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The Federal Debt: Too Little Revenue or Too Much Spending?

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It is widely acknowledged that the United States has a potentially serious debt problem. In fact, some economists have argued that the country is facing bankruptcy because of huge unfunded liabilities stemming from Medicare and Social Security.¹ This essay analyzes federal government revenues and expenditures over the past 60 years to determine whether the increase in the debt is the result of declining revenues, increased expenditures, or a combination of both.

The first chart shows the federal debt in trillions of dollars and as a percent of gross domestic product (GDP) from 1950 through 2010. From 1950 to 2007, the debt increased from about \$0.25 trillion to nearly \$9 trillion. The debt initially declined relative to the nation's output, from about 94 percent of GDP in 1950 to a trough of about 32 percent of GDP in 1981. In the early 1980s, however, both actual debt and debt relative to GDP began to rise sharply, reaching 64 percent of GDP in 2007 (vertical line).

There was a very large increase in the debt as a result of the financial crisis and subsequent recession. In just three years (2008-10), the nation's debt increased by about \$4.5 trillion, a 50 percent increase over its 2007 level. The debt relative to GDP rose to 93.2 percent.²

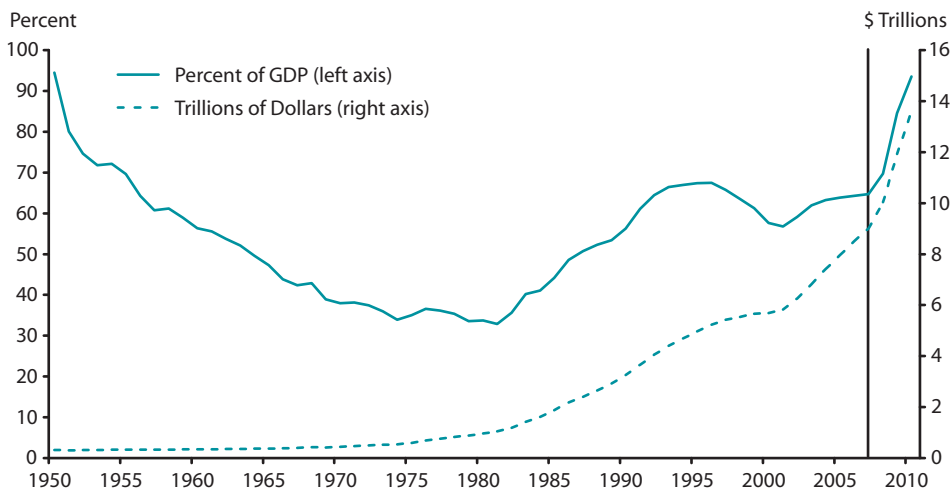
A large debt-to-GDP ratio is cause for concern: As Reinhart and Rogoff (2010) have demonstrated convincingly for a sample of countries spanning a little more than 200 years, a significant negative correlation exists between real public debt-to-GDP ratios and average real GDP growth. Countries with the

lowest debt-to-GDP ratios tend to have the highest real GDP growth rates.

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The second chart shows the federal deficit, revenues, and expenditures as a percent of GDP for the same period. With few exceptions, there has been a budget deficit every year since 1960. The exceptions are 1969, with a budget surplus of 0.3 percent of GDP, and 1998-2001, with budget surpluses of 0.8, 1.4, 2.4, and 1.3 percent of GDP, respec-

Federal Debt in Trillions of Dollars and as a Percent of GDP (1950-2010)



tively. From 1960 through 1974, the deficits were relatively small, averaging 0.9 percent of GDP, and slightly smaller from 1950 through 1974, at 0.7 percent of GDP. From 1975 through 2007, the deficits were much larger. Indeed, the average deficit was 2.6 percent of GDP if the surplus years are included and 3.1 percent of GDP if they are excluded.

