Commentary: What Do Budget Deficits Do?

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The title of Ball and Mankiw's paper asks: What Do Budget Deficits Do? One answer to that question is a restatement on the pure theory of debt-financed budget deficits. An alternative answer would develop the effects on the U.S. or world economies on the assumption that the U.S. federal government balances its budget by reducing spending, instead of raising tax rates, or running deficits equal to 2 or 3 percent (or higher) of GDP. The alternative answer considers not only deficit reduction but the way in which deficit reduction is achieved and the effects on resource allocation.

I want to emphasize that the two answers are very different because they answer different questions. Ball and Mankiw are mainly concerned with the first set of issues. I believe most of the people in this room are more interested in the second set of issues. What happens if the deficit is eliminated by reducing government spending or raising taxes? What happens if entitlements spending is reduced enough to eliminate or sharply reduce the deficit?

Reducing the deficit

Ball and Mankiw correctly emphasize that in the pure theory of debt financing, the effect of reducing the deficit is given entirely by the effect on saving. If private and public saving are perfect substitutes, one falls exactly as much as the other rises. This would occur if the public recognizes the public debt as a future liability and saves

enough to maintain net wealth unchanged. In this case, what Robert Barro (1974) called Ricardian equivalence, the deficit has not changed total (national) saving, so closing the deficit does not change national saving. Any effect of current budget proposals will come from changes in resource allocation.

If private saving does not completely offset the reduction in the deficit, national saving increases. Ball and Mankiw point out—again correctly—that the increase in national saving lowers U.S. interest rates and the dollar falls relative to foreign currencies. The fall in the dollar is the means by which the U.S. current account deficit—hence its capital inflow—is reduced. This result—increased national saving, depreciation of the dollar, reduction in U.S. foreign borrowing and asset sales, and a smaller U.S. current account deficit—is the one that Ball and Mankiw expect.

To complete their analysis, the principal remaining issue is the size of the changes. Since everything in their analysis depends on the change in total saving, the magnitudes we want are the amount by which private saving falls as the deficit is reduced and the effects of the change in national saving on other variables of interest. Ball and Mankiw argue that it is difficult "to give precise estimates of the sizes of the effects." In the second section of their paper, however, they make some estimates of the cost of past deficits.

A flawed experiment

The experiment they ask us to consider is: What happens if private capital replaces all of the outstanding government debt? This is an interesting question but it is not the question we want answered. It avoids a key issue: How much would private saving change if the deficit is eliminated? It is, at best, a starting point for learning about some effects of balancing the federal budget. The principal reason is that Congress is not considering debt reduction. At most, the debt would increase more slowly for seven years and then remain unchanged. In seven (or ten) years, the public debt would still be there; in fact, it would be at least 25 percent larger.

Nevertheless, we can use Ball and Mankiw's experiment as a starting point. Outstanding U.S. government debt in the portfolios of U.S. and foreign holders is now about $3 trillion. U.S. net wealth—including the government's negative net worth or net debt—is approximately $20 trillion, so the $3 trillion debt is 15 percent of net wealth. Net wealth includes land, real estate, and consumer durables. Equity in corporations and unincorporated businesses is less than half net wealth, perhaps $8 trillion; using this as our base, the experiment increases net equity by 38 percent of the total amount accumulated in the almost 400 years since the first settlers arrived in Jamestown and Plymouth.

These numbers are offered to suggest that the experiment considers a large change, not a marginal adjustment. An increase in the capital stock of the size considered would reduce the marginal product of capital and, therefore, lower the increase in income resulting from the change. Moreover, the debt will continue to increase faster than the capital stock for several years, the capital stock is unlikely to increase by the full amount of deficit reduction, and most of the reduction is postponed until the later years. Ball and Mankiw recognize the first of these problems, but they make no adjustment. On their calculation, the effect on output is 6 percent of current GDP. For the reasons I mentioned, this is surely an overestimate, possibly a maximum effect of eliminating the debt, at or near current values of the debt relative to GDP.

The question which we want answered is the effect of balancing the budget, not the effect of eliminating the total accumulated debt. The annual deficit is $200 to $300 billion, roughly 1/10 or 1/15 of the stock of debt. If the deficit were eliminated, the maximum effect on GDP, using the Ball and Mankiw calculation, is 1/10 or 1/15 of 6 percent of GDP or somewhere between 4/10 of 1 percent and 6/10 of 1 percent of GDP. At current values, we gain at most $30 or $40 billion a year in additional GDP if the budget is balanced and all of the deficit is replaced by additions to capital. Balancing the budget, under these optimistic assumptions, has a trivial annual effect in a economy that produces $7 trillion per year at current prices.

