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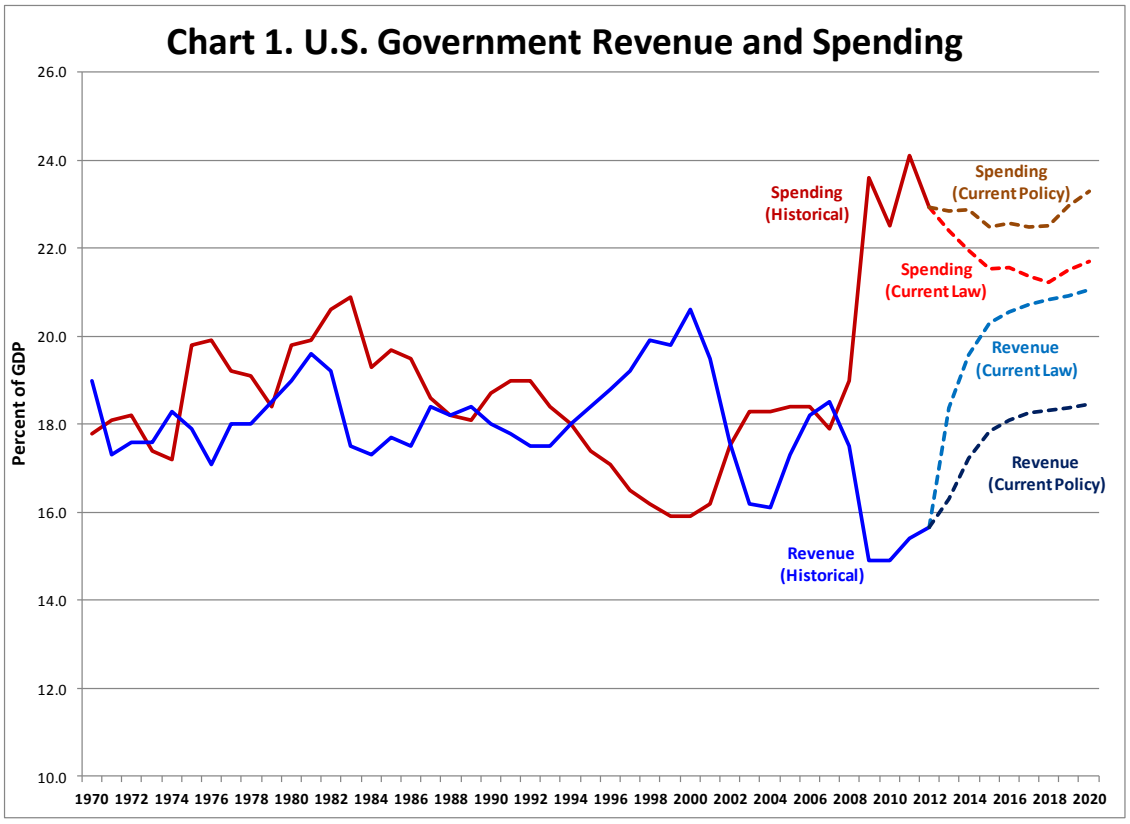
Fiscal Austerity Looms over U.S. Economy

Stephen P. A. Brown

As the end of 2012 approaches, U.S. policymakers are faced with making important decisions about the nation's fiscal policies. As current law stands, the U.S. government will implement tax increases and spending cuts beginning in 2013. Because implementation of current law results in a sharp reduction in the U.S. government deficit, the current laws are seen as creating what has been called a "fiscal cliff." Economic analysis provides a wide range for the estimated effects of the fiscal cliff on a weak U.S. economy—from a very mild stimulus to a deeper recession than we saw in 2007-2009.

How Big Is the Fiscal Cliff?

As shown in Chart 1, the changes in fiscal policy brought about by current law will sharply reduce the U.S. government budget deficit—from 7.3 percent of GDP in 2012 to 4.0 percent and 2.4 percent of GDP in 2013 and 2014, respectively. The deficit reduction will be achieved through big changes in both taxation and spending. Some of the changes to be brought about by the current tax laws are the expiration of provisions that reduce income, estate, and gift taxes (commonly known as Bush-era tax cuts). In addition, the reduction in the employee's portion of the payroll tax will expire. The Affordable Care Act (commonly known as Obamacare) also will bring tax increases.



Among the changes to spending policies are sharp reductions in Medicare payment rates for physicians' services and the expiration of some unemployment benefits. The automatic enforcement procedures established under the Budget Control Act of 2011 also will cut spending across a number of programs including defense.

To provide a contrast with current law, the Congressional Budget Office (CBO) developed an alternative fiscal scenario, in which some current laws would be changed so that fiscal policy remains relatively unchanged. The alternative scenario shows a much larger deficit—6.5 percent and 5.6 percent of GDP in 2013 and 2014, respectively. The differences in the U.S. government deficit between current laws and current policies amount to 2.5 percent of GDP in 2013 and 3.4 percent of GDP in 2014.

