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Understanding the Twin Deficits: New Approaches, New Results

Since 2002, the U.S. has seen the emergence of twin deficits—that is, a growing budget deficit along with a growing current account deficit, which reflects increasing U.S. borrowing from abroad. To some analysts, this situation seems very reminiscent of the early 1980s. In the earlier episode, there were significant tax rate cuts that were not matched by spending cuts, and between 1981 and 1986, the U.S. budget deficit went from 2.5% of GDP to about 5% of GDP and the current account went from being roughly in balance to a deficit of 3.3% of GDP. In 2001, there were tax rate cuts that were not matched by spending cuts, and the U.S. budget went from a surplus to a deficit that reached 3.5% of GDP in 2004; the current account deficit also soared, rising from 3.8% of GDP in 2001 to 5.7% in 2004.

Standard economic theory would not find either situation surprising. Other things being equal, a budget deficit implies a decrease in national saving, which is the sum of private saving plus the government fiscal balance. By definition, when national saving falls below domestic investment—that is, when the U.S. does not have sufficient saving to finance its investment, and therefore borrows from abroad—the current account is in deficit.

Of course, other things are not always equal. A number of factors may affect how much budget deficits explain current account deficits, and an extensive theoretical and empirical literature has emerged to evaluate them. This *Economic Letter* reviews several of these studies. The findings suggest that the relationship between the deficits may be fairly tenuous. And in a surprising result, one study finds that—in the short run, at least—budget deficits actually have a positive effect on the current account balance.

The basic theory of twin deficits

A study by Baxter (1995) provides a good illustration of the standard case of the twin-ness of the budget deficit and the current account deficit. She studies the reaction of a model economy to two fiscal policies that can lead to a worsening budget deficit: first, an increase in government expenditure not matched by an increase in tax revenues; and, second, a decrease in labor and capital tax rates not matched by a reduction in expenditure. Under both policies, the increase in the budget deficit is equivalent to about 1% of GDP in the short run, and it dies out gradually over the longer run. Her results show that, following the increase in the budget deficit, the current account balance deteriorates by about 0.5% of GDP.

How does each policy lead from a budget deficit to a deterioration in the current account balance? First, consider the policy based on an increase in government spending. When the budget deficit increases, domestic residents anticipate that the government will raise taxes in the future to close the fiscal gap and pay back the accumulated debt. To pay for the expected future increases in taxes, people will want to save and accumulate wealth, which they can do in two ways—by spending less and by boosting their income by increasing the number of hours they work. To the extent that people choose the second route and increase the hours they work, they make the capital stock more productive, which fosters more private investment. The increase in investment partially offsets the increase in private saving, so that, overall, the current account balance deteriorates in response to the deterioration of the government fiscal balance.

Next, consider the policy based on a persistent reduction in capital and labor tax rates. After the tax rate cuts, people choose to work harder and increase the number of hours worked to take advantage of the increase in their after-tax labor income. Given the higher supply of hours worked, both output and the productivity of capital increase. The increase in output mitigates the initial decline in tax receipts and in the government's budget situation. But this is more than offset by a strong expansion in domestic investment that is driven by two things: first, as in the previous policy, the higher number of hours worked increases the productivity

of capital, which fosters investment; second, the reduction in tax rates itself fosters investment. As a result, the current account deteriorates.

Why the twins sometimes go their separate ways

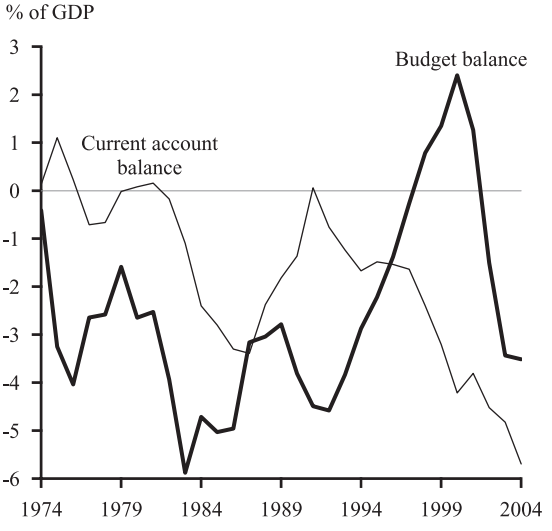
Although theory indicates that the budget deficit and the current account deficit should move together, Figure 1 shows that they followed quite divergent paths from 1987 to 2001. One possible explanation for this divergence is related to the impact of output fluctuations on budget and current account deficits. Suppose, for example, the economy enjoys a surge in productivity that prompts an expansion in economic activity. To reap the opportunities of higher productivity, private investment increases. As investment expenditure typically reacts more strongly to the business cycle than private saving does, the current account balance deteriorates. At the same time, the output expansion generates both an increase in tax receipts and a decline in government expenditure, due, for example, to a decline in unemployment benefits. Therefore, the budget balance improves.

