

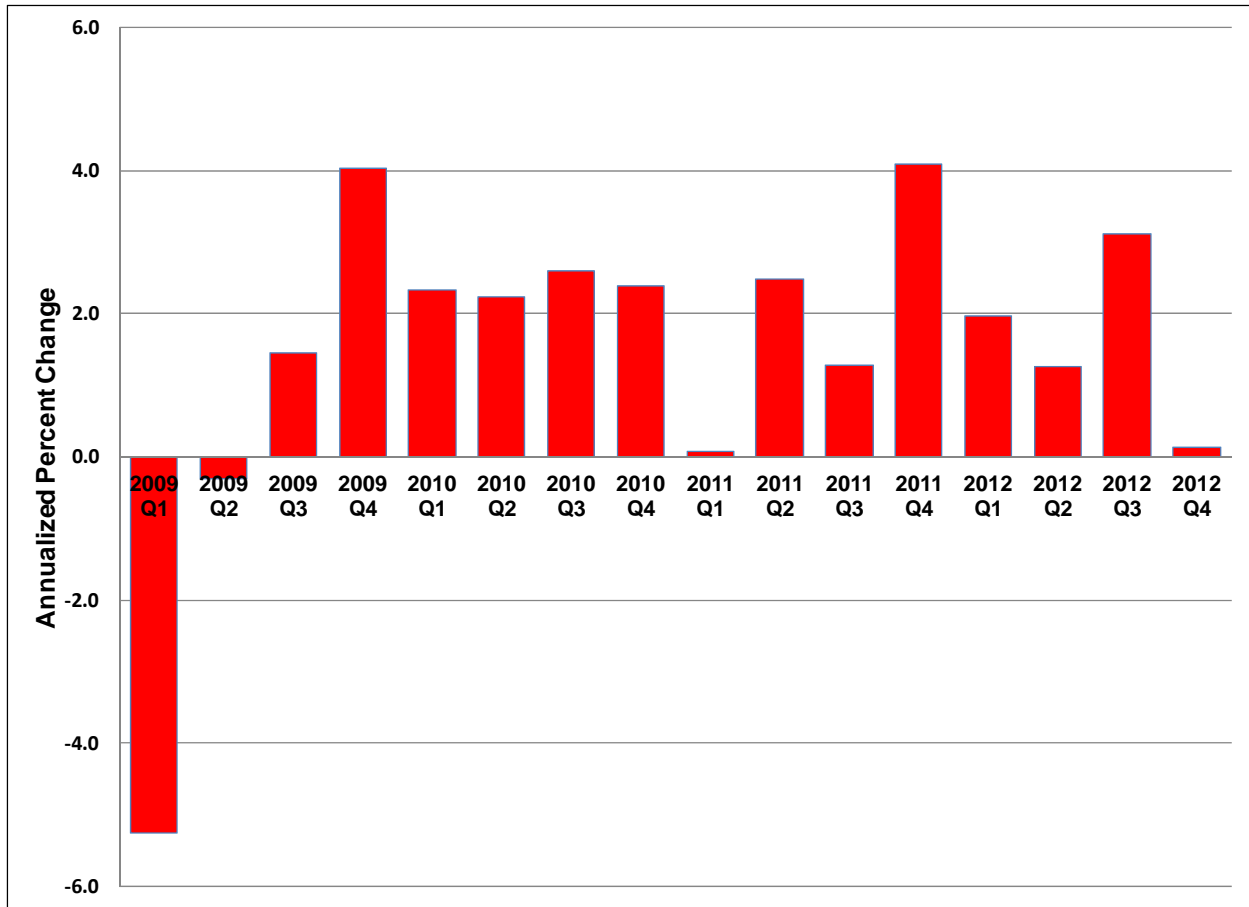
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Will the Sequester Push the U. S. Economy into Recession?

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Revised data show U.S. real gross domestic product (GDP) barely escaped a decline in fourth quarter 2012, rising by 0.1 percent at an annualized rate (Chart 1). The increase was the second smallest since the end of the Great Recession in June 2009. The slow growth of U.S. output and the programmed cuts in U.S. federal government spending, known as “the sequester,” raise questions about whether the U.S. economy might be headed toward another recession.¹

Chart 1. Growth of U.S. Real GDP



Source: U.S. Bureau of Economic Analysis

¹ A recession is commonly thought of as two consecutive quarters of reduced GDP. The National Bureau of Economic Research provides official dating of U.S. recessions, using a variety of measures of economic activity.

