CHAPTER NINE

The International Monetary System

IN THE DECADES immediately following World War II, monetary and financial affairs were in general isolated from one another.[1] The international monetary system based on fixed but adjustable exchange rates was generally isolated from international finance, with little interaction between the two. In fact, there was really no international financial system as we now conceive it, because almost every country maintained capital controls. This relatively simple situation began to unravel in the 1960s with the emergence of the Eurodollar market.[2] The first oil crisis in 1973 and the subsequent huge financial surplus of the Organization of Petroleum Exporting Countries (OPEC) changed this situation and led to creation of an international financial system. This then led to the integration of international money and international finance. For the first time in the postwar era, the international monetary system and international finance interacted and influenced one another.

Whereas the purpose of the international monetary system is to facilitate transactions in what economists call the "real" economy (trade, manufacturing, etc.), the purpose of the financial system is to provide the investment capital required for economic activities and development around the globe. Both the efficiency and the well-being of the world economy are profoundly affected by the success or failure of one or another of the two systems. However, the close ties of the international monetary system and international finance in the contemporary era have made the tasks of both systems much more difficult. As flows of international capital and foreign investment are conducted in money, changes in exchange rates—that is, in the value of particular currencies—inevitably change the value of an investment. If one buys dollars to invest in the United States and the value

[1] This chapter draws from Robert Gilpin, *The Challenge of Global Capitalism* (Princeton: Princeton University Press, 2000), Chapter 4.

[2] The Eurodollar market consists of foreign currencies, especially dollars, on deposit in West European and other international banks. The origins of the Eurodollar market lay principally in the desire of American banks to escape Regulation Q, which set an upper limit on interest charges. An additional factor in the rise of the Eurodollar market was hard currency deposits of the Soviet Union in European banks.

of the dollar falls, then the value of the investment is that much less. Similarly, international flows of foreign capital can cause a currency to appreciate (rise in value), as happened to the dollar in the early 1980s and during much of the 1990s. Erratic exchange rates can discourage trade and foreign investment, and international financial flows, in turn, can cause erratic exchange rates. Both the international monetary system and the international financial system are vulnerable, and disturbances in either or both systems can cause international economic turmoil, like that in East Asia during the late 1990s.

Although the monetary and financial aspects of the world economy are intimately linked, one can separate them for analytic purposes. This chapter concentrates on the international monetary system, and the following chapter, on international finance. There has been no stable and satisfactory international monetary system since the breakdown of the system of fixed exchange rates in the early 1970s. Reform of the monetary system involves complex technical issues, and every possible solution to technical matters carries important implications for the distribution of wealth both among and within national economies, and for the welfare of individual states. Prospects for a stable and integrated international monetary system will remain clouded until and unless these difficult technical and political matters can be resolved.

The Postwar International Monetary System

The post–World War II international monetary system was designed in 1944, and its fundamental principle was that exchange rates should be fixed in order to avoid the "beggar-thy-neighbor" policies of the 1930s and the ensuing economic anarchy. The International Monetary Fund (IMF) created at that time was intended to achieve this goal and to provide monetary reserves sufficient to enable member governments to maintain the exchange rates for their currencies at predetermined values. The IMF was designed to use contributions from member countries and to offer reserve credits to states with international payments problems. In addition, the monetary system had to anchor its members' monetary policies to some objective standard in order to prevent global inflation or devaluation. Stabilization of a monetary system can be achieved by tying every currency to a "nonmonetary" asset (gold being the asset of choice), by coordinating national monetary policies, or by following a leader whose past policies promise that it will provide the desired degree of economic stability in the future. Although all three methods were in fact employed in

anchored by tying every currency to the dollar, which in turn was tied to gold; the major powers also informally coordinated their economic policies.

The postwar monetary system of fixed rates, which lasted until the early 1970s, proved extraordinarily successful. Designed to provide both domestic policy autonomy and international monetary stability, the system in effect provided a compromise between the rigid gold standard of the late nineteenth century, under which governments had very little ability to manage their own economies, and the monetary anarchy of the 1930s, when governments had too much license to engage in competitive devaluations and other destructive practices. To achieve both autonomy and stability, the system was based on the following principles: fixed or pegged exchange rates along with sufficient flexibility to enable individual states to deal with extraordinary situations (including pursuit of full employment), reliable reserve credit in the event of an international payments problem, and agreement among member countries to peg their currencies to the dollar at $35 an ounce in gold. The International Monetary Fund was responsible for managing the system through approval of exchange rate adjustment in the event of a fundamental disequilibrium in a nation's balance of payments; the IMF could also make its monetary reserves available to deficit countries. These principles governed the system quite successfully for nearly three decades.

The ways in which the system actually functioned, however, did not fulfill the intentions and expectations of its founders. A significant difference was that, although the IMF had been assigned responsibility for maintaining reserves, in practice the buildup in dollar reserves held by member governments actually achieved this goal, and the American dollar became the foundation of the international monetary system in this way. Cooperation among the United States and its allies, and the passive U.S. attitude toward the dollar's exchange rate before 1971, made IMF actions in this area unnecessary. In the early postwar era, members also followed U.S. policy preferences, and they were reassured that this would provide stability to the system. However, by the time of the Vietnam War in the 1960s, the United States had ceased to pursue price stability, and inflation acceleration caused by that war eventually led the Nixon Administration to abandon the fixed-rate system in August 1971. Yet, even then, the United States and the dollar remained central to the system.

The key role of the dollar in the international monetary system facilitated the American alliance system and functioning of the world

economy; the international role of the dollar as both a reserve and a transaction currency became a cornerstone of America's global economic and political position. Because, for political as well as for economic reasons, America's major allies and economic partners were willing to hold dollars, the international role of the dollar conferred on the United States the right of "seigniorage"; this means that the provider of the currency for an economy, in this case the international economy, enjoys certain privileges. As President Charles de DeGaulle of France bitterly complained in the 1960s, the "hegemony of the dollar" conferred "extravagant privileges" on the United States, because it alone could simply print dollars to fight foreign wars, could buy up French and other businesses, and could go deeply into debt without fearing negative consequences.

