

## CHAPTER 6

# Capital Flows in the Global Economy

INTERNATIONAL FINANCIAL DEVELOPMENTS last year posed serious challenges for the world economy. What began in the summer of 1997 as a regional currency crisis in developing Southeast Asia erupted into a wider and deeper economic disturbance in 1998. By late summer the turmoil had extended to many other financial markets and to a number of economies around the globe. The outbreak of financial and economic turmoil in Russia in August immediately threatened to spread the contagion to Latin America. Interest rates in these and other emerging market countries rose sharply, and large-scale capital flight raised risk premiums on their sovereign bonds. Several countries experienced sharp depreciations of their currencies or strains on their foreign exchange reserves. Prices of stocks, bonds, and other financial and real assets fell. Commodity prices continued to fall, engendering talk of global deflation. Ultimately the financial turbulence led to a general flight from risky assets even within the United States and Western Europe. Japan's hopes for recovery from a long-enduring slump were dashed.

Prompt policy action and signs of a turnaround in Asia improved the outlook later in 1998. Even so, by late 1998 a third of the world's economies were in recession or experiencing markedly slower growth. The International Monetary Fund (IMF) has estimated world economic growth at only 2.2 percent in 1998 and projected that it would remain at that level in 1999, in stark contrast to robust growth of 4.2 percent in 1997. Those estimates indicate a deceleration of global growth to levels not seen since the pronounced world slowdowns of 1974-75, 1980-83, and 1990-91. The risk of such a global slowdown poses new challenges to economic policy.

The widespread financial turmoil—perhaps the most severe experienced by the world economy during the last 50 years—followed a period of increasing global integration of goods and financial markets. World trade has increased dramatically as trade restrictions have steadily fallen and many countries have made a historic commitment to opening their economies to international trade. Restrictions on international capital transactions have also been eased, and the integration of financial markets has led to an unprecedented volume of cross-border capital flows.

The recent turbulence should not cloud the benefits of this ongoing trend toward globalization. The integration of markets has provided

greater opportunity, faster growth, and rising standards of living for a large share of the world's population. Trade among countries has fueled growth by harnessing the benefits of international comparative advantage and providing a dynamic stimulus to productivity. Financial integration, too, offers advantages. Open capital markets have promoted growth by allocating capital to those countries whose domestic investment opportunities exceed domestic saving. The ability of capital to flow to all corners of the world has allowed global investors to diversify the risk in their portfolios. And the knowledge that these investors are watching over their shoulders may have helped governments achieve discipline in their monetary and fiscal policies.

The promise of these long-term benefits should not, however, lead us to neglect the real costs of the current crisis—or the possibility of new crises years hence. Therefore the United States, together with other industrial and developing countries and the international financial institutions, has taken a number of important steps. To support continued growth in a context of low inflation and to restore confidence in unsettled financial markets, the Federal Reserve and other central banks worldwide have reduced key interest rates. To support economic stabilization in Brazil and to head off further contagion, the IMF has assembled a \$41 billion stabilization package for that country. To ensure the IMF's continued ability to respond to financial crises, the Congress has approved the Administration's request for \$18 billion in new funding, the U.S. share of a roughly \$90 billion international package. To secure financial stability and help avoid crises in the future, Indonesia, the Republic of Korea, and Thailand have undertaken serious structural reform of their economic and financial systems. To resolve its long-festered banking problems and stimulate its economy, Japan has passed bank reform legislation and a program of fiscal stimulus. Finally, to strengthen the international financial system and make it less crisis prone, the international community is working together to foster reforms of the international financial architecture. These measures serve to promote confidence and improve the prospects for growth in the world economy in 1999.

This chapter analyzes the factors that have led to increased global financial integration. Next it considers the causes of the Asian crisis and its contagion to other economies, the policy response to the global turmoil, and the role of Japan. The chapter concludes with an analysis of the effects of the international financial crisis on the United States.

Chapter 7 is devoted to a discussion of developments in the international financial system and proposed reforms to its architecture aimed at reducing the likelihood of future crises and promoting the orderly resolution of those that do occur. That chapter also discusses the prospects for the recently launched monetary union in Europe and the implications of the creation of the new European currency, the euro, for the U.S. dollar.

# INTERNATIONAL CAPITAL FLOWS, THEIR CAUSES, AND THE RISK OF FINANCIAL CRISIS

## TRENDS IN FINANCIAL INTEGRATION

The phenomenal growth of international capital flows is one of the most important developments in the world economy since the breakdown of the Bretton Woods system of fixed exchange rates in the early 1970s. Their growth can be traced to the oil shock of 1973-74, which spurred financial intermediation on a global scale. Mounting surpluses in the oil-exporting countries could not be absorbed productively within those economies, and at the same time the corresponding deficits among oil importers had to be financed. The recycling of “petrodollars” from the surplus to the deficit countries, via the growing Euromarkets (offshore markets for deposits and loans denominated in key currencies, particularly the dollar), produced the first post-Bretton Woods surge of international capital flows. As a result, many developing countries gained access to international capital markets, where they were able to finance their growing external imbalances. Most of this intermediation occurred in the form of bank lending, as large banks in the industrial countries built up large exposures to developing countries’ debt.

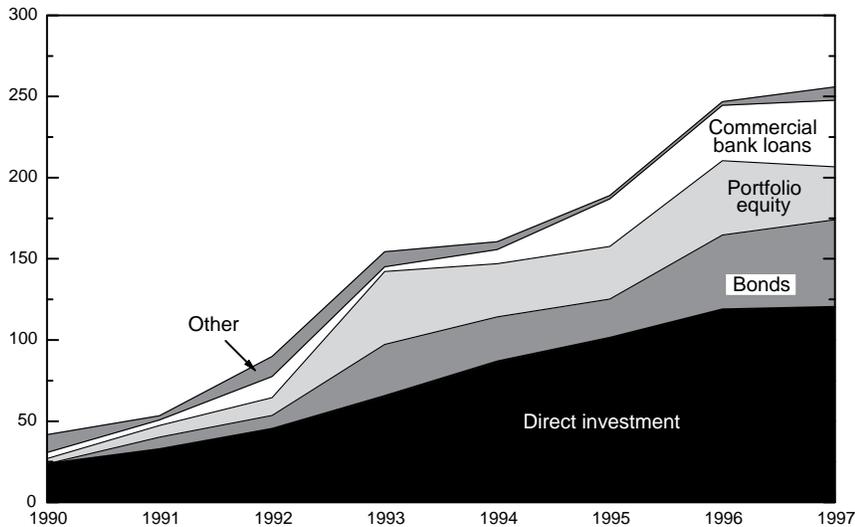
The buildup of these external liabilities eventually became excessive and, together with loose monetary and fiscal policies in the borrowing countries, sharp declines in their terms of trade, and high international interest rates, triggered the debt crisis of the 1980s. Starting in Mexico in 1982, that crisis rapidly engulfed a large number of developing countries in Latin America and elsewhere. The rest of the 1980s saw a period of retrenchment, with a significant slowdown in capital flows to emerging markets (especially in Latin America) as burdensome foreign debts were rescheduled, restructured, and finally reduced with the inception of the Brady Plan in 1989.

The resolution of the 1980s debt crisis led to new large-scale private capital inflows to emerging markets in the 1990s. Several factors encouraged this renewed surge of international financing. Many Latin American countries were adopting policies emphasizing economic liberalization, privatization, market opening, and macroeconomic stability. Countries in Central and Eastern Europe had embarked on their historic transition toward market economies. And rapid growth in a group of economies in East Asia had caught the attention of investors worldwide. Net long-term private flows to developing countries increased from \$42 billion in 1990 to \$256 billion in 1997.

The largest share of these flows took the form of foreign direct investment—investment by multinational corporations in overseas operations under their own control. These flows totaled \$120 billion in 1997 (Chart 6-1). However, bond and portfolio equity flows accounted

**Chart 6-1 Net Capital Flows to Developing Countries**  
 Foreign direct investment is the largest source of net capital flows to developing countries.

Billions of dollars



Source: World Bank.

for 34 percent of the total in that year, amounting to \$54 billion and \$33 billion, respectively. In contrast, commercial bank loans represented only 16 percent of net flows to developing countries, or \$41 billion, in 1997, compared with about two-thirds in the 1970s. To the extent it went to bond rather than equity flows, this massive relative switch out of bank lending, which is characterized by a small number of substantial lenders, would eventually pose a problem not encountered in the 1980s, namely, how to coordinate the actions of a large number of creditors (an issue discussed further in Chapter 7).

Table 6-1 reports gross inflows and outflows of both foreign direct investment and portfolio investment (two of the main components of capital flows) for both developing and industrial countries over several decades. Two points are noteworthy. First, although net flows have been large and growing, the magnitude of gross flows may be a better indicator of financial integration. As investors in one country diversify their portfolios by purchasing foreign assets, and as foreign investors increase their purchases of assets in the first country, gross flows may increase substantially without net flows changing nearly as much. And in fact gross cross-border inflows and outflows have grown even faster than net flows. Second, the rise in cross-border capital flows has occurred in developing and industrial countries alike. Although the Mexican peso crisis of December 1994 led to a modest slowdown in capital flows to emerging markets in 1995, they surged again thereafter until the Asian crisis erupted in the summer of 1997.

TABLE 6-1.— *Capital Flows to Industrial and Developing Countries*  
 [Billions of dollars]

Flows	Industrial countries		Developing countries	
	Direct investment	Portfolio investment	Direct investment	Portfolio investment
Gross outflows:				
1973-78 .....	28.6	11.8	0.4	5.5
1979-82 .....	46.9	35.0	1.1	17.8
1983-88 .....	88.2	126.5	2.3	-5.1
1989-92 .....	201.3	274.6	10.4	10.3
1993-96 .....	259.6	436.4	19.2	19.2
Gross inflows:				
1973-78 .....	17.9	24.4	5.0	1.3
1979-82 .....	36.6	51.0	14.6	3.1
1983-88 .....	69.3	139.1	15.5	4.0
1989-92 .....	141.9	343.0	37.8	27.5
1993-96 .....	173.0	549.9	106.4	95.9
Net inflows:				
1973-78 .....	-10.7	12.6	4.6	-4.2
1979-82 .....	-10.3	16.0	13.5	-14.7
1983-88 .....	-18.9	12.6	13.2	9.1
1989-92 .....	-59.4	68.4	27.4	17.2
1993-96 .....	-86.6	113.5	87.2	76.7

Source: International Monetary Fund.

Further evidence of the trend toward global financial integration is the sharp expansion of foreign exchange trading. This growth has been evident both in spot markets (where currency transactions are settled within 2 business days, or “on the spot”) and in the use of derivative instruments (where trading is for future delivery of currencies, or in options to buy or sell currencies). Most purchases and sales of foreign exchange are related to financial transactions rather than merchandise trade, and indeed foreign exchange trading has grown much faster than international trade in goods over the last two decades (Box 6-1).