Consumer Spending

Consumer spending is the largest component of the economy, accounting for about 70 percent of GDP. It grew at a respectable 2.1 percent pace in the fourth quarter of 2012, contributing 1.47 percentage points of real GDP growth (Table 1). Nonetheless, the growth of consumer spending remains sluggish by historical standards. Real consumer spending averaged a 3.3 percent annual growth rate from 1947 to 2012.

Table 1. Contributions to the Growth of U.S. Real GDP

	2011 Q1	2011 Q2	2011 Q3	2011 Q4	2012 Q1	2012 Q2	2012 Q3	2012 Q4
Real GDP (percent change annual rate)	0.1	2.5	1.3	4.1	2.0	1.3	3.1	0.1
Contributions to Real GDP Growth								
Final Domestic Sales	0.59	1.93	2.32	2.21	2.29	1.47	1.99	1.45
Personal Consumption	2.22	0.70	1.18	1.45	1.72	1.06	1.12	1.47
Business Fixed Investment	-0.11	1.30	1.71	0.93	0.74	0.36	-0.19	0.96
Residential Investment	-0.03	0.09	0.03	0.26	0.43	0.19	0.31	0.40
Government Purchases	-1.49	-0.16	-0.60	-0.43	-0.60	-0.14	0.75	-1.38
Net Exports	-0.03	0.54	0.02	-0.64	0.06	0.23	0.38	0.24
Exports	0.75	0.56	0.83	0.21	0.60	0.72	0.27	-0.55
Imports	-0.72	-0.02	-0.81	-0.85	-0.54	-0.49	0.11	0.79
Inventory Investment	-0.54	0.01	-1.07	2.53	-0.39	-0.46	0.73	-1.55

Note: Data are reported at seasonally adjusted annual rates.

Source: U.S. Bureau of Economic Analysis

A number of factors are contributing to the slow growth of consumption spending. Primary among them are the slack in the labor force and the associated weakness in income. The unemployment rate is 7.9 percent, but adding underemployment and discouraged workers to create the broadest measure of labor force slack pushes the rate up to 14.4 percent. In addition, consumers have been working to reduce their debt.

Looking forward, continued gains in personal income should encourage a growth in consumer spending, but the end of the payroll tax holiday and the resulting increase in social security withholdings from 4.2 percent to 6.2 percent could dent consumer spending. In fact, consumer confidence and sentiment showed the negative impact that the expiration of the payroll tax holiday had on consumer attitudes. Together, these factors suggest the likelihood of anemic growth in consumer spending in early 2013.

Private Investment

Private investment grew by 3.0 percent in 2012, with most subcategories posting impressive gains. Residential investment led the subcategories, rising by 15.0 percent over the course of the year. New and existing home sales have been on an upward trend. Furthermore, the decline in home prices, which was a major factor holding back buyers during the past few years, seems to have come to an end. A low supply of new and existing homes is likely to offer further support to rising prices. Low mortgage interest rates and soaring rental costs are also contributing to a stronger housing market. Combined, these factors suggest the recovery in housing will continue well into 2013.

Many analysts expressed concern that uncertainty surrounding the federal government budget would cause businesses to curtail investment in 2012. These fears seem misplaced, as business fixed investment was robust in fourth quarter 2012, particularly in equipment and software. After a sharp increase in first quarter, investment in nonresidential structures remained flat for the remainder of 2012. A renewed sense of business confidence could keep business fixed investment growing in 2013.

The inventory-to-sales ratio was elevated for most of the second half of 2012. Therefore, it was not too surprising that businesses decided to slow inventory building in the fourth quarter, which subtracted 1.55 percentage points from the annualized growth rate of GDP for fourth quarter. With a moderate inventory-to-sales ratio in early 2013, we can expect little contribution from inventory investment in early 2013.

