

5E

EDUCATOR



**Exploring the  
Distinctions between  
Monetary and Fiscal Policy**

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The debt of the U.S. government is at historically high levels, but how do we know whether debt levels are worrisome? Check out an excerpt from the Federal Reserve Bank of Richmond's July 2012 Economic Brief, "Unsustainable Fiscal Policy: Implications for Monetary Policy", to read about the potential consequences for the U.S. economy and monetary policy if large fiscal imbalances persist.

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### Snacks

Interested in using this issue's topic in your classroom? Consider using the activities, "The Monetary and Fiscal Policy Two Step" or "Deficit and Debt Direction Connection", created for either middle or high school students by Richmond Fed Economic Education staff. Click on the links in this section to access the PDF files of the activities.

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### Beyond the Textbook

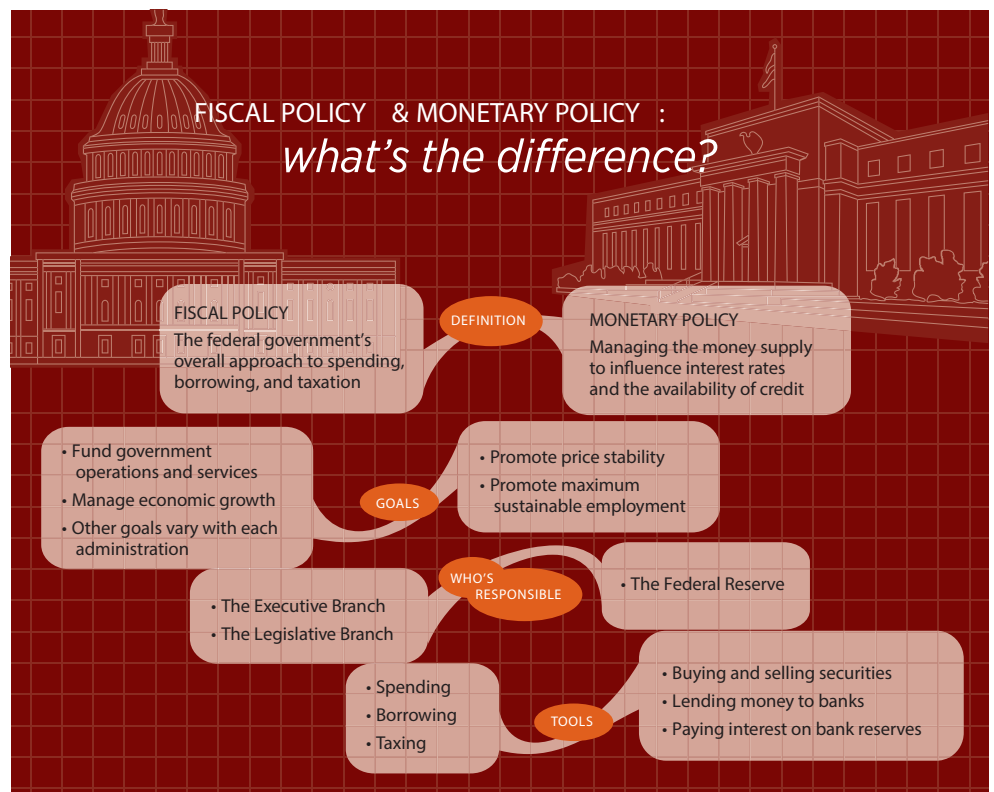
Resources to further reinforce the differences between monetary and fiscal policy.

## MISSION

The *5E Educator* provides secondary teachers with content to enhance understanding of economics and personal finance. It also offers lesson plans and Federal Reserve resources to reinforce state and local curriculum. We seek to enrich the learning experience for students and highlight the importance of economics and financial literacy in the process of everyday decision-making.

# Exploring the Distinctions between Monetary and Fiscal Policy

This issue of *5E Educator* highlights the distinctions between monetary and fiscal policy and includes an article excerpt, classroom activities and other resources to help you and your students explore this issue.



Source: Federal Reserve Bank of Richmond 2011 Annual Report (p.6)  
[www.richmondfed.org/publications/research/annual\\_report/2011/ar2011.cfm](http://www.richmondfed.org/publications/research/annual_report/2011/ar2011.cfm)

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# Class in Session

## Unsustainable Fiscal Policy: Implications for Monetary Policy

*This excerpt is taken from the July 2012 Economic Brief written by Economics Writer Renee Haltom and Senior Vice President, and Director of Research, John A. Weinberg, Federal Reserve Bank of Richmond.*

The debt of the United States government that is held by the public reached its highest point since World War II in 2011, at 68 percent of gross domestic product (GDP). This number is high by historical comparison, but even more important than its current value is the path it is likely to follow in the future. Several factors point to continued large demands on fiscal resources, most notably the aging population. As baby boomers exit the labor force, the number of people drawing age-related benefits from the government will rise quickly as a fraction of working-age individuals supporting them through taxes and Social Security contributions. This unprecedented demographic shift will increase demands on Social Security, Medicaid, and Medicare.

