Stabilizing the Dollar: What Are the Alternatives?

*David Y. Wong**

The experience of the 1980s has driven home the point that wide fluctuations in the exchange rate can impose substantial adjustment costs on the U.S. economy. Because the exchange rate helps determine the cost competitiveness of U.S. goods and services relative to their foreign counterparts, large swings in the dollar's value are particularly disruptive to the trade-related industries—those industries that produce goods for export and goods for which imported substitutes can readily be found. To illustrate how costly exchange rate swings can be, it has been estimated that the dollar's prolonged appreciation during the first half of the 1980s was directly responsible for the loss of 1 million manufacturing jobs during this period.[1]

The dollar's wide swings in this decade have taken place under a system of flexible exchange rates, in place since 1973, which al-

*David Y. Wong is an Economist in the Macroeconomics Section of the Philadelphia Fed's Research Department.

[1]See William Branson and James Love, "U.S. Manufacturing and the Real Exchange Rate," in Richard Marston (ed.) *Misalignments of Exchange Rates: Effects on Trade and Industry* (Chicago: University of Chicago Press, 1988).

lows the exchange values of the dollar and other major currencies to move in response to market forces. Although the dollar's value has declined since 1985, some critics of flexible exchange rates argue that the earlier period of appreciation had lingering effects, and that some of the loss of manufacturing competitiveness is irreversible. Because of these concerns, government officials, business people, and academics alike have proposed an array of alternative exchange rate arrangements. While details of the proposals may vary, their underlying objective is the same: to move toward exchange rate stability and thereby avoid the kind of costly adjustments the trade-related sectors experienced in this decade.

Generally, a country can stabilize its exchange rate in one of two ways. First, it can join with its trading partners to coordinate economic policies in a way that produces exchange rate stability. But international policy coordination, while usually preferable, is not always feasible, as experience has shown.[2] In the absence of policy coordination, a country could unilaterally alter its monetary policy or impose some form of capital controls to stabilize its exchange rate, thus lessening the magnitude of trade-sector adjustments.[3] The problem is that unilateral actions taken to short-circuit exchange-rate and trade-sector adjustments impose their own costs on the economy. Any decision to unilaterally stabilize the exchange rate should consider these costs as well.

To illustrate these alternative costs, we can consider first the short- and long-run implications of allowing exchange rates and the trade sector to adjust when spending shifts take place in the domestic economy. We can then compare these adjustments to cases in which policies are used to stabilize the exchange rate either through monetary actions or capital controls.

