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INTERNATIONAL POLICY COOPERATION:
BUILDING A SOUND FOUNDATION
Brian J. Cody

Hoping to build a more stable world economy, the seven leading nations have made three major attempts since the 1970s to coordinate their economic policies. All three have been largely unsuccessful. Now these countries are building a firmer base for coordination by sharing information about their economies. Their hope is that an exchange of “objective indicators” will help them agree on a single framework for analyzing their economies and the world’s. Though a modest step compared with previous accords, these indicators should be able to overcome the information problems that have undermined more ambitious plans—and provide the foundation for broader agreements down the road.

STABILIZING THE DOLLAR:
WHAT ARE THE ALTERNATIVES?
David Y. Wong

One need only look at developments in this decade to see how huge fluctuations in the dollar’s value can impose substantial adjustment costs on the U.S. economy. The dollar’s prolonged appreciation from 1980 to 1985 battered the U.S. trade sector, and some say that it has yet to recover fully. Barring international policy coordination, there are two ways in which the United States could unilaterally stabilize the dollar: it could use monetary policy or it could impose capital controls. But the analysis here suggests that any attempts to short-circuit exchange-rate and trade-sector adjustments would impose a whole other set of costs on the U.S. economy.
Policymakers have long recognized that the welfare of their economies is tied to the welfare of the world economy. Because goods, services, capital, and even labor are mobile internationally, economic policies in one country invariably have spillover effects on others. Having decided they can no longer ignore these global effects, and hoping to build a more stable world economy, governments have made some heroic attempts to coordinate their economic policies. Unfortunately, their efforts have been largely unsuccessful. Now policymakers are attempting more modest steps toward cooperation.

The seven leading industrial nations—Canada, France, West Germany, Italy, Japan, the United Kingdom, and the United States—are now developing a new system for sharing economic information. A good deal of economic data (inflation statistics, for example) is currently available, but different countries use different economic policies.
methods to calculate, analyze, and forecast economic indicators. To overcome the difficulties created by these differences, the major countries are working out a set of "objective indicators"—indicators with well-articulated definitions across countries. The hope is that these indicators will lead to a single analytical framework and a coherent set of economic forecasts. Ultimately, these efforts should enhance policymakers' understanding of how their actions affect not only their own economy but others as well, enabling them to design harmonious national policies.

An exchange of economic indicators may seem like a small step, perhaps even a retreat from past efforts. In large part, however, it is lack of information that has hampered previous attempts at policy coordination. A seemingly modest program of information-sharing can help overcome problems undermining more ambitious plans and provide the foundation for broader agreements down the road.

COOPERATION: WHAT'S IN IT FOR A COUNTRY?

Cooperative policymaking can take many forms, but in general it occurs whenever officials from different countries meet to evaluate world economic conditions. During these meetings, policymakers may present briefings on their individual economies and discuss current policies. Such meetings would represent a simple form of cooperation. A more involved interchange might include economists' reports on a specific problem, coupled with an in-depth discussion of possible solutions. True policy coordination, however, goes much further than either of these two cooperative forms:

policy coordination is a formal agreement among nations to enact specific policies. Recent attempts by the leading industrial nations to design and jointly implement specific economic policies fall into this last category.

In a sense, it is surprising that previous efforts have not been more successful. Theoretically, any group of nations whose economies interact and influence one another can benefit from policy coordination. Regardless of national economic objectives, policy coordination can, in principle, make each participating nation better off than if it chose to operate in isolation.

If policy coordination offers so many benefits, then why have previous attempts at it failed? In large measure, the problem has been lack of information. Achieving true policy coordination, with agreement to jointly implement specific policies, requires a greater capacity to collect and analyze data jointly than countries now have. A simple example helps demonstrate the potential benefits of economic policy coordination—and highlights the potential problems.

Two Countries Whose Situations Are Less Than Ideal. Suppose there are just two countries in the world, the Highlands and the Lowlands. They freely trade goods and services with each other, but want to pursue national economic interests. Highlanders expect their government to keep the economy close to full employment and to avoid trade deficits with the Lowlands. Meanwhile, Lowlanders expect their government to keep the economy close to full employment and to avoid trade deficits with the Highlands.