Nevertheless, there was a fundamental contradiction at the heart of this dollar-based system. While the huge outflow of American dollars to finance the rebuilding of Western Europe and Japan and the American military buildup during both the Korean and Vietnam Wars helped solve certain problems, this outflow of dollars meant that the United States would one day be unable to redeem in gold, and at the agreed price of $35 per ounce, those dollars held by private investors and foreign governments. Robert Triffin, in a series of writings, predicted that confidence in the dollar would be undermined as the American balance of payments shifted from a surplus to a deficit.[3] This problem did become acute late in the 1960s when escalation of the Vietnam War and its inflationary consequences caused deterioration in international confidence in the value of the dollar. As that confidence declined, the foundations of the Bretton Woods System of fixed rates began to erode.

Decreased confidence in the dollar also led to intensifying speculation in gold, and this was followed by futile attempts to find ways to recreate confidence in the system. For example, in the late 1960s, Special Drawing Rights (SDRs) were created by the IMF as a new reserve asset, although they were never utilized extensively. However, as Benjamin Cohen has convincingly argued, it was only when a political solution was devised that maintenance of the dominant position of the dollar was ensured.[4] America's Cold War allies, fearing that collapse of the dollar would force the United States to withdraw its forces from overseas and to retreat into political isolation, agreed to

[3] Robert Triffin, *Gold and the Dollar Crisis: The Future of Convertibility* (New Haven: Yale University Press, 1960).

[4] Benjamin J. Cohen, *Organizing the World's Money: The Political Economy of International Monetary Relations* (New York: Basic Books, 1977).

continue to hold overvalued dollars. The dollar was also bolstered for a period of time because such export-oriented economies as West Germany and, at a later date, Japan, wanted to retain access to the lucrative American market and therefore supported the high dollar. However, as soaring inflation undercut the value of the dollar, a more fundamental economic solution was needed.

The End of Fixed Exchange Rates

In the early 1970s, the deteriorating position of the dollar became the central issue in the world economy. Escalation of the Vietnam War and the simultaneous launching of the Great Society Program by the Johnson Administration (1963–1969) had caused the global rate of inflation to accelerate and to threaten the value of the dollar. The U.S. government, attempting to hide the financial cost of the Vietnam War from the American people, refused to increase taxes and chose instead to pay for its warfare and welfare policies through inflationary macroeconomic policies. The succeeding Nixon Administration (1969–1974) compounded the problem of inflation. In addition, the Federal Reserve threw caution to the wind as it stimulated the economy, a move that critics labeled a blatant attempt to reelect Nixon. Subsequent intensification of speculative attacks on the overvalued dollar and ballooning of the American trade/payments deficit resulted in the Nixon Administration's decision on August 15, 1971, to force devaluation of the dollar.

To achieve the goal of a devalued dollar and to overcome the opposition of foreign export interests, the United States announced that it would no longer redeem dollars for gold. Simultaneously, to force other countries to appreciate their currencies, the Administration imposed a 10 percent surcharge on imports into the American economy and announced that the surcharge would be removed only after a satisfactory devaluation of the dollar had been achieved. Following bitter denunciations of this unilateral American action, especially by West Europeans, and after intense negotiations, the dollar was indeed substantially devalued by the Smithsonian Agreement of December 1971, in which other countries agreed to appreciate their currencies. The international monetary system was thus changed, at least de facto, from one based on fixed exchange rates to one based on flexible rates. In this way the postwar system of fixed exchange rates had become a casualty of reckless American policies, high inflation, and increasing international mobility of capital.

Subsequent efforts of an international committee to develop a new system of stable exchange rates failed. The overwhelming problems posed by increased capital mobility, along with fundamental differences between the United States and Western Europe over any new system, made agreement impossible. As a consequence of this impasse, the major industrial powers accepted economic reality at the Jamaica Conference (1976) and instituted flexible rates. I describe this situation as a "nonsystem" because there were no generally recognized rules to guide the flexible rates or any other decisions on international monetary affairs.

The Financial Revolution and Monetary Affairs

The shift from a system of fixed to flexible exchange rates generated an intense debate in the economics profession. The majority of economists, certainly at least the majority of American economists, expected that this shift would be beneficial for the world economy. They believed that the combination of fixed rates and increasing economic interdependence through trade, investment, and monetary flows had imposed severe constraints on national economic policy and thereby had decreased the ability of individual governments to pursue macroeconomic policies that would promote full employment and other economic benefits. Economists believed that a system of flexible rates would delink national economies from one another and thus permit every government to pursue those economic policies best suited to its own national circumstances.

A minority of economists, however, strongly disagreed with this optimistic assessment and was very concerned about the potentially inflationary and destabilizing consequences of delinking the international monetary system from the anchor of gold or some other commodity. If the system were not anchored to an objective standard, the value of money and the stability of prices, they reasoned, would henceforth rest entirely on the discretion of individual governments. Believing that governments were not to be trusted to pursue stable economic policies, they worried that governments would behave so irresponsibly that inflation and monetary instability would soon disrupt the world economy.

The majority of economists remained convinced that their colleagues' fears of inflation and instability were unfounded. However, the unanticipated "financial revolution" of the mid-1970s and its consequences proved that the optimism of the majority of economists had been unfounded. Growth of the Eurodollar market and overseas

gence of an international financial market. Then, in the 1970s, development of the new international financial system accelerated following deregulation of domestic financial systems, removal of capital controls in a number of countries, and the greatly increased size and velocity of global financial flows, an increase made possible by modern communications and new financial techniques and instruments. Moreover, the huge OPEC monetary surplus following the first oil crisis, and the need to recycle those funds, proved important in the development of the international financial market. Before the end of the 1970s, the scale and velocity of international financial flows had expanded enormously and had truly transformed the international economic system.

Integration of global financial markets and increased monetary and financial interdependence of national economies had a significant impact on domestic as well as international economics. Financial market integration means that the macroeconomic policies of one country have a significant impact on the economic welfare of other countries. For example, if country *A* raises its interest rates to decrease domestic inflationary pressures, those higher rates will attract capital from other countries with lower interest rates, and the resulting increase in country *A*'s money supply then contributes to the inflationary pressures that higher interest rates were intended to counter. Simultaneously economic activity is reduced in the economies from which the capital flows. Integration of national financial markets actually reduced macroeconomic policy autonomy. Despite the shift to flexible exchange rates, domestic and international economic spheres became even more closely linked to one another because of financial market integration.