DOMESTIC SPENDING SHIFTS CAN CAUSE WIDE SWINGS IN THE DOLLAR

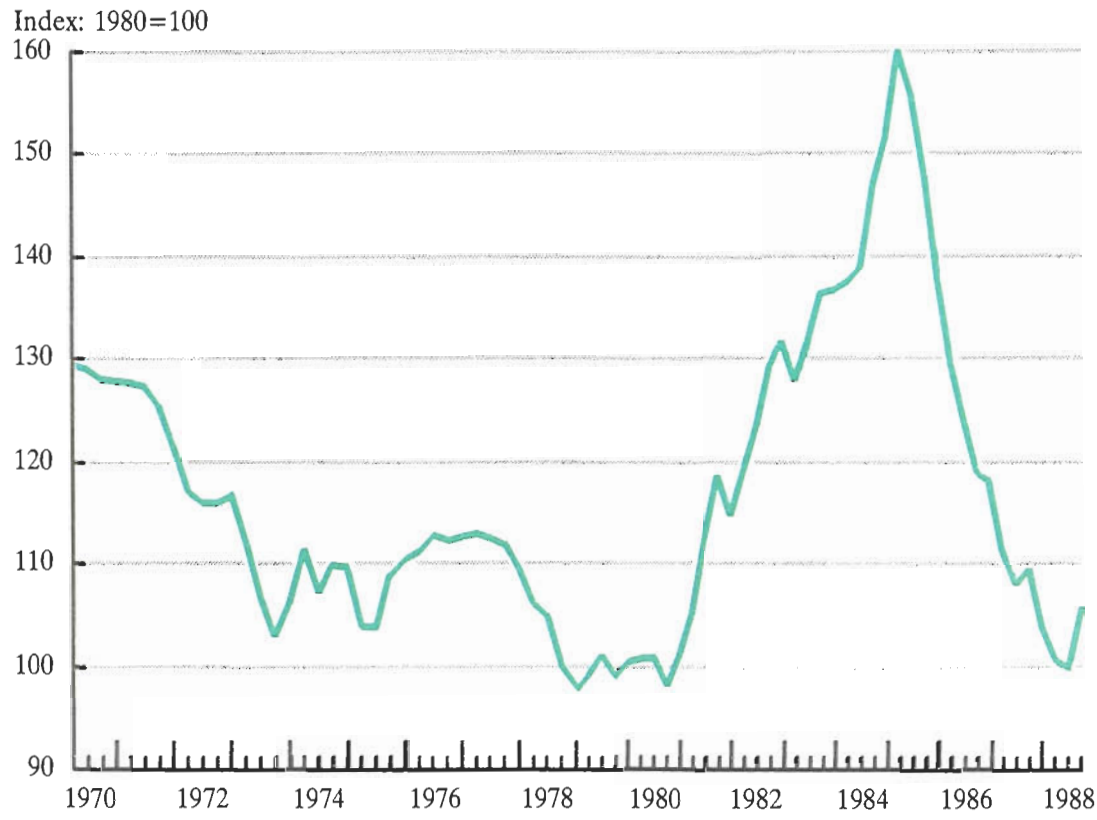
The U.S. experience during the 1980s is a powerful example of how domestic spending shifts can affect the exchange rate and the trade sector. As shown by the figure, the dollar's behavior during this period can best be characterized as a roller-coaster ride. Beginning around mid-1980, the dollar embarked on a sustained course of appreciation that lasted until early 1985. In the process, the U.S. currency, on a trade-weighted average basis, increased in value by about 50 percent relative to other major currencies. In early 1985, however, an abrupt depreciation set in that continued until at least the end of 1987. The latter episode just about offset the gains of the earlier appreciation. In large measure, these wide dollar swings reflect a dramatic shift in U.S. aggregate spending over the decade.

A Spending-Output Gap Drives Up the

[2] For a discussion of the prospects for and problems of international policy coordination, see the companion article by Brian Cody in this *Business Review*.

[3] The use of monetary policy to influence the exchange rate is generally referred to as nonsterilized intervention, as opposed to sterilized intervention. In using nonsterilized intervention to, say, lower the dollar exchange rate, the Federal Reserve would buy foreign currencies with dollars, in the process allowing the domestic money supply to expand. Therefore, when pursued indefinitely, nonsterilized intervention entails a fundamental change in monetary policy. With sterilized intervention, the Federal Reserve would offset the effects of foreign exchange intervention on the money supply using open-market operations. Using the same example, to offset the increase in the money supply from the purchases of foreign exchange, the Federal Reserve would simultaneously sell securities, thereby draining reserves from the banking system. Sterilized intervention may be useful for smoothing day-to-day or week-to-week fluctuations in the exchange rate. It may also be useful if backed by credible policies. Otherwise, it is generally agreed that the effectiveness of sterilized intervention in influencing exchange rates is very limited. For these reasons, we will focus on nonsterilized intervention in this article.

