



Governing the International Monetary System

The international monetary system is at the center of the international economy. This system provides the framework for trade, investment, and other economic transactions and payments across international boundaries. Money is also central to national sovereignty. The ability to issue currency and the accompanying ability to influence its value are important prerogatives of national governments and tools of domestic economic policies. This chapter examines how nations have worked together to create and manage international monetary systems and how governments have sought to balance the need for international cooperation with the desire to maintain sovereignty over national currencies and national economies. This chapter explores how those responsible for managing the system have sought to provide the three central functions of any international monetary system: adequate **liquidity**, timely **adjustment**, and **confidence** in the stability of the system.

Just as any national economy needs an accepted currency, the international economy requires an accepted vehicle for exchange. Unlike national economies, however, the international economy lacks a central government that can issue currency and manage its supply. Historically, this problem was solved through the use of gold and national currencies. In the nineteenth century and first half of the twentieth century, gold was used to back currencies and to settle international accounts.¹

In the nineteenth century and early twentieth century, the British pound supplemented gold by serving as a reserve, transaction, and intervention currency. After World War II, the U.S. dollar became the key international currency. Dollars were held as reserves by central banks; the dollar became indispensable

for international trade, investment, and finance; and dollars were used to intervene in exchange markets to influence exchange rates.

An international monetary system must also have means for adjusting imbalances in international payments. In national economies, payments imbalances among regions are adjusted more or less automatically through movement of capital and through fiscal and **monetary policies**. In international economic relations, disequilibria in payments can be settled by financing, by changing domestic economic policy to shift trade and investment patterns, by rationing the supply of foreign exchange through exchange controls, or by allowing the currency exchange rate to change. Effective adjustment can be promoted by international cooperation, but successful cooperation depends primarily on implementing domestic policies to achieve international solutions, a politically difficult task.

In the Bretton Woods system, adjustment was based on a **fixed exchange rate** system supplemented by financing, exchange controls, exchange rate changes, and adaptation of national policies. During the periods of interdependence and globalization, a mix of adjustment mechanisms existed. Exchange rates among major members of the system *floated*; that is, they changed frequently in response to market conditions as well as to government intervention. Complementing these **floating exchange rates** were fixed rates among groups of countries, such as the EU, and fixed rates between two countries, as was the case with countries that linked their currencies to the dollar or to other major currencies. Under floating rates, frequent exchange rate changes driven by markets were supplemented by intervention by national authorities in currency markets, financing, and changes in national economic policies.

The tension between international adjustment needs and domestic political requirements is a central dilemma of international monetary relations. For example, it is often necessary but politically difficult to implement policies that reduce governmental budget deficits and **inflation** in order to stabilize a country's exchange rate or to reduce the deficit in its **balance of payments**. Such policies generally result in lower growth rates and higher levels of unemployment in the short term but higher rates of growth and employment in the long term. It is tempting for governments to put off the domestic economic reforms necessary to defend a declining currency or to delay adjustments that might reduce the size of a balance-of-payments deficit because the necessary adjustments are likely to be politically unpopular.

Finally, a stable international monetary system promotes international exchange and economic prosperity, whereas instability disrupts international transactions, threatens financial institutions, and damages domestic economies. A loss

of confidence in the system can create economic and political disaster. During the **Great Depression** of the 1930s, for example, competitive exchange rate devaluations, competing monetary blocs, and the absence of international cooperation contributed greatly to economic breakdown, domestic political instability, and war. During the financial crisis of 1997–1998, Asian currencies, financial institutions, businesses, and even governments collapsed and threatened the world economy as a whole. While instability and crises cannot be eliminated in an international monetary system, they can be reduced and managed. Thus, one of the political challenges of international monetary management is to prevent and manage periodic crises and thereby promote systemic stability.

THE BRETTON WOODS SYSTEM

The Original Bretton Woods System

In July 1944, representatives of 44 nations met on an estate in Bretton Woods, New Hampshire, to create a new international monetary order. Their goal was to establish an international economic system that would prevent another economic and political collapse and another military conflict. Their beliefs were that previous monetary systems that relied primarily on **market forces** had proved inadequate and that the world needed a publicly managed international monetary order.²

U.S. policymakers involved in creating the new economic order had concluded that the failure of U.S. leadership was a major cause of the economic and political disaster.³ During World War II, U.S. leaders thus decided that the United States would have to assume the primary responsibility for establishing a postwar economic order. That order would be designed to prevent economic nationalism by fostering free trade and a high level of international interaction. A liberal economic system, ensured by international cooperation, would provide the foundation for a lasting peace. Thus, during two years of bilateral negotiation, the United States and the United Kingdom, the world's leading economic and political powers, drew up a plan for a new system of international monetary management.⁴

The Anglo–American plan, approved at Bretton Woods, became the first publicly managed international monetary order. For a quarter of a century, international monetary relations were stable and provided a basis for growing international trade, economic growth, and political harmony among the developed market economies. The new order was intended to be a system of limited management by international organizations. For the first time in history, two public international organizations, the International Monetary Fund (IMF) and the **International Bank for Reconstruction and Development (IBRD)**, also known as the World Bank), were created to perform certain monetary functions for the international system.

The rules of Bretton Woods, set forth in the articles of agreement, provided for a system of fixed exchange rates. Public officials, fresh from what they perceived as a disastrous experience with floating rates in the 1930s, concluded that a fixed exchange rate was the most stable and conducive basis for trade. Thus, all countries agreed to establish the **parity**, or value, of their currencies in terms of gold and to maintain exchange rates within 1 percent, plus or minus, of parity. The rules further encouraged an open system by committing members to the convertibility of their respective currencies into other currencies and to free trade.⁵

The IMF was to be the keeper of the rules and the main instrument of public international management. Under the system of weighted voting, the United States exerted a preponderant influence in that body. IMF approval was necessary for any change in exchange rates, and it advised countries on policies affecting the monetary system. Most important, it could advance credits to countries with payments deficits. The IMF was provided with a fund composed of member countries' contributions in gold and in their own currencies. The original quotas totaled \$8.8 billion. In the event of a deficit in the current account, countries could borrow from this fund for up to 18 months and, in some cases, for up to five years.

Despite these innovations in public control, the Bretton Woods agreement emphasized national and market solutions to monetary problems. The Bretton Woods policymakers expected that national monetary reserves, supplemented when necessary by IMF credits, would finance any temporary balance-of-payments disequilibrium. The agreement made no provision for the creation of new reserves; new gold production was considered sufficient. In the event of structural disequilibrium, policymakers expected that there would be national solutions—a change in the value of the currency or an improvement by other means of a country's competitive position. The agreement gave few means to the IMF, however, to encourage such national solutions.

The Bretton Woods planners expected that the international economy would recover and the system would enter into operation after a brief transition period of no more than five years. To facilitate postwar recovery, the planners created the World Bank to make loans that would facilitate a speedy recovery and promote economic development.⁶

By 1947, however, it had become clear that the Bretton Woods system was not working and that the Western economic system was on the verge of collapse. World War II had destroyed the European economic system, which had been based heavily on international trade. Its productive capacity had been destroyed or disrupted, its overseas earnings had turned into debts, its shipping was decimated, and its payments deficit was large and growing. Western Europe was faced with vast import needs, not only for reconstruction but also for mere survival.⁷

The Bretton Woods institutions were unable to cope with Europe's problems. The IMF's modest credit facilities were insufficient to deal with Europe's huge needs and, in any case, the IMF could make loans only for current-account deficits, not for capital and reconstruction purposes. The resources of the World Bank, which was designed for capital investment, were woefully inadequate. By

1947, the IMF and the World Bank admitted that they could not deal with the system's economic problems.⁸

The economic crisis of 1947 was directly linked to political problems. Germany lay in ruins economically and politically. The governments of Italy and France, faced with pressures from powerful labor unions, were highly unstable. Britain, partly due to its economic difficulties, was withdrawing from India and Palestine and abandoning its political and security commitments to Greece and Turkey. More important, the Soviet Union seemed willing and able to take advantage of the West's economic plight and political instability to further its aim of territorial expansion in Europe. The Soviet Union had forcibly established communist governments in the countries it occupied at the end of the war—Hungary, Romania, Poland, and Bulgaria—and it had pressured Iran and Turkey for territorial concessions. Communist guerrillas were making significant headway in Greece, and large communist parties in the governments of Italy and France tried to take advantage of labor unrest. In addition, the Soviet Union refused to cooperate with the allies on a postwar settlement for Germany.⁹

U.S. Leadership

Because of these economic and political crises, the United States assumed a greater leadership role in international monetary management. The strength of the U.S. economy, the lessons of the interwar period, and security incentives made U.S. leadership acceptable at home both economically and politically. The Europeans and Japanese also accepted U.S. management. Economically exhausted by the war, they needed U.S. assistance to rebuild their domestic production, finance their international trade, and provide a setting for political stability. Thus, after 1947, the United States began to manage the international monetary system by providing liquidity and adjustment.

By 1947, it was clear that neither gold nor the pound could continue to serve as the world's money. Gold production was insufficient to meet the demands of growing international trade and investment. Because of the weakness of the British economy, the pound was no longer able to serve as the primary world currency. The only currency strong enough to be used to meet the rising demands for international liquidity was the dollar. The strength of the U.S. economy, the fixed relationship of the dollar to gold (\$35 an ounce), and the commitment of the U.S. government to convert dollars into gold at that price made the dollar as good as gold. In fact, the dollar was better than gold because it earned interest and could be used for trade and finance.

A major stumbling block to the dollar's emergence as the world's key currency, however, became apparent: a huge dollar shortage. The United States was running huge trade surpluses, and its reserves were immense and growing. For the system to work, this flow would need to be reversed; the United States had to run a payments deficit. That is just what happened.

From 1947 until 1958, the United States encouraged an outflow of dollars, which provided liquidity for the international economy. Dollars flowed out through U.S. aid programs: the Truman plan for aid to Greece and Turkey, aid

to underdeveloped countries, and, most important, the **Marshall Plan**, which from 1948 to 1952 gave 16 Western European countries \$17 billion in outright grants.¹⁰ U.S. military expenditures in North Atlantic Treaty Organization (NATO) countries and in the Korean War provided another source of dollar liquidity. Thus the dollar became the world's currency, and the United States became the world's central banker, issuing dollars for the international monetary system.

In addition to providing liquidity, the United States managed imbalances in the system. It facilitated short-term adjustment through foreign aid and military expenditures, which helped offset the huge U.S. trade surplus and the European and Japanese deficits. In addition, the United States abandoned the Bretton Woods goal of convertibility and tolerated European and Japanese trade protection and discrimination against the dollar. For example, the United States absorbed large volumes of Japanese exports while accepting Japanese restrictions against U.S. exports. It supported the European Payments Union, an intra-European clearing system that discriminated against the dollar, and it promoted European exports to the United States. Finally, the United States used the leverage of Marshall Plan aid to encourage devaluation of many European currencies to support national programs of monetary stabilization.

To encourage long-term adjustment, the United States nurtured European and Japanese trade competitiveness. Policies for economic controls on the defeated Axis countries were scrapped. Aid to Europe and Japan, including the Marshall Plan aid to Europe, was designed to rebuild productive and export capacity. In the long run, U.S. leaders expected, such European and Japanese recovery would benefit the United States by widening markets for U.S. exports.¹¹

The system worked well. Europe and Japan recovered and then expanded. The U.S. economy prospered partly due to the dollar outflow, which led to the purchase of U.S. goods and services. Yet by 1960, the Bretton Woods system was in trouble again.

Multilateral Management Under U.S. Leadership

The economic foundation of the U.S. management of the international monetary system was confidence in the U.S. dollar. This confidence was based on the strength of the U.S. economy, the enormous U.S. gold reserves, and the commitment to convert dollars into gold. But ironically, the system also relied on a process that eventually undermined the very confidence on which the structure was built: the constant outflow of dollars from the United States. The U.S. deficit and the foreign holding of dollars provided sufficient liquidity for international transactions. If, however, the deficit continued, and if outstanding dollar holdings abroad became too large in relation to gold reserves, confidence in the dollar—and thus in the entire system—would be jeopardized.¹²

By 1958, the United States no longer sought a payments deficit. The European and Japanese recoveries were nearly complete. Balances of payments were improving, and official reserves were growing steadily. By the end of 1959, European and Japanese reserves equaled those of the United States. U.S. gold holdings, however,

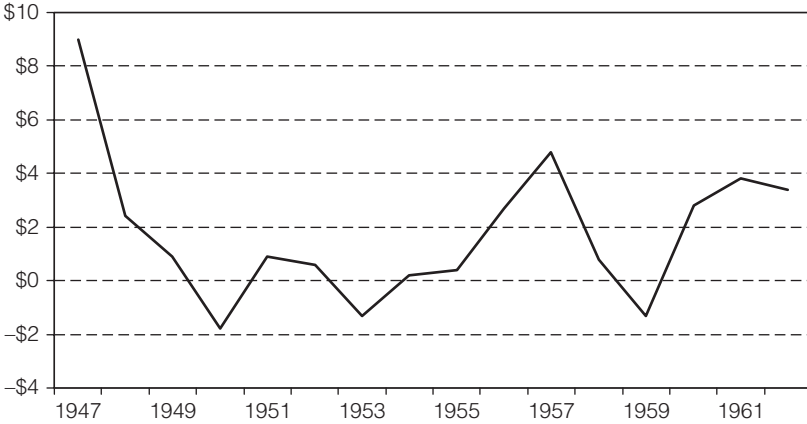


FIGURE 2.1 Balance on Current Account (Balance of Payments) of the United States, 1946–1962, in Billions of Current Dollars

SOURCE: *Economic Report of the President 1989* (Washington, D.C.: U.S. Government Printing Office, January 1989), pp. 424–425.

had fallen and dollars held abroad had risen. In 1960, for the first time, foreign dollar holdings exceeded U.S. gold reserves.¹³ Private long-term capital outflow, caused to a great extent by direct investment abroad and foreign military and aid expenditures, contributed to payments deficits (see Figure 2.1).

The first run on the dollar, which occurred in November 1960 when speculators converted dollars into gold, signaled the end of the unilateral system of U.S. management. The dollar system did not collapse. The United States was still able to play a strong leadership role, and the dollar and its economy remained healthy. But the United States could no longer manage the system alone. Henceforth, the United States would be obliged to join in collective management, that is, to seek the cooperation of other members of the system.

At the end of the 1950s, the IMF, largely inactive during the period of U.S. unilateral management, began to play a more important role, largely by lending funds to Europeans and others to finance temporary payments disequilibria. Increases in the fund's quotas at this time facilitated the more active role. The principal functions of monetary management, however, were performed by a multilateral group of the major states. One important new form of multilateral management was central bank cooperation. Since 1930, European central bankers had met together regularly at the **Bank for International Settlements (BIS)** in Basel, Switzerland, but the United States had never become a member and had never participated in their frequent meetings.¹⁴ After the dollar crisis of 1960, however, high officials of the U.S. central bank, the **Federal Reserve**, joined the monthly meetings, although the United States did not join the BIS until 1994.

U.S. participation enabled the Basel group to control important aspects of the international monetary system. The bankers provided *ad hoc* crisis management by supporting currencies that came under pressure. The group also regulated the price of gold. In 1961, the bankers agreed to control gold speculation

by centralizing gold dealings through a “gold pool,” a mechanism by which the bankers bought gold when it fell below \$35 an ounce and sold it when it rose above that limit. The bankers also cooperated in exchange markets and began to play an important role in the burgeoning Eurocurrency market (see next section) by investing, intervening, and accumulating information. Finally, the bankers regularly exchanged information about national policies that affected the international monetary system.

A second management system developed at this time was the **Group of Ten (G-10)**. The Group of Ten was formed in December 1961 when representatives of ten industrial countries—Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, the United Kingdom, and the United States—met to create the **General Arrangements to Borrow (GAB)**, a \$6 billion fund for exchange rate management that was under the control of the ten members.¹⁵ The G-10 soon became a forum for discussion and exchange of information, a vehicle for negotiating monetary reform, and a mechanism for crisis management. In 1968, for example, the group stopped a dollar crisis and eased pressure on the U.S. gold supply by creating a two-tier gold system: a private market in which the price of gold could fluctuate freely and a public market in which the group agreed to sell one another gold at \$35 an ounce.

A series of bilateral arrangements between the United States and other members of the Group of Ten supported this multilateral management system. These arrangements included currency swap arrangements and standby credit lines to be used by central bankers for crisis management; special long-term U.S. bonds denominated in foreign currencies that countries agreed to hold in lieu of converting dollars into gold; and German agreements to purchase U.S. military equipment and to continue to hold large amounts of U.S. dollars to offset the cost of U.S. troops stationed in Germany.¹⁶

Finally, the United States sought to shore up the system by improving the U.S. balance of payments and by reestablishing confidence in the weakening dollar. Unilateral U.S. efforts included a tax on foreign securities designed to make borrowing in the United States less desirable and thus reduce capital outflows, capital restraints on U.S. foreign investment, the tying of foreign aid to the purchase of goods and services, a decrease in duty-free tourist allotments, and programs to encourage U.S. exports. However, the United States was unwilling to alter its expansionary macroeconomic policies despite the pressures this put on its balance of payments.¹⁷

Multilateral management mechanisms not only prevented and contained currency crises but also achieved a major reform of the system. In the early 1960s, inadequate liquidity was shaping up to be a crucial problem. Once the United States solved its balance-of-payments problems, as was expected, there would be a liquidity shortage and a need to provide alternative forms of international money. The problem of the future, international monetary policymakers believed, would not be too many dollars but too few.¹⁸

In 1968, after five years of negotiations by the Group of Ten, an agreement was reached to create **Special Drawing Rights (SDRs)**, artificial international reserve units created by the IMF that could be used to settle accounts among

central banks. Significantly, the new form of international liquidity would be managed not by the United States alone but by the Group of Ten jointly, as the Europeans were given veto power on the creation of new SDRs.¹⁹ The \$6 billion of the new “paper gold” created was small compared with total world reserves at that time (close to \$100 billion in 1970);²⁰ nevertheless, for the first time in history, the international monetary system had an internationally created and managed asset. Ironically, just at this point the system began to crack. Continuing currency crises in 1967 and 1968 heralded the eventual demise of the Bretton Woods regime and the emergence of a new international monetary system.

