



## Is U.S. Federal Debt Too Large?

*Pedro Amaral*

U.S. federal debt has grown to levels that have not been seen since the aftermath of the Second World War. Many economists argue there is plenty to be worried about when it comes to what this implies for the U.S. economy. This *Economic Commentary* explains that recent increases in debt are typical of the growth seen historically in times of crisis, but entitlement growth is a different story. Unchecked, it will impair our ability to respond to crises and economic downturns in the future.

The recent surge in federal debt has been assailed as a recipe for economic disaster by many people. Critics claim that it will saddle future generations of Americans with higher taxes.

However, while appropriation spending has grown no more than it typically does in times of economic crisis, entitlements have been growing steadily and continuously. In fact, entitlements are more to blame for the deficit than the temporary measures used to combat the recession. If entitlements grow as projected, they will seriously impair our ability to respond to crises and economic downturns in the future. This *Commentary* argues that when it comes to the federal budget, what we have to worry about is growth in entitlements.

Why is the deficit (and the resulting debt) so large now? For one, tax receipts have fallen. Receipts will amount to only 15 percent of GDP in 2010, a post-World War II low, reflecting the severity of this downturn. But more to the point, entitlement spending has quadrupled as a fraction of GDP since the early 1960s, and it is projected to continue growing.

This increase has left the government with very little maneuvering room to react to a recession. Just as monetary policy choices have been restricted by a zero interest rate bound, recent fiscal policy has been constrained by entitlement spending.

### What Is Government Debt?

Before we explore the consequences of the growing federal government debt, it is important to understand just what “debt” means. When the federal government’s expenditures are larger than its revenues, it must borrow funds to finance the resulting deficit. It does so by issuing debt. While federal debt comes in many forms such as treasury bills, bonds, notes, and TIPS, at a basic level these are all the same: IOUs issued by the government, which promise repayment of the principal along with some interest. Every fiscal year, enough new debt must be issued to cover not only the primary deficit (revenues minus expenditures that year), but also maturing debt and interest payments on existing debt.

There are two forms of government debt. Debt held by the public includes all federal debt held by individuals, corporations, state or local governments, foreign governments, and other entities outside the U.S. government including the Federal Reserve Banks. The other form of debt is known as intragovernmental debt, which is mostly debt in the hands of government trusts such as Social Security and Medicare. This is money the government owes itself. For our purposes, we will define debt as debt held by the public.

The U.S. federal debt relative to the economy’s size was at its highest during the Second World War, when it shot past 100 percent of GDP. After the war’s end, federal debt steadily decreased to around 25 percent by the mid-seventies, only to take off again. While there was some reprieve in the late

1990s, the debt rose to 36 percent of GDP in 2007 and is projected to hit 63 percent in 2010, according to the Office of Management and Budget (OMB). While this is largely a consequence of the economic downturn and the government's subsequent response, growing entitlement spending is also a major culprit.

### The Evolution of Outlay Components

The U.S. economy is slowly emerging from a deep recession. Economic theory tells us that issuing new debt is a useful buffer against large, temporary, adverse shocks, like the one we just experienced. The surge in debt has come from two different sources. One is related to the economy's position in the business cycle. The other stems from longer-term movements in entitlements.

To understand this, it is helpful to split the federal government's outlays into three components—its largest entitlements (Social Security, Medicare, and Medicaid), net interest payments, and the remainder (which, for simplicity, we will call appropriations even though it includes some minor mandatory spending). The recent, temporary increase in appropriations is comparable to others of the past. However, as the result of a continuous, long-term growth trend, entitlement spending is now at a historic high.

To illustrate this, figure 1 uses data from the OMB to plot appropriation and entitlement outlays as a fraction of GDP, together with their long-term trends. Both components tend to increase during recessions (the NBER recession dates are indicated by the shaded bars), and the most recent one is no exception. Appropriations are currently 10 percent above their trend, which in historical terms is high, but no higher, as a share of GDP, than they were in 1965, for example. Moreover, they are projected to come back down to 10 percent of GDP by 2014, at which time entitlements and appropriations will be roughly of equal size, something unprecedented.

