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# FRBSF WEEKLY LETTER

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## The Lonesome Twin

The first half of the 1980s saw the emergence of a large federal budget deficit and an equally large trade deficit. Indeed, the association between them was so close that the two were popularly labeled "twin deficits."

Economic theory suggests that this association is likely when financial capital crosses international borders easily. Policies that produce a larger budget deficit put temporary upward pressure on domestic interest rates, which in turn induces net inflows of capital from abroad. These inflows reduce the pressure on domestic interest rates and cause the dollar to appreciate, which in turn produces a "twin" trade deficit.

However, in the last half of the 1980s, the trade deficit shrank almost to nothing even though the federal budget deficit persisted. This *Weekly Letter* explores the reasons for the appearance and subsequent disappearance of this "twin" trade deficit, and also argues that it is likely to appear again in significant proportions.

### Emergence of the "twin deficits"

The tax reductions and government spending increases that were initiated in 1981, together with the continuing growth of social insurance outlays and the increase in interest on the national debt, caused the federal budget deficit to rise sharply in the first half of the 1980s—from \$60 billion in 1980 to \$135 billion in 1982 to \$201 billion in 1986. Thus, by 1986 it amounted to 5.5 percent of the net national product (NNP), an increase of 3 percentage points from the start of the decade. Since then it has ranged between 3 and 6 percent of NNP.

At first the rise in the budget deficit was paralleled by an increase in the trade deficit, which jumped from \$15 billion in 1980 to \$132 billion in 1986. This was equal to an increase of 2.9 percentage points of the net national product. But by 1991 the trade deficit had shrunk to only a shadow of its former self, at \$22 billion.

While the budget deficit and the trade deficit are thought of as "twins," there is another deficit sibling to consider as well, namely, the deficit in net

foreign investment. Our net foreign investment is the net amount of financial capital flowing to foreign countries from the U.S. As an identity in our balance of payments, net foreign investment equals net exports plus unilateral transfer payments. Since transfer payments are relatively small and change only slowly, the emergence of the trade deficit implied a similar change in net foreign investment.

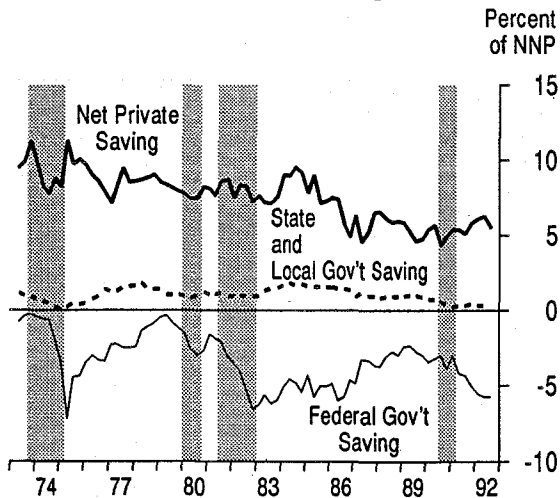
Net foreign investment declined from a positive balance equal to 0.2 percent of NNP in 1980 to a negative balance (that is, a net inflow of financial capital from abroad) of 3.8 percentage points in 1986. Up to this point, the increase in the federal budget deficit was financed, either directly or indirectly, entirely by borrowing from abroad, with net foreign investment falling by somewhat more than the increase in the budget deficit. But by 1991 net foreign investment had shifted from a large deficit to a small surplus. Thus, both "twin deficits"—trade and net foreign investment—disappeared in the late 1980s and early 1990s, while the budget deficit persisted.

