Deficit hysteria redux?*

Why we should stop worrying about U.S. government deficits

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Introduction

When it comes to federal budget deficits there appear to be only two respectable positions. The first is the "deficit hawk" position: deficits are never acceptable because they lead to complete crowding-out; that is, every dollar of government spending is offset by a dollar of private spending. Indeed, for the long run it is even worse, because government debt will have to be repaid in the future, which means higher taxes and less private spending. Hence, the stimulus package did not save any jobs and will actually cost us jobs later. This is a minority view among economists and policymakers, although it remains popular among some Republicans who have a political interest in denying that the Democrats and the Obama administration have done anything right.

The second view is the "deficit dove" position: deficits are probably acceptable for the short run, and perhaps even necessary to save the economy from another Great Depression. However, the benefits we receive today are partially offset by costs in the future, when we will need to tighten our belts to repay the debt. Even President Obama has argued that today's deficits will impose a heavy burden on our grandchildren, and warned that "we cannot continue to borrow against our children's future" (February 1, 2010). This is why he is already proposing budget freezes for the year after next. Other deficit doves are somewhat more tolerant of near-term budget shortfalls than the president, but they still worry about long-term pain, citing the imminent retirement of baby boomers and concomitant increase in "entitlement" spending. Thus, it is all the more necessary to get the budget "under control" as quickly as possible.

Finally, a new and influential study by Carmen Reinhart and Kenneth Rogoff (2009a) purports to show that economic growth slows dramatically—by at least one percentage point—once the gross debt–to-GDP ratio crosses the threshold of 90 percent. President Obama's proposed budget will soon cross that line, with the debt-to-GDP ratio reaching 103 percent by 2015.[1] That would drop per capita GDP growth in the United States by over half from a long-run potential of 2.5 percent per year—"the difference between a strong economy that can project global power and a stagnant, ossified society" (Boskin 2010). At that pace, living standards would rise so slowly that improvement would barely be noticed—good-bye, American dream.

In this brief, we present a third view that receives virtually no media attention. We argue that today's deficits do not burden future generations with debt that must be repaid, nor do they crowd out private spending now or in the future. The Reinhart and Rogoff findings and both of the conventional views cannot be applied to the situation of the United States, or to any other nation that operates with a sovereign currency (that is, a national currency with a floating exchange rate, and with no promise to convert at a fixed exchange rate to another currency).

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Our arguments are not really new—they can be found in numerous Levy Institute publications over the past two decades. Nor is the deficit hysteria new; it returns predictably on cue, like an undead monster in a horror flick, to constrain rational policy when a downturn causes the deficit to grow. In the current case, however, the stakes are higher than they have been since the 1930s. Our economy faces such strong headwinds that it requires a fiscal expansion that could result in even larger and perhaps more prolonged deficits than those now projected. Thus, it is more important than ever to explain why sustained budget deficits do not threaten our future.

Deficit and debt facts

We first present some data on federal budget deficits and debt because there is so much misinformation surrounding these measures. Budget deficits add to the outstanding stock of federal government debt. These data are often presented relative to the size of GDP, helping to scale the nominal numbers and provide some perspective. Unfortunately, this approach is often not pursued by scaremongers who talk of "tens of trillions of dollars of unfunded entitlements" when the baby boomers retire, since the figure is meaningless unless it is compared to the sum of GDP over the same period.

Figure 1 shows federal government debt since 1943 in terms of debt held by the public and gross debt. The scaremongers use the (larger) gross debt number, which is highly misleading because it includes the debt held in federal government accounts: debt the government owes itself, including securities held in civil service and military retirement funds, Social Security, Medicare, and unemployment and highway trust funds. For example, the Social Security program has run large budget surpluses since the early 1980s that are used to accumulate Treasury debt. The program will sell the bonds back to the Treasury when revenues are less than benefit payments.[2] Really, this represents internal accounting, a reminder that Social Security runs surpluses today but will run deficits in the future. The relevant debt figure is the amount of Treasuries held by the public.[3]

During World War II, the government's deficit reached 25 percent of GDP and raised the publicly held debt ratio to more than 100 percent—much higher than the 2015 forecast of 73 percent. Further, in spite of warnings by Reinhart and Rogoff (2009a), U.S. economic growth in the postwar "golden age" was robust. The debt ratio declined rather rapidly due to growth that raised the denominator of the debt ratio rather than to budget surpluses and debt retirement (although there were many small annual surpluses, as discussed below). By contrast, slower economic growth after 1973 was accompanied by budget deficits, leading to slow growth of the debt ratio, until the economic boom and budget surpluses during the Clinton years again lowered the ratio.

When federal government debt is held by the public, the government liability is exactly offset by nongovernment sector assets, and interest payments by the government generate income for the nongovernment sector. Even on the orthodox claim that today's deficits lead to debt that must be retired later, those future higher taxes that are said to be required to service and pay off tomorrow's debt represent "redistribution" from taxpayers to bondholders. This might be undesirable (perhaps bondholders are wealthier than taxpayers), but the "redistribution" takes place at the time the payment is made. While it is often claimed that deficit spending today burdens our grandchildren, in reality we leave them with government bonds that represent net financial assets and wealth. If the decision is to raise taxes and retire the bonds in, say, 2050, the extra taxes are matched by payments made directly to bondholders in 2050. (We deal with foreign holdings of government bonds below.)

Although this decision to raise taxes in an effort to retire the debt burdens taxpayers in 2050, it is not a necessary decision. If taxes are not increased later, we simply leave future generations with Treasury debt that is a net asset in their portfolios, and any payment of interest provides net income to bondholders. Obviously, it will be up to future generations to decide whether they should raise taxes by an amount equal to those interest payments or by a greater amount to attempt to retire the debt. Even if we want to, we cannot put those burdens on future generations because we cannot dictate the fiscal stance to be taken in 2050. In short, our deficits today do not necessarily commit future generations to raising taxes.

Moreover, future generations would find that their attempts to raise taxes (or slash spending) to achieve budget surpluses will fail because the budgetary outcome is mostly "endogenous" or nondiscretionary. Fiscal austerity slows the economy to the point that tax revenues fall and spending on the social safety net rises, thus preventing budget surpluses. In other words, even if future generations decide to raise taxes and burden themselves, they probably will not be able to retire the leftover Treasury debt because their actions will not ensure a budget surplus large enough to run down the debt. Recall President Clinton's promise to run surpluses for 15 years in order to retire all the outstanding debt—which failed because the fiscal drag caused a recession that restored budget deficits. Thus, our grandkids might as well enjoy the Treasuries as net wealth in their portfolios and avoid the pain of higher taxes.

That response—keeping the inherited debt—is what generations of Americans have done. There has been only one brief period in U.S. history when a generation actually imposed sufficient taxes to retire all the federal government debt: from 1835 to 1837, during Andrew Jackson's second presidential term. All other generations have adopted a much more prudent approach by growing the economy and reducing the debt ratio rather than by raising taxes or slashing spending.