## THE CAUSES OF INCREASED CAPITAL FLOWS

Several factors have undoubtedly contributed to this phenomenal growth of international capital flows. First, countries have opened their financial markets, both domestically and internationally, as governments in industrial and developing economies alike have phased out restrictions on financial activity and progressively reduced or eliminated controls on cross-border capital transactions. In many instances, this financial liberalization has been accompanied by macroeconomic stabilization, privatization, trade liberalization, and deregulation. These structural reforms in capital-scarce developing countries have created significant investment opportunities, attracting a surge of foreign capital with the expectation of high rates of return. Growth in international trade has also increased the

### **Box 6-1.—The Explosive Growth of Foreign Exchange Trading**

The single statistic that perhaps best illustrates the dramatic expansion of international financial markets is the volume of trading in the world's foreign exchange markets. The Bank for International Settlements (BIS, an international institution in Basle, Switzerland, that acts as a kind of central bankers' bank) released in October 1998 a preliminary compilation of a triennial survey of 43 foreign exchange markets. It shows that, in current-dollar terms, the volume of foreign exchange trading in these markets grew 26 percent between April 1995 and April 1998, following a 45 percent increase between 1992 and 1995. That volume now stands at \$1.5 trillion per day (after making corrections to avoid double counting). By way of comparison, the global volume of exports of goods and services for *all* of 1997 was \$6.6 trillion, or about \$25 billion per trading day. In other words, foreign exchange trading was about 60 times as great as trade in goods and services.

In the BIS preliminary survey, spot market purchases amounted to 40 percent of foreign exchange transactions in 1998, down from 44 percent in 1995. Forward instruments continued to grow in importance relative to spot sales. Over-the-counter derivatives, although still a smaller fraction of total transactions, have been the fastest-growing segment of the market.

A striking feature of the foreign exchange market is the small percentage of trades made on behalf of nonfinancial customers. In the most recent survey, transactions involving such customers represent only 20 percent of total turnover.

Trading also tends to be focused geographically in a few major centers. Arguably there is a natural equilibrium consisting of one major center in each of the world's three 8-hour time zones. New York is the major center in the Western Hemisphere, with U.S. volume now equal to \$351 billion per day (18 percent of world turnover). Tokyo established itself in the 1980s as the major center in the third of the world that includes Asia. Its turnover, however, has fallen off recently, as markets in Singapore have gained. Average daily transactions totaled \$149 billion (8 percent of the world total) in Japan and \$139 billion in Singapore. London continues to handle the greatest volume of foreign exchange transactions, with its share of world turnover increasing to 32 percent, at an average daily volume of \$637 billion.

To summarize, the volume of world trade in foreign exchange has continued to grow. Derivatives far exceed spot market transactions. Most trades take place between professional traders at banks and other financial institutions; only a fraction of foreign exchange sales and purchases directly involve those who import and export goods and services.

volume of trade-related financing and bolstered trade in derivative instruments, as buyers and sellers seek to hedge their exposures to currency and commercial risk.

At the same time, financial innovations in the United States and other industrial economies have rendered cross-border investments more accessible to institutional and individual investors. Revolutionary advances in information and communications technology, together with significantly lower transportation and transactions costs, have underpinned this rapid development. Mutual funds, hedge funds, and the growth of new financial instruments, including derivatives, have enabled investors to choose which risks they will and will not accept in their quest for higher returns. A radical increase in the available range of instruments and assets has afforded investors unprecedented opportunities to increase returns and decrease risks through global diversification. Although most wealth is still primarily invested in domestic assets, international portfolio diversification is now an option for both institutions and households.

### THE FINANCIAL CRISES OF THE 1990s

Although financial crises have a long history and have recurred throughout the century, the same two decades that have seen spreading financial liberalization and ever-growing global capital flows have also witnessed such crises, which imposed serious real costs on the economies affected. Since the resurgence of these flows after the 1980s debt crisis, three more financial crises of at least regional importance have struck. The first occurred in 1992-93, when several currencies in the Exchange Rate Mechanism (ERM) of the European Monetary System experienced speculative attacks. Italy and the United Kingdom were forced to abandon the ERM in the fall of 1992 and allow their currencies to depreciate; Sweden, whose currency was effectively pegged to the ERM currencies, was obliged to follow suit shortly thereafter. A series of devaluations of several other ERM currencies ensued, and the ERM exchange rate bands for France and the remaining members had to be widened in the summer of 1993, to cope with the speculative pressure on their currencies.

The collapse of the Mexican peso in December 1994 touched off the second crisis. Other Latin American currencies quickly came under attack through what became known as the tequila effect. The third crisis of the 1990s, the Asian currency and financial crisis that has now spread to Russia, Latin America, and beyond, was triggered by the devaluation of the Thai baht in July 1997. (The history and causes of that crisis are described in detail below.) Although each of these crises had distinct characteristics and causes, several common elements, which factor significantly into current debates surrounding the reform of the international financial architecture, can be identified.

### *Recent Financial Liberalization*

In most crisis countries, significant liberalization of international capital transactions and the progressive elimination of capital controls preceded the crisis. Italy and France had fully liberalized capital movements in the years just before the ERM crisis. Mexico had progressively liberalized its domestic and international financial regime in the early 1990s. Similarly, several East Asian economies had embarked on financial liberalization, both domestic and international, over the course of the 1990s.

### *Semi-Fixed Exchange Rate Regimes*

All three crisis episodes occurred under semi-fixed exchange rate regimes. Each country that fell victim to crisis had attempted to stabilize the value of its currency with respect to those of its key trading partners. None, however, had fixed its exchange rate in a rigid way. For example, exchange rates in the ERM had been permitted to move against one another within a band (typically plus or minus 2¼ percent from a central parity rate), in an arrangement designed as a step toward European monetary integration. Similarly, the Mexican peso had followed a crawling band against the dollar, which allowed it to escape the very high inflation rates the country had suffered in the 1980s. Finally, the currencies of several Asian economies were loosely pegged to currency baskets in which the dollar had an effective weight of at least 80 percent. Although all these arrangements may have speeded integration into the world system of trade and finance and helped curb inflation in some episodes, they also, in the Mexican and Asian cases, may have hindered the adjustment of real exchange rates in the face of large trade deficits. The sudden abandonment of relatively fixed exchange rates in time of crisis reinforced negative market expectations, intensifying financial market pressures and producing severe recessions in the presence of large foreign currency-denominated debts.

The rigidly fixed exchange rate regimes of Argentina and Hong Kong are organized as currency boards, in which only as much domestic currency is issued as is backed by holdings of U.S. dollars (see Box 7-1 in Chapter 7). Their exchange rate regimes have successfully withstood the recent crisis, but at some cost to their economies.

### *Contagion*

In all three episodes, a crisis that began in one country quickly spread beyond its borders. In some cases the next victims were neighbors and trade partners; in others they were countries that shared similar policies or suffered common economic shocks. At times, as in the summer of 1998, changes in investor sentiment and increased aversion to risk contributed to contagion within and across regions. (The causes of contagion are discussed further in a later section.)

## *Concurrent Banking Crises*

The currency crises of the 1990s have often been associated with banking and financial sector crises. This is most clearly evident in the Asian and Mexican episodes, but weaknesses among financial institutions also played a role in the ERM devaluations. In Finland and Sweden, banking crises emerged in conjunction with the currency turmoil, whereas in Italy some segments of the banking system experienced financial distress. The Asian crisis provides a striking example of the link between currency and banking crises, underscoring the profound vulnerability to which fragile financial and banking sectors subject an economy. The causal links between banking crises and currency crises are complex and often reciprocal: financial weaknesses may contribute to a currency crisis, and a currency crisis can exacerbate a financial crisis by increasing the burden of foreign currency liabilities.

## THE ASIAN CRISIS AND ITS GLOBAL REPERCUSSIONS

### THE ASIAN ECONOMIC MODEL

For over two decades, beginning in the 1970s and in some cases earlier, a number of East Asian economies grew at very rapid rates, in a phenomenon widely hailed as the “Asian miracle.” Thirty years ago it might have seemed that industrialization was a privilege reserved, with the sole exception of Japan, for the European countries and a few others where Europeans had settled. The East Asian miracle economies not only disproved this notion but industrialized far more quickly than their predecessors had. Starting from 1780 (roughly the beginning of the industrial revolution), the United Kingdom took 58 years to double its income. The United States and Japan took almost as long (47 years, starting from 1839, and 35 years, starting from 1885, respectively). Yet Korea accomplished the same feat in 11 years and China in just 10 (starting in 1966 and 1977, respectively).

These economies’ remarkable success served to enhance living standards, reduce poverty, and expand economic opportunities for multitudes of the region’s inhabitants. Perhaps even more impressive, these economies maintained a more equal distribution of income and wealth than did many developing countries that lagged behind. East Asia’s success was achieved through a focus on the fundamentals—the factors that most economists consider critical to economic growth. These include high rates of saving and investment, sustained investments in education (with particularly high completion rates for basic education and high literacy), a pronounced work ethic, and an outward orientation characterized by heavy involvement in international trade

and investment (although openness to imports and foreign investment was in some cases highly selective). The East Asian strategy also emphasized sound macroeconomic management, including low budget deficits and inflation rates.

The East Asian recipe for economic success, with its clear focus on the underpinnings of economic growth, has served and should continue to serve as an inspiration for countries seeking to escape poverty, the recent crisis notwithstanding. Indeed, as developing countries around the world increasingly opted for capitalism over state planning in the 1980s and 1990s, they were not merely reacting against the conspicuous failures of state planning in their own economies and in the former Soviet bloc; they were also attracted to East Asia's inspiring example. Their enormous strengths notwithstanding, it is now commonly recognized that the East Asian economies concealed structural weaknesses, which eventually contributed to the crisis. Arguably, Asian governments relied too much on centralized state coordination rather than decentralized market incentives to maintain their progress. Government favoritism toward selected industries and exports was widespread, as was protection of domestic industries against foreign competition. Other practices distorted private sector lending and investment incentives. For example, relationship-driven banking (Box 6-2) hindered capital market discipline and flexibility. Financial institutions in general were often poorly supervised and inadequately regulated; implicit and explicit government bailout guarantees fostered moral hazard in the financial sector (as discussed below). A heavy dependence on bank debt rather than equity (as securities markets in some countries were underdeveloped) led to excessive leveraging of firms. The activities and balance sheets of corporations and financial institutions lacked transparency, as reflected in weak accounting and disclosure standards. Enforcement mechanisms were informal rather than formal: effective bankruptcy and foreclosure laws were lacking. Box 6-3 presents a further analysis of the Asian growth model.

## A HISTORY OF THE CRISIS AND ITS CONTAGION

In the summer of 1997, financial turmoil in Thailand spread to several neighboring economies with outwardly similar features at similar stages of development: Indonesia, Malaysia, and the Philippines. This contagion took the form of declines in both equity and currency markets. Next, Singapore and Taiwan, concerned about the competitive effects of these four economies' currency depreciations, decided to let their currencies float rather than resist the speculative pressure building against them. By October the contagion was affecting Hong Kong (whose return to China that summer had already increased the political uncertainty about its future), putting pressure on the Hong Kong dollar and sharply depressing local stock markets. The first bout of truly global contagion then ensued, as stock markets in the United

States and Europe fell sharply, and as other emerging market economies were forced to raise interest rates to prevent a run on their currencies. The spread of the crisis to Korea and further deterioration in Indonesia led to a severe and worsening crisis in the winter.