### Why Does All This Matter?

Many people are asking: "Is the current debt level too high?" To answer this question, we must first understand what "too high" means. Instead of defining a particular threshold above which the debt to GDP ratio is deemed too large (and about which economists cannot agree), it is more helpful to define a country's debt as excessive if it adversely affects the economy in one or more of the following three ways.

First, it is certainly the case that the economy will suffer if new debt cannot be placed at "reasonable" interest rates. Take, for example, the recent case of Greece, which saw the yield on its 10-year bonds increase from around 4.5 percent in November of last year to a peak of 10 percent in late April this year. Such increases seriously impair a government's ability to finance future expenditures, and while some may see this as a disciplining tool, it is hardly convenient to have this happen during a severe downturn. Moreover, as economists Carmen Reinhart and Kenneth

Rogoff recently pointed out, such increases in the interest rate premium may force the government to tighten fiscal policy for a considerable period of time, increasing taxes to generate revenues, but sacrificing future growth.

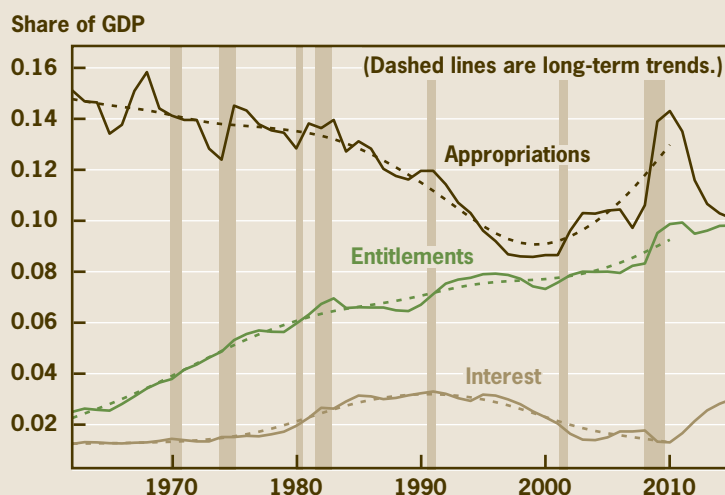
Secondly, as the public and private sector compete for funds, a country's debt might be deemed too large if it leads to increases in the interest rates at which private businesses finance themselves, thus crowding out private investment. If the government uses the funds for consumption rather than investment expenditures, overall national investment is reduced, leading, again, to lower future growth.

Finally, one could also say the debt level is too high if instead of leading people to expect the government to raise taxes in the future, it leads them to expect that the Federal Reserve will monetize the debt, causing inflation. That is, the Federal Reserve would buy and then retire the debt.

Is it rational to expect such a thing? Well, it might be. Economists Tom Sargent and Neil Wallace famously pointed out a way in which it could happen. First, they said to consider situations in which a condition called fiscal dominance is in force. With fiscal dominance, the fiscal authority independently sets the future budget path, and the monetary authority then has to adjust seigniorage to finance any difference between planned future revenues from bond sales and the public demand for these bonds. Sargent and Wallace then noted that if interest rates on government bonds were larger than the growth rate of the economy for a long enough period of time, the Federal Reserve might lose control of the inflation rate.

Clearly, as far as the U.S. is concerned, this condition on interest rates is at odds with empirical evidence, and the Federal Reserve's record is one of independence. However, even if such expectations are not rational, they can become

Figure 1. Outlays as a Share of GDP



Notes: Long-term trends (dashed lines) were obtained using a Hodrick-Prescott filter. Shaded bars indicate recessions. Source: Office of Management and Budget.

self-fulfilling. This is particularly true in the current context, where the amount of excess reserves is so large that banks can easily accommodate any extra demand for deposits coming from households that believe prices will rise.