Another unanticipated consequence of the financial revolution has been that international financial flows have become an important determinant of exchange rates, at least in the short term. This situation has greatly increased exchange rate volatility, especially between the dollar and other major currencies (the Japanese yen and the German mark). By the end of the 1970s, international financial flows dwarfed trade flows by a ratio of about 25:1; the size of the flows also contributed greatly to volatility. The tendency of exchange rates to "overshoot" in response to financial flows has proved important in producing fluctuations; that is, the exchange rate tends to make large swings up and down rather than find a new and stable equilibrium, and such overshooting causes a disequilibrium in currency values and hence increases exchange rate volatility. This situation has made it difficult

for markets to move smoothly from one equilibrium exchange rate to the next and for anyone to know what the equilibrium exchange rate should be.

Since fixed rates were eliminated, economists and public officials have debated heatedly whether or not exchange rate volatility has produced negative consequences for the real economy through its impact on trade flows, business activity, and economic growth. Some economists believe that volatile rates may have contributed to development of the New Protectionism in the mid-1970s. Many economists now believe that the world should return to a system of fixed rates because of the high costs of exchange rate volatility.

Freeing financial markets facilitated reorganization and transformation of international business. Increased integration of national financial markets encouraged creation of a single, globally integrated market for corporation ownership and such corporate takeover activities as the late-1990s merger of Chrysler and Daimler-Benz. Although, in Japan, government regulations and the system of corporate groupings or *keiretsu* have made foreign takeovers very difficult, elsewhere there has been a huge increase in acquisitions and alliances by multinational corporations since the mid-1970s.

The substantial increase in international interdependence has also had a profound impact on domestic economic policy. Economic interdependence considerably reduced the capacity of many countries to pursue full-employment policies, and this in turn undermined the domestic consensus supporting an open world economy. Increased interdependence also has integrated such once-isolated policy issues as trade flows and exchange rate determination, thus immensely complicating the task of managing the world economy and raising important questions about the adequacy of the rules governing international economic affairs.

With these several developments, the Bretton Woods rule-based international monetary system was replaced by a shaky political agreement among the dominant economic powers (G-7); this change made the central bankers of the major economic powers de facto managers of the international monetary system. What soon became known as the "reference range" system was based on the cooperative, and sometimes not so cooperative, efforts of central bankers and finance ministers to stabilize currency values. As time went by, however, this cooperative mechanism became less and less satisfactory, and many proposals have been put forth to reform the nonsystem and to return to a rule-based system, or at least to a more satisfactory arrangement based on cooperation among the major economic powers. Lacking a

frustrated by what they considered to be irresponsible American macroeconomic policies, West Europeans sought to isolate themselves from American actions through creation of the European Monetary System (EMS) and the accompanying Exchange Rate Mechanism (ERM). This European initiative became a further important step in the development of regional arrangements within the international monetary system. Despite these setbacks, efforts to strengthen international monetary affairs have continued.

Embedded Technical and Political Issues

Although an efficient international monetary system benefits every country, serious political and economic difficulties almost invariably impede creation or reform of an international monetary system. Every solution to technical problems has important distributive consequences that affect differently both various nations and powerful domestic constituencies; strong reactions can be evoked because some may lose more or benefit less than others from any new monetary arrangement. During the early postwar years, both the United States and its trading partners were upset over the asymmetries of the dollar-based system. Many Europeans objected to the economic and political privileges bestowed on the United States, and the United States, as the reserve-currency country, fretted increasingly over its inability to reduce its trade deficit by devaluing the dollar. Eventually, President Nixon in August 1971 "solved" American concerns about asymmetry by forcing appreciation of other currencies.

The creation and/or reform of an international monetary system involves highly complex technical issues. The formal models and mathematical techniques of economists that are required to deal with monetary and financial matters are beyond the technical competence of most noneconomists, and even beyond many economists; yet the international monetary system is of intense concern and importance to national governments and private economic interests. The mechanisms responsible for the system's efficient functioning—adjustment, liquidity creation, and confidence-building measures—produce a differential impact on the national interests of various countries and also on the interests of powerful groups within economies. Technical mechanisms are seldom politically neutral; they affect the economic welfare, political autonomy, and even the international prestige of individual states, and they also have an impact on the interests of capital, labor, and other domestic groups. Every state wants an effi-

cient and well-functioning international monetary system. However, individual states and powerful domestic groups may disagree strongly on specific matters, such as currency values and the precise mechanisms employed to solve technical problems.

The distributive consequences of solutions to technical problems are illustrated by the liquidity issue, which is closely tied to the issue of seigniorage; that is, the economic benefits accruing to the country whose currency is used as the basis of the international monetary system. Solutions to the adjustment problem determine whether deficit or surplus countries must pay the high costs of reestablishing a balance-of-payments equilibrium. The nature of the international monetary system also has important implications for such different constituencies as tradeable/nontradeable sectors, labor and/or capital, and industry/finance.

Political differences mean that a well-functioning monetary system requires strong leadership by a nation or group of nations with an interest in maintaining the system. The leader(s) must assume the initiative in solving highly technical problems as well as providing and managing the key currency used for maintaining reserves, carrying out economic transactions, and providing liquidity. Furthermore, the leader should be the "lender of last resort" and from time to time should provide financial assistance to countries experiencing severe financial problems. Although this leadership role could, in theory, be provided by two or more nations or even by an international organization, leadership has historically been provided by a dominant economic and military power; for example, Great Britain in the late nineteenth century and the United States following World War II. Not surprisingly, the rules governing the international monetary system have in general reflected the interests of the leading economic powers.

The Belgian economist Paul DeGrauwe has pointed out that economists differ fundamentally with one another over almost every aspect of international monetary affairs, from determination of currency values to the virtues of fixed versus floating rates; this makes explication of economists' views on this matter quite challenging.[5] Particularly since the early 1970s, the area of international monetary affairs has been the focus of intense controversy. Although professional books and journals have been filled with proposals to reform the regime, few proposals have been implemented, and the monetary system's inherent problems and contradictions remain unresolved.

[5] Paul DeGrauwe, *International Money: Post-War Trends and Theories* (Oxford: Clarendon Press, 1989).