Investor sentiment seemed to improve by March 1998, as the Thai and Korean currencies stabilized and Korea successfully converted its short-term bank debt into longer term loans. Also, higher interest rates and tighter monetary policy in Latin America following the October episode helped stabilize investors' confidence in that region. In April, however, several negative developments led to a new loss of investor confidence. Plunging commodity prices, resulting in part from the deepening recession in Asia, hurt a wide range of commodity exporters. Oil exporters such as Ecuador, Mexico, Russia, and Venezuela were hit hard by plunging oil prices. Agricultural exporters such as Argentina, Australia, Canada, and New Zealand were also affected, as the crisis in Asia and abundant global supply led to a sharp fall in agricultural prices. Mineral producers such as Chile and Peru suffered damage as well.

Violence in May surrounding the collapse of the Suharto regime devastated confidence in Indonesia and again shook confidence in the rest of East Asia. Currency pressures on economies as far removed as South Africa, a sharp deterioration of business conditions in Japan, and the continued fall of the yen added to the pessimism. The yen's weakness led to concern that China might devalue its currency in response and that the Hong Kong peg would collapse, causing another round of currency depreciations in Asia. However, China gave assurances that it would not devalue, and the pegs held. These adverse developments, however, led to another round of sharp declines in emerging market equities starting in May.

Financial turmoil spread next to Russia, where the fall in the price of oil (one of the country's biggest exports) fed a growing current account imbalance in an economy already weakened by inadequate tax collection, a large fiscal imbalance financed by short-term ruble debt, and disappointment at the slow pace of structural reform. The manifestations included a sharp fall in the Russian stock market, speculative pressure on the ruble, and a sharp increase in the interest rate on ruble-denominated public debt. Despite negotiation in July of an IMF package aimed at reducing the fiscal deficit, the Russian government failed to restore confidence. It proved unable to implement its anticrisis program in the face of opposition from the legislature, from powerful business interests, and from advocates of a return to communism. The deterioration in market conditions culminated in a comprehensive breakdown in confidence in the first weeks of August.

On August 17 the Russian government, faced with growing losses of foreign reserves triggered by capital outflows, decided to devalue the ruble, to restructure its short-term public debt unilaterally in a form

**Box 6-2.—Market-Based (Arm’s-Length) Versus Relationship-Based (Insider) Finance**

Financial economists have long distinguished between market-based and relationship-based financial systems, broadly characterizing the Anglo-American system as the former and citing many Asian economies as examples of the latter. This generalization can provide useful insights for understanding Japan’s persistent financial problems as well as the crisis in East Asian emerging markets. The details, however, differ widely within Asia. In Japan the best example is the “main bank” relationship that many established firms traditionally have with their primary lenders. In Asian developing countries the relationships that underpinned financial transactions were often based more generally on personal or political connections. Loans from a bank to an affiliated firm are called connected lending; loans guided by the government are called directed lending.

Although securities markets are more important in market-based systems, commercial banks are prominent in both systems. A crucial distinction concerns the roles that they play. In a market-based system, banks are one of many sources of external finance for firms. They compete with bond and commercial paper markets, along with markets for equity, to provide funds to companies. In such a system, bank loans are typically provided through arm’s-length market transactions. Loans are contracted for specific periods, and interest rates are competitively determined on the basis of independent assessments of risk.

A decade ago, economists commonly emphasized the benefits that were thought to result from a relationship-based system. It was argued that main banks in Japan, for example, were better able to distinguish between temporary and fundamental problems when affiliated firms got into financial trouble. They could therefore continue to lend to those firms whose problems were only temporary, under circumstances where impatient, market-based financial systems would be unable to tell the difference, and therefore could not lend.

It was also argued that relationship banking improved young firms’ access to funds. In market-based systems, competition

that implied material default, and to impose a 90-day moratorium on private sector payments of foreign liabilities. These decisions led to a profound financial crisis, which in turn sparked a dramatic spread of investor pessimism to Latin America and other emerging markets and a sharp downturn in equity markets in the United States and other industrial countries. The contagious spread of turmoil from Russia to Brazil and other Latin American countries arguably signaled a degree

**Box 6-2.—continued**

limited a bank's ability to take chances, since nothing prevented its competitors from subsequently stealing its customers if business went well. In relationship-based systems, on the other hand, long-term relationships promised handsome payoffs for banks from those firms that succeeded.

Some credited this financial system with promoting the Asian economies' high rates of investment and growth. But along with their strengths, relationship-based systems also possess weaknesses, which the Asian crisis has now exposed. Relationship-based systems neglect the information encapsulated in market prices. This information, the product of numerous independent assessments of profitability and risk, possibly becomes more important as economies develop and attractive opportunities for further investment become relatively more scarce. Relationship-based systems might also foster the corruption and abuse that have become known as "crony capitalism."

Long-term banking relationships create value when they facilitate the transfer of funds to profitable firms that are either young or temporarily distressed. Perhaps they are also unavoidable if an ineffective legal system forces investors to maintain some type of control to prevent their funds from being misused. They destroy value, however, when they misallocate resources.

The Asian crisis seems to offer numerous examples of such misallocation. Borrowers that should have been foreclosed upon, or at least cut off from further lending, were allowed to continue borrowing, which increased their losses and those of their banks. Lack of transparency in financing practices may have enabled bankers and corporate managers, shielded from market constraints, to invest in pursuit of personal priorities rather than in their firm's best interest. It appears, for example, that some Asian firms, unchecked by external market discipline, developed excess capacity in industries such as steel and electronics. Many Asian economies are currently struggling to overcome the adverse real consequences of these misguided financial decisions.

of financial panic, as investors apparently withdrew capital indiscriminately from most emerging market economies regardless of their strength. This sharp loss of confidence may have partly originated in the perception that the IMF had few resources left, or that it was not willing to use them to rescue a country that until then had been considered "too important to fail." If this is the case, it appears that investors drew the wrong lesson from the IMF's enforcement of

conditionality in the face of unsound Russian macroeconomic policies. The loss of confidence may also have been partly caused by the perception that other countries might follow Russia down the path of unilateral default, debt moratoria, and capital controls.

Although the major Latin American economies were structurally much stronger than the Russian economy, investors now sought to avoid risk everywhere. Emerging market sovereign spreads (Box 6-4) over U.S. Treasuries rose to about 1,500 basis points (15 percentage points) by September (Chart 6-2). In all probability this signaled an

### **Box 6-3.—The Asian Growth Model in Perspective**

The Asian crisis caught most analysts by surprise. Some had warned of economic policy flaws in Asia, but few expected them even to produce a sharp slowdown, and no one predicted the profound crisis that actually materialized. Until recently many observers thought that the East Asian countries possessed the strong economic fundamentals and structural characteristics necessary for sustained long-run growth.

If structural weaknesses in the Asian economic system lie at the origin of the crisis, as many observers contend, a natural question is why the crisis occurred when it did. One hypothesis is that countries pass through natural stages of economic development, and that the Asian financial system, based on such practices as relationship banking, is better suited to countries in the early stages. After all, financial intermediation by banks (even in the context of relationship banking) is a tremendous step to take for countries where firms are used to financing all investment out of family savings or retained earnings. Relationship banking may mimic the close ties of extended family lending and thus ease the transition to a more arm's-length financial system. Moreover, as long as growth is rapid, high leverage (that is, a high ratio of debt to equity) is sustainable. But when growth slows, the financial system needs to adapt, and firms need to reduce their high leverage.

Some slowdown in East Asia's growth was probably inevitable at some point, after the breakneck growth of the preceding decades, for the simple reason that economic convergence served as one of the driving forces of that growth. An economy that starts out behind the world leaders in income per capita can close part of the gap over time by growing more rapidly, provided of course such fundamentals as an outward orientation and investment in physical and human capital are in place. Convergence occurs for two reasons: the high rate of return on capital in labor-abundant economies, and the opportunity to emulate the most advanced technology and management practices of the leaders. But as the

extreme rise in investor risk aversion, and large-scale flight from emerging markets and other risky investments in favor of “safe havens,” notably U.S. Treasury bills. The sharp increase in the preference for liquidity, together with attempts to unwind highly leveraged positions, added to pressure on the prices of a wide range of risky assets. As described in Chapter 2, capital markets within industrial countries, including the United States, were also affected by the flight to quality: as yields on safe government securities fell, the spread of high-yield securities (junk bonds) over Treasuries increased sharply.

**Box 6-3.—continued**

income gap closes, this impetus to growth diminishes. Economies encounter diminishing returns to capital, limits on labor supply growth from rural-to-urban migration, and infrastructure constraints. Also, as they draw closer to the technological frontier, they have less to learn from those who have gone before. Japan had achieved convergence by the 1980s, and Hong Kong and Singapore by the 1990s. Korea and the others still had some way to go—a very long way in some cases. Nevertheless, the basic principle remains that the smaller the remaining gap, the less the forces of convergence contribute to further growth.

One controversial view is that East Asia’s growth from the beginning had more to do with the rapid accumulation of the factors of production—both labor, through increased labor force participation rates, and capital, due to very high investment rates—than with growth in the productivity of these factors. Some studies have found only modest underlying growth rates of multifactor productivity (a measure of increased efficiency in the use of all factors, resulting in part from technological progress). If this view is correct, it means that East Asia’s high growth rates were not sustainable in the long run, given that the rate of employment growth must at some point decline, and given an expected reduction in the rate of investment. However, even this view implies at worst a gradual slowdown of growth, not the sudden and severe crisis that occurred.

The answer to why the East Asian crisis struck when it did is thus probably a complex one. As discussed below, it appears that, around mid-1997, the factors working to produce an eventual slowdown in growth interacted in unfortunate ways with existing financial sector weaknesses, excessive corporate leverage, financial fragility resulting from poorly designed capital market liberalization, foreign indebtedness, a slowdown in export markets, worsening terms of trade, and the development of overcapacity in many sectors. The crisis was the result.

#### **Box 6-4.—Sovereign Spreads in Emerging Markets**

The Asian crisis has introduced into popular parlance a number of terms formerly encountered only in arcane financial discussions among bankers and economists. One of these is “sovereign spread.” A simple definition of sovereign spread is the difference between yields on bonds issued by the government of one country (for example, an emerging market country) and those (safe) bonds issued by the government of a major industrial country. The yield in question is the yield to maturity, or the rate of return earned by holding the bond until it matures (including all interest and principal payments), and the bonds being compared must be of the same maturity and currency denomination for the comparison to be valid.

Using the prices of bonds issued by governments in emerging market economies, one can measure the implicit risk premium that the market demands to compensate for the extra default risk entailed in holding a bond from a particular emerging market. (Default risk is the risk that the debtor will fail to pay all principal and interest on its obligation on time. The bonds of the major industrial country governments are considered to carry little or no default risk.) The sovereign spread on foreign currency-denominated bonds measures only the default risk of a country’s obligations—not currency risk, because payments are to be made in foreign currency.

