The February-April 1987 Episode

When the dollar declined to an almost 10-year low in March 1987, officials apparently feared that it was falling too far. Excessive decline risked recession abroad and additional inflationary pressures in the United States. Officials of the major nations had agreed to cooperate closely to foster stability of exchange rates around current levels.14 Consequently, major nations' central banks began intervening in foreign-exchange markets, buying dollars to resist depreciation.

Central-bank-intervention purchases of dollars typically result in an official capital inflow to the United States in the form of foreign saving. Because total foreign saving—private and official—can change more rapidly than the typically slow change in the trade deficit, a sharp increase in official foreign saving must be accompanied by an equally sharp decrease in private foreign saving. The volume of the intervention in this episode was extremely large and, when measured relative to the size of the U.S. economy, is among the largest for any three-month period.

The possibility that there had been a sudden, large decline in private foreign saving raised questions about the continued willingness of private portfolio holders to acquire dollar assets. Of course, if central banks had not intervened, exchange rates and interest rates would have changed enough to attract the amount of foreign private saving necessary to finance the trade deficit. The real question is whether that saving would have come on terms compatible with domestic investment of an amount sufficient for continued growth of the U.S. economy.

We don't know what caused private portfolio holders to seek more favorable terms. A reasonable conjecture is that rising prices of U.S. imports increased investors' fears that inflation in the United States would accelerate. Another possibility is that actions and proposals by the administration and Congress that would be adverse to foreign investment in the United States may have frightened foreign investors.15

Whatever the cause for private portfolio holders' reluctance to invest in the United States in the February-April period, the terms of investment ultimately adjusted enough to induce private capital inflow to recover. Interest rates rose in the United States and fell abroad, changing interest rate differentials in directions that trade dollar assets more attractive. The dollar depreciated somewhat despite the intervention, reducing the potential for future depreciation and making purchases of dollar assets more attractive.

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these holders—relative interest rates and exchange rates—rather than in the size of the saving and investment gaps. For example, if international portfolio holders sought to shift substantial amounts of their holdings away from dollar assets toward claims on the rest of the world, there would be two potential effects. First, reduced demand for dollar assets would imply a reduced demand for dollars in foreign-exchange markets. Other things being equal, this would put downward pressure on the dollar's exchange rate. While the increased appreciation would also tend to reduce the trade deficit, as we have noted, such an effect occurs rather slowly.

Second, reduced demand for dollar assets would tend to reduce the price of assets and raise the level of interest rates in the United States relative to interest rates abroad. The key implication is that factors that affect domestic and foreign investors' willingness to finance the trade deficit have a much greater effect on the terms of financing than on the size of foreign saving in the short run.  

Increasing Dependence on Foreign Saving

Since about 1981, the United States has become increasingly dependent on foreign saving (chart 1). Increase dependence on foreign capital is largely attributable to two factors: the increase in the current-account deficit and the recent increase in, and persistence of, U.S. budget deficits. To illustrate the importance of these factors, it is useful to recognize some additional constraints imposed by the NIA framework. Above all, the NIA framework allows us to break down excess spending (E-V) into two components: the difference between domestic saving and domestic investment and saving (S-I) and the difference between federal government expenditures and taxes (G-T). Given that excess spending must be the same as foreign saving (FS), then FS = (S-I) + (G-T).

Thus, foreign saving must be equal to the difference between investment and saving in the United States plus the federal budget deficit. This relationship imposes requirements on the various components. For example, if domestic saving declined, then the budget deficit increased, while foreign saving seemed to be unaffected. The budget deficits during this period, however, might not have been persistently large enough to provide a basis for discriminating between the two views of the effects of budget deficits. After 1982, budget deficits averaged around $150 billion, compared to 2.4 percent in the 1970s and less than 1 percent in the 1960s. Moreover, the budget deficit averaged 8.5 percent of GNP from 1980 to 1982 and 18.0 percent in 1981 to 16.2 percent in 1986. Nonetheless, private investment increased rapidly, supported in part by increased foreign saving of the dollar. The strength and persistence of the investment—particularly in the early 1980s—made it possible for the other competing reasons for appreciating dollar suggest that the Mundell view was correct.

The willingness of portfolio holders to increase their purchases of dollar assets would tend to increase the demand for dollar assets, which would help to keep U.S. interest rates below their otherwise normal levels. This would drive the dollar’s exchange rate higher. Moreover, the extent to which these factors can contribute to an upward pressure on the real exchange rate depends on the relative desire of foreign investors to hold dollar assets. When foreign investors began to demand even greater returns on their investments than previously prevailed, they would tend to reduce excess spending in the United States and exceed saving abroad, as well as reduce trade imbalances.