[illegible] the varied and complex aspects of the international monetary regime have usually followed rather than preceded events that they attempt to explain. Indeed, many theories regarding monetary affairs have been merely ex-post-facto explanations of important developments that economists had failed to predict. Such theoretical and policy differences among experts increase the difficulties of finding solutions to the problems.

Adjustment

An international monetary regime must determine the method by which national economies will restore equilibrium (i.e., reduce a deficit or a surplus) in their international accounts (balance of payments), and an efficient international monetary system should minimize the costs of making adjustments. Every adjustment policy results in economic costs, and some methods of adjustment are considerably more costly for individual economies and for the overall world economy than are others.

A country with an imbalance in its international payments may pursue such short-term expedients as drawing down its national reserves (a deficit country) or adding to its national reserves (a surplus country). However, with few exceptions, a deficit country cannot continue drawing down its reserves for very long, and eventually the debtor country must take measures to eliminate the cause of the imbalance. On the other hand, a surplus country, like the United States for much of the twentieth century and Japan at the end of the century, can continue to add to its reserves for a very long time, a practice that irritates its trading partners. Both deficit and surplus countries employ additional methods to overcome payments imbalances. One such method is to change the exchange rate by devaluing the currency (a deficit country) or appreciating it (a surplus country). Another method is to make changes in macroeconomic policy; that is, to shift to deflationary (a deficit country) or expansionary (a surplus country) economic policies.

Some currencies will inevitably get out of line with one another. Many nations live beyond their means and pursue inflationary policies; others, like Japan during most of the second half of the twentieth century, desire a continuous payments surplus and therefore choose to live below their means (a deflationary policy). Such national differences in inflation/deflation rates will cause currency values to change; some method acceptable to all must be available to bring currencies back into equilibrium. And, of course, for every deficit country, there must be surplus elsewhere. While either the deficit or surplus country

(or both) could make adjustments, under the Bretton Woods System it was generally assumed that the burden of adjustment rested with the deficit country. However, the deficit country can and frequently does take actions to impose the costs of adjustment on the surplus country. For example, the United States has attempted, with some modest success, to impose the burden of adjustment on Japan through policies intended to eliminate the American-Japanese trade/payments imbalance.

Adjustment, for a deficit country, means that it must reduce its standard of living or at least reduce the rate of increase in that standard, achieve a long-term reduction in national income and/or reduce employment levels. The rules governing the international monetary system will determine the approved methods of making such an adjustment. However, regardless of the choices available, transition from "high living" to "living within one's means" must necessarily impose a real cost on the deficit country, and the precise manner in which adjustment occurs will also impose costs on other countries. For example, the deflationary consequences of the East Asian financial crisis harmed many American exporters. It is clear that all countries would like to shift as many adjustment costs as possible to others and away from themselves. Working out the distribution of the costs of adjustment among deficit and surplus nations is at the heart of solving the adjustment problem.

For a deficit country living beyond its means, both currency devaluation and/or deflation of the economy are painful, because the former entails a drop in national income and the latter, a rise in unemployment. For a surplus country, currency appreciation is painful for its export industries but beneficial for its importers and consumers; on the other hand, macroeconomic stimulus of the economy carries the risk of inflation. How much better it would be, therefore, to transfer the adjustment costs to one's trading partners! As mentioned above, a case in point is the long-simmering economic clash between the deficit United States and the surplus Japan. From the 1980s onward, the United States resisted deflationary policies that would reduce its trade deficit but would also mean a decline in the American standard of living. Meanwhile, Japan resisted an appreciation of the yen that would harm its export industries, and Japanese agreement at the Plaza Conference (September 22, 1985) to appreciate the yen was achieved only after intense American pressures. Since solution of the adjustment problem impinges on the interests of states and of powerful interests within states, adjustment mechanisms do and will reflect the interests of powerful states and groups.

Liquidity

An efficient international monetary system must also provide international liquidity. Participating countries must have financial reserves sufficient to meet balance-of-payments deficits caused by such economic shocks to the system as the sudden increase in the price of petroleum in 1973 or by persistent use of such unwise policies as an inflationary macroeconomic policy or maintenance of an overvalued currency. Reserves are important because they enable a deficit country to finance, at least for a short period, a payments disequilibrium and to increase the time and options available to the country as it seeks a longer-term solution to its deficit problem. A country can also use reserves to delay a possibly costly devaluation of its currency. A nation's reserves (like any other form of money) are also a store of value; they may include gold, convertible foreign currencies, or deposits with the International Monetary Fund.

While provision of optimal international liquidity facilitates the world economy's functioning, neither underprovision nor overprovision is desirable. Underprovision may be recessionary and overprovision, inflationary. Under the gold standard during the last decades of the nineteenth century, there was underprovision of reserves, and while the gold standard was a very stable system, this system frequently resulted in high levels of unemployment and depressed wages. On the other hand, during the early post–World War II era of the dollar standard, overprovision of reserves by the United States meant a high level of inflation that eventually led to the breakdown of the Bretton Woods monetary system of fixed rates. With economists and governments disagreeing about the rules that should govern international reserves, the rule of the strong has generally prevailed and the dominant powers have had a significant impact, at least over the shortterm, on maintaining the level of international liquidity to accord with their own economic and political interests.

Seigniorage is an important aspect of liquidity creation. Not only is national prestige enhanced when a nation's currency is selected as the most important currency, but seigniorage can also be a major source of increased income to the nation, particularly to its banking system. In addition, seigniorage can increase the economic and political autonomy of the country because that country is freed, at least for a time, from balance-of-payments constraints. On the other hand, seigniorage has associated costs; for example, the nation with the right of seigniorage usually has to pay interest to other countries holding assets denominated in its currency. To maintain seigniorage also means that a country must avoid actions that undermine confidence in the value of its currency. Moreover, the country supplying the key currency may find it difficult to devalue its currency, as happened to the United States in the early 1970s.

