

Government Deficits: Good, Bad or Irrelevant?

Recent legislative proposals in Congress could have significant impacts on the government's budget deficit in coming years. On the one hand, the tax cut package passed by the House of Representatives could well increase the deficit, at least in the short term, if passed into law. On the other hand, Congress is considering numerous proposals to narrow the deficit (including a balanced budget amendment).

This legislative activity has refocused attention on government budget deficits, how they are measured and their effects on economic performance. This article summarizes the vast academic literature on the measurement and economic effects of the deficit. The focus is primarily on the economic effects of the deficit per se as opposed to those of government spending or taxation separately, although there is considerable research on each of these topics that should not be ignored.

Few issues have received as much attention as the U.S. budget deficit. The extensive literature about its causes and consequences ranges from academic treatises to popular commentary. Not too long ago, government deficits were widely regarded as a useful way to maintain the economy at full employment during times when recession threatened. Today, however, the popular view of deficits is starkly

different. The popular press and policymakers now often single out the budget deficit as a major cause of a long laundry list of economic woes, including recessions, unemployment, inflation, high interest rates, trade deficits and gyrations in the dollar's value. They regard the view that the deficit is a serious problem requiring discipline and tough legislation as self-evident.

Economists, in contrast, while certainly far from a consensus, tend to view the economic effects of deficits as small. This article explores the issues of the measurement and economic effects of deficits and asks if there are reasons to worry about the state of government finance, even if deficits by themselves have no major harmful economic effects.

Measures of the Deficit

There are numerous measures of the government deficit. Many do not use sensible accounting principles and therefore are prone to be misleading. Unfortunately, the most popular measure is probably the most misleading. This is the unified federal budget deficit, the simple difference between total federal government outlays and receipts. One version of this measure counts spending and receipts that have been deemed "off-budget" by Congress. The major off-budget item is Social Security. Since the Social Security trust fund is currently running a large surplus, the total deficit is substantially less than the on-budget deficit (\$203 billion versus \$259 billion in fiscal year 1994). However, this will change in the future as the population ages and Social Security payments become larger than the payroll tax receipts that finance them.

Official deficit measures are misleading for a variety of reasons. First, they cover only the federal government, not state and local governments. By virtue of the annual federal grants they receive, state and local governments generally run a surplus—\$28 billion in 1994

after including federal grants of \$210 billion.

Second, government outlays and revenues are highly sensitive to the level of economic activity. The *structural* deficit, the deficit after temporary business-cycle effects are discounted, adjusts for the lower tax revenues and higher payouts of unemployment insurance that occur when unemployment is high. The structural deficit is calculated assuming that the unemployment rate is at a benchmark level, termed the *nonaccelerating inflation rate of unemployment* (NAIRU), currently defined to be at 6 percent. In 1994, with the average unemployment rate slightly above this level, the structural deficit was estimated to be \$187 billion, or \$16 billion less than the official federal deficit including off-budget items.

Third, official measures ignore the effects of inflation and changing interest rates on government indebtedness. Inflation acts to reduce the real value of publicly held government debt, just as it reduces the real value of an individual's mortgage debt. This "inflation tax" on government bondholders should be recognized as revenue to the government. Similarly, when market interest rates rise, the market value of publicly held government debt falls, again leading to a gain for the government that should be counted as revenue. Inflation and rising interest rates thus reduce properly measured government deficits by reducing the real value of outstanding government debt, while falling prices and interest rates increase deficits by increasing the debt's real value.