The current economic situation in the two countries is less than ideal: trade between them is balanced, but both economies are operating below full employment. Each government has considered increasing its spending in order to bolster domestic demand, raise output, and increase employment. Each has also rejected the idea, recognizing the adverse impact it
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would have on the trade balance. The Highlands' government knows that more employment and higher incomes for Highlanders would mean a greater tendency for them to buy imports from the Lowlands and thereby drive their trade account with the Lowlands into deficit. Similarly, the Lowlands government sees that spending to boost national employment and incomes would raise Lowlanders' tendency to import goods from the Highlands and thereby drive their trade account with the Highlands into deficit. Consequently, neither government acts and unemployment persists in both countries.

How Policy Coordination Can Benefit Both. Given their choices, both the Highlands and the Lowlands can clearly benefit from policy coordination. If both governments agreed to increase their spending at the same time, then output, employment, and incomes would expand in both countries simultaneously. While higher incomes for Highlanders would tend to increase their demand for goods from the Lowlands, Lowlanders' incomes would also be rising, which would tend to increase their demand for goods from the Highlands. Let's say that government spending in both countries were increased by an appropriate amount. In that case, each country's increased demand for imports would be matched by an increased demand for its exports, maintaining balanced trade between the Highlands and the Lowlands. In this example, policy coordination—that is, mutual adoption of expansionary policies—would allow each country to attain its goal of full employment while avoiding a trade deficit.

Things Are More Complicated in the Real World. This hypothetical example paints a rosy picture of policy coordination. The coordinated effort seemed easy because the economic problem was so simple—two economies, two goals. In the real world, coordination typically involves many countries and many diverse goals. Recent coordination attempts have involved the seven leading industrial countries and have focused on a broad range of goals—balanced trade, inflation reduction, and output and employment growth.

Even with fewer countries and simpler goals, there is no guarantee that governments can design and carry out coordinated economic policies. In our example, we tacitly assumed that each country possessed perfect information—an assumption that eliminates many potential problems. First, perfect information implies that the Highlands and the Lowlands know the structure of their economies. Consequently, they can calculate precisely their policies' effects on output, employment, incomes, and trade. The assumption of perfect information also implies that when policies do not produce the desired effects, policymakers can quickly pinpoint the cause and renegotiate the agreement. Thus, our example has not considered the effects of an

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unexpected change in economic conditions—an investment boom in the Highlands, for example.

The assumption of perfect information also solves another, different kind of problem. Any situation offering gains from cooperating also offers the potential for even bigger gains from cheating—that is, signing an agreement to do something (in this case, increase government spending) and then reneging. In our example, both the Highlands and the Lowlands would like the other to increase spending unilaterally, mainly because the country that holds the line on spending (while the other spends more) stands to benefit from higher foreign demand for its goods. The increased foreign demand stimulates output and employment, while generating a trade surplus. Perfect information, however, can cramp a country's ability to cheat because it suggests that each country can precisely monitor the policies of the other. Thus, any attempt by one country to cheat on a cooperative agreement would be uncovered immediately by the other country.

Unfortunately, policymakers in the real world have imperfect information. They cannot assume away the difficulties involved in designing, renegotiating, and monitoring an agreement. In fact, it is imperfect information that has stymied past attempts at coordination.

HOW CAN INDICATORS HELP?

Beginning a couple of decades ago and continuing today, the United States and its major trading partners have strengthened international policy cooperation through such efforts as the Economic Policy Committee and its Working Party 3 at the Organization for Economic Cooperation and Development, the series of annual economic summits, and the International Monetary Fund’s world economic outlook process. Since the early 1970s, however, these countries have engaged in three major attempts at coordinated policymaking. (See Three Examples of Policy Coordination, p.8.)

Each of these real-world agreements has faced difficulties. In two cases, the Smithsonian Agreement and the Bonn Summit, the coordinated policies broke down completely. The third coordinated policy—initiated with the Plaza and Louvre accords and developed at subsequent meetings—has survived, though it has produced somewhat disappointing results. The current coordination attempt can benefit from (and perhaps previous agreements could have been saved by) a better system for sharing economic information.