Government Expenditures

In 2012, declines in government spending at all levels subtracted 0.34 percentage points from GDP growth. State and local government expenditures fell in three of four quarters. The GDP figures for fourth quarter dramatize the negative impact that sharp declines in government spending can have on the economy. A 14.8 percent contraction in federal government spending led by a 22.2 percent reduction in defense spending, completely nearly offset the contributions the private sector made to final domestic sales.

Net Exports

Exports were a pillar of strength in the early stages of the U.S. economic recovery. By 2012, exports contributed less to the growth of U.S., as the sovereign debt crisis in Europe created a mild recession and the Asian economies decelerated. The negative effects of waning exports on GDP intensified in fourth quarter 2012, but we also saw a big reduction in imports. With the global economy strengthening slightly 2013, net exports could make more favorable contributions to the growth of U.S. real GDP in 2013.

The Impact of the Federal Government Sequester

With weak overall economic activity, many people fear that a decline in federal government expenditures could push the U.S. economy into a recession. The likely course of government expenditures remains unknown. Enacted during the 2011 debt-ceiling crisis, the Budget Control Act of 2011 mandated significant across-the-board cuts in federal government spending beginning January 1, 2013. Popularly known as “the sequester,” these cuts in spending were delayed until March 1, 2013, as a result of the deal reached to avoid the fiscal cliff. The Congressional Budget Office places the cuts at \$85 billion a year with \$42 billion occurring in what remains of fiscal year 2013. At present, it is unclear whether Congress will allow the sequester to continue or whether it will enact legislation to reduce the spending cuts.

What impact will a reduction in government spending of \$85 billion have on U.S. economic activity? The answer to that question depends on the size of what is known as the “economic multiplier.” Deficit spending multipliers relate the change in the government deficit to the total impact on the economy. For instance, a multiplier of 1.3 would mean that a reduction of U.S. spending by \$85 billion with no change in taxes would lead to a 0.7 percent reduction in overall U.S. real GDP. On the other hand, a multiplier of 0.9 implies a 0.5 percent reduction in GDP.

As shown in Table 2, the estimated range of economic multipliers is considerable, extending from -0.1 to 2.5 , with the estimated impact on GDP ranging from a 0.1 percent gain to a 1.3 percent loss. The negative multipliers and those close to zero tend to be long-run (more than two years) estimates for economies operating at or near full potential. The midrange multipliers (0.9 to 1.3) tend to be short-run (two years or less) estimates for normal economic conditions. The high multipliers (above 1.3) tend to be short-run estimates for economies operating well below potential and with real interest rates near zero.

Table 2. Economic Multipliers and Impact of the Sequester

Type of Multiplier	Multiplier	Expected GDP Loss
Negative	-0.1	-0.1%
Ricardian Equivalence	0.0	0.0%
Partial Ricardian Equivalence	0.3	0.2%
Congressional Budget Office	1.1	0.6%
Goldman Sachs	1.2	0.6%
Mark Zandi	1.3	0.7%
International Monetary Fund	$0.9-1.7$	$0.5-0.9\%$
Extreme Keynesian	5.5	1.9%

Sources: Listed sources and author's estimates based on listed and other sources.

Could the Sequester Be Stimulative? Many economists argue that government deficit spending could divert resources from private investment through higher interest rates, which would reduce the economy's potential to grow. In such a situation, a decrease in government deficit spending would stimulate economic growth. Although most economists would limit such an approach to a long-run analysis of an economy operating at full capacity, Alesina and Ardagna (2012) find a negative multiplier is possible in the short run.² Applying a multiplier of -0.1 to the sequester yields economic growth that is 0.1 percentage points higher than the baseline case over the next two years.

Ricardian Equivalence. According to the Ricardian equivalence theorem, individuals in the private sector understand that a government's deficit spending must lead to future taxes.³ Therefore, the private sector will cut its spending by the amount of the deficit to pay for the future taxes.⁴ In such a case, each dollar increase in deficit spending is exactly offset by a dollar loss in private spending, and the deficit provides no stimulus. Accordingly, any reduction in the U.S. government deficit as a share of GDP would yield no loss in GDP. In general, most economists would apply Ricardian equivalence to the long-run analysis of an economy operating at full capacity.