FROM BRETTON WOODS TO INTERDEPENDENCE

Financial Interdependence and Pluralism

The emergence of a high level of financial interdependence played a central role in the collapse of the first postwar monetary system. The return to convertibility of the Western European currencies at the end of 1958²¹ and of the Japanese yen in 1964 made possible the huge expansion of international financial transactions. Multinational banks became the vehicles for large international financial flows. Beginning in the 1960s, the number of multinational banks increased rapidly. In 1965, only 13 U.S. banks had branches abroad, but, by the end of 1974, 125 did. The assets of the U.S. banks' foreign branches rose from about \$9 billion in 1965 to over \$125 billion in 1974. Concomitantly, there was an expansion of foreign banks in the United States. The number of foreign branches and agencies in New York City, for example, rose from 49 in 1965 to 92 in 1974. The total assets of these branches and agencies in the same period rose from \$5 billion to \$29 billion, and by the end of 1974 foreign banks operating in the United States had total assets of \$56 billion.²²

Financial interdependence was also a result of the internationalization of production. Multinational corporations that controlled large pools of liquid assets became sophisticated in moving their capital from country to country to take advantage of **interest rate** spreads or expected exchange rate adjustments. In the 1960s and 1970s, as crises multiplied and risks increased, the movement of such capital became an important part of financial management.²³

A final source of financial interdependence in this period was the **Eurocurrency** market. Eurocurrencies are national currencies—dollars, marks, francs, pounds, yen—held and traded outside their home country, primarily in Europe. For example, branches of U.S. banks or foreign banks in London accept dollar deposits and lend those deposits in the form of dollars. The Eurocurrency market originated in the late 1950s, primarily with Eurodollars, and grew to huge proportions in the 1960s and 1970s, reaching almost \$1 trillion in assets by 1978 (see Figure 2.2).²⁴ The market flourished largely because it was controlled neither by state regulation nor by constraints of domestic money markets.

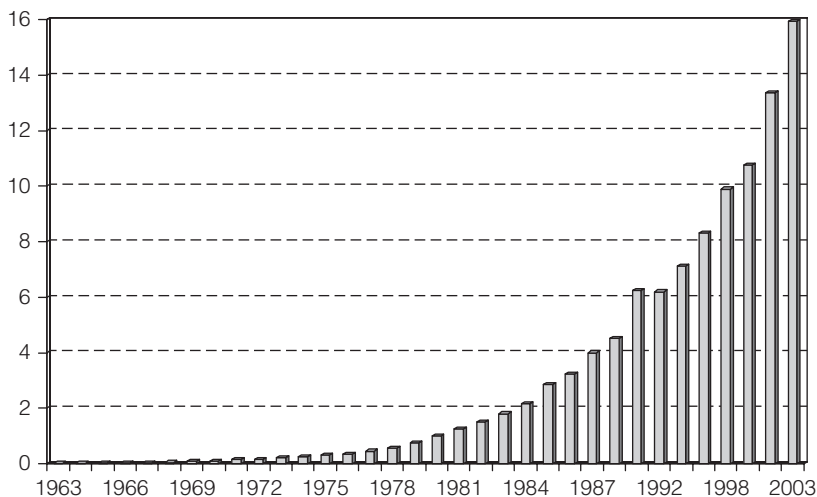


FIGURE 2.2 The Growth of the Eurodollar and Eurocurrency Markets, 1963–2003, in \$Trillions

SOURCE: Bank for International Settlements.

Thus, it was able to establish highly competitive interest rates that attracted huge sums. Because the Eurocurrency market consisted largely of short-term money, funds in the market were highly mobile and highly volatile.²⁵

These new forms of financial interdependence made possible huge international capital flows that put great strain on the international monetary system. In a fixed exchange rate regime, as previously noted, governments facing balance-of-payments disequilibria had several policy alternatives. If the disequilibria were small or short term, governments could finance the imbalances or impose exchange controls. If the disequilibria were structural, governments could either change the value of their currencies—devalue or revalue them—or alter domestic fiscal or monetary policy to restore balance. However, political leaders often were reluctant to take politically risky measures to address structural imbalances. The failure to resolve these disequilibria led to large speculative international capital movements. Efforts to intervene in exchange markets to prevent change were overwhelmed by rapid and massive international financial flows, which made it impossible to maintain the fixed value of currencies within a range of plus or minus 1 percent. Crises developed and governments eventually were forced to alter both exchange rates and national economic policies.

Financial interdependence also interfered increasingly with national economic management, especially with national monetary policy. Interest rates, for example, became a less effective means of managing the national economic system. Low interest rates, used to stimulate an economy, led to an outflow of capital to countries with higher interest rates. Conversely, high interest rates,

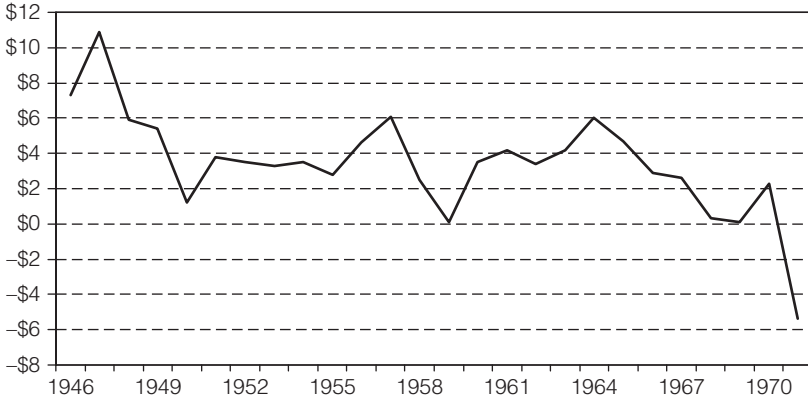


FIGURE 2.3 U.S. Balance of Trade in Goods and Services, 1946–1973, in Billions of Current Dollars

SOURCE: *Economic Report of the President 2001*, p. 392.

used to manage inflation, could be defeated by capital inflows attracted precisely by those higher interest rates.

For a long time, the United States was the one country that was not interdependent in this sense. U.S. national economic policy was not influenced by the international position of the dollar or by financial interdependence. Large capital flows had less effect on the huge U.S. economy than on the smaller European and Japanese economies. Furthermore, as long as other countries absorbed dollar outflows, the United States did not have to take domestic measures to balance international accounts. Thus, in the 1960s the United States was able to avoid restrictive monetary or fiscal policies. Nevertheless, the U.S. economy was constrained by the international monetary system. By the late 1960s, the dollar was overvalued, partly because of inflation induced by expenditures on the Vietnam War and partly because other countries had altered their exchange rates to account for inflation, even though the value of the dollar had not been altered. This overvaluation of the dollar contributed to large investment outflows and led to declining exports and increasing imports, which had an adverse impact on the balance of trade (see Figure 2.3).

The solution for any country, aside from the United States, in this position would have been to devalue the currency or deflate the economy to reestablish a competitive trade position. Neither was politically attractive. The United States was willing to have others revalue but did not want the domestic political problem of devaluing the dollar. Other countries holding vast sums of dollars and enjoying trade surpluses refused to allow a realignment of their currencies. The Europeans and the Japanese demanded instead a deflationary U.S. policy, on the premise that the dollar outflow and the expansion of the U.S. economy were causing inflation abroad.

In addition to interdependence, increased pluralism also affected monetary management. By the end of the Bretton Woods era, the United States was no

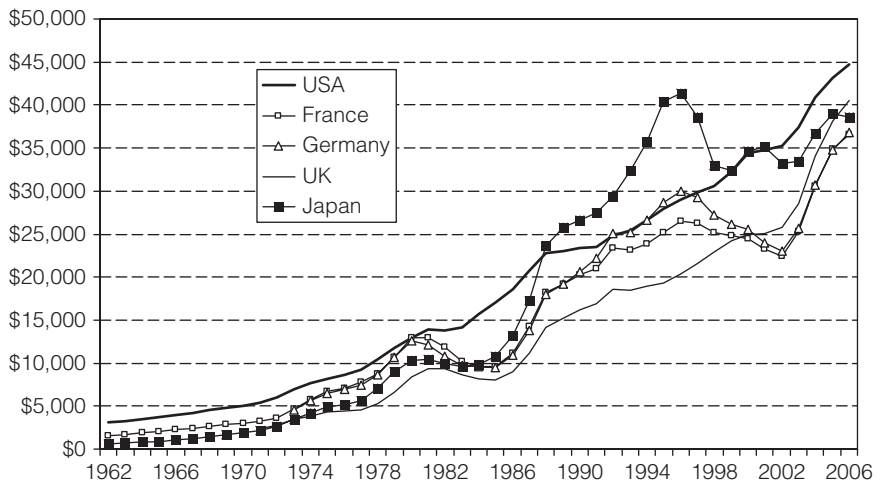


FIGURE 2.4 Per Capita Income in the G-5 Nations, 1962–2006, in Current Dollars, using the Atlas Method

SOURCE: World Bank, *World Development Indicators 2007*.

longer the dominant economic power it had been for almost two decades. Europe and Japan—with higher levels of growth and with per capita income approaching that of the United States—were narrowing the gap between themselves and the United States (see Figure 2.4). A more equal distribution of economic power led to a renewed sense of political power and to increasing dissatisfaction with U.S. dominance of the international monetary system and, in particular, with the privileged role of the dollar as the international currency. The Europeans and Japanese resented the prerogatives that the monetary system provided for the United States. They were concerned that U.S. domestic policies were undertaken with little or no regard for international economic consequences and were critical of the fact that the United States could carry out unlimited foreign expenditures for political purposes—military activities and foreign aid—without the threat of payments constraints. Such prerogatives of U.S. dominance were acceptable to a war-weary Europe and Japan confronting a hostile Soviet Union; they were less acceptable to a recovered and revitalized Europe and Japan faced with a less hostile neighbor.

The continuing decline of the dollar accentuated the problem of maintaining confidence in the system. Despite large and persistent deficits, it had seemed possible until 1965 that the dollar drain might be reduced or eliminated and that confidence in the system could be preserved. But the Vietnam conflict, as well as the refusal of the Johnson administration to pay for both the war and its domestic social programs by increasing taxes, resulted in an increased dollar outflow to pay for the military expenses and in rampant inflation caused by a growing budget deficit, which led to further deterioration in the U.S. balance of payments (see Figure 2.3). By the end of the 1960s, the United States experienced chronic

trade deficits. The recovery of Europe and Japan also made monetary management more difficult. One example of this was the long and difficult negotiation over SDR reforms, which lasted five years and almost failed several times.²⁶

The Nixon Shock and the Emergence of Floating Exchange Rates

By 1970, financial interdependence had grown faster than international management. New problems created by interdependence, including huge international capital flows, strained the fixed exchange rate system and interfered with national economic management. Despite the expansion of the bilateral swaps and the creation of new multilateral swaps, the central banks were unable to control the large currency flows and to contain currency crises while the G-10 was unable to move on further monetary reform.

Most important, the United States abdicated monetary leadership and pursued a policy of “benign neglect.” Under this policy, the United States let others defend the existing exchange rate system, permitted a huge foreign dollar buildup, and remained passive during currency crises. The United States also followed its domestic policies regardless of international consequences and disregarded the inflationary consequences of the huge dollar outflow in other parts of the system. Furthermore, the United States no longer sought to mobilize the system for reform.

By late summer 1971, benign neglect was no longer a sustainable policy. In the spring and summer of 1971, there was a run on the dollar, and, for the first time in the twentieth century, the United States showed a trade deficit (see Figure 2.3). The U.S. gold stock declined to \$10 billion versus outstanding foreign dollar holdings estimated at about \$80 billion, inflation was rampant, and unemployment was widespread. Political problems due to the economic situation led to pressure from all political quarters to do something.

On August 15, 1971, President Nixon—without consulting the other members of the international monetary system—announced a new economic policy: henceforth, the dollar would no longer be convertible into gold, and the United States would impose a surcharge of 10 percent on dutiable imports in an effort to force West Germany and Japan to revalue their currencies.²⁷ August 15, 1971, marked the end of the Bretton Woods system.

The shock of August 15 was followed by efforts by the G-10 (under U.S. leadership) to patch up the system of international monetary management. The first attempt, reached at the Smithsonian Institution in Washington, D.C., in December 1971, was an agreement that provided for a 10-percent devaluation of the dollar in relation to gold, a realignment of other exchange rates, and greater flexibility in rates that would float within a plus or minus 2.25 percent of parity, over twice the range of the Bretton Woods agreement.

The Smithsonian agreement was intended to be temporary and to give the participants time to negotiate long-term reform. In 1972, the **Committee on Reform of the International Monetary System and Related Issues** (also called the **Committee of Twenty**) was established within the IMF to reform the international monetary system. Composed of the G-10 plus ten representatives of developing countries, this committee was charged with devising

ways to manage world monetary reserves, establishing a commonly accepted currency, and creating new adjustment mechanisms.

The Smithsonian agreement provided little more than temporary crisis control and did not solve the fundamental problems of managing financial interdependence. The increased flexibility in and realignment of exchange rates were insignificant in the face of differing national policies and huge international capital flows. In addition, the dollar, still the center of the system, remained inconvertible into gold. Soon massive currency flows led to new pressures on the Smithsonian rates, and national currency controls to hold back the pressure on the new rates proliferated. By March 1973, all of the major world currencies were floating. Management was left to the market and in a minor way to central bankers who intervened in exchange markets on a somewhat cooperative basis to prevent extreme fluctuations.

The effort of the Committee of Twenty to achieve reform also was unsuccessful. The committee's reform plans centered on a system of stable but adjustable exchange rates and the provision of new forms of international liquidity. But while the committee debated, massive changes occurred in the international monetary system. Fixed exchange rates were replaced by floating ones. Inflation erupted, fueled by U.S. inflation combined with an enormous dollar outflow and worldwide commodity shortages. Different national rates of inflation made stability impossible and amplified national desires for floating exchange rates to enable a degree of isolation from external inflation.²⁸

Petrodollar Recycling

Finally, while the committee debated, a handful of oil exporters engineered a dramatic rise in the price of petroleum (see Chapter 9). Within a year, the price of oil quadrupled. As a result, huge sums—an estimated \$70 billion in 1974 alone—were transferred from the oil-consuming countries, primarily from the developed market economies, to the oil-producing states.²⁹ This price change created a major new problem of financial recycling. Under the ideal free-trade model, the surplus earnings of the oil-producing states would have been channeled back to the oil-consuming countries in the form of revenue from the import of goods and services from the oil consumers. But the transfer of resources to the oil-producing states had been too large for them to absorb. Despite huge development needs and arms expenditures, these states as a whole could not take in enough imports to make up for the loss to the consuming countries. In 1974, the current-account surplus of the oil-producing states was over \$70 billion, and by 1980, a second round of precipitous oil price increases had pushed it above \$114 billion.³⁰

Many of the oil-consuming countries could not reduce their oil consumption sufficiently to eliminate the deficits or increase exports sufficiently to cover the gap. Thus they had to borrow to pay for their deficits, and the only sources for such borrowing were the countries with surpluses from oil earnings. This was the recycling problem that, less than a decade later, was transformed into the developing countries' external **debt crisis** (see Chapter 6).

After 1974, surpluses were recycled primarily through private banks, which accepted the deposits of the oil-exporting countries and lent these funds to the oil-importing countries. Smaller amounts were recycled through government securities, through direct loans and investment by the oil-producing states, and through international institutions such as the IMF and the World Bank, which borrowed from the oil producers and made loans to the oil consumers. The private system, especially the banking system, was the primary monetary manager. Throughout the 1970s, private banks remained the principal recyclers and, in the process, these banks accumulated large Eurocurrency deposits and equally large international loan portfolios. Despite the effectiveness of reliance on the private market, this situation posed certain problems. The role of the private banks in recycling required increasing their ratio of assets (loans) to capital, thus bringing into question the financial stability of the banking system. Furthermore, many developing countries that borrowed heavily from commercial banks eventually were unable to service their loans. By the early 1980s, the resulting debt crisis raised serious questions about the strength of the international financial markets.

The float, inflation, and the monetary consequences of the oil crisis overwhelmed the Committee of Twenty. In January 1974, the committee concluded that, because of the turmoil in the international economy, it would be impossible to draw up and implement a comprehensive plan for monetary reform.³¹

For a year and a half, the world focused on the overwhelming problem of coping with the immediate consequences of the oil shock: inflation, recession, and recycling. Then, in November 1975, heads of government of the major monetary powers—the United States, the United Kingdom, France, West Germany, Japan, and Italy—met at the French chateau of Rambouillet to decide on the framework for a new monetary system. This meeting was the first of what would become regular annual economic summits of the **Group of Seven (G-7)** major industrial powers (see Table 2.1).³² At the IMF meeting in January 1976, the final details were hammered out in the Second Amendment to the Articles of Agreement of the International Monetary Fund.