Perceiving the benefits of shared information, policymakers from the G-7 countries, under the auspices of the IMF, have begun to develop a set of objective indicators of economic performance. The sharing of objective indicators—so named because their definitions and measures are accepted across countries—will increase the quality and range of information available to governments. In general, an appropriate indicator is any economic variable that can be used to measure policymakers' actions, the performance of an individual econ-

There have been widespread calls for the use of “objective indicators” in the policy cooperation process. Recent publications by the International Monetary Fund have presented thorough summaries of the recent developments concerning the use of economic indicators. See A. Crockett and M. Goldstein, "Strengthening the International Monetary System: Exchange Rates, Surveillance, and Objective Indicators," International Monetary Fund Occasional Paper, No. 50 (February 1988); J. Horne and P. R. Masson "Scope and Limits of International Economic Cooperation and Policy Coordination," International Monetary Fund Working Paper, WP/87/24 (April 7, 1987).

At the close of the Toronto summit in June 1988, the G-7 countries summarized the ongoing advances made in the use of objective indicators, stating, "We welcome the progress made in refining the analytical use of indicators, as well as the addition to the existing indicators of a commodity-price indicator. The progress in coordination is contributing to the process of further improving the functioning of the international monetary system" ("Economic Declaration," Final Toronto Economic Summit Communique, issued June 21, 1988).
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Policymakers Disagree over Appropriate Policies... In our example, we assumed that policymakers had sufficient information to understand how their policies would affect both economies. For instance, we assumed that the Highlands’ officials knew how much they would have to raise government spending in order to reach full employment. We assumed also that the Highlands’ economists had sufficient information to predict what effect this policy would have on their trade account with the Lowlands. Of course, the Lowlands’ economists had analyzed the same questions and had reached the same conclusions.

In the real world, neither economists nor policymakers have complete information. Moreover, the study of economics has not yet reached a stage that would end honest disagreements over interpretations of a single set of data. The seeming inability of economists to agree on anything has even led some skeptics to contend that if all of the economists in the world were laid end to end, they would still not reach a conclusion. If policymakers and economists can reasonably disagree using the same data, then the potential for disagreement is simply magnified if they lack a common framework.

Our experience since the recent Plaza and Louvre accords illustrates the difficulty of designing appropriate policies when governments disagree about economic fundamentals. To effect the accords’ goals—a sustainable, balanced pattern of international trade and continued economic growth—the United States agreed to follow a less stimulative fiscal policy; meanwhile, other governments, in particular West Germany and Japan, were to implement more stimulative policies. Although economic growth has continued since these accords, improvements in the U.S. current account and fiscal deficits and reductions in other countries’ trade surpluses have been slower than was hoped.

The accords’ limited success in trade adjustment can be traced, at least in part, to the countries’ lack of agreement over appropriate policies to follow. In the summer and autumn of 1987, West German officials approached cautiously the implementation of a coordinated fiscal policy expansion, fearing that such a policy could ignite domestic inflation. The U.S. government, on the other hand, argued that West Germany’s inflation rate, at 2 percent, was low enough—and the coordinated expansion moderate enough—to preclude any exacerbated price pressures from an expansionary fiscal policy.

Moreover, the slow progress on deficit reduction in the United States, particularly in the autumn of 1987, has raised questions about the U.S. government’s implementation of the agreements. With its concerns about accelerating inflation, the West German government has been reluctant to enact stimulative policies without evidence of fiscal restraint in the United States.

These disagreements would be reduced if policymakers can 1) develop a common framework in which to measure fiscal policy changes and analyze the potential for noninflationary growth in the United States, Western Europe, and Japan and 2) agree on which variables best

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Smithsonian Agreement (December 1971)

**Background:** Under the Bretton Woods system of fixed exchange rates, set up after World War II, the U.S. was committed to maintaining the dollar as the anchor of the world exchange rate system by stabilizing the dollar price of gold at $35 an ounce. All other participating countries then pegged the value of their currency to the dollar. In the face of large and growing current account deficits, which were threatening the stability of the dollar, President Nixon suspended the convertibility of the dollar into gold in August 1971, effectively ending the system of fixed exchange rates.