Partial Ricardian Equivalence. In practice, individuals may not fully respond to an increase in government deficit spending by increasing their saving by an equal dollar amount.⁵ As a consequence, Ricardian equivalence may not hold perfectly. Using a partial equivalence rate of 70 percent yields a multiplier of 0.3 . With that multiplier, the sequester generates a reduction in GDP

² Alberto Alesina and Silvia Ardagna (2012), "The Design of Fiscal Adjustments," NBER Working Paper #18423 (September).

³ See Robert J. Barro (1974), "Are Government Bonds Net Wealth?" *Journal of Political Economy* 82 (6): 1095–1117.

⁴ Interest rates play no role in Ricardian equivalence.

⁵ See W. Michael Cox (1985). "The Behavior of Treasury Securities: Monthly 1942-84." *Journal of Monetary Economics* (September) and Fred C. Graham and Daniel Himarios (1996), "Consumption, Wealth, and Finite Horizons: Tests of Ricardian Equivalence," *Economic Inquiry* (July).

growth of about 0.2 percentage points over the next two years for a projected growth rate of 1.8 percent annually.

Congressional Budget Office. CBO projects that a spending sequester of \$85 billion would reduce U.S. real GDP by 0.6 percent. That estimate implies a multiplier of 1.1.

Goldman Sachs and Zandi Multipliers. In previous work, Phillips and Hatzius of Goldman Sachs (2012) estimated a multiplier of 1.2.⁶ Applied to the \$85 billion sequester, the estimated impact is a 0.6 percent reduction in GDP. Similarly, previous work by Zandi (2008) implies a multiplier of 1.3 and a GDP reduction of 0.7 percent.

International Monetary Fund. Olivier Blanchard and Daniel Leigh (2012) of the International Monetary Fund estimate multipliers in a range from 0.9 to 1.7.⁷ The larger multiplier owes to a strengthening of multiplier effects during recessions. These multipliers imply GDP losses of 0.5-0.9 percent.

Extreme Keynesian Multiplier. Recent economic research prompts me to consider the possibility that the U.S. deficit multiplier could be as high as 3.5 when U.S. GDP is well below potential and real interest rates are near zero.⁸ Allowing for this extreme multiplier yields a GDP loss of 1.9 percent

How the Sequester Might Affect Economic Activity

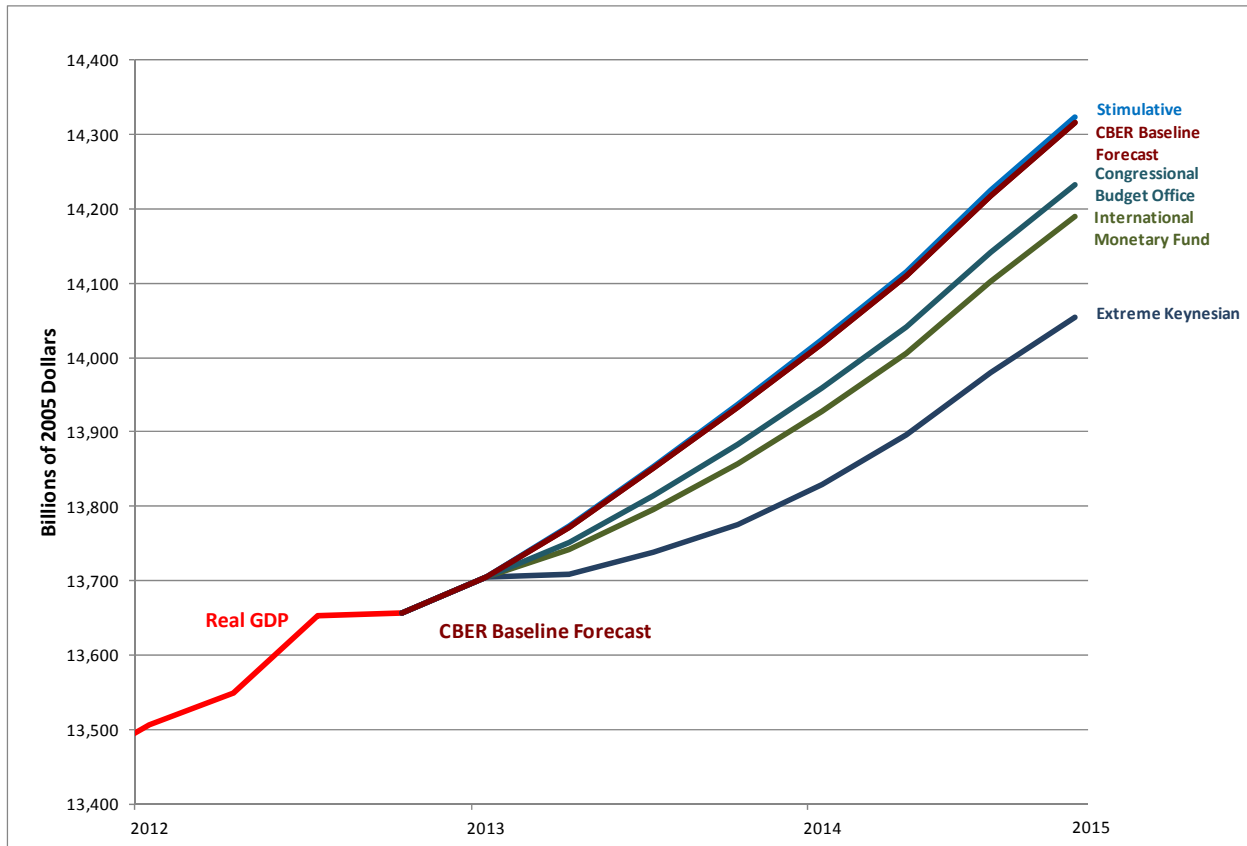
To assess how the sequester might affect the direction of the U.S. economy, I develop a baseline economic forecast for the U.S. economy. As shown in Chart 2, the baseline forecast shows the growth of U.S. real GDP gradually accelerating from a 1.4 percent annual rate in first quarter 2012 to about a 2.9 percent annual rate in the second half of 2014. The average annual growth rate for the two years is 2.4 percent. U.S. real GDP remains 4.8 percent below potential in fourth quarter 2014. In contrast, GDP was 6.0 percent below potential in fourth quarter 2012. These growth figures may seem a little strong by recent standards, but they represent the possibility of a strengthening economy in the absence of the uncertainty contributed by the sequester.