Trade-Weighted Value of the Dollar



SOURCE: IMF, *International Financial Statistics*

Dollar. Fiscal policy changes initiated by the Reagan Administration in 1981 provided the catalyst for the U.S. spending shift during this decade. The buildup in defense increased both actual and future federal spending.[4] The increase in federal spending was not matched by tax increases, however. Quite the contrary, the Economic Recovery Tax Act of 1981 introduced broad reductions in business and personal taxation. The tax breaks for businesses gave them the incentives to increase their expenditures on new plant and equipment, resulting in the boom in investment spending that began in 1982. The increase in desired spending was further fueled by an apparent shift in consumers' preferences toward saving less of their disposable income and spending more. This combination of factors generated a wide gap between the overall desired level of spending and the economy's actual level of output. Indeed, the excess of spending over output increased from about 0.5 percent of output in 1980 to a

[4] Except for the exchange rate, all variables in this article should be thought of as real, or inflation-adjusted, rather than nominal. Since almost all discussions of exchange rate stabilization focus on nominal rather than real exchange rate stabilization, the nominal exchange rate will be the focus of this article.

peak of about 3.4 percent of output in 1986-87.[5]

The increased borrowing and lower saving associated with the increase in desired government and private spending put upward pressure on U.S. interest rates. The rise in interest rates was initially reinforced by the tight monetary policy stance adopted by the Federal Reserve in its attempt to bring inflation under control early in the decade.[6] The combination of increased spending and tight money in the U.S. raised domestic interest rates relative to foreign interest rates. High U.S. interest rates enhanced the attractiveness of dollar-denominated assets, leading to increased net foreign purchases of these assets and capital flows into the United States. Since foreigners needed dollars to buy these assets, the demand for dollars increased correspondingly, leading to the dollar's appreciation. The higher dollar made U.S. goods more expensive abroad and foreign goods cheaper in the United States. This loss of competitiveness caused U.S. exports to decline and U.S. imports to rise, thus causing the trade and current accounts to fall into deficit.[7]

The Trade Sector Takes the Brunt. The dollar's appreciation between 1980 and 1985—and the attendant external deficits—can be interpreted as the external sector's natural response to an increase in desired spending in the United States. In essence, higher U.S. interest rates and a higher dollar induced foreigners to help close the gap between domestic spending and output by selling the U.S. more goods and services on net and accepting claims on the U.S. in exchange. Thus, the floating-exchange-rate environment readily turned a widening spending-output gap into increased capital inflows and widening external deficits.

The shift in international competitiveness caused widespread dislocations in the U.S. trade-related industries. Particularly hard hit was manufacturing, which is most vulnerable to foreign competition because imported substitutes can easily be found for domestically produced manufactures. A useful measure of the loss of competitiveness is import penetration, which is the fraction of domestic spending that is met by imports. To illustrate, import penetration in capital goods increased from less than 15 percent of sales in 1980 to about 30 percent in 1985, while import penetration in consumer goods increased from less than 7 percent of sales to about 11 percent during the same period.[8] As a result of the loss of competitiveness, it is estimated that manufacturing employment decreased by 5.3 percent in the United States between 1981 and 1986.[9] Quite understandably, the disruptions to the trade-related sectors caused great concern. However, it should be noted that the problem was essentially a sectoral one. While the trade-related industries fell on hard times, the rest of

[5] Real spending is defined as the sum of real household consumption, real government purchases, and real business and residential investment, while real domestic output is measured by the real gross domestic product (GDP). For more details on the spending shift and the resulting trade deficit during the 1980s, see Steven Meyer, "Trade Deficits and the Dollar: A Macroeconomic Perspective," this *Business Review* (September/October 1986) and Behzad Diba, "Private-Sector Decisions and the U.S. Trade Deficit," this *Business Review* (September/October 1988).

[6] Monetary policy was tightened in late 1979 and was not eased until the second half of 1982.

[7] In particular, the trade deficit widened from a shortfall that equaled about 0.8 percent of GNP in 1981 to 3.4 percent of GNP in 1986. The current account, which is a broader measure of the economy's external balance that includes not just the trade balance but also net interest payments to foreigners and other transfers, deteriorated correspondingly from a small surplus in 1981 to a deficit that equaled about 3.7 percent of GNP in 1986.

[8] See Rudiger Dornbusch and Stanley Fischer, *Macroeconomics*, 4th edition (New York: McGraw-Hill, 1987) p. 755.

[9] See Branson and Love (1988). About two-thirds of the job losses were concentrated in four durable goods industries: primary metals, fabricated metal products, nonelectrical machinery, and transportation equipment.

the economy did quite well; employment growth for the overall economy remained strong during this period.