**Agreement:** In December 1971, officials from the 10 largest economies in the Organization for Economic Cooperation and Development met at the Smithsonian Institute in Washington D.C. to draw up a new exchange agreement. The dollar was devalued by raising the official price of gold to $38 an ounce, from $35. The German mark and the Japanese yen were revalued against the dollar by 17 and 14 percent, respectively. Since gold convertibility was not restored, the world was not on a gold standard but a dollar standard. President Nixon promised that the U.S. current account deficit would be adjusted so that the dollar would not experience any further weakness.

**Result:** Continued weakness in the U.S. current account in 1972 led to speculation that the agreement was not working and that the dollar would have to be devalued again. The U.S. currency was devalued by 10 percent in February 1973, and the agreement was finally abandoned one month later, when the major industrialized countries decided to allow their currencies to float against the dollar.

Bonn Summit (July 1978)

**Background:** The strong U.S. recovery from the 1974-75 recession contributed to a U.S. current account deficit and a weakening dollar. This condition produced calls for other countries, in particular West Germany and Japan, to enact expansionary fiscal and monetary policies. Such policies, it was hoped, would increase demand for U.S. goods, thereby helping to reduce the U.S. trade deficit and strengthen the dollar. There was also widespread sentiment abroad that artificially low oil prices in the United States measure that potential.

**But Indicators Can Help Answer Basic Questions.** Policymakers recognize that they can never be sure of the outcome of their actions. By gradually introducing objective indicators into the Plaza and Louvre accords, however, policymakers hope to obtain a clearer picture of the prospects for noninflationary growth in Western Europe, Japan, and the United States. Following their May 1986 summit in Tokyo, the seven leading industrial nations announced their intention to adopt a group of useful indicators, including GNP growth rates, inflation rates, interest rates, unemployment rates, fiscal deficit ratios, current account and trade balances, money growth rates, foreign exchange reserves, and exchange rates. As this program develops, policymakers should be better equipped to design workable...
Policies that facilitate international adjustment and continued economic growth.

**Responding to Unexpected Events Is Costly...** Working from a set of objective indicators has other benefits, as well. Sometimes policymakers observe an event and know that it will affect their agreement. Changing economic conditions pose a problem for policy coordination, precisely because a new set of circumstances calls for changes in policy. Unfortunately, simply observing the event is no guarantee that policymakers will agree on how the event has changed the world economy or that they can successfully renegotiate their agreement. Rather, the countries also need enough information to form a consensus about the nature of the problem and the appropriate response.

A classic example of problems that can follow an unexpected event is the breakdown of the program designed at the 1978 Bonn Summit. At that summit, the largest industrialized democracies agreed to policies that would spur growth in Europe and Japan and fight inflation in the U.S. West Germany, Japan, and the United States faithfully enacted the programs, but just as the policies began to take hold, the OPEC countries engineered a dramatic run-up in crude oil prices and inflation accelerated. As inflationary pressures mounted, policymakers debated whether the run-up in prices was due to the oil price shock, the coordinated fiscal policies, or both. Not surprisingly, West Germany and Japan became increasingly reluctant to carry out the expansionary policies for fear of exacerbating domestic inflation.
Clearly, the coordinated expansion was no longer appropriate and the agreement needed to be renegotiated. Without a common economic framework and consistent information on wages, input prices, and government expenditures, however, they could not agree on a common interpretation of the crisis, nor could they formulate a coordinated response. The lack of a common framework made renegotiation so costly in terms of time and effort that each country withdrew from the agreement and formulated its own course of action.

...But Indicators Would Reduce Renegotiation Costs. This breakdown might not have happened, however, had policymakers agreed to use objective indicators of wages and other input prices in addition to indicators of inflation and output. If such a system had been in place, U.S., West German, and Japanese officials could have quickly, and with less disagreement, analyzed the economic impacts of the oil price shock. This analysis would have speeded a negotiated, coordinated response to rising world inflation.

In developing and exchanging objective indicators, policymakers can review, each month or quarter, the consistency between the indicators and the coordinated policy. They can compare the desired path for inflation, say, with the value of each country’s objective inflation indicator and determine if policy changes are warranted. The uninhibited flow of data and multilateral surveillance of general indicators can help policymakers recognize and respond to unexpected events much more rapidly than they could in isolation. Moreover, if everyone shares the same data and analyzes them using the same criteria, disagreements over the appropriate multilateral response can be reduced.

