-sector economists) for real growth of GDP in 2011 was marked down from 2.6 percent to 1.6 percent. For 2012, the *Blue Chip* forecast was lowered from 3.0 percent to 2.3 percent.

2. See Congressional Budget Office, *The Budget and Economic Outlook: An Update* (August 2011).

CBO's projections reflect the agency's expectations of modest increases in spending by consumers, continued strong growth in investment by businesses, gains in net exports, and the beginning of a recovery in home construction. CBO expects consumer spending to improve in the near term as the temporary factors such as higher energy prices and supply disruptions fade further, as credit conditions improve more; and as households' net worth slowly increases. Strong growth in business investment will continue, CBO expects, as businesses expand capacity to meet increases in demand for their products. According to the agency's projections, residential construction will also increase in the near term. Still, with an unusually large number of vacant homes, CBO anticipates that it will take several years for the construction of new housing units to return to levels consistent with the growth of the population and the demand for replacement units.

The period since early July that has led many forecasters to lower their projections for near-term growth has included weakness in the financial markets, downward revisions to historical data on GDP, and diminished prospects for world economic growth. Stock prices, as measured by the value of the Standard & Poor's 500 index, fell by about 6 percent between early July and early November, returning to their level of early in the year. The annual revisions to the national income and product accounts and more recent data issued by the Commerce Department show that the economy was weaker from 2008 through mid-2011 than was previously thought. Furthermore, growth slowed in major foreign economies in mid-2011, and the near-term outlook for growth abroad has softened in light of the sovereign debt crisis in Europe.

With modest growth in U.S. output, CBO expects employment to expand very slowly during the rest of this year and next year. Weakness in the demand for goods and services is the principal constraint on hiring, but structural impediments in the labor market—such as a mismatch between the requirements of existing job openings and the characteristics of job seekers (including their skills and geographic location)—appear to be hindering hiring as well. As a result, the unemployment rate is likely to be around 9.0 percent through the fourth quarter of next year. (In CBO's August forecast, the unemployment rate fell to 8.5 percent by the fourth quarter of 2012.) Between early July and early November, the *Blue Chip* consensus similarly raised its forecast for the unemployment rate in the fourth quarter of 2012—from 8.1 percent to 8.9 percent.

Inflation and Interest Rates. Inflation increased markedly in the first half of 2011, spurred largely by a sharp rise in oil prices, but CBO projects that it will diminish in the second half of the year and be low in 2012. The increase in oil prices since late 2010 has been partly reversed, and trading in financial markets points to fairly steady prices for oil and other commodities in the next few years. In addition, the large amount of unused or underemployed resources in the economy will continue to hold down the growth of wages and prices.

CBO projects that the price index for personal consumption expenditures (PCE) will increase by about 2½ percent this year and by about 1½ percent next year (as mea-

sured by the change from the fourth quarter of the previous year). The “core” version of the PCE price index, which excludes prices for food and energy, is projected to rise by about 1¾ percent in 2011 and by about 1½ percent in 2012. The consumer price index for all urban consumers and its core version are expected to increase more rapidly than their PCE counterparts, especially in 2011. CBO currently expects inflation in 2011, as measured by both the PCE price index and the consumer price index, to be higher than the agency forecast in August because gasoline prices have remained high and inflation in housing rents has been higher than projected; expected higher inflation in rents accounts for the upward revision to CBO’s outlook for inflation in 2012.

With modest inflation and slow economic growth, interest rates are likely to remain quite low through 2013. The interest rate on 3-month Treasury bills is likely to remain barely above zero, and as indicated by the financial markets, the rate on 10-year Treasury notes will probably remain less than 3½ percent.

The Output Gap and Its Costs

Economic growth at the rates CBO anticipates will leave a very large and persistent gap between actual output and the agency’s estimate of potential output; that is, a large amount of labor and capital resources will be unused for some time. In CBO’s August baseline projections, the output gap is about 5 percent of potential GDP at the end of 2011 and does not close fully until the second half of the 2011–2021 projection period.³

As a result, a large portion of the economic and human costs of the recession and slow recovery remains ahead. In mid-2011, according to CBO’s estimates, the economy was only about halfway through the cumulative shortfall in output relative to its potential level that will result from the recession and the weak recovery. Between late 2007 and mid-2011, the cumulative difference between GDP and estimated potential GDP amounted to roughly \$2½ trillion; by the time the nation’s output rises back to its potential level, the cumulative shortfall is expected to equal about \$5 trillion.

Not only are the costs associated with the output gap immense, but they are also borne unevenly. Those costs fall disproportionately on people who lose their jobs, who are displaced from their homes, or who own businesses that fail. In the first quarter of 2011, for example, the recession and weak recovery led to a shortfall of about 10 million jobs relative to the number that would have existed had the recession not occurred and had job growth matched the average rate in the previous business cycle. The unemployment rate has now exceeded 8.5 percent for 32 months, the longest such period since 1947, and the number of workers who are employed part time but want full-time work has averaged almost 9 million since early 2009, about double the number before the recession. Moreover, many of those who are unemployed have

3. CBO has not published new estimates of the paths for potential GDP and the output gap since August.

been out of work for a long time. In October, 42 percent of workers who were unemployed had been out of work for more than 26 weeks and about 30 percent for a year or more—rates of long-term unemployment that are unprecedented in the period following World War II. In addition, although the number of unemployed workers per job opening has fallen significantly since the end of the recession, it still remains much higher than at its peak following the 2001 recession, when the rebound in employment was also unusually slow. Even among workers who find new jobs, experience suggests that many will end up with lower earnings, not only in the short term but for many years to come.⁴

The underutilization of capital and labor resources also affects the federal budget. If the economy was operating at its potential, the projected federal deficit in fiscal year 2012 would be about a third lower, or roughly \$630 billion (4.0 percent of GDP) instead of the \$973 billion (6.2 percent of GDP) projected in CBO's most recent baseline.⁵ If the economy was operating at its potential, people's incomes and federal revenues would be higher, while federal outlays for certain income support programs would be lower.

The Impact of Fiscal Policy

Under current law, federal fiscal policy has provided decreasing support for economic activity this year and will significantly restrain economic growth in 2012 and 2013.⁶ One reason for that pattern is that the stimulative impact of the American Recovery and Reinvestment Act (ARRA, P.L. 111-5) is winding down. CBO estimates that relative to what would have happened without that law, ARRA raised real GDP by between 0.7 percent and 4.1 percent in 2010 but is raising GDP by a smaller amount in 2011 and will do so by even less in 2012.⁷ ARRA's boost to employment is also diminishing. CBO estimates that the law raised employment (relative to what it would have been otherwise) by between 0.7 million and 3.3 million jobs in 2010, but the law's impact on employment will be progressively smaller in 2011 and 2012.

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4. For an analysis of the cost of losing a job in an economic downturn, see Congressional Budget Office, *Losing a Job During a Recession*, Issue Brief (April 2010).
 5. See Congressional Budget Office, letter to the Honorable Chris Van Hollen providing CBO's estimate of the portion of the federal deficit that is due to the current underutilization of capital and labor resources in the economy (October 4, 2011).
 6. Weak growth in outlays by state and local governments will also slow economic growth in those years, but that effect will be largely offset by slow growth in those governments' collections of tax revenues because of the modest recovery.
 7. In estimating the effects of ARRA, CBO selected low and high estimates of the effects of each provision of the law; those estimates were chosen to encompass most economists' views about the effects of that type of provision. For a discussion of CBO's estimation methods, see Congressional Budget Office, *Estimated Impact of the American Recovery and Reinvestment Act on Employment and Economic Output April 2011 Through June 2011* (August 2011). The low ends of the ranges described here are smaller than those shown in CBO's August report, reflecting further analysis of the multiplier effects of changes in federal taxes and spending. CBO's next report on ARRA, which will be issued later this month, will incorporate those changes.

Economic support provided by federal fiscal policy is also decreasing because the effect of the government's so-called automatic fiscal stabilizers is declining as the economy continues to grow (albeit slowly). Those stabilizers are the automatic responses of revenues and outlays to cyclical movements in real GDP and unemployment. For example, when GDP falls relative to potential GDP during a recession, the reduction in income causes tax revenues to decrease automatically. In addition, some outlays—such as those for unemployment insurance and federal nutrition programs—increase because unemployment rises and more people experience reductions in income, qualifying them to enter existing programs. Those automatic responses provide fiscal support when economic activity slows and provide fiscal restraint when economic activity picks up.⁸ Federal fiscal support from the automatic stabilizers equaled roughly 2½ percent of potential GDP in 2010, CBO estimates, but is likely to be smaller in 2011 and 2012.

In addition, economic support from fiscal policy will diminish as provisions of the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312, referred to here as the 2010 tax act) expire as scheduled over the next two years and as the Budget Control Act is implemented. In particular:

- The 2010 tax act temporarily extended numerous tax cuts that were slated to expire at the end of 2010 and included new provisions that are also scheduled to expire within the next two years. For example, it continued through December 2012 various tax reductions enacted in the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) and the Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA), and it extended through December 2011 provisions limiting the reach of the alternative minimum tax (AMT).⁹ It also reduced the employee's share of the Social Security payroll tax in 2011, provided temporary tax incentives for business investment, and extended certain additional unemployment insurance benefits through January 3, 2012.
- The Budget Control Act set caps on discretionary appropriations that will reduce discretionary spending in real terms over time. It also created a Congressional Joint Select Committee on Deficit Reduction, whose stated goal is to propose further policy changes that would save at least \$1.5 trillion over 10 years. If, by January 15, 2012, legislation originating from that committee and projected to achieve at least \$1.2 trillion in deficit reduction over the next 10 years is not enacted, automatic procedures established by the new law will reduce spending between fiscal years 2013 and 2021 by the difference between \$1.2 trillion and any savings that are

8. For more information about automatic fiscal stabilizers, see Congressional Budget Office, *The Effects of Automatic Stabilizers on the Federal Budget* (April 2011).

9. The AMT is intended to curtail the extent to which higher-income people can reduce their tax liability through the use of preferences in the tax code. CBO anticipates that the impact of higher taxes under the AMT will largely be delayed until 2013, when most of those additional taxes will be paid if no further legislation limiting the reach of the AMT is enacted.

achieved by enacting proposals from the committee. That spending reduction (with an allowance for interest savings subtracted) would be distributed evenly among those fiscal years.

CBO estimates that the fiscal restraint stemming from the expiration of provisions in the 2010 tax act and from enactment of the Budget Control Act—including \$1.2 trillion in deficit reduction from legislation originating from the deficit reduction committee or from automatic spending cuts—will decrease real GDP in 2013 by between about 1½ percent and about 3½ percent compared with what it would have been otherwise.¹⁰ However, CBO also estimates that the reduction in deficits resulting from those policies will boost output later in the decade.

Future fiscal policy is likely to differ from that embodied in current law in at least some respects, and those differences could have a significant impact on the economy. For example, the Congress might enact legislation from the deficit reduction committee that includes a different composition of policy changes or different timing for them than CBO has assumed in its baseline budget projections, or the Congress might alter fiscal policy in other ways. To illustrate how some widely anticipated changes to current law would affect the economy, CBO has examined an alternative path for fiscal policy that includes these assumptions: Most of the provisions of individual income taxes and estate and gift taxes now scheduled to expire in December 2012 are extended through 2021; limits to the reach of the AMT that are set to expire at the end of 2011 are also continued through 2021; and Medicare's payment rates for physicians are maintained at their 2011 levels. (Those possible changes to current law would be a continuation of current policies that have previously been extended; they do not represent a prediction or recommendation about future policies.) Under that set of policies, budget deficits would be significantly larger than those in CBO's baseline budget projections, and federal debt held by the public would accumulate much more rapidly.