The nonpartisan Congressional Budget Office (CBO) provides a debt forecast under two scenarios: a "baseline" scenario that holds current laws constant and an "alternative" scenario that incorporates the effects of laws the CBO deems likely to pass. The budget outlooks under both scenarios are displayed in Figure 1. The baseline scenario reflecting current laws presents the more optimistic view of the future path of fiscal policy. Revenues would exceed noninterest spending under this scenario, but the federal government would continue to run net deficits when factoring in interest payments on debt. Under this scenario, the CBO argues that deficits would be small enough relative to the size of the economy for debt held by the public to decline slowly over time. Debt held

by the public would rise to 76 percent of GDP in 2014, declining gradually thereafter and falling below 50 percent of GDP by 2040, a level still greater than it was from 1957 through 2008 (Figure 2).

The alternative scenario—the one the CBO considers more likely because it reflects the policies that have prevailed in recent years—presents a more alarming picture of growth in federal debt. In this scenario, revenues do not rise much from where they are today, yet spending grows rapidly. Under these conditions, federal debt held by the public would rise sharply after 2011, exceeding its historical record of 109 percent of GDP by 2026. It would surpass 200 percent of GDP—nearly triple today's share of GDP—by the end of the 2030s, exceeding 250 percent of GDP after 2042.

The two scenarios represent optimistic and pessimistic alternatives from a range of possible outcomes, showing that the evolution of the federal government's

fiscal position depends largely on policy decisions that have yet to be made. Given the demands on fiscal resources coming from the aging population under existing laws, achieving a path toward fiscal balance will involve very difficult tradeoffs for fiscal policymakers.

### When Is Fiscal Policy Unsustainable?

How do we know when high debt levels are a problem? Economists look to a simple framework known as the government's intertemporal budget constraint (IBC). A budget constraint is a basic accounting identity that says an entity must pay for everything that it purchases, while "intertemporal" simply means "over time." The government's IBC says that the value of its outstanding debt must equal the present value of its expected future surpluses (that is, what financial markets believe the surpluses will be, calculated in today's dollars). The main lesson to draw from the IBC is that the sustainability of government finances hinges crucially on financial markets

**Figure 1: Projected Budget Gaps as a Percent of GDP**

CBO's Extended Baseline Scenario (Current Laws)



CBO's Alternative Baseline Scenario (Expected Laws)



Source: Congressional Budget Office's 2012 Long-Term Budget Outlook, June 2012



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expecting that the government can and will raise adequate future surpluses given its debt.

A budget that is widely out of balance—the expected path for debt is much larger than the likely path of future surpluses—is often described as “unsustainable.” That characterization reflects the expectation that financial markets will force an adjustment in fiscal policy before such debt levels could be reached. For example, investors may demand a higher interest rate on government debt to compensate for the apparent risk that the government may not be able to repay its loans, causing a sudden and sharp increase in the government’s financing costs that forces it to immediately produce a credible plan for reducing future deficits and therefore debt. Because financial market expectations are not constant, neither the IBC framework nor experience provide a quick answer to precisely what