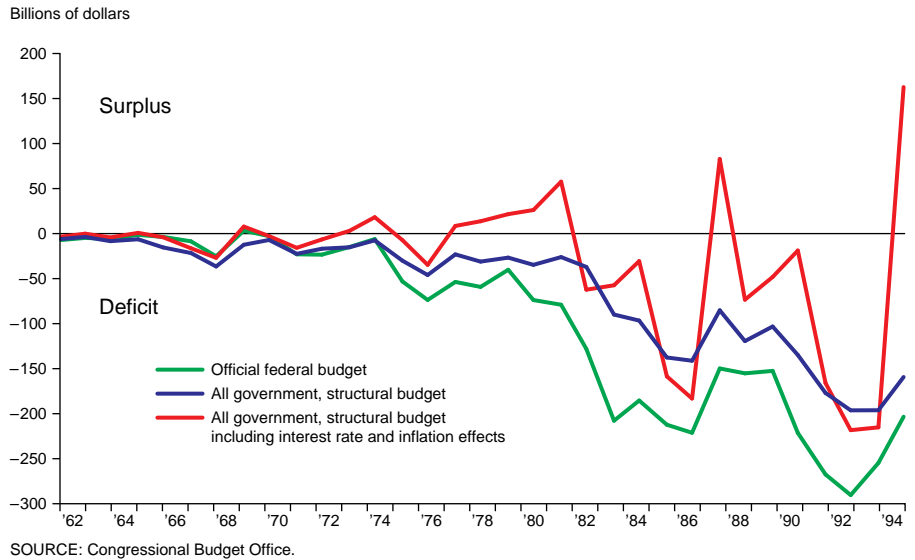
Because the stock of outstanding government debt held by the public is large, these interest and inflation adjustments can dwarf the official budget numbers. For example, rising interest rates throughout 1994 reduced the market value of the publicly held outstanding debt by \$250 billion, while 1994's modest inflation rate reduced the real value of the debt by another \$72 billion. Count-

ing these reductions in the value of the debt as government revenue turns a deficit of \$159 billion (after adjusting for state and local government accounts and business-cycle effects) into a *surplus* of \$163 billion.

Finally, official forecasts of deficit figures ignore potentially vast amounts of future outlays. The government has large unfunded obligations for federal employee and military retirement programs and other contingent obligations such as loan and credit guarantees. As the savings and loan crisis illustrates, some of these federal guarantees can turn into large cash outlays for the federal government. Estimating precisely these potential liabilities and their future likelihood is extremely difficult. However, it is clear that they have been growing rapidly in recent years. The U.S. Treasury estimates that the actuarial deficit for federal and military retirement programs (excluding Social Security) more than tripled from 1980 to 1993 when it surpassed \$2 trillion.¹

Charts 1 and 2 present two estimates of the budget surplus or deficit that attempt to address some of these measurement problems, along with the official measure of the federal budget deficit including off-budget items. One estimate, the *all government, structural budget*, includes the budgets of state and local governments and is adjusted for cyclical variations in the economy. Because it adjusts for state and local finances and for business-cycle effects, this measure is a good indicator of the intended budgetary stance of the government sector, as legislated by Congress and state and local governments. The second estimate adjusts the all government, structural budget for inflation and interest rate effects. Because this measure indicates the change in the net debt of the government held by the public, it is a good indicator of the effective stance of fiscal policy. However, because inflation and changes in interest rates are beyond government's immediate control,

Chart 1
Measures of the Government Budget



this measure is not indicative of the intended stance of fiscal policy.

The two measures provide a distinctly different impression of the state of government finance than does the official measure. In each year since 1980, the all government, structural deficit has been between about \$50 billion and \$100 billion *less* than the official federal deficit. After accounting for inflation and interest-rate changes, the deficit becomes even narrower and the budget actually shows a surplus for a few years since 1962, most recently in 1994.

One also gets different impressions of the deficit by looking at it in dollar terms (*Chart 1*) and as a percentage of gross domestic product (GDP) (*Chart 2*). The deficit in relation to our capacity to pay it off (in other words, as a share of GDP) is the more appropriate measure for calculating the size of the deficit. As a share of GDP, recent deficits don't look much worse than those of the late 1960s. The source of today's concern over the deficit may therefore involve an aspect of government obligations that *has* grown dramatically in recent years—that is, the myriad number of future or contingent obligations taken on by the federal government. These have the potential to