The discussion so far has assumed that Treasury debt is held domestically; however, much of the current hand-wringing about deficits and debt concerns foreign ownership. Figure 2 shows foreign ownership of federal government debt as a percent of all publicly held debt. The percent held by foreigners has indeed been climbing—from less than 20 percent through the mid-1990s to nearly 50 percent today. Most growth was by "official" holders such as foreign treasuries or central banks, which now account for more than a third of all publicly held federal debt. This is supposed to represent ceding some measure of control of the U.S. government's purse strings to foreign governments. Indeed, it is frequently claimed that China is responsible for "financing" a huge portion of our federal government deficit, and that if it suddenly stopped lending, the United States might be unable to finance its budget deficits.

The U.S. current account balance largely reflects the country's trade deficit, fluctuating in the range of minus 0.5 to minus 3 percent of GDP in the 1980–99 period (Figure 2). After 1999, the balance plummeted close to minus 6 percent of GDP before turning around during the global economic downturn. However, it remains close to minus 3 percent of GDP today. Note that the rapid growth of foreign holdings of Treasuries coincided with the rapid downturn of the current account balance—a point we return to below.

Financial sector holdings of Treasuries had been on a downward trend until the current global crisis, when a run to liquidity led financial institutions to increase purchases. Financial sector holdings act like a buffer: when foreign demand is strong (weak), U.S. financial institutions reduce (increase) their share. In recent months the current account deficit has fallen dramatically and reduced the flow of dollars abroad. Of course, new Treasury issues have grown along with the rising budget deficit, and the holdings of U.S. financial

institution initially increased in the run to liquidity during the crisis. Foreign official holdings have also continued to climb, perhaps because the U.S. dollar is still seen as a refuge and nations want to accumulate dollar reserves to protect their currencies. This is the other side of the liquidity-crisis coin. If there is fear of a run to liquidity, exchange rates of countries thought to be riskier than the United States face depreciation. It is rational for any country trying to peg its currency to the dollar to increase its official holdings in response to a global financial crisis.

Figure 3 shows the foreign holdings of U.S. Treasuries. While most public discussion has focused on China, Japanese holdings have been comparable, and even surpassed those of China in December 2009. As discussed above, there is a link between current account deficits and foreign accumulation of U.S. Treasuries. From the point of view of holders, current account surpluses allow them to accumulate dollar-denominated assets. In the first instance, a trade surplus leads to dollar reserve credits (cash plus credits to reserve accounts at the Fed). Since these credits earn a low interest rate (indeed, until recently they earned no interest), they are traded for U.S. Treasuries and other asset earnings. Thus, it is not surprising to find a link among U.S. trade deficits, foreign trade surpluses, and foreign accumulation of U.S. Treasuries.

While this is usually presented as foreign “lending” to “finance” the U.S. budget deficit, one could just as well see the U.S. current account deficit as the source of foreign current account surpluses in the form of U.S. Treasuries. Indeed, as discussed above, a trade surplus against the U.S. allows a nation to accumulate dollar reserves at the Fed. These can then be traded for U.S. Treasuries, an operation that is equivalent to transferring funds from a “checking account” (reserves) at the Fed to a “savings account” (Treasuries) at the Fed. And when interest is “paid” on Treasuries, this is just a credit of dollars to that “savings account”. In a sense, it is the willingness of the United States to simultaneously run trade and government budget deficits that provides other countries the wherewithal to “finance” the accumulation of Treasuries. It is highly misleading to view this as “lending” to the U.S. government—as if the dollars spent by the federal government originate overseas.

Obviously, there must be willingness on all sides for this to occur, and most public discussion ignores the fact that China’s eagerness to run a trade surplus with the United States is linked to its hunger for dollar assets. At the same time, the U.S. budget deficit helps to generate domestic income that allows private consumption—by fueling imports and providing income for foreigners to accumulate dollar savings, even while generating Treasuries that are accumulated by foreigners. In other words, these are not independent decisions. It makes no sense to talk of China “lending” dollars to the United States without also taking into account China’s desire for net exports. Indeed, the following matters are all linked (possibly in complex ways): the willingness of China to produce for export and to accumulate dollar-denominated assets, the shortfall of Chinese domestic demand that allows the country to run a trade surplus, the willingness of Americans to buy foreign products, the high level of U.S. aggregate demand that results in a trade deficit, and the factors behind a U.S. government budget deficit. And, of course, it is even more complicated than this, since other nations, as well as global demand, are also involved.

While there are claims that China might suddenly decide against further accumulations of U.S. Treasuries, it is likely that many other relationships would also need to change to enable that to happen. For example, China might choose to accumulate euros, but there is no equivalent to the U.S. Treasury in Euroland. China could accumulate the euro-denominated debt of individual governments—say, Greece—but this debt has different risk ratings and insufficient volume to satisfy China. Further, Euroland taken as a whole (especially Germany, its strongest member) constrains domestic demand in order to run trade

surpluses. In other words, Euroland does not represent a huge net demand for global exports. If the United States is a primary market for China's excess output but euro assets are preferred over dollar assets, then exchange rate adjustment between the dollar and the euro could destroy China's market. Hence, it is not likely that China would continue to export to the US but would accumulate euro assets rather than dollars.

We are not arguing that the current situation will go on forever, although we do believe it will persist much longer than presumed by most commentators. We are instead pointing out that changes are complex, and that there are strong incentives against the sort of simple, abrupt, and dramatic shifts posited as likely scenarios. We expect that the complex linkages between balance sheets and actions will ensure that transitions are moderate and slow.

The final topic to be addressed in this section concerns interest rates (yields) and the price of Treasuries. Figure 4 shows (daily) yields on Treasuries of different maturities. Fearing inflation and possibly attempting to quell the real estate bubble, the Fed began to raise interest rates in 2004. Note that lending in the Fed funds market or purchasing federal government debt of shortest maturity represents nearly perfect substitutes from the point of view of banks. Hence, raising the Fed funds target leads to an immediate and nearly equivalent increase in yield for the shortest maturity. Determining other rates is more complex, as shorter maturities track the Fed funds rate more closely, while longer maturities may not move in tandem with the target rate.

What we see in Figure 4 is a shocking convergence of yields across the maturity structure when the Fed pushed overnight interest rates toward 5 percent. If the Fed really was trying to increase mortgage and other longer-term rates, the market completely defeated its effort. When the Fed tightened, the 10-year bond rate, which usually tracks 30-year fixed mortgage rates fairly well, moved only 100 basis points. While many have blamed the Fed for the real estate bubble because it supposedly kept rates too low, the figure shows that the Fed raised short-term interest rates sharply but their action did not result in higher long-term rates. When the crisis hit, the Fed quickly lowered short-term interest rates, but long-term rates refused to decline by much. This reflects the "run to liquidity" that is a feature of all financial crises. (Long-term rates finally did begin to decline at the beginning of 2009, before turning upward once again.) Even as short-term rates approached the lower bound of zero, long-term rates remained high, resulting in wide spreads.

Figure 5 shows a longer time frame, with the spread between one-month T-bills and long-maturity bonds widening to approximately 400 basis points in 1993, mid-2003, and today. Also shown in this figure is government debt in terms of both gross and public Treasury debt as a percent of GDP. There is some tendency for spreads to widen when the outstanding debt stock is growing relative to GDP. To be sure, the correlation is not tight, but it is suggestive. It certainly appears that the decision in early 2006 to reissue 30-year debt might have been a mistake, since recent issues of longer-term debt have been met by stubbornly high yields. (In a later section we discuss how the Treasury can easily avoid pressuring longer term rates by always sticking to short-term maturities.)

