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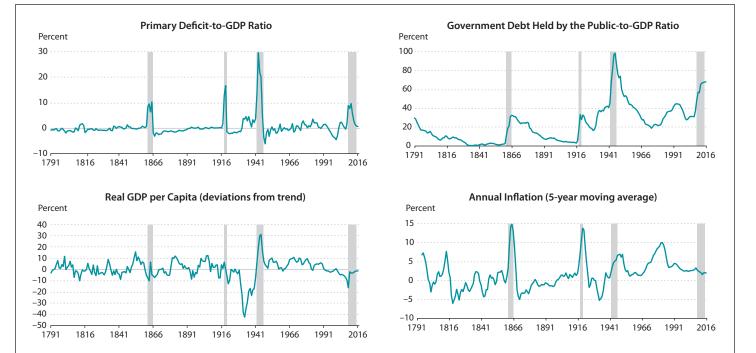
## Fiscal Policy in the Great Recession and Lessons from the Past

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n response to the financial crisis in late 2008 and the subsequent recession, the United States has been running atypically high and persistent budget deficits. The recent behavior of key fiscal policy variables draws some parallels with the U.S. experience in the Civil War and the two world wars.<sup>1</sup> The similarities and differences of these episodes shed some light on the current situation. A specific concern is the possibility of high inflation to finance the accumulated debt.

According to the latest estimates from the Office of Management and Budget (OMB), the primary deficit outlays net of interest payments minus revenue—averaged 8.6 percent of gross domestic product (GDP) between fiscal years (FYs) 2009 and 2011.<sup>2</sup> As a point of reference, this figure averaged roughly zero from 1955 to 2008. The top-left panel of the accompanying chart shows that the magnitude of the recent deficits is similar to those during the Civil War when the average deficit was about 8.5 percent of GDP. The two world wars are the only times in U.S. history with higher primary deficit levels. Even during the implementation of the New Deal policies (1933-36) in response to the Great Depression, the deficit averaged only about 3.7 percent of GDP.

A natural consequence of high deficits is a significant increase in government debt. At the end of FY 2011, debt held by the public—net of holdings in Federal Reserve Banks—was estimated at about 56 percent of GDP.<sup>3</sup> Only during World War II and the years immediately thereafter



NOTE: Years are listed as fiscal years when fiscal-year frequency data are available and as calendar years otherwise. GDP per capita is detrended using a quadratic polynomial. Data for 2012-16 are from the most recent OMB estimates. The vertical gray bars highlight the Civil War, the two world wars, and 2009-14. SOURCE: Bureau of Labor Statistics, Congressional Budget Office, OMB, Historical Statistics of the United States: Millennial Edition Online, and author's calculations. was the debt-to-GDP ratio higher. So far, the increase in the debt-to-GDP ratio relative to the pre-crisis period roughly 25 percentage points—is comparable to the rise during the Civil War, World War I, and the Great Depression (see the top-right panel of the chart).

Despite the similarities, there are three important differences between the response of government policy to the recent recession and the behavior of policy during the three wars mentioned previously. First, wartime deficits are explained by large temporary increases in defense expenditure. However, revenue also increases-and for a longer period than expenditure-which results in a postwar fiscal surplus. The current higher deficits follow both an increase in expenditure and a decrease in revenue. Compared with the average of the five years preceding the financial crisis and recession (2004-08), outlays net of interest payments increased by 5.0 percent of GDP. Two-thirds of this increase was due to transfers—payments to individuals, either directly or through grants to states and local governments. Over the same period, revenue fell by 2.8 percent of GDP as a result of combined tax cuts, credits, and rebates and also likely due to depressed economic activity.<sup>4</sup>

The recent behavior of key fiscal policy variables draws some parallels with the U.S. experience in the Civil War and the two world wars. A specific concern is the possibility of high inflation to finance the accumulated debt.

Second, as the bottom-left panel of the chart shows, output during the three wars increased significantly, whereas it is currently below trend. In part, the difference in output performance could be explained by the current reliance on transfers rather than purchases.

Third, inflation increased substantially during all three wars (see the bottom-right panel of the chart). In addition, in the aftermath of World War II (1946-48), high inflation was used to reduce the real value of accumulated debt. Ohanian (1998) estimates that the reduction of the real value of debt due to the increase in prices was equivalent to a repudiation of debt worth 40 percent of gross national product. In contrast, inflation has remained low between 2009 and 2011, averaging about 1.3 percent annually, well below the pre-crisis average. The most recent projections from the OMB estimate that high primary deficits will persist until the end of FY 2014. By 2016, outlays net of interest payments are estimated to fall to about 19.8 percent of GDP, which is still 1.4 percentage points higher than the average from 2004 to 2008. Assuming revenues climb to 19.3 percent of GDP, debt held by the public is estimated to reach almost 68 percent of GDP, which would more than double interest payments in terms of output.<sup>5</sup> If past experiences are any indication, these developments will create strong incentives to use inflation to reduce the financial burden of fiscal liabilities. An even greater incentive is the fact that over half of the debt is held by foreign and international investors.

Arguably, the Federal Reserve is more independent and more committed to a low inflation objective than ever before. Furthermore, there appears to be a healthy appetite for assets issued by the U.S. government, as evidenced by the low yields on U.S. Treasury securities (about zero for 3-month and 1-year bonds) despite the sharp increase in the stock of debt. Still, the possibility of a high-inflation episode to alleviate the fiscal burden of accumulated debt, similar to that experienced after World War II, is a troubling scenario that should not be lightly dismissed.

 $^{\rm 1}$  See Goldin (1980), Martin (2011), and Ohanian (1998) for further analysis on wartime policy.

<sup>2</sup> Outlays include all forms of government spending—purchases of goods and services, transfers to individuals and other grants, and interest payments on the debt. The fiscal year in the United States begins on October 1 and ends on September 30 of the subsequent year and is designated by the year in which it ends. Before 1977, the fiscal year began on July 1 and ended on June 30.

<sup>3</sup> According to the OMB, estimated debt due to the Troubled Asset Relief Program at the end of 2011 is about 1.0 percent of GDP.

<sup>4</sup> Taylor (2011) provides a description and analysis of specific fiscal stimulus programs.

<sup>5</sup> This figure assumes that the Federal Reserve System will not unwind its recent purchases of U.S. Treasury securities. Including holdings by Federal Reserve Banks, debt is estimated to reach about 76 percent of GDP by 2016.

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