### Relationships with national saving and investment

The appearance and subsequent disappearance of both the trade deficit and the deficit in net foreign investment is most easily analyzed in terms of the overall balance between the nation's saving and investment. The amount of government saving (dissaving) is measured by the amount of the government's budgetary surplus (deficit). As shown in Figure 1, saving by state and local governments, mostly for pension funds, has been positive and fairly steady at about 1 percent of the net national product. In contrast, federal government saving has shown both strong cyclical and policy-induced fluctuations. As a percent of NNP, federal government saving dropped sharply in the 1974–1975, the 1980, and 1981–1982 recessions. But because of budgetary policy changes, it has never fully recovered from those lows. Net private saving (net of depreciation) by individuals and corporations has displayed relatively little cyclical variation as a percent of NNP, but has trended downward since the early 1970s.

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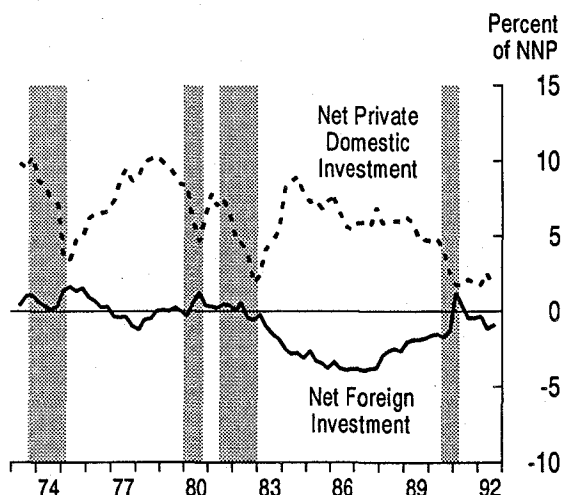
**Figure 1: Net National Saving**



Shaded areas are periods of recession, as dated by the National Bureau of Economic Research.

National investment is made up of net private domestic investment (also net of depreciation) plus net foreign investment (Figure 2). Thus, national saving can be either invested in domestic capital formation or invested abroad. Moreover, national saving must always equal national investment.

**Figure 2: Net National Investment**

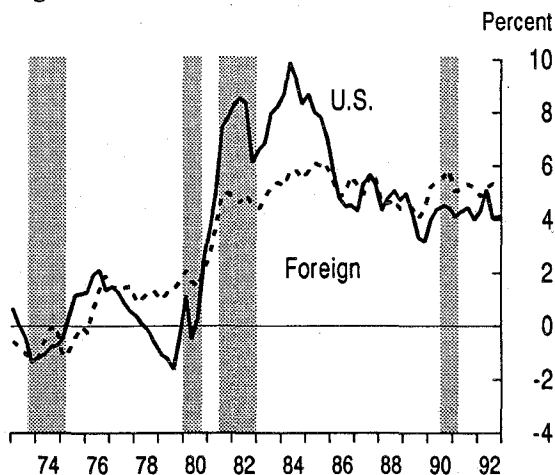


Net foreign investment equals net exports of goods and services plus unilateral transfer payments received by the U.S.

In the first half of the 1980s, the policy-induced reduction in government saving produced a similar decline in net foreign investment, without

either significantly increasing net private saving or decreasing net private domestic investment. In fact, net private domestic investment rose in response to a business cycle upswing. The larger budget deficit at first put upward pressure on U.S. interest rates relative to foreign interest rates. But by the mid-1980s the subsequent net inflows of capital associated with the decline in net foreign investment both reduced the interest rate differential (Figure 3) and put upward pressure on the dollar.

**Figure 3: Real Bond Rates**



### Uncoupling the "twin deficits"

To understand why the large deficits in the trade balance and in net foreign investment disappeared while the budget deficit remained, it is helpful to look at other elements of saving and investment.

The sum of both state and local government saving and net private saving changed very little as a percent of NNP after 1986 (Figure 1). In contrast, net private domestic investment dropped sharply (Figure 2). In fact, the decline as a percent of NNP after 1986 is almost a "mirror image" of the increase in net foreign investment. So the increase in net foreign investment was clearly quite closely associated with a similar decline in net private domestic investment. But which caused which?