Another set of possible economic conditions can be estimated by combining the \$85 billion dollar cut in government spending with various multipliers, allowing for some effects to linger into early 2015. As shown in Chart 2, the estimates for U.S. economic activity under the sequester range from a slight improvement over the baseline forecast to continued weakness. Even with an extremely strong multiplier of 3.5, the sequester will not have a big enough economic impact to push the U.S. economy into recession by itself. Nonetheless, the sequester could contribute to deepening a recession brought about by other factors.

⁶ See Alec Phillips and Jan Hatzius (2012), "Fiscal Cliff Scenarios: The Not So Good, the Bad, and the Ugly," *U.S. Economic Analyst* Issue 12/40, Goldman Sachs (October 5).

⁷ Olivier Blanchard and Daniel Leigh (2012), "Box 1.1. Are We Underestimating Short-Term Fiscal Multipliers?" in International Monetary Fund (2012), *World Economic Outlook: Coping with High Debt and Sluggish Growth*: 41-43 (October).

⁸ See Lawrence Christiano, Martin Eichenbaum, and Sergio Rebelo (2009), "When Is the Government Spending Multiplier Large?" NBER Working Paper #15394 (October).

Chart 2. Outlook for U.S. Real GDP

Sources: U.S. Bureau of Economic Analysis and author's estimates based on listed sources.

Summary

Operating well below its potential, the U.S. economy continued on a sluggish expansion for most of 2012 before slowing sharply in fourth quarter. Consumer spending held up reasonably well, but the expiration of the payroll tax holiday could weaken consumer spending in early 2013. The housing sector, a major contributor to the economy's weakness, seems to be improving. Business fixed investment has turned positive.

The weakness in GDP seen in fourth quarter 2012 was primarily the result of declines in inventories, net exports, and government spending. A high inventory-to-sales ratio suggests that inventory investment could remain weak into early 2013. Net exports could contribute some to economic growth in 2013, as the world economy strengthens. As far as government spending is concerned, much rests on how Congress and the administration resolve the spending sequester. Sharp reductions in federal spending will slow U.S. economic activity. Given expected strength in other areas of spending, we are likely to avoid a recession.

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