Increased national income and national autonomy or freedom of action are important benefits of seigniorage. The banking system of a country supplying an international currency enjoys both economies of scale and other cost advantages over its competitors simply because most international reserves and transactions are held in its national currency. Under the gold standard in the late nineteenth century, British sterling was the key currency, and London financial institutions enjoyed high profits as the center of the international monetary system. Following World War I, London and sterling were challenged by New York and the dollar, and the profits from seigniorage began to flow to the United States and its banking system. It remains to be seen whether or not the euro of the European Union and a European city or cities will appropriate financial and monetary leadership in the twenty-first century.

Seigniorage also confers greater freedom from economic restraints on the key-currency country and, hence, more autonomy than other countries enjoy. Throughout the Cold War, the capacity of the United States to fight foreign wars, maintain troops abroad, and finance its foreign policy was largely dependent on the willingness of its allies to hold American dollars and dollar-denominated assets. Even after the Cold War, the role of the dollar as the world's key currency permitted the United States to live far beyond its means for years and thus to become the world's foremost debtor nation. Other countries, by holding dollars, actually gave the United States interest-free loans. As the American debt has been denominated in dollars, this debt burden could be inflated away, and devaluation of the dollar in the 1990s did indeed reduce the debt owed by the United States while simultaneously imposing heavy costs on Japanese and other lenders. Nevertheless, the United States will continue to enjoy the privileges of seigniorage as long as there is no acceptable alternative and holders of dollars or dollar-denominated assets maintain confidence in the dollar.

Confidence

A stable international monetary system is also dependent on solution of the confidence (credibility) problem; other countries must have confidence that the reserve-currency country will not pursue inflationary policies leading to devaluation of their own reserves. If they lose confidence, other countries will shift the composition of their

paid on assets denominated in a currency or because of changes in exchange risk or in concerns about inflation. A reserve-currency country must pay an attractive interest rate on assets denominated in its currency, and it must also take confidence-building measures to convince private and public holders of its currency that its currency will continue to be convertible into other sound assets and will not lose value because of inflation or changes in exchange rates. Confidence-building measures can be quite costly.

Devising an International Monetary System

Differing subjective judgments and interests among public officials and intense disagreements among economists about the appropriate applicable economic model or theory add complications to the development or modification of a monetary system. There are intellectual and theoretical disagreements among economists and public officials about many possible solutions to the technical issues embedded in a monetary system. Economists, for example, even disagree about the economic model to apply to determination of exchange rates, and there are trade-offs among desirable but mutually exclusive goals. A choice, one that is primarily political, must be made.

At the heart of the difficulties in finding solutions to exchange rate instability is the fact that national economies have very different rates of inflation and/or price instability. Whereas some governments place a high value on price stability, others prefer to pursue expansionary and frequently inflationary policies to reduce unemployment or stimulate economic growth. Germany and Japan, having given priority to price stability throughout the postwar era, have followed strong anti-inflationary policies while the United States, at least until the late 1970s, pursued mild to highly inflationary policies.

The problem of devising a stable and politically acceptable international monetary system is further compounded by the inevitable trade-offs among the following equally desirable goals: fixed exchange rates, national independence in monetary policy, and capital mobility. These three goals are referred to by economists as a ***trilemma***, or as the "***irreconcilable trinity.***" Nations may want stable exchange rates to reduce economic uncertainty, but they may also desire discretionary monetary policy in order to promote economic growth and steer their economies between recession and inflation. In addition, governments may want freedom of capital movements to

facilitate the conduct of trade, foreign investment, and other international business activities.[6]

Unfortunately, no international monetary and financial system can accommodate all three of these desirable goals (fixed exchange rates, national independence in monetary policy, and capital mobility), although it can incorporate at most two of these objectives. For example, a system of fixed and stable exchange rates such as the Bretton Woods System, along with some latitude for independent monetary policies, is incompatible with freedom of capital movement because capital flows could undermine both fixed exchange rates and independent monetary policies. A system with fixed exchange rates and independent macroeconomic policies promotes economic stability and enables a government to deal with unemployment. However, such a system sacrifices freedom of capital movement, one of the most important goals of international capitalism. A system of fixed rates and freedom of capital movements would be incompatible with an independent monetary policy.

Different countries and domestic interest groups prefer to emphasize one or another of these goals. In the late 1990s the United States, for example, preferred independent monetary policy and freedom of capital movements, and thereby sacrificed stable exchange rates. The members of the European Community, on the other hand, preferred relatively fixed rates. Some countries, notably Malaysia and China, placed a high value on macroeconomic independence and have imposed controls on capital movements. Specific economic interests also differ in their preferences. Whereas export businesses have a strong interest in the exchange rate, domestic-oriented businesses place a higher priority on national policy autonomy. Investors prefer freedom of capital movements, whereas labor tends to be opposed to such movement, unless of course it means inward rather than outward investment. As national situations and interests differ, there is no one solution to the trilemma that would be satisfactory for all.

Many economic conservatives argue that the first major effort to resolve the problem was the most successful; that is, creation of the classical gold standard under British leadership in the latter decades of the nineteenth century. Under that system of "golden fetters" (to

[6] The Mundell-Fleming model, developed in the 1960s by Robert Mundell and John Fleming, integrates international capital flows with other factors determining demand and output. This development created what has become known as open-economy macroeconomics in contrast to the domestic orientation of most economists in the 1960s. This theoretical development is set forth in Robert A. Mundell, *International Economics* (New York: Macmillan, 1968).

there was indeed international monetary stability, but governments had little control over their own economies, and the domestic economy frequently suffered as a result.[3] The collapse of the gold standard at the outbreak of World War I resulted in a situation in which governments had too much license over economic policy; the 1930s and 1940s were an era of economic anarchy, competitive devaluations, and "beggar-thy-neighbor" policies that lasted until the Bretton Woods System was created at the end of World War II. The Bretton Woods System, based on fixed exchange rates and supervised by the International Monetary Fund, continued until officially terminated in the mid-1970s. The subsequent volatility and unpredictability of exchange rates produced by the more recent "nonsystem" have led to many proposals to reform the international monetary regime.

