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# U.S. DEBT AND DEFICITS: TIME TO REVERSE THE TREND

*A Milken Institute White Paper*

UPDATED MAY 2012

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## ***Introduction***

Everyone agrees that U.S. federal debt is on an unsustainable path. A decade ago federal debt expressed as a percentage of GDP was a quite manageable 34 percent.<sup>1</sup> In relatively short order it increased to 68 percent by 2011. Under current policies, the Congressional Budget Office (CBO) projects the debt will grow to 93 percent by 2022. This trend clearly demonstrates that decisive action is urgently needed to return the U.S. to a more normal and sustainable budgetary path. Standard & Poor's apparently concurs; it downgraded the U.S. credit rating from the top grade of AAA to AA+ in early August 2011.

In order to accomplish the herculean task of reducing the national debt, a bipartisan congressional "super committee" was created in 2011. At the time of its creation, the committee was charged with striking a deal to cut at least \$1.2 trillion in federal deficits over 10 years and submitting it to Congress for a vote by Nov. 23, 2011. However, it has failed to accomplish this extremely important goal. Unless action is taken soon to reverse the deficit's course, the U.S. could face the same dire straits as several of the euro zone countries.

## ***Deficits and Surpluses Follow a Pattern***

From 1789, when the U.S. Treasury Department was established, through 2011, there were 222 federal budgets. The record reflects 115 deficits and 107 surpluses—almost an even split. Breaking down that period, however, reveals a different picture. From 1789 to the beginning of the Great Depression in 1929, the government recorded 46 deficits and 94 surpluses. That puts the budget in the red 33 percent of the time. From 1930 to 2011, the U.S. had 69 deficits and 13 surpluses. In other words, deficits occurred 84 percent of the time, or an average of eight deficits for every 10 years. The budgetary situation after the Great Depression and World War II is even more striking. Since 1950, the U.S. racked up 53 deficits and just nine surpluses—the most recent one in 2001.

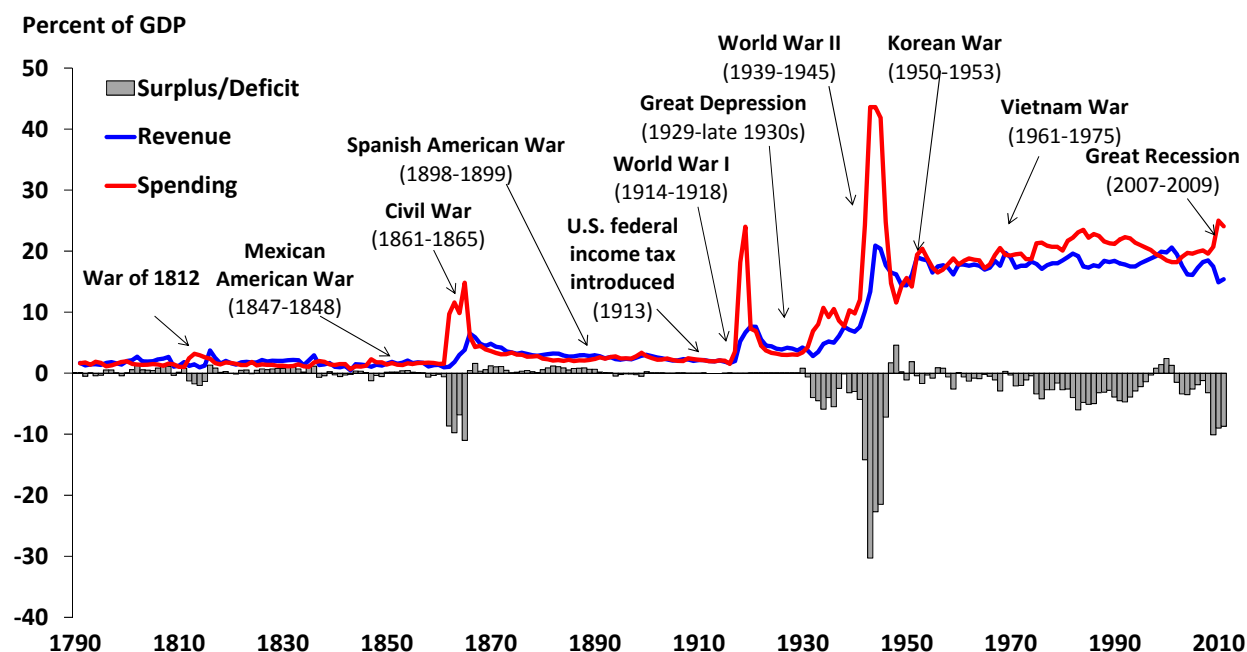
The largest deficit on record occurred during this period: \$1.4 *trillion* in 2009. The nation's first budget deficit was \$1.4 *million* in 1792. The best way to compare the two is to measure them relative to GDP. In 1792, the deficit was only 0.5 percent of GDP, while in 2009 it was an alarming 10 percent.