Are any of these three mechanisms at work in the U.S. economy? The short answer is “not yet.” The U.S. government has been able to place further debt at interest rates below pre-crisis levels, and government bond yields are low by historical standards. Moreover, at the height of the crisis these yields were even lower, meaning investors judge U.S. debt to be one of the safest assets available in rough economic times. However, as the economy recovers and the Fed eventually releases its strong grip on short-term rates, interest rates will rise. When this happens, in addition to the entitlement problem, the government could face a debt-servicing problem reminiscent of the late 1980s, when economists were concerned with exploding interest payments. As can be seen in figure 1, net interest outlays are projected to double by 2015.

Second, there is no evidence that crowding-out is currently a problem. Corporate borrowing rates remain low, and there has been a recent surge in corporate bond issuance. Although private investment has decreased considerably in the recent recession, most economists would argue that this was mainly due to liquidity and information asymmetry problems, not because interest rates were unusually high. The inevitable increase in interest rates will also increase the possibility of crowding-out. Everything else equal, the closer the economy is to full employment and the fewer resources that are idle, the more severe the crowding-out. Coming out of a deep recession, it is less likely that this effect is significant, but only as the economy recovers will we be able to ascertain its full extent.

Finally, regarding inflation expectations, they have, so far, remained well-anchored at historically low levels, as Tim Bianco and Joe Haubrich argue in a recent *Economic Commentary* (2010).

What about the origin of all the funds the U.S. government has been borrowing? One issue that has received some attention is foreign holdings of U.S. public debt. The fraction held by foreign entities ballooned from 5 percent in 1970 to roughly half today. There are at least two proximate causes for this change. One is that, as an asset, the U.S. public debt is attractive abroad. The other is that the U.S. private sector's savings rate has decreased substantially in the aforementioned period.

The real issue here is not that foreign borrowing, either by the government or the private sector, is inherently bad. The problem is that it is financing current consumption rather than investment. This is, of course, troubling for future Americans who will eventually have to pay for this (and even then it is a problem only if future growth is not sufficiently high), but it is far from implying any loss in sovereignty as some argue.

## The Outlook on the Debt

While the debt level may not yet be excessive, there are some indications that more sobering times might be ahead. The key issue is keeping the primary deficit, and entitlement spending in particular, in check. The Congressional Budget Office (CBO) estimates that entitlement spending as a fraction of GDP will jump from 10 percent in 2009 to 16 percent in 2035 and over 23 percent by 2080 if current policies remain unchanged, with Medicare and Medicaid accounting for the bulk of the increase. Inevitable increases in interest rates and the possibility of crowding out further complicate matters.

But there are reasons to think the worst-case scenario can be avoided. The recent passage of health care reform demonstrates a political awareness about the need to tackle entitlement spending. According to the CBO, the legislation will result in a net reduction in the federal deficit of \$143 billion between 2010 and 2019. Two caveats are in order: First, this represents accumulated savings of only 0.5 percent of GDP, and second, this estimate is predicated on some questionable assumptions on the future behavior of the U.S. economy and is subject to enormous uncertainty going forward.

Hopefully, though, this is a harbinger of a broader, and much needed, entitlement reform. Moreover, when faced with similar situations, the U.S. government has historically cut primary deficit spending in response to increases in the debt to GDP ratio, according to work by Henning Bohn. Maybe, in this case, past behavior will turn out to be a good indicator of future actions.

## Recommended Readings

“The Behavior of the U.S. Public Debt and Deficits,” by Henning Bohn. *Quarterly Journal of Economics* (1998).

“The Debt Burden: What You Don't See,” by John Carlson. Federal Reserve Bank of Cleveland, *Economic Commentary* (May 1985).

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“Inflation: Noise, Risk, and Expectations,” by Timothy Bianco and Joseph G. Haubrich. Federal Reserve Bank of Cleveland, *Economic Commentary* (no. 2010-5, June 28, 2010).

*This Time Is Different: Eight Centuries of Financial Folly*, by Carmen M. Reinhart and Kenneth S. Rogoff. Princeton University Press. 2009.

“Some Unpleasant Monetarist Arithmetic,” by Thomas J. Sargent and Neil Wallace. Federal Reserve Bank of Minneapolis, *Quarterly Review* (Fall 1981).

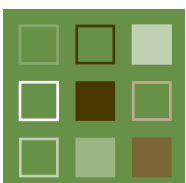


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