

A DECLINING U.S. BUDGET DEFICIT

Fiscal changes cause
record highs and lows



Over the last 50 years, federal deficits have widened during and after economic crises. Federal government policies, such as temporary stimulus packages, typically have had significant effects on the deficit.

Since the 1980s, the United States has carried a budget deficit in every fiscal year but 1999 and 2000. The largest deficits since World War II occurred from 2009 to 2011, after the federal government attempted to stimulate the economy following the Great Recession.

The budget deficit topped the \$1 trillion mark in 2009, setting a record at \$1.4 trillion, according to the Congressional Budget Office. The record trend continued in 2010 as the stimulus packages and extended emergency unemployment benefits approved by Congress took hold and the economy struggled to improve.

Yet, the deficit decreased by 2013 due to a healing economy, which reduced the size of automatic stabilizers, the unwinding of

temporary stimulus measures and new revenues from the Federal Reserve and government-sponsored enterprises.

The structural deficit also decreased due to higher tax rates on high-income earners, the cuts made with the implementation of the federal budget sequester and the ongoing withdraw in military involvement overseas.

Changes in the deficit

Although temporary influences, such as federal stimulus programs, play a role in increasing the deficit, Federal Reserve Bank of Kansas City Senior Vice President and Director of Research Troy Davig and Associate Economist Michael Redmond say cyclical fluctuations, which they describe as automatic stabilizers, also influence the deficit, particularly revenue.

The economy itself also has an effect. Davig and Redmond describe that influence as the structural deficit. The structural deficit is the underlying balance between revenues

and expenditures in a healthy economy, and therefore is not effected by the business cycle ... at least in theory.

Temporary increases in the deficit

In 2008 and 2009, Congress passed two major stimulus bills, the Economic Stimulus Act of 2008 and the American Recovery and Reinvestment Act of 2009. Each was designed to counteract the severity of the recession.

The Economic Stimulus Act focused on boosting personal incomes and, to a lesser degree, lowering corporate tax payments, which had a large effect on federal revenues. Individuals received about \$120 billion in rebates while corporations paid about \$50 billion less in taxes in the short run, which were largely recouped with larger tax liabilities in the long run for a net revenue loss of about \$8 billion.