The entire federal budgetary record can be seen in figure 1, which shows periods when deficits as a share of GDP fluctuated wildly. The biggest fluctuations were due to wide swings in government spending. What is most striking, however, is that the largest deficits and biggest increases in government spending have always occurred during war.

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<sup>1</sup> In this paper, we focus on federal debt held by the public, which includes debt held by the Federal Reserve.

**Figure 1. U.S. government spending, revenue and deficits, 1790-2011**



Sources: Congressional Budget Office, The White House, Authors.

In fact, of the 115 deficits in the past 222 years, 37 came during war years. Omitting periods of war, there have been 107 surpluses and 78 deficits since the first U.S. budget. The largest peacetime deficit relative to GDP occurred during the Great Depression of the 1930s, while the largest peacetime deficit in terms of absolute amount occurred during the Great Recession.

Focusing on the most recent 32 years, the federal budget has been in deficit 28 times, with budget surpluses occurring only in the four years from 1998 to 2001. Those surpluses were largely due to the surge in government revenue from the stock market bubble. Since then, the U.S. has had nothing but deficits year in and year out. When will it end? Without decisive action, not anytime soon. In fact, the CBO projects deficits in every single year through 2022 under current policies.

In response to this unsustainable situation, some policymakers have called for a constitutional amendment requiring the federal government to balance its budget each and every year. The closest the U.S. has come to a balanced-budget amendment was in the early 1980s, when 31 state legislatures approved resolutions petitioning for a constitutional convention. Resolutions from just three more states could have forced Congress to organize a constitutional convention to consider the amendment.