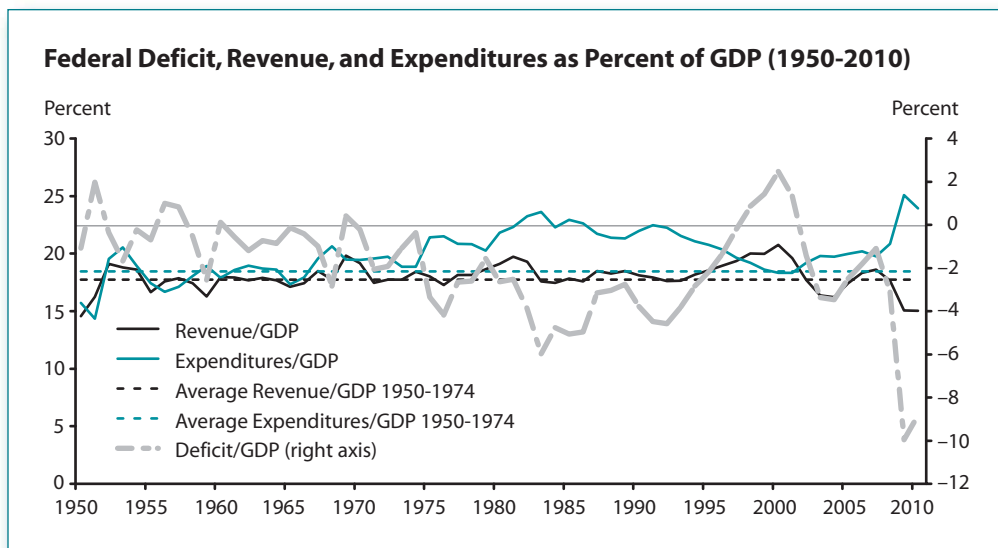
From 1950 through 1974, on average, revenues remained relatively constant at about 18 percent of GDP—averaging 17.6 percent of GDP for 1950-74 and 18.2 percent of GDP for 1975-2007.

In contrast, expenditures were above their 1950-74 average level in all but 5 of the 38 years from 1970 through 2007: On average, expenditures increased from 18.3 percent of GDP for 1950-74 to 20.8 percent of GDP for 1975-2007. In short, the average deficit as a share of GDP rose 1.9 percentage points from 1950-74 to 1975-2007, which is more than accounted for by the same period's 2.5-percentage-point increase in spending as a share of GDP.

Hence, the rise in the national debt from the 1970s through 2007 is entirely a consequence of the federal government's increase of expenditures without an offsetting increase in revenues to pay for that additional spending.

If nominal GDP increases at the same rate as the debt, the debt-to-GDP ratio remains constant. For 1960-74, the deficits were relatively small and nominal GDP growth relatively rapid, so the debt-to-GDP ratio declined. In contrast, for 1975-2007, the deficits were larger and nominal GDP growth slowed, nearly doubling the debt-to-GDP ratio.

As one might expect, the most recent experience is different: The marked increase in the debt-to-GDP ratio dur-



ing the past three years is a consequence of both an increase in expenditures and a reduction in revenue. Specifically, average expenditures increased to 23.2 percent of GDP while average revenue declined to 15.8 percent of GDP, which makes this contribution to the deficit about equally divided between increased expenditures and declining revenue. ■

Kotlikoff, Laurence J. "Is the United States Bankrupt?" *Federal Reserve Bank of St. Louis Review*, July/August 2006, 88(4), pp. 235-49; <http://research.stlouisfed.org/publications/review/06/07/Kotlikoff.pdf>.

Reinhart, Carmen M. and Rogoff, Kenneth S. "Growth in a Time of Debt." *American Economic Review*, May 2010 (Papers and Proceedings), 100(2), pp. 573-78; www.ycsg.yale.edu/center/forms/growth-debt.pdf.

¹ See Kotlikoff (2006).

² It is important to note that we focus on gross rather than publicly held debt. For the United States, the difference is largely the debt issued by federal trust funds designed to fund the federal government's promised health and public pension benefits for retirees. In fiscal year 2010, publicly held debt was 62.1 percent of GDP.