Congress followed the stimulus with the

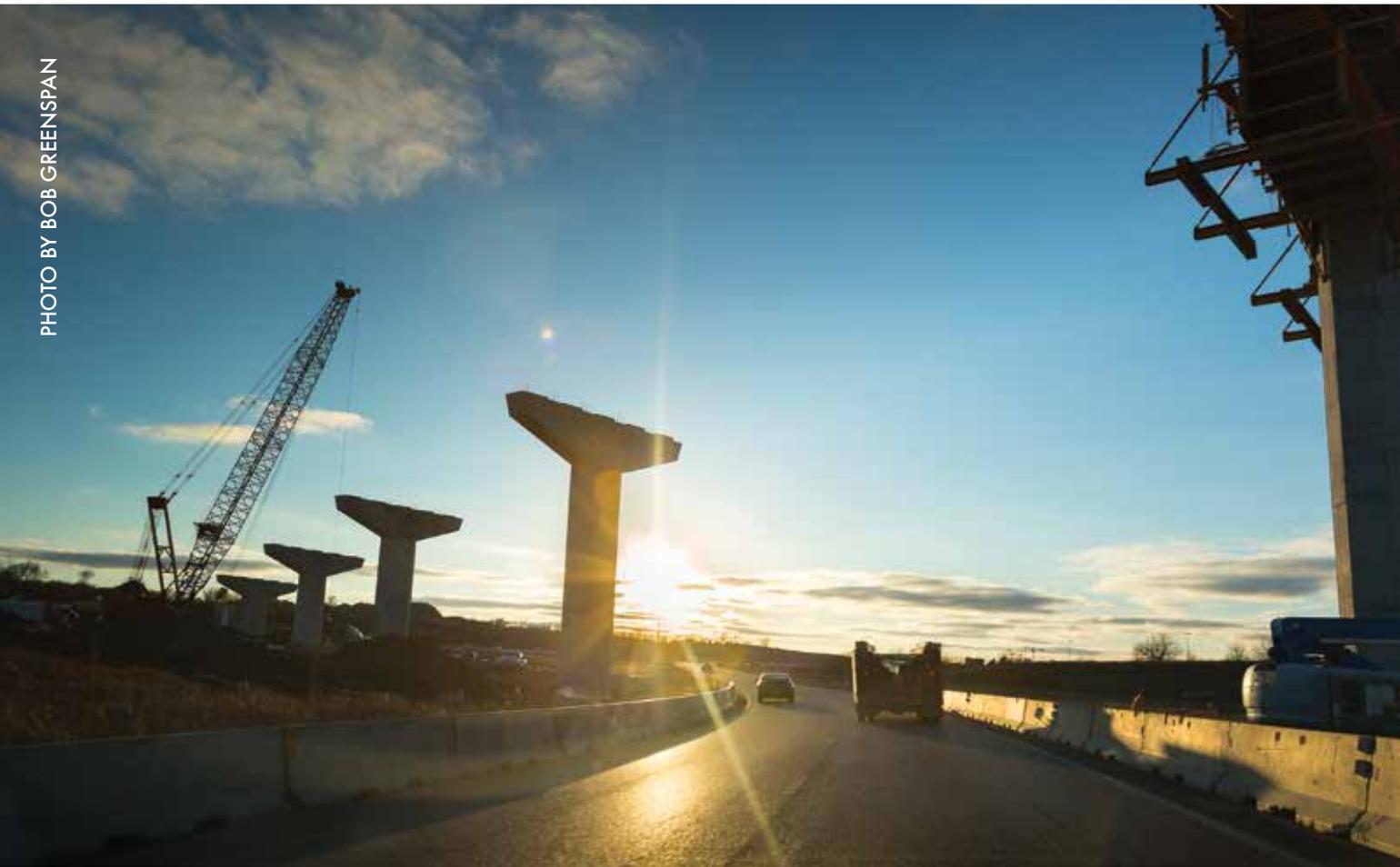
Deficit versus Debt

A budget deficit occurs when the federal government spends more on expenditures than what it receives in revenue. The national debt is a result of the federal government borrowing money to cover budget deficits.

American Recovery and Reinvestment Act. At a cost of \$832 billion, the American Recovery and Reinvestment Act was the largest stimulus program enacted in response to the Great Recession. The Act temporarily increased federal consumption and investment spending, including for infrastructure, education, health-care and energy. The government also increased transfer payments to states and individuals.

Congress also passed a series of bills intended to help individuals and businesses,

FEDERAL STIMULUS PROGRAMS, such as the American Recovery and Reinvestment Act, supplied funds for infrastructure projects that were intended to jump start the struggling economy.



including a temporary decrease in the Social Security contribution rate and an extension of unemployment benefits through the Emergency Unemployment Compensation program.

Federal spending for these programs increased from less than \$50 billion in 2008 to about \$225 billion in 2010; revenue, on the other hand, fell significantly between 2008 and 2011. The combination helped push the deficit past \$1 trillion for the first time in U.S. history.

Temporary influences on deficit decline

Although temporary federal stimulus measures added to the deficit during the first years of the recovery, the costs had dissipated by 2013, falling near 2008 levels. The decrease was one of three mitigating influences of a larger total deficit reduction of about \$753 billion.

The other two temporary influences were Federal Reserve remittances and dividend payments from government-sponsored enterprises (GSEs), such as mortgage giants Fannie Mae and Freddie Mac.

In December 2007, the Federal Reserve expanded its balance sheet in response to the recession and recovery by creating liabilities that banks can either keep as reserves or convert into cash. Before the crisis, banks sought to hold only enough reserves to meet minimum reserve requirements and to ensure the settlement of payments. Reserves in the banking system averaged about \$10 billion in the years prior to the recession.