The Second Amendment called for an end to the role of gold and the establishment of SDRs as the principal reserve asset of the international monetary system. This amendment legitimized the *de facto* system of floating exchange rates but permitted return to fixed exchange rates if an 85-percent majority approved such a move. In addition, this amendment called for greater IMF **surveillance** of the exchange rate system and management of national economic policies to promote a stable and orderly system.³³

In reality, the monetary powers had codified the prevailing exchange rate regime. The Second Amendment did not resolve the problem of the dollar: its guidelines for managing exchange rates were undefined, its calls for appropriate national policies and national cooperation with the fund carried little obligation, its mechanisms for institutionalizing cooperation were fragile, and it was implemented in an unstable international economic environment. The Second Amendment signaled the beginning of a period characterized as much by national and regional management as by multilateral management.

TABLE 2.1 International Economic Summits, 1975–2008

Date	Location
November 15–17, 1975	Rambouillet, France
June 27–28, 1976	San Juan, Puerto Rico
May 7–8, 1977	London, United Kingdom
July 16–17, 1978	Bonn, West Germany
June 28–29, 1979	Tokyo, Japan
June 22–23, 1980	Venice, Italy
July 20–21, 1981	Ottawa, Canada
June 4–6, 1982	Versailles, France
May 28–30, 1983	Williamsburg, Virginia, United States
June 7–9, 1984	London, United Kingdom
May 2–4, 1985	Bonn, West Germany
May 4–6, 1986	Tokyo, Japan
June 8–10, 1987	Venice, Italy
June 8–10, 1988	Toronto, Canada
July 14–16, 1989	Paris, France
July 9–11, 1990	Houston, Texas, United States
July 15–17, 1991	London, United Kingdom
July 6–8, 1992	Munich, Germany
July 7–9, 1993	Tokyo, Japan
July 8–10, 1994	Naples, Italy
June 15–17, 1995	Halifax, Canada
April 19–20, 1996	Moscow, Russia
June 27–29, 1996	Lyon, France
June 20–22, 1997	Denver, Colorado, United States
May 15–17, 1998	Birmingham, United Kingdom
June 18–20, 1999	Köln, Germany
July 21–23, 2000	Okinawa, Japan
July 20–22, 2001	Genoa, Italy
June 26–27, 2002	Kananaskis, Canada
June 1–3, 2003	Evian-les-Bains, France
June 8–10, 2004	Sea Island, Georgia, United States
July 6–8, 2005	Gleneagles, Scotland, United Kingdom
July 15–17, 2006	St. Petersburg, Russia
June 6–8, 2007	Heiligendamm, Germany
July 7–9, 2008	Hokkaido, Japan

SOURCE: University of Toronto, G8 Information Center at <http://www.g7.utoronto.ca/>.

INTERDEPENDENCE

The system of interdependence was characterized by tension between the demands of the international monetary system for cooperation among the actors on the one hand and national economic and political interests on the other. From 1971 to 1989, national governments wrestled with the balance between multilateral cooperation and national autonomy as they coped with the three challenges of an international monetary system: liquidity, adjustment, and confidence. Cooperative mechanisms, including the IMF and the G-7, were further developed and proved most effective in crisis management. National economic policies were increasingly shaped by interdependence, and countries made numerous efforts to coordinate national policies. However, achieving the level of international cooperation necessary to maintain stability in the world monetary system proved difficult because of domestic political constraints.

Growing Financial Interdependence

In this period, international financial markets continued to grow in size and significance.³⁴ Most developed countries—the United Kingdom, France, Germany, Canada, Australia, and, to a lesser degree, Japan—relaxed exchange controls, opened domestic markets to foreign financial institutions, and removed some domestic regulatory barriers. As a result of such deregulation, national financial markets became integrated into the global market, which enabled larger amounts of capital to flow more freely across national boundaries.

Revolutions in telecommunications, information processing, and computer technologies made possible a vastly increased volume, speed, and global reach of financial transactions. The growing sophistication of financial players reinforced deregulation and the technological revolution. The concentration of capital in institutions, such as pension funds, mutual funds, money market funds, and insurance companies, reinforced the trend toward sophisticated, global management of large pools of capital. Professional managers of such funds, operating in an environment of volatile prices, exchange rates, and interest rates, were increasingly willing to move money across international boundaries to diversify risk and take advantage of market differentials.³⁵

As a result of these multiple forces, global financial markets exploded in size and became a major influence on the floating exchange rate system. World financial flows exceeded trade flows by a factor of at least 30 to 1.³⁶ By 1992, total cross-border ownership of tradable securities had risen to an estimated \$2.5 trillion. Many of these assets were short-term holdings in foreign currencies and securities and were therefore highly liquid investments. Net daily turnover in nine of the major national markets for foreign currency was approximately \$600 billion in 1989.³⁷

The emergence of a highly integrated world capital market facilitated enormous flows of international funds that responded as much to political risk and interest rate differentials as to trade balances. Thus, for example, high real American interest rates and the search for a political safe haven in the early 1980s attracted a

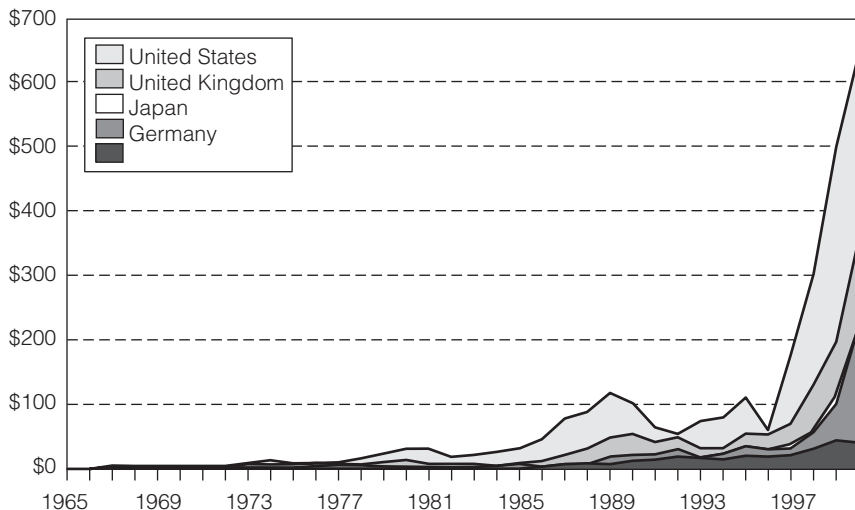


FIGURE 2.5 Inflows of FDI into the Big Five Industrialized Countries, in Billions of Current Dollars, 1965–2006

SOURCE: World Bank, *World Data 1994 CD-ROM* (Washington, D.C.: World Bank, 1994); UNCTAD, *World Investment Report* (New York, N.Y.: UN, various years).

large flow of capital into the United States (see Figure 2.5). These flows maintained, for a few years, the strength of the dollar despite the deteriorating U.S. current-account position and the strengthening trade balances of other industrial countries, particularly Germany and Japan.

Liquidity: The Problem of the Dollar

The interdependent monetary system continued to confront the long-standing dilemma of the dollar. Despite continuing challenges to the dollar's credibility and persistent dissatisfaction abroad with U.S. economic policies, the U.S. dollar survived as the world's major currency. Throughout the 1970s and 1980s, foreign exchange constituted approximately 90 percent of official reserves excluding gold, and the dollar accounted for an average of 70 percent of official holdings of foreign exchange in those years.³⁸

The dollar retained its central role despite widespread dissatisfaction both when it was seen as excessively weak (as in the late 1970s) and as excessively strong (as in the first half of the 1980s). As in the Bretton Woods system, the size of the U.S. economy and its highly developed financial markets, as well as U.S. political stability, made it desirable and feasible to use the dollar. The U.S. government continued to support the dollar's role while other countries with strong economies and stable polities were reluctant to allow their currencies to play a central international role. For years, West Germany and Japan, fearing loss of control over their domestic economies, restricted their **capital markets** to make it difficult for foreigners to

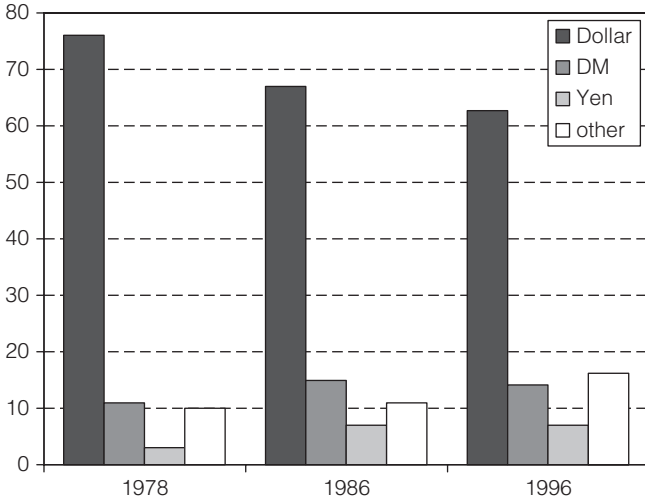


FIGURE 2.6 The Dollar as Percent of Total Official Foreign Currency Holdings, 1978, 1986, and 1996

SOURCE: International Monetary Fund, *Annual Reports*, various years.

hold deutsche marks and yen. Efforts to enlarge the role of SDRs, including changing their valuation and raising interest rates, were unsuccessful.³⁹

Nevertheless, there occurred a shift away from the dollar as the exclusive reserve and transaction currency. In 1978, dollars accounted for 76 percent of official holdings of foreign exchange, while deutsche marks accounted for 11 percent and yen for 3 percent. By 1996, the dollar share had fallen to 62.7 percent while the deutsche mark had risen to 14.1 percent and the yen to 7 percent (see Figure 2.6). Holding and using currencies other than the dollar became more attractive in the 1980s as the U.S. balance of payments weakened dramatically, while other countries, particularly Japan and Germany, accumulated payments surpluses.

Furthermore, in the 1980s a number of countries liberalized financial regulations, which made it easier for their currencies to be used and held abroad. Japan, for example, took a number of steps to internationalize the yen: eliminating exchange controls, removing restrictions on Euro-yen activities of Japanese institutions, and increasing access of foreign financial institutions to Japanese capital markets. Importantly, these steps were taken under pressure from the United States to open up financial markets to foreign institutions and to allow the yen to become an international currency, and these steps were negotiated bilaterally with the United States.⁴⁰

Adjustment Under Floating Exchange Rates

Floating exchange rates (as opposed to the fixed rates of Bretton Woods) were a central characteristic of the new international monetary system.⁴¹ Although most

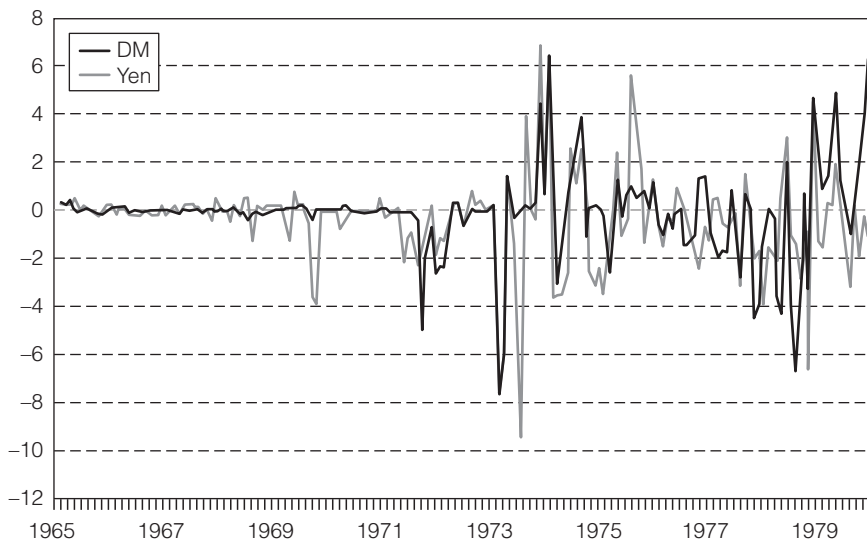


FIGURE 2.7 Volatility in Deutsche Mark (DM) and Yen Exchange Rates with the U.S. Dollar, 1965–1979, Percentage Changes from the Previous Month

SOURCE: *International Financial Statistics CD-ROM* (Washington, D.C.: IMF, January 2002).

of the IMF's members maintained some form of fixed exchange rate, the world's major currencies now floated against one another.⁴² Proponents had argued that a float would provide for relative stability and rationality in exchange rates through the stabilizing effect of speculation. Prompt exchange rate changes, these proponents contended, would result in more effective current-account adjustment. Trade deficits and inflation would lead to exchange rate depreciation, increased competitiveness of exports, and decreased competitiveness of imports, and these results would thereby restore the trade balance. A float also would make possible greater autonomy for national policy in an era of interdependence by freeing economic policy from the external balance-of-payments constraints of maintaining a fixed exchange rate.

Floating exchange rates operated effectively in several ways. They did not disrupt international trade and investment, as many critics feared, and trade and investment flourished in this period. Floating rates probably were the only system that could have endured the serious economic shocks of the 1970s and 1980s, including the oil and debt crises. Floating rates also encouraged the long-term movement of exchange rate changes, generally in a direction to correct payments imbalances. However, several serious problems existed with the floating-rate system. Exchange rates were volatile, frustrating a smooth and rapid adjustment process. Most major currencies were subjected to wide and often inexplicable fluctuations, especially in short-term rates (see Figure 2.7). In addition, many countries increased the size of their foreign currency reserves in response to the perceived need to intervene in foreign currency markets to reduce volatility.

Faced with the new realities of interdependence and floating rates, the monetary powers sought to coordinate economic policies in order to achieve long-term stability. The mechanism for this coordination was the G-7. Meeting at the level of heads of state, finance ministers, or deputy finance ministers, G-7 governments sought to influence each other's national policies for the common good of systemic stability. However, national governments were not always willing or able to adjust national economic policies to benefit international economic needs. This was particularly true of the United States, which remained the most important monetary power. U.S. policy was characterized by two conflicting strategies: (1) efforts to improve the functioning of the system through multilateral cooperation, and (2) resistance to the inevitable consequences of interdependence for U.S. domestic economic policy.

From 1977 to 1981, the Carter administration emphasized collective management of international economic relations. A principal objective in the early Carter years was to achieve world recovery from the recession of the mid-1970s through cooperation among the major industrialized countries. The U.S. strategy for global economic growth was based on the "**locomotive theory**," which called for coordinated national economic policies and for countries with payments surpluses—that is, Germany and Japan—to follow expansionary policies that would serve as engines of growth for the rest of the world.

Collective management seemed to achieve some success when Germany, France, and Japan agreed at the Economic Summit in Bonn in 1978 to pursue more expansionary policies, and the United States agreed, as a trade-off, on a program to curb inflation and energy consumption. The agreement seemed to be a major milestone, demonstrating that the world's economic powers were capable of coordinating national economic policies and that the United States could still be the driving force behind multilateral management.⁴³ However, the 1978 dollar crisis, which immediately followed the agreement, demonstrated that governments, especially the U.S. government, still were reluctant to alter domestic policies for international reasons.

The dollar crisis of 1978 followed a familiar pattern. More rapid growth and greater inflation in the United States than the rest of the world led to trade and current-account deficits, to plummeting confidence in the ability of the United States to pursue stringent economic policies, and to a continuing decline in the dollar. Initially, the United States resisted defending the dollar. Then the government sought to resolve the problem through external policies and limited domestic policies: intervening in foreign exchange markets, doubling the swap network with West Germany, selling SDRs and gold, adopting voluntary wage and price guidelines, and imposing fiscal constraints.

Finally, the United States was forced to take major domestic and international measures. On November 1, 1978, President Carter announced a new economic and dollar defense program that called for a restrictive monetary policy, the mustering of \$30 billion in foreign currencies for possible intervention in foreign exchange markets, a policy of active intervention in those markets, and

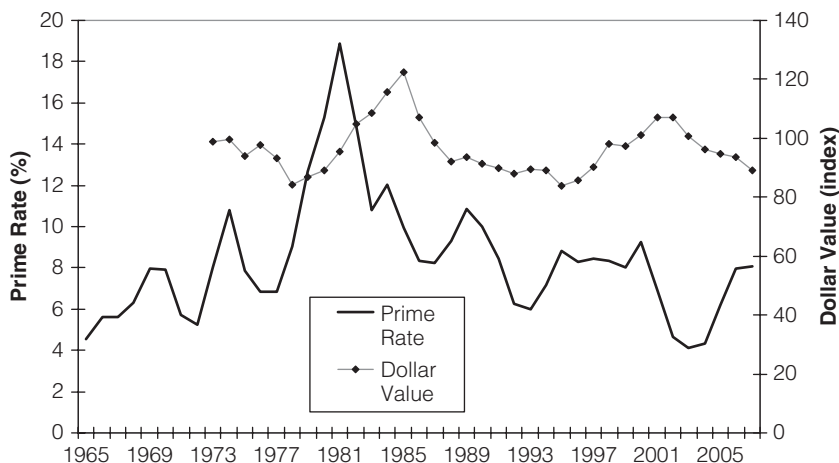


FIGURE 2.8 Interest Rate (Bank Prime Rate) and the Multilateral Trade-Weighted and Inflation-Adjusted Value of the Dollar, 1965–2007

SOURCE: *Economic Report of the President 2008*, <http://www.gpoaccess.gov/eop/tables08.html>.

an expansion of the sale of U.S. gold.⁴⁴ The package was a major departure from previous U.S. policy. For the first time since World War II, the United States altered domestic economic policy for international monetary reasons.