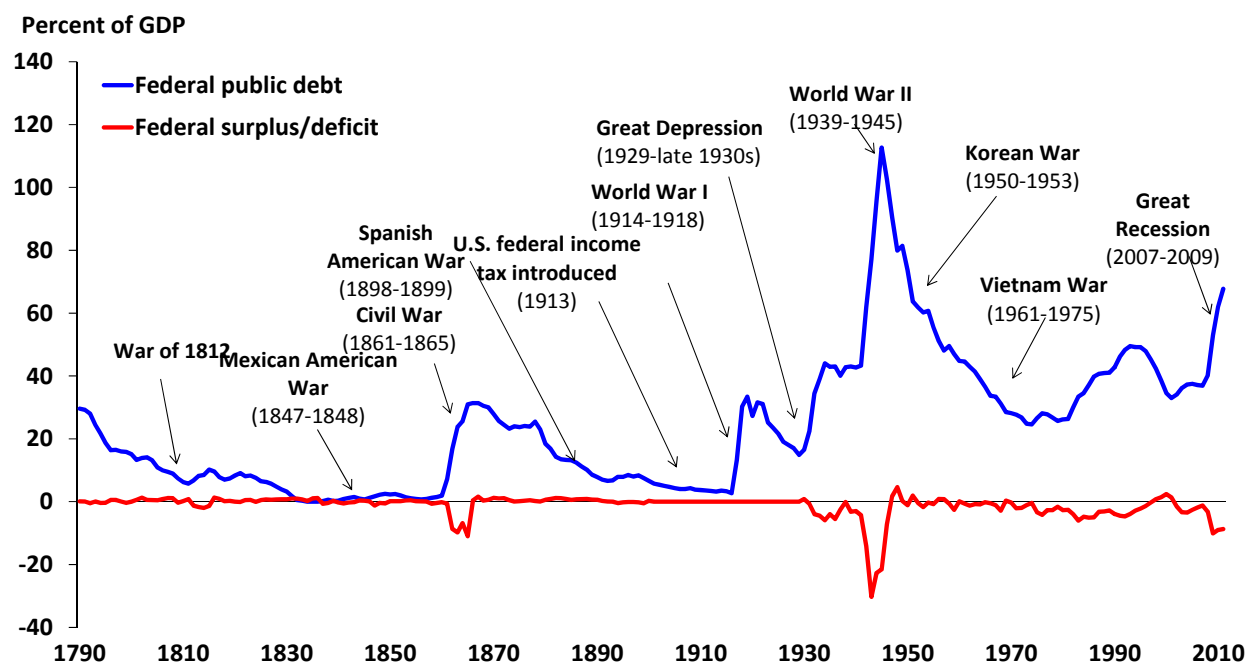
## Two Ways to Finance Deficits

Naturally, deficits must be financed. One way this is done is through the sale of government securities to the public (both domestic and foreign); the other is through the sale of securities to the Federal Reserve. When the Fed buys securities, it typically increases the money supply, so this method is commonly referred to as money-financed deficits. In 2011, the Fed held 11 percent of outstanding federal debt. The term bond-financed deficit refers to selling securities to the public. In 2011, 69 percent of outstanding federal debt was held by the public.

## Why Surpluses Are Important

Basically, surpluses are used to reduce, and ultimately retire, outstanding debt. As figure 2 shows, this goal has been largely accomplished over time. As mentioned, debt rises sharply during wars and declines steadily afterward. This pattern also applies to severe recessions and the Great Depression of the 1930s. Contrary to public perception, the federal debt hasn't grown without limit. In fact, the federal debt was essentially eliminated during the 1830s. Based on the historical record, the public had every reason to believe that debt would eventually be paid off. Unfortunately, the budgetary outlook in recent years is much more pessimistic.

**Figure 2. U.S. debt and deficits, 1790-2011**



Sources: Congressional Budget Office, The White House, Authors.

## ***Lessons of the Great Depression***

The current concern about deficits echoes the Great Depression. Prior to the 1930s, it was widely believed that a balanced budget was “a principal test of sound fiscal management.”<sup>2</sup> Surpluses were the rule, not the exception. In the 1930s, however, something quite different occurred. For the first time in U.S. history, the nation incurred 10 successive peacetime deficits.

On December 2, 1929, weeks after the collapse of the stock market, President Hoover submitted his budget for 1931 to Congress. There was neither any indication in the budget nor any direct admission in the following year that large and continual deficits were looming. “Even the 1932 budget released in December 1930 indicated surpluses for the fiscal years 1931 and 1932.”<sup>3</sup> This situation did not last long, however. “As the depression deepened, it became apparent that the budget estimates had been far too optimistic and that the Treasury would soon be faced with larger deficits than any previously incurred in time of peace.”<sup>4</sup>

Despite the depression, a balanced budget was considered to be essential for recovery. “A balanced budget was regarded as a prerequisite for a revival of business confidence.”<sup>5</sup> Moreover, “federal borrowing was viewed as competitive with business and other private borrowing; interest rates were higher because of federal competition for loan funds.”<sup>6</sup> Lastly, “an unbalanced federal budget was equated with inflation.”<sup>7</sup> It’s no surprise that in the early 1930s “the President [Hoover], officials of the executive branch, and the leadership of both parties in Congress” united in “making a balanced budget the primary policy goal.”<sup>8</sup>