Reducing Dependence on Foreign Saving

Senior officials of the Group of Five nations (France, West Germany, Japan, the United Kingdom, and the United States) recognized that the large U.S. external imbalance could lead to damaging protectionist actions by the United States. Following the Plaza Accord in September 1985, the Group of Five stated that "further substantial exchange rate progress, which was augmenting economic growth in the United States and elsewhere, ... was not needed. They agreed that their currencies were then "...within a range of reasonable stability which was conducive to ecological fundamentals." Although the nominal trade deficit had declined only slightly, the real trade imbalance was beginning to show solid progress, which was augmenting economic growth and reducing the need for the United States to finance its growing trade deficit. The officials of major nations agreed that "the economies of several other major nations were at about the same stage of recovery and tax reduction as the United States. Following its meeting in September 1985, the Group of Five stated that "further substantial exchange rate progress, which was augmenting economic growth in the United States and elsewhere, ... was not needed. They agreed that their currencies were then "...within a range of reasonable stability which was conducive to ecological fundamentals." Although the nominal trade deficit had declined only slightly, the real trade imbalance was beginning to show solid progress, which was augmenting economic growth and reducing the need for the United States to finance its growing trade deficit.
these holders—relative interest rates and exchange rates—rather than in the size of the saving flow. Moreover, given the role of the United States in international portfolio holders sought to shift substantial amounts of their holdings away from dollar assets toward claims on the rest of the world, there would be two potential effects. First, reduced demand for dollar assets would imply a reduced demand for dol-
lar in international-exchange markets. Other things being equal, this would put downward pressure on the dollar’s exchange rate. While these expectations would also tend to reduce the trade deficit, as we have noted, such an effect occurs rather slowly. Second, reduced demand for dollar assets would tend to reduce the price of assets and raise the level of interest rates in the United States relative to inte-
rest rates abroad. The key implica-
tion is that factors that affect domestic and foreign investors’ willingness to finance the trade deficit have a much greater effect on the terms of financing than on the size of foreign saving in the short run.6

Increasing Dependence on Foreign Saving

Since about 1981, the United States has become increasingly dependent on for-
eign saving to finance its trade deficit. Increased dependence on foreign capital is largely attributable to two factors: the increase in the size of the saving rate and the recent increase in, and persistence of, U.S. budget deficits. To understand the role of foreign in-
te
tors, it is useful to recognize some addi-
tional constraints imposed by the NFA freedom of capital movement, which allows us to break down excess spend-
ing (E-V) into two components: the dif-
ference between private domestic saving and domestic saving (I-S), plus the dif-
fference between federal government expenditures and taxes (G-T). Given that excess spending must be the same as foreign saving (FS), then FS = (I-S) + (G-T).

6. Foreign saving is measured as the current-account balance with the sign reversed.

The cyclical patterns appeared to support the first view because invest-
ing foreign capital when budget deficits increased, while foreign saving seemed to be unaffected. The budget deficits during this period, however, might not have been persistently large enough to provide a basis for discrimi-
nating between the two views of the effects of budget deficits.

After 1982, budget deficits averaged about 3.5 percent of GNP compared with 2.4 percent in the 1970s and less than 1 percent in the 1960s. Moreover, the real interest rate increased from about 18.0 percent in 1981 to 16.2 percent in 1986. Nonetheless, private investment increased, supported by rising levels of foreign saving. The strength of investment—particularly in the ear-
ly 1980s—may be attributed to appreciating dollar suggest that the Mundell view was correct. Increased rates of real U.S. interest rates suggest that capital flows rose sharply and stayed high through 1984. Moreover, real interest rate differen-
tials also increased in favor of dol-
lar assets.7 To many analysts, real interest rates that seemed too high to be consistent with the strong economic recovery, particu-
larly in Japan, were another reason for the outflow of foreign saving. Thus, one cannot determine from the identities alone whether one sectoral influence is more important than another (e.g., foreign trade). The chan-
neled. The definition of saving

3. The term “foreign saving” is used in this Eco-

nomic Commentary to mean the net inflow of for-
eign capital to the United States.

4. See, for example, Gerald H. Anderson and John B. Carlson, "Does Dollar Depreciation Matter? The Evidence from the Latest Import Price Surveys," Economic Commentary, Federal Reserve Bank of Cleveland, May 1981; and John B. Carlson and John F. Humpage and Nicholas V. Karamouzis, "The Dol-
lar in the Eighties," Economic Commentary, Federa-
al Reserve Bank of Cleveland, September 1, 1985.


6. For estimates of real interest rates and their role in the financing of foreign saving, see John B. Carlson, Michael D. Eskeland, John F. Humpage and Nicholas V. Karamouzis, "The Dol-
al of saving (chart 1, top panel).8 In cyclical contractions, budget deficits increased, reflecting not only the tax revenues and increased expenditures on income maintenance during cyclical downturns, but also income and consump-
tion declined relative to income, so that the difference between domestic investment and saving widened the deficit increased. In economic expan-
sions, deficits shrink while investment and consumption increased relative to income, so that the difference between investment and saving narrowed.

7. Domestic saving is defined here as in chart 1 as nondomestic financial saving, which includes principal repayment of foreign debt, government bond purchases, and foreign private investment, plus the statistical discrepancy in the balance-of-payments accounts. This measure differs only slightly from foreign investment, National Income and Product Accounts, which is the traditional measure. The slight dif-
fers do not affect our analysis.