Under those alternative assumptions, real GDP would be higher in the first few years of the projection period than it is in CBO's economic forecast. For example, CBO estimates that real GDP in 2013 would be between 0.6 percent and 2.3 percent greater than projected under current law. Faster GDP growth would result in a lower unemployment rate in 2013 by between 0.3 percentage points and 1.1 percentage points; it would also result in somewhat higher interest rates that year—the rate on

10. To reflect the high degree of uncertainty that accompanies estimates of the economic impact of fiscal policy, CBO used a range of assumptions about the extent to which changes in taxes and government spending affect the demand for goods and services, budget deficits affect private investment, and changes in marginal tax rates on labor income affect the labor supply. For more information about some of those assumptions, see Congressional Budget Office, *The Macroeconomic and Budgetary Effects of an Illustrative Policy for Reducing the Federal Budget Deficit* (July 2011); and for a discussion of estimation methods, see Congressional Budget Office, *An Analysis of the President's Budgetary Proposals for Fiscal Year 2012* (April 2011).

10-year Treasury notes would be 20 to 30 basis points higher.¹¹ In later years, however, real GDP would fall below the level in CBO's baseline projections by ever larger amounts over time. The lower marginal tax rates under those alternative assumptions would increase people's incentives to work and save, but the larger budget deficits would reduce ("crowd out") private investment in productive uses of capital. By the end of 2021, as the effect of larger budget deficits outweighed that of lower tax rates, real GDP would be between 0.3 percent and 1.9 percent smaller than it would be under current law, CBO estimates.¹² In years beyond 2021, the impact of the alternative assumptions in reducing real GDP relative to the amounts under current law would increase.

Uncertainty in the Economic Outlook

Economic forecasts are always subject to a considerable degree of uncertainty, but the current uncertainty surrounding the economic outlook is especially great because the present business cycle has been unusual in a variety of ways. CBO constructs its economic forecasts to be in the middle of the distribution of possible future outcomes for the economy under an assumption that current law remains unchanged. Many developments could cause economic outcomes to differ substantially, in one direction or the other, from those CBO has projected. Key areas of uncertainty in the economic outlook include the following factors:

- The degree to which households want to increase their savings and further reduce their debt burdens,
- The ways in which lenders adjust their standards and terms for borrowing,
- The pace at which firms hire and invest,
- The timing and magnitude of a recovery in the housing market,
- The evolution of people's and businesses' confidence about the path of the economy,
- Changes in stock prices and long-term interest rates,
- The resolution of concerns that some European governments may default on their debts, and
- The path of U.S. fiscal policy.

11. A basis point is one-hundredth of a percentage point.

12. The additional growth in federal debt under those alternative assumptions would also increase the risk of a fiscal crisis; see Congressional Budget Office, *Federal Debt and the Risk of a Fiscal Crisis*, Issue Brief (July 2010).

Different outcomes for those factors could combine to have quite divergent effects: from boosting the growth of the U.S. economy significantly to causing a new recession, or producing some result in between.

Selected Fiscal Policy Options for Increasing Economic Growth and Employment in 2012 and 2013

The weakness of the economic recovery to date and the high levels of unemployment projected by most forecasters for the next few years have spurred ongoing discussions among analysts and policymakers about what steps the federal government might take to boost growth and employment. Some possible actions involve changes in tax or spending policies; others involve changes in regulatory policies or other policies.

To aid the Congress in the assessment of policy alternatives, CBO has estimated the effects of a variety of changes in tax and spending policies on output and employment over the next two years. The policy options that CBO analyzed would affect the economy in three different ways:

- Primarily by boosting households' disposable income,
- Primarily by providing support to businesses, and
- By increasing aid to state governments or government spending on infrastructure.

CBO estimated that the policy options it considered would range in their potential effect on GDP in 2012 and 2013 from raising it by as little as 10 cents per dollar of budgetary cost to increasing it by as much as \$1.90 per dollar of budgetary cost. The largest feasible magnitude of the total budgetary cost varies among the policies, but all of the options considered are sufficiently scalable such that they could involve at least \$10 billion of spending increases or tax cuts in 2012 and 2013. Some fiscal policies that would have little effect on the budget in 2012 and 2013 could nonetheless significantly affect output and employment in those years. For example, large changes to tax or spending policies that were enacted today and were scheduled to take effect in 2014 could affect the behavior of households and firms right away. However, this analysis does not include any fiscal policy options of that sort.

Considerations in Designing Fiscal Policy

Some policymakers and analysts have advocated near-term reductions in taxes or increases in federal spending to boost output and employment in the next few years. At the same time, many are concerned about the prospect of a further rise in federal debt. There is no inherent contradiction, however, between using fiscal policy to support the economy today, while unemployment is high and many factories and offices

are underused, and imposing fiscal restraint some years from now, when output and employment will probably be close to their potential.¹³

Even without any additional policy action, market forces will ultimately bring output and employment back to their potential. Before that occurs, however, many workers will remain or will become unemployed, and much capacity of facilities and equipment will be unused. Those unemployed workers and unused capital resources represent a waste of the economy's ability to produce goods and services, and the production that is lost cannot be made up later. Increased private and public spending during this period would employ those resources and raise the economy's production. After the economy has returned to its potential, the constraint on output will be the economy's capacity to produce goods and services, which depends on the stock of productive capital, the quantity and quality of labor, and the efficiency with which those resources are combined. Over that longer term, the more that households, businesses, and governments save, the more that can be invested in productive capital, which is why economists tend to emphasize the long-term benefits of saving relative to spending.

The current challenge for policymakers is that the reductions in taxes and increases in federal spending that would boost demand for goods and services in the short term would also increase government debt, which in turn would reduce the capital stock in the long term. Moreover, if people believed that policy changes that increased near-term deficits presaged larger deficits in the future and thus that the federal budget outlook had become even bleaker, the economy could be hurt in the near term by a faltering of business and consumer confidence and an increase in interest rates. Therefore, if policymakers wanted to use fiscal policy to provide a short-term economic boost without hindering the economy later, a combination of policies would be required: changes in taxes and spending that would widen the deficit now but reduce it later in the decade.

In evaluating fiscal policy that is intended to boost demand in the short term, three important considerations are whether the policy change is *timely*—providing help when it is needed; *cost-effective*—generating a large amount of additional output and employment per dollar cost to the federal budget; and *consistent with long-run fiscal objectives*—not worsening the long-run budget outlook.¹⁴ Other considerations include the distribution of benefits among different people, the social value of additional goods and services that would be produced, and uncertainty about a policy's effectiveness.

13. See the Statement of Douglas W. Elmendorf, Director, Congressional Budget Office, before the Joint Select Committee on Deficit Reduction, *Confronting the Nation's Fiscal Policy Challenges* (September 13, 2011).

14. See the Statement of Douglas W. Elmendorf, *The State of the Economy and Issues in Developing an Effective Policy Response* (January 27, 2009).

Timing. Fiscal policies differ greatly in how quickly they would affect the demand for goods and services, and some measures might take effect too slowly in two respects. First, they might miss the period of greatest need in terms of both unemployment and unused capacity. Second, they might persist while the amount of unemployment and excess capacity dropped into a range where the risk of pushing up inflation could be more significant.

Current law implies significant fiscal restraint in 2012 and 2013. Because of that restraint and the other factors slowing the recovery, CBO projects that the unemployment rate will remain close to 9 percent through the end of 2012; at that level, it will be about 3 percentage points above the agency's estimate of the rate that could be reached without raising the rate of inflation.¹⁵ Additional policy actions that had their greatest impact during the next few years would affect the economy when its output will probably be well below its potential, the risk of greater weakness remains elevated, and the risk of excessive inflation is low. If widely anticipated changes to current law, such as an extension of tax cuts that are scheduled to expire under current law, were enacted, economic growth would be notably stronger in 2013, according to CBO's projections. However, even under those alternative policies, the economy would still be considerably below potential over the next few years.

Certain decreases in taxes or increases in federal spending could be implemented fairly quickly, and households, businesses, and other levels of government might respond with changes in their own spending fairly quickly as well. However, other changes in taxes or government spending might affect the economy only with considerable lags. For example, larger increases in funding for government activities tend to be spent more slowly than smaller increases, and many public infrastructure projects—which require extensive planning and coordination among different levels of government—take some time to implement.

Cost-Effectiveness. Possible reductions in taxes or increases in federal spending differ in the extent to which they would boost spending by households, businesses, and governments per dollar of budgetary cost. Cost-effectiveness can be assessed by the cumulative dollar effect on output and employment per dollar of budgetary cost.

Households. Tax cuts and government transfers to individuals increase households' disposable income. The cost-effectiveness of such policies depends on the fraction of the additional income that is spent on purchasing goods and services. Measures targeting households facing financial problems, such as those that have low income or unemployed members, tend to have larger impacts on spending and thus are more cost-

15. CBO estimates that the rate of unemployment that could be reached without raising the rate of inflation, which is to say the rate of unemployment stemming from sources other than the business cycle, is currently about 6 percent. In the agency's estimation, that rate will decline over the coming decade, enabling the unemployment rate ultimately to fall below 6 percent without spurring inflation. For further discussion, see Congressional Budget Office, *The Budget and Economic Outlook: An Update* (August 2011), pp. 45–46.

effective. By contrast, measures that are less well targeted, such as across-the-board reductions in income tax rates or broad tax rebates, provide large parts of their relief to people who are less constrained financially. Such people are likely to save much of a tax reduction, especially if it is temporary. In that case, the policy would be less cost-effective in boosting output and employment in the short run.

Businesses. Some policies seek to encourage business spending by providing incentives for new investment, such as allowing firms to “expense” their investment costs for tax purposes—that is, to deduct the cost of an investment in the year it is made. Those policies increase firms’ after-tax return on investment by reducing the present value of taxes, and they increase firms’ cash flow for the year in which the new investment is made. The success of such incentives in encouraging spending probably depends on the economic conditions when the incentives are in effect: A reduction in the cost of capital is likely to have less effect on a business’s decision to buy new machinery if demand for the business’s output is so low that the machinery would get little use. Several studies suggest that the impact of being able to expense investment costs in the early 2000s, when demand was weak, was modest.¹⁶

Other fiscal policies encourage hiring by temporarily or permanently reducing the cost of labor. The cost-effectiveness of those policies depends on firms’ responses to the benefits received: whether they pass the benefits on to customers in the form of lower prices, to employees in the form of higher wages, or implicitly to shareholders by retaining them as profits—and how much they increase hiring and hours worked during a period when labor is temporarily less expensive.

Government. The federal government can boost demand by increasing its own purchases of goods and services or by providing funds to state and local governments. Purchases by the federal government tend to be cost-effective in terms of the number of jobs generated per dollar of budgetary cost because they involve direct purchases from firms or the hiring of workers. Federal grants to state and local governments can increase total demand by inducing those governments to keep their taxes lower, or their transfer payments and purchases of goods and services higher, than they would otherwise. However, if greater federal aid simply leads state and local governments to borrow less, with no effect on their taxes or spending, then it does not increase demand in the short run.¹⁷

In the current economic environment, additional federal aid to state and local governments would probably reduce the size of tax increases and spending cuts enacted by those jurisdictions to balance their budgets. The amount of state and local budget cutting has been very large in recent years, despite the additional federal aid provided through ARRA and other legislation, and would probably have been even larger with-

16. For a summary of the literature on the effects of partial expensing in the early 2000s, see Congressional Budget Office, *Options for Responding to Short-Term Economic Weakness*.

17. See John B. Taylor, “An Empirical Analysis of the Revival of Fiscal Activism in the 2000s,” *Journal of Economic Literature*, vol. 49, no. 3 (September 2011), pp. 686–702.

out such additional aid. For example, employment by state and local governments has fallen by nearly 650,000 since its peak in August 2008. Heading into fiscal year 2012 (which began in July for most states), 38 states faced projected budget shortfalls; of those, 21 states faced imbalances of 10 percent or more of their general fund spending. Although states made changes to their policies to eliminate those near-term gaps, a number of states are already projecting shortfalls for the next few years.¹⁸

Consistency with Long-Run Fiscal Objectives. In large part because of the weak economy and actions the government has taken in response, the budget deficit has been larger relative to GDP during the past three years than in any other years since 1945. As a result, debt held by the public at the end of fiscal year 2011 was 68 percent of GDP—the highest since 1950 and up from 40 percent at the end of 2008. Under current law, deficits are projected to drop markedly as a share of GDP over the next few years. However, current law provides for substantial changes to tax and spending policies in coming years. If those changes did not occur and current policies were continued instead, much larger deficits and much greater debt would result.¹⁹

If taxes were cut permanently or government spending was increased permanently, and no other changes were made to fiscal policy, the economy would suffer in the medium term and long term as the federal debt mounted. Indeed, if people believed that policy changes that increased near-term deficits would also widen budget deficits in subsequent years, the economy could be hurt in the near term by a weakening of business and consumer confidence and an increase in interest rates. Moreover, even if tax cuts or spending increases were temporary, the additional debt accumulated during that temporary period would weigh on the budget and the economy over time.