By year-end 2013, the Federal Reserve had created a large amount of liquidity in the banking system through its asset-purchase program. It boosted banking system reserves to \$2.5 trillion. In 2008, Congress authorized the Fed to pay interest on the reserves, the rate for which has been one-quarter of a percentage point but can change over time. This was done to help the Fed control interest rates in an environment with plentiful reserves but does have the effect of increasing interest expenses.

TEMPORARY INFLUENCES ON U.S. DEFICIT

Federal Reserve remittances to the U.S. Department of the Treasury

\$20 billion per year before the Great Recession
\$75 billion-plus per year from 2010 to 2013

All Federal income from assets

Less than \$50 billion (average) per year 2010-2012
\$300 billion second quarter 2013
\$90 billion third quarter 2013
\$200 billion fourth quarter 2013
\$50-\$100 billion in first three quarters 2014

Temporary Federal Spending

(* Economic stimulus programs and Emergency Unemployment Compensation)

\$40 billion in 2008
\$125 billion in 2009
\$250 billion in 2010
\$160 billion in 2011
\$90 billion in 2012
\$45 billion in 2013

* Data are from federal fiscal years. For example, the 2013 fiscal year is from 2012 Q4 to 2013 Q3.



The assets the Fed has accumulated by issuing the reserves, however, have significantly higher yields. For example, the yield on 10-year Treasury securities has fluctuated from 1.5 percent to 3.5 percent since 2011, and other assets purchased by the Fed, such as agency mortgage-backed securities, often yield more. Because the average returns on Fed-held securities have been higher than the cost of paying interest on reserves, the Fed has received much more in interest income than it has paid in interest expenses.

After paying operating expenses, interest on reserves and dividends to its member banks, the Federal Reserve remits the remainder of its earnings to the U.S. Department of the Treasury. Since 2008, remittances to the Treasury have increased from about \$20 billion per year to at least \$75 billion.

GSEs remittances also have increased significantly in that time. The increase came mainly from the 2008 rescue of Fannie Mae and Freddie Mac. After the federal government

made a large capital injection into the two GSEs, the Treasury received the right to a full quarterly sweep of the profits. In 2013, all Federal income on assets surged to \$300 billion in the second quarter and \$200 billion in the fourth quarter, reflecting one-time accounting adjustments to recognize deferred tax assets.

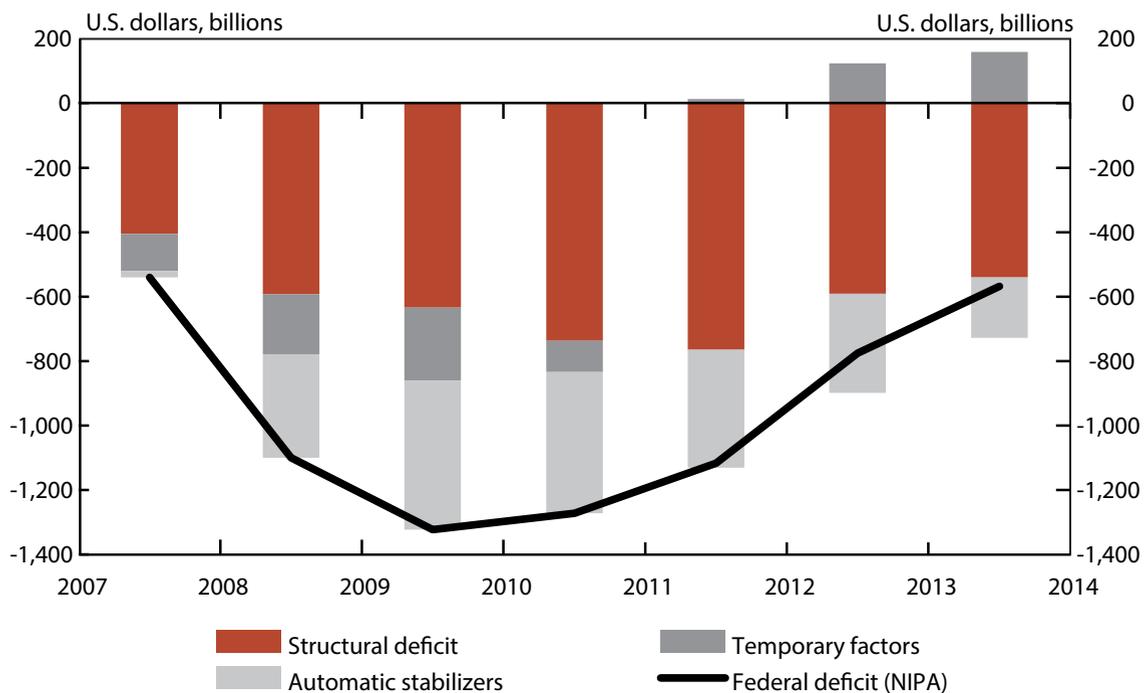
Although the federal government unlikely will receive payments of this magnitude in the future, Freddie Mac and Fannie Mae remain profitable. The Office of Management and Budget projected the Treasury would receive an additional \$181.5 billion from the two GSEs over the next decade.