Initially, it seemed that the thrust of U.S. policy was altered permanently and that the United States had accepted its interdependence. The oil crisis of 1978–1979 changed policy concerns from economic stimulation to an emphasis on the control of inflation. When the dollar again came under pressure, the Federal Reserve announced a major new policy designed to bring U.S. inflation under control. Before October 1979, the Fed had concentrated on raising or lowering interest rates through open-market operations and raising or lowering the discount rate, the rate at which the Fed makes loans to member banks, as the principal policies for controlling the supply of money and credit. In 1979, the Fed turned instead to **monetarism**—that is, to managing the growth of the nation’s money supply. By focusing on the size and growth of certain monetary aggregates and by responding immediately to changes in the size of those aggregates, the Fed hoped to bring inflation under control and to return stability to the international monetary system.

In particular, the Fed adopted a policy late in 1979 of increasing interest rates by rapidly tightening the money supply, thereby reducing inflation. As a result, the prime rate for bank loans went up from 9.06 percent in 1978 to a peak of 18.87 percent in 1981 (see Figure 2.8),⁴⁵ and, while inflation was reduced significantly, these higher interest rates also created a serious recession (i.e., the rate of economic growth decreased and unemployment increased), which thus reduced the chances for reelection for Jimmy Carter.⁴⁶

With the election of Ronald Reagan in 1981, the policy of combining international cooperation with domestic policy changes was altered to U.S.

unilateralism in international monetary relations. Domestically, the Reagan administration combined the tight monetary policy and the monetarist approach (begun in 1979) with an expansionary fiscal policy known as **supply-side economics**.⁴⁷

The United States pursued a tight monetary policy, based on strict adherence to monetary targets, in order to fight inflation. Yet at the same time, the United States raised expenditures, especially for defense, and—according to supply-side theory—reduced taxes in an effort to stimulate savings, investment, and growth.

The United States reverted to economic unilateralism in its international monetary policy. Departing from previous U.S. policies, the Reagan administration officially rejected intervention in foreign exchange markets and ceased efforts to coordinate national economic policies. Although the impact of U.S. policies on the world economy was profound and often disruptive, the United States carried out its abrupt shift and continued to conduct its policies, not only without serious consultation, but also without taking into account the impact of the policies on other countries. The United States also conducted domestic economic policy without taking into account the international repercussions on the U.S. economy.

One element of continuity in the transition from the Carter to the Reagan administrations was the continued stress on the importance of deregulation. A major advocate of deregulation in the Carter Administration was Alfred Kahn, Chairman of the Civil Aeronautics Board from 1977 to 1978. Kahn succeeded in deregulating commercial air fares during his tenure, but more importantly he provided an intellectual basis for bipartisan support for further deregulation. The Reagan administration pursued deregulatory policies with a vengeance, as part of its overall policy of reducing the size of government. The Thatcher government in Britain and the Reagan administration both pushed for deregulation and reduced government spending. The shift away from Keynesian demand-management policies to monetarism in macroeconomic policy, and toward deregulation in meso- or **microeconomic** policy, during this period is sometimes referred to as the rise of neo-liberalism.

There were many beneficial effects of the new U.S. policies: inflation subsided, and, as confidence grew, the dollar turned from a weak to a strong currency. But there were also heavy costs. The tight monetary policy of the United States drove interest rates at home and abroad to unprecedented levels. High U.S. interest rates led to a dollar that was overvalued in trade terms and to dislocations in exchange markets (see Figure 2.8). Short-term capital flowed into the United States to take advantage of high interest rates.

Other developed countries were faced with difficult policy choices: raising their interest rates above the level warranted by their economic situation and thus avoiding an outflow of capital to the United States but dampening growth; keeping rates low and allowing capital to flow to the United States; or imposing capital controls. The decision of most was to avoid capital controls and raise interest rates. But in the end, most countries found themselves with the worst of both worlds: recession as well as capital outflows.⁴⁸ The consequences for the

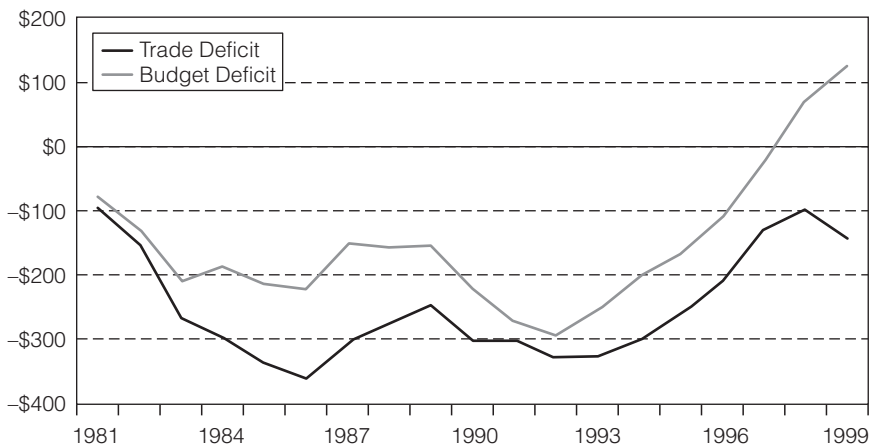


FIGURE 2.9 The Twin (Trade and Budget) Deficits of the United States, 1981–1999, in Billions of Current Dollars

SOURCE: *Economic Report of the President 2001*, pp. 367 and 392.

developing countries were far worse: declining exports and greater debt service costs, the recipe for the debt crisis. The repercussions on the United States also were serious. A high dollar and world recession led to a decline in U.S. exports and massive merchandise trade deficits (see Figure 2.9). The drop in U.S. exports in turn retarded American growth. The monetary system that was supposed to foster trade and investment was now disrupting it.

Stability and Crisis Management

While developed countries had a mixed record in coordinating national policies, they did achieve significant cooperation in crisis management. Crises during the period of interdependence originated primarily in two massive financial imbalances that were not adjusted through market mechanisms and policy coordination: the imbalance between oil-exporting and oil-importing countries and the twin deficits of the United States (see Figure 2.9).

As discussed earlier in the chapter, a rapid increase in bank lending to developing countries was a major solution to the problem of recycling oil-exporting countries' financial surpluses. In the period before 1979, the private system of recycling worked well. Lending helped promote developing countries' productive capacities, maintained their growth, and, in turn, created demand for exports from the developed countries. LDC exports grew along with debt, enhancing these countries' debt service abilities. However, after the second oil crisis of 1979, debtor countries were hit hard by the increase in the price of oil; by restrictive monetary policies in the major industrial countries that led to record-high real interest rates and an increased debt service burden; and by world recession, which led to a

plunge in commodity prices and in demand for LDC exports. Nonetheless, banks continued to lend and developing countries continued to borrow, building up a huge debt, which they were increasingly unable to service (see Chapter 6, which discusses international financial flows to developing countries).

A crisis erupted in 1982 when Mexico announced that it was unable to service its debt. Mexico's external debt totaled more than \$80 billion and included loans that accounted for a significant percentage of the largest U.S. banks' capital in 1982. And Mexico was just the tip of the iceberg. At the end of 1982, total LDC debt amounted to \$831 billion.⁴⁹ The world's major private banks had significant exposure in developing countries. Default by the debtor nations thus could have had several serious consequences for the international monetary system: a collapse of confidence in the international banking system, possible illiquidity or insolvency of the banks, dangerous disruption of financial markets and—in a worst-case scenario—world recession or depression.

As will be discussed in greater detail in Chapter 6, the international financial community succeeded in containing the debt crisis of the 1980s through a significant level of cooperation. The resources of the IMF were increased and it assumed the new role of financier and overseer of national economic policies of developing countries. Finance ministries created a new mechanism called the **Paris Club** to negotiate the rescheduling of public debt and the **London Club** to negotiate rescheduling of private debt. Governments also worked with private banks to conduct a series of reschedulings for specific countries.

The debt crisis altered somewhat the U.S. attitude toward international financial cooperation. Despite its unilateralism in exchange rate policy, the United States, as will be seen in Chapter 6, cooperated actively in the management of the debt crisis. The Federal Reserve eased its stringent monetary policy in order to lower worldwide interest rates; the United States became more willing to intervene in limited situations to smooth volatile foreign exchange markets; and, in a reversal of previous policy, the United States supported increases in IMF quotas in order to enable the fund to play a role in debt management.⁵⁰

Unprecedented imbalances among the developed countries created another destabilizing situation. In the 1980s, the United States accumulated two massive and unprecedented deficits—sometimes referred to as the **twin deficits** (see Figure 2.9). A large budget deficit was the result of lowering taxes without reducing government spending. The budget deficit contributed to the trade and balance-of-payments deficits by increasing demand for imports and creating favorable conditions for capital inflows. Other causes of the trade deficit included an overvalued dollar; strong U.S. economic growth in comparison with other developed countries; lower demand in traditional markets for U.S. agricultural exports; the increased competitiveness of foreign companies even as the competitiveness of U.S. industry declined; the rise in protectionist barriers; and the Third World debt crisis, which lowered demand for U.S. exports (see Chapter 3).

The twin deficits of the 1980s called for adjustments in U.S. economic policies, which, as noted previously, were not forthcoming. Instead of adjusting, the United States used its unique position in the international monetary system to finance its deficits. As in the past, the central role of the dollar in the international

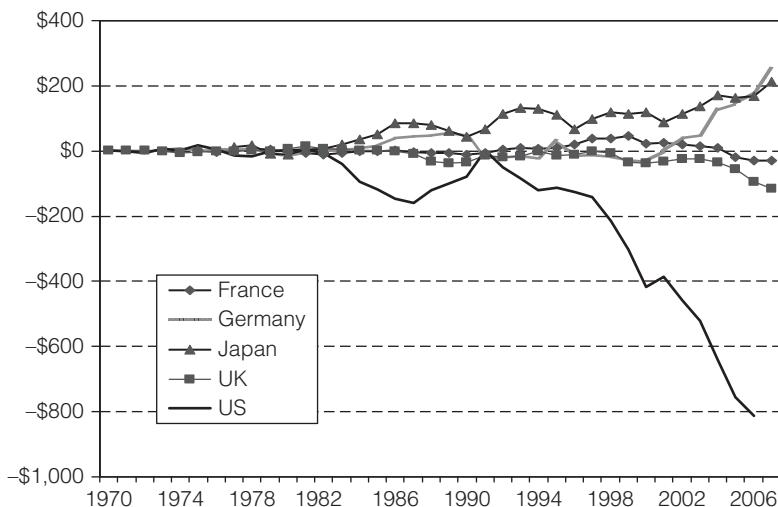


FIGURE 2.10 Balance of Payments in the G-5 Countries, 1970–2007, in Billions of Current Dollars

SOURCE: World Bank, *World Development Indicators 2001 on CD-ROM*; OECD.StatExtracts, <http://webnet.oecd.org/wbos/Index.aspx>.

financial system enabled the United States to more or less automatically finance its deficits through foreign capital inflows. In the 1980s, the amount of such financing dwarfed that of previous years. In 1986, the United States had a positive net international investment at market value of \$136 billion. In 1989, the United States became a net debtor with a negative net investment position of \$77 billion.⁵¹ Despite the changed U.S. international position, the dollar remained strong for the first half of the 1980s, buoyed by high real U.S. interest rates and the search for a political safe haven.

United States dependence on foreign capital inflows created a serious threat to the dollar, which remained the basis of the international monetary system. At some point, the trade deficit would undermine confidence in the U.S. currency and lead to a decline in the dollar. Furthermore, because much of the capital inflow sustaining U.S. imbalances was short-term, a loss in confidence could lead to a precipitous free-fall of the dollar and a serious shock to the system.

Two mirror images of the U.S. balance-of-payments deficit were the balance-of-payments surpluses of Japan and West Germany (see Figure 2.10). By 1985, Japan had a current-account surplus of \$51 billion and Germany a surplus of \$18 billion. The Japanese current-account surplus peaked at \$86 billion in 1986 but declined to \$44 billion by 1990; the German trade surplus rose from \$18 billion in 1985 to \$48 billion in 1990. Also of growing importance were the growing current-account surpluses of the newly industrialized Asian countries such as Taiwan, which averaged a surplus of around \$10 billion per year between 1985 and 1990, and Korea, whose current-account surplus peaked at \$14.5 billion in 1988 but returned to deficit in 1990.⁵²

By 1985, a serious misalignment in world exchange rates had developed. The dollar had appreciated sharply due to the combination of tight monetary and loose fiscal policies in the United States and to conflicting rather than complementary policies among the major trading partners of the United States. From mid-1980 to mid-1985, the dollar appreciated 21 percent against the yen, 53 percent against the deutsche mark, and 49 percent against the pound.⁵³ Despite massive U.S. trade deficits, the dollar remained strong because of high U.S. interest rates, a growing U.S. economy, and confidence in U.S. political stability. Exchange markets were highly volatile due to differing national economic performances, the globalization of financial markets, and the absence of coordinated government intervention in exchange markets. In large part because of the overvalued dollar, the U.S. trade deficit reached crisis proportions, politically as well as economically. Protectionist pressures arising from the trade deficit increased, finally forcing the United States to cooperate with other countries in a joint effort to manage exchange rates.

In a secret meeting held on September 22, 1985, at the Plaza Hotel in New York, finance ministers and central bankers from the United States, Japan, the United Kingdom, West Germany, and France, the so-called **Group of Five (G-5)**—the other two members of the G-7, Canada and Italy, were left out—met to coordinate economic policies.⁵⁴ The participants agreed to work together on economic matters, especially intervention in exchange markets. The United States pledged to narrow its budget deficit by reducing spending, and the other participants agreed to pursue economic policies that would help ease the imbalances in the world economy and promote healthy growth with low inflation. The **Plaza agreement** was followed by coordinated exchange market intervention and interest rate reductions, which led to a more reasonable exchange rate for the dollar against currencies such as the yen and the deutsche mark and thus all currencies of the European Monetary System (see section below). The Plaza agreement marked the beginning of a new era in monetary management. Finance ministers of the world's monetary powers, recognizing the need to expand policy coordination, began meeting regularly to coordinate exchange rate intervention and to attempt—not always successfully—to coordinate economic policy as well.⁵⁵

The Plaza agreement was significant in another way; it marked the active entry of Japan into the world management system. Before 1985, Japan had been largely a passive member of the management system. Although Japan's economy and international trade had grown dramatically, the yen did not become fully convertible until 1980. By 1985, Japan's economic weight was second only to that of the United States. Japan was the second-largest market economy in the world, used a currency that was increasing significantly in international use, and had amassed a massive financial surplus heavily invested abroad, especially in the United States. Any efforts to stabilize the system and to coordinate economic policies would be meaningless without Japan's participation.

Japan's new strength created new vulnerabilities, including the threat of closure of the trading system because of rising protectionism, especially in Japan's critical U.S. market; the uncertainty of financial investments due to a collapsing dollar; and increasing political pressure on Japan to open its markets, liberalize its

financial system, and alter its domestic policies to help manage the world economy. Gradually, although reluctantly, Japan began to respond to its changed economic and political environment. From the time of the Plaza agreement, Japan played an active role in international monetary negotiations and in the efforts to agree on and implement appropriate domestic economic policies. International economic management hinged increasingly on the cooperation of the three big economic powers: the United States, Germany, and Japan.

The new cooperative approach that began with the Plaza agreement was formalized at the May 1986 economic summit in Tokyo. There, the G-7 not only reaffirmed the importance of cooperative intervention in exchange markets but also affirmed that close coordination of domestic economic policies was needed to stabilize the system.⁵⁶ The G-7 agreed to monitor the basic economic policies and performance of each country—inflation, interest rates, growth, unemployment, deficits, and trade balance—and to recommend remedial action whenever the policy of one country was thought to be damaging others. The stated goal of the summit was to coordinate domestic economic policies to attain steady growth with a minimum of inflation.

But stated goals and policy action are quite different. International coordination of domestic fiscal and monetary policy remained elusive. While finance ministers and central bankers often agreed on appropriate policies, political constraints—the need for legislative approval and the reluctance to relinquish sovereignty over macroeconomic policy—limited actual coordination. Some steps were taken. In 1986, the United States passed legislation to slow the growth of the U.S. federal budget deficit. Germany and Japan took the limited step of lowering discount rates to stimulate their economies to offset the decline in U.S. growth. But agreement could not be reached on the appropriate levels of U.S. budget-cutting or of growth stimulation in Japan and Germany.

There were also disagreements on the appropriate exchange rate for the dollar. Japan and Germany feared a large decline of the U.S. currency would damage their trade as well as the value of their investments in the United States and argued that a significant dollar decline would upset financial markets. The United States, however, wanted to use the dollar decline to improve the trade imbalance and deflect congressional pressure for protectionist trade legislation and argued that a larger decline of the dollar would not upset capital inflows into the United States, which were needed to finance the trade and budget deficits. As disagreement persisted, cooperation in exchange market intervention broke down and exchange markets became unstable.