The Dollar's Fall Was Inevitable. Thus far we have accounted for only half the story—the dollar's appreciation through February 1985 and the widening external deficits. But what caused the ensuing depreciation and subsequent decline of the external deficits? Basically, there are two factors.[10] The first is the partial reversal of the earlier expansionary fiscal policy. The passage of the Gramm-Rudman-Hollings deficit-reduction legislation in 1985 signaled at least a partial reversal of current and future fiscal policies. Indeed, expressed as a percentage of GNP, the federal deficit peaked in 1985 and has been falling steadily since.[11] But more fundamental is that the dollar's fall was inevitable because the massive borrowing by the United States that was taking place could not be sustained forever. The excess of spending over production in the United States brought about the external deficits and the net acquisition of dollar assets by foreign investors. As the external imbalance continued, the stock of U.S. assets owned by foreigners grew correspondingly. Between 1981 and 1985, the annual U.S. current account deficit averaged about $53 billion.[12] That means foreigners acquired on net an additional $53 billion of U.S. assets each year—assets that were predominantly denominated in dollars. By 1985, foreigners had amassed roughly $265 billion in new U.S. assets in their portfolios. But as foreign portfolios became increasingly concentrated in dollar assets, foreigners became more reluctant to continue to acquire dollar assets at the same rapid pace.

This reluctance started to become apparent in late 1985. Specifically, in 1985 foreign private investors financed virtually the entire U.S. current account deficit of $115 billion. In 1986, the current account deficit grew to $139 billion, but foreign private investors provided only about $106 billion, or 77 percent, of the financing. Official transactions undertaken by the Federal Reserve System and by foreign central banks made up for the shortfall. In 1987, net private foreign capital inflows decreased further, accounting for only 65 percent of the financing of the current account deficit. As the private demand for U.S. assets weakened and the inflows of private foreign capital slowed, the value of the dollar began to decline. At this stage of the adjustment process, the change in the exchange rate again served a critical role: as the dollar depreciated, the goods and services produced in the U.S. gained competitiveness in world markets. So exports increased and imports were restrained, narrowing the external deficits and lessening the need for foreign capital inflows.

The Dollar's Wide Swings Reflect the Fundamentals. This account makes clear that while the magnitude and rapidity of the dollar's swings over the 1980s were quite large, they reflected the underlying economic fundamentals. The United States made a collective decision to expand spending programs at the federal level, to increase consumption at the household level, and to increase investment at the business level. The shift toward increased spending opened up a gap between desired spending and domestic output. In the short run, increases in the

[10] For a technical discussion of the factors behind the rise and fall of the dollar over the 1980s, see William Branson, "Sources of Misalignments in the 1980s," in Richard Marston (ed.) *Misalignments of Exchange Rates: Effects on Trade and Industry* (Chicago: University of Chicago Press, 1988). Also hastening the dollar's depreciation were coordinated efforts by the major industrial countries (the so-called G-7) as enunciated in the Plaza Accord of September 1985. See the companion article by Brian Cody for more details on the Plaza Accord and other recent attempts at policy coordination.

[11] Expressed as a percentage of GNP, the federal deficit decreased from 5.4 percent in 1985 to 5.3 percent in 1986, 3.4 percent in 1987, and about 3.2 percent in 1988.

[12] The current account data in this paragraph and the next are expressed in nominal terms.

exchange rate facilitated the economy's adjustment to this shift by restraining exports. The curb on exports helped close the spending-output gap by keeping more output at home for domestic use. At the same time, the higher dollar raised imports, which allowed the U.S. to supplement its own production with the output of foreign countries. In sum, the strong dollar allowed all the domestic sectors to spend at a higher level, although it worked to the detriment of the export and import-competing industries in the United States.