Reform of International Monetary Affairs

In 1930, John Maynard Keynes set forth the ideal objective of an international monetary system:

> This, then, is the dilemma of an international monetary system—to preserve the advantages of the stability of local currencies of the system in terms of the international standard, and to preserve at the same time an adequate local autonomy for each member over its domestic rate of interest and its volume of foreign lending.[4]

After the breakdown of the system of fixed exchange rates in the 1970s, the international monetary system strayed far from the Keynes ideal. The "reference range" system, which replaced the system of fixed rates, is actually a "nonsystem" of floating exchange rates in which international monetary affairs are not governed by rules or understandings about such factors as rate adjustment or liquidity creation. Or, to put it another way, there is no regime for international monetary affairs; instead, under the reference range nonsystem, the central banks and finance ministers of the three dominant monetary powers—the United States, Germany, and Japan—cooperate to keep their exchange rates aligned or to change them in an orderly fashion. However, in this nonsystem, erratic American macroeconomic policies and huge trade deficits have caused large exchange rate fluctuations and have seriously vexed America's trading partners.

The reference range nonsystem represents the triumph of the central bankers. Stability of the international monetary system has rested mainly on informal cooperation among the American Federal Reserve, the German Bundesbank (replaced in 1999 by the Central European Bank), and the Bank of Japan, which have intervened in currency markets to protect the integrity of the system, prevent financial instability, and stabilize exchange rates through secret agreements and sporadic intervention in the market. After the disturbing experience of hyperflation in the 1970s, interbank cooperation has also been employed to suppress inflationary tendencies. However, many critics, especially on the political left, have denounced this international alliance of conservative bankers as the cause of high unemployment and even of the global economic crisis of the late 1990s.

Many economists believe that this system of informal cooperation among central bankers and finance ministers is the best possible solution to the problems of the international monetary system. They reject the contention that fluctuating exchange rates have a negative impact on economic affairs and argue that, if this should happen, exchange rate volatility could be managed through currency hedging and other techniques. Other economists and central bankers, on the other hand, believe that the present nonsystem should be replaced by a rule-based monetary system or more institutionalized cooperation. A serious problem, they point out, is that there are radical fluctuations in exchange rates that cause uncertainty and thereby inhibit trade and investment; exchange rate uncertainty also is alleged to encourage such regional monetary arrangements as the European Monetary Union.[5] Many economists and public officials who worry about this and other weaknesses in the reference range system believe that a fundamental reform of the international monetary system is urgently needed.

Since the collapse of the Bretton Woods System of fixed rates, the issue of fixed versus flexible exchange rates has been central to all questions of international monetary reform. At the heart of this debate are the "irreconcilable trinity" and the difficult choices it poses for national governments. In general, economists prefer flexible rates in order to facilitate international capital movements and adjustments

[3] Barry J. Eichengreen, *Golden Fetters: The Gold Standard and the Great Depression, 1919–1939* (New York: Oxford University Press, 1992).

[4] John Maynard Keynes, *A Treatise on Money: The Applied Theory of Money*. (Cambridge: Cambridge University Press, 1971; first published in 1930), 272.

[5] Whether fluctuations in currency values are actually harmful is a matter of debate among economists. For a discussion of the issue, consult Ronald I. McKinnon and K. C. Fung, "Floating Exchange Rates and the New Interbloc Protectionism: Tariffs versus Quotas," in Dominick Salvatore, ed., *Protectionism and World Welfare* (New York: Cambridge University Press, 1993), 10.

[illegible] economy made necessary by economic shocks. Central bankers and a minority of economists prefer fixed rates in order to ensure price stability. A number of conservative economists and others prefer a return to the nineteenth-century gold standard, as it would eliminate government control over monetary affairs and prevent inflation. Most economists reject this proposal because it would also eliminate the ability of governments to manage their economies in the case of recession or an economic shock. Whether one prefers the macroeconomic independence that comes with flexible rates or the microeconomic benefits that accompany stable exchange rates is at the core of this debate.

Arguments for More Stable Exchange Rates

Advocates of a return to more stable exchange rates assert that the experiment with flexible (floating) rates has failed and that flexible rates have resulted in excessive currency and price volatility, destabilizing international capital flows, and inflationary economic policies. Excessive exchange rate volatility increases uncertainty and risk in both international trade and foreign investment and thus impedes international economic integration. Some experts also argue that volatility of currency values has decreased the effectiveness of the price mechanism and of the principle of comparative advantage as tools in international trade and foreign investment decision-making.

Erratic swings in the three major currencies have occurred within a period as short as one or two years; swings in which some currency values have varied by as much as 30 to 40 percent. For example, the dollar's value moved from 250 yen in 1985 to 79 yen in 1995, back up to 148 yen in 1998, and then down again to 105 in early 2000.[10] The resulting uncertainty in relative prices made it almost impossible to calculate relative costs and comparative advantage, calculations needed for a market economy to function efficiently. From such experiences some have concluded that floating rates impose high costs in economic growth and in the efficient allocation of economic resources, even arguing that unstable exchange rates have contributed to trade protectionism. These individuals believe that fixed rates, on the other hand, provide international discipline over inflationary monetary policy, reduce uncertainty that interferes with trade and investment, and thereby facilitate competition based on comparative advantage and efficient capital flows.

[10] Robert Mundell, "Threat to Prosperity," *Wall Street Journal*, 30 March 2000, A30.

Proponents of more stable exchange rates are fully aware that economic and political developments have made impossible a return to the type of pegged-rate system laid down at Bretton Woods. These individuals advocate, instead, a compromise between greater international stability and provision of some flexibility for the policies of individual governments. Many are concerned because governments need to be able to respond to economic shocks and other developments through various schemes based on the idea of a contingent exchange rate target; the schemes have such labels as "pegged but adjustable exchange rates," "crawling peg," "managed floating rates," "adjustable peg," and "exchange rate target zones." Whatever the exact formulation, Nobel Laureate Robert Mundell believes that a more stable international monetary system requires close cooperation among the three major currencies.[11] As such cooperation would entail restraints on American economic policy, its political prospects are not promising.

Arguments for Flexible Exchange Rates

Fixed (stable) exchange rates are very costly to maintain in a world with huge international financial flows. These financial flows have become the principal determinant of exchange rates, a role previously played by trade flows. Therefore, unless a country is willing either to shut itself off from international investment or to give up the possibility of an independent macroeconomic policy (two of the components of the "irreconcilable trinity"), it must accept flexible (floating) rates. A system of flexible exchange rates provides the least costly means for economies to adjust to external shocks, like the 1973 rise in oil prices. Proponents of flexible rates argue that when a government faces a balance of payments disequilibrium, it is far better to devalue its currency than to deflate its economy or resort to capital controls. The value of a currency should be free to change so that other more important values, or "real" variables such as wages and employment, need not change. Indeed, the flexible rates in existence in 1973 made the necessary adjustments easier than they would have been if there had been fixed rates, which, during the oil crisis, would have forced countries to adjust to the price rise either through severe deflation or capital controls.