The message of this calculation is that Robert Barro's so-called Ricardian equivalence is not totally right but it is far from completely wrong. Ball and Mankiw's calculation suggests that the effects of the budget deficit on total saving are small. I include myself among those who believed that Barro's analysis had limited relevance to an actual economy when I first read his paper. After nearly twenty years of empirical testing, and many efforts by economists to reject his argument empirically, I believe that Barro's conclusion is closer to the truth than I (and many others) recognized at the time. Real interest rates and real exchange rates are affected by budget deficits, but the size of the effect is small. U.S. bonds are good substitutes for foreign bonds of equivalent risk. The supply of capital to finance the budget appears to be relatively elastic; bond-financed deficits have not had much effect on the real exchange rate, probably because U.S. government debt has close substitutes. Perhaps this has changed now that private investors no longer finance most of the U.S. current account deficit. I consider this possibility below.

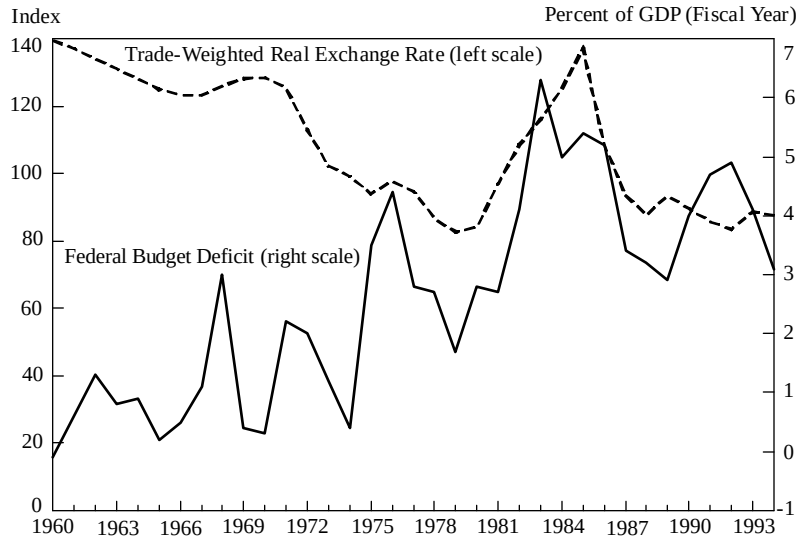
Chart 1 compares the deficit (as a share of GDP) to the trade-weighted real exchange rate. There is no persistent pattern. In the years to 1980, the deficit rises as the real exchange rate falls. For these years, rising average deficits accompany a depreciating real exchange rate. From 1983 to 1994, the opposite is true. The deficit and the real exchange rate are positively related; higher deficits and dollar appreciation go together.

Chart 2 presents the same data in another way. Budget deficits and the real exchange rate appear to be unrelated. This conclusion is supported by econometric studies that hold constant other relevant factors affecting the real exchange rate. See Meltzer (1993). Most studies do not hold constant budget deficits of foreign governments. Allowing for a decline in the deficits in all Organization for Economic Cooperation and Development (OECD) countries as a group might suggest a larger effect.

Fiscal policy effects

Is that the end of the story? Has fifteen years of talk about the

Chart 1
Federal Budget Deficit Versus Trade-Weighted Real Exchange Rate 1960-1994

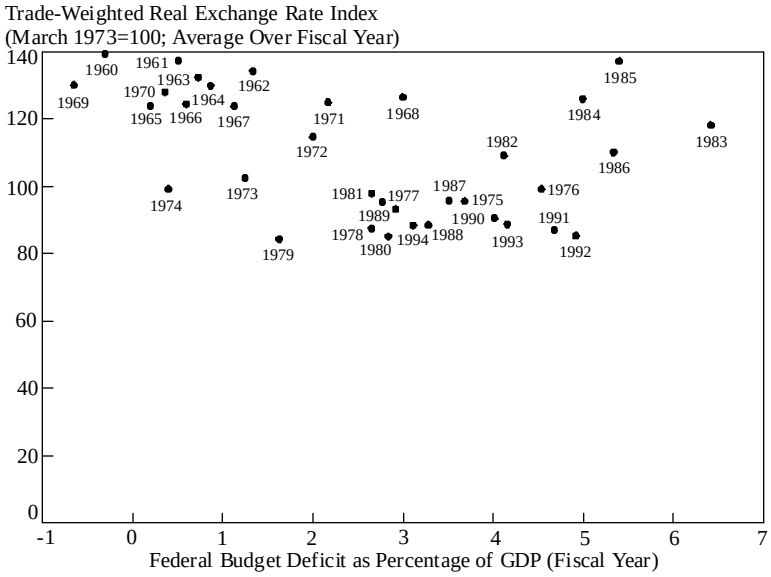


harmful effects of the U.S. budget deficit been mostly hyperbole? Do Ball and Mankiw's estimates suggest that closing the deficit would have no significant effect on economic activity, the U.S. current account balance, or the exchange rate and other relative prices?