In February 1987, the world's monetary powers met at the Louvre in Paris to attempt once again to stabilize the international monetary system. Officials announced to the world that exchange rates had come into the proper relationship, and that the officials would oppose further substantial shifts and would cooperate to stabilize exchange rates at prevailing levels. The participants agreed on informal, flexible, and unannounced target ranges for intervention in exchange markets. At the Louvre, officials again sought to coordinate domestic policies. Germany and Japan agreed to take modest but significant steps to stimulate domestic demand, and the United States reaffirmed its commitment to reduce its budget deficit.⁵⁷

The **Louvre agreement** was both a major step in the effort to establish international economic management and another example of the problem of coordinating economic policy. With one important exception, the G-7 did not live up to its stated commitments to coordinate policy. The German government, faced with a public that had an historical fear of inflation, was reluctant to pursue serious stimulative policies, and the U.S. Congress and administration were unable to agree on a significant deficit reduction package. Japan, however, did move toward stimulating domestic demand by pursuing a more expansionary fiscal policy and by reorienting from reliance on export-led growth to development of domestic demand.⁵⁸

As G-7 cooperation disintegrated, private investors, fearing a dollar devaluation, reduced inflows of funds to the United States, which forced central banks to buy dollars to stabilize exchange rates and prevent a crash of the U.S. currency. As a result, the bond market began a severe decline; international equity markets collapsed in October 1987; and the dollar began what seemed like a free-fall, declining 15.6 percent against the yen and 13.4 percent against the deutsche mark from September to the end of December.

The October crisis galvanized the key actors to make domestic economic policy changes. The United States eased monetary policy and Congress passed a limited deficit reduction bill, the Gramm-Rudman-Hollings bill; West Germany and other European countries lowered interest rates; and Japan's cabinet approved a stimulative budget. Finally, in December 1987, the G-7 announced that appropriate steps had been taken to stabilize exchange rates and that there should be no further significant shifts in the value of the dollar. The G-7 implemented massive coordinated action by central banks to stabilize the dollar and to signal their intent to the world. Throughout 1988, the G-7 met regularly and acted effectively to stabilize exchange markets. Cooperation in monetary policy increased and progress was made on the coordination of fiscal policy. Japan, in particular, successfully pursued a stimulative domestic economic policy. The United States made some limited progress in reducing its budget and trade deficit. As a result, exchange rates, including the dollar, stabilized. However, the long-term success of international monetary cooperation of the G-7 continued to depend on the ability of the key monetary actor, the United States, to pursue policies that would reduce its twin deficits.

Europe's Efforts to Build a Regional Monetary System

The **European Monetary System (EMS)**, an ambitious effort at international monetary cooperation, was launched during the period of interdependence.⁵⁹ Members of the European Union, with their high level of intra-EU trade and cross-border investments as well as their Common Agricultural Policy, which is based on common prices and relies on stable exchange rates, have an especially strong interest in stabilizing exchange rates among themselves.⁶⁰

Discussions on stabilizing exchange rates in Europe began in the 1960s, shortly after the signing of the Treaty of Rome. Fissures in the Bretton Woods system, along with early achievements in European economic integration, were

the main factors behind the initiation of these talks. The talks culminated in the Werner Report of 1970, which set forth detailed plans for monetary union. The recommendations of the Werner report were rendered moot by the collapse of the Bretton Woods system in 1972.

After 1972, the member states agreed to hold their currencies within a 2.25-percent band against one another while allowing this band to move within a 4.5-percent band against the dollar. This arrangement was called the “snake in the tunnel.” In addition to the six member states of the European Economic Community (EEC), Britain, Ireland, and Denmark joined the snake in May 1972. Britain and Ireland left the snake in June 1972.

The snake was an attempt to reconstruct an international fixed-rate monetary regime in the face of the collapse of Bretton Woods. It failed to accomplish that goal, however, or even the more limited one of jointly floating the EU member states’ currencies against the dollar. Italy left the snake in February 1973 and France left in January 1974. The French returned briefly in mid-1975 only to leave permanently eight months later.

Part of the problem was the way in which the shock of higher world oil prices was transmitted within Europe. Britain became an oil exporter and needed flexibility to adjust its exchange rate to maximize the benefits of increased oil revenues. France was unable to keep inflation low enough to remain in the snake, and Italy was unable to reduce its balance-of-payments deficit sufficiently. These countries needed to devalue their currencies to maintain the international competitiveness of their export-oriented industries.

In December 1978, the Council of Ministers of the European Community (EC) agreed to create a “zone of monetary stability in Europe.” This system called for fixed, but adjustable, exchange rates among the members and a floating rate with the outside world; the creation of a **European Currency Unit (ECU)**, a basket of currencies that would serve as a basis for fixing exchange rates, a means of settlement, and a potential future reserve asset; and a network of credit arrangements and plans for a future European Monetary Fund for financing payments imbalances and supporting the fixed rates. The EMS went into effect in March 1979.

At that time, all members of the EMS except the United Kingdom agreed to participate in the **Exchange Rate Mechanism (ERM)** by maintaining fixed exchange rates with 2.25-percent fluctuation margins (except for the Italian lira, which was allowed to fluctuate within a wider 6-percent band). Fixed rates were to be maintained by convergent national economic policies and, when necessary, by intervention in currency markets financed by mutual lines of credit. The United Kingdom’s opposition to the ERM was both economic (based on the special role of the pound sterling as an international currency and as the currency of an oil exporter) and political (based on the need to subject its domestic economic policy to international constraints, especially to the policies of West Germany, which had the strongest economy and currency in the EMS).

During the first four years of the EMS, seven realignments of EMS currency values were made. These realignments devalued the lira and the franc relative to the deutsche mark by 27 and 25 percent, respectively. This was a

healthy development, given that the initial exchange rates for the lira and the franc probably had been set too high. Indeed, the next four years of the EMS witnessed only four more realignments, and even these were substantially smaller than the previous ones. After 1983, exchange rate variability within the EMS declined substantially, while monetary policies converged on virtually every dimension.⁶¹ From January 1987 until September 1992, no realignments were made within the ERM, while Spain, the United Kingdom, and Portugal joined the ERM, and Finland, Sweden, and Norway explicitly linked their currencies to the ECU.

The success of the EMS, however, was not complete. The European Monetary Fund, which was to have been a quasi-central bank and the institutional framework for the EMS, was not established. In 1989, central bankers agreed to the long-term objective of creating a **European Central Bank (ECB)** but recognized that members would first have to harmonize economic and monetary policies over a period of years.⁶² Numerous realignments of rates were made, and fixed rates were made possible by exchange controls on weaker currencies. The Italian lira had wider than 6-percent fluctuation margins. Furthermore, despite growing internal support for EMS membership, the United Kingdom, Greece, and Portugal remained outside the EMS. Nevertheless, by fixing rates and forcing coordination of national economic policies, the EMS produced lower inflation and less misalignment of rates than would have occurred had unguided market forces prevailed. Finally, although the ECU had not, as intended, become a major reserve unit or a means of settlement between EU monetary authorities, it had established a permanent role in international financial markets as a major currency of denomination for banking and securities market transactions.

GLOBALIZATION

Globalization of Financial Markets

The globalization of financial markets grew, in part, out of the same forces that had created financial interdependence. Motivated by a growing consensus on free-market principles, developed countries accelerated the liberalization of domestic financial markets, privatized government-owned financial institutions, and further opened their markets to foreign participants.

Japan, which had retained tight domestic regulatory control and had kept its markets more closed than any other developed country, gradually opened its markets. The U.S. government used bilateral negotiations to pressure Japan to open its financial markets to foreign competition. The United States–Japan **Framework for a New Economic Partnership**, signed by President Clinton and Prime Minister Miyazawa in 1993, was designed to address macroeconomic, sectoral, and structural measures for reducing the U.S. trade and payments deficits with Japan. Negotiations between 1997 and 2001 led to the United States–Japan **Enhanced Initiative** on Deregulation and Competition Policy of the Framework, which included measures on financial services. In addition, the Uruguay Round multilateral

trade agreement of 1994 (see Chapter 3) included a protocol on the liberalization of trade in financial services.⁶³

These international pressures were reinforced by domestic developments that led Japanese monetary and financial policies to change in important ways. After several decades of rapid economic growth, Japan entered a prolonged period of economic recession and financial crises in the 1990s. The rapid growth of the 1980s led to a speculative boom, asset inflation, and excessive lending by Japanese financial institutions. In the early 1990s, the real estate bubble burst and many Japanese businesses that were protected by government regulation and hindered by out-of-date corporate practices failed to adjust to global competition. The resulting recession had a severe impact on Japanese banks and financial institutions. As prices of real estate and equities collapsed, and as many sectors of the economy faced serious losses, Japanese financial institutions found themselves with growing nonperforming loans, and several institutions went into bankruptcy. The Japanese government was unwilling or unable to take decisive steps to deal with the enormous overhang of bad loans (estimated to be as large as \$1 trillion). The weakness in the financial sector in turn aggravated the recession as banks were unwilling or unable to engage in new lending.⁶⁴

The recession in Japan and the collapse of several major financial institutions undermined the opposition of regulators to the foreign acquisition of Japanese financial institutions. In the 1990s, several banks (including the Long-Term Credit Bank) and several securities firms (including Yamaichi Securities) were taken over by U.S. investors. In 1996, Prime Minister Hashimoto, in an effort to respond to new global pressures and to address the problems of the financial sector, announced a plan to deregulate financial markets through a so-called **Big Bang** approach to financial deregulation. Inspired by the British Big Bang of 1985, the goal of Japan's Big Bang was to implement major changes in financial regulations to make financial markets more competitive, accessible, and transparent. Japan's Big Bang eased regulations in the securities, insurance, and banking sectors. Legislation passed in 1998 eliminated controls on foreign exchange trading; deregulated brokerage commissions; permitted financial institutions to trade in new types of securities, such as derivatives; and reduced barriers between investment and commercial banking.⁶⁵

The European Union also took important steps toward financial liberalization. The **Single European Act (SEA)** of 1986 and the **Maastricht Treaty on European Unity** of 1992 committed EU members to dismantling most remaining controls on the movement of capital. The European Council of Ministers issued a new set of directives for banking and investment services. One of these called for coordination of monitoring provisions of credit institutions and harmonization of regulations concerning asset overexposure.⁶⁶ Another directive made it possible for credit institutions authorized in one member state to do business in other member states without additional authorizations. In addition, in 1993, the council issued a directive that made it easier for credit institutions authorized in one member state to establish branches in other member states.⁶⁷ A new payments system for large transactions, called Trans-European Automated Real-time Gross settlement Express Transfer (TARGET), was established, and a new

pan-European reference rate, called the Euro Interbank Offered Rate or Euribor, was set up for comparing floating-rate interest instruments.⁶⁸

The creation of the **Economic and Monetary Union** and a single European currency (the **Euro**) was to have a major impact on the European financial enterprises because of the elimination of revenues from intra-European currency exchange transactions. In anticipation of the creation of a common currency, European banks and other financial institutions began to reorient their strategies around a more open and transparent European financial market. Some of this reorientation took the form of mergers and acquisitions. Some movement also was made toward diversifying financial services, particularly into securitization and derivatives. A new German-Swiss exchange called Eurex was founded in 1998 to handle derivatives exclusively. Its trading volume soon rivaled that of the Chicago Board of Trade. A corporate Euro bond market emerged in the late 1990s. Completely new markets like the Neue Markt in Frankfurt and the Nuova Mercato in Bologna arose to service the demand for venture and start-up capital that European capital markets previously had ignored.

European financial liberalization remained limited to some extent by the continuing role of national governments. While the European Central Bank became responsible for certain key policy decisions, such as when to intervene in world currency markets to support the Euro, national governments continued to be responsible for regulating the financial enterprises that operated within their borders. In addition, national central banks remained influential via their participation in the **European System of Central Banks (ESCB)** in setting European monetary policy goals. Nevertheless, European capital markets were being liberalized rapidly and extensively in the 1990s.⁶⁹

The United States also made important changes to its financial system. That system had been constrained by the **Glass-Steagall Act of 1933**, which had been enacted in response to abuses that allegedly contributed to the Great Depression. Glass-Steagall forbade interstate banking and created barriers among different sectors of the financial system—commercial banks, investment banks, and insurance companies. With the evolution of the financial markets and their globalization, Glass-Steagall became increasingly outdated. Domestic financial institutions lobbied intensely for the removal of the Glass-Steagall barriers. However, due to domestic political gridlock, it proved difficult for many years to do more than gradually revise the Glass-Steagall Act through regulatory reinterpretation. Glass-Steagall was finally replaced with the passage of the Gramm-Leach-Bliley Act in 1999, which made interstate and universal banking possible in the United States.⁷⁰

One of the most significant changes in the era of globalization was the broadening geographic reach of international financial markets. In the 1990s, many developing countries were integrated into global financial markets. As the domestic consensus shifted from government control and protection to free-market policies, many developing countries launched liberalization efforts by reducing exchange rate controls and other barriers to international capital movements and by opening their domestic financial markets to foreign investors.⁷¹ International negotiations also played a role. Mexico, for example, opened its markets as part of the North

American Free Trade Area agreement, and both Korea and Mexico liberalized as part of their accession negotiation when they joined the Organization for Economic Cooperation and Development (OECD). Significantly, the Uruguay Round financial services agreement covered developing countries as well. The new agreement required the developing countries in the WTO to reduce domestic barriers to the establishment of foreign banks after an agreed transition period.

The currencies of most developing countries were linked in some way to one of the major world currencies, a situation that reflected both trade and financial ties. Many Latin American and East Asian countries formally or informally linked their currencies to the dollar, while Eastern Europe and the former European colonies in Africa were tied to European currencies. Interestingly, Japan did not participate in these spheres of influence, although the Japanese government promoted a plan to link the dollar, the yen, and the Euro in a basket of currencies against which emerging countries could peg their currencies.⁷²

Finally, the former communist countries became part of the system. The first challenge for these countries was to establish the convertibility of their currencies. Achieving convertibility often resulted in efforts to reduce budgetary and/or balance-of-payments deficits in order to stabilize exchange rates. Some newly independent countries that had relied on the Russian ruble as their domestic currency chose to create new national currencies. All countries set up private banking systems, increased the independence of central banks, liberalized their financial systems, and joined the IMF and the World Bank. The challenges and opportunities connected with these important changes will be discussed in Chapter 10.

China remained a communist country but became a major player in world markets through a combination of domestic economic reforms and decentralization of control over efforts to promote regional economic development. In the 1990s, foreign investment flowed into China in massive amounts to gain access to the Chinese domestic market and to take advantage of low labor costs. Chinese banks remained under the control of the government, for the most part, as did the Chinese currency, the yuan (also called the renminbi). A major dispute between China and the United States over the yuan-dollar exchange rate developed during the second administration of George W. Bush as China's bilateral trade surplus grew even larger than Japan's (see Chapter 10 for details).

Financial institutions from developed countries responded quickly to the new liberalization in developing and former communist countries. As a result, international financial flows increased dramatically (see Chapter 6). The revolution in information technology enhanced this shift in government policy. The global diffusion of information technology has made it possible for people around the world to trade foreign exchange and stocks at any time of the day. The Forex system, for example, allowed individuals or firms to trade in foreign currencies on a 24-hour basis. Similar systems were developed for equity market and futures trading. New regulations allowed the creation of **electronic trading systems**, which gave investors direct access to markets, thereby eliminating or reducing the role of intermediaries like the traditional stock brokerage houses.⁷³

The new technology both forced and enabled banks and investment firms to create new financial services to replace revenues that had been lost as a result of

reduced trading fees. Computing and communications systems also made it possible to create new, structured financial products such as securitization (i.e., asset-backed securities created out of income streams from credit cards, auto loan payments, and mortgage payments) and various so-called derivatives. A **derivative** is a contract, the value of which depends on (is “derived” from) the price of some underlying asset (e.g., a raw material like petroleum or an equity) or a particular reference rate such as an interest rate or stock-market index like the Dow Jones Index.

Derivatives contracts take two principle forms: futures and options. A futures contract obligates a buyer and a seller to complete a transaction at a predetermined time in the future at a price agreed upon today. An option gives a party a right to buy or sell at a specified price for a stipulated period of time.⁷⁴

Similar changes occurred in other countries such as Japan, Great Britain, and Mexico. As those countries replaced traditional trading floors with electronic trading systems, they realized reduced costs, increased speed of execution, and improved efficiency. Another characteristic of financial globalization was the proliferation of securities markets. Many countries that had not previously had a stock market or other kinds of markets for trading in securities established such markets for the first time in the 1990s. Other countries that already possessed such markets improved or enhanced them.