It’s Hard to Enforce Agreements... As we’ve seen, coordinated policies do not always produce the desired results. Unfortunately, policymakers are not always able to trace the problem back to a particular event. When something goes wrong, policymakers often are not sure why.

If the agreement suddenly starts to produce unexpected results, policymakers can become suspicious. Recognizing that an incentive to cheat exists, they may wonder if everyone is honoring the agreement. A change in the world economy would only compound the problem, since it would make cheating even harder to detect. A country could simply hold the unexpected event responsible for the policy’s poor performance, deflecting blame from itself.

The breakdown of the 1971 Smithsonian Agreement exemplifies the problems that can arise when an agreement is clearly not working and there is insufficient information to tell whether the world has changed or if someone is cheating. In the early 1970s, the United States was running a sizable trade deficit, which produced a burgeoning supply of dollars on foreign exchange markets. This excess supply was depressing the dollar’s value, thereby jeopardizing its role as the reserve currency.9 Attempting to restore stability to the dollar, the Smithsonian Agreement called for devaluing the dollar, both by raising the official price of gold to $38 per ounce, from $35, and by raising the dollar values of the West German mark and Japanese yen by 17 percent and 14 percent, respectively. The agreement also sought U.S. policies to correct the U.S. trade deficit.

After the agreement was signed, however, the trade balance did not improve and dollars continued to flood the foreign exchange markets. Other countries viewed their growing dollar balances as prima facie evidence that the United States had abandoned the maintenance

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9 Under the international monetary system outlined in the Bretton Woods agreement, the dollar served as the chief international asset, or reserve currency, held by governments. They held dollars in anticipation of possible future payments deficits that would have to be settled. Thus, we refer to the dollar during this period as the international reserve asset or reserve currency.
of its external position as a domestic policy goal. In essence, they accused the United States of cheating.

The United States responded that it had implemented the policies, but that the world economy had changed and that the coordinated policies would no longer produce the desired results. Confusion ensued and policymakers, despite the need for further action, could not resolve their differences. The failure to renegotiate a coordinated plan fueled speculation that the dollar's value could not be sustained, and eventually the agreement broke down.

...But Indicators Can Help Monitor Compliance. The conflict surrounding the Smithsonian Agreement was spawned by inadequate measures of U.S. commitment to the policy. U.S. officials viewed their implementation of the mandated policies as sufficient evidence of their fidelity to the agreement. Other countries, however, doubted the U.S. commitment because the U.S. current account had failed to improve. While data both on the U.S. current account and on policy actions, such as the dollar's devaluation, were already available, the policymakers had not agreed on a uniform framework in which to evaluate U.S. performance. If the agreement had explicitly stated which objective indicators would be used to monitor policy compliance—the dollar, the U.S. current account, or some other measure—it would have been much easier to determine whether the U.S. trade balance had worsened because the agreement had been violated or because the policy was no longer appropriate.

In general, if participants agree to exchange data on their policy actions, the chore of monitoring everyone's behavior will be eased.10 For instance, if a coordinated policy required each country to enact anti-inflationary monetary policies, then officials could first select, as an objective indicator, a particular interest rate or monetary aggregate to follow. They would also choose an indicator of inflation. If after some time inflation had not abated, the indicators would reveal whether each country had faithfully implemented the coordinated policy—or whether their economies had changed and the policy needed to be redesigned.

CONCLUSION

Recognizing that their policies can have significant impacts on trading partners—and that their economies are not immune to the effects of changing economic conditions abroad—countries have often attempted to cooperate in setting economic policies. They have acted on the theory that a system of coordinated policies produces the greatest improvement in economic welfare.

Attempts by the United States and its major trading partners to coordinate policies have met with only limited success. Rather than calling into question the theoretical conclusion that coordination is best, experience suggests that when coordinated policies began producing unexpected results, policymakers lacked the information needed either to decipher the cause or to redesign the policy.