During the periods of extreme market turbulence following the Mexican peso crisis in 1994 and the Russian default in 1998, sovereign spreads rose sharply. In the latter episode these spreads reached about 1,500 basis points by mid-September (Chart 6-2). Estimates of the default probabilities incorporated in emerging market bond prices can be derived fairly easily from their sovereign spreads, given the assumption that U.S. government bonds are default risk-free. At their height, these spreads implied very high default probabilities for many countries, leading to the conclusion either that markets were exceptionally pessimistic or that investors were becoming exceedingly risk averse.

A second interesting comparison relates to the difference in yields on dollar- and local currency-denominated bonds. As long as the default risk on these bonds is the same, this differential measures the market’s assessment of currency risk, that is, the risk deriving from changes in the international value of the currency. Interestingly, even under most “fixed” exchange rate regimes, a positive currency risk premium can be observed, suggesting that investors expect a devaluation at some point or that they require an implicit “insurance” premium to compensate for that possibility.

### Chart 6-2 Perceived Risk and the Spread on Emerging Market Bonds

The risk premium on emerging market bonds shot up between March and September 1998. Spreads subsequently declined, then rose again following Brazil's devaluation.

Stripped spread over Treasuries (basis points)



Even the spreads between Treasuries and high-grade corporate bonds rose to some extent, reflecting the generalized increase in risk aversion. The huge losses and near-collapse of a prominent hedge fund contributed to the panic. By early October there were hints of a generalized global credit crunch: rising spreads on the entire range of bond instruments from high-quality corporate bonds to junk bonds and emerging market sovereign instruments; an interruption of access to international capital markets for most emerging economies; a drying up of bond financing in all emerging markets and a shrinkage in new bond issues in industrial countries; evidence of a tightening of lending standards by commercial banks in the United States; a slowdown in reported earnings growth; and a contraction in stock markets worldwide.

However, by the middle of November, conditions in international and domestic capital markets had improved noticeably, thanks to a number of positive developments:

- The Administration, as discussed in Chapter 1, took the lead in proposing a comprehensive set of steps to contain and resolve the crisis. These proposals included measures to support growth in the industrial countries, as well as policy reforms in emerging markets to promote their recovery; creation of a precautionary facility within the IMF to support countries subject to speculative pressures despite good economic fundamentals; measures to support the accelerated systemic restructuring of Asian banks and corporations; significant increases in the support by multilateral financial institutions of

social safety nets in the crisis countries; increases in trade financing to the affected countries; and reform of the international financial system architecture to make it less crisis prone.

- On October 30 the leaders of the Group of Seven (G-7) nations (Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States) issued a joint statement affirming their strong commitment to growth and the resolution of the crisis; endorsing the U.S. proposal for an enhanced IMF facility to provide contingent short-term lines of credit for countries pursuing strong, IMF-approved policies; presenting concrete proposals to implement initial reforms to the system; and laying out areas for further consideration in the effort to strengthen the international financial architecture. The G-7 finance ministers and central bank governors issued a more detailed statement that same day.
- The Federal Reserve reduced the Federal funds rate three times: at the end of September, in mid-October, and again in mid-November. These moves helped restore confidence and liquidity. Interest rate reductions in a number of other industrial countries, including Canada, Japan, and most of the European countries, significantly eased monetary conditions in the world economy.
- In October the Congress approved an \$18 billion funding package for the IMF, opening the way for about \$90 billion of usable resources to be provided by all IMF members to the liquidity-strapped institution.
- In November, negotiations leading to an IMF-led support and stabilization package for Brazil were concluded. The G-7 and 13 other countries agreed to support this country's adjustment efforts.
- Japan passed legislation to address the problems of its banking sector, and the Japanese government proposed a supplemental fiscal package, restoring some confidence in Asian markets.
- The yen appreciated sharply in October, reducing the risk of a devaluation by China that might have led to another round of devaluations in Asia. The stronger yen will also stimulate the exports of other East Asian countries to Japan and third-country markets, although it will raise debt-service costs for East Asian countries that have large amounts of yen-denominated debt.
- In mid-November the leaders of the member nations of the Asia-Pacific Economic Cooperation embraced a comprehensive strategy to accelerate recovery and restart growth. They undertook commitments to pursue prudent, growth-oriented macroeconomic policies, strengthen domestic financial institutions, and further liberalize trade and investment. The crisis-affected countries reaffirmed the importance of

restructuring the corporate and financial sectors to help revitalize the private sector. These countries also committed themselves to building and strengthening social safety nets to protect the poor and economically dislocated, with support from the multilateral development banks and the international community.

## THE CAUSES OF THE CRISIS

Identifying the cause or causes of the Asian crisis has engendered heated debate. Countries that experienced currency and debt crises in the past, such as the Latin American countries in the 1980s, typically shared several common characteristics. These included large budget deficits and a large public debt, high inflation as a result of monetization of those deficits, slow economic growth, and low saving and investment rates. (A deficit is said to be monetized when the central bank finances it by printing additional currency.) In Asia, in contrast, most of the economies engulfed by the crisis had enjoyed low budget deficits, low public debt, single-digit inflation rates, rapid economic growth, and high saving and investment rates.

The absence of the macroeconomic imbalances typical of past crises has led some to argue that the Asian crisis was not due to problems with the economic fundamentals. These analysts contend that the crisis represented an essentially irrational but nevertheless self-fulfilling panic, akin to a bank run, fueled by hot money and fickle international investors. (See Box 6-5 for a discussion of domestic bank runs.) Although speculative capital flight certainly exacerbated the crisis, it is now commonly agreed that, along with their many strong fundamentals, the East Asian crisis economies also shared some severe structural distortions and institutional weaknesses. These vulnerabilities eventually led to the crisis in the summer of 1997.

First, connected lending and, at times, corrupt credit practices rendered the financial sectors of the crisis economies fragile. Loans were often politically directed to favored firms and sectors. In addition, regulation and supervision of banking systems were notably weak, and implicit or explicit guarantees that the government would bail out financial institutions in trouble created moral hazard (see Box 6-5). These weaknesses contributed to a lending boom and overinvestment in projects and sectors, especially real estate and certain other sectors not exposed to international competition, that were risky and had low profitability; excess capacity also accumulated in some sectors whose goods were internationally traded. Before the crisis, speculative purchases of assets in fixed supply fed an asset price bubble in some economies, with equity and real estate prices rising beyond levels warranted by the fundamentals. Poor corporate governance and what has come to be called “crony capitalism” fed the distortions in the system and fueled the investment boom. Domestic and international capital

### **Box 6-5.—Moral Hazard in Financial Institutions**

Moral hazard is a key concept in the economics of asymmetric information, the study of transactions in which buyers and sellers differ in their access to relevant information. In general terms, moral hazard occurs whenever economic actors covered by some form of insurance pursue riskier behavior as a consequence.

Examples of moral hazard abound: insured homeowners, for instance, are more likely to build homes in a flood plain or in areas prone to wildfires, and less likely to install alarms and antitheft systems; insured drivers might drive more recklessly. If insurers can observe such behavior, they can penalize it through higher premiums. But if they cannot, they may try to regulate their clients' behavior and make sure that the client bears a portion of any losses. Sometimes these strategies are enough to mitigate moral hazard, but in extreme cases moral hazard may cause insurance markets to disappear entirely.

Banks are subject to a rather unique risk that both requires insurance and creates moral hazard. The risk is that a bank's depositors might suddenly, with or without good reason, lose confidence in the institution and seek to withdraw their funds en masse. Given that most of the assets of any bank are tied up in loans to clients, even a well-managed bank will quickly exhaust its cash reserves in the face of such a run. And any attempt to liquidate its other assets prematurely will diminish their value. Thus, even strong banks can fail if a bank run occurs, and the failure of one bank can cause runs on others.

Banks, of course, play a pivotal role in all modern economies, not only through their intermediation between saving and investment, but also through their operation of the economy's payments system.

liberalization may have aggravated the original distortions by allowing banks and firms to borrow more money at lower rates in international capital markets.

In Thailand, restrictions on entry into banking led to the growth of unregulated, nonbank finance companies, whose excessive borrowing intensified the real estate boom. Liberalization of international capital restrictions, for example through the establishment of the Bangkok International Banking Facility, enabled Thai banks and firms to borrow heavily abroad, in foreign currency, at very short maturities. No fewer than 56 of these heavily indebted finance companies were in distress even before the crisis and were eventually closed after the crisis broke.

In Korea, excessive investment was concentrated among the chaebols, the large conglomerates that dominate the economy. The

**Box 6-5.—*continued***

Most governments therefore provide both a system of deposit insurance, to discourage bank runs, and lender-of-last-resort facilities, to assure banks ample access to liquidity in emergencies. In addition, governments frequently rescue troubled financial institutions that are deemed “too big to fail,” that is, whose failure could do damage to the broader financial system or provoke a run on other institutions.

By reducing the risk faced by banks, however, such insurance mechanisms create moral hazard. With their loans largely funded from government-insured deposits, banks have an incentive to gamble by purchasing excessively risky assets. When things turn out well, shareholders reap the rewards; if things turn out badly, the government bears most of the cost. Bank depositors are similarly subject to moral hazard: if deposit insurance protects them from loss in the event their bank fails, they have little incentive to monitor the bank’s risk taking.

Insurance against bank runs thus comes at the inevitable expense of increased moral hazard. Even so, its provision may still be justified. What is clear, however, is that either implicit or explicit government guarantees call for effective prudential supervision and regulation of banks and the maintenance of strong capital adequacy standards to mitigate the effects of moral hazard.

In East Asia, implicit and explicit government guarantees were coupled with inadequate prudential supervision and regulation of banking systems. Perceived government guarantees may have encouraged foreign investors to lend more to Asian banks and monitor their loans less carefully than they would have otherwise. Moral hazard thus contributed to Asian banks’ excessive borrowing from abroad and excessively risky investing at home.

chaebols’ control of financial institutions, together with government policies of directed lending to favored sectors, led to overinvestment in such industries as automobiles, steel, shipbuilding, and semiconductors. By early 1997, well before the crisis hit Korea, 7 of the 30 main chaebols were effectively bankrupt.

In Indonesia, a large share of all bank credit consisted of directed credit, channeled to politically privileged firms and sectors. Although Indonesia had already suffered a banking crisis in the early 1990s, such practices remained widespread. Moreover, most of the borrowing was in foreign currency terms, compounding debtors’ inability to repay when the local currency depreciated. A large fraction of foreign banks’ lending to Indonesia was not intermediated through the domestic banking system but went to firms directly.

Empirical studies confirm that, by the eve of the crisis, the return to capital had fallen sharply in East Asia as the result of excessive investment. Studies document a rapid buildup of fixed assets throughout Asia between 1992 and 1996, with particularly rapid growth in Indonesia and Thailand. With most of this growth financed by debt (especially in Korea and Thailand), many corporations were already heavily leveraged by 1996, well before the currency crisis increased the burden of that portion of the debt denominated in foreign currency. At the same time, moderate to low profitability severely impaired the ability of many Asian firms to meet their interest obligations. In Korea, the average debt-to-equity ratio of the top 30 chaebols was over 300 percent by the end of 1996; by 1997 the return on invested capital was below the cost of capital for two-thirds of the top chaebols.