Financial institutions increasingly became truly global in operations and ownership. A new wave of mergers and acquisitions resulted in the creation of larger banks in the United States, Europe, and Japan. About 400 bank mergers occurred each year in the United States. The number of banking organizations in the United States decreased from approximately 12,300 in 1980 to approximately 7,100 in 1998. The percentage of domestic deposits held by the 100 largest organizations increased from 47 percent in 1980 to nearly 69 percent in 1997.⁷⁵ In the 1990s, the number and value of bank mergers and acquisitions in the major industrialized countries increased markedly (see Figure 2.11). Many large banks merged to form even larger banks. As a result, concentration of ownership in the financial services industry rose substantially during this period.⁷⁶

Economic and Monetary Union

One of the central developments in the global system was the creation of the Economic and Monetary Union (EMU). In February 1986, the members of the European Community committed themselves to deepening the integration process by signing the Single European Act (SEA). One of the provisions of the SEA undermined the institutions that had allowed the EMS to operate successfully to that point. The SEA mandated removal of all obstacles to completing the internal market, including capital controls. Capital controls included a broad variety of measures affecting capital markets, including taxes on holdings of foreign currencies and regulations on how foreign currencies could be put to use. Capital controls allowed the central banks of EMS members to prevent speculation against their currencies in anticipation of realignments. Without these controls, in short, it would be impossible to continue with the EMS strategy of periodic realignments.⁷⁷

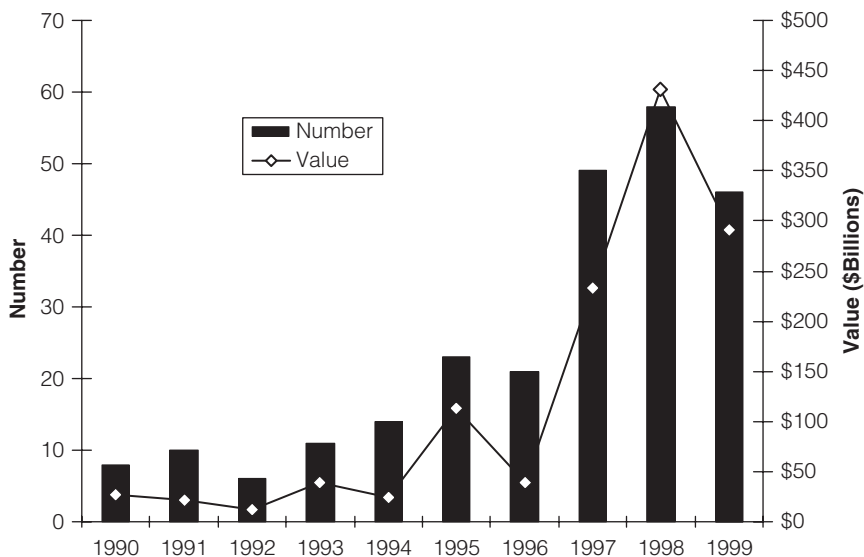


FIGURE 2.11 Number and Value of Bank Mergers and Acquisitions with Value Greater than \$1 Billion

SOURCE: Bank for International Settlements, Group of Ten, *Report on Consolidation in the Financial Sector* (Basel, Switzerland: Bank for International Settlements, January 2001).

As part of the process of implementing the SEA, therefore, a committee was appointed under the chairmanship of Jacques Delors, President of the European Commission, to study the feasibility of creating a monetary union for Europe. The Delors Report was published in 1989, beginning a new round of negotiations that culminated in proposals for a three-stage process to achieve an Economic and Monetary Union (EMU) that were included in the Maastricht Treaty on European Unity, signed on February 1992. The key elements of the EMU were to be the liberalization of capital markets, the creation of a European Central Bank (ECB), and the establishment of a single European currency.

Much of the politics of European monetary integration in the early 1990s centered on the preconditions for participation in the monetary union (see Table 2.2). Not all members of the EU could meet the preconditions by the original deadline (December 31, 1996), and it became increasingly clear that the EMU would be composed initially of a subset of EU member-states.⁷⁸ In the end, twelve EU members became full participants in the EMU.

In January 1994, the European Monetary Institute was created as a precursor to the formation of the European Central Bank. In January 1995, Austria, Finland, and Sweden joined the European Union, bringing the total number of member-states up to fifteen. In December 1995, the EU began a lengthy campaign to win political support for the establishment of a single currency. The European Central Bank, with the power to set interest rates and manage the money supply, was established on June 1, 1998, in Frankfurt. The last stage of the EMU began on January 1, 1999, when the Euro was introduced as a legal

TABLE 2.2 Preconditions for Participation in the European Monetary Union

Variable	Target
Inflation	Less than or equal to 1.5 percent over rate of lowest three members
Interest rate on long-term government bonds	Less than or equal to 2 percent above rate of 3 members with the lowest inflation rates
Government deficit/GDP	Less than or equal to 3 percent of GDP
Outstanding government debt/GDP	Less than or equal to 60 percent of GDP
Currency exchange rate	Within ERM band for at least 2 years

SOURCE: *Economic Report of the President* (Washington, D.C.: Government Printing Office, 1994), 247.

currency and the exchange rates between the currencies of the eleven members of the EMU and the Euro were determined. Greece joined the EMU in January 2001. On January 1, 2002, national currencies in the twelve member-states of the EMU were officially replaced by the Euro.⁷⁹

During the first two years of its existence, the Euro depreciated sharply against the dollar and the yen. The ECB tried to stem the Euro's depreciation by raising interest rates. European governments were more concerned about the potential negative effects on growth of higher interest rates than maintaining the value of the Euro. The German government, in particular, supported a weaker Euro because that would increase German exports to the rest of the world. In 2004, the Euro began to appreciate relative to other major currencies. Now the European governments criticized the ECB for failing to cut interest rates. The French government asked the ECB to take growth and unemployment rates, as well as inflation, into account when formulating monetary policy.⁸⁰ So far, however, the ECB has focused primarily on restraining inflationary pressures and has been able to limit the influence of euro area governments on its monetary policy decisions.

Adjustment

The size of global private capital markets dwarfed the funds available for G-7 monetary management and reduced the effectiveness of intervention in currency markets. Due to these circumstances, financial authorities in the major countries concluded that intervention was of limited effectiveness and should be used infrequently and only under certain conditions, that is, when a serious misalignment could be altered by joint action. The new financial flows thus made it ever more imperative for countries to pursue sound domestic macroeconomic policies that improved the fundamental health of their economies and thereby promoted international adjustment and stability.

The main instrument of international monetary management in the period of globalization was coordination among G-7 finance ministries and central

banks. Most significant was the cooperation and coordination among the Group of Three (G-3)—the United States, Japan, and Germany and subsequently the ECB. The G-7 finance ministers and their deputies met regularly to discuss national policies, urge members to pursue appropriate macroeconomic policies, and recommend structural reforms. Finance ministries and central bankers, especially those of the G-3, were in touch frequently and informally between these regular meetings to discuss market conditions. Ministers also organized opportunistic interventions to influence currency markets. Because national monetary policy had become a key tool of national policy and international adjustment, central bank officials came to play a more significant role in international financial coordination. They continued to meet in the G-10 and to coordinate frequently and informally among themselves and with their finance ministries.

In this period, the major countries moved to improve the fundamentals of their economies by reducing budget deficits and inflation and by implementing market reforms. The most significant change occurred in the United States. By the 1990s, the domestic political consensus in the United States had shifted toward a greater willingness to address the problem of the budget deficit and toward a solution to the need for the United States to be competitive in international markets.

In 1993, the newly elected Clinton administration pushed successfully for legislation to reduce the U.S. budget deficit. The administration proposed a short-run economic stimulus package combined with a long-run plan to reduce the deficit by \$500 billion over five years in the Omnibus Budget and Reconciliation Act of 1993. Key provisions included a variety of tax increases, reductions in Medicare reimbursements, reductions in discretionary spending, and about \$15 billion in stimulus outlays, including the expansion of the Earned Income Tax Credit.⁸¹

The U.S. economy subsequently experienced a dramatic economic resurgence. Due to deficit reduction legislation and major increases in economic growth, the U.S. budget deficit went from \$269.2 billion in fiscal year 1991 to an estimated surplus of \$236 billion in fiscal year 2000 (see Figure 2.9).⁸² At the same time, as will be seen in Chapter 3, the productivity and international competitiveness of the United States improved. The restructuring of U.S. industry, the emergence of the high technology sector, and active trade liberalization negotiations contributed for a time to an improved trade deficit.

Despite significant movement toward a balanced budget and a rebound of the U.S. economy, the dollar remained weak in the first half of the 1990s while other currencies, especially the yen, were unusually strong. International currency markets had not yet taken into account the improving economic situation in the United States and were influenced by a statement that U.S. Secretary of the Treasury Lloyd Bentsen made suggesting that the United States favored a weak dollar. The result was a record low value of the dollar relative to the Japanese yen in spring 1995 at the time of the Mexican peso crisis (see the section below on the peso crisis). In March and April of 1995, U.S. Treasury Secretary Robert Rubin and his counterparts in Europe and Japan determined that currencies were seriously misaligned, that this misalignment did not reflect

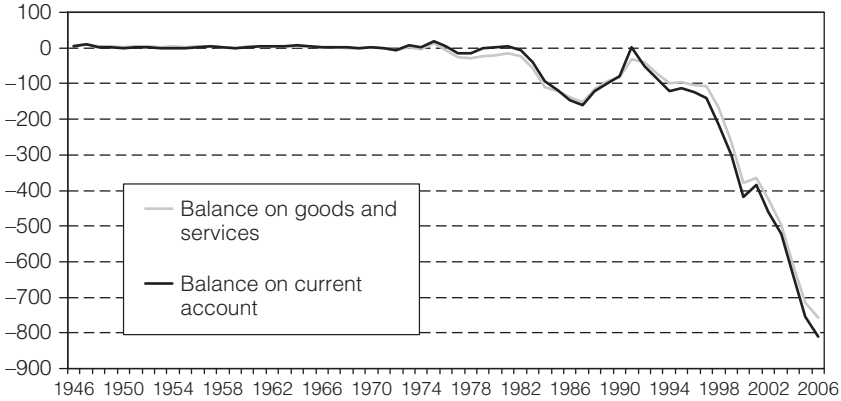


FIGURE 2.12 U.S. Balance of Trade in Goods and Services and Balance on Current Account, 1946–2006, in Billions of Current Dollars

SOURCE: *Economic Report of the President 2008*, <http://www.gpoaccess.gov/eop/tables08.html>.

the fundamental economic strength of the U.S. economy, and that the time had come for a major intervention to reverse the slide of the U.S. dollar. A series of coordinated interventions in the spring of 1995 led to a rise in the dollar and an improved alignment of major currencies (see Figure 2.13 below).⁸³

By the second half of the 1990s the situation in currency markets had reversed: despite a growing trade deficit, the dollar was strong while the yen and Euro were weak (see Figure 2.12). In the 1990s, European countries moved to reduce their budget deficits and reform their economies. These efforts paid off in the form of lower rates of inflation, but price stability came at the expense of lower growth rates and higher unemployment. Despite the improvements in Europe, the renewed dynamism of the U.S. economy gave European firms and investors strong incentives to invest in the United States, contributing further to the strength of the dollar.

Furthermore, the structural problem of the EMU continued. The new European currency was managed by a weak central bank, the weak leader of that institution, and a number of different finance ministries. Throughout 2000 the Euro continued to drop, and, in the fall of that year, it reached a new low. After just 20 months the Euro had lost nearly 30 percent in value against the dollar. Eager to bolster the Euro as well as European monetary integration, the ECB persuaded the United States to join in an intervention to support the Euro in September 2000. The move helped put a floor under the Euro, but it had still not recovered its value by the fall of 2001 (see Figure 2.13). A weak Euro helped European exports but undermined the credibility of the currency and fueled inflationary pressures.

While the United States economy seemed to go from strength to strength, the Japanese economy, which had seemed invincible in the 1980s, hit a brick wall. The bubble economy began to collapse in 1990. Land prices in major

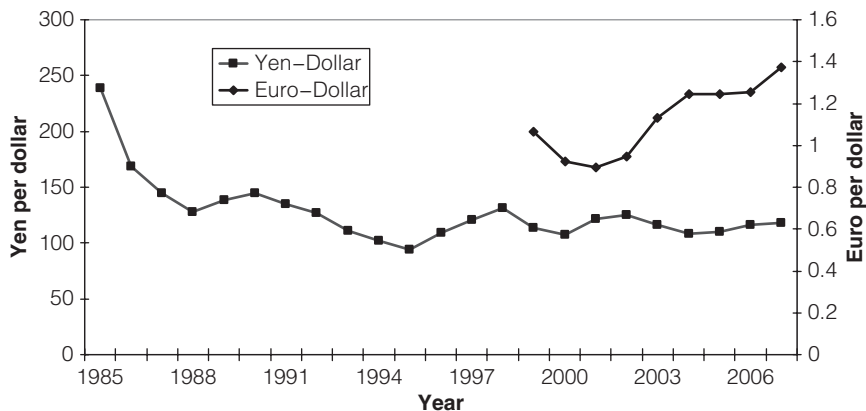


FIGURE 2.13 Yen–Dollar and Euro–Dollar Exchange Rates, 1985–2007

SOURCE: *Economic Report of the President 2008*, <http://www.gpoaccess.gov/eop/tables08.html>.

Japanese cities began to fall that year and continued to fall through 1994. At the beginning of 1992, prices were down nearly 20 percent from their early 1991 levels. Prices in six major cities fell from approximately 100 percent of nominal GDP at their peak in 1990 to only slightly over 50 percent of nominal GDP at the end of 1993.

Japanese stock prices began to fall in January 1990. Meanwhile, interest rates rose quickly in response to the Bank of Japan's raising of the discount rate. The Iraqi invasion of Kuwait on August 2, 1990, destabilized the stock market further, as investors worried about war, inflation, and higher oil prices. The Nikkei stock index lost 11 percent in a single day before stabilizing.

The share price collapse of 1990 presaged a severe economic downturn that began in the spring of 1991. The overheated economy of the bubble period left Japanese firms holding huge volumes of accumulated stocks in the form of capital investment, household durables, and buildings; and this led to reductions in demand for new goods as the economy adjusted to the changes. The collapse in real estate values and declining competitiveness of many Japanese businesses weakened the loan portfolios of Japanese banks and financial institutions. Bad loan problems in turn contributed to low levels of new lending by financial institutions.

These economic problems were aggravated by a resurgence of the yen against the dollar and other major currencies, which began in the first quarter of 1990 and continued through 1995; after falling to approximately 150 yen to the dollar, the yen strengthened and by the spring of 1995 was trading in the range of 80 to 85. It strengthened considerably during 1996. The high yen placed severe strains on Japan's heavily export-driven economy (see Figure 2.13).

Japan's central bank, the Bank of Japan, loosened monetary policy in the early summer of 1991, as signaled by its decision on July 1, 1991, to lower the

discount rate from 6.0 percent to 5.5 percent. A series of further relaxations followed. In September 1993, the Bank of Japan discount rate dropped to 1.75 percent—the lowest since the Bank was founded in 1883. In April 1995, the rate dropped even further, to 1.0 percent. Despite these efforts, growth in money supply remained sluggish.

The Japanese economy continued to suffer during the 1990s from low nominal GDP growth rates. Annual growth had been around 7 percent during the bubble period. It fell beginning in 1990 and by 1991–1993 was close to zero. Profits in the manufacturing sector fell by 24.5 percent in 1991 and 32.1 percent in 1992. Bankruptcies began to rise starting in the latter half of 1990. Failures of real estate firms or of firms engaged in active fund management constituted more than half the corporate bankruptcies in 1991 and 1992.

Among the hardest hit by the collapse of the bubble economy were the commercial banks, especially those which had extended large amounts of real estate financing or which had speculated in the share market boom. Eventually, the losses showed up on the banks' books: reserves for loan losses in the banking sector grew dramatically beginning in 1991. The rate of new lending by banks fell off quickly during 1990 and continued to fall through the first half of the decade. Bond ratings for the ten largest Japanese financial institutions also fell rapidly beginning in 1990 and continued to fall through the first half of the 1990s.⁸⁴

The dollars remained the currency of choice for official reserves through the 1990s and into the first decade of the twenty-first century (see Figure 2.6). The number two and three currencies after the dollar until 2002 were the deutsche mark and the yen, respectively, but the Euro replaced the deutsche mark after 2002 as a reserve currency. By 2007, the Euro's share of official reserves had increased to 26.1 percent.

Some observers were concerned that there could be a sudden movement out of dollars into other currencies, especially Euros, if the U.S. economy were to experience a major downturn or if U.S. economic policy suddenly took a turn toward imprudence. Because the U.S. budget, trade, and balance of payments deficits continued to grow after a short reversal at the end of the 1990s (see Figures 2.9, 2.10, and 2.12), so did the need to finance those deficits through a combination of domestic and foreign borrowing. Both Japan and Germany resumed their earlier pattern of being next exporters to the United States. Japan was displaced by China in 2000 as the largest single contributor to the U.S. trade deficit (see Figure 2.14). Investments in the United States by China and the oil-exporting countries grew in size and importance between 2000 and 2007.