Throughout the early years of the Great Depression, heavy or excessive tax burdens were deemed the major—if not the sole—cause of the “unsatisfactory economic situation.”<sup>9</sup> But tax reductions were not regarded as a viable option. Instead, “a balanced budget achieved primarily through rigorous expenditure control was the primary goal.”<sup>10</sup>

During the 1932 presidential campaign, “the Democratic party became the self-appointed champion of what was accepted as fiscal conservatism.”<sup>11</sup> In this role, Democrats “made the most of the ‘recklessness’ of those who would tolerate continued unbalance in the federal accounts.”<sup>12</sup> With the election of President Roosevelt, however, the campaign rhetoric

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<sup>2</sup> See Lewis H. Kimmel, *Federal Budget and Fiscal Policy, 1789-1958*, The Brookings Institution, Washington, D.C., 1959, p. 143. The material in this section is based entirely on Kimmel’s fascinating account of U.S. budget policy.

<sup>3</sup> *Ibid.*, p. 145.

<sup>4</sup> *Ibid.*, p. 146.

<sup>5</sup> *Ibid.*, p. 152.

<sup>6</sup> *Ibid.*, p. 152.

<sup>7</sup> *Ibid.*, p. 152.

<sup>8</sup> *Ibid.*, p. 153.

<sup>9</sup> *Ibid.*, p. 164.

<sup>10</sup> *Ibid.*, p. 165.

<sup>11</sup> *Ibid.*, p. 166.

<sup>12</sup> *Ibid.*, p. 166-167.

faded fast. In contrast to his first budget message, “which promised a balanced budget in the third year of recovery,” Roosevelt’s 1937 budget message suggested that “a fully balanced budget was now assured only in the indefinite but apparently not-too-distant future.”<sup>13</sup> Instead of balancing the budget, “restoring the economy, which above all else required a reduction in unemployment to a reasonable minimum, became a primary objective of public policy.”<sup>14</sup> Roosevelt maintained that government was responsible for providing for the unemployed and the needy and that government spending would “contribute to rising income levels and increases in private employment.”<sup>15</sup> (If the remarks sound familiar, that’s because history sometimes repeats itself. Today’s concerns about budget deficits are remarkably similar.)

The Great Depression demonstrated that sharp contractions in economic activity can cause huge deficits. Eventually, this realization led to the concept of a full-employment budget deficit. Rather than simply relying on the reported deficit figures, the idea was to calculate what the budget deficit (or surplus) would be if the economy were operating at a high level of employment. At full employment, for example, the federal budget may run a surplus. This means fiscal policy may not be expansionary enough even when the budget is in deficit.

### ***Do Deficits Matter?***

Why is there such widespread concern over federal budgetary deficits? Or, more to the point, do budget deficits really matter? Opinions vary widely on the economic impact of deficits. Some economists state that “bigger deficits, if allowed to accumulate, have evil consequences of their own; either more inflation, or more government borrowing from private lenders, which in turn means less chance for private firms to borrow funds needed for capital improvements and expansion.”<sup>16</sup> Others argue that “an increase in the budget deficit ... does not necessarily mean either a crowding out of private investment or an accentuation of inflationary pressure.”<sup>17</sup>

As discussed, federal deficits may be bond-financed and/or money-financed. There is broad agreement that money-financed deficits are inflationary because they increase aggregate demand, push prices higher, and drive up the nominal, if not real, rate of interest.<sup>18</sup> To the extent that the inflation is anticipated, nominal interest rates, in turn, will be higher. The increase represents a premium for inflation, particularly when it comes to long-term rates. But as far as crowding out (that is, less interest-sensitive private investment and less spending on

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<sup>13</sup> Ibid., p. 182.

<sup>14</sup> Ibid., p. 182.

<sup>15</sup> Ibid., p. 189.

<sup>16</sup> See Carl F. Christ and Alan A. Walters, “The Mythology of Tax Cuts,” *Policy Review*, Spring 1981, p.86.