Cyclical movements in the economy

While temporary influences have affected the deficit, automatic stabilizers also have accounted for the deficit's increases and decreases.

Davig and Redmond describe automatic

DECOMPOSING THE DEFICIT



Source: Congressional Budget Office, economists Troy Davig and Michael Redmond's calculations.

stabilizers as movements in revenues and costs that could have occurred absent any policy reforms—that is, stabilizers arise from cyclical fluctuations in the economy such as the interaction between the business cycle and the tax code or social safety net.

For example, Davig and Redmond explain, when recessions occur, declining economic activity reduces the tax base, resulting in less government revenue. The fall is pronounced—not only does the level of tax revenue fall, but tax revenue also falls as a share of gross domestic product (GDP).

Also, government expenses increase during recessions as a result of increases in social insurance programs. In the recession, large numbers of workers were unemployed, putting a strain on unemployment benefits. In turn, that same large number of unemployed workers consumed less and paid fewer taxes.

According to Davig and Redmond's calculations, automatic stabilizers in 2010 resulted in a deficit that was \$480 billion larger than if the economy had been operating at full employment. Although the economists' model indicates that real GDP is still below potential, it is substantially closer than it was in 2010. As a result, automatic stabilizers added \$187 billion to the deficit in 2014, about \$293 billion less than in 2010.

The structural deficit

Although one-time stimulus programs and automatic stabilizers affect the deficit, the structural deficit also has an effect.

After accounting for the automatic stabilizers and for all the temporary factors that resulted from the discretionary response to the Great Recession, Davig and Redmond consider the remaining portion of the deficit to be structural. In other words, this is “the deficit that would be realized if the economy was operating at its potential level and the contribution of temporary factors were neutral.”

For example, a budget deficit occurs when

a government spends more than it receives in revenue. This could be temporary due to contraction in the business cycle. A structural deficit occurs when a budget deficit persists for a long time regardless of the business cycle.

The United States has had a structural deficit even when the economy is doing well, but it's still able to borrow at low interest rates because of investors' confidence in the country's ability to pay its debts.

The structural deficit remains near 3 percent of GDP.

The future

The federal government announced in October the Fiscal Year 2014 final budget results, which show the deficit fell to \$483 billion, 2.8 percent of GDP, the lowest level since 2007.

Davig and Redmond estimate that there is still some scope of improvement in the deficit, stemming from cyclical improvements in the economy.

“However, temporary factors and long-term structural issues are likely to mitigate further deficit improvement in the years ahead.”



KEVIN WRIGHT, EDITOR

FURTHER RESOURCES

“Accounting for Changes in the U.S.

Budget Deficit,” By Troy Davig and Michael Redmond, www.KansasCityFed.org/publications/research/er/index.cfm.

COMMENTS/QUESTIONS are welcome and should be sent to teneditors@kc.frb.org.