Advocates of floating rates argue that they are inherently desirable because the value of a currency acts as a balancing mechanism for the rest of the economy, and because flexible rates protect and cushion an

[11] Ibid.

[illegible] hedging in the international economy. While there may be some problems of uncertainty and inflation associated with flexible rates, reliance on fixed rates to avoid such problems makes adjustment both more costly and more difficult. Many argue, moreover, that the costs of floating rates have been greatly exaggerated; they point out that the problem of monetary uncertainty can be reduced by private firms' "hedging" in the foreign exchange market.

Monetary expert Barry Eichengreen argues that economic and political changes have made a return to a system of fixed rates impossible.[12] One change is the institutionalized structure of labor markets associated with the welfare state, a development that seriously restricts the fluidity with which prices and wages can adjust to economic shocks. Another important change is the increasingly politicized environment in which domestic monetary policy must be formulated; politicization of macroeconomic policy in almost every democratic country has eroded the credibility of government policies and the commitment of monetary authorities to pursue noninflationary monetary policy. As the twenty-first century opened, few governments could be relied upon to maintain long-term robust or steadfast monetary policy. The most important change is the greatly increased mobility of capital movements around the world that has been encouraged by deregulation of capital markets, technological developments, and new financial instruments, all of which have also greatly limited governmental ability to contain market pressures.

Eichengreen argues that these economic and political changes have restricted possible international monetary arrangements to either (1) an international monetary system based on freely floating exchange rates, or (2) monetary unification among groups of countries to enable creation of single currency areas managed by regional central banks. Freely floating exchange rates would be a step away from an integrated, rule-based world economy, as such an arrangement could have few, if any, rules governing such technical matters as exchange rate adjustment and liquidity creation. Under such a monetary arrangement, an individual nation could intervene in the market to guide the floating rate of its currency but could not set and hold to a targeted value. Therefore, the means to guarantee a stable international monetary system, Eichengreen has argued, is complete monetary integration; that is, creation of a single currency managed by a central bank. However, as the twenty-first century opened, the only effort to achieve monetary unity was that in Western Europe.

[12] Barry J. Eichengreen, *International Monetary Arrangements for the 21st Century* (Washington, D.C.: Brookings Institution, 1994).

Many economists and public officials believe that Eichengreen's analysis is much too pessimistic, and few are willing to give up the search for an effective means to stabilize exchange rates through an international monetary authority, international policy cooperation, or some other mechanism. However, many would undoubtedly agree that an effective governance mechanism must soon be devised to manage international monetary affairs in order to avoid the real danger that the monetary system will disintegrate either into monetary anarchy similar to the 1930s or will fragment into regional arrangements based on such dominant regional currencies as the American dollar, the euro, or the Japanese yen. A stable international monetary system must rest on the cooperation of the major economic powers, a situation that has not been easy either to establish or to maintain.

Unity or Fragmentation of the Monetary System?

Creation of the European Monetary System (EMS) and the common currency (euro) pose a serious threat to the unity of the international monetary system. There is considerable interest and disagreement among public officials, economists, and political pundits on both sides of the Atlantic Ocean and in other parts of the globe concerning the implications of the euro for the dollar and the international economy in general. The most important questions are whether or not the euro will displace the dollar as the world's principal currency, what the consequences for the United States would be if it did, and how the euro would affect the functioning and management of the international monetary and economic system. The large number of economic and political unknowns surrounding the euro make it impossible to provide any conclusive answers to these and other relevant questions. Nevertheless, these issues are of such moment for the future of the global economy that they must be addressed, even if only tentatively.

Throughout the postwar era, the international role of the dollar has been an important feature of the world economy. Somewhere between 40 and 60 percent of international financial transactions are denominated in dollars. For decades the dollar has also been the world's principal reserve currency; in 1996, the dollar accounted for approximately two-thirds of the world's foreign exchange reserves. The possibility that the euro will replace the international role of the dollar as a transaction and reserve currency has become extremely important, particularly for the United States and its financial commu-

to a significant degree, displace the dollar. On the other hand, most American economists believe that the euro is unlikely to displace the dollar. They believe, moreover, that if a shift from the dollar to the euro should occur, it would happen very slowly over a lengthy period and thus give the United States sufficient time to make such necessary adjustments as elimination of its huge trade/payments deficit.

Most American economists expect that the continuing international role of the dollar will depend more on the strength of the American economy than on anything else, and that the importance of the dollar to international financial markets will be determined primarily by the international competitiveness of the American financial system. The euro, according to this position, could replace the dollar only if West Europeans create an integrated and efficient financial market. Many doubt that this will happen for some time. Thus, American officials and economists tend to discount the possibility that the international reign of the dollar will be undermined by the euro, at least in the foreseeable future.

If the euro were to replace the dollar as the world's key currency, there would be important implications for both private American financial interests and the American government. The success of the euro could have a large negative impact on American banks and financial institutions because a large volume of transactions in a currency leads to economies of scale and decreased transaction costs. The larger the volume of currency transactions in a particular country's currency, the greater the profits and competitiveness enjoyed by the banks and financial institutions of that country. If the euro were to replace the dollar as a reserve or transaction currency, then the benefits of scale and lower transaction costs would be transferred from American to European financial institutions. By one estimate, the portfolio switch from the dollar to the euro could be as large as $1 trillion.

The international role of the dollar has conferred a number of economic and political benefits on the United States, and if the dollar were to lose its status as the world's key currency, the United States would forfeit these benefits. The international demand for dollars has meant that the United States has been able to finance its huge and continuing trade/payments deficits since the early 1980s at a minimal cost. In effect, the United States government has been able to assume that other countries would automatically finance its trade/payments deficit because others, needing dollars to conduct their international business, did not demand high interest rates. Moreover, the United

States has been able to borrow in its own currency and thus avoid exchange-rate risks. Many of the dollars in circulation are overseas in the hands of non-Americans; this so-called "dollar overhang" of about $265 billion is the equivalent of an interest-free loan to the United States that some have estimated to be worth about $13 billion in annual interest payments. In addition, American prestige is certainly enhanced by the international role of the dollar.