But the flip side of the external deficits was the accumulation of dollar assets by foreigners. As the foreign stock of dollar assets accumulated, foreigners eventually became reluctant to continue trading their goods for U.S. assets. As foreign purchases of U.S. assets began to ebb, the dollar began to fall, narrowing the external deficits. Thus, the decrease in foreign financing ultimately forced the U.S. to scale back its spending to a level more consistent with the domestic level of output.

Where will this adjustment process ultimately take us? Short of a complete reversal of the initial increase in government spending, consumption and investment spending will eventually be forced to cut back. Specifically, the retreat of foreign capital will force potential borrowers to look domestically for funds, which puts upward pressure on interest rates. The resulting increase in U.S. interest rates then puts a squeeze on investment and consumption spending. We can expect this process to continue until the spending-output gap in the U.S. is closed, or at least narrowed appreciably. In the long run, then, some investment and consumption spending will be permanently displaced by the higher government spending. The narrowing of the spending-output gap also implies that the trade and current accounts will move back toward balance.[13]

Because the spending shift in the U.S. was so large, the adjustments it imposed on the economy were also quite drastic. In particular, the adjustment of the exchange rate was unprecedented and caused widespread dislocations in the trade sector, especially in manufacturing. The decline of the manufacturing sector associated with the dollar's run-up has prompted the search for solutions to stabilize the dollar. In general, there are two instruments the U.S. could use unilaterally to effect more stability in the exchange rate: monetary policy and capital controls. We will examine these two alternative policies in turn, comparing the adjustments they impose on the economy to the "baseline" case in which the exchange rate is allowed to float.[14]

THE USE OF MONETARY POLICY TO STABILIZE THE EXCHANGE RATE

The idea behind the use of monetary policy to stabilize the exchange rate is really quite simple. Everything else the same, an increase in the supply of money in the United States would temporarily lower domestic interest rates. The lower U.S. interest rates would decrease foreign demand for U.S. assets and thus weaken the dollar. In contrast, a decrease in the supply of money would temporarily increase domes-

[13] Actually, only the current account will eventually be balanced. The trade account will actually show a surplus in the long run. The reason is that the foreign accumulation of dollar-denominated assets has turned the U.S. into a net debtor, and the U.S. will need to service the debt. In order to do so, the U.S. will have to generate a trade surplus in order to earn the foreign exchange needed to make the net interest payments to foreigners.

[14] In discussing the use of the alternative methods to stabilize exchange rates, we make use of two assumptions. First, we assume that the spending shift takes place when the economy is initially close to full employment. While this does not correspond exactly with the case of the U.S. in the 1980s, the use of this assumption simplifies the analysis considerably and allows us to focus on the different impacts of the alternative policy strategies.The second assumption is the standard one—that monetary policy can affect output in the short run but not in the long run.

tic interest rates and strengthen the dollar. Therefore, to stabilize exchange rates, the Federal Reserve would ease monetary policy when the dollar is rising, and tighten when the dollar is falling.

Consider what would happen if the Federal Reserve uses monetary policy to stabilize the exchange rate in the face of a spending shift. As we have seen above, under the floating exchange rate regime, an increase in desired spending results in an appreciating dollar and a deteriorating external balance. Now suppose that the Federal Reserve intervenes by easing monetary policy. This dampens the rise in U.S. interest rates and the dollar's appreciation. By restraining the dollar appreciation, the monetary easing enhances the international competitiveness of U.S. products and avoids having spending diverted from U.S. goods toward foreign goods. Specifically, foreign demand for U.S. exports, including manufactured goods, would be higher compared to the baseline case of a freely floating exchange rate. Similarly, domestic demand for U.S. products would also be higher. Moreover, the restraint on interest rates would also lead to higher consumption and business investment spending.

In sum, the initial effects of the monetary easing to restrain the dollar appreciation are to increase spending and output relative to the baseline case of a rising exchange rate. Thus, monetary expansion to prevent the dollar's appreciation avoids an adverse effect on the trade-related industries in the short run.