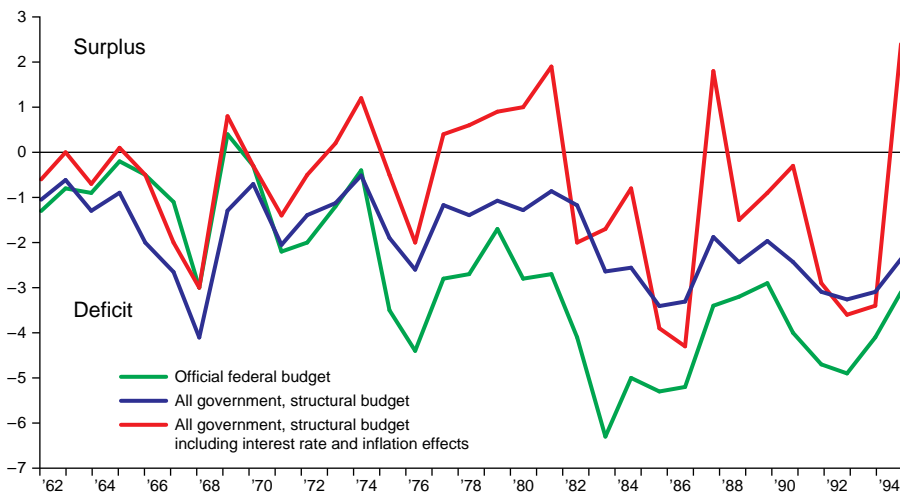
impose a huge real cost on government finances at some unspecified time in the future.

Economic Effects of Deficits

There are four main schools of thought with regard to the economic effects of budget deficits. The *irrelevance school*, led by Robert Barro, argues that deficits have no macroeconomic effects: financing government expenditures by borrowing is exactly equivalent to financing via taxes in terms of the effect on the economy. This argument, labelled the *Ricardian equivalence proposition*, runs as follows: if government expenditures are financed by borrowing instead of by taxes, taxpayers will have greater current after-tax incomes. However, they will not spend their extra income; they will save it to pay the future taxes necessary to service the resulting government debt or leave it to their children to pay those taxes. Government debt financing will thus induce no more spending than tax financing. And it will induce no less saving than tax financing, since the increased public dissaving of the higher deficit will be exactly offset by the increased private saving needed to pay future taxes.

Chart 2
Measures of the Government Budget

Percentage of GDP



SOURCE: Congressional Budget Office.

The irrelevance school does not claim that government spending and taxation are without economic effects; in particular, it allows for the possibility that high levels of government expenditure and high marginal tax rates can blunt incentives to work and save, thereby lowering long-term economic growth. All it claims is that the deficit per se has no economic effects.

The irrelevance school has had a major impact on the academic debate over the economic effects of deficits, although much less so on the debate among policymakers. This may be because the theory makes perhaps unrealistic assumptions about how individuals react to tax cuts and make bequests to their children. However, this does not necessarily mean that Ricardian equivalence is not a good approximation of economic reality; for that we have to look at the empirical evidence.

The traditional *Keynesian* analysis of deficits claims that a deficit adds to the purchasing power and aggregate demand of the private sector and, through the multiplier process, changes aggregate income and output by a multiple of the initial change. Deficits are therefore expansive and surpluses contractive. In this analysis, deficits will only in-

crease real output to the extent the unemployment rate is above the NAIRU. Increasing the deficit when the economy is at or below the NAIRU will have no effect on output but merely increase inflation. Deficits can therefore have beneficial effects if they are properly managed to keep the economy running at the highest growth rate consistent with low inflation.

The *monetarist* analysis of deficits claims that a deficit affects the economy in different ways, depending on how it is financed. If financed by printing money, the result is inflation. If financed through the issuance of government debt (as has largely been the case in the United States), then the effect on the economy operates through interest rates. Increases in debt finance raise real interest rates, crowding out private investment and lowering the level of long-run expected income or normal output. In this case, while the short-term effect of debt financed deficits is expansionary, the long-term effect may be to lower economic growth.

A final view is that regardless of the true effects of the deficit on the economy, deficits matter because the bond market believes they matter. If bond market participants believe the deficit is a good signal

of the current government's attitude toward inflation, they may react to the deficit's size as an indicator of future inflation. Some analysts have linked the strong bond market rallies in 1986 and 1993 to the passage of legislation that was viewed as aiding in a reduction of future deficits.

Considerable recent empirical work addresses the effects of deficits on the economy. The results are mixed. To date, the bottom line of this research is that if budget deficits have effects on interest rates or investment, these effects appear to be too small to be picked up in econometric analysis.² This means that, while not a literally true description of behavior, the irrelevance school's claim that deficits do not matter might be a good approximation of reality. Alternatively, open world capital markets provide a plausible explanation for the failure to find large effects of deficits on interest rates. A country's deficit is financed in the world capital market. If world capital markets are integrated, then risk-adjusted, after-tax real interest rates are equalized across countries, and if the U.S. deficits are small relative to world saving, then the effect of deficits on interest rates can be expected to be small.