Many West European leaders believe that the euro will greatly strengthen their political position vis-à-vis the United States in international economic negotiations. The euro could eliminate the nearly automatic financing of the American balance of payments deficit and limit the considerable financial freedom the United States has had to pursue its independent economic and foreign policies. In addition, a successful euro could undercut Japan's ambition to have the yen play a much larger role as an international currency. In a global economy composed of three major currencies, the Japanese fear that the yen could become the "odd man out." Growing concern about such a possibility has, in fact, stimulated Japan to propose a global "currency triumvirate" of the dollar, the euro, and the yen, an arrangement that would be managed by the three major economic powers.

The real or even the perceived threat that the euro could displace the dollar could trigger a serious conflict between Western Europe and the United States—and possibly Japan as well, thus creating a three-way struggle. If a struggle were to erupt between the dollar and the euro similar to the earlier struggle for supremacy between the dollar and sterling in the 1920s and 1930s, considerable economic and political costs could be incurred by such a transatlantic conflict. The united international monetary system could fragment into regional blocs centered on the euro, the dollar, and, possibly, the yen. At the beginning of the twenty-first century, a number of smaller countries were considering whether to tie their currencies to the currency of their dominant trading partner.

The possibility of the development of currency blocs arises from the belief that currency blocs would reduce exchange rate risk among member countries, as is happening in Western Europe; such a change would be especially important for countries that trade heavily with one another and was a major reason for creation of the Economic and Monetary Union (EMU).[13] A common currency could also en-

[13] Zanny Minton Beddoes, "From EMU to AMU?: The Case for Regional Currencies," *Foreign Affairs* 78, no. 4 (July/August 1999): 8–13.

courage a low rate of inflation among member countries, provided that the leading country maintained a low inflation rate; this was the case in the Exchange Rate Mechanism, where West Germany was the leading economy. The major economic disadvantage of a currency bloc or union is loss of national independence in macroeconomic policy-making. However, the most serious risk in currency blocs is that they could intensify the already strained political relations among the United States, Japan, and Western Europe.

Few or Many National Currencies?

Another possible threat to a unified global monetary system arises from "dollarization" of national currencies. The term "dollarization" refers to the decision of a less developed country to tie its currency closely to the dollar or to accept the dollar as its currency; Argentina has chosen the first option and Panama and Ecuador, the second. More broadly, dollarization refers to the use by one country of any major currency, including the euro or the yen. For a less developed country, the purpose of dollarization would be to stabilize its currency and exchange rate and to dampen inflation; dollarization would also reassure investors that, in the event of a crisis, they would be compensated in a hard currency. A number of American policymakers believe that the use of dollars by LDCs would strengthen the dollar against the euro.

Advocates of dollarization allege that, in the era of globalization and massive financial transactions across national borders, a world with more than one hundred currencies is grossly inefficient and cannot possibly continue over the long term.[14] Dollarization would result in a reduction of transaction costs, and this makes dollarization, like fixed rates and a regional currency, very attractive to business executives. The financial and exchange rate crises of the late 1990s revealed the vulnerability of weaker currencies. By tying these currencies to stronger currencies, dollarization would stabilize and protect from market instabilities the weaker currencies of less developed countries. Nevertheless, despite the apparent attractiveness of dollarization, many economists believe that it would actually prove harmful to less developed countries.

[14] Ricardo Hausmann, "Should There Be Five Currencies or One Hundred and Five?" *Foreign Policy*, no. 116 (fall 1999): 65–79.

The arguments for and against dollarization are similar to those for and against fixed exchange rates and regional currencies.[15] Dollarization enforces fiscal and monetary discipline on the less developed country and reduces monetary uncertainty. These restraints discourage irresponsible macroeconomic policies. Moreover, dollarization, like a fixed exchange rate, reduces uncertainty and transaction costs. Most importantly, dollarization would reduce currency speculation and the likelihood of financial crises and of competitive devaluations.

Although dollarization could be very important, most economists believe that its possible benefits are far outweighed by the advantages of flexible exchange rates. Arguments against dollarization and for a flexible exchange rate emphasize that the exchange rate functions as a safeguard for the real economy. In effect, an exchange rate appreciation or depreciation acts as a shock absorber. For example, a drop in demand for an economy's exports can lead to slower economic growth and increased unemployment. It would then be possible, of course, to permit wages to fall. However, the reduction of wages across an economy is a long and politically difficult process. A more simple solution would be to depreciate the currency, and this in turn would decrease the price of the country's exports and increase demand, thereby benefiting the economy. One should recall, however, that what is good for a major country may not be good for a smaller economy. For example, an LDC whose currency is tied to the dollar may wish to stimulate its economy, whereas the United States may not wish to do so. Stimulus of the LDC economy would lead to a reduction of its dollar reserves and eventually cause the expansion of its economy to stop. In effect, the LDC ties its monetary policy and management of its economy to the larger country's policies if it adopts dollarization.

Conclusion

Despite economists' justified skepticism of dollarization and a drastic reduction in the number of national currencies, it seems inevitable that over the long term, smaller economies will link their currencies closely to their major trading partners. By the end of the twentieth century, LDCs were already tying their currencies to the dollar, euro, or yen. However, this slow-moving development does not necessarily

[15] Jeffrey Sachs and Felipe Larrain, "Why Dollarization Is More Straitjacket Than Salvation," *Foreign Policy*, no. 116 (fall 1999): 80–92.

mean either that three currency blocs will emerge or that the global economy will fracture. Nevertheless, the possibility that currency blocs may emerge makes clear the need for improvements in policy and monetary cooperation among the United States, Japan, and Western Europe. In the meanwhile, public officials, central bankers, and economists should and do continue to search for a compromise that would achieve Keynes's stated objective for an international monetary system: that is, international currency stability along with domestic policy flexibility. Although the economics literature is replete with schemes to achieve these dual goals, this can happen only if political cooperation among the major economic powers is achieved first.