How sustainable are budget deficits?

President Obama has warned that projected budget deficits could leave our grandchildren with a "mountain of debt" unless we bring the budget under control. Gregory Mankiw (2010), who reflects the deficit-dove position, argues that, while "a budget deficit, even a large one, is called for" at times, the trouble is that Obama's budget "fails to return the

federal government to manageable budget deficits, even as the wars wind down and the economy recovers from the recession." He goes on to argue that "the president seems to understand that the fiscal plan presented in his budget is not sustainable," which is why Obama has created a commission to come up with a way to "stabilize the debt-to-GDP ratio at an acceptable level once the economy recovers."

Catherine Rampell (2010) goes further, arguing that current incentives lead myopic politicians to "see fiscal profligacy as a prerequisite for re-election," and that only by properly aligning "the interests of the country with those of the politicians who are guiding it" can we put some spine into budgeting. A commission will not be enough: Congress has imposed various rules on itself, such as pay-go, Gramm-Rudman, and the Byrd Rule, and none were able to prevent unsustainable deficits. Hence, Rampell proposes to "delegate fiscal policy—that is, taxing and spending—to a separate technocratic body, which can rely on legal authority rather than popularity." The Fed might serve as a model—a depoliticized, independent body not subject to democratic pressures. Or, perhaps even better, says Rampell, directly change the incentives of politicians so that they would be "barred from running for re-election, and even thrown in jail" if they "overspend."

Obviously, all such critiques are based on the supposition that projected future deficits—if not those we already have today—are too large to be sustained. Various indicators have been proposed: the debt-to-GDP ratio (Reinhart and Rogoff suggest a limit below 90 percent, while the Maastricht criteria impose 60 percent) or ensuring that the government debt service does not grow faster than GDP.

We can identify three financial positions related to borrowing by households or firms—what Hyman P. Minsky called hedge, speculative, and Ponzi. A hedge position can cover interest and principal payments out of income flows. A speculative position can cover interest payments only, so the principal is rolled over. A Ponzi position must "capitalize" interest, meaning that the unit must borrow just to pay interest. Some want to extend such a classification to government. If we define government "income" as tax revenue, then a speculative position would be one in which tax revenue covers all current spending, including interest payments, but debt cannot be retired—the definition of a balanced budget. However, new debt could be issued each year, so long as additional interest payments plus additional government spending increase only as fast as government tax revenue "income." In this way, government could use its capital account to issue debt and "pay for" investment-type spending.

This is a common "deficit-dove" proposal, whereby government acts like a firm by keeping a separate capital account. Here, the "sustainability" condition would depend on the relation between the interest rate paid and the growth rate of tax revenue and other spending but would allow the government debt to grow at the growth rate of GDP. Conceivably, the debt-to-GDP ratio could even rise for some time if taxes grew faster than GDP (although taxes would eventually reach 100 percent of GDP--not a sustainable trend). For an infinitely-lived economic unit, a speculative position would appear to be safe, although rising interest rates or a fall in tax revenues and increased spending on the social safety net in a recession could turn a speculative position into a Ponzi position by producing large deficits. As Mankiw warns, current budget projections show a rising debt-to-GDP ratio and perhaps unrealistically optimistic forecasts of economic growth. Further, should the economy begin to recover, it is almost certain that the Fed would begin to raise interest rates—increasing federal spending on interest. Hence, it looks like Ponzi finance is a likely outcome of the current fiscal stance. In that case, government would "borrow" in order to finance at least some of its interest payments, and would be unable to repay its debt.

In the next section we examine whether it is appropriate to apply such classifications to a sovereign government. In short, is there anything wrong with "Ponzi finance" by the U.S. government? We will conclude that these classifications of financial positions do not apply to the sovereign issuer of the currency. In short, we argue that government is not like a household or firm.

Is a government like a household or a firm?

Discussion of government budget deficits often begins with an analogy to household budgets: "no household can continually spend more than its income, and neither can the federal government." On the surface that might appear sensible; dig deeper, and it makes no sense at all. A sovereign government bears no obvious resemblance to a household or a firm.

First of all, the U.S. federal government is 221 years old, if we date its birth to the adoption of the Constitution. Arguably, that is about as good a date as we can find, since the Constitution established a common market in the United States, forbade states from interfering with interstate trade (for example, through taxation), gave the federal government the power to levy and collect taxes, and reserved the power to create money, regulate its value, and fix standards of weight and measurement—from whence our money of account, the dollar, comes from—for the federal government.

No head of household has such a long lifespan. This might appear irrelevant, but it is not. When you die, your debts and assets need to be assumed and resolved. Firms can be long lived, but when they go out of business or are acquired, their debts are also assumed or resolved. However, there is no "day of reckoning" or final piper-paying date for the sovereign government. True, not all governments last forever, and sometimes new governments will choose to honor the debts of "deceased" governments. But honoring debts is a choice, since a sovereign government is, well, sovereign.

Note also that in spite of all the analogies drawn between governments and households, and in concert with the statement that debts cannot be allowed to grow forever, corporations that are going concerns can and do allow their outstanding debt to grow year-over-year, with no final retirement of debt unless the firm goes out of business. In other words, long-lived firms do indeed spend more than their incomes on a continuous basis. The key, of course, is that they attempt to balance their current account and keep a separate capital account. So long as firms can service their debt, the debt can always be rolled over rather than retired. This is why some deficit doves advocate capital accounts for government. We will make a stronger argument: even the infinitely-lived corporation is financially constrained, while the sovereign, currency-issuing government is not subject to the same constraints.

Second-and far more important--households and firms do not have the power to levy taxes, issue currency, or demand that taxes be paid in the currency they issue. Rather, households and firms are users of the currency issued by a sovereign government. Both households and firms do issue liabilities, and some of these liabilities can to varying degrees fulfill some functions of "money." For example, banks issue demand deposits, which are the banks' liability that can be used by households or firms a medium of exchange, a means of debt retirement, or a store of value. However, all of these private "money things" (bank deposits or other private IOUs) are denominated in dollars, and only the sovereign government of the United States has the constitutionally provided right to fix standards of weight and measurement—that is, to name the dollar money of account.

There is no need to interpret this too narrowly. It is clear that U.S. residents can voluntarily choose to use foreign currencies or even idiosyncratic measures of worth in transactions (local currency units such as the Berkshares in the Northeast). But when all is said and done, the ability of the U.S. government to impose dollar taxes and other obligations (e.g., fees and fines), and to require that those taxes and obligations be paid in dollars, gives priority to the use of dollars (and to the denomination of most transactions and obligations in dollars) within its sovereign territories that no other currency enjoys.

Third, with one brief exception the federal government has been in debt every year since 1776. For the first and only time in U.S. history, the public debt was retired in January 1835 and a budget surplus maintained for the next two years, in order to accumulate what President Jackson's Treasury secretary, Levi Woodbury, called "a fund to meet future deficits." In 1837, the economy collapsed into a deep depression and drove the budget into deficit, and the federal government has been in debt ever since.