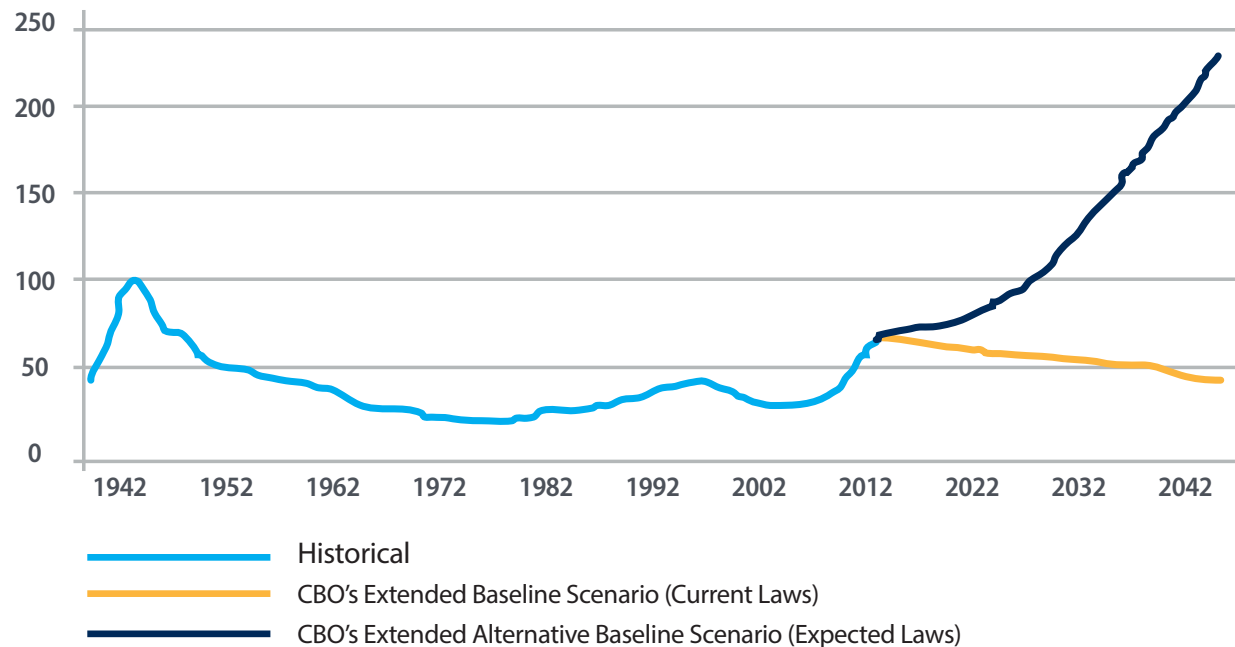
debt level is “sustainable.” The budget apparently can remain modestly out of balance for a long time. For example, debt levels grew slowly and steadily from 1970 to 1997 with no obvious concern from financial markets about the sources of future surpluses. This is less likely to occur when the imbalance between outstanding debt and the capacity for producing future surpluses is very large, as in the CBO’s alternative scenario. With debt levels predicted to grow much larger than GDP within two decades, many years of higher taxes would be required to produce enough surpluses to resolve the resulting imbalance. There is some level of debt that is high enough—although we don’t know how high that is—that generating the required amount of future surpluses required would be infeasible.

What we do know is that painful economic consequences can result from hitting that debt level. Economists have

called that point the “fiscal limit,” the point at which financial markets refuse to lend further to the government, and the government’s existing spending promises therefore cannot be funded. At least one of two events must occur at the fiscal limit: the government reduces its debt levels by defaulting, or the central bank takes action to reduce real debt levels.

The primary way a central bank can reduce the government’s real debt burden is by creating surprise inflation. Inflation allows all borrowers, the government included, to repay loans issued in nominal terms with cheaper dollars than the ones they borrowed. Roughly 90 percent of the federal government’s debt is issued in nominal terms at prices that reflect the market’s expectations for inflation over the life of the loan. A significant unanticipated jump in inflation therefore would produce a large transfer of wealth in the

Figure 2: Federal Debt Held by the Public as a Percent of GDP



**Note:** Projections begin with 2012, after 2042, debt held by public as a percent of GDP exceeds 250 percent under the alternative baseline scenario and continues falling gradually under the extended baseline scenario.

**Source:** Congressional Budget Office’s 2012 Long-Term Budget Outlook, June 5, 2012



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government's favor from its lenders. Historically, some central banks—though never the Federal Reserve—have produced inflation for the sole purpose of eroding the value of the government's debt.

Since inflation today is low and stable, and the Fed remains committed to its price stability objectives and operates independently from fiscal policy, the Fed's policies generally have little direct impact on the government's debt burden. This could change, however, if financial markets began to view hitting the fiscal limit as a possibility. That situation would inevitably invite monetary policymakers to intervene since inflation presents one possible source of revenue.

### Sources of Fiscal Inflation

Central banks often are called upon to intervene when the economy is facing severe challenges, as would likely be the case if a fiscal crisis arose in which markets forced the government to either default on its debt or enact some combination of severe spending cuts and tax increases. The first prospect, default, would wreak havoc on financial markets, and the second on economic activity. Thus, fiscal crisis almost certainly would jeopardize the Fed's mandate, leaving the Fed with a difficult tradeoff: the economic pain associated with fiscal crisis or the longer-term costs of central bank intervention to reduce debt levels.