I believe Ball and Mankiw neglect the important effects of the fiscal changes now under consideration in the Congress. When, or if, Congress and the President agree on a deficit reduction program, it now seems likely they will decide to reduce government spending on transfer payments and possibly reduce tax rates. The pure theory of debt-financed deficits ignores these effects.

Reductions in government spending change the use of resources. Although it is difficult to find reliable evidence of the effect of deficits on the exchange rate, there is reliable evidence of the effect of government spending. Evidence suggests that increased government spending for defense appreciates the real exchange rate, shifts

Chart 2
Federal Budget Deficit Versus Trade-Weighted Real Exchange Rate 1960-1994



resources from private to public use, and raises interest rates. Defense spending is one of the reasons for the real appreciation of the dollar in the early 1980s and its depreciation after 1985 and in the 1990s. Many transfer payments shift resources toward consumption at the expense of investment. These shifts affect relative prices. Government spending and tax rates have effects on incentives and resource allocation that are much larger than the effects of the debt financing that pays for these fiscal changes.

If the reduction in government consumption spending releases resources for investment, or if reductions in tax rates enhance incentives, fiscal contraction has long-run positive effects. If governments promote consumption at the expense of investment, removing that bias has positive effects on resource use and economic well-being. Many of the long-run effects of the fiscal changes now proposed would increase the expected after-tax return to investment in the United States relative to returns available elsewhere, so residents

and foreigners would invest relatively less abroad and relatively more in the United States. These changes would reduce the current account and trade deficits. The size and direction of the effects on interest rates and exchange rates depend on the type of tax and spending changes that occur, but the net effect is expansive.

Other issues

When central bankers talk about budget deficits, as they often do, they express two principal concerns. The first arises from the macro budget constraint. When fiscal expansion raises interest rates, central banks are pressed by finance ministers, parliaments, homebuilders, and other borrowers to keep interest rates low or not let them rise. Also, central banks are pressured by exporters to limit currency appreciation by monetary means or by importers to limit depreciation. Ball and Mankiw's discussion mentions these pressures on monetary policy only in passing. The fact that the effects of deficit spending come mainly from effects on spending, resource allocation, monetary expansion, and incentives—not debt finance—makes them no less real.

Second, experienced central bankers are concerned about the accumulation of domestic debt and assets by foreigners. I have argued that the evidence supports the proposition that U.S. debt is a close substitute for the debt of other large industrial countries. At some point, however, foreigners may become less willing to accumulate additional claims on a persistent borrowing country. This may occur because of binding restrictions on institutional holders or a decline in the expected risk-adjusted real return to assets relative to returns elsewhere.

History suggests that many countries with chronic budget and current account deficits experience high inflation. The reason is that the central bank satisfies the budget constraint by becoming the principal lender to the government either by buying the debt directly or in the open market. Inflation is a means of repudiating the debt that becomes more attractive as the debt grows relative to GDP or wealth. When the public recognizes this risk, there is a flight from

money and debt by foreign and domestic holders. Experience suggests that prudent central bankers should not ignore this possibility, although the United States is a rich country with many assets to sell.

In fact, the United States, like Germany, France, Canada, and other countries with continuous, large deficits relative to GDP, has avoided monetizing its deficits in recent years. Inflation has been reduced in all developed countries, contrary to many predictions.

There is, however, a cause for concern about recent financing of the U.S. deficit. In the 1980s, private investors voluntarily accumulated dollar assets. As recently as 1988 or 1989, the net flow of private capital to the United States was about $100 billion a year. For 1991 to 1993, the average is about $25 billion. For the three and one-half years ending in June 1994, foreign central banks and governments financed half of U.S. net foreign borrowing. In 1993, their share was 70 percent. In first quarter 1995, central banks and governments financed 87 percent of the net capital flow to the United States.

Some of the dollar accumulation is at central banks that peg their currencies to the dollar or to a basket including the dollar. Even in these cases, accumulation of dollar-denominated debt may exceed the amount that central banks are willing to hold. Instead of preventing the appreciation of their currencies, they may substitute strong for weak currencies. An adjustment of this kind by Asian central banks this year may have contributed to the sudden, relatively large decline in the dollar in 1995. Changes of this kind have short-term real effects.

Conclusion

Ball and Mankiw have contributed a lucid account of the economics of debt-financed deficits. My comments are an attempt to extend their analysis by considering other aspects of fiscal policy of interest to central bankers and private citizens. How the deficit is reduced has more important effects than deficit reduction.

Restraining the growth of transfer payments, while reducing taxes on capital to raise the expected after-tax return to capital, is desirable even if the budget deficit remains. Congressional proposals for deficit reduction achieved by reductions in entitlements and tax reform are therefore welcome not only for their effects on the deficit but because they increase efficiency and productivity and improve resource allocation.

References

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