The Costs of an Easy Monetary Policy. However, the benign effects of monetary easing on the economy are only temporary. Moreover, when pursued indefinitely, the use of monetary easing to restrain the dollar's appreciation also generates substantial costs. The reason is that the monetary expansion needed to stem the dollar's appreciation eventually translates into higher prices in the United States. The higher prices of domestic products then nullify the benefits to U.S. competitiveness that resulted from the restrained appreciation. With the short-term benefits to U.S. competitiveness thus offset, spending shifts back to foreign goods and away from domestically produced goods. The result is that the trade-related industries are again confronted with decreased demand and the attendant problems of dislocations. In sum, the easing of monetary policy to enhance the competitiveness of goods produced domestically succeeds only temporarily. While the easy money makes a currency weaker than it otherwise would be, it also brings with it eventual price increases that wipe out the gains in competitiveness.[15]

The long-run effectiveness of using monetary policy to stabilize the exchange rate is necessarily limited because the monetary easing to retard the dollar's appreciation does not permanently correct the root cause of the external deficits—the increase in desired spending. Beyond the short-run gains in output, the persistent spending-output gap continues to attract foreign capital inflows and widens the external deficits. The adjustments that the economy must make in response to these imbalances will still take place, much as in the baseline case in which the exchange rate is allowed to float. Specifically, we would still expect to see an eventual accumulation of dollar assets by foreign investors. As this accumulation continues, the capital inflows eventually slow and the dollar depreciates until the external deficits narrow. The declining foreign financing also implies that desired spending in

[15] The result here is an application of what is called the long-run neutrality of money. While monetary policy can be used to peg the nominal exchange rate, it has no sustained effect on the real exchange rate, which is the nominal exchange rate adjusted for price differences across countries. It is the real exchange rate that determines the competitiveness of a country's output. For a discussion of the real exchange rate, see, for example, Anne Krueger, *Exchange Rate Determination* (Cambridge: Cambridge University Press, 1983).

the U.S. must be scaled back to a level more in line with output. Barring a reversal of the expansionary fiscal policy, interest rates will eventually increase and squeeze out some investment and consumption spending. The long-run price level is also higher because of the inflationary effects of monetary easing undertaken to restrain the dollar's appreciation.

This analysis demonstrates that the reprieve enjoyed by the trade sector, and the manufacturing sector in particular, from using monetary easing to restrain the appreciating dollar is only temporary. The added cost is higher U.S. inflation. More fundamentally, in using monetary policy to target the exchange rate, the Federal Reserve would have to give up its other monetary policy objectives, such as price stability. In other words, an exchange rate policy can be adopted only at the expense of other policy objectives.

The thought experiment of using monetary policy to stabilize exchange rates during the early 1980s underscores this point. For example, in 1981, the dollar was rising at the same time that the Federal Reserve was pursuing a tight monetary policy to bring about price stability. To stem the dollar's appreciation, however, the Federal Reserve would have had to ease monetary policy and therefore compromise its objective of bringing inflation under control. Monetary policy can be used for the goal of domestic price stability, or it can be used to peg the exchange rate. But it cannot be used to perform the two functions simultaneously for an extended period.

THE USE OF CAPITAL CONTROLS TO STABILIZE EXCHANGE RATES

A second course of action that the United States could take to achieve stable exchange rates involves capital controls. In general, capital controls are any government actions designed to regulate the flows of capital into or out of a country.

Because capital controls can alter the demand for dollar-denominated assets relative to foreign assets, they can also alter the exchange rate. For example, capital controls can be used to reduce capital inflows by making dollar assets relatively unattractive to foreign investors. Everything else equal, the reduced foreign demand for U.S. assets would lower the demand for dollars and lead to a decline in the dollar's value (see *The Many Forms of Capital Controls*).

Consider what would happen if the government uses capital controls to restrain the appreciation of the dollar that results from an increase in desired spending. In this case, since the appreciation is driven by foreign inflows of capital attracted by high U.S. interest rates, it follows that the United States can impose capital controls to stem the capital inflows and thereby restrain the dollar's appreciation. These restrictions on capital inflows might take the form of a new tax on foreign purchases of U.S. securities, for example. With the demand for U.S. assets thus restrained, the upward pressure on the dollar would ease, as would the burgeoning trade and current account deficits. More fundamentally, the imposition of capital controls would restrain the flow of foreign borrowing upon which the U.S. has relied to maintain its spending above domestic output, forcing the U.S. to spend correspondingly less.