Kim and Roubini (2004) used a different methodology from Baxter (1995) to do an empirical study of the effects of budget deficits on the current account that captures the impact of output fluctuations. They found that, overall, at horizons of one to two years, output fluctuations explain most of the divergence between the budget balance and the current account. However, more importantly, after controlling for the effects of the business cycle on the budget and current account balances and isolating the variations in the budget balance that are independent of output fluctuations, they found a surprising result: increases in the budget deficit have a *positive* impact on the current account in the short run, regardless of whether the deficit arises from an increase in government expenditure or a reduction in taxes. The reason for this surprising finding is that, following an increase in the budget deficit, private saving increases, as discussed before; at the same time, interest rates rise because of increased government borrowing, and the higher interest rates dampen private domestic investment. In combination, Kim and Roubini (2004) found that the increase in private saving and the decline in domestic investment are more than enough to offset the decline in government saving in the short run and contribute to the current account improvement.

Bringing theory closer to the data

Recent studies by Erceg, Guerrieri, and Gust (2005) and Cavallo (2005) have helped bring the theoretical predictions closer to the empirical results of Kim and Roubini (2004). Erceg, Guerrieri, and Gust (2005) explore the twin deficits from the perspective of the balance of trade, which is the goods and services portion of the current account balance, and, by far, its largest component. They evaluate how the trade balance responds to an increase in the budget deficit that arises from either higher government expenditure or reduced labor tax rates. They find that budget deficits, regardless of their source, have a far more modest effect than Baxter (1995) found. In particular, a deficit-financed increase in government expenditure corresponding to 1% of GDP induces the trade balance to decline by about 0.15% of GDP, and a persistent cut in labor tax rates that produces a decline in tax receipts equivalent to 1% of GDP induces a trade balance deterioration of about 0.12% of GDP.

Figure 1
U.S. budget and current account balances



What accounts for the more modest effect? When the budget deficit increases, the resulting higher interest rates induce an appreciation of the exchange rate, which makes domestic goods relatively more expensive than imported goods. In theory, these relative price changes would depress sales of domestic goods and stimulate sales of imported goods, thereby leading to a deterioration in the trade balance. In reality, however, a considerable share of international trade in goods and services between the United States and the rest of the world tends to be relatively insensitive to exchange rate fluctuations, at least in the short run. To account for this empirical regularity, the model introduces two crucial features. The first feature is a lower responsiveness of exports and imports to relative price changes in the long run. The second is the

presence of substantial adjustment costs involved in switching from domestic to imported goods, and vice versa, in the short run. The second feature, in particular, makes the demand for exported and imported goods even less responsive to fluctuations in exchange rates and relative prices in the short run than in the longer run, when adjustment costs are zero. Overall, both features significantly dampen the response of the trade deficit to an increase in the budget deficit.

Cavallo (2005) draws attention to the composition of government current expenditures, in particular, the wage costs of government employees, which, essentially, correspond to expenditure on nontraded labor services. These services include, for example, general public service, national defense, public order and safety, health, education, and others. This study finds that an increase in government expenditure on these labor services corresponding to 1% of GDP produces a deterioration in the current account balance of barely 0.05% of GDP. An increase in this component of government expenditure is accommodated by an increase in the number of hours that people work, rather than a deterioration in the current account balance. These findings hint at the possibility that a budget deficit generated by an increase in expenditure on nontraded labor services has a substantially smaller impact on the current account than one generated by an increase in expenditure on, say, tradable goods. In addition, since the bulk of government current expenditures during the postwar period has gone toward nontraded labor services, these findings also suggest that budget deficits may have had a smaller impact on the current account than predicted by studies where government expenditures consist entirely of tradable goods.

Conclusions

Sibling relationships are always complicated, and, as these studies indicate, so is the relationship between the twin deficits. Although standard economic theory predicts that a deterioration in the budget balance results in a deterioration of the current account, the data in Figure 1 show that the two do not always move together. Indeed, the studies cited in this *Economic Letter* suggest that, if there is any relationship, it is fairly tenuous. The reason is that a number of factors can play a role in determining the impact of budget deficits on the current account. For policymakers, these results ultimately raise questions about the extent to which a reduction in the budget deficit can lead to an improvement in the current account deficit.

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