There have been seven periods of substantial budget surpluses and debt reductions since 1776. The national debt fell by 29 percent from 1817 to 1821, and was eliminated in 1835 (under President Jackson); it fell by 59 percent from 1852 to 1857, by 27 percent from 1867 to 1873, by more than 50 percent from 1880 to 1893, and by about a third from 1920 to 1930. Of course, the last time we ran a budget surplus was during President Clinton's second term.

Has any household been able to run budget deficits for approximately 190 out of the past 230-odd years and accumulate debt virtually nonstop since 1837? As discussed above, there are firms that grow their debt year-over-year, so it is conceivable that one might have a record of "profligate" spending to match that of the federal government. Still, the claim might be that firms go into debt to increase productive capacity and thus profitability, while government spending is largely "consumption." This seems to be why the analogy is usually made between government and household budgets. But even if it is true that households do not run persistent budget deficits for years on end, it is empirically true that the U.S. government does.

Fourth, the United States has also experienced six periods of depression that began in 1819, 1837, 1857, 1873, 1893, and 1929. Comparing these dates with the periods of budget surpluses, one finds that every significant reduction of the outstanding debt, with the exception of the Clinton surpluses, has been followed by a depression, and that every depression has been preceded by significant debt reduction. The Clinton surpluses were followed by the Bush recession that was ended by a speculative, private-debt fueled euphoria, and was followed in turn by our current economic collapse. The jury is still out on whether we might yet suffer another Great Depression. While we cannot rule out coincidences, seven periods of surplus followed by six and a half depressions (with some possibility for making it a perfect seven) should raise eyebrows. And, as we show below, our less serious downturns in the postwar period have almost always been preceded by reductions of federal budget deficits. This brings us to an obvious point: the federal government is big, and any movement in its budget position has a big impact on the economy, which is the subject of the next section. As we will discuss, the government's budget plays an important balancing role in the economy—filling demand gaps that allow the nongovernment sectors to achieve the surplus that they normally desire. For this reason, trying to operate the federal government's budget as if it were a household that normally wants to save has a disastrous impact on the economy.

Finally, the most important point is that the U.S. federal government is the sole issuer of the dollar, which is always accepted in payment. Government actually spends by crediting

bank deposits (and simultaneously crediting the reserves of banks)—as such, it can never run out of dollars. These topics are explored in detail below. But the point is that no household (or firm) is able to spend by crediting bank deposits and reserves or by issuing currency. Households and firms can spend by going into debt, but the debt must be serviced with another debt—usually a bank debt. A sovereign government makes payments (including interest payments on its debt) by issuing its own nonconvertible IOU. This is why we ultimately conclude that the notion of "Ponzi finance" does not apply to government because, unlike private debtors, it can always service its debt by crediting accounts. This is a key to understanding why perpetual budget deficits are "sustainable" in the conventional sense of that term.

We realize that distinguishing between a sovereign government and a household does not put to rest all deficit fears. But since this analogy is invoked so often, it is useful to lay out some of the important differences. When someone claims that government budget deficits are unsustainable and that the government must eventually pay back all of that debt, ask him why the U.S. government has managed to avoid retiring debt since 1837—is 173 years long enough to establish a "sustainable" pattern? Ask whether we might be able to go another 173 years without the government going "bankrupt," even though it will run deficits in most years. We do admit that historical analysis is not sufficient, since the United States today is not like the country it was in 1837. However, for reasons we will discuss, the fiscal situation faced by the U.S. government is far more favorable now than it was between 1873 and the early 1970s, when the U.S. was usually operating with a convertible currency.

In the next two sections we present an alternative view of budget deficits and then compare a sovereign country like the United States with a country operating with a nonsovereign currency, like Greece on the euro or Argentina under the currency board. We conclude that the situation faced by the United States today is indeed different from that when the nation was founded, and in all succeeding years up to the collapse of Bretton Woods in 1973. The changes that year actually removed any question of the sustainability of federal budget deficits. Once the United States eliminated the last vestiges of the gold standard, government finance entered a completely new paradigm.

How a sovereign government really spends

Governments worldwide have inflicted so many self-imposed constraints on public spending that it has become really hard to see the truth behind public spending. Naturally, we tend to think that a balanced budget for a household or government is a good thing, but we fail to make the distinction between a currency issuer and a currency user—between a sovereign and a nonsovereign country (in the monetary sense). A country that pegs its currency exchange rate to another currency (or metal) doesn't have monetary sovereignty as we define it, since its domestic policy space is constrained by the necessity to maintain the peg. What we define as a sovereign currency is one that is not pegged, meaning the government does not promise to exchange its currency at a fixed exchange rate. In that sense, a sovereign currency is not convertible. The United States, like many other developed and developing countries, has been operating on a sovereign monetary system ever since it went off the gold peg in 1973.

The key insight is that if a government issues a currency that is not backed by any metal or pegged to another currency, then it cannot be constrained in its ability to "finance" spending because it doesn't need tax and bond revenues in order to spend. Indeed, we argue that modern sovereign governments spend by crediting bank accounts—they do not really spend tax revenue nor do they borrow by selling bonds. Rather, taxes result in debits of bank

accounts. Budget deficits lead to net credits to bank accounts and budget surpluses lead to net debits. At the macroeconomic level, government spending increases private disposable income while taxes reduce spending. A deficit occurs when the government adds more to private disposable income than it taxes away. A government surplus (deficit) has to equal the nongovernment sector's deficit (surplus).

Government normally sells Treasuries more or less equal in volume to its budget deficit, for reasons explained below. As already stated, budget deficits generate nongovernment surpluses or saving because government spending in excess of taxes creates nongovernment income. When the Treasury sells bonds, some of the income created by its deficits is devoted to saving in the form of government bonds. Otherwise, this saving can be held in the form of noninterest-earning cash or bank deposits. When the value of Treasury checks to the private sector is greater than the value of private sector checks that pay taxes, the private sector receives net income and accumulates wealth—in the form of Treasuries.

Private banks, in turn, accumulate Treasuries plus reserves at the Fed in an amount equal to the government's deficit (less any cash withdrawn). We can think of reserves at the Fed as the equivalent of bank "checking deposits"—used by banks for clearing (with each other and with the Fed). Treasuries can be thought of as bank "saving deposits" held at the Fed, earning interest. When a bank buys a Treasury bond, the Fed debits the bank's "checking account" (reserves) and credits the bank's "saving account" (Treasuries). The Fed credits interest to bank "saving accounts" (Treasuries)—and now also credits bank "checking accounts" with interest because the Fed started paying (low) interest on reserves last year.

When the Treasury spends by sending a check to the private sector, the check is deposited in a bank. (Increasingly, deposits are made directly by wire transfer.) The Fed then credits the bank's reserve account and debits the Treasury's account at the Fed. The opposite procedure happens when the public pays taxes: the Treasury's account at the Fed is credited and the bank's reserve account is debited, along with the taxpayer's deposit.

In case the public decides it doesn't want bank deposits and would rather have cash, households and firms withdraw currency from their bank accounts, and bank reserves decrease by an equal amount. The same happens when the public prefers to keep its wealth in the form of government bonds. The sale of Treasuries to the public results in a debit in the banks' reserve account as bond buyers write checks against their bank accounts, and the Fed debits the reserve accounts of banks and credits the Treasury's account at the Fed.