To see the economy's response to capital controls, recall the adjustment process under the baseline case of freely floating exchange rates. In the baseline case, foreign capital inflows can sustain the domestic spending-output gap for some time. Then, as foreigners become increasingly unwilling to exchange their goods for U.S. assets, spending in the U.S. is forced to narrow. With capital controls in place, the foreign capital inflow is never allowed to accumulate. Instead, with capital controls, we short-circuit the debt accumulation process and force the U.S. to immediately maintain a spending level more consistent with its output. In other words, by restraining the

The Many Forms of Capital Controls

In general, there are two types of capital controls: regulations that restrict the *outflows* of capital and regulations that restrict the *inflows* of capital. Both types are widely used in market and nonmarket economies alike, although the economic rationale is often questionable. The main rationale behind restricting capital outflows is that capital is a scarce resource that should be kept for domestic use. The main rationale behind restricting capital inflows is that extensive foreign investment threatens the economic sovereignty of the recipient country. Capital controls can also be used to stabilize the exchange rate. In fact, member countries of the European Monetary System have relied on capital and exchange controls to keep their exchange rates aligned.

Capital controls can appear in myriad ways, such as explicit prohibitions on various types of investments, as taxes on the purchases of assets, and as intricate rules on reporting and approval of investment activities that serve to discourage their undertaking.

The idea of capital controls may seem foreign to many Americans. Many might think them a form of government intrusion more suited to centrally planned economies. However, capital controls were, in fact, used in the United States between 1963 and 1974 in the form of the Interest Equalization Tax (IET). The IET, imposed on the purchases of foreign securities by American residents, was designed to restrict U.S. capital outflows by reducing the net after-tax yield on such investments. In conjunction with imposition of the IET, the foreign direct investments of U.S. multinationals were limited, as was foreign lending by U.S. banks under the Voluntary Foreign Credit Restraint program (VFCR). To a certain extent, these measures succeeded, although they also had effects unforeseen by policymakers. In particular, these capital controls led U.S. and foreign corporations to turn to foreign financial markets for funds. Thus, the IET and the VFCR were partly responsible for the growth of the Euromarket—the overseas market for dollar-denominated securities.

Currently, the U.S. has no extensive restrictions on capital flows. Some states restrict foreigners' purchases of land within their borders, and commercial banks in the U.S. are discouraged from soliciting or encouraging deposits by U.S. residents in their foreign branches. Some existing restrictions on American investment in foreign countries, such as the ban on new investments in South Africa, are motivated by foreign policy rather than by economic considerations. Capital controls are widely employed in other countries, however, notably the less developed countries.

While we are not suggesting that the United States consider using capital controls to stabilize the exchange rate, there are numerous capital control measures in other countries that the U.S. could draw on to discourage capital inflows. For example, to restrain direct foreign investment, the United States could follow Mexico in mandating that such investment retain a majority participation of domestic capital; or in requiring that applications by foreign investors to acquire more than a certain percentage of the capital of a domestic company be subject to prior approval; or that foreign investment be prohibited in various industries such as banking, insurance, broadcasting, investment funds, and stock brokerages. The U.S. could also borrow Brazilian measures such as subjecting foreign loans to domestic companies to ceilings and prior government approval; placing extensive regulations on the use of income from direct investment by foreign investors; and prohibiting direct stock ownership in domestic companies by foreigners.* If history is any guide, however, such methods to restrict capital flows would not be very successful in the long run. As often happens when the government tries to regulate economic activity, people find ways to circumvent capital controls, thus compromising their effectiveness.

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*These are just a few examples of the capital control measures currently in use. The interested reader can refer to International Monetary Fund, *Exchange Arrangements and Exchange Restrictions: Annual Report*, Washington, D.C., for more details.