9. For estimates of real interest rates and their role in the financing of foreign saving, see John B. Carlson, Michael D. Eskeland, John F. Humpage and Nicholas V. Karamouzis, "The Dol-
lar in the Eighties," Economic Commentary, Federa-
ral Reserve Bank of Cleveland, September 1, 1985.

10. See "Group of Five’s Communique on Coor-
dinative Economic Policies and the Dollar," Taken Leading to Dollar Depreciation, Reutered Sept. 22, 1987; Announcement of the Ministers of Finance and Central Bank Governors of Canada, Germany, Japan, the United Kingdom, and the United States, "The Group of Five (a)," in The Fron-

11. A factor contributing to the trade deficit was that the economies of several other major nations had been growing more slowly than that of the United States.

12. See “Text of the Communique Issued by the Ministers of Finance and Central Bank Gover-

13. Ibid.
The February-April 1987 Episode

When the dollar declined to below parity in mid-March, officials apparently feared that it was falling too fast. Excessive decline risked recession abroad and additional inflationary pressures in the United States. Officials of the major nations had agreed to cooperate closely to foster stability of exchange rates around current levels. 

Conclusions

When viewed from the perspective of the framework we have presented, foreign private funds did not “dry up” during the February-April 1987 episode. Instead, the willingness of foreign private portfolio holders to invest in the United States diminished. When central banks prevented investment terms from changing sufficiently to maintain the inflow of private funds, private portfolio holders, given their diminished willingness to invest, sharply reduced their acquisition of dollar assets. When the investment terms subsequently changed enough, the inflow of private funds recovered. Thus, the important issue in this regard is not the possibility of foreign funds simply becoming unavailable, but rather the possibility that they may become available only at interest rates so high that private domestic investment will be crowded out.

The danger of crowding out domestic investment could be reduced in at least three ways. First, the United States could reduce the federal budget deficit and thereby reduce its need for foreign saving. Second, the United States could continue to pursue policies that will prevent the reigniting of inflation or expectations of inflation. Third, the United States could avoid taking actions that discourage foreign investment here. These would be constructive actions, in contrast to protectionism, which would be a destructive response to symptoms caused by excess U.S. spending and resulting dependence on foreign saving.

Earlier this year, foreign central banks made substantial purchases of U.S. securities. They did so with some of the proceeds of their massive intervention in the foreign-exchange market, involving purchases of the dollar intended to prevent its depreciation. In the same period, private international investors sharply reduced their net new investment in U.S. financial markets. Foreign private investors had been investing large amounts in the United States since mid-1982. Through the end of last year, they had placed an average of $22.6 billion per quarter in this country. But an estimate suggests that amount dropped by nearly half in February-April 1987.

The recent shift in foreign investment behavior raises important questions concerning the durability of inflows of foreign private saving. Could these inflows of foreign private saving dry up? Why did central banks intervene in foreign-exchange markets? What would have happened if they had not intervened? Answers to these questions have important implications for the cost and availability of credit and, in turn, for the well-being of the U.S. economy. This Economic Commentary illustrates how the development of foreign saving in the United States is determined and how international portfolio holders, private and official, determine the terms at which saving is obtained. We also identify factors that made private international portfolio holders willing to acquire dollar assets at terms consistent with concerns about economic stability in the early part of the current expansion.

We finally examine the basis of concerns about economic stability, centered on the willingness of private portfolio holders to purchase dollar assets at terms consistent with the well-being of the U.S. economy.

U.S. Dependence on Foreign Saving

by Gerald H. Anderson and John B. Carlson

The determination of foreign saving inflow and its terms

Foreign saving—a net capital inflow—arises when a country spends more than its income. More precisely, it arises to finance the excess of aggregate domestic spending (E), including government expenditures, over national income (Y). The national income accounting (NAI) framework shows that the excess spending (E-Y), in turn, must equal an excess of imports over exports (MX), that is, a trade deficit of the same amount. In other words, the excess of goods and services purchased by domestic spenders over goods and services produced domestically must be acquired through foreign ownership of U.S. assets. The trade balance is determined by an equal amount of foreign saving.

In this sense, foreign saving is the sine qua non of a trade deficit. Factors that generate an excess of imports over exports generate an equal inflow of foreign saving. In fact, both are determined within the general equilibrium process of price and income determination of the fundamentals that lead a country to spend more than it earns. Defining foreign saving as a net capital inflow implies an increase in the difference between foreign claims on the United States and U.S. claims on the rest of the world. Though we normally think of foreign saving as an increase in foreign ownership of dollar assets, it need not be. Foreign saving may result from a reduction in U.S. ownership of foreign assets or a reduction in less, international portfolio holders finance a country’s excess spending by adjusting their portfolios to hold the change in net external claims.

The coordination between the need for external financing and the means of such financing involves a simultaneous interaction between goods markets, where trade flows are determined, and asset markets, where changes in private portfolio holdings are determined. An important empirical characteristic of the coordination process is that trade flows adjust rather slowly to international economic conditions. Thus, the flow of foreign saving itself adjusts slowly to international economic conditions.

Because the willingness of private international portfolio holders to finance a nation’s trade deficit may change substantially in the short run, such changes will be largely reflected in the terms that are important to foreign saving inflow and its terms.