Conclusions

The general message from economists is that budget deficits, properly measured, do not appear to be any more serious today than they were 30 years ago, with the important caveat that there has been a dramatic increase in the federal government's potential *future* liabilities. The magnitude of this liability is impossible to evaluate precisely but may impose a considerable burden on government finances at some time in the future. Budget deficits of the magnitude that the United States has experienced in the recent past (ranging up to about 5 percent of GDP when properly measured) appear to have major economic effects only if they are financed by printing money or per-

ceived as signifying a more liberal attitude toward inflation.

Does this mean we should not worry about the government budget? Absolutely not. The empirical work has focused on periods when the deficit has been under 5 percent of GDP. Deficits larger than this could have more painful and more obvious economic effects. Furthermore, although the deficit per se may have no perverse economic effects, there is considerable evidence that the level and composition of government spending and taxation do. For example, the share of the economy's resources commanded by the public sector has risen by about one-third since 1945. Government spending now makes up more than one-third of total GDP. To the extent that this increased government spending has crowded out private expenditures, there is a real danger that resources have become increasingly misallocated, thereby lowering long-term growth.

Is the marginal value of a dollar

transferred to government and spent by the public sector as great as it would be if left in the hands of private citizens? If not, then government has grown too large. Empirical work suggests that the private sector values the marginal dollar spent by the government only about one-fourth as much as a dollar left in the hands of the private sector. To the extent that growth in the public sector is a function of a budget process that allows the government to practice deficit spending, the budget process may be in need of change.

In addition, the structure of taxation and the composition of government spending may have important effects on growth. High marginal tax rates lower long-term economic growth by blunting incentives to work and save. Low levels of public investment in physical and human capital may mean insufficient spending on the physical infrastructure, education and training that are essential to a healthy economy.

Overall, the weight of evidence from economic research suggests that the ongoing debate over balancing the budget would be better focused, instead, on the larger issue of the proper role and size of government in the economy.

—Stephen Prowse

Notes

- ¹ This potential liability dwarfs the cost to the government of the savings and loan crisis, which totaled roughly \$155 billion over four years.
- ² Proponents of the "deficits matter because bond markets believe they matter" school argue that such evidence does not conflict with their hypothesis because bond markets may believe deficits matter only at certain times; for example when the budget deficit is large relative to GDP by historical standards. Thus, the bond market may have become focused on the deficit in the mid-1980s and early 1990s when the deficit increased. Empirical studies over a long time period would not pick up this phenomenon.

Texas' Real Estate Boom

(Continued from page 2)

gesting that construction is in line with demand. While vacancy rates have come down in the nonresidential sector, increases in speculative building are not evident.

Bankers' standards for real estate loans in the 1990s are much tougher than those of the early 1980s. Texas' wave of bank failures in the late

1980s forced the industry to impose strict underwriting standards and to scrutinize loans more closely. Despite a recent lending recovery in Texas and some easing of credit standards, banks rarely make real estate loans to developers without several committed tenants. Similarly, investors are more careful now. The Tax Reform Act of 1986 removed the tax incentive to invest in income-losing properties and reduced the attractiveness of real estate investments relative to other types of investments.

Real estate and construction are cyclical industries and will rise and fall along with fluctuations in the national and regional economies. But because the growth of these industries in the 1990s seems based on the fundamental strengths of the Texas economy, the next downturn should not trigger another 1980s-style bust. Today, the real estate sector's strength is grounded in

economic reality. As long as developers, bankers and investors keep demand and supply in balance, the real estate and construction industries should prosper throughout the 1990s.

—D'Ann M. Petersen

Notes

- ¹ These laws were the Depository Institutions Deregulation and Monetary Control Act of 1980 and the Garn-St Germain Depository Institution Act of 1982.
- ² In this article, real estate-related employment includes construction, lumber and wood products; stone, clay and glass products; furniture and fixtures, fabricated structural metal products; real estate; retail sales of construction materials and home furnishings.
- ³ Likewise, commercial rents are low in Texas. The average cost for first-class Dallas office space at the end of 1994 was \$17 per square foot, compared with \$40 per square foot nationally.

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