Even the most conservative central banker might feel compelled to intervene in hopes of limiting a panic before it could grow more severe. Knowing that the central bank faces these incentives, the market's inflation expectations are liable to shift suddenly when debt levels are very large. Economist Eric Leeper at Indiana University argues that simply being near the fiscal limit is enough to enable an equilibrium in which markets expect the

central bank to accommodate the debt with inflation in the future. The public's expectation of higher inflation can push actual inflation higher before the central bank decides to create a single dollar.

The lesson from this literature is that when the public expects fiscal authorities to take action to satisfy the budget constraint while they still can, inflation need not rise. This is perhaps the situation the United States is in today: debt projections under the CBO's more likely scenario exceed historical records for most developed countries, yet markets appear perfectly willing to purchase government debt at low interest rates, indicating that markets believe fiscal imbalances will be resolved through fiscal policy rather than through inflation. However, as long as there is uncertainty over the feasibility of generating sufficient future surpluses, policymakers cannot be sure that market expectations will not shift unexpectedly to produce inflation.

### Encouraging Sustainable Policy

The Fed's best contribution to avoiding a fiscal crisis is to maintain its commitment to monetary policy objectives. Credibility may help maintain the expectation that the central bank will not readily step in to erode the debt through inflation. However, credibility may not be sufficient. When the expected path for fiscal policy does not by itself achieve balance in the IBC over time, the price level is the only other factor that can adjust to provide it. Fiscal policy that does not contain the debt may lead to inflation even if the central bank has the best intentions.

Even if inflation were to spike, it might not be effective at reducing debt levels. Most government debt is priced in nominal terms, so while inflation erodes the value of existing nominal debt, it increases the financing costs for newly issued debt. This effect would be greater for governments, such as the

United States, that have a short average maturity of government debt and therefore need to reissue it often.

For these and other reasons, the solution to current fiscal imbalances must ultimately come from fiscal authorities. Making these difficult decisions in a planned manner before a crisis arises almost certainly would entail fewer costs than if the decisions were forced by financial markets or by other events. These events include the so-called "fiscal cliff" that is scheduled to arise later this year as dramatic deficit reductions come into place under current law and as the result of automatic budget cuts built into the agreement to raise the federal debt ceiling in 2011 as a way to provide incentive to Congress to produce debt-reduction legislation.

For the time being, markets appear to believe that fiscal policymakers will put future debt, spending, and tax levels on a more sustainable path. If they are correct, our nation will not have to experience the significant economic challenges of a world in which those expectations have changed.

### For full article and endnotes:

[www.richmondfed.org/publications/research/economic\\_brief/2012/eb\\_12-07.cfm](http://www.richmondfed.org/publications/research/economic_brief/2012/eb_12-07.cfm)



## Snacks

To access teaching materials that correlate with the featured article excerpt, check out the following activities designed for middle and high school students by following these links:

[The Monetary and Fiscal Policy Two Step Deficit and Debt Direction Connection](#)

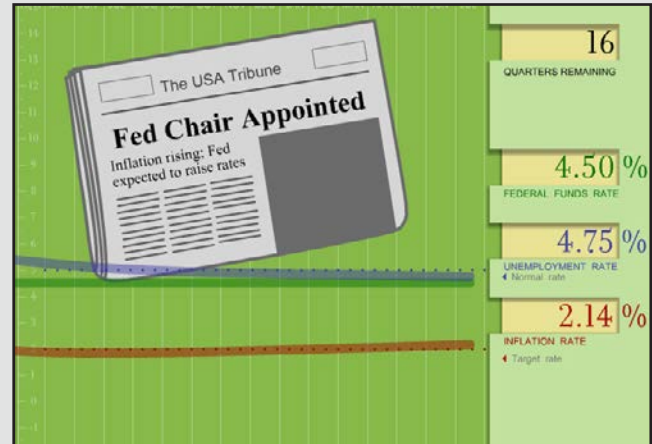


# Beyond the Textbook

Consider using the following resources to further reinforce the differences between monetary and fiscal policy.

## The Fed Chairman Game

As a follow up to this issue's content focus and the interactive student activities, consider taking your students to a computer lab to play the Fed Chairman Game courtesy of the Federal Reserve Bank of San Francisco, <http://www.frbsf.org/education/activities/chairman/index.html>



## Budget Hero

Have your students try an online budget simulation called Budget Hero published by Minnesota Public Radio, [http://minnesota.publicradio.org/projects/2008/05/budget\\_hero/](http://minnesota.publicradio.org/projects/2008/05/budget_hero/)