Every time the Treasury spends, bank reserves are credited, as long as the nonbank sector does not withdraw cash from its accounts. If banks already have the quantity of desired reserves (which would be the normal case), Treasury spending creates excess reserves in the system. Banks offer excess reserves in the overnight Fed funds market. Of course, all this can do is to shift the excess reserves from one bank to another, since reserves will not leave the banking system except through cash withdrawals. Finding no takers for the reserves, this will place downward pressure on the Fed funds rate, unless the Fed intervenes.

In order to provide a substitute for the excess reserves and hit its target rate, the Fed sells Treasuries to the private sector, thereby transforming the wealth held in the form of bank deposits and reserves into Treasury securities. Bank reserves are debited by the amount of Treasuries sold (whether banks or their customers buy them). In essence, this is a substitution of lower-earning excess reserves ("checking accounts" at the Fed) for higher-earning Treasuries ("saving accounts" at the Fed), and it is done to accommodate the demand for Treasuries as indicated by a falling overnight Fed funds rate (because banks do not want to hold the existing quantity of reserves). In other words, sales of Treasuries should

be thought of as a monetary policy operation that accommodates portfolio preferences of banks and their customers—much as banks will accommodate a desire by the public to switch funds from their checking accounts to their saving accounts.

To recap, a government deficit generates a net injection of disposable income into the private sector that increases saving and wealth, which can be held either in the form of government liabilities (cash or Treasuries) or noninterest-earning bank liabilities (bank deposits). If the nonbank public prefers bank deposits, then banks will hold an equivalent quantity of reserves, cash, and Treasuries (government IOUs), distributed according to bank preferences.

A government budget surplus has exactly the opposite effect on private sector income and wealth: it's a net leakage of disposable income from the nongovernment sector that reduces net saving and wealth by the same amount. When the government takes more from the public in taxes than it gives in spending, it initially results in a net debit of bank reserves and a reduction in outstanding cash balances. If banks had previously held the desired amount of reserves and cash (which would be the normal case, since otherwise there would have been pressure on the overnight rates), a budget surplus would result in a shortfall of reserves and vault cash. Banks could go to the Fed funds market to obtain reserves, but in this scenario there is a system shortage that cannot be met by interbank lending. As a result, a shortage of cash and reserve balances forces the private sector to sell Treasuries to the Fed in order to obtain the desired reserves. The Fed then adds reserves to the bank "checking deposits" and debits bank "saving deposits", simultaneously reducing the Treasury's deposit at the Fed and retiring the Treasuries. This retirement of government debt takes place pari pasu with government surpluses.

The three balances and the impact of government surpluses

The most recent period of federal government surpluses was the (highly extolled) Clinton surpluses from the first quarter of 1998 through the second quarter of 2001. For reasons that should now be clear, these surpluses destroyed nongovernment sector income and wealth, forcing households to borrow in order to maintain living standards. Since the United States ran current account deficits over that period, it was necessary for the (domestic) nongovernment sector to run even larger deficits to match the government's surplus, plus the foreign sector current account deficit.[4]

Household borrowing accelerated in the decade following the surpluses of 1998, increasing from 67 percent to 97 percent of GDP by 2007. By contrast, household debt increased from just 40 percent to 65 percent of GDP over the entire 1960–97 period. The story wouldn't be complete without predatory lenders, who were eager to extend credit to everyone, regardless of the ability to repay; and deregulation, which freed the lenders' hands (topics beyond the scope of this brief).

Based on the work of Distinguished Scholar Wynne Godley, it is useful to divide the macroeconomy according to its three main sectors: domestic government, domestic nongovernment (or private), and the foreign sector. According to his aggregate accounting identity, the deficits and surpluses across these three sectors must sum to zero; that is, one sector can run a deficit so long as at least one other sector runs a surplus. Figure 6 shows the three main balances of the United States. When there is a government sector surplus as well as a current account deficit (the "twin leakages" during the Clinton boom), the private sector is left with two possibilities to counteract the destruction of income: it can stop importing (leading to a balanced current account) or it can spend more (running a private sector deficit). For

most households, borrowing substituted for the income squeezed by tight fiscal policies. This is why the federal budget surpluses under Clinton did not (immediately) lead to an economic downturn, since private sector deficits maintained aggregate demand but increased indebtedness.

As evidenced by the current crisis, private sector borrowing on the scale seen after 1997 is not sustainable. The Clinton surpluses would inevitably result in a downturn, just like every sustained budget surplus in U.S. history. Figure 7 shows the federal government balance as a percent of GDP (deficit or surplus) and periods of recession. (The sign of the government balance is reversed, so that a budget surplus is shown as a negative number.) Every recession since World War II was preceded by a government surplus or a declining deficit-to-GDP ratio, including the recession following the Clinton surpluses. Recovery from that recession resulted from renewed domestic private sector deficits, although growth was also fueled by government budget deficits that grew to 4 percent of GDP. However, as shown below, the Bush recovery caused tax revenues to grow so fast that the budget deficit fell through 2007, setting up the conditions for yet another economic collapse.

Just as surpluses precede recessions, large (nondiscretionary) budget deficits almost always result from recessions because of automatic stabilizers. When the economy slides into recession, tax revenues fall as economic activity declines. Social transfer payments, particularly unemployment benefits, increase automatically as more people lose their jobs. Despite all the conservative uproar against Obama's stimulus plan, the largest portion of the deficit increase to date has come from automatic stabilizers rather than from discretionary spending. This is observable in Figure 8, which shows the growth rate of tax revenues (mostly automatic, moving with the cycle because income and payroll taxes depend on economic performance), government consumption expenditures (somewhat discretionary), and transfer payments (largely automatic) relative to that in the same quarter a year earlier.

In 2005, tax revenues were growing at an accelerated rate of 15 percent per year—far above the GDP growth rate (hence, reducing nongovernment sector income) and above the government spending growth rate (5 percent). As shown in Figure 8, this fiscal tightening was followed by a downturn—that automatically slowed growth of tax revenue. While government consumption expenditures remained relatively stable during the downturn (after a short spike in 2007–08), the tax revenue growth rate dropped sharply from 5 percent to negative 10 percent within just three quarters (from the fourth quarter of 2007 to the second quarter of 2008), and to negative 15 percent by the first quarter of 2009. Transfer payments have been growing at an average quarterly rate of 10% (relative to the same quarter the previous year) since 2007. Decreasing taxes, coupled with increasing transfer payments, have automatically pushed the budget into a larger deficit, notwithstanding the flat consumption expenditures.

These automatic stabilizers, not the bailouts or stimulus package, are the reason why the U.S. economy has not been in a free fall comparable to that of the Great Depression. When the economy slowed, the budget automatically went into a deficit, placing a floor under aggregate demand. And in spite of all the calls to reign-in deficits, the truth is that deficits will not come down until the economy begins to recover. Even if we eliminated welfare payments, Medicaid, Medicare, military spending, earmarks, Social Security payments, and all programs except for entitlements; and also stopped the stimulus injections, shut down the education department, and doubled corporate taxes, the *New York Times* estimates that the budget deficit would still be over $400 billion. This example further demonstrates the nondiscretionary nature of the budget deficit. And, of course, this example doesn't consider how much more tax revenues would fall and transfer payments would rise if these cuts were actually

undertaken. With the current automatic stabilizers in place, the budget cannot be balanced, and attempts to do so will only damage the real economy as incomes and employment fall.