In spite of high saving rates, the investment boom in East Asia led to large and growing current account deficits, financed primarily through the accumulation of short-term, foreign currency-denominated, and unhedged liabilities by the banking system. Exchange rate regimes entailing semi-fixed pegs to the dollar exacerbated the problem in two ways. First, as the U.S. dollar appreciated between 1995 and 1997, so did the semi-pegged currencies. This worsened the trade deficits of those economies whose currencies were closely following the dollar. Second, the promise of relatively fixed exchange rates led borrowers to discount the possibility of a future devaluation, and thus to underestimate the true cost of foreign capital. Also, although budget deficits were low in most of the region, the implicit and explicit government guarantees of a bailout of the financial system in a crisis implied large and growing unfunded public liabilities, which only emerged once the currency crisis had triggered a wider banking crisis.

Disturbances originating outside of East Asia made these economies still more vulnerable to crisis. One such development was, for several economies, a slowdown of export growth in 1996 and a worsening of the terms of trade, partly associated with a slump in the world price of semiconductors. Another was the persistent stagnation of the Japanese economy throughout the 1990s. The resulting weakness of the yen caused an appreciation of those Asian currencies that were effectively pegged to the dollar. Yet another exogenous event was the emergence of China as a major regional competitor.

In 1997 the bubble burst. Stock markets dropped, and the emergence of widespread losses, and in some cases outright defaults, revealed the low profitability of past investment projects. Non-performing loans, already on the rise before the currency crisis, escalated, threatening many financial institutions with bankruptcy. In addition, the firms, banks, and investors that had relied heavily on external borrowing were left with a large stock of short-term, foreign currency-denominated, unhedged foreign debt that could not be easily repaid. The ensuing exchange rate crisis intensified this problem, as the

fall in local currencies dramatically increased the domestic currency value of the foreign-denominated debt, unleashing further financial pressures on banks and firms. The free fall of currencies was intensified by the sudden rush of firms, banks, and investors to cover their previously unhedged liabilities. Thus, accelerating depreciation aggravated the original foreign currency debt problem, creating a vicious circle.

Concern among investors about the commitment of governments to structural reforms heightened their uncertainty about policy, contributing to massive capital outflows. Although problems with the fundamentals likely triggered the crisis, currency and stock markets may also have overreacted, with panic, herd behavior, and a generalized increase in risk aversion producing a sudden reversal of capital flows, exacerbating the crisis.

The sharp reversal of capital flows to East Asia in the second half of 1997 is clearly evident in the data. Table 6-2 shows that net private flows to five Asian crisis countries (Indonesia, Korea, Malaysia, the Philippines, and Thailand), which had averaged \$90 billion per year in 1995-96, experienced a dramatic turnabout in 1997 to a net outflow of \$1 billion. This sharp reversal, amounting to about 10 percent of the combined GDPs of these countries, took place entirely in the second half of the year, as foreign investors fled and international banks sharply contracted their short-term loans. Commercial banks

TABLE 6-2.— *Five Asian Economies: External Financing*  
[Billions of dollars]

Item	1995	1996	1997	1998 (esti- mated)	1999 (pro- jected)
CURRENT ACCOUNT BALANCE .....	-41.0	-54.6	-26.3	58.5	43.2
External financing, net .....	81.5	100.6	28.8	-.5	-1.2
Private flows, net .....	79.0	103.2	-1.1	-28.3	-4.8
Equity investment, net .....	15.9	19.7	3.6	8.5	18.7
Direct equity, net .....	4.9	5.8	6.8	6.4	14.2
Portfolio equity, net .....	11.0	13.9	-3.2	2.1	4.5
Private creditors, net .....	63.1	83.5	-4.7	-36.8	-23.4
Commercial banks, net .....	53.2	65.3	-25.6	-35.0	-18.8
Nonbanks, net .....	9.9	18.2	21.0	-1.7	-4.6
Official flows, net .....	2.5	-2.6	29.9	27.8	3.5
International financial institutions .....	-.3	-2.0	22.1	21.6	-2.0
Bilateral creditors .....	2.9	-.6	7.9	6.1	5.5
Resident lending/other, net .....	-26.5	-26.8	-35.0	-16.9	-14.9
Reserves excluding gold <sup>1</sup> .....	-14.0	-19.3	32.5	-41.1	-27.0

<sup>1</sup> Minus sign indicates increase.

Note.— Countries are Indonesia, Malaysia, Philippines, South Korea, and Thailand.  
Detail may not add to totals because of rounding.

Source: Institute of International Finance.

withdrew \$26 billion in 1997. Although equity investments also lost value in 1997, the decisions by international commercial banks not to roll over their loans to Indonesia, Korea, and Thailand worsened the financial crisis and the currency collapse. It is estimated that net private outflows in 1998 were even larger than in 1997, amounting to some \$28 billion, driven again by large-scale bank withdrawals.

The drastic reversal of capital flows required a wrenching adjustment of the current accounts of the affected countries. Deficits in the current account (the aggregate of goods and services trade, investment income, and transfer transactions) can only be sustained as long as foreign lending is available to finance them. The withdrawal of that financing therefore resulted in higher domestic interest rates, depreciated currencies, and a sharp economic contraction, producing a substantial decline in imports and an abrupt about-face in the current account from deficit toward surplus. The aggregate current account balance of the five crisis countries moved from a deficit of \$55 billion in 1996 to one of only \$26 billion in 1997 (with most of the adjustment in the second half of the year) and an estimated surplus of \$59 billion in 1998. As private capital flows have fallen sharply, the role of financing external obligations has been transferred to the official sector (the IMF and other multilateral as well as bilateral official creditors) and to foreign reserves. Whereas in 1996 the five Asian countries made small net transfers to official creditors, in 1997 and 1998 they received net official flows of \$30 billion and \$28 billion, respectively. Moreover, whereas in 1995 and 1996 net private inflows in excess of current account imbalances led to sharp increases in the five countries' foreign exchange reserves, the turnaround of capital flows in 1997 led to a loss of reserves equaling \$33 billion.

The fundamentals in the crisis countries and the policies they followed thus go a good way toward explaining the reversal of capital flows in 1997. But the size of those flows and their concentration in the second half of 1997 suggest that, in addition to the debtors' excessive reliance on short-term bank debt, investor flight, especially by commercial banks, contributed to worsening the crisis. Calls for greater private sector involvement in crisis resolution (as proposed, for example, in the reports of the G-22 working groups, discussed in Chapter 7) recognize that the private sector needs to be involved in preventing financial crises and, should crises occur, needs to contribute constructively to their containment and orderly resolution. Indeed, the Korean crisis eased in early 1998 when commercial banks agreed to roll over about \$20 billion in loans to Korean banks by turning them into medium-term loans.

## THE CAUSES OF CONTAGION

Contagion, or the spread of market dislocations from one country to the next, has been observed in the behavior of exchange rates, stock

markets, and the sovereign spreads of emerging market economies. Some observers interpret this contagion in the same way they do the crisis itself, namely, as proof that markets are irrational and prone to unjustified panic. Various explanations based on economic fundamentals can also be adduced, however.

### *Common Shocks*

Contagion may be due to common economic shocks. For example, falling commodity prices hurt commodity-exporting countries. This can explain why the same shocks affected countries as distant from each other as Canada, Chile, Indonesia, Russia, and New Zealand.

### *Trade Linkages*

When one country devalues its currency, its competitive position improves relative to that of its major trading partners. The trading partners' currencies may then experience pressure as speculators recognize that their trade deficits are likely to rise. Another channel of contagion via trade occurs through income effects: a downturn in Japan depresses Asian exports to Japan, and vice versa. Trade linkages fostered the spread of the currency crisis within East Asia in 1997. Evidence suggests that contagion is related to the strength of trade links and regional factors.

### *Competitive Devaluations*

Contagion may also have resulted from the prospect, or simply the fear, of competitive devaluations among countries competing in third-country markets. For example, the first wave of currency declines in Asia in the summer of 1997 worsened the cost competitiveness of other economies throughout the region that initially maintained their nominal exchange rates fixed. This led to attacks on many of these currencies. Concerns about loss of competitiveness help explain, for example, the decisions of Taiwan and Singapore to allow their currencies to fall as the other regional currencies were depreciating. The weakness of the yen in 1997 and much of 1998 may also have provoked fears of competitive devaluations in the region.

### *Other Real and Financial Linkages*

Other links between countries' real and financial sectors may also serve as a conduit for contagion. If one country invests in and lends heavily to another, bad economic news in the latter will upset markets in the former. Pressures in the financial and currency markets of Hong Kong, Korea, and Singapore, for example, were related to the fact that these economies had heavily lent to, invested in, and traded with firms in Indonesia and the other crisis economies. Losses of this nature also affected banks and other financial firms in Japan, Europe, and the United States that had invested in East Asia, Russia, and Latin

America, and these linkages partly account for the contagion to industrial countries' financial markets.

### *Imperfect Information and Investor Expectations*

Yet another channel of contagion involves alterations in investors' perceptions concerning common structural conditions in different economies or likely policy responses. For example investors' belief in the strength of the Asian economic model may have changed when one of the star performers stumbled. The failure of financial institutions in one country may lead investors to believe, in the absence of better information to the contrary, that institutions in similar countries in the same region might be facing the same problems. Similarly, the unwillingness or inability of several Asian economies to defend their currencies more aggressively may have altered investors' views concerning the policy preferences of other economies in the region.

Contagion may also have resulted as investors changed their assessments of the odds of official bailouts. In mid-August 1998, Russia decided to devalue its currency, default on its debt, and impose exchange controls. Although Russia had been considered the classic example of a country deemed too important to fail, its inability to meet the conditions of its IMF program and its policy actions led to the interruption of further official assistance. These events shook international investors' confidence and, rightly or wrongly, increased their concern that other emerging markets might follow similar policies or might not be bailed out. Spreads on emerging market sovereign instruments had not previously priced in this possibility, and the resulting contagion to Brazil and the rest of Latin America was rapid and sharp.

### *Market Illiquidity*

Some large, highly leveraged financial institutions (including some hedge funds) lost money when Russia defaulted. They then, in effect, faced margin calls that forced them to liquidate their positions in other markets, providing yet another avenue of contagion. In markets that are imperfectly liquid, such sales will force down prices. The phenomenon thus points to the role played by market illiquidity in propagating contagion.

### *Shifting Risk Aversion and Investor Sentiment*

The explanations of contagion just outlined can be categorized as involving rational assessments on the part of market participants, based either on the actual fundamentals or their perceptions thereof. Other hypotheses advanced to explain the phenomenon are based on "irrational" investor behavior. Some argue that, as volatility in financial markets increased, investors simply withdrew en masse, without distinguishing among emerging markets according to their fundamentals. Phenomena such as financial panic, herd behavior, loss of

confidence, and a generalized increase in risk aversion may indeed have played some role in the spread of the crisis in 1997-98 within Asia, from Asia to Russia, from Russia to Latin America and other emerging markets, and eventually to G-7 capital markets.