<sup>17</sup> See David Raboy, “Norman B. Ture on Supply-Side Economics,” in *Viewpoints on Supply-Side Economics*, Thomas J. Hailstones, ed., Robert F. Dame. Inc., Richmond, 1982, p.65.

<sup>18</sup> The real rate of interest is the nominal rate of interest adjusted for inflation.

durable goods due to big deficits) is concerned, there should be none. That's because money-financed deficits are likely to leave the real rate of interest unaffected or cause it to decline.

Since the Federal Reserve is independent of the Treasury Department, the Fed is not required to purchase federal securities whenever there is a deficit. If the Fed does not do so, deficits may be completely bond-financed. Historically, this has not been the case. On the other hand, the record does not demonstrate that deficits are completely money-financed, either. What appears to happen is that the Fed monetizes some fraction of the deficits.

But expanding the money stock to finance a portion of the shortfall doesn't necessarily mean the increase matches the deficit dollar-for-dollar. For example, the deficit was \$22 billion in 1997. This deficit became a surplus of \$69 billion in 1998. At the same time, money growth increased from -0.8 percent in 1997 to 2.2 percent in 1998. An even more striking example occurred in 2001–2002. In 2001, the surplus was \$312.8 billion. It became a deficit of \$158 billion in 2002. Money supply, however, grew by 3.2 percent in 2002 vs. 8.8 percent in 2001. So in general, movements in money do not track movements in deficits one-for-one.

More controversial is the case of bond-financed deficits, in which deficits are financed through the sale of securities to the public. The crucial issue here is whether the bonds that are sold increase the demand for goods and services—thus driving up prices as well as the real rate of interest. Additional production may also, via a multiplier effect, temporarily offset any reduction in interest-sensitive components of the real demand for goods and services.

Some economists contend that government bonds are a component of private wealth. According to this view, bond-financed deficits increase wealth; new wealth stimulates consumption and the demand for money; and more consumption and money demand lead to a higher real rate of interest. This higher rate, they argue, will result in crowding out, as investments in plants, equipment and consumer durable goods decline in reaction. If interest rates rise sufficiently, there will be complete crowding out—that is, the bond-financed deficit will not increase aggregate demand and prices. Although the deficit is not inflationary in this extreme situation, it will still drive up real interest rates and thus crowd out private investment.

Other economists, most notably Professor Robert Barro of Harvard University, contend that government bonds do not represent private wealth. Proponents of this view argue that people realize the bonds issued will eventually be retired. This means that the issuance of bonds implies an offsetting future tax liability to cover the interest and principal payments. To meet this future tax liability, the public will save more. This means that the federal deficit will be matched exactly by an increase in private saving. In this case, there will be no increase in the demand for goods and services and thus no increase in prices. Furthermore, the increase in private saving to match the budget deficit means that the deficit will not siphon funds away from private investment. In short, real interest rates will be unaffected and, as a result, there will be no crowding out.



Still another view of bond-financed deficits maintains that cuts in tax rates (particularly marginal tax rates) will increase the after-tax return on saving. As a result, it is argued that tax-induced deficits will stimulate a greater amount of saving. If stimulated sufficiently, this additional saving will be available to purchase the government bonds that are sold to finance the deficit. In this way, there need not be any crowding out or increased inflationary pressure. The increase in saving will prevent demand for goods and services from rising and will provide the additional funds to keep real interest rates from moving upward.

### ***Reverse the Trend in Entitlements***

Our view is that the best way to bring the federal budget back into balance is to reduce spending in the coming years. The government has been spending an ever larger share of GDP over time, and it's time to reverse the trend. From 1790 to 2011, government spending was 8.8 percent of GDP. From 1790 to the introduction of the permanent federal income tax in 1913, government spending was just 2.3 percent of GDP. During the century after 1913, government spending as a share of GDP increased to 16.7 percent. It reached 20 percent in the years after World War II. And by 2011, federal spending was 24 percent of GDP.