Assessing the Economic Impact: The Role of the Multiplier

What impact will a reduction in government deficits of 2.5 percent of GDP in 2013 and 3.4 percent in 2014 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 the U.S. deficit by 1 percent of GDP would lead to a 1.3 percent reduction in overall U.S. real GDP. On the other hand, a multiplier of 0.9 implies that a reduction of the U.S. deficit by 1 percent of GDP would lead to a 0.9 percent reduction in GDP.

As shown in Table 1, the estimated range of economic multipliers is considerable, extending from −0.1 to 2.5. 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 1. Economic Multiplier

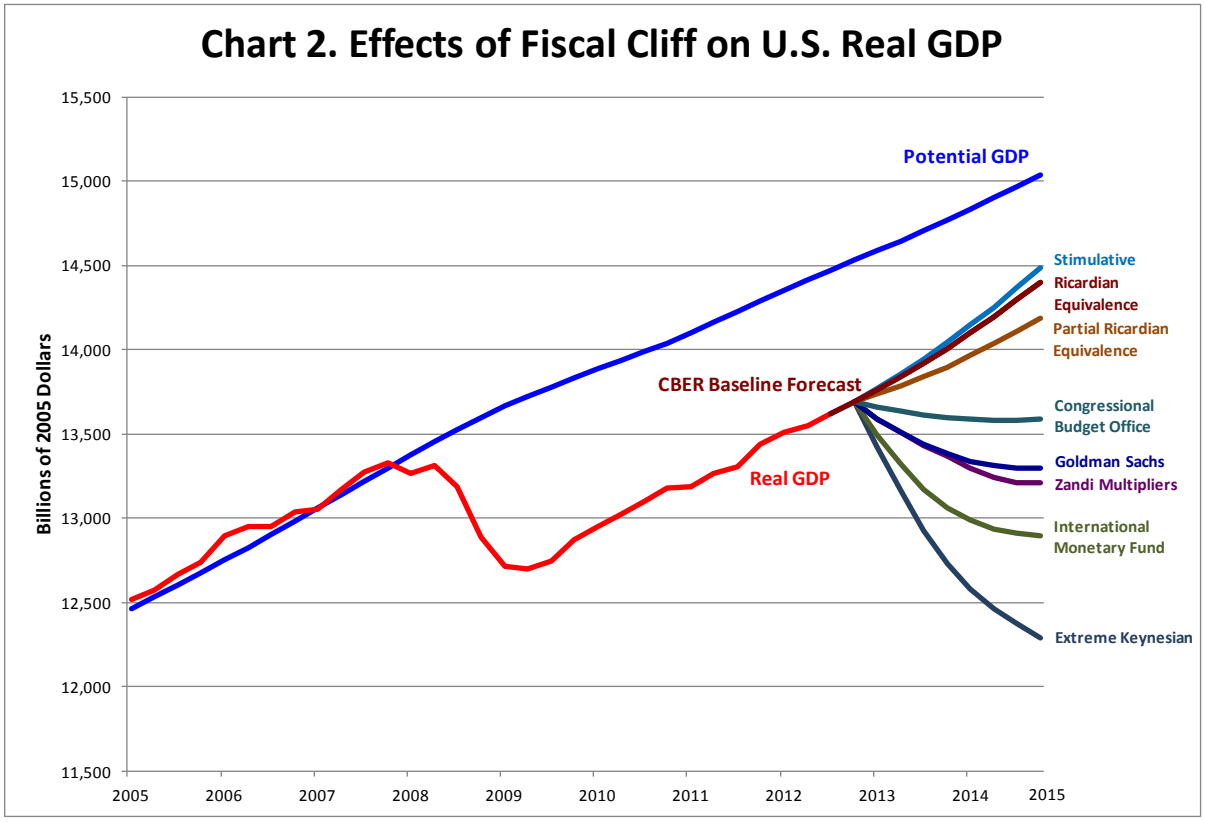
Type of Multiplier	Multiplier
Negative	−0.1
Ricardian Equivalence	0.0
Partial Ricardian Equivalence	0.3
CBO	0.9
Goldman Sachs	1.2
Mark Zandi	1.3
International Monetary Fund	0.9-1.7
Extreme Keynesian	2.5

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

How the Fiscal Cliff Might Affect Economic Activity

To assess how the fiscal cliff 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 2.1 percent annual rate in fourth quarter 2012 to about a 3.3 percent annual rate in fourth quarter 2014. The average annual growth rate for the two years is 2.6 percent. As shown in the chart, U.S. real GDP remains 4.3 percent below potential in fourth quarter 2014. In contrast, third quarter 2012 GDP was 5.9 percent below potential. These

figures may seem a little strong by recent standards, but they represent the possibility of a strengthening economy in the absence of fiscal uncertainty.



Another set of possible economic conditions can be estimated by using CBO's estimates of the fiscal cliff with the various multipliers. In some cases, the multiplier effects may linger from 2013 into 2014 and from 2014 into 2015. As shown in Chart 2, the range of estimates for U.S. economic activity range from an improvement over the baseline forecast to a recession that is deeper than the United States experienced from 2007 to 2009.