A significant proportion of these investments were managed by **sovereign wealth funds (SWFs)**. See Figure 2.15. A SWF is a state-owned fund composed of financial assets such as stocks, bonds, property, and other financial instruments (including derivatives). In the past, surplus countries held a large proportion of their U.S. investments in bonds issued by the U.S. Treasury. After 2000, the surplus countries began to use SWFs to manage their investments in the United States and elsewhere.⁸⁵

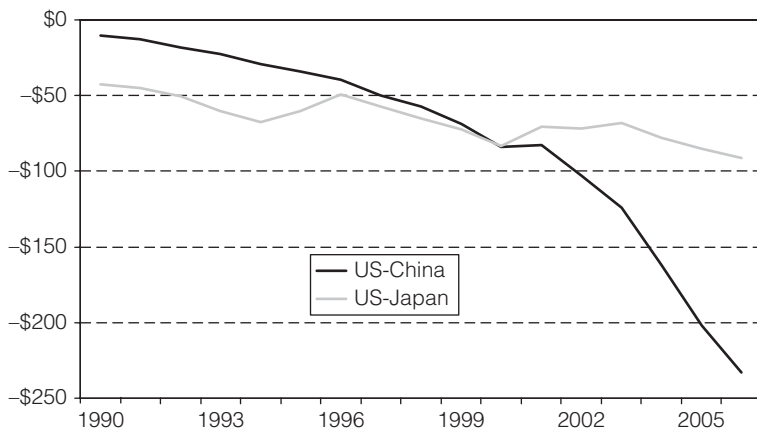


FIGURE 2.14 U.S.-China and U.S.-Japan Bilateral Trade Deficits, in Billions of Dollars, 1991–2006

SOURCE: *Economic Report of the President 2000 and 2008.*

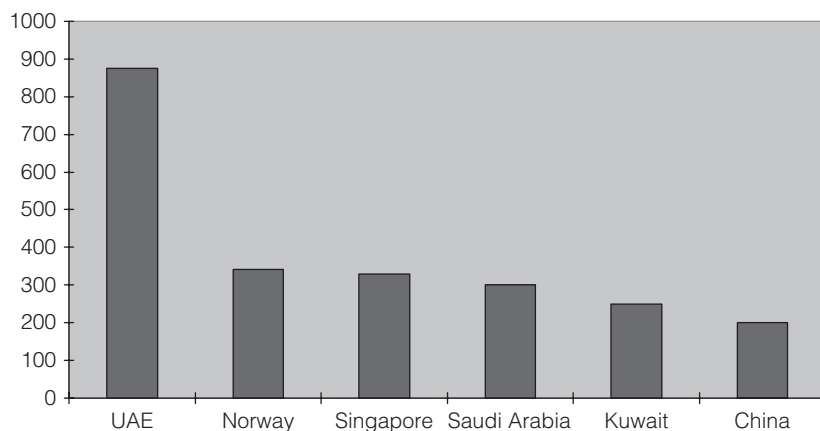


FIGURE 2.15 Largest Sovereign Wealth Funds

SOURCE: Morgan Stanley, September 2007.

CRISIS MANAGEMENT

Beginning in the 1990s and continuing into the twenty-first century, a series of major crises occurred that suggested that globalization might have its limits. Two major types of financial crises that caused problems for the entire system were regional or country-based crises and large bank and other financial institution failures.

The regional and country-based crises included, among others, the European currency crisis of 1992–1993, the Mexican peso crisis of 1994, the Asian financial

crisis of 1997–1998, the Russian financial crisis of 1998, and the Argentine crisis of 1999–2002. This series of crises illustrated, in particular, the dangers posed by greater dependence on increased flows of short-term investment capital, especially in parts of the world where the capital flowed out during crises much more rapidly than it flowed in during normal times.

Regional or Country-Based Crises

The European Currency Crisis of 1992–1993 On June 2, 1992, Denmark held a referendum on the Maastricht Treaty to determine whether that country would join the EMU. The treaty was rejected by a slim majority of Danish voters. The politics of European monetary integration were complicated further by the unification of East and West Germany in 1990. Economic decisions made at the time of unification generated inflationary pressures that caused the German central bank, the Bundesbank, to raise interest rates. Higher German interest rates put pressure on the other members of the EMS to either raise their interest rates or unpeg their currencies to prevent an outflow of short-term capital to Germany.

The Danish vote and the German post-unification monetary policy changes led to a round of speculation affecting European currencies and to a series of currency crises in 1992–1993. The first currency to suffer was the Italian lira. Then the three currencies in the wide (6-percent) band of the EMS—the British pound, the Spanish peseta, and the Portuguese escudo—were weakened. Pressure mounted again prior to the French referendum on the Maastricht Treaty on September 20, 1992. On August 26, the pound fell to its ERM floor. On September 16, the British and Italian governments withdrew the pound and the lira from the ERM. Other ERM members intervened in support of their currencies, but the lira was devalued by 7 percent against other ERM currencies on September 13 and later was allowed to float. The pressure on the EMS did not end, however. Indeed, it actually intensified until the final crisis effectively ended Europe's policy of pegging exchange rates within narrow bands. After the temporary withdrawal of Germany from the EMS in July 1993, European governments opted to widen the narrow band from 2.25 to 15 percent on August 2, 1993.⁸⁶

The 1992–1993 crises illustrated the problems of managing a fixed exchange rate system in the face of political uncertainty and high international capital mobility.⁸⁷ Nevertheless, the commitment to European monetary union remained strong. Most EU member states viewed monetary integration as a key step in both the political and economic processes of European integration. The predictability and simplicity of a fixed or single currency would facilitate trade and investment flows within the EU. A unified European market, in turn, was seen as integral to promoting Europe's competitiveness in the global marketplace, especially vis-à-vis the United States and Japan. Thus large European firms that operated in more than one European country actively supported monetary integration, and many political leaders argued that national interests could best be realized in a united Europe.⁸⁸

The Mexican Peso Crisis of 1994–1995 The Mexican peso crisis demonstrated that problems in an emerging market such as Mexico could threaten the world's financial system, and that the world lacked mechanisms to prevent and manage such crises. In the early 1990s, Mexico seemed to have found the recipe for economic development. Domestic deregulation and privatization combined with liberalization of trade and investment led to rapid growth and a massive inflow of foreign direct and portfolio investment. Unlike the 1980s, flows to Mexico and other emerging markets took the form not of bank lending but of borrowing from the world's rapidly growing securities markets. But in 1994 economic mismanagement in Mexico, especially the maintenance of an overvalued currency and excess dependence on short-term capital inflows, combined with several political shocks, including an uprising in the south, the assassination of the leading presidential candidate, and the kidnapping of a prominent businessman, led to a collapse of confidence. Funds that had flowed so easily into Mexico now fled, and the peso collapsed. The Mexican crisis led to significant pressures on the currencies and financial systems of other Latin American countries, most notably Argentina and Brazil, and disrupted markets from India to South Africa. From there, the crisis threatened financial markets worldwide.

To prevent further disintegration of the Mexican economy and the possible attendant political instability, the U.S. government stepped in with a \$20 billion support package for Mexico and pressed members of the Bank for International Settlements to make available another \$10 billion. The IMF agreed to an unusually large loan of \$17.8 billion in return for an agreement by Mexico to implement a stiff stabilization program. Supported by this international safety net, the Mexican government implemented stringent fiscal and monetary policies that stabilized the exchange rate but caused a serious recession and weakened the domestic financial system. Stringent domestic policies and multilateral lending by the World Bank and IMF also shored up the Argentine financial system.⁸⁹

Having experienced in such a dramatic way the vulnerabilities created by the new global financial flows, the G-7 developed a plan at the 1995 economic summit in Halifax, Nova Scotia, for crisis prevention and management. The G-7 proposed that the IMF pursue more ambitious surveillance policies to prevent future crises. The G-7 also called for greater transparency—greater disclosure of financial and economic information—on the part of IMF member states. In addition, the G-7 recommended the formation of an IMF Emergency Financing Mechanism and a doubling of General Arrangements to Borrow (GAB) within the IMF to ensure that such funds would be adequate for the management of future crises. Finally, the G-7 called for further study of how international debt could be restructured to prevent future crises. In the 1980s, the IMF, together with key central banks, the main lending banks, and the debtor country's government, could renegotiate debt. In the 1990s, an anonymous global financial securities market became a key actor, and it proved difficult to incorporate in debt negotiations. The challenge to the international monetary system was to invent new ways of restructuring debt in this new environment.

The Asian Financial Crisis of 1997–1998 A second global financial crisis began in 1997 in Thailand and quickly spread throughout Asia to the Philippines, Malaysia, Indonesia, and Korea. The contagion threatened Taiwan, China, Hong Kong, and even Japan, and also spread to other emerging markets. In 1998, an aftershock in Russia spread to Brazil and elsewhere in the global system. Stock markets around the world, including those in the United States, gyrated and debt markets dried up.

The roots of the Asian financial crisis lay in the Asian economic miracle of the 1980s. High savings rates, a strong work ethic, high levels of education, significant capital investment, responsible macroeconomic policies, and export-oriented trade strategies led to high growth rates, a significant improvement in standards of living, and a broadening distribution of wealth. In the 1990s, as discussed previously, these so-called **Asian tigers** began to liberalize their capital markets.

Unfortunately, these strong economies had weak financial systems. Because of close links between banks, governments, and corporations—a situation known as **crony capitalism**⁹⁰—bank lending often was directed to favored institutions without adequate attention to their financial soundness and sometimes based on corrupt practices. In large part because of this practice, and also because banks lacked the culture and practice of risk management, lending and rates did not accurately reflect risk. Financial institutions also were poorly regulated and supervised. Reporting and disclosure were inadequate, and there was no oversight of bad loan portfolios. The corporations in these countries also suffered from a culture of debt. Low-cost credit was available due to high savings rates and loose banking practices, and balance sheets were thus heavily laden with debt, which was often short-term debt.

Asian government policies also contributed to the crisis. In an effort to contain inflation, Asian governments had tied their exchange rates to the dollar. As the dollar became stronger after 1995, Asian currencies became overvalued. Overvaluation plus the linkage with the dollar encouraged excessive international borrowing in dollars by corporations and financial institutions that expected the continuation of prevailing exchange rates. The dollar linkage also hurt competitiveness when the dollar strengthened while the yen and Chinese renminbi weakened, leading to large current-account deficits in a number of Asian countries. Governments also allowed their economies to overheat. Finally, governments removed capital controls and liberalized financial systems without strengthening financial regulation and the domestic banking system.

Global financial markets also played a role in the crisis. In the 1990s, international financial institutions—much like the banks in the 1970s and 1980s—were attracted to the emerging Asian markets, which were growing rapidly, pursuing sound macroeconomic policies, and offering higher interest than those in developed countries. In 1996, over \$250 billion in private capital flowed into emerging markets, compared with \$20 billion in 1986.

By mid-1997, the economic vulnerabilities in Asia became more evident to these lenders. Export growth of the tigers was threatened by a decline in demand from Japan, which was in recession; strong competition from China, which had devalued its currency in 1994; and a strong dollar, to which their currencies were

tied. In some countries, businesses and banks faced immediate financial problems. Furthermore, several political uncertainties needed to be faced: a weak government in Thailand, uncertainty about the stability of the political system in Indonesia, and an upcoming presidential election in Korea.

The crisis began with a loss of confidence in the Thai baht. On July 2, 1997, Thailand was forced to allow its currency to float. However, international authorities did not foresee the firestorm that would ensue. Indeed, the United States declined to take special action and allowed the IMF to handle the Thai crisis. The IMF quickly provided liquidity and negotiated standby agreements that called for restrictive macroeconomic policy designed to calm markets. Nevertheless, the contagion spread rapidly in what was probably an overreaction by international markets. Significant IMF support to all affected countries (with the exception of Malaysia) was unable to stem the tide. On July 11, the Philippines was obliged to let its currency float, in August the Indonesian rupiah began to float, and by the end of 1997 most Asian currencies—with the exception of China's renminbi, which was not convertible and which had been devalued earlier—had been significantly devalued. The crisis threatened Japan and China and posed the danger of a worldwide collapse of financial markets.

The principal crisis manager was the IMF. It provided liquidity to countries that were experiencing stress on their financial systems, insisted on austerity programs in debtor countries as a way to calm international investors, and pressed for structural reforms within borrowing countries (see Chapter 6). As will be seen, these IMF policies led to significant criticism of the IMF itself. IMF austerity programs were accused of aggravating the crisis and causing social and political dislocations, while IMF structural reforms were criticized for intruding on national prerogatives. Nevertheless, the IMF action helped provide liquidity to the debtor Asian countries and was eventually a key factor in stemming the crisis.⁹¹

As the crisis threatened to spread in late 1997 and early 1998, the United States stepped in to support and complement the role of the IMF. The United States mobilized other lenders (including the World Bank and the Asian Development Bank) and other countries (like Japan) to put pressure on borrowers to back up IMF policy recommendations, and helped to shape international negotiations to restructure bank debt. By early 1998, international action had managed the liquidity problem and stopped the financial implosion. Then, in August, the Russian ruble collapsed.

The Russian Financial Crisis of 1998 Russia experienced severe economic problems in its transition from communism to capitalism beginning in 1989 (see Chapter 10). One of those problems was tax collection. Because of political opposition to the enforcement of existing tax laws, the government was unable to cover its current expenditures with tax revenues and was forced to finance government deficits by borrowing from abroad. The Russian government issued treasury bills denominated in dollars to attract foreign investors. However, as economic and tax collection problems persisted, speculation grew about the future devaluation of the ruble. Speculators believed, rightly, that the Russian

government would be unable to honor its commitments to pay interest on the dollar-denominated bonds. As a result, investors began to withdraw their funds rapidly from the Russian bond market.

On August 17, 1998, Russian Prime Minister Sergei Kiriyenko's government decided to float the ruble and default on \$40 billion of the dollar-denominated treasury bills. The government also announced a unilateral and legally dubious 90-day moratorium on payments by Russian entities on their foreign obligations. President Boris Yeltsin fired Kiriyenko on August 23 and replaced him with former Prime Minister Victor Chernomyrdin in a move intended to calm the country and to reassure international investors. Sergei Dubinin, head of the Russian Central Bank, resigned three weeks later. By that time, the ruble had fallen from around 6 rubles to the dollar on August 17 to about 11.⁹²

The Argentine Crisis of 1999–2002 In 1991, Argentina pegged its currency, the austral, to the dollar, as part of a larger and mostly successful effort to reduce inflation. The austral was replaced with the peso in 1992, but the peso remained pegged to the dollar. During the 1990s, Argentina experience a series of budget deficits which the government financed by borrowing at home and abroad. Its public external debt grew, there was speculation about a possible devaluation of the peso, and IMF efforts to get the Argentine government to reduce its budget deficit did not succeed. In 1999, when Brazil devalued its currency, the real, and the dollar declined against the Euro, there was a spike in Brazilian exports to Argentina and a rapid reduction in Argentine exports to Brazil and Western Europe that sent the economy into a tailspin. Three years of deep recession followed. Finally, the peso was allowed to float against the dollar, resulting in rapid devaluation. Argentine exports recovered and the economy began to grow again.⁹³

The lessons of these crises were several. First, the crises in Mexico, Russia, and Argentina illustrated the dangers connected with seeking stability by pegging one's currency to the dollar. An unwillingness to float and devalue the currency in the context of speculative pressures to do so in the short term led to instability and drastic downturns in the economy in the long run. Second, the rapid outward movement of capital in each of these crises suggested that there might be a need for a return to some form of capital controls, perhaps targeted specifically at reducing short-term outflows.⁹⁴ Third, some economists were critical of the way that the IMF handled the Asia Crisis and argued that the IMF's austerity policies were not appropriate where there were serious international contagion effects and a regional crisis of confidence leading to a credit crunch.⁹⁵

Crises Involving Banks and Other Financial Institutions

The second category of crises involving banks and other financial institutions included the collapse of the Barings Bank, an old and well-established British bank, in 1995, major losses incurred by Long-Term Credit Management (a **hedge fund**) in 2000, major losses at Société Générale (a French bank) in 2007, and the subprime mortgage crisis in 2007–2008.

These private financial crises all involved new financial instruments (see above discussion of structured products) made possible by computing and communications technology and by the deregulation of global financial markets. Barings was brought down by trading conducted by a small team of employees in a Singaporean futures market (SIMEX) speculating on the movement of the Nikkei index, an index of stock prices on the Tokyo Stock Exchange. The lead trader hid his losses in a phony account until they grew to over 300 million pounds. The bank collapsed when the losses were finally revealed.⁹⁶

Long-Term Credit Management (LTCM) almost collapsed when a complicated mathematical algorithm developed for bond arbitrage suddenly began to produce heavy losses. Several large international banks had loaned major amounts LTCM during its early years suddenly viewed LTCM as a risky borrower and therefore reduced their exposure. LTCM's capital base shrank accordingly to the point where remaining investors began to panic. The bailout of LTCM in 1988 by the Federal Reserve Bank of New York was carried out in the name of preventing an international investment crisis.⁹⁷

In early 2008, Jerome Kerviel, an employee of Société Générale, engaged in unauthorized trading involving arbitrage between equity prices and equity derivatives that resulted in a \$7 billion loss for the bank. The bank's management had not been monitoring the trades adequately, but Kerviel and his collaborators had concealed their actions (once again) by creating phony accounts. The bank survived, but not without shaking up global financial markets that were dealing with the problems created by the decline in U.S. real estate prices, which was in turn caused by problems in the markets for subprime mortgages and mortgage-backed securities (see below).

The Subprime Mortgage Crisis

In 2007 and 2008, the collapse of a massive market in mortgage-backed securities led to a financial crisis that included the collapse of a venerable American investment bank (Bear Stearns), serious losses at numerous U.S. and European financial institutions, and a freezing of credit markets globally. The crisis originated in the United States with an asset bubble which had multiple, complicated, and inter-related causes. Low interest rates in the United States and excessively easy lending practices led to massive borrowing to finance the building and purchase of homes. The financing of mortgages—especially mortgages to borrowers with low credit ratings—was made possible by lax lending standards and poor risk management by financial institutions. The funds to finance these mortgages was made possible by new credit instruments created by banks which packaged subprime (i.e., low credit-rating) mortgages with higher quality mortgages which were then sold and traded globally.⁹⁸

Numerous institutions and investors in the United States, Europe, China, the Middle East, and elsewhere bought and traded these mortgage-backed financial instruments. Mortgage lenders began to look in desperation for people who did not already have a mortgage. They relaxed standards for the granting of mortgages. Some fraudulently exaggerated the assessed values of homes in order

to secure larger mortgage fees for mortgages that they knew their customers could not afford. People seeking loans no longer had to demonstrate that they had sufficient income to pay them back. Banks left the business of actually servicing mortgages to secondary mortgage holders, who in turn sold their mortgages to companies that aggregated large numbers of mortgages to create new mortgage-backed securities.