To summarize, fiscal policy should focus on results rather than follow conventional/ceremonial ideas about what is sound and what is not. A sovereign government spends by crediting bank accounts, while taxation debits them. Rather than "paying for" government spending, the real macroeconomic purpose of taxes is to keep private income and spendingat a noninflationary level. Clearly, in current circumstances, it would be a big mistake to raise taxes now—when the danger is unemployment and deflation.

Government budgets and self-imposed constraints

Guided by flawed economic thinking, governments worldwide have imposed constraints on their fiscal capacity to fully utilize their labor resources. Examples of self-imposed constraints include issuing bonds before government can spend, erecting barriers between fiscal and monetary authorities (and giving the latter more "independence"), and setting debt ceilings, deficit limits, and so on. A sovereign government doesn't need to sell bonds in order to spend because it can simply tell its central bank to credit its account by as much as it needs prior to writing checks on that account. Alternatively (and much more sensibly), the central bank and treasury can be consolidated so that the treasury can credit bank accounts along with its spending.

Even though governments have adopted a variety of self-imposed constraints, they are not normally binding. For example, the prohibition on the sale of treasury bonds directly to the central bank is easily circumvented. When the U.S. Treasury does not have sufficient funds in its checking deposit at the Fed, it sells bonds to special depositories (private banks) that are allowed to buy the bonds by crediting the Treasury's checking deposit held temporarily in private banks. The Treasury then transfers its deposit to the Fed before spending (it can only write checks on deposits at the Fed). This would normally result in a reserve debit from the bank accounts, but the Fed allows a "float" to postpone the debit because Treasury spending will restore the reserves. The final result is that the banks hold Treasuries and the customers have demand deposits. If the banks prefer to hold reserves, the Fed engages in an open market purchase—buying bonds and crediting bank reserves (as discussed above this is equivalent of moving funds from bank "saving accounts" to "checking accounts" at the Fed). The net effect is exactly the same as if the Fed had bought the bonds directly from the Treasury.

As another example, the Treasury must get the approval of Congress to expand its "borrowing limit" when it approaches its debt ceiling. After members of Congress dutifully wring their hands and declaim the burden placed on future generations by the administration, the debt limit is increased. In any case, bond sales are a completely voluntary and self-imposed operation for a sovereign government. As discussed, bonds are merely an interest-earning "saving account" alternative to low-earning reserves "checking account", and they are used by the Fed to hit its interest rate target. A central bank can simply pay interest on reserves (as Canada has done for a long time and the Fed is now doing) and the government can dispense entirely with selling bonds and worrying about debt ceilings. The Fed would then act as the Treasury's bank by taking a Treasury IOU and crediting Treasury's account when it wanted to spend. When the Treasury spent, the Fed would credit private banks with reserves and the banks would credit their customers' bank deposits. Taxes would reverse this procedure.

Under this procedure, budget deficits would generate reserve growth (bank deposits at the Fed that are the Fed's liability) that is offset by growth of the Treasury's liability to the Fed (the Fed's asset). Congress (or the Fed) could set the interest rate on the Treasury's liabilities held by the Fed that are used for accounting purposes. Since Fed earnings above a 6 percent return go directly to the Treasury, the Treasury in effect would pay most of the interest to itself. The rest would go to the Fed to help cover the costs of paying interest on reserves at the overnight rate chosen by the Fed (and distributing profits to its share-holding member banks). This would greatly simplify procedures, make the operations more transparent, and allow everyone to stop worrying about federal government debt. Since reserves are not counted as debt, there would be no publicly held debt. It should be recognized that Treasury IOUs held by the Fed simply represent internal accounting—the government owing itself and paying interest to itself. Any interest paid out by the Fed to banks holding reserves should be booked as government expenditure; that is, a subsidy to the banking system.

The rate paid today on reserves (and on short-term government bills) is a discretionary-policy variable. One of the huge fears about budget deficits is that the government might find that it would have to pay ruinous interest rates one day to get anyone to hold its debt. Let's presume that the federal government followed the proposal laid out in the previous paragraphs but the Fed decided to pay zero interest on reserves. With Treasury spending, the bank accounts of recipients would be credited with deposits and the banks' accounts at the Fed would be credited with nonearning reserves. Presumably, the banks would not want to hold any excess reserves (reserves above the amount required by the Fed or needed for clearing). They would offer reserves in the overnight Fed funds market, driving the rate to zero. Since the Fed would be paying zero on reserves, the "market equilibrium" rate would be zero. And try as they might, banks in the aggregate cannot get rid of reserves, since only tax payments or cash withdrawals reduce reserve holdings.

Would the banks refuse to allow their customers to receive deposits from the Treasury? No, since that would cause them to lose customers. It is possible that banks would begin to impose fees on deposit accounts to cover some of the costs of offering transaction accounts, while holding (nonearning) reserves in their portfolios. If that is not a desired outcome, the government could subsidize the private payments system by paying a positive interest rate on reserves—as discussed above, this simply means that the Fed credits bank "checking accounts", much as banks pay interest by crediting customers' checking accounts.

Let's return to the current system, in which the federal government issues bonds and the Fed pays a low interest rate on reserves. As discussed, deficit spending by the Treasury results in net credits to banking system reserves. If excess reserves are generated, banks offer them in the overnight market, which pushes the Fed funds interest rate down to the "support rate"—the rate paid on reserves. If the Fed prefers to maintain a higher Fed funds rate, it can engage in an open market sale of Treasuries and substitute them for reserves. This is how it maintains the Fed funds market rate at its target overnight rate—a spread above the rate it pays on reserves. If the Treasury only issues short-term bills, its interest rate will be determined by substitution in the overnight lending market. In other words, the rate on Treasury debt will be set relative to the Fed's overnight target rate. This result holds no matter how big the deficit or how much government debt is issued, so long as its maturity is short enough to be a close substitute for overnight interbank lending.

This means that the government doesn't need to allow the markets to determine the interest rate it pays on its debt. And even if Treasury chose to issue longer-term bonds, the Fed could actually set interest rates of different maturities if it were willing to deal in bonds of different maturities. Effectively, government could offer the equivalent of a range of

"certificates of deposit" with different maturities and interest rates—exactly what banks do with their certificates of deposit. If the government offered, say, 4 percent on "deposits" of 30 years but found no takers, that would be perfectly fine. It could either adjust the 30-year rate to try to find buyers—or, better, simply let buyers choose shorter maturities at lower rates.

This leads us back to the concern about foreign holders of debt. Foreign sellers of goods, services, or assets to the United States receive dollar credits, usually to a foreign branch of a U.S. bank or to a correspondent bank that receives a credit to its reserve account (or to the reserve account of a "mother" bank). If this bank preferred domestic currency reserves, the dollar reserves would end up in the account of its central bank. In any case, the holder of dollar reserves will probably try to find a higher interest rate—offering reserves in the overnight market or buying U.S. Treasuries. All of the analysis presented previously applies here, but with one wrinkle: the foreign holder could decide to exchange the dollar reserves for other currencies. Of course, the exchange cannot occur unless there is someone with the desired currency who is willing to exchange another currency for dollars. It is conceivable that, as portfolios of currency reserves were adjusted, exchange rates would adjust with the U.S. current account deficit placing downward pressure on the dollar.