Could the Fiscal Cliff 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 long-run analysis of an economy operating at full capacity, Alesina and Ardagna (2012) find a negative multiplier is possible in the short run.[1] Applying a multiplier of −0.1 to the fiscal cliff yields economic growth that is 0.3 percentage points higher than the baseline case over the next two years for a projected growth rate of 2.9 percent annually.

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.[2] Therefore, the private sector will cut its spending by the amount of the deficit to pay for the future taxes.[3] In such a case, each dollar increase in deficit spending is exactly offset by a dollar loss in private spending,

[1] Alberto Alesina and Silvia Ardagna (2012), "The Design of Fiscal Adjustments," NBER Working Paper #18423 (September).
[2] See Robert J. Barro (1974),"Are Government Bonds Net Wealth?" *Journal of Political Economy* 82 (6): 1095–1117.
[3] Interest rates play no role in Ricardian equivalence.

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.[4] 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 fiscal cliff generates a reduction in GDP growth of about 0.8 percentage points over the next two years for a projected growth rate of 1.8 percent annually. Most economists would limit their application of partial Ricardian equivalence to the long-run analysis of an economy operating at or near full capacity

Congressional Budget Office. CBO projects that the fiscal cliff will result in a mild recession. Their scenarios imply a deficit multiplier of 0.9. With that multiplier, I find that GDP will be about 3.0 percentage points below the baseline case over the next two years. That finding translates to an average decline in GDP of 0.4 percent annually. Under this scenario, the economy resumes growing by the end of 2014.

Goldman Sachs. Phillips and Hatzius of Goldman Sachs (2012) estimate the fiscal cliff will yield a reduction of GDP growth of 4 percentage points below their baseline case.[5] Applied to the CBER baseline, the Goldman Sachs estimate translates into an average decline in GDP of 1.4 percent annually over the next two years. Some of the negative multiplier effects will carry over to 2015, but I expect they will be dominated by the baseline economic growth projected for that year.

Zandi Multipliers. Using multipliers suggested by Zandi (2008) and allowing for some lagged effect in the multipliers, I estimate that GDP growth will be about 4.3 percentage points below the baseline case for the next two years.[6] That reduction translates into an average decline in GDP of 1.7 percent annually. Some of the negative multiplier effects will not be realized until 2015, at which time they are likely to be dominated by the baseline economic growth projected for that year.

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 lower estimate is the same as inferred for CBO. The larger multiplier likely owes to a strengthening of multiplier effects during recessions. Allowing for some lagged effects with the larger multiplier, I estimate a 5.5 percentage point reduction in GDP growth below the baseline case for the next two years. That means an average decline in GDP of 2.9 percent annually. Some of the negative multiplier effects will carry over to 2015 when they will be dominated by the baseline economic growth projected for that year.

Extreme Keynesian Multiplier. Recent economic research prompts me to consider the possibility that the U.S. deficit multiplier could be 2.5 or higher when U.S. GDP is well below potential and real

[4] 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).

[5] 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).

[6] Mark Zandi (2008), "A Second Quick Boost From Government Could Spark Recovery," Testimony before the U.S. House Committee on Small Business (July 24).

[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).

interest rates are near zero.[8] Allowing for some lagged effects in the multiplier, I estimate a 7.8 percentage point reduction in GDP growth below the baseline case for the next two years. That estimate means an average decline in GDP of 4.2 percent annually. Through a carryover of multiplier effects, we would likely see continued but smaller declines of U.S. GDP into 2015.

Setting Course to Avoid the Fiscal Cliff

Current U.S. economic conditions—with real GDP well below potential and real interest rates near zero—suggest the multiplier effects associated with government deficit spending could be unusually large. Such large multiplier effects mean the consequences of the fiscal cliff could be quite severe. A recession about as deep or deeper than we saw in 2007-2009 seems well within the realm of possibility.[9]

On the other hand, simply postponing or cancelling implementation of the U.S. laws intended to reduce the deficit will leave the U.S. government with a large and a growing debt (Table 2). Over time, a high debt-to-GDP ratio will weaken the long-term prospects for economic growth—as is consistent with the idea of a negative long-run multiplier. Government deficit spending crowds out private investment through higher interest rates.

Table 2. Projected U.S. Government Deficits and Debts as a Percent of GDP

	2012	2013	2014	2015	2020
Current Policy					
Deficit	7.3	6.5	5.6	4.6	4.8
Debt Held by Public as a Percent of GDP	72.8	78.6	82.3	82.5	85.7
Current Law					
Deficit	7.3	4.0	2.4	1.2	0.6
Debt Held by Public as a Percent of GDP	72.8	76.1	76.6	73.8	61.4

Source: Congressional Budget Office

Policymakers can reduce the near-term risk of recession and gain the benefits of reducing the U.S. government debt-to-GDP ratio by taking a gradualist policy. Under such an approach, the U.S. government would adopt policies that would reduce the deficit as the economy nears its potential. Once the budget deficit is a smaller percentage of GDP than the growth rate of U.S. real GDP, the debt-to-GDP ratio will begin a gradual decline.

Stephen P. A. Brown, Ph.D.
Director
Center for Business and Economic Research
University of Nevada, Las Vegas

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

[9] With sufficiently high multipliers, such a recession could increase the deficit.