Although government revenue as a share of GDP has also been increasing, it has fallen far short of government spending in recent years. The major reason is that the government is increasingly committed to spending ever more on entitlement programs. In fact, just one-third of federal spending is discretionary; the remainder is mandatory spending due to entitlements. This mandatory spending has been increasing roughly five times faster than discretionary spending since 1965. The only meaningful solution for our deficit challenge is to cut entitlement programs, then set tax rates to generate sufficient revenue over the business cycle to fund government spending. Most importantly, the tax rate should be permanent to alleviate uncertainty and allow individuals and businesses to plan for the future.

### ***The Bottom Line: Budget Based on Sensible Spending Goals***

Based on our discussion, we can safely draw the following conclusions.

- If anything, deficits caused by increased federal spending are likely to eventually be more inflationary and generate more crowding out than those caused by cuts in marginal tax rates.
- Money-financed deficits are also more likely to be inflationary but less likely than bond-financed deficits to generate crowding out.
- Deficits that persist and grow (both absolutely and as a share of GDP) during non-recessionary, peacetime periods are more likely to eventually be inflationary and lead to crowding out, regardless of how they are financed.

- Government spending is the main cause of deficits in peacetime non-recessionary periods. The escalation in government spending has and is reaching alarming and unsustainable levels. This is being driven by entitlement programs that must be curtailed to get deficits under control.

For these reasons, a sensible budget policy is to set government spending and tax rates so as to balance the budget not each and every year but over the course of a business cycle. In this way deficits would be allowed during wars and recessions and surpluses would offset them during non-wartime expansionary periods. This is a rational and achievable policy. Running ever larger budget deficits during peacetime non-recessionary periods is breaching a contract with America that the federal government has honored for roughly two centuries.

*Note: This paper is an updated and modified version of "A Primer on Budget Deficits," James R. Barth and Stephen O. Morrell, Federal Reserve Bank of Atlanta Economic Review, August 1982.*

## About the Authors

**James R. Barth** is the Lowder Eminent Scholar in Finance at Auburn University, the senior finance fellow at the Milken Institute, and a fellow of the Wharton Financial Institutions Center. His research focuses on financial institutions and capital markets, both domestic and global, with special emphasis on regulatory issues. An appointee of Presidents Ronald Reagan and George H.W. Bush, Barth was chief economist of the Office of Thrift Supervision and previously the Federal Home Loan Bank Board. He has also held the positions of professor of economics at George Washington University, associate director of the economics program at the National Science Foundation, and Shaw Foundation Professor of Banking and Finance at Nanyang Technological University. He has been a visiting scholar at the U.S. Congressional Budget Office, the Federal Reserve Bank of Atlanta, the Office of the Comptroller of the Currency, and the World Bank. Barth's expertise has led him to testify before the U.S. House and Senate banking committees on several occasions. He has authored more than 200 articles in professional journals and has written and edited several books, including "Guardians of Finance: Making Regulators Work for Us," "Fixing the Housing Market," "The Rise and Fall of the U.S. Mortgage and Credit Markets: A Comprehensive Analysis of the Meltdown," "China's Emerging Markets: Challenges and Opportunities," "The Great Savings and Loan Debacle," "The Reform of Federal Deposit Insurance," and "Rethinking Bank Regulation: Till Angels Govern."

**Tong Li** is a senior economist at the Milken Institute. She specializes in the U.S. mortgage market, international capital markets, banking regulations, and the Chinese economy. Li has authored and co-authored more than 30 reports, papers, and articles. Her research work has been published in academic journals and presented at major academic and regulator conferences. She is a co-author of "The Rise and Fall of the U.S. Mortgage and Credit Markets: A Comprehensive Analysis of the Meltdown" and "Financial Institutions in China: A Study on Formal and Informal Credits," both published in 2009. She currently serves on the editorial board of Bank and Banking Systems. Li has been interviewed by such major media outlets as China's CCTV and Phoenix Television. She received her Ph.D. in economics from the University of California, Riverside, with research focused on microfinance and economic development, and special emphasis on China. She received a bachelor's degree in international finance from Peking University.



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