While the conventional wisdom is that the Fed could keep the dollar from depreciating by raising domestic interest rates, there is plenty of empirical evidence to doubt the efficacy of interest rate adjustments impacting exchange rates. As argued above, the decision to sell products to the United States is not independent of the decision to accumulate foreign currency. We are skeptical that the interest rate paid on foreign currency reserves is as important as the decision to export or accumulate foreign currency. As discussed above, we see the U.S. current account deficit as the flip side of the coin to foreign desire to accumulate dollar assets. In the first instance, these claims take the form of reserves at the Fed. Holders will naturally try to earn the maximum return consistent with their appetite for risk, and hence prefer U.S. Treasuries that pay more than reserve deposits at the Fed. But they will take what they can get.

In conclusion, there is no financial constraint on the ability of a sovereign nation to deficit spend. This doesn't mean that there are no real resource constraints on government spending, but these constraints, not financial constraints, should be the real concern. If government spending pushes the economy beyond full capacity, then there is inflation. Inflation can also result before full employment if there are bottlenecks or if firms have monopoly pricing power. Government spending can also increase current account deficits, especially if the marginal propensity to import is high. This could affect exchange rates, which could generate pass-through inflation.

The alternative would be to use fiscal austerity and try to keep the economy sufficiently depressed in order to eliminate the pressure on prices or exchange rates. While we believe that this would be a mistake—the economic losses due to operating below full employment are almost certainly much higher than the losses due to inflation or currency depreciation—it is an entirely separate matter from financial constraints or insolvency, which are problems sovereign governments do not face. However, as discussed in the next section, nonsovereign governments do face financial constraints and can be pushed into involuntary default.

Countries with nonsovereign monetary systems

Recently, all eyes have been on Greece, which has been harshly criticized for fiscal irresponsibility—not to mention cooking its books and masking its debt and deficit levels with

the help of Goldman Sachs. With an estimated budget deficit of around 13 percent of GDP (more than quadruple the Maastricht criterion) and debt of 120 percent of GDP, Greek bonds have been downgraded by rating agencies. Even with already high interest rates on its debt, Greece is having a hard time finding investors willing to buy its bonds, and has asked the International Monetary Fund and European Union members to help by providing funding. While a bail-out package will be forthcoming, it comes with crushing fiscal austerity requirements. We do not believe this will ultimately be successful, and expect that the crisis will spread to other euro nations.

To intensify scare tactics, deficit hawks use Greece as an example of what awaits the United States if it doesn't tighten its fiscal belt. But in doing this, the hawks fail to distinguish between a nonsovereign (Greece) and sovereign (United States) country. We agree that the concern about Portugal, Ireland, Italy, Greece, and Spain (PIIGS) and other euro countries is justified. But considering the PIIGS as analogous to the United States is a result of the failure of deficit critics to understand the differences between the monetary arrangements of sovereign and nonsovereign nations. Greece is a user, not an issuer, of the euro. In that respect, it is more like California or even Orange County, both of which are users of the dollar. It is a serious mistake to argue that a sovereign nation like the United States should be constrained in the same manner as Greece or Orange County.

Eurozone countries have faced two types of problems. First, they have given up their monetary sovereignty by abandoning their national currencies and adopting a supranational one. And by divorcing fiscal and monetary authorities, they have relinquished their public sector's capacity to provide high levels of employment and output. Nonsovereign countries are limited in their ability to spend according to taxation and bond revenues, and this applies perfectly well to Greece, Portugal, and countries like Germany and France. No U.S. state has a budget deficit or debt ratio relative to GDP that comes close to that of Germany, let alone that of Greece or Italy, even with the devastating recession that is killing state budgets, yet they are already meeting market resistance to new borrowing precisely because they are nonsovereign. We suspect that eurozone countries have been allowed to exceed the limits imposed by markets on U.S. states because there is some market uncertainty about the nature of these countries. Are they nonsovereign? Will their neighbors rescue them? Will the European Central Bank (ECB) or International Monetary Fund (IMF) rescue individual nations? The answers seem more clear in the case of the U.S. states: neighboring states will not aid a defaulting state, no international lender is going to intervene, and a full federal government bailout is unlikely (while it is probable that there would be some sort of rescue, debt would probably face at least some haircut, and some holders might be excluded).

Second, the eurozone countries have agreed to abide by the Maastricht Treaty, which restricts budget deficits to only 3 percent of GDP and debt to 60 percent of GDP. Even if these countries are able to borrow and finance their deficit spending (e.g., Germany and France), they are bound not to use fiscal policy above those limits. In response, countries have resorted to different means in keeping their national economies afloat—fostering the export sector (in the case of Germany) or cooking books through Wall Street wizardry (Greece). These constraints have proven to be flexible, but that does not mean they do not matter. When a nation exceeds mandated limits, it faces punishment by European institutions and by markets. There is competition within the eurozone for ratings, with Germany usually winning and enjoying lower credit default swap pricing that allows it to issue euro debt at a lower interest rate. That in turn lowers its interest spending and deficits in a nice, virtuous cycle. Countries such as Greece that exceed the limits the most are punished with high interest rates that drive them into a vicious death spiral, with further credit downgrades and higher interest rates as deficits continue to rise.

Although the "Greek tragedy" should be a real concern, all of the proposed solutions share the same flaws that spring from a mistaken understanding of how public finance works in sovereign nations. Germany, France and the IMF have agreed to help Greece if it becomes more responsible in balancing its budget and retiring its debt (the details are not yet known). Greece is therefore forced to cut its budget deficit in a recession, which could worsen the eurozone's situation since it grew by only 0.1 percent in the fourth quarter of 2009. Greece will try to reduce its deficit by cutting public sector wages and pensions, a step that would further exacerbate the problem by decreasing incomes and employment. Indeed there is no guarantee that fiscal austerity will actually reduce the deficit—since slower growth will reduce tax revenue in another vicious cycle. As the eurozone stagnates, members such as Portugal, Italy, and Spain could face the same situation as Greece. And so it goes. It is important to realize that even Germany and France are threatened: Germany because it relies on exports to other eurozone members to keep up its employment, and France because its banks are major creditors of the PIIGS.

There are two real solutions for Greece and other eurozone members. First, members could exit the eurozone, regain monetary sovereignty, and run budget deficits that are large enough to achieve full employment. They would have to default on their euro-denominated debt because it would become even more difficult to service the debt in euros (especially if trade sanctions were slapped on the countries that leave). By doing so, individual countries would regain control of domestic policy space and spend like the United States—by crediting bank accounts. This option would relieve the newly sovereign governments from being at the mercy of markets, rating agencies, and other countries, and enable them to fully utilize their labor resources. There would be, however, transitional costs—including possible sanctions placed on them by other nations as well as political and market uncertainty.