One indication of increased risk aversion among investors is the sharp increase in sovereign spreads in the summer of 1998 (see Box 6-4). Explaining so large an increase in spreads in many countries without resort to increased risk aversion requires the unlikely assumption that the perceived probability of sovereign defaults had risen to very high values in many emerging markets. For example, the sharp increase in spreads experienced by Argentina, whose probability of default was surely not extremely high, provides evidence of an increase in risk aversion.

## THE POLICY RESPONSE TO THE CRISIS

### THE ROLE OF THE INTERNATIONAL COMMUNITY

The international community (chiefly the IMF, the World Bank, the Asian Development Bank and the G-7) moved quickly to stem the spreading financial crisis. The United States encouraged the rapid development of financial stabilization packages to respond to requests for support, first from Thailand in July 1997 and later from Indonesia and Korea. As a condition for financial assistance, the IMF has generally required substantial economic reforms, including banking sector restructuring and, initially, fiscal discipline and the maintenance of high interest rates to curb capital outflows and currency attacks. The objective of these programs has been to restore investor confidence by tackling the root causes of the crisis in each country. For this reason, the programs went beyond addressing major fiscal, monetary, or external imbalances, and sought to strengthen financial systems, improve government policymaking and corporate governance, enhance transparency of policies and economic data, restore economic competitiveness, and modernize the legal and regulatory environment. The IMF's practice of making its lending dependent on such policy programs, which it continues to monitor and enforce as funds are being disbursed, is termed "conditionality." The IMF makes every effort to work with countries to identify reforms consistent with their circumstances, and the conditions negotiated can be altered over time if the economy does not respond as expected.

In the Asian crisis, the IMF-supported programs evolved as the dimensions of the crisis became clearer. The Indonesian case provides a striking example. The initial IMF package of October 1997 required strict fiscal discipline. In June 1998 a renegotiated agreement allowed the country to run a budget deficit of as much as

8.5 percent of GDP in 1998. Indonesia's economic performance had deteriorated, as policy uncertainty, political turmoil, and violence worsened the economic outlook through the summer of 1998. As a result, budget deficits had automatically risen. The IMF recognized that, in this context, the additional fiscal stringency needed to counter such a passive deterioration of the budget deficit would prove counterproductive.

In those countries that implemented IMF policy reforms most assiduously, particularly Korea and Thailand, the stabilization packages were successful in calming financial markets and creating the basis for growth to resume. A measure of financial stability returned in these countries in 1998 as the packages were implemented. Both countries saw their currencies appreciate in the first half of 1998 after sharp drops in 1997; domestic interest rates fell back to precrisis levels by the summer; trade balances improved substantially; and foreign reserves began to increase again. The financial crisis produced severe real consequences in both countries, as economic activity dropped sharply in 1998 and recessions began. However, by the late fall of 1998 some signals suggested that both economies may have bottomed out and that economic recovery might start in 1999. In particular, both economies saw an increase in real exports and some tentative signs of a recovery in economic activity.

## THE MOTIVATION OF THE IMF PROGRAMS IN ASIA

The severity of the Asian crisis has led some critics to challenge the IMF's approach and the wisdom of the measures that it imposed. Several criticisms can be distinguished.

### *Structural Reforms*

One criticism relates to the breadth of the restructuring efforts that the IMF required. Critics contend that the IMF has intruded excessively in the domestic affairs of crisis countries by insisting on structural reforms, which lie beyond its traditional competence in the area of macroeconomic adjustment. However, an effective rescue strategy had to address the factors responsible for the crisis, and these were primarily structural rather than macroeconomic. IMF lending would have served little purpose if the weaknesses in the financial sector (ranging from poor bank supervision and regulation to murky relations among governments, banks, and corporations) were not addressed. Similarly, improved corporate governance and an end to crony capitalism, on which the IMF insisted, would help countries avoid future crises. Market analysts had made it plain that halfhearted reform efforts would do little to restore market confidence.

The IMF's focus in the Asian crisis on structural reform, rather than only on macroeconomic issues, represents neither an unprecedented expansion of its domain nor an unwarranted intrusion into areas

beyond its competence. The IMF's approach to crisis management has always evolved over time in response to the changing problems faced by the world economy. For example, after 1973 the IMF turned its attention from the balance of payments problems of the industrial countries, which by then had abandoned fixed exchange rates, to the problems of developing countries, many of which were newly independent. Similarly, it adopted new approaches in response to the international debt crisis of the 1980s and adapted its policies to aid the transition of the former Soviet bloc countries to market economies after 1990. It is appropriate and desirable that an international agency adapt and evolve in response to developments in the world economic system.

### *The Prescription of Tight Monetary Policies*

A second criticism relates to the IMF's monetary policy conditions, in particular its insistence on high interest rates to limit currency depreciation. Critics contend that high interest rates stifle growth and lead to the bankruptcy of otherwise viable firms. The logic of the IMF's high interest rate strategy was to contain the extent of currency depreciation. Like high interest rates, a plummeting currency in countries with large net external liabilities also stifles growth, by increasing the debt burden of banks and other firms whose debts are denominated in foreign currencies. The result is financial distress, bankruptcy, and economic contraction. Arguably, the failure of Malaysia and Indonesia to raise interest rates sufficiently following the run on the Thai baht may have been responsible for the destabilizing depreciations of their currencies that followed. Moreover, the surge in Indonesia's inflation rate reminds us that a loose monetary policy can rapidly ignite inflation expectations.

### *Restrictive Fiscal Policies*

A third criticism is that the fiscal policy requirements in the IMF plans were unnecessarily strict. At the onset of the crisis, the Asian countries under attack were running small budget deficits or even fiscal surpluses and had achieved relatively low ratios of public debt to GDP. A loosening of fiscal policies as soon as the crisis broke would most likely have raised doubts about policymakers' commitment to reduce outstanding current account imbalances, jeopardizing the credibility of their plans. Also, even though fiscal deficits and public debt were typically low before the crisis, the crisis itself changed that picture: the projected fiscal costs of financial bailouts in several Asian countries were estimated in the range of 20 to 30 percent of GDP. Extra public liabilities of this magnitude translates into a permanent increase in the domestic interest bill paid by Asian governments of 2 to 4 percent of GDP per year. The IMF's fiscal plans, which were negotiated on a country-by-country basis, were targeted to raise the neces-

sary revenues to meet these extra interest costs. They were not just fiscal discipline for fiscal discipline's sake.

However, when recessions in the crisis countries materialized during 1998, the IMF progressively loosened its fiscal conditions to permit fiscal deficits on cyclical grounds and to accommodate programs to address the social consequences of the crisis. Like those of other countries, the economies of the crisis countries benefit from the use of fiscal policy as a counterweight to recession. It must be acknowledged, too, that the year's revelations about the size and depth of the recessionary effects of the crisis surprised not only the Asian governments and the IMF, but also the vast majority of country analysts.

### *Moral Hazard*

Not all the IMF's critics claim that its measures have been too austere. Indeed, some have argued that the generosity of the IMF's rescue packages creates moral hazard, by leading international investors to lend carelessly and inducing domestic governments to engage in risky policies in the expectation that they would be insulated from the adverse consequences of their decisions by international assistance. However, several objections can be raised against the view that the expectation of an IMF bailout contributed importantly to the crisis, and against the overly simplistic view that the IMF in fact bailed out all investors in Asia. On the borrower side, it is hard to imagine that the availability of international support in the event of a crisis does much to induce moral hazard on the part of governments. Governments have strong incentives to avoid both the economic turmoil that a crisis produces and the strict and politically unpopular conditions that come with IMF support. Moreover, on the lender side, a majority of private creditors, especially bondholders and equity investors, have sustained huge losses even where official assistance was provided. By the end of 1997, foreign equity investors had lost nearly three-quarters of their holdings in some Asian markets. Only commercial banks were spared, and that only partially. For example, although foreign banks operating in Korea demanded and got public guarantees on bank loans as a precondition for rolling over existing loans, the conditions for these rollovers entailed a burden on these creditors. Their short-term loans were converted into medium-term loans at interest rates only a few hundred basis points above U.S. Treasury rates. Finally, although some have claimed that the Mexican rescue package in 1995 raised expectations of future bailouts and thus encouraged the later surge of capital flows to Asia, no direct evidence has been adduced to support this theory.

Even if these moral hazard concerns were judged to have some validity, they would still need to be balanced against the heavy economic and human costs of inaction. Failure of the international community to respond to a crisis, leaving countries and creditors to sort out their

debts on their own, could well result in extraordinary costs all around. A lesson from the debt crises of the interwar period and the 1980s is that an official hands-off strategy requires that debtors and creditors engage in complex negotiations over a long period. During that time access to international markets is curtailed, long-term growth is drastically reduced, and the human toll may be exorbitant. Also, the experience of the 1990s suggests that highly interdependent economies can be subject to the rapid transmission of speculative waves of financial panic across regions. Therefore failure to address a local crisis with an appropriate program of international assistance, restoring market confidence promptly, may greatly increase the chances of a systemic chain reaction.

## U.S. SUPPORT OF IMF FUNDING

Since the crisis began, the United States has supported the IMF's role in extending financial support to crisis countries on a conditional basis. However, as the crisis progressed, it became apparent that it threatened even those countries that had made great progress in implementing sound macroeconomic and structural policies and had worked to strengthen the fundamentals of their economies. To deal with such threats, the United States was joined by the other G-7 countries in proposing an enhanced IMF facility to support countries with good economic fundamentals and sound, IMF-approved policies, to help them fight off contagion. This initiative builds on the establishment, in late 1997, of a new IMF facility to provide large-scale financing in exceptional circumstances, at shorter maturities and higher interest rates than under normal IMF financing.

The United States also recognized that if the IMF is to continue to play its critical role in countering contagion, its resources had to be expanded. With its nearly worldwide membership, broad experience, and sophisticated skills in financial crisis management, the IMF is the proper organization to take the lead in handling such episodes. Through the IMF, moreover, the United States succeeds in leveraging its own contributions toward crisis resolution. This Administration recognized that the United States could not expect to exert leadership in resolving the crisis unless it met its own fair share of the obligations of all IMF members. Therefore, the President requested, and the Congress agreed last year, to provide \$18 billion in much-needed new funding to the IMF. Of this amount, \$14.5 billion represents the U.S. share of a quota increase applying to all IMF members. The remaining \$3.5 billion represents the U.S. contribution to a new backup source of financing called the New Arrangements to Borrow (NAB).

Many observers have misunderstood the consequences of IMF funding legislation for the Federal budget. Corresponding to any transfer to the IMF under the U.S. quota subscription or the NAB, the United States receives a liquid, interest-bearing claim on that institution,

which is considered a monetary asset. Thus, funds provided to the IMF are not treated as outlays in the Federal budget.