Therefore, if policymakers wanted to achieve both a short-term economic boost and longer-term fiscal sustainability, a combination of policies would be required: changes in taxes and spending that would widen the deficit now but reduce it later in the decade. Such an approach would work best if the future policy changes were sufficiently specific and widely supported so that households, businesses, state and local governments, and participants in financial markets believed that the future fiscal restraint would truly take effect.

Other Considerations. Other considerations also are relevant for decisions about fiscal policies to promote economic growth and employment in the near term—for example, who would be helped the most by the new policies. Different sorts of spending increases and tax reductions would provide direct benefits to different people and firms. Such distributional considerations are not analyzed in this testimony.

18. See National Conference of State Legislatures, *State Budget Update: Summer 2011* (September 2011).

19. For further discussion, see Congressional Budget Office, *The Budget and Economic Outlook: An Update* (August 2011), pp. 23–29; and the Statement of Douglas W. Elmendorf, *Confronting the Nation's Fiscal Policy Challenges* (September 13, 2011).

Another consideration involves the types of additional goods and services that society would produce and from which it would realize benefits. Some analysts have argued that countercyclical fiscal policy should be evaluated on the basis of how well it recreates the composition of total spending that would be achieved in the absence of other constraints on policy.²⁰ Other observers have offered their own analyses and judgments about what sorts of additional goods and services would be most valuable for society. The key point is that fiscal policies can be judged not only on their contribution to growth and job creation in the near term but also on the extent to which they accomplish other goals.

A third consideration involves the combination of policies that might be chosen. Most economists agree that fiscal policies can boost demand during economic downturns and help smooth business cycles. However, some economists are skeptical about the efficacy of such policies and the magnitude of their effects. One benefit of a diversified portfolio of policies is that the overall effect on the economy would be less uncertain than with a single policy. Moreover, the benefits of such a portfolio of policies might spread more widely among different groups in the population and thus accomplish a larger variety of goals.

CBO's Analytical Approach

CBO assessed the potential of selected fiscal policy options for promoting economic growth and increasing employment.²¹ The policy options would work somewhat differently depending on whether they sought to support spending by households, businesses, or governments:

- Policy options aimed at assisting households would spur demand for goods and services to varying degrees and thereby boost production to varying degrees. Because businesses' decisions on investing and hiring depend on the demand for their products, greater demand and production would lead to more investment and hiring. The size of those effects would depend largely on which households paid less in taxes or received more in benefits.
- Policy options that supported businesses would operate somewhat differently. Certain policies would reduce labor costs or the cost of investment, which would spur hiring and investment and in turn increase production and household income. The rise in income would support consumer demand and increase production by other firms.

20. See N. Gregory Mankiw and Matthew Weinzierl, "An Exploration of Optimal Stabilization Policy," *Brookings Papers on Economic Activity* (Spring 2011), pp. 209–249.

21. Most of the fiscal policy options assessed in this testimony are similar to those assessed in Congressional Budget Office, *Policies for Increasing Economic Growth and Employment in 2010 and 2011* (January 2010).

- Additional government spending for goods and services would also boost output and employment, both directly (through the government-funded activity) and indirectly (through increases in consumer demand for goods and services resulting from the higher income of the households and firms that directly benefited from the government activity).

For this analysis, fiscal policy options were assumed to be temporary by design—that is, to be in effect for specific time periods or for specific dollar amounts. However, some options that would extend policies currently in place might be viewed as permanent by the beneficiaries. Alternatively, policies could also be designed to be permanent.

The analysis of each fiscal policy option presented in this testimony focuses on how it would affect output and employment. For each option, CBO used evidence from empirical studies and econometric models to estimate the impact on:

- Output—the cumulative effects on GDP per dollar of total budgetary cost (measured in terms of additional government spending or reduction in taxes), and
- Employment—the cumulative effects on years of full-time-equivalent employment (FTE-years) per million dollars of total budgetary cost.

Those effects were estimated for 2012 and for 2012 and 2013 together. The approach adopted to measure the effects of policies is similar to the method that CBO has used to assess the effects of ARRA.²²

Estimated impacts on output include the direct and indirect effects of a dollar's worth of a given policy. Direct effects consist of immediate effects on economic activity. For example, government purchases of goods and services directly elicit economic activity and thereby have a direct dollar-for-dollar impact on output. Indirect effects may enhance or offset the direct effects. For example, if the economy has idle resources, as it does now, government funding for projects can lead to the hiring of otherwise unemployed workers. The additional spending by those workers, who now would have more income, would constitute a positive indirect effect. In contrast, a substantial increase in government spending financed by borrowing tends to drive up interest rates, which discourages spending on investment and on durable goods by raising the cost of borrowed funds. Those indirect crowding-out effects would offset some of the direct effects. Low and high estimates of the effects on output for a given policy were chosen, on a judgmental basis, to encompass most economists' views about the effects of that type of policy.

22. For a recent example of that approach, see Congressional Budget Office, *Estimated Impact of the American Recovery and Reinvestment Act on Employment and Economic Output from April 2011 Through June 2011*.

Fiscal policies may also affect spending by altering uncertainty or confidence about future economic conditions or government policies. For example, many firms appear to be uncertain today about future demand for their products, and that uncertainty seems to be leading them to be cautious about increasing their investment and hiring. Fiscal policy actions that boosted demand might help dissipate that uncertainty and increase employment.²³ However, some fiscal policy actions might exacerbate uncertainty about future government policies—for example, if firms’ managers wondered whether a temporary policy might later be extended or what other changes in fiscal policy might be made later. Because quantifying reactions of this sort to changes in fiscal policy would be extremely difficult, the analysis in this testimony does not incorporate such reactions.

The monetary policy of the Federal Reserve has an important influence on the economic effects of changes in taxes and government spending. On the basis of the economic conditions that CBO projects and the stated intentions of the Federal Reserve, in this analysis CBO assumed that, through 2013, the Federal Reserve would not reduce the amount of support to economic activity it was providing through its own policies (such as decisions about setting the federal funds rate and using other tools) to offset any additional output and employment generated by fiscal policy. In contrast, under more normal economic conditions, CBO estimates, changes in interest rates would offset roughly two-thirds of the cumulative short-term impact on GDP of changes in fiscal policy.

To assess a policy’s impact on employment, CBO used a series of steps to translate the estimated effects on output into estimated effects on FTE-years. First, CBO calculated the impact on the output gap—the percentage difference between actual output and potential output. Next, CBO calculated the magnitude and timing of effects of changes in the output gap on productivity, hours per worker, and the unemployment rate using the historical relationships between those measures. Changes in the output gap affect unemployment gradually over several quarters. Initially, part of a rise in output shows up as higher productivity and hours per worker rather than as reduced unemployment. CBO also took account of the effect on the size of the labor force of changes in employment, because discouraged workers and people who have chosen to pursue activities such as schooling rather than work tend to return to the labor force when unemployment declines and the economic environment improves.

Measuring the impact on employment per million dollars of budgetary cost in FTE-years (each being 40 hours of employment per week for one year) incorporated the effects of policies on hours worked in addition to their impact on the number of people who would be employed. Projected increases in the average number of people employed during a year do not include shifts from part-time to full-time work or overtime and are generally somewhat smaller than increases in FTE-years.

23. See Nicholas Bloom, “The Impact of Uncertainty Shocks,” *Econometrica*, vol. 77, no. 3 (May 2009), pp. 623–685.

CBO's estimates imply that, for most policy options, one year of FTE employment is created for roughly every \$110,000 in additional GDP. Therefore, if a policy increases cumulative GDP by one dollar per dollar of budgetary cost, one year of FTE employment is created for roughly \$110,000 in budgetary cost. Policy options with smaller effects on GDP require more budgetary resources to generate a given amount of employment, and those with larger effects on GDP require less budgetary resources.²⁴

In this analysis, CBO considered each policy in isolation. Certain combinations of policies could have larger effects per dollar of budgetary cost than those reported here. For example, undertaking a policy with a relatively large effect on output per dollar of budgetary cost and cutting back by an equal amount on an existing policy with a smaller effect on output per dollar of budgetary cost would increase output and employment in the short run at no net budgetary cost.

The effects on output and employment estimated in this analysis differ from those estimated in CBO's January 2010 analysis for several reasons:²⁵

- First, as a result of its ongoing review of relevant research, CBO has reduced the lower end of its range of estimates of the short-term effects of changes in fiscal policy on output and employment, while leaving the upper end of the range unchanged.
- Second, for the earlier analysis, CBO assumed that policies beginning in 2010 would take effect in March of that year; for this analysis, CBO assumed that policies beginning in 2012 would take effect in January. The earlier implementation tends to increase the estimated economic effects in the first year.
- Third, at the time of the January 2010 analysis, CBO projected that the Federal Reserve would begin to tighten monetary policy by the fourth quarter of 2011 and therefore would be more likely to tighten further by that point in response to the changes in fiscal policy. Because of the ongoing weakness of the economy, CBO now projects that the Federal Reserve will not begin to tighten monetary policy until the first quarter of 2014. Because the Federal Reserve is assumed to not respond to fiscal policy changes for a longer period, the estimated economic effects of such policy changes are greater.²⁶

24. One might attempt to calculate the budgetary cost per FTE-year for different policies by inverting the number of cumulative years of full-time employment per million dollars of budgetary cost that is reported below. However, such calculations could be misleading for two reasons. First, for many of the options considered here, employment is affected beyond 2013 (in part because effects on employment lag behind those on GDP). Second, CBO's ranges of estimated effects on GDP (and thereby employment) are chosen to be centered relative to the distribution of possible outcomes, but the inverses of those ranges are not necessarily centered relative to the distribution of the inverses of those outcomes.

25. See Congressional Budget Office, *Policies for Increasing Economic Growth and Employment in 2010 and 2011* (January 2010).

26. In addition, the earlier publication reported cumulative effects on GDP over a five-year period rather than over the one- and two-year periods shown in this publication. In most cases, the shorter period in this analysis implies smaller cumulative estimated effects.

- Finally, specific changes were made in the analysis of certain options. Those changes are noted in the presentation of results for those options.

Fiscal Policy Options for Assisting Households

Policies that would temporarily increase the after-tax income of people who are relatively well off would probably have little effect on their spending because they are able to consume out of their current income or assets. However, policies that increased the resources of families with lower income, few assets, and poor credit would probably have a larger impact on their spending. Because of the extent of job losses and declines in asset prices in this economic downturn, more families probably have those attributes now than was the case in the immediate aftermath of many previous recessions. CBO analyzed the following fiscal policy options that would affect the economy primarily by assisting households:

- Increasing aid to the unemployed,
- Providing additional refundable tax credits to lower- and middle-income households in 2012,
- Reducing employees' payroll taxes,
- Subsidizing the interest rate on certain mortgages that are refinanced,
- Extending higher exemption amounts for the alternative minimum tax, and
- Reducing income taxes in 2013 relative to those specified in current law.

Increasing Aid to the Unemployed. Under current law, some people who exhaust their unemployment benefits are eligible to begin receiving additional weeks of benefits through emergency unemployment compensation (EUC) through January 3, 2012. (Benefits will begin to phase out after that date, with no EUC being paid after May 2012.) EUC currently provides up to 53 weeks of additional benefits (depending on the unemployment rate in one's state) after regular state benefits (which generally last up to 26 weeks) have been exhausted. The policy option analyzed by CBO would provide further assistance to the unemployed by extending the date by which individuals can start to receive EUC by a year—to January 3, 2013; under this option, no added benefits would be paid after May 2013.

Extending additional unemployment benefits would directly help those who would otherwise exhaust their unemployment benefits during calendar year 2012. Households receiving unemployment benefits tend to spend the additional benefits quickly, making this option both timely and cost-effective in spurring demand for goods and services, and thereby economic activity and employment.