Increased net foreign investment could have caused net private domestic investment to decline if, as a result of the large amount of previous capital inflows, foreign portfolios had become saturated with dollar-denominated assets. In that case, foreigners would have desired to accumulate fewer dollar-denominated assets than before. This would have generated more net foreign investment, a lower dollar, and higher interest rates in the U.S. relative to those abroad. The higher U.S. interest rates would have reduced net

private domestic investment. The trouble with this hypothesis, however, is that it does not appear to be consistent with all the facts.

The differential between U.S. and foreign real bond rates rose in the early 1980s as the budget deficit generated a higher level of U.S. government borrowing (Figure 3). But then in the mid-1980s the subsequent net inflows of foreign capital reduced the interest rate differential to a near-zero normal level. After the mid-1980s the differential between U.S. and foreign real bond rates was quite stable, whereas a large shortfall of foreign capital inflows would have tended to increase it significantly. So the behavior of interest rates seems inconsistent with this hypothesis.

So does the behavior of the value of the dollar. Although it declined sharply from 1984 to 1987, this decline was produced by the decline in the differential between U.S. and foreign real bond rates, as well as by the sharp decline of oil prices in 1986 (see Throop 1992). After 1987, the value of the dollar changed very little, which is inconsistent with a growing aversion of foreign investors to U.S. assets.

The alternative hypothesis—that a business cycle-induced decline in net private domestic investment caused an increase in net foreign investment—is more consistent with the evidence. Net private domestic investment has a strong cyclical component, which tends to cause significant changes in the other components of saving and investment. But private investment itself is not strongly affected by these other components. As seen in Figure 2, net private domestic investment dropped sharply as a percent of NNP in the 1974–1975, 1980, and 1981–1982 recessions. Then in the most recent cycle it fell from nearly 6 percent of NNP in 1988 to around 2 percent in 1991–1992.

This recent drop in net private domestic investment produced both a reduction in government saving and an increase in net foreign investment. As in previous recessions, government saving was reduced as the recession lowered incomes and tax receipts. Also as in previous cycles, net foreign investment rose because the decline in net private domestic investment reduced the demand for domestic saving. Since financial capital is highly mobile internationally, this decline in the demand for domestic saving encouraged a

net outflow of financial capital from the U.S. with only a small change in the interest rate differential. In other words, with fewer investment opportunities in the U.S. more capital flowed out and less flowed in. As a result, net foreign investment and the trade balance strengthened in concert with the decline in net private domestic investment. This inverse association between net private domestic investment and net foreign investment (and the trade balance) is evident in the three previous recessions as well (see Figure 2).

### Conclusion

In the early 1980s, a large U.S. trade deficit and a net foreign investment deficit emerged as “twins” of the large U.S. budget deficit. But by 1991 both had almost entirely disappeared, though a large budget deficit remained.

The uncoupling of the other deficits from the budget deficit was caused by the behavior of net private domestic investment, which competes with the government for private saving. An uncoupling occurred in the late 1980s because private domestic investment dropped sharply, as U.S. growth slowed and a recession followed. This resulted in a decline in the private demand for saving that exceeded a simultaneous drop in government saving. So net capital outflows increased, or net foreign investment rose. As a result, the other deficits disappeared, while the government deficit persisted.

The outlook is for a reemergence of the two other deficits, however. As the economy continues to recover from the 1991–1992 recession, private domestic investment has already begun to rise as a percent of the net national product; and this is bringing with it a deterioration in net foreign investment. Furthermore, the Clinton administration’s fiscal program would do little to diminish the budget deficit in the near term. As a result, even with a recovery of moderate proportions, the deficits in net foreign investment and the trade balance could come close to their highs of 1986 in a few years.

**Adrian W. Throop**  
Research Officer

### Reference

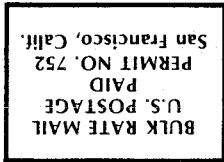
Throop, Adrian W. 1992. “The Dollar: Short-Run Volatility and Long-Run Adjustment.” Federal Reserve Bank of San Francisco *Weekly Letter* (October 9).

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