None of the new players in the mortgage market—the non-bank lenders, the secondary mortgage holders, and the companies offering mortgage-backed securities—were subject to surveillance by the Federal Reserve. This lack of supervision may have been the result of explicit decisions made by Federal Reserve Chairman Alan Greenspan and his successor, Ben Bernanke, to leave the mortgage markets alone. Nevertheless, a large number of borrowers and especially subprime borrowers could no longer service their mortgages, foreclosure rates went up, owners of mortgage-backed securities belatedly realized that they were engaging in a highly risky form of investment so funding dried up, and housing prices collapsed. Commercial banks, investment banks, and insurance companies, which had created, bought, and/or traded these instruments, suffered huge losses.

The consequences were systemic and global. A crisis in confidence spread throughout financial markets, financial institutions lost confidence in and stopped trading with each other, and many financial markets simply froze. The crisis threatened the real economy as financial institutions pulled back on lending to businesses and consumers. Fear of recession led to a major decline in equity markets.

The crisis was managed by the U.S. Federal Reserve and other central banks of developed countries. Beginning in 2007, the U.S. Federal Reserve lowered interest rates to provide liquidity to the banking system (thereby aggravating the decline of the dollar), opened its discount lending window to securities firms and investment banks as well as commercial banks, and facilitated the takeover of Bear Stearns by the large commercial bank J.P. Morgan Chase.

Looking ahead, the key central banks sought ways to improve their national regulation to reduce the risk of another similar crisis and began to revisit international agreements, which were intended to prevent crises in the global financial system. Most important were the Basel agreements done through the BIS, which set common standards and required banks to hold capital reserves against various types of risky financial assets.

The first Basel Accord, or Basel I, was the result of a round of deliberations by central bankers in 1988 at a meeting in Basel, Switzerland, that resulted in the publication of a set of minimum capital requirements for banks by the Basel Committee on Banking Supervision. The Basel II Framework, first published in June 2004, was intended to promote a more flexible approach to capital supervision, one that encourages banks to identify the risks they may face, today and in the future, and to develop or improve their ability to manage those risks.⁹⁹ The frequency of crises in the 1990s led to a call for major reforms, for a new “international financial architecture” to predict and head off future crises.¹⁰⁰

Preventing Future Crises

The financial crises of the 1990s revealed serious structural problems regarding the safety and soundness of the global financial system. Many problems lay within countries. Borrowing countries faced corruption, insufficient bank regulation and supervision, and inadequate fiscal policy. Private financial institutions from both lending and borrowing countries confronted inadequate risk assessment and risk management.

To prevent future crises, international markets would need more and better information about the debt exposure of countries and institutions, while borrowing countries would need to improve their financial supervision and regulation. To manage future crises, the IMF would need greater resources, and the system would need better mechanisms for restructuring securities debt.¹⁰¹

After the Mexican and Asian crises, a number of systemic reforms were implemented. In addition, debtor countries began to implement financial and economic reform, often under the supervision of the IMF. The IMF created new, higher standards for disclosure of financial information by members and began providing more information about member countries' economic and financial situation to the public. Attention also was given to creating international standards for supervision and regulation of financial institutions. In 1998, the Group of Ten developed its Core Principles for Effective Banking Supervision, which covered **licensing**, methods of banking supervision, and cross-border banking. The crisis also led to new mechanisms for crisis management. In 1997 and 1998, two new facilities were created in the IMF: the Emergency Financing Mechanism, which enabled the IMF to respond more quickly to extraordinary financing requests in return for more regular scrutiny; and the Supplementary Reserve Financing Facility, which enabled the IMF to lend at premium rates in short-term liquidity crises. The IMF also received access to greater resources through a capital increase and the **New Arrangements to Borrow (NAB)**.

The General Arrangements to Borrow permitted the IMF to borrow funds from 11 industrialized countries when needed. The NAB, which was established in the wake of the peso crisis because of the concern that substantially greater resources would be needed to respond to future crises, expanded the list to 25 countries. The 1995 international economic summit of the G-7 in Halifax, Nova Scotia, recommended doubling the amount available to the IMF through the GAB. Accordingly, the IMF's Executive Board decided to establish the NAB on January 27, 1997.¹⁰²

Despite these international and national reforms, many gaps in the system of crisis prevention and management remained. Most important, the ability and willingness of debtor governments to implement national reforms and the ability of the IMF to press for implementation were weak. In addition, many countries refused to share financial information with the IMF or to allow the IMF to make public the information given to it. International principles covering bank supervision and regulation did not address issues of securities firms and securities markets. Furthermore, the system had no mechanisms for restructuring debt.

Government authorities continued to wrestle with how to stabilize the system without confronting the problem of **moral hazard**.

The idea of moral hazard comes from the insurance industry:

Moral hazard is the risk that a contract will change the behavior of one or both parties. If I cover you for all of your mistakes, then you will likely assume more risk than is optimal for both of us.¹⁰³

For this reason, most insurance companies only partially cover the expenses of recovering from damages and make the insured responsible for the remainder so that the insured has an incentive to reduce risk. Some analysts have claimed that bailouts of countries suffering from crises also create moral hazard and that therefore some uncertainty should always exist about bailouts to prevent the taking of unnecessary risks. This idea also has been applied to the global debt crisis.

There is no shortage of proposals for fixing the international financial system. Ambitious proposals such as creating a world central bank or a world bankruptcy court proved politically impossible and economically unworkable. However, a number of smaller steps—improving the ability of the IMF to act before a crisis erupts, fostering greater cooperation among national regulators, and developing techniques for restructuring debt across national boundaries—offered the promise of improving the safety and soundness of the financial system.

GLOBAL MONETARY GOVERNANCE IN THE TWENTY-FIRST CENTURY

Whether states will muster the political will and skill to govern the global monetary system remains to be seen. Gone are those simpler days when the United States, along with the United Kingdom, could draw up a constitution for a world monetary order. In a world where monetary power is more widely dispersed, governance will depend not on the preferences of a dominant power but on the negotiation of several key powers, primarily the United States, the European Union, and Japan. Governance also will depend on incorporating new economic powers that may emerge in the twenty-first century, such as China, India, and Brazil. While monetary power is now more widely dispersed, it is not equally dispersed. The United States still remains the most powerful monetary actor and, without an active U.S. role within the multilateral system, effective governance is impossible.

Governance also will be complicated by conflicts between globalization and national sovereignty. Managing globalization requires the coordination of national economic policies and the imposition of international discipline over policies that traditionally have been the prerogative of national governments. The experience of the European Monetary System and the efforts of the G-7 to coordinate policy indicate both the need for and the difficulty of achieving such coordination. Numerous ideas for achieving coordination and stability

have been proposed, ranging from managed floats to formulas for fixing exchange rates to a return to a modified gold standard or a standard based on a basket of commodities. Ultimately, these ideas all depend on the ability of countries to pursue sound economic policies at home and to achieve international coordination when needed. Indeed, some analysts believe that such coordination is impossible and that discipline and management are best left to the marketplace.

In a multilateral system, improvement in governance will be slow. Success will depend on trial and error and the development of common norms as opposed to formal agreements, as in the days of Bretton Woods or even the Second Amendment. Such a process is not necessarily bad, as formal agreements often do not work as planned. The Bretton Woods agreement, for example, never operated as the United States intended. But in the Bretton Woods period, a dominant power was ready and able to step in to establish new rules for regulating conflict. Today, although the United States is still necessary, it is not sufficiently dominant to fulfill its earlier role. The danger in the present multilateral system is that with incomplete governance, crises may go unregulated, cumulate, and become far more difficult and costly to resolve.

It is possible—although by no means certain—that the most powerful actors in the world monetary system will develop the means not only of crisis management but also of crisis prevention. The consensus among them on the need for cooperation and joint management persists in word if not always in deed. The leaders of the industrialized nations have repeatedly stressed the necessity of cooperating to maintain economic prosperity and political stability. Mechanisms for consultation and policy coordination still operate, but what will be done to deepen global governance remains to be seen. A more central question in some respects is: Will the consensus on the desirability of promoting freer monetary flows in the world economy persist in the face of growing complications of globalization?

ENDNOTES

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29. International Monetary Fund, *Annual Report 1975* (Washington, D.C.: IMF, 1975), 12.
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31. Committee on Reform, *International Monetary Reform*, 216, 219.
32. See George de Menil and Anthony M. Solomon, *Economic Summitry* (New York, N.Y.: Council on Foreign Relations, 1983); Robert D. Putnam and Nicholas Bayne, *Hanging Together: The Seven-Power Summits* (Cambridge, Mass.: Harvard University Press, 1984); and Joseph P. Daniels, *The Meaning and Reliability of Economic Summit Undertakings, 1975–1989* (New York, N.Y.: Garland, 1993).
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37. Eichengreen, *International Monetary Arrangements*, 60; *BIS 71st Annual Report* (Basel, Switzerland: BIS, 2001), 98.
38. International Monetary Fund, *Annual Report 1987* (Washington, D.C.: IMF, 1987), 58, 60.
39. *Ibid.*, 58.
40. See Edward J. Lincoln, *Japan: Facing Economic Maturity* (Washington, D.C.: Brookings Institution, 1988), 210.
41. For example, see Group of Thirty, *The Problem of Exchange Rates: A Policy Statement* (New York, N.Y.: Group of Thirty, 1982); Henry C. Wallich, Otmar Emminger, Robert V. Roosa, and Peter B. Kenen, *World Money and National Policies* (New York, N.Y.: Group of Thirty, 1983); and John Williamson, *The Exchange Rate System* (Cambridge, Mass.: MIT Press, 1983).
42. For statistics on this, see Benjamin J. Cohen, *The Geography of Money* (Ithaca, N.Y.: Cornell University Press, 1998), 65.
43. For discussion on the 1978 agreement, see de Menil and Solomon, *Economic Summitry*, 23–29, 47–48.
44. The restrictive monetary policy consisted of a record increase in the discount rate from 8.5 to 9.5 percent and the imposition of a reserve requirement on certificates of deposit. The "war chest" included enlarged swaps with the central banks of West Germany, Japan, and Switzerland; the issuance of U.S. Treasury securities denominated in foreign currencies; a drawdown in IMF reserves; and the sale of SDRs.
45. *Economic Report of the President* (Washington, D.C.: Government Printing Office, 1994), 352.
46. Helleiner, *States and the Reemergence of Global Finance*, 131–135. On monetarism, see Milton Friedman and Anna Jacobson Schwartz, *A Monetary History of the United States 1867–1960* (Princeton, N.J.: Princeton University Press, 1963), the twelfth volume of a series, *Studies in Business Research*, published by the National Bureau of Economic Research.
47. See Bruce R. Bartlett, ed., *The Supply Side Solution* (Chatham, N.J.: Chatham House, 1983); Victor A. Canto et al., *Foundations of Supply-Side Economics: Theory and Evidence* (New York, N.Y.: Academic Press, 1983); Lawrence Robert Klein, *The Economics of Supply and Demand* (Baltimore, Md.: Johns Hopkins University Press, 1983); and Paul Krugman, *Peddling Prosperity: Economic Sense and Nonsense in the Age of Diminished Expectations* (New York, N.Y.: Norton, 1994), ch. 3.
48. See Kenneth King, *U.S. Monetary Policy and European Responses in the 1980s*, Chatham House Paper 16 (London, UK: Routledge, 1982); and Sylvia Ann Hewlett, Henry Kaufman, and Peter B. Kenen, eds., *The Global Repercussions of U.S. Monetary and Fiscal Policy* (Cambridge, Mass.: Ballinger, 1984).
49. See World Bank, *World Debt Tables* (Washington, D.C.: World Bank, 1988).
50. On the Paris and London Clubs, see <http://www.clubdeparis.org/en/>; Barry Eichengreen and Richard Portes, *Crisis? What Crisis? Orderly Workouts for Sovereign*

- Debtors* (London, UK: Center for Economic Policy Research, 2001); and Lex Rieffel, *Sovereign Debt Restructuring: The Case for Ad Hoc Machinery* (Washington, D.C.: Brookings Institution Press, 2003).
51. *Economic Report of the President* (Washington, D.C.: Government Printing Office, 1995), table B-103. Net international investment is calculated by subtracting the value of assets owned by foreign firms and individuals in the United States from the value of assets owned by U.S. firms and individuals abroad. The value of these assets can be calculated either on the basis of original cost or on current market value. The figures reported here are based on current market value.
 52. Jürgen von Hagen and Michele Fratianni, "The Transition to Monetary Union and the European Monetary Institute," *Economics and Politics*, 5 (July 1993): 167–168; and Wayne Sandholtz, "Choosing Union: Monetary Politics and Maastricht," *International Organization*, 47 (Winter 1993): 1–39.
 53. U.S. Department of Commerce, *U.S. Trade Performance in 1985 and Outlook* (Washington, D.C.: Government Printing Office, 1986), 105–106.
 54. Eichengreen, *International Monetary Arrangements*, 98.
 55. The text of the Plaza Agreement can be found at <http://www.g8.utoronto.ca/finance/fm850922.htm>.
 56. The G-7 included the United States, Japan, Germany, the United Kingdom, France, Canada, and Italy. Annual economic summits of the G-7 usually included representatives of the European Union. After 1991, Russia would join to form the G-8.
 57. Funabashi, 177–210.
 58. See *Report of the Advisory Group on Economic Structural Adjustment for International Harmony* (chaired by Haruo Maekawa), submitted to Prime Minister Nakasone on April 7, 1986.
 59. See Horst Ungerer et al., *The European Monetary System, 1979–1982*, Occasional Paper No. 19 (Washington, D.C.: International Monetary Fund, 1983); Horst Ungerer et al., *The European Monetary System: Recent Developments*, Occasional Paper No. 48 (Washington, D.C.: International Monetary Fund, 1986); Directorate General for Economic and Financial Affairs, EC, "The Creation of a European Financial Area," *European Economy*, No. 36 (Brussels, Belgium: Commission of the European Community, May 1988); and Daniel Gros and Niels Thygesen, "The EMS: Achievements, Current Issues and Directions for the Future," CEPS Paper No. 35 (Brussels, Belgium: Centre for European Policy Studies, 1988).
 60. This argument is made very convincingly in Jeffrey Frieden, "Economic Liberalization and the Politics of European Monetary Integration" (University of California, Los Angeles, July 1993, unpublished manuscript). See also Barry Eichengreen and Jeffrey Frieden, "The Political Economy of European Monetary Unification," in Barry Eichengreen and Jeffrey Frieden, eds., *The Political Economy of European Monetary Unification* (Boulder, Colo.: Westview, 1994); and Jeffrey Frieden, "The Impact of Goods and Capital Market Integration on European Monetary Politics," *Comparative Political Studies*, 29 (April 1996): 193–222.
 61. See Susan M. Collins and Francesco Giavazzi, "Attitudes toward Inflation and the Viability of Fixed Exchange Rates: Evidence from the EMS," in Michael D. Bordo and Barry Eichengreen, eds., *A Retrospective on the Bretton Woods System: Lessons for International Monetary Reform* (Chicago, Ill.: University of Chicago Press,

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62. European Community, Committee for the Study of Economic and Monetary Union, *Report on Economic and Monetary Union in the European Community* (The Delors Report), (Brussels, Belgium: European Community) April 12, 1989. The European Central Bank would operate alongside the central banks of the EMU members in the European System of Central Banks (ECSB).
 63. See the Second Protocol to the General Agreement on Trade in Services at http://www.wto.org/english/tratop_e/serv_e/2prote_e.htm.
 64. C. Fred Bergsten, Takatoshi Ito, and Marcus Noland, *No More Bashing: Building a New Japan–United States Economic Relationship* (Washington, D.C: Institute for International Economics, October 2001).
 65. See Jennifer A. Amyx, *Japan's Financial Crisis: Institutional Rigidity and Reluctant Change* (Princeton, N.J.: Princeton University Press, 2004).
 66. Council Directive 92/121/EEC.
 67. Council Directive 93/6/EEC.
 68. See <http://www.euribor.org/>.
 69. Jean-Pierre Danthine, Francesco Giavazzi, and Ernst-Ludwig von Thadden, *European Financial Markets after EMU: A First Assessment*, Working Paper 8044, National Bureau of Economic Research, Cambridge, Mass., December 2000. See also Sofia A. Perez, *Banking on Privilege: The Politics of Spanish Financial Reform* (Ithaca, N.Y.: Cornell University Press, 1997); and Sofia A. Perez, "Systemic Explanations, Divergent Outcomes: The Politics of Financial Liberalization in France and Spain," *International Studies Quarterly*, 42 (December 1998): 755–784.
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 76. Bank for International Settlements, Group of Ten, *Report on Consolidation in the Financial Sector* (Basel, Switzerland: Bank for International Settlements, January 2001).
 77. Barry Eichengreen, “European Monetary Integration,” *Journal of Economic Literature*, 31 (September 1993): 1328.
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 81. Robert Woodward, *The Agenda: Inside the Clinton White House* (New York, N.Y.: Simon & Schuster, 1994); Jonathan Orszag and Laura Tyson, *The Process of Economic Policy-Making During the Clinton Administration* (Cambridge, Mass.: Center for Business and Government, Kennedy School of Government, Harvard University, June 2001); D. W. Elmendorf, J. B. Liebman, and D. W. Wilcox, *Fiscal Policy and Social Security Policy in the 1990s*, NBER Working Paper, September 2001; and A. J. Auerbach, *The U.S. Fiscal Problem: Where We Are, How We Got Here, and Where We’re Going*, NBER Working Paper, April 1994.
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