The second and preferred solution to help all eurozone countries facing default is to create a supranational fiscal authority similar to the U.S. Treasury that is able to spend like a sovereign government. Alternatively, countries could be allowed to have overdrafts in their ECB accounts that enable them to spend euros like a sovereign government. Warren Mosler has proposed a viable stopgap measure whereby the ECB would create and distribute one trillion euros among members on a per capita basis so that each individual country could regain control over spending. This measure would give Euroland the time to come up with a more permanent solution, such as creating a supranational treasury that could spend as much as 10 or 15 percent of the region's GDP (the European Parliament's budget is currently less than 1 percent of GDP, which is far too small to generate a sufficient level of aggregate demand). Again, the distribution of spending could be decided by individual member states.

More generally, the failure to distinguish sovereign government debt from nonsovereign government debt and the debt of households and firms calls into question the results of another Reinhart and Rogoff study (2009b), which lumps together government and private debt, and argues that a private or public debt buildup poses systemic risks. While we agree that an excessive private debt buildup is unsustainable, the same cannot be said about sovereign government debt. It therefore makes no sense to add these debts together. Also, we need to clearly distinguish between foreign- and domestic-denominated debts. A sovereign government's debt denominated in its own currency cannot be subject to default risk nor can it cause slow growth, as it represents the nongovernment sector's net financial wealth. Many have claimed that the Reinhart and Rogoff studies (2009a,b) demonstrate that high debt ratios lead to slow economic growth. Yet, if sovereign government debt is a private sector asset it is highly implausible to argue that putting more wealth into the hands of the nongovernment sector will generate slow growth.

The Reinhart and Rogoff studies fail to adequately distinguish between countries operating with different monetary regimes, and this distinction must be made when having a meaningful discussion about government finances. For example, the analysis doesn't distinguish between sovereign countries (e.g., the United States and United Kingdom) and countries that have given up their monetary sovereignty (e.g., the eurozone). Moreover, many countries changed their monetary system over the period (literally, centuries) covered by the Reinhart and Rogoff study. In the United States, for example, one cannot compare the period before and after 1973 as if nothing had changed. And for many countries, the dataset goes back to the early 19th century, when they were still on the gold standard and, hence, not sovereign (in our definition). The Reinhart and Rogoff study may apply to the United Kingdom before the 1930s (when it was still on the gold standard), but it doesn't apply today. Therefore, the finding that debt ratios above 90 percent of GDP are correlated with lower growth is not applicable to sovereign nations, since it seems to be driven by aggregating countries on a gold standard (or similar fixed exchange rate) with those that are sovereign (and issue their own floating-rate currency). Frankly, given the obvious confusion and conflation over different types of debt (sovereign government, nonsovereign government, and nongovernment) in the book, we cannot find any conclusions that are relevant to the current U.S. situation.

As explained earlier, the U.S. federal government budget moves countercyclically, so that low growth causes the budget deficit to expand. No doubt this response explains some of the correlation reported by Reinhart and Rogoff—that high debt ratios are associated with lower economic growth—but the causation is reversed for a sovereign nation, with slow growth causing deficits and raising debt ratios. In the case of a nonsovereign government, large deficits probably cause slow growth due to the imposition of austerity policies that are normally required for nations operating fixed exchange rates. This is the disadvantage of operating without a sovereign currency: both policymakers as well as markets will impose high interest rates on nonsovereign debt, and policymakers will probably try to raise taxes and cut spending to protect the currency peg. These policies lower growth but increase budget deficits (due to high interest rates and low growth) and generate the empirical correlation found in the study.

Further, it is conceivable that an expansion fueled by private sector debt will be followed by a period of low growth when private spending is depressed, since households and firms try to reduce debt ratios through increased savings. Given all of these complexities, the finding that debt ratios above 90 percent of GDP are correlated with lower economic growth provides no guidance for policymakers, especially those in sovereign nations.

Moreover, the 90 percent ratio is rather an arbitrary number. The debt thresholds selected by Reinhart and Rogoff (2009a) are based on their "interpretation of much of the literature and policy discussion." So far, however, no economist or policymaker has been able to come up with a nonarbitrary number for the debt-to-GDP ratio that has some economic meaning. The reason is that there is no such magic number applicable to all countries at all times. As discussed above, the government deficit (and debt) has to equal the balance of the private sector, which is based on its preference to save and import. It therefore varies among countries and between time periods.

Conclusion: The role of ideology

The hysteria about government deficits comes from a flawed understanding of how the monetary system works. It is questionable how much of this is ideological and how much is really a misunderstanding. Sovereign governments are led to believe that they need to

issue bonds and collect taxes to finance government spending, and that good policies should be judged in terms of fiscal austerity. Mainstream economics has guided policymakers to impose artificial constraints on fiscal policy and government finances, such as issuing bonds in response to deficits, setting debt ceilings, forbidding the central bank to buy treasury debt directly, and allowing markets to set interest rates on government bonds. To further dupe the public, a strong case is made for independent monetary policy and separating monetary authority from fiscal authority in order to reduce the influence of political pressures. All of these constraints are self-imposed and voluntary.

Ideologically motivated economists have praised the merits of monetary policy in controlling inflation by declaring that price stability is all that is necessary to stabilize the economy. They leave little room for stabilizing fiscal policy in their models. They warn the public that government spending causes inflation, and that if budget deficits are not controlled, we could become the next Zimbabwe (the most recent example of hyperinflation) or the Weimar Republic (Germany in the 1930s). The historical context and case specifics are ignored, while the presumption that such analogies to failed states or household budget constraints is sufficient. Proposals supporting deficit spending as a means of dealing with economic crises are met with warnings that government debt will burden future generations with high taxes. This implies that it is better to pay for our excesses now than to pass along our problems to our grandchildren. Moreover, concerns about government deficits and debts have masked the real issue: deficit hawks are unwilling to allow a (democratic) government to work for the good of the people.

We accept that there are real differences of opinion regarding the proper role of government in the economy. Some would like to see the functions of government curtailed; others would like to see them expanded. These are legitimate political stances. What is not legitimate is to use fear over deficits to restrain government from achieving the public purpose that is democratically approved. A debate that is freed from the constraints imposed by myths about how government really spends would allow us to move forward to gain consensus on the public purpose the American people expect government to pursue.

Notes

1. This is the total outstanding debt ratio. The relevant figure is the portion held by the public, which reaches only 73 percent.

2. We will not revisit the wisdom of such a scheme but merely argue that for all intents and purposes, Social Security's Treasury holdings really amount to internal record keeping—a reminder that Social Security, taken alone, runs surpluses now and that the Treasury will have to cover Social Security's shortfall someday. Yet that has nothing to do with the overall budget stance of the federal government—which can be balanced or in surplus or deficit regardless of the balance of individual federal government programs.

3. There is the belief that the debt owned by Social Security should be counted because it reflects a future obligation of government to future beneficiaries. However, the government is obliged meet those obligations whether or not Social Security owns Treasuries, and it will meet its obligations in exactly the same manner whether or not it holds Treasuries (see Wray 2005).

4. This can also be looked at in terms of the leakage-injection approach: budget deficits as well as domestic private deficits are injections that must equal the leakage of current account deficits. Given the propensity for net imports and the federal government's surplus, the domestic private sector's deficit must be that much larger to match the leakages due to current account deficits plus the government surplus.

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