In addition to increasing aggregate demand, extending additional unemployment benefits would also influence the labor market in other ways. Extending those benefits

would encourage some people to continue to seek employment in order to collect benefits rather than dropping out of the labor force, but it would also reduce the intensity of some workers' efforts to search for a new job because the higher benefits would lessen the hardship of being unemployed. Both of those effects of the benefit extensions would tend to increase the unemployment rate. However, many jobs that were not sought by workers receiving unemployment insurance would go instead to individuals who were not eligible for such benefits (such as new entrants to the labor force) and might otherwise be unemployed themselves, so the net impact on the unemployment rate from some workers' reduced efforts to find a job would be slight. In addition, other effects of extending unemployment benefits would boost employment. For example, some of the unemployed who would otherwise have dropped out of the labor force and instead continue job hunting in order to collect benefits would find jobs. In addition, because unemployment insurance can facilitate mobility to new occupations by providing a safety net if job transitions do not work out, it may also lead to better matches between workers and jobs.

In CBO's assessment, the various effects of extending additional unemployment benefits *apart from* the effects on the overall demand for goods and services would, on balance, increase the measured unemployment rate (primarily by keeping workers in the labor force) but have little effect on the number of people employed. Accordingly, CBO's estimates of the impact of this policy option on output and employment include only the effects of boosting demand for goods and services.

CBO estimates that this policy option would raise output cumulatively in 2012 and 2013 by \$0.40 to \$1.90 per dollar of total budgetary cost (see Table 1). CBO also estimates that the policies would add 4 to 19 cumulative years of FTE employment in 2012 and 2013 per million dollars of total budgetary cost.

Providing Additional Refundable Tax Credits for Lower- and Middle-Income Households in 2012. Some tax credits are refundable—that is, the government makes cash payments to people for whom the credit exceeds their income tax liability. The Economic Stimulus Act of 2008 included a particular type of refundable tax credit, one that was prepaid via checks mailed to households. ARRA also contained several provisions regarding refundable tax credits, including the Making Work Pay credit. CBO analyzed a policy similar to the credit in the Economic Stimulus Act that would result in payments to households during the last three quarters of 2012.²⁷

27. This policy differs from the similar policy that CBO analyzed in January 2010 primarily as to when households would receive the payments. Under the policy discussed here, most of the credits would be received in the second quarter of 2012. Under the policy analyzed previously, the credits would have been paid evenly throughout 2011—a year after the policy was implemented and during a period when the Federal Reserve was projected to begin to offset some of the economic effects of the policy. Primarily for that reason, the estimated effects on output and employment of the policy analyzed here are larger than those shown in CBO's January 2010 report.

Table 1.**Estimated Effects of Fiscal Policy Options on Output and Employment**

	Cumulative Effects on GDP ^a		Cumulative Effects on Employment ^b	
	(Dollars per dollar of total budgetary cost)		(Years of FTE employment per million dollars of total budgetary cost)	
	2012	2012–2013	2012	2012–2013
Household Assistance				
Increasing Aid to the Unemployed	0.4 to 1.5	0.4 to 1.9	3 to 11	4 to 19
Providing Additional Refundable Tax Credits to Lower- and Middle-Income Households in 2012	0.2 to 1.0	0.2 to 1.2	2 to 8	2 to 12
Reducing Employees' Payroll Taxes	0.1 to 0.6	0.1 to 0.9	1 to 5	1 to 9
Subsidizing the Interest Rate on Certain Mortgages That Are Refinanced	0.1 to 0.5	0.2 to 1.1	1 to 3	2 to 10
Extending Higher Exemption Amounts for the Alternative Minimum Tax	*	0.2 to 1.1	**	2 to 9
Reducing Income Taxes in 2013 Relative to Those Specified in Current Law ^c	*	0.1 to 0.6	**	1 to 6
Business Support				
Reducing Employers' Payroll Taxes	0.2 to 0.8	0.2 to 1.3	2 to 6	3 to 13
Reducing Employers' Payroll Taxes for Firms That Increase Their Payroll	0.2 to 0.8	0.2 to 1.3	3 to 8	4 to 16
Extending Full Expensing of Investment Costs ^d	0.1 to 0.7	0.1 to 1.1	1 to 5	1 to 11
Reducing Taxes on Business Income	* to 0.2	* to 0.3	** to 1	** to 3
Reducing Tax Rates on Repatriated Foreign Earnings ^d	* to 0.1	* to 0.2	** to 1	** to 1
Aid to State Governments or Spending on Infrastructure				
Increasing Aid to States for Purposes Other Than Infrastructure	0.1 to 0.5	0.2 to 1.0	1 to 4	2 to 9
Increasing Spending on Infrastructure	0.1 to 0.2	0.1 to 0.7	0 to 1	1 to 6

Source: Congressional Budget Office.

Notes: The ranges of estimates were chosen, on a judgmental basis, encompass most economists' views.

Total budgetary cost is the amount of tax revenues or outlays over the full duration of a policy's effects, except as specified in note d below.

All years are calendar years. Unless otherwise specified, increased spending authority is assumed to be available as of January 2012, and tax options are assumed to be in effect only for 2012.

GDP = gross domestic product; FTE = full-time-equivalent; * = between zero and 0.05; ** = between zero and 0.5.

- Estimated as GDP with a given policy minus GDP without the policy.
- Estimated as years of FTE employment (FTE-years) with a given policy minus FTE-years without the policy. (An FTE-year is 40 hours of employment per week for one year.)
- Includes the effects of extending higher exemption amounts for the alternative minimum tax in 2012.
- For this option, total budgetary cost is calculated as a discounted present value rather than as the sum of changes in tax revenues over the full duration of the policy's effects.

Refundable credits are often phased out when income is above some amount and thus are effectively limited to lower- and middle- income households. Moreover, credits that are refundable provide a larger income boost to those households than do comparable credits that are not refundable, because lower-income households are more likely not to owe income tax. Therefore, providing additional refundable credits would increase after-tax income for households that are more likely than average to be restricted in their consumption by their current income and hence would spend a greater share of the funds received. As a result, providing such credits would increase output and employment by more per dollar of budgetary cost than would cutting taxes for a broader set of taxpayers whose consumption is less likely to be restrained by their current income.

CBO estimates that providing additional refundable tax credits would raise output cumulatively in 2012 and 2013 by \$0.20 to \$1.20 per dollar of total budgetary cost. CBO also estimates that the policy would add 2 to 12 cumulative years of FTE employment in 2012 and 2013 per million dollars of total budgetary cost.

Reducing Employees' Payroll Taxes. Social Security, which consists of Old-Age, Survivors, and Disability Insurance (OASDI), is financed by payroll taxes. Under current law, in 2012 and subsequent years, both employers and employees will pay 6.2 percent of the employees' annual earnings in Social Security payroll taxes up to a ceiling (\$110,100 in 2012). For 2011, that rate was temporarily reduced to 4.2 percent for employees. This option would extend that tax reduction through the end of 2012.

A temporary reduction in employees' portion of the payroll tax would not immediately affect employers' costs. Instead, it would increase workers' disposable income. The increase in take-home pay would spur additional spending by the households receiving the higher income, and that higher spending would, in turn, increase production and employment. Those effects would be spread over time, however, and CBO expects that the majority of the temporary increase in take-home pay would be saved rather than spent.

CBO estimates that reducing employees' payroll taxes would raise output cumulatively in 2012 and 2013 by \$0.10 to \$0.90 per dollar of total budgetary cost. CBO also estimates that the policy would add one to nine cumulative years of FTE employment in 2012 and 2013 per million dollars of total budgetary cost.

Subsidizing the Interest Rate on Certain Mortgages That Are Refinanced. Numerous policy changes have been proposed to provide additional government support to the mortgage and housing markets and thereby boost overall output and employment. Some of those policy changes could be implemented by the Federal Reserve, Fannie Mae, Freddie Mac, or federal agencies under current law, while other proposed changes could require legislative action.

One area of concern among analysts is that, although mortgage rates have fallen to historically low levels, the volume of mortgage refinancing remains low for a number

of reasons. One is that many homeowners owe more on their existing mortgages than their homes are worth, so a refinanced mortgage with the same principal balance would not meet the loan-to-value standard required by Fannie Mae and Freddie Mac for guaranteeing new mortgages. Another is that lenders are reluctant to refinance mortgages because of the liabilities associated with closing new loans (generally called representations and warranties), limits on their ability to process large numbers of applications in a cost-effective manner, and difficulties arising from borrowers' second liens and mortgage insurance.

There have been a number of proposals for federal programs to provide refinancing opportunities to more mortgage borrowers. In 2009, the Administration created the Home Affordable Refinance Program (HARP) with that objective, and in October 2011, it announced an expansion of the program.²⁸ HARP allows borrowers with an existing mortgage guaranteed by Fannie Mae or Freddie Mac to refinance their mortgage with a streamlined underwriting process and relaxed eligibility criteria compared with standard mortgage refinancing terms. Policymakers could increase the impact of HARP by subsidizing the mortgage interest rate that participants pay. Such a subsidy would boost participation in the program and lower monthly mortgage payments for all borrowers who participate. CBO analyzed a policy that would provide a 0.25 percentage-point interest rate subsidy for the refinancing of loans during 2012 under the terms that are expected to apply under the newly expanded HARP.

That policy would lead more people to refinance their mortgages at lower interest rates. Those households would benefit from lower monthly mortgage payments, freeing up additional income for other purchases. The lenders and investors who hold those mortgages (directly or through mortgage-backed securities) would see those assets drop in value and would decrease their spending in response. However, that reduction in spending would be less than the increase in spending by borrowers for three reasons: Some of the holders of mortgages are institutions that are part of, or under the control of, the federal government (such as the Treasury Department, the Federal Reserve, Fannie Mae, and Freddie Mac); some of the holders are foreign citizens or institutions; and the private-sector holders in the United States generally would reduce their current spending by only a small share of the loss in their wealth. In addition, the reduction in mortgage payments for people who refinance would reduce the probability of their defaulting on their payments in the future, which would benefit both borrowers and lenders.²⁹

The budgetary cost of this policy would include the subsidy itself as well as the effects of the decline in the value of mortgage-backed securities held by the Treasury, the

28. See Federal Housing Finance Agency, "FHFA, Fannie Mae, and Freddie Mac Announce HARP Changes to Reach More Borrowers" (press release, Washington, D.C., October 24, 2011).

29. For a discussion of the costs and benefits of a stylized refinancing program, see Mitchell Remy, Deborah Lucas, and Damien Moore, *An Evaluation of Large-Scale Mortgage Refinancing Programs*, Congressional Budget Office Working Paper 2011-4 (September 2011).

Federal Reserve, and government-sponsored enterprises such as Fannie Mae.³⁰ However, that cost would be partly offset by the resulting decrease in the number of loan defaults, which would reduce the cost to the government of making good on loan guarantees. CBO estimates that this policy would affect about 250 mortgages per million dollars of budgetary cost.

CBO estimates that adding this interest rate subsidy to HARP would raise output cumulatively in 2012 and 2013 by \$0.20 to \$1.10 per dollar of total budgetary cost.³¹ CBO also estimates that the policy would add 2 to 10 cumulative years of FTE employment in 2012 and 2013 per million dollars of total budgetary cost.

Extending Higher Exemption Amounts for the Alternative Minimum Tax. The AMT was originally intended to impose taxes on high-income individuals who used tax preferences to greatly reduce or eliminate their liability under the regular income tax. For most of its existence, the AMT has played a minor role in the tax system, accounting for less than 2 percent of revenues from the individual income tax and affecting fewer than 1 percent of taxpayers in any year before 2000. However, unlike the regular income tax, the AMT is not indexed for inflation. As a result, the AMT will affect significantly larger numbers of taxpayers over time under current law, and lawmakers have acted repeatedly since 2001 to slow the expansion of the AMT and prevent it from affecting more taxpayers outside of higher-income groups. At the expiration of each of those “patches,” the exemptions have been scheduled to revert to their prior-law levels, so the prospective year-to-year change in tax revenues from maintaining current law regarding the AMT has become larger each year. The current AMT patch expires at the end of December 2011. Hence, in 2012, under current law, the AMT will affect about 18 percent of taxpayers (up from less than 3 percent in 2009), who will pay, on average, \$3,900 more in taxes than they would under the regular income tax system; nearly every married taxpayer filing jointly with income between \$100,000 and \$500,000 will owe some alternative tax. The option considered here would reduce taxes by extending the AMT patch for one year, through the end of 2012.