The President urged the world's major economies to stand ready to activate the \$15 billion remaining in the IMF's existing emergency fund—the General Arrangements to Borrow (GAB)—to ensure the IMF's continued ability to support reform and fight contagion. The approval of the NAB doubled these emergency funds. Under the NAB, as under the GAB, IMF members whose currencies are relatively strong will stand ready to lend to the IMF when supplementary resources are needed, to forestall or cope with an impairment of the international monetary system, or to deal with an exceptional situation that threatens the system's stability. The resources available to the IMF under the GAB and the NAB combined will amount to as much as \$48 billion. The NAB was activated shortly after it entered into effect on November 17, 1998, to help finance the IMF arrangement for Brazil, which its executive board approved on December 2.

### NEW INITIATIVES TO RESTORE GROWTH IN EAST ASIA

In addition to supporting the IMF, the United States has recognized the need to do more to help crisis countries get back on their feet, to restore growth, and to mitigate the suffering inflicted on so many people in the countries affected.

The Asian Growth and Recovery Initiative, announced jointly by the United States and Japan at the summit of APEC leaders in Kuala Lumpur in November of last year, includes innovative financing schemes aimed at accelerating bank and corporate restructuring in the crisis-afflicted economies of East Asia. In Indonesia, Korea, and Thailand, for example, the combination of initially high interest rates and illiquidity has led to harsh recessions and a vast overhang of bad debt. Corporate debt-to-equity ratios, which as we have seen were already very high before the crisis, became unsustainable once the crisis struck, as a result of real currency depreciation and the burden of high real interest rates. When highly leveraged companies cannot service their debt, a self-reinforcing spiral is created in which banks' cash flows are squeezed, forcing them to contract new lending not only to the illiquid corporations but to those in better health as well. The object of bank and corporate restructuring is to restore the flow of credit and restructure corporate balance sheets, so that firms in these countries can get back to business, and to strengthen the corporate governance of these firms.

To ensure that the crisis-impacted countries maintain access to critical imports, and to help American businesses continue selling abroad, the Export-Import Bank will establish new short-term credit facilities for critical Asian and Latin American markets. The United States will coordinate its efforts with those of the other leading industrial nations to ensure that trade credit continues to flow. Moreover,

the Overseas Private Investment Corporation (OPIC) has developed a new financial instrument to help emerging market economies raise money in international capital markets. Its aim is to keep private capital flowing to crisis-impacted but deserving economies.

The severe economic downturn experienced in East Asia has caused sharp increases in unemployment and poverty, jeopardizing the substantial strides the East Asian economies had made over several decades in alleviating poverty and raising real incomes. The social costs of the crisis have been enormous, and made much worse by the absence of developed social safety nets, such as unemployment insurance and efficient welfare programs. The President has therefore asked the World Bank and the Asian Development Bank to double their aid through an expanded Social Compact initiative, with a focus on strengthening the social safety net. The emphasis would be on job assistance, basic needs, and aid to children, the elderly, and other groups especially vulnerable to economic distress.

## REFORM OF THE INTERNATIONAL FINANCIAL ARCHITECTURE

Even as it worked to mitigate the impact and contain the spread of the crisis, the Administration collaborated with other countries to find ways to strengthen the international financial system to make it less prone to future crises. Discussions in 1998 concerning the reform of the international financial architecture culminated in the October publication of three reports on the subject. The reports were written by working groups formed by the G-22, a group of systemically significant industrial and emerging market economies, first brought together in April 1998. The G-22 reports are discussed in Chapter 7.

## JAPAN'S ECONOMIC AND FINANCIAL CRISIS

Japan, the leading economy in Asia, inadvertently played an unfortunate role in the emergence and spread of the Asian crisis. Throughout the 1990s Japan has suffered a hangover from the bursting of stock market and land bubbles at the end of the 1980s. In 1996, after 4 years of disappointing growth, it appeared that the Japanese economy was finally recovering. But a large increase in the Japanese consumption tax in April 1997, implemented to address Japan's large fiscal deficit and longer term demographic pressures on its budget, caused the country to lapse into recession in the second quarter of that year.

Japan's economic weakness likely contributed to the Asian crisis through several channels. Weak growth at home reduced Japan's demand for imports from the rest of East Asia. Japanese banks, in fragile condition after the bursting of the 1980s bubble, were further weakened by a stagnant economy in the 1990s. Facing low interest

rates at home, they sought higher returns through large-scale lending to the fast-growing East Asian economies. Although U.S. and European banks had also lent extensively in the region, Japanese banks had the largest cross-border and foreign currency lending of any industrial country banks to the Asian crisis economies. Thus, Japanese banks and securities firms were particularly hard hit when the crisis erupted. As the crisis escalated, and as Japan's own economic crisis deepened in 1997 and 1998, many Japanese banks, faced with significant losses, recalled foreign loans in order to avoid a domestic lending squeeze.

Japan's role in the Asian crisis contrasts sharply with the U.S. role in the Mexican crisis of 1995. Whereas a strongly expanding U.S. economy helped Mexico avoid a worse outcome, the weakness of Japan's economy and financial institutions undoubtedly added to Asia's woes. In turn, the significant decline in Japan's own exports to the crisis countries, along with the losses suffered by its financial institutions on their Asian loans, have hit Japan's vulnerable economy hard, adding to its domestic difficulties.

Japan remained in recession throughout 1998. Real growth over the four quarters of 1997 amounted to -0.4 percent. Real GDP in the first half of 1998 was down 3.8 percent at an annual rate, and few if any signs of recovery were in evidence by the end of the year. Japan risks descent into a deflationary spiral in which falling prices cause high real interest rates, further discouraging spending.

In response to the deepening contraction and a growing credit crunch, the Japanese government has taken several significant policy steps. In the fall of 1998, legislation was approved providing public funds to address the problems of the banking system. Of the 60 trillion yen (about \$500 billion) in the package, about 30 percent has been earmarked for protection of depositors, 40 percent to recapitalize weak banks, and 30 percent to purchase the shares of nationalized banks. Although questions remain about its implementation and effectiveness, the banking reform bill is a necessary step toward restructuring Japan's financial system.

To stimulate growth, the Japanese government announced a 17-trillion-yen fiscal stimulus package in April 1998, including both public works expenditures and tax reductions. As the contraction continued to intensify, however, the Japanese government proposed further expansionary fiscal measures in the fall. In November it announced a plan to pass a third supplementary budget aimed at implementing over 17 trillion yen in additional public works and other spending measures in 1999, along with more than 6 trillion yen in tax cuts.

As the world's second-largest economy, Japan has a key role to play in maintaining global economic growth. The United States has urged Japan to take strong and sustained fiscal measures to stimulate domestic demand, restore confidence, deal promptly and effectively

with its banking problems, and open its markets and deregulate its economy. Japan's performance will help determine the prospects for Asia's recovery.

## EFFECTS OF THE EMERGING MARKETS CRISIS ON THE UNITED STATES

### MACROECONOMIC EFFECTS

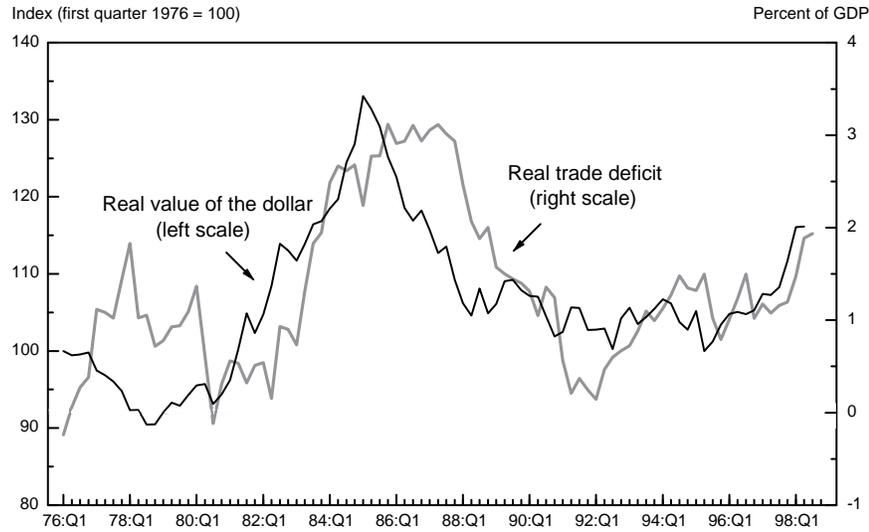
The United States enjoyed strong economic growth before the onset of the Asian crisis and has continued to do so since. But the crisis has had an impact, both real and financial. One consequence has been a marked decline in net exports and a widening of the trade deficit. The growing trade deficit (Chart 6-3) is largely attributable to three factors: faster income growth in the United States than in most other industrial countries, which raises imports; outright contraction in Japan and much of the rest of East Asia, which cuts U.S. exports; and an appreciation of the dollar in both nominal and real terms relative to both European and Asian currencies, and particularly the yen (from mid-1995 until September 1998). Since the summer of 1998 the dollar has depreciated against the yen, but the fall of the dollar against the other G-10 currencies is still modest on a trade-weighted basis (Chart 6-4).

Two sectors adversely affected by the crisis were agriculture and manufacturing. Shrinking exports and low prices (attributable partly to the financial crisis, and partly to large global supplies of agricultural commodities following bumper harvests), on top of bad weather in some regions, led to a fall in farm incomes. In manufacturing, both export industries and industries that compete with imports sustained damage. The commercial aircraft industry, for example, suffered from the fall of exports to Asia. The steel industry and the textiles and apparel industry have come under import pressure as the dollar's appreciation reduced the price of imports from the crisis countries. As discussed in Chapter 2, U.S. financial markets also felt the impact, and financial institutions have suffered losses on their emerging market loans and investments.

The appreciation of the dollar since 1995 (illustrated in Chart 6-4) also had a number of beneficial effects at home. Import prices have fallen, especially for oil and other commodities, contributing to the drop in inflation and improving the U.S. terms of trade (Chart 6-5). The terms of trade is a measure of the prices at which we sell our goods abroad, relative to the prices we pay for imports. An increase in the terms of trade translates into increased purchasing power of U.S. goods in world markets and higher real U.S. income. A strong dollar and subdued inflation have also supported lower interest rates, both short and long term, benefiting households, firms, and other borrowers.

**Chart 6-3 Real Value of the Dollar and the Trade Deficit**

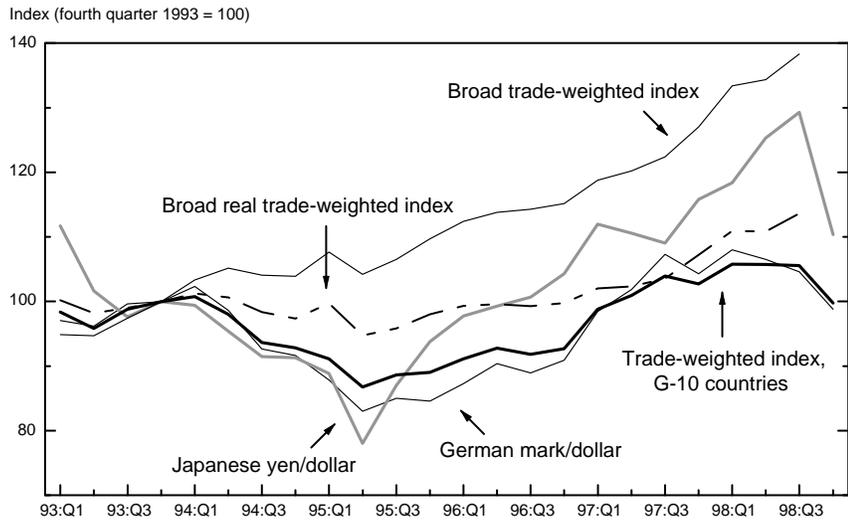
The trade deficit is a macroeconomic phenomenon: increases typically follow an appreciation of the dollar.