In response to this problem, policymakers have begun to develop a system for sharing objective indicators of economic performance. The hope is that these indicators will sharpen policymakers' understanding of the world

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10 Charles Schultze, in "International Macroeconomic Coordination—Marrying the Economic Models with Political Reality," International Economic Cooperation, Martin Feldstein (ed.), National Bureau of Economic Research (1988), suggests that much of the conflict surrounding policymakers' goals arises from officials considering policies, such as tax reform, as ends in themselves rather than as tools to achieve more general economic and social goals. Forcing policymakers to express their goals in terms of quantifiable economic aggregates may help eliminate some of this confusion.
economy, thereby facilitating the policymaking process. When problems do arise, the indicators will help policymakers determine whether a participant is reneging on the agreement or if the world has somehow changed.

While we are still a long way from a successful coordinated policy, the use of objective indicators should help resolve some of the problems that have complicated efforts in the past.
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-

allows 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. 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. 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

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.

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.
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. 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

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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

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\(^5\) 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.


\(^9\) 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.\(^\text{10}\) 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.\(^\text{11}\) 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.\(^\text{12}\) 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
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

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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.

*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.
inflow of foreign lending, domestic desired spending would be forced to cut back.

Interest-Sensitive Industries Suffer More. Domestic interest rates have a key role to play in this adjustment process. The diminished capital inflows that result from the imposition of capital controls mean that there would be a credit squeeze on domestic borrowers when desired government and private spending increases. As a result, domestic interest rates will rise, and consumption will be dampened. However, investment spending, which is sensitive to changes in the interest rate, will be hit particularly hard. Provided that the investments undertaken with the help of capital inflows would have been profitable, the absence of these investments would entail a loss of future income, and therefore future consumption, to the economy. In sum, the use of capital controls to restrain the appreciation of the dollar means that the increase in desired government and private spending would not be met. The increase in government purchases would instead displace consumption and investment spending by the same amount.

The long-run effects of capital controls are much the same as their short-run effects. Barr ing any reversal in the initial expansionary fiscal policy, consumption and investment will be permanently depressed, and interest rates will be permanently higher. Unlike the case in which monetary policy is used to prevent the dollar from rising when desired spending increases, the use of capital controls will not have any direct effect on inflation because the Federal Reserve would be free to pursue its monetary policy objectives during this period.

In summary, compared to the floating exchange rate case, the use of capital controls to stem a rising dollar will reduce the external deficits, directly benefiting the trade-related industries. But interest-sensitive industries are adversely affected. The costs to the economy are higher interest rates and lower consumption and investment spending. The use of capital controls does not generate any direct effects on inflation, however.

CONCLUSION

When exchange rates are allowed to float, they automatically respond to shifts in domestic spending. But as the experience of the 1980s has demonstrated, these exchange rate fluctuations can impose substantial adjustment costs on the trade sector. Consequently, there is heightened interest in exchange rate stabilization. But if policymakers attempt to short-circuit the exchange-rate adjustment process—perhaps by using monetary policy or capital controls—they force the adjustments on other sectors of the economy.

Monetary policy can be used to stabilize the dollar and thereby absorb the shock to the trade sector in the short run. However, the effectiveness of this policy is diminished in the long run. The reason is that the use of monetary policy to stabilize the exchange rate would eventually bring about changes in the price level that serve to offset the benefits of a stable dollar. More fundamentally, the use of monetary policy to peg the exchange rate does not address the shift in desired spending that is the root cause of the external imbalance. As a result, the economy must eventually go through with the adjustment process much as it would under floating exchange rates. Alternatively, the use of capital controls can, in principle, be an effective tool for stabilizing the exchange rate and mitigating disturbances to the trade sector. By putting a clamp on foreign lending to the domestic economy, capital controls would force the economy's spending to fall in line with its output at all times and eliminate the external deficits. However, the interest-sensitive sectors, such as consumer durables and business investment spending, would bear the costs of the adjustment in this case.

Thus, each course of policy action brings with it its own set of adjustment costs. Limiting the adjustment costs borne by the trade
sector may be the best policy, as proponents of more fixity in exchange rates might argue. But such policies do not eliminate the need for adjustments to economic shifts, they only transfer it to other sectors.