Although this policy would extend the AMT patch for only one year, CBO has concluded that most affected households would probably regard an extension of the AMT patch (relative to the current-law expiration of the existing patch) as permanent because it has routinely been extended in the past. Therefore, an extension of the

30. Portions of that projected budgetary cost were calculated on a present-value basis.

31. The losses that would be incurred by the Treasury, Fannie Mae, and Freddie Mac stemming from additional refinancing were estimated on a present-value basis, while the losses that would be incurred by the Federal Reserve were estimated on a cash basis. That approach is consistent with how the financial transactions of those entities are reflected in CBO’s budget projections.

patch would be viewed by many households as having a lasting impact on their disposable income and would have a correspondingly greater impact on consumption than would a change that was viewed as temporary.³²

Still, the impact of this option on consumption would probably be smaller than that of a tax cut that applied more broadly because the AMT largely affects people in the upper part of the income distribution, who, in comparison with others, would spend less of the income retained. In addition, although an extension of an AMT patch would affect people's tax liability in 2012, most of its impact on consumption would probably occur in 2013. The effect would be delayed both because many taxpayers are allowed to pay their 2012 AMT liability in 2013 and because the increase in liability in 2012 under current law would probably not be recognized immediately. In particular, taxpayers who have not previously paid the AMT may not know that they are becoming liable, and those previously liable for the AMT probably expect that another extension will be enacted; for both of those groups, the increased AMT liability under current law would not affect their consumption much until 2013, so changing the law would also not have much effect on their consumption until 2013.

CBO estimates that a one-year AMT patch would raise output cumulatively in 2012 and 2013 by \$0.20 to \$1.10 per dollar of total budgetary cost. CBO also estimates that the policy would add two to nine years of cumulative FTE employment in 2012 and 2013 per million dollars of total budgetary cost.

Reducing Income Taxes in 2013 Relative to Those Specified in Current Law. Various provisions originally enacted in the Economic Growth and Tax Relief Reconciliation Act of 2001 and the Jobs and Growth Tax Relief Reconciliation Act of 2003, and then extended by the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (the 2010 tax act), will expire at the end of 2012, raising tax liabilities for most people. Policymakers could defer those increases as well as extend the higher exemption amounts for the AMT. Accordingly, CBO analyzed a policy that would extend for one year (through 2013) the tax reductions in the 2010 tax act related to EGTRRA and JGTRRA and would increase the exemption amounts for the AMT in both 2012 and 2013.

CBO has concluded that most households view the provisions of EGTRRA and JGTRRA as permanent. Therefore, in this analysis, CBO projects that households would respond to the extension of the EGTRRA and JGTRRA provisions as though those changes would have a lasting effect on their disposable income (just as they

32. This approach differs from the one that CBO used in its January 2010 analysis of fiscal policy options, which incorporated an assumption that households would respond to an extension of the AMT patch as having a temporary effect on their income. The current approach yields a greater effect on output and employment.

would view an extension of the AMT patch).³³ As compared with the effect of a one-year AMT patch, a greater share of the tax reduction from this option would benefit households who are farther down the income scale and therefore would probably spend a larger fraction of an increase in after-tax income. Still, only a small fraction of the tax cut in this option would be received by those whose consumption is restricted by their current disposable income.

Deferring the scheduled increases in tax rates in 2013 would help some businesses as well as households. In particular, it would keep lower tax rates in place in that year for businesses that do not pay the corporate income tax (that is, businesses such as sole proprietorships, partnerships, S corporations, and limited liability companies). However, increasing the after-tax income of businesses typically does not create much incentive for them to hire more workers in order to produce more, because production depends principally on their ability to sell their products.

CBO estimates that a two-year AMT patch and one-year deferral of the tax increases that are scheduled to result from expiration of the 2010 tax act provisions related to EGTRRA and JGTRRA would raise output in 2012 and 2013 by \$0.10 to \$0.60 per dollar of total budgetary cost. CBO also estimates that the policy would add one to six years of cumulative FTE employment in 2012 and 2013 per million dollars of total budgetary cost.

The effects of this policy per dollar of budgetary cost in 2012 and 2013 are smaller than the effects of just extending the AMT patch primarily because a greater portion of the effects of the AMT on revenues would occur earlier in 2013; thus, more of the effects on output and employment from extending the AMT patch would occur by the end of 2013. Much of the economic impact of this policy, by contrast, would not be felt until 2014.

One variant on this option would be to defer for one year most of the tax increases associated with the expiration of the 2010 tax act but allow the rate increases for the top brackets to go into effect. That option would be more cost-effective in boosting output and employment in the short run because the higher-income households that would probably spend a smaller fraction of any increase in their after-tax income would receive a smaller share of the reduction in taxes (relative to current law). However, the difference relative to the option analyzed here would be small, because excluding the top brackets from the tax cut would still not lead to a large portion of the tax reduction going to the low-income households who would be likely to spend a large share of additional income.

33. This approach differs from that used in CBO's January 2010 analysis of fiscal policy options, which projected that households would respond to an extension of the tax cuts as though those changes would have only a temporary effect on their income. The current approach implies a greater effect on output and employment.

Fiscal Policy Options Providing Support to Businesses

CBO analyzed the following fiscal policy options that would affect the economy primarily by providing support to businesses:

- Reducing employers' payroll taxes,
- Reducing employers' payroll taxes for firms that increase their payroll,
- Extending full expensing of investment costs,
- Reducing taxes on business income, and
- Reducing tax rates on repatriated foreign earnings.

Reducing Employers' Payroll Taxes. Under current law, in 2012 and subsequent years, both employers and employees will pay 6.2 percent of the employees' annual earnings in Social Security payroll taxes up to a ceiling (\$110,100 in 2012).³⁴ CBO analyzed an option that would reduce employers' payroll taxes for 2012, while leaving employees' tax rate at 6.2 percent.

Firms would probably respond to this temporary reduction in their portion of the payroll tax through a combination of four channels. First, some firms would respond to lower employment costs by reducing the prices they charge in order to sell more goods or services. Those higher sales would in turn spur production, which would then increase hours worked and hiring.

Second, some firms would pass the tax savings on to employees in the form of higher wages or other forms of compensation, which in turn would encourage more spending by those employees. However, wages tend to be inflexible in the short run because of negotiation and administrative costs, so that response is not likely to be very large.

Third, some firms would retain the tax savings as profits. Higher profits would raise companies' stock prices, and the resulting higher household wealth would encourage more consumption, although shareholders would probably spend only a small portion of their gains. Higher profits would also improve cash flow, enabling firms facing borrowing constraints to buy new equipment.

Fourth, some firms would use slightly more labor during a period when it was temporarily less expensive. Some firms would use additional labor to enhance the quality of products and services in ways not reflected in GDP. Some would use additional labor to increase maintenance of existing equipment (such as preventive maintenance for motor vehicles), which would make equipment last longer and delay the need to invest in replacements. Depending on the type of products they made, some firms

34. For 2011, the 2010 tax act reduced the payroll tax paid by employees from 6.2 percent to 4.2 percent.

would also increase their use of labor that was temporarily less expensive while the policy was in effect and reduce their use of labor later. And some firms would hire a little sooner to cover anticipated increases in their labor needs. Under this option, however, most of the money forgone by the government would go to reduce taxes that firms pay for existing workers, so—per dollar of forgone revenues—the added incentive from lower labor costs to increase employment and hours worked would be small.

CBO estimates that reducing employers' payroll taxes would raise output cumulatively in 2012 and 2013 by \$0.20 to \$1.30 per dollar of total budgetary cost (see Table 1 on page 28). CBO also estimates that the policy would add 3 to 13 cumulative years of FTE employment in 2012 and 2013 per million dollars of total budgetary cost.

In comparison with the effects of reducing employees' payroll taxes, the effects of reducing employers' payroll taxes would be somewhat larger per dollar of forgone revenues. Reducing employers' payroll taxes for one year has an economic effect related to that of a temporary cut in sales taxes because a temporary reduction in prices (the first channel described above) would encourage purchases while the reduction was in effect. The effects on output and employment through that channel are estimated to be somewhat larger than the corresponding effects of increases in take-home pay from reducing employees' payroll taxes.

Reducing Employers' Payroll Taxes for Firms That Increase Their Payroll. The Hiring Incentives to Restore Employment Act of 2010 (HIRE, P.L. 111-147) reduced employers' payroll tax liabilities, but eligibility was limited to firms that hired people who had recently been unemployed.³⁵ CBO analyzed a related policy that would give employers a one-year nonrefundable credit against their payroll tax liability for incremental increases in their payroll—resulting either from hiring new workers or from increasing the hours worked by the firm's current workforce—during 2012.

Because the credit would be nonrefundable, the credit amount would not exceed the firm's payroll tax liability. Such a credit would be based on the payroll in each calendar quarter so that firms could receive the credit quickly. To prevent firms from firing existing employees and hiring new ones in order to obtain the credit, the amount of the credit would be based on the difference between the wage base in the current quarter and the wage base four quarters earlier. In addition, the eligible wage base would be capped at an annual amount for each employee. Wage bases can be calculated quarterly for most employers from information already reported to the Internal Revenue Service (under the Federal Insurance Contributions Act and the Federal Unemployment Tax Act), thus reducing the administrative costs of this option.

35. HIRE included two provisions targeted toward unemployed workers. Employers were exempted from paying their share of OASDI taxes (6.2 percent) from March 19, 2010, through December 31, 2010, for every person whom they hired who had been employed for 40 hours or less during the preceding 60 days, and were also eligible for a \$1,000 retention credit for each of those workers retained for at least one year.

Providing tax credits for increases in payrolls would increase both output and employment. The effect on output would come through the same four channels as the effect on output of reducing employers' payroll taxes. CBO estimates that this option and the preceding one would have approximately the same economic impact per dollar of budgetary cost through the first three channels discussed above. Through the fourth channel, however, this option would provide a substantially larger increase in employment and hours worked than the previous option because this policy would provide tax benefits linked to payroll *growth*; fewer budget dollars would be used to cut taxes for workers who would have been employed anyway, so the incentive to increase payroll per dollar of forgone revenues would be greater. However, linking the availability of the credit to payroll growth would provide no incentive to maintain employment at firms that have been shrinking and thus less incentive to maintain employment overall in industries and regions where the economy remains the weakest.³⁶

CBO estimates that reducing payroll taxes for firms that increase their payroll would raise output cumulatively in 2012 and 2013 by \$0.20 to \$1.30 per dollar of total budgetary cost. CBO also estimates that the policy would add 4 to 16 cumulative years of FTE employment in 2012 and 2013 per million dollars of total budgetary cost.

This policy would generate greater effects on employment per dollar of GDP than the other policies in support of businesses that are analyzed here because it would provide direct incentives for employers to increase employment in addition to its indirect effects on employment through its effects on output.

The choice of what cap (if any) to impose on the eligible wage base would affect the types of employment the policy fostered. A low cap would especially encourage the hiring of low-wage and part-time workers. For example, if the credit was calculated using the Federal Unemployment Tax Act wage base (which includes earnings only up to \$7,000 annually for each employee), firms might have an incentive to hire, say, three part-time employees with annual wages of \$20,000 each instead of one full-time employee with an annual wage of \$60,000, because the former would increase payroll by \$21,000 for the purpose of the credit, compared with an increase of only \$7,000 for the latter.

Another design choice is whether the tax credit would be broad based or would apply only to a subset of firms. For example, if the main objective was to assist small businesses in hiring, the credit could be made available just for firms with a total number of employees, or total revenues, below some specified threshold. However, because small firms have more volatile employment dynamics (exhibiting high rates of creating and losing jobs and of entering and leaving the market), the average duration and the economic benefits of each subsidized job would probably be less than those under

36. Since its January 2010 analysis of fiscal policy options, CBO has updated its estimate of a key parameter for this option—the ratio of payroll increases to total payroll at firms that increase their payroll—to incorporate new data about payroll growth and improved projections of that growth. The current approach implies a slightly smaller effect on output and employment.

a broad-based program. In addition, because of that volatility, a greater fraction of the tax credits would be paid in response to payroll growth that would have occurred even without the policy.

The effects of this type of tax credit would also depend on other design choices.³⁷ To reduce efforts by firms to maximize their credit in ways inconsistent with the intent of the policy, growth that occurred through acquiring an existing business might be deemed not to count as a net increase in employment; however, such restrictions would make the policy more difficult to administer. If the credit was applied against businesses' income tax liability instead of their payroll tax liability and was nonrefundable, the policy would have a smaller effect: Employers that did not owe any income taxes—including firms with net operating losses, tax-exempt organizations, and state and local governments—would not be eligible for the credit. Firms with net operating losses could be allowed to apply the credit to tax liabilities in a subsequent year; still, among firms with net operating losses, the effect on hiring would be smaller because the credit would not be received immediately even if their payroll increased in 2012. Finally, the credit could be limited to certain categories of employees.

Extending Full Expensing of Investment Costs. The 2010 tax act allowed businesses to fully expense (deduct immediately from taxable income) the cost of their investment in qualifying property (mainly equipment) made in late 2010 and all of 2011; that provision expanded the partial expensing (sometimes called bonus depreciation) of 50 percent that was in effect from 2008 through most of 2010. The 2010 tax act also provided partial expensing of 50 percent for 2012. CBO analyzed a policy that would provide further incentives to invest by extending full expensing for one more year, through 2012.

Partial expensing or full expensing of investment costs allows firms to realize the tax benefits of depreciation deductions more quickly, which provides a greater incentive for investment because a dollar of tax benefit this year is more valuable than a dollar of tax benefit in a future year. Initial reductions in revenues are nearly fully offset by later increases. Therefore, CBO estimated the policy's effects per dollar of the present value of the revenue effects of the policy (discounted at businesses' cost of debt and equity) instead of per dollar of total budgetary cost.

The effect of the incentive is probably smaller when the economy is weak than when it is strong: Firms are less likely to increase investment when they have idle capacity and when they are less confident about the future demand for their products and services. In addition, when the economy slows, more firms incur losses and pay no income tax; some of those firms therefore get less benefit from immediate tax deductions, although firms that paid taxes in previous years may be able to reclaim some of those taxes. To the extent that temporarily reducing the after-tax price of investment

37. For further discussion, see Congressional Budget Office, [letter to the Honorable Robert P. Casey Jr. providing CBO's assessment of a policy option to reduce payroll taxes for firms that increase their payroll](#) (February 3, 2010).

accelerates the purchase of capital goods into the period when the tax incentive is available, that increased investment may be partially offset by a subsequent decrease when the incentive expires. In addition, the policy would probably have the greatest effect on investment just before it expired at the end of 2012 (as firms accelerated equipment purchases from 2013), so much of the indirect effect on output and employment would spill over into 2013.

CBO estimates that allowing full or partial expensing of investment costs would raise output cumulatively in 2012 and 2013 by \$0.10 to \$1.10 per dollar of the present value of budgetary cost. CBO also estimates that the policy would add 1 to 11 cumulative years of FTE employment in 2012 and 2013 per million dollars of net budgetary cost.

Reducing Business Income Taxes. Businesses—whether organized as C corporations, S corporations, partnerships, or sole proprietorships—are liable for income taxes that apply to their net income.³⁸ Income tax rates for businesses vary by organizational form and amount of income; a simple way to effectively reduce all of those tax rates by the same proportion is to allow all types of businesses to deduct a percentage of their net income in calculating their tax liability. CBO analyzed a policy that would allow such a percentage deduction in 2012.

The impact of this policy on output and employment would come primarily through its effect on the income and wealth of business owners and stockholders, who generally have higher-than-average income and would therefore tend to spend a fairly small share of temporary additions to their income and wealth. The proposal would also reduce the cost of capital for businesses because a larger share of pretax returns would be available to compensate investors after taxes were paid; however, that reduction would be only temporary under this policy, so it would probably have little effect on investment. In addition, the proposal could reduce prices slightly, because it would reduce the cost of labor compensation that is taken in the form of business income. (For example, a portion of the business income of sole proprietors represents compensation for their labor.) However, that effect would probably be most pronounced in industries that are generally composed of partnerships and sole proprietorships, and it is likely to be quite small in the aggregate.

CBO estimates that a one-year reduction in taxes on business income would raise output cumulatively in 2012 and 2013 by something between a negligible amount and \$0.30 per dollar of total budgetary cost. CBO also estimates that the policy

38. Taxable income from C corporations is subject to the corporate income tax, and that income can be taxed again at the individual level after it is distributed to shareholders or investors. Income from S corporations generally is treated as personal income: It is subject only to the individual income tax, and it is taxed at the personal income tax rates of the businesses' owners. Businesses also can be established as partnerships or sole proprietorships. Their income is generally taxed at the individual income tax rates of their owners.

would add up to three cumulative years of FTE employment per million dollars of total budgetary cost.

A similar tax reduction targeted at small businesses would probably have effects on output and employment per dollar of total budgetary cost that were close to those for this option. As is the case with large businesses, a fairly small share of the income of small businesses goes to lower-income households that would spend a large fraction of their additional income.³⁹

Reducing Tax Rates on Repatriated Foreign Earnings. American multinational corporations pay U.S. tax on income from their foreign operations when the income is repatriated to the U.S. parent company as dividends, minus a credit for foreign income taxes paid when the income was earned. CBO analyzed a policy that would reduce the tax rate on repatriated income in 2012 to 5.25 percent from the current corporate tax rate of 35 percent; such a policy would be a repeat of a temporary policy that was last implemented in 2004 by the American Jobs Creation Act.

A temporary reduction in the tax rate of that magnitude would probably result in a large amount of repatriated income next year—as much as \$700 billion, according to an estimate by the staff of the Joint Committee on Taxation.⁴⁰ By taking advantage of the one-year tax break, companies would be able to reduce the total taxes they pay to bring money back to this country, although they would pay more in taxes during 2012. The government would collect more revenues next year but less in future years; the present discounted value of revenues would be reduced because of the tax break, creating a net cost to the government. As with the policy option allowing expensing for investment costs, this policy's effects are therefore estimated per dollar of the present value of the revenue effects of the policy (discounted at businesses' cost of debt and equity) instead of per dollar of total budgetary cost.

The short-term effect on U.S. output from such a policy would depend on the relative magnitude of several offsetting factors; CBO expects that the effect on output would probably be positive but much smaller than the net cost to the government. On the one hand, the reduction in tax liability would increase the value of the companies and thereby the wealth of their shareholders, which in turn would boost their spending to some extent. In addition, to the degree that firms are unable to finance profitable investments by borrowing or by using cash on hand, the reduction in the cost of accessing foreign earnings would increase U.S. investment. However, that effect is

39. For estimates of the proportion of small business income received by taxpayers having \$50,000 or less of adjusted gross income, see Department of the Treasury, *Methodology to Identify Small Businesses and Their Owners*, Office of Tax Analysis Technical Paper 4 (August 2011), www.treasury.gov/resource-center/tax-policy/tax-analysis/Documents/OTA-T2011-04-Small-Business-Methodology-Aug-8-2011.pdf.

40. Letter from Thomas A. Barthold, Chief of Staff, Joint Committee on Taxation, U.S. Congress, to the Honorable Lloyd Doggett, April 15, 2011, http://doggett.house.gov/images/pdf/jct_repatriation_score.pdf.

probably small because many of the firms that would be affected have substantial cash holdings and ready access to capital markets. On the other hand, overseas earnings that are held in foreign currencies would have to be converted to U.S. dollars in order to be repatriated. That demand for dollars would raise the exchange value of the dollar, reducing U.S. net exports and domestic output.⁴¹

CBO estimates that a one-year reduction in taxes on repatriated income would raise output cumulatively in 2012 and 2013 by something between a negligible amount and \$0.20 per dollar of the present value of budgetary cost. CBO also estimates that the policy would boost FTE employment by up to one cumulative year per million dollars of net budgetary cost.

Fiscal Policy Options Involving Aid to State Governments or Spending on Infrastructure

CBO analyzed the following fiscal policy options involving purchases by the federal government or aid to state governments:

- Increasing aid to states for purposes other than infrastructure and
- Increasing spending on infrastructure.

Increasing Aid to States for Purposes Other Than Infrastructure. Many states have experienced a high degree of fiscal stress as a result of the recession. Leading up to fiscal year 2012, 38 states faced projected budget shortfalls. They closed those gaps in a variety of ways, including reducing government employment, increasing revenues, and reducing transfer payments to households; nevertheless, many states are anticipating further large budget gaps in the next few years. Adding to budgetary pressures, spending financed by the aid to state governments provided by ARRA for purposes other than infrastructure, which totaled over \$200 billion from 2009 through 2011, is projected to drop sharply in 2012. CBO analyzed a policy to assist states by providing funding to state governments for a variety of purposes. Even if funding was intended for a specific activity, such as education, CBO anticipates that

41. CBO estimates that the effects on investment and net exports would be small and roughly offsetting, so the effects of the policy on output and employment would be determined by the increase in spending by shareholders. A further effect not included in this analysis is that, after the tax rate returned to 35 percent, companies would tend to reduce the rate at which they repatriated foreign income to the extent they expected the temporary tax reduction to be repeated in the future.

the availability of additional funds would both increase net state spending for the specified activity and affect other aspects of state budgets.⁴²

Without further aid from the federal government, many states would have to raise taxes or cut spending by more than they would if aid were provided. Such actions would dampen spending by those governments and by households in those states, and more state and private jobs would be lost. Under current law, many states will probably have to take such steps on an ongoing basis during the next few years, so federal aid that was provided promptly would probably have a significant effect on output and employment in 2012 and 2013. Such aid could lead to some combination of fewer layoffs of state and local government employees, more hiring of such employees, more pay raises or fewer pay cuts for those employees, more government purchases of goods and services, increases in state safety-net programs, and lower state and local taxes than would occur without the federal assistance. But some of the federal aid would probably be used to replenish or avoid drawing down states' reserve funds; aid used in that way would not boost the economy in the short term.

CBO estimates that providing aid to states for purposes other than infrastructure would raise output cumulatively in 2012 and 2013 by \$0.20 to \$1.00 per dollar of total budgetary cost (see Table 1 on page 28). CBO also estimates that the policy would add two to nine cumulative years of FTE employment in 2012 and 2013 per million dollars of total budgetary cost.

Increasing Spending on Infrastructure. ARRA provided about \$60 billion for spending on water, transportation, and housing projects. CBO analyzed an option that would provide additional federal funding for infrastructure projects similar to those funded by ARRA.

Infrastructure spending directly increases employment because workers are hired to undertake construction projects. It also adds to demand for goods and services through purchases of material and equipment and through additional spending by the extra workers who are hired; as with other policy options discussed in this testimony, that increase in demand leads to further hiring. However, government spending on infrastructure projects could also cause private-sector spending to fall because of indirect crowding-out effects, as discussed earlier. In addition, CBO projects that states

42. In projecting how fast such federal aid would be disbursed, CBO relied heavily on the experience with grants to states provided under ARRA for purposes other than infrastructure or Medicaid. Most of those grants were related to education, with a small portion directed to other state and local spending programs; the timing of the disbursement of grants in those two categories was similar. Federal outlays for grants to states for Medicaid would be disbursed significantly faster, but the impact of those grants on state spending and revenue policies would lag behind the federal disbursements because it would take time for states to enact legislation to alter their policies in response.

would reduce spending of their own funds on infrastructure by about one-half of any increase in federal outlays for that purpose.⁴³

One drawback of this option is that infrastructure projects often involve considerable start-up lags. Although some projects (such as highway repair and resurfacing) can be implemented relatively quickly, large-scale construction projects generally require years of planning and preparation. For example, building new transportation infrastructure that requires establishing new rights-of-way or developing and implementing alternative energy sources would probably have their biggest effects on output and employment after 2013. Indeed, trying to increase certain types of spending too quickly would raise the risk of making poor decisions about what specific projects should be supported. As a practical matter, the experience with ARRA suggests that the spending of infrastructure funds is slow: By the end of fiscal year 2009, seven and a half months after the legislation was enacted, less than 10 percent of the infrastructure funds provided by ARRA had been spent. Thus, most of the increases in output and employment from the option analyzed here would probably occur after 2012.⁴⁴

CBO estimates that additional investments in infrastructure would raise output cumulatively in 2012 and 2013 by \$0.10 to \$0.70 per dollar of total budgetary cost. CBO also estimates that the policy would add one to six cumulative years of FTE employment in 2012 and 2013 per million dollars of total budgetary cost.

Longer-Run Effects

Over the long run, the nation's output depends on the size and composition of the capital stock, the quantity and quality of the labor force, and the nation's technological progress. Although the fiscal policy options analyzed here would increase output during the next few years, they would decrease output later because, by adding to federal budget deficits, they would reduce the amount of national saving and thus the size of the future capital stock. Because the policy options analyzed here are temporary, they would not generally have significant, lasting effects on the labor force or technology. However, to the degree that the policy options would reduce long-term

43. In its January 2010 analysis, CBO did not incorporate such an offset. That partial offset is consistent with evidence about states' behavior. The reduced state spending on infrastructure would, in turn, relieve pressure on state budgets in the same way as would additional federal aid to states for purposes other than infrastructure, allowing states to reduce revenues or increase other spending. Incorporating those effects on state policies slightly reduces the estimated effects of federal infrastructure spending on output and employment relative to CBO's earlier estimates because aid to states for other purposes is estimated to have smaller economic effects, on average, than infrastructure spending.

44. In addition to its effect on demand, well-chosen infrastructure spending can also increase the productivity of private activities (by reducing traffic congestion, for example). However, any such effect on total output would be small over the 2012–2013 period.

unemployment in the next few years, they might improve participation in the labor force, employment, and productivity in later years.⁴⁵

The reduction in output over the longer run that would result from the smaller capital stock could be offset by other changes in fiscal policy or by other effects of the short-run policy options. First, if future increases in taxes or cuts in government spending enabled the government to pay off the additional accumulated debt, then output in the longer run would not necessarily be diminished by the crowding out of investment caused by the short-run policies. However, if the future increases in taxes or cuts in spending reduced the returns from investing and thereby discouraged some future private saving, output would still be lower on net in the long run. Second, policy options that would raise government or private investment—such as expensing of investment costs or infrastructure spending—can raise output in the short run with less (or even no) negative longer-run impact on output because they tend to increase the stock of productive capital directly. CBO has not attempted to estimate such effects.

How Fiscal Policy Options Would Affect the Nation's Capital Stock. The size of the capital stock owned by residents of the United States depends on national saving, which is the sum of personal saving, business saving (that is, after-tax corporate profits not paid as dividends), and saving or dissaving (as reflected in budget surpluses or deficits) by the federal government and state and local governments. Federal budget deficits reduce national saving, so all other things being equal, an increase in those deficits would decrease that saving—resulting in a smaller capital stock owned by U.S. residents over time. Reductions in household or business saving would have the same effect.

If the capital stock owned by U.S. residents was smaller, the amount of such capital invested overseas would also be smaller, and foreigners would tend to increase their investment in the United States (drawn by higher rates of return on the smaller stock of domestic capital), so the capital stock located in the United States would be diminished by less than the reduction in the capital stock owned by U.S. residents. Still, the smaller capital stock in the United States would lead to less output than would otherwise be possible because the labor force would have less capital to work with.

The impact of a fiscal policy option on the capital stock would depend partly on its effect on the federal budget deficit and partly on its effect on the saving of households, businesses, and state and local governments. In general, the more a policy option raised either government or private consumption in the short run—and thus the more it raised output in the short run—the more it would depress national saving. For example, cuts in taxes that boost consumption substantially would tend to decrease national saving (because the increase in government dissaving would not be offset very

45. See Ben S. Bernanke, “The Near- and Longer-Term Prospects for the U.S. Economy” (address given at the Federal Reserve Bank of Kansas City Economic Symposium, Jackson Hole, Wyoming, August 26, 2011).

much by an increase in private saving), and cuts in taxes that are largely saved would tend to decrease national saving only a little (because the increase in government dissaving would be offset to a significant extent by higher private saving).

An Illustrative Example. To provide a rough idea of the potential magnitude of the long-run economic effects of policies to boost output and employment in the next few years, CBO considered a simple illustrative example: an increase in government spending on goods and services (such as office supplies or government salaries) in 2012. Such spending would tend to have larger negative long-run effects on output than the fiscal policy options discussed earlier, for several reasons:

- Increasing government spending would boost purchases of goods and services on a dollar-for-dollar basis—in contrast with tax cuts, only some of which would translate into increased household spending. The larger impact of government purchases on spending implies more crowding out in the long run.
- All of the increase in the federal deficit would occur in the first year, producing a larger cumulative impact on the government's interest payments than would more gradual policies.
- Under an assumption that the increase in government spending would not increase the productivity of private capital, it would not provide any long-run boost to output.

In estimating the effects of such a policy beyond the next few years, CBO used an enhanced version of a widely used model developed by Robert Solow. To illustrate a range of possible effects, CBO assumed that each dollar increase in the deficit would reduce domestic investment by 20 or 50 cents (reflecting different assumptions about the effects of deficits on both national saving and net borrowing from abroad). Those alternative assumptions would cause the policy to have, respectively, smaller and larger effects on future output. On that basis, CBO estimates that a deficit-financed increase in government purchases in 2012 would reduce GDP by an amount between slightly above zero and \$0.10 in 2021 per dollar of total budgetary cost (with amounts measured in 2012 dollars). The specific policy options discussed in this testimony would have a smaller negative effect on GDP in 2021, as they would lead to a smaller decline in the U.S. capital stock per dollar of budgetary cost.

Other Legislative Policy Options for Increasing Economic Growth and Employment in 2012 and 2013

Lawmakers can influence economic growth and employment during the next two years by changing policies that do not involve, or whose scope extends well beyond, taxation and government spending. For example, legislation could modify existing or proposed regulations, significantly alter the government's role in a particular sector of the economy, or change trade relationships with other countries. Other types of policy

changes that do not require legislation, such as those related to monetary policy or those that can be implemented by federal agencies under current law, could also affect economic activity, but they are outside the scope of this testimony.

Society's decisions to regulate or not regulate certain activities in certain ways generally involve balancing the advantages and disadvantages of the regulations being considered. For example, properly designed regulations can provide benefits by reducing damage to people's health or the environment, reducing the risks posed to the economy by the financial system, or advancing other social goals. But in achieving those benefits, regulations generally impose costs on businesses and their workers and customers through restrictions on choices or forgone output and employment. Those costs can be weighed against the benefits. Similarly, society's decisions to have the government play a particular role in a particular sector of the economy and to engage in international trade under specified rules generally involve balancing the advantages and disadvantages of various courses of action.

How Changes in Regulations and Other Types of Policies Apart from Fiscal Policies Can Affect the Economy

Changes in regulations—whether those regulations were imposed directly by legislation or promulgated by federal agencies in implementing laws—and in other types of policies apart from fiscal policies could affect output and employment during the next few years as well as over a longer time span. Those effects could occur through their impact on businesses' incentives to invest and hire, on the prices that people pay for goods and services, on businesses' and people's expectations about their future income, on uncertainty about future government policies and economic conditions, and on other factors that affect economic behavior.

Effects on Incentives to Invest and Hire and on Prices. The short-run economic impact of changing a policy other than a fiscal policy depends importantly on how that change affects businesses' investment decisions. To start, consider the effect of imposing or strengthening a regulation, or raising a barrier to international trade. Such a change in policy can reduce businesses' incentives to invest. For example, adding to the length or complexity of a process for reviewing firms' activities or granting permits for new projects would generally reduce investment by imposing extra costs to comply with the process (which would reduce the return on investments), by increasing the probability that a project will not be approved, and by delaying the return on investments in projects that proceed. In addition, changes in regulations that raise the cost of production for some firms may lead to increases in the prices of goods or services (such as energy) used as inputs by other firms, lowering the return on investments for those firms and therefore tending to reduce their investment. Moreover, strengthening trade barriers may negatively affect certain sectors of the economy and reduce the returns from investing in those sectors.

Yet, a change in policy of that sort can also increase investment in some ways. For example, requiring changes in production methods might necessitate investment in equipment or structures (such as pollution-control equipment) needed to comply

with the rules. (Incentives to invest in other types of capital in the affected industries could be reduced, however, because those higher costs might lower firms' return on those other investments.) Similarly, strengthening trade barriers that protect certain sectors of the economy could increase the returns from investing in those sectors.

Eliminating or weakening a regulation or lowering a barrier to international trade can reverse or avoid those various effects. The net impact of such a policy change on investment depends on the relative sizes of those effects, which differ across policies. To the extent that eliminating or weakening a regulation or lowering a trade barrier led to greater business investment in the short term, it would tend to boost output and employment during that span (even if its economic effects in the medium term and long term were quite different). Conversely, to the extent that the policy change led to less investment in the short term, it would tend to decrease output and employment during that span (again, even if its medium-term and long-term economic effects were different).

Changes in policies apart from fiscal policies can also affect businesses' hiring decisions. A policy change that encourages firms to invest more or that increases the demand for their products indirectly encourages those firms to increase the size of their workforces. In the other direction, a policy change that discourages firms from investing or decreases the demand for their products can lead firms to lay off workers or decrease the size of their workforces through attrition. Moreover, a policy change can directly enhance or diminish firms' incentives to hire workers for a given amount of capital or demand for their products.

In addition to their effect on businesses, changes in policies apart from fiscal policies can affect the prices that people have to pay for goods and services and hence the real value of their income. For example, policy changes that increase energy prices reduce households' purchasing power, whereas policy changes that lead to lower prices on goods and services raise households' purchasing power.

Changes in regulations and other policies apart from fiscal policies that directly affect investment or hiring by firms or directly affect consumer spending also have indirect effects, some of which tend to be positive, and some of which tend to be negative. Consider policy changes that would boost firms' investment or hiring or people's spending. On the one hand, additional spending resulting from such policies would generate profits and wages in other firms, some of which would be spent by the recipients, further increasing output. But any additional spending spurred by those policies could also crowd out other economic activity, making the net increase in activity small or nonexistent. The extent of such crowding out depends importantly on the overall level of economic activity. Under current economic conditions, CBO projects that such indirect effects, on net, probably strengthen policies' direct effects.

Effects on Expectations and Uncertainty. Changes to policies apart from fiscal policies can also affect output by changing people's expectations about their future income. For example, policies that improved businesses' expectations about the demand for their products and their income in the future would increase the value of the businesses and, therefore, the wealth of their owners; that effect would boost consumer

spending to a modest extent during the next few years and beyond.⁴⁶ Similarly, policies that improved people's expectations about their future income would lead to an increase in current spending by some households.⁴⁷

Household spending can also be affected by people's expectations about the prices of goods and services, which can be influenced by changes in regulations and other policies. However, because the effect of most such policy changes on future prices would be small and uncertain, most people probably would respond only to a limited extent—particularly in the current economic environment.

Changes to regulations and other policies—or the prospect of them—can also affect the degree of uncertainty faced by businesses and households, which will in turn affect their spending. Some changes would decrease uncertainty about future government policies and economic conditions. For example, eliminating regulations that impose extensive review processes would reduce uncertainty about the prospects for investment projects. Similarly, reversing policies whose implementation will require the issuance of significant new regulations could diminish uncertainty about future prices of inputs, about the demand for certain products, and about the ways that some markets or sectors of the economy will operate in the future. However, some changes to regulations and other policies would heighten uncertainty. For example, eliminating regulations that are designed to meet a requirement of current law without repealing the law itself could increase uncertainty because businesses and people would not know what alternative approach to meeting that requirement might be implemented in the future. To the extent that policy changes reduce uncertainty, they would tend to increase businesses' investing and hiring and households' spending; to the extent that policy changes increase uncertainty, they would tend to have the opposite effects.

Potential Economic Effects of Changes in Particular Types of Policies Apart from Fiscal Policies

For this testimony, CBO considered changes in regulations and other policies in several areas:

- Energy and the environment,
- The financial sector,
- The health care sector, and
- International trade.

46. The overall effect on consumer spending may not be positive if the increase in shareholders' wealth is offset by a direct cost to others that would decrease their spending—as would be the case, for example, for a decrease in the minimum wage.

47. See Jesús Fernández-Villaverde, Pablo Guerrón-Quintana, and Juan F. Rubio-Ramírez, *Supply-Side Policies and the Zero Lower Bound*, Working Paper No. 11-47 (Philadelphia, Pa.: Research Department, Federal Reserve Bank of Philadelphia, October 2011), www.philadelphiafed.org/research-and-data/publications/working-papers/2011/wp11-47.pdf.

Estimating the near-term effects on overall economic activity of most regulations or other policies apart from fiscal policies is exceedingly difficult, and few analytic tools are available for that purpose. Accordingly, the agency did not attempt to quantify the effects of specific changes in policies of this sort with any precision. Instead, CBO focused on whether selected changes in policies besides fiscal policies would probably increase or decrease output and employment during the next few years.

Importantly, in focusing on the near-term aggregate economic effects of policy changes, this discussion does not speak to other considerations that are critical in assessing such policies. Those considerations include the long-term effects on the economy, on people's health, and on the environment, as well as the many other priorities at the core of the policies.

Some changes in policies that CBO considered would probably raise output and employment during the next few years; other changes would probably lower output and employment; and some changes would have effects on economic activity whose sign is difficult to determine. However, in CBO's judgment, the economic effects of the specific policy changes discussed below probably would be too small or would occur too slowly to significantly alter overall output or employment in the next two years. The policy changes examined here are meant to be illustrative rather than exhaustive; many other possible policy changes, which might have larger or smaller economic effects, could be considered.

Energy and the Environment. Projects to increase the production of energy are typically subject to review by multiple levels of government. Federal agencies generally focus on compliance with national performance standards and on infrastructure that crosses state boundaries, such as pipelines and electric power transmission lines. Federal agencies also determine the conditions under which the private sector can develop resources on public lands, such as the Outer Continental Shelf and national forests. Those review processes generally aim to limit damage to health and the environment from economic activity, but they also affect the amount and pace of investments in the energy sector. For example, the federal approval process may delay or prevent the launching of projects that, if ultimately approved and undertaken, would result in significant investment and production. In addition, the prospect of such delays and the risk of projects' being blocked deter some projects from being proposed at all.

The federal government could increase employment and output during the next few years by hastening or relaxing the approval process for energy projects or by expanding opportunities to develop resources on public lands. However, the short-term effects of such changes would probably be small relative to the size of the overall economy for several reasons. First, state and local governments strongly influence the siting of energy facilities within their boundaries, and the federal government does not control the actions of those governments. Second, even if additional projects were approved in the next few years, many of them would not commence in earnest for several years. Finally, energy production accounts for only a small percentage of overall output, so incremental gains in that sector would have only a modest effect on the economy as a whole.

Another set of federal regulations that might be changed are environmental regulations. Consider, for example, the Environmental Protection Agency's (EPA's) regulations regarding emissions from coal-burning power plants, industrial boilers, and process heaters (such as industrial furnaces used in steelmaking). The regulations—designed primarily to meet the requirements of the Clean Air Act—pertain to hazardous air pollutants (including mercury) and emissions of sulfur dioxide and nitrogen dioxides, which help create airborne particulates and ozone. Those regulations demand costly investment during the next few years in scrubbers and particulate filters, especially at certain older power plants that lack emissions controls. EPA has estimated that regulated firms might make more than \$50 billion in capital investments, spaced out over several years, to comply with the requirements. Delaying or eliminating those regulations would result in firms' delaying the investments in scrubbers and particulate filters they would otherwise have undertaken during the next few years, which would tend to decrease investment and output.

However, if those regulations were eliminated or their implementation delayed, firms might, instead, make additional investments in other equipment. Moreover, the reduced cost of production stemming from the lessening of regulation would increase the returns from investing in this sector and might thereby prompt other investments. Also, delaying or eliminating those regulations might boost spending by businesses and households by postponing or obviating an increase in the price of electricity that would otherwise occur, thus raising the return on investment of businesses that purchase electricity and increasing other purchases by households.

On balance, CBO expects that delaying or eliminating those regulations regarding emissions would reduce investment and output during the next few years, because the response to the factors that would tend to boost investment under those circumstances would probably be smaller than the response to the factors that would reduce investment. One reason for that conclusion is that the amount of investment in power plants other than that spurred by those regulations is expected to be relatively small—adding less than 1 percent to total generating capacity each year between 2013 and 2035, according the Energy Information Administration. Another reason for that conclusion is that the price increases that will probably result from those regulations—EPA estimates that one of the regulations will increase customers' electric bills by about 4 percent—are not expected to occur for several years, so they probably will not have an appreciable effect on household spending in the next few years.

Another possible approach to increasing investment in the energy sector in the next few years is to reduce uncertainty about future energy and environmental regulations. For example, quicker rulemaking by federal agencies might speed investment by affected firms, other things being equal. However, quicker action might increase the likelihood of errors in the process. Moreover, when markets have already adapted to an existing policy, and a change in policy would require agencies to revise regulations in the future, such a change might lead to greater uncertainty and therefore decrease investment until it became clear how the new policy would be implemented.

The Financial Sector. Changing certain regulations that push up borrowing costs and reduce access to credit for some borrowers could increase investment, consumer spending, output, and employment during the next few years. Such regulations are typically instituted in an effort to improve the safety and soundness of the financial system and thereby reduce the risk of financial crises of the sort that the nation recently experienced. As a result, any short-term economic benefits of loosening or repealing financial regulations may involve trade-offs with the potential cost of hindering progress toward those other goals.

Last year's major financial legislation (the Dodd-Frank Wall Street Reform and Consumer Protection Act [P.L. 111-203]) will have significant effects on the government's regulation of the financial sector, and one possible policy change would be to repeal or modify that legislation. CBO has not estimated the effects of such actions on the economy over the next two years or in the longer term. One specific aspect of that legislation that might be changed would be provisions that could lead to regulations raising capital requirements for banking institutions. Higher capital requirements will increase costs for those institutions, and those higher costs—to some degree—will be passed along to borrowers in the form of higher interest rates. A higher cost of borrowing will reduce investment. However, for two reasons, repealing or postponing implementation of the provisions of that legislation leading to higher capital requirements might not affect borrowing costs and investment very much in the next few years. First, financial regulators might increase capital requirements even in the absence of legislation—for example, as part of the Basel Capital Adequacy Accord (Basel III) negotiations for a revised international regulatory framework for banks—unless a new law expressly forbade such a change.⁴⁸ Second, banking institutions might increase their capital in response to market pressures even in the absence of the legislation (and, indeed, many have already increased their capital).

Legislative changes in financial regulatory policy might also affect investment by altering the degree of uncertainty about such policy. For example, reversing certain provisions of the Dodd-Frank legislation would reduce uncertainty about the new regulations that might be instituted to comply with those provisions. However, making further changes in regulatory policy so soon after the major changes enacted last year might accentuate uncertainty about future regulatory policy.

The Health Care Sector. The federal government affects health care spending and the provision of health care services in many ways. Examples include the Medicare and Medicaid programs, tax preferences for employer-sponsored health insurance, outlays for veterans' health care, investment in medical research, and the regulation of health care products such as drugs and medical devices. Last year's major health care legislation (the Patient Protection and Affordable Care Act of 2010 [P.L. 111-148] and provisions related to health care in the Health Care and Education Reconciliation Act of

48. The Basel Committee on Banking Supervision provides a structure through which developed countries can cooperate on issues relevant to supervising banks, including setting capital requirements. Regulators in each of the participating countries decide whether and how to implement the standards set by the committee. The implementation of increased capital requirements under Basel III is to be phased in over six years.

2010 [P.L. 111-152]) will fundamentally alter the market for health insurance and employers' options and responsibilities for obtaining health insurance for their employees over the next several years.

One possible policy change in this area would be to repeal or modify last year's health care legislation. CBO has not estimated the effects of such actions on the economy over the next two years.⁴⁹ Such an analysis would be difficult and highly speculative because many of the provisions of that legislation will not go into effect until 2014, and so, much of the legislation's economic impact in the next two years will stem from businesses' and people's expectations and uncertainty about what will happen if and when the legislation is fully implemented.

Specifically, repealing or modifying the legislation would probably have a variety of effects on investment, employment, and output in the near term. For example, the law provides an incentive for expansion in the health care industry to meet the higher demand for health care services that will arise from the greater number of people with health insurance. However, the legislation also lowers Medicare's payment rates for certain health care services, which reduces the incentive for certain investments in the health care industry. Whether the net effect of those aspects of the legislation is higher or lower investment in the health care industry during the next few years is unclear, and therefore whether repealing or modifying the legislation would raise or lower such investment in the near term is unclear as well. The legislation might also affect investment and hiring outside the health care industry by changing businesses' expected spending on employer-sponsored health insurance and thus businesses' expected labor costs. However, changes in businesses' spending on health insurance for their workers will probably be largely offset, for most workers, by changes in other forms of compensation for those workers; that is, changes in businesses' spending on health insurance will alter the mix of compensation but probably not have a significant effect on overall labor costs for most workers.⁵⁰ Therefore, CBO does not expect that the legislation will have a large effect on investment and hiring outside the health care industry during the next two years.

49. CBO has analyzed the effects of that legislation later in the coming decade on individuals' decisions about whether and how much to work and employers' decisions about hiring workers. The agency estimates that the legislation will, on net, 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. If the legislation did not affect the average number of hours worked per employed person, CBO projects that it would reduce household employment in 2021 by about 800,000. However, because the legislation will probably affect average hours worked among those employed, the effect on employment will be somewhat different. The reduction in the amount of labor used in the economy is largely attributable to the substantial expansion of Medicaid and the provision of subsidies that will reduce the cost of health insurance for some people; those provisions of the legislation will not go into effect until 2014. For further discussion, see Congressional Budget Office, *The Budget and Economic Outlook: An Update* (August 2010), pp. 48–49.

50. Some exceptions to that general statement are discussed in Congressional Budget Office, *The Budget and Economic Outlook: An Update* (August 2010), pp. 48–49.

Repealing or modifying the legislation could also affect the economy in the next few years by changing households' and businesses' uncertainty about the future. The cost and availability of health insurance has long been a source of considerable uncertainty, and some provisions of the legislation reduced aspects of that uncertainty. At the same time, there is currently a great deal of uncertainty about how the law will be implemented and how the health insurance market, the health care market, and the labor market will respond to specific provisions of the legislation—such as the mandate for individuals to purchase health insurance, the penalties for employers that do not offer appropriate coverage, and the reductions in certain payment rates under Medicare. Therefore, repeal or modification of the legislation would increase certain aspects of uncertainty and remove others. To the extent that such changes, on balance, reduced uncertainty, they would probably boost spending, investment, and hiring in the next few years; to the extent that such changes, on balance, increased uncertainty, they would have the opposite effects.

International Trade. Recently enacted free-trade agreements with South Korea, Colombia, and Panama are expected to increase investment and hiring by U.S. exporters and by businesses facing lower prices for the imported goods and services they buy, and to increase spending by households facing lower prices for the imported products they buy. However, investment and hiring by some businesses whose products compete with imports could be reduced.

Further free-trade agreements would tend to have similar effects. Over the long run, the net effect of such free-trade agreements on U.S. output is probably positive. During the first few years, however, further agreements' effects on output or on employment could be either positive or negative because of temporary dislocations as economic activity shifted between industries and firms.

In any event, agreements with individual countries would generally not have much effect on the overall U.S. economy in the next few years. That is the case partly because trade between the United States and most other individual countries is a small share of U.S. economic activity. And it is the case partly because the development and approval of free-trade agreements is usually a multiyear process, and even once agreements are implemented, industries' and firms' adjustments in response tend to take several years.