Sources: Department of Commerce (Bureau of Economic Analysis) and Federal Reserve Bank of Dallas.

**Chart 6-4 Dollar Exchange Rates**

The dollar has fluctuated sharply against the currencies of Japan and other major trading partners, but less sharply against broader indexes of foreign currencies.



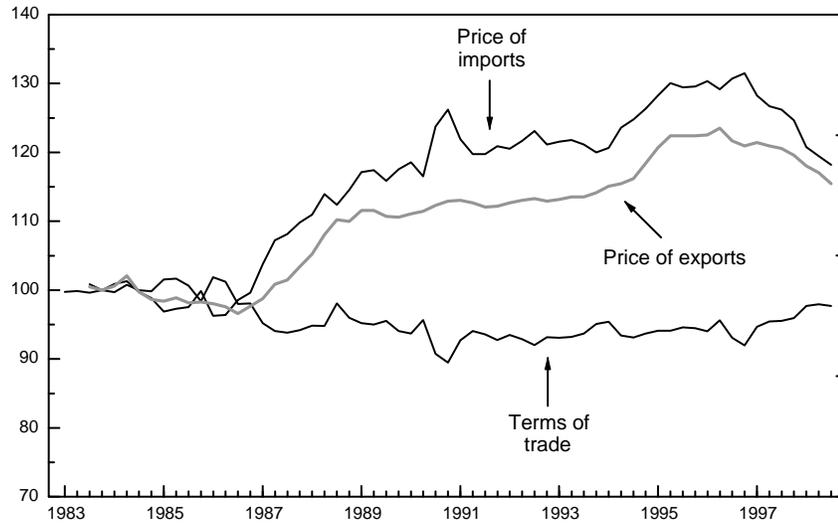
Note: The broad trade-weighted index is relative to 129 trading partners; the real measure is relative to 111, and is adjusted for domestic inflation. A rise in an index indicates an appreciation of the dollar.

Sources: Board of Governors of the Federal Reserve System and Federal Reserve Bank of Dallas.

### Chart 6-5 Terms of Trade

Import prices have fallen more than export prices since the onset of the Asian crisis, leading to an improvement in the terms of trade.

Index (fourth quarter 1983 = 100)



Source: Department of Labor (Bureau of Labor Statistics).

## THE TRADE AND CURRENT ACCOUNT DEFICITS

### *The Short-Term Behavior of the Trade Imbalance*

In 1998, faster U.S. growth relative to growth in our trading partners combined with the continued appreciation of the dollar to exert a powerful impact on the U.S. trade balance. The deficit in trade in goods and services rose substantially. Based on data for the first 11 months of the year, it now appears that the deficit for 1998 will be in the neighborhood of \$170 billion, up from \$110 billion in 1997. Compared with 1997, it appears that exports of goods and services in 1998 will be down about 1 percent, whereas imports of goods and services will be up about 5 percent. Relative to past trends, the decline in exports is by far the more striking of the two figures.

A large fraction of the increase in the dollar value of the trade deficit is related to the decline in exports to Asia; the contribution of import growth to the increased nominal value of the deficit has been quite modest thus far. The decline in exports to six key East Asian countries (Indonesia, Japan, Korea, Malaysia, the Philippines, and Thailand), measured at an annual rate, was running at \$25 billion to \$30 billion in the fall of 1998. Korea alone accounted for almost two-fifths of the decline. Imports from these countries have also risen, continuing an upward trend that has persisted for several years.

The increase in the trade deficit and the negative contribution of increased imports are larger when measured in real terms rather than as nominal dollar values, because import prices have fallen more than export prices. The dollar prices of imports from four East Asian economies (Hong Kong, Korea, Singapore, and Taiwan) fell 10.8 percent between August 1997 (at the onset of the Asian crisis) and December 1998; the dollar prices of U.S. imports from Japan declined by 4.7 percent over the same period. Although measures of import prices for the other Asian crisis economies are not available, it is likely that they fell by even more, because the depreciation of their currencies against the dollar was greater. Sharp drops in the global prices of many primary commodities have also exerted downward pressure on U.S. import prices. Import prices for petroleum products were 43.0 percent lower in December 1998 than in August 1997; import prices for agricultural goods declined 3.3 percent over the same period. Despite their overall decline, the prices of U.S. imports from the Asian economies have fallen by a smaller percentage than the values of their currencies have against the dollar. This implies that the pass-through from the depreciations to the decline in import prices has so far been less than full. Because U.S. export prices have also fallen, the decline in exports of goods and services was more modest when measured in real rather than nominal terms.

#### *A Longer-Term Perspective on the Current Account*

International trade has contributed greatly to growth and well-being in the United States. Nevertheless, some contend that the large and growing U.S. trade deficit costs American workers jobs; others argue that it reflects unfair trade practices of our trading partners or signals a loss of U.S. competitiveness in world markets. The growing trade deficit has indeed been associated with dislocations in some manufacturing industries, but job gains in construction, services, information technology, and other sectors not directly involved in international trade have been greater than job losses in manufacturing. Arguments about the adverse consequences of trade deficits are largely misplaced: the rising U.S. trade deficit is primarily a reflection of strong U.S. investment, employment, and output growth, not a symptom of economic weakness.

*The current account and the saving-investment balance.* Unraveling misconceptions about the trade deficit requires an understanding of the trade balance and a closely related concept, the current account balance. A country's trade balance is equal to the difference between the value of its exports and the value of its imports—in other words, the value of goods and services sold by its residents to foreigners minus the value of the goods and services that its residents buy from foreigners. The current account balance simply adds other sources of foreign income to the trade balance, to arrive at a complete accounting

of the economy's current transactions (as distinct from its capital transactions, such as borrowing in the form of foreign loans). The most important of these other sources are interest and investment earnings received on foreign assets (and paid on foreign liabilities), and aid grants and transfers.

A country's current account balance also equals the difference between its gross national income (the sum of gross domestic production and net income received from abroad) and its spending (the sum of private and public consumption and investment spending). Since national saving is the difference between gross national income and total consumption, the current account is also equal to the difference between national saving and domestic investment. If a country's national income exceeds its spending, or, equivalently, if national saving exceeds domestic investment, the current account will be in surplus. If instead a country spends (that is, consumes and invests) more than its national income, investment will exceed saving, and the current account will be in deficit.

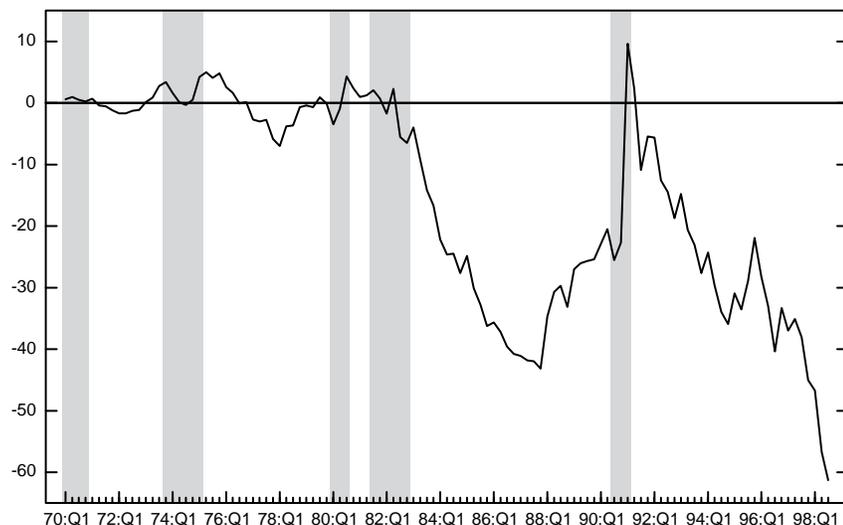
For the current account to be in deficit—that is, for investment to exceed saving—a country must be able to finance that deficit through capital inflows (borrowing) from the rest of the world. A country's current account deficit for a given period therefore equals the increase in its net foreign liabilities in that period (or the decline in its net foreign assets, if the country is a net creditor). Conversely, current account surpluses, which reflect an excess of saving over investment, increase a country's net foreign assets (or reduce its net foreign liabilities).

*Business cycles, long-run growth, and the current account.* The argument that current account deficits inevitably cause a net loss in jobs and output is at odds with the evidence. Rapid growth of production and employment is in fact commonly associated with large or growing trade and current account deficits, whereas slow output and employment growth is associated with large or growing surpluses. Chart 6-6 shows, for example, that the U.S. current account improved during the recessions of 1973-75, 1980, and 1990-91, but declined during the cyclical upswings of 1970-72, 1983-90, and 1993 to the present. This reflects both a decline in demand for imports during recessions and the usual cyclical movements of saving and investment. During a recession both saving and investment tend to fall. Saving falls as households try to maintain their consumption patterns in the face of a temporary fall in income; investment declines because capacity utilization declines and profits fall. However, because investment is highly sensitive to the need for extra capacity, it tends to drop more sharply than saving during recessions. The current account balance thus tends to rise. Consistent with this, but viewed from a different angle, the trade balance typically improves during a recession, because imports tend to fall with overall consumption and investment demand. The converse occurs during periods of boom, when sharp increases in

Chart 6-6 **Current Account Balance**

The current account balance has been positive and/or increasing during recessions and has decreased during periods of economic expansion.

Billions of dollars



Source: Department of Commerce (Bureau of Economic Analysis).

investment demand typically outweigh increases in saving, producing a decline of the current account. Of course, factors other than income influence saving and investment, so that the tendency of a country's current account deficit to decline in recessions is not ironclad.

The relationship just described between the current account and economic performance typically holds not only on a short-term or cyclical basis, but also on a long-term or structural basis. Often, countries enjoying rapid economic growth possess structural current account deficits, whereas those with weaker economic growth have structural current account surpluses. This relationship likely derives from the fact that rapid growth and strong investment often go hand in hand. Whether the driving force is the discovery of new natural resources, technological progress, or the implementation of economic reform, periods of rapid economic growth are likely to be periods in which new investment is unusually profitable.

Investment must, however, be financed with saving, and if a country's national saving is not sufficient to finance all new profitable investment projects, the country will rely on foreign saving to finance the difference. It thus experiences a net capital inflow and a corresponding current account deficit. The current account deficit is then merely the result of thousands of individual firms issuing debt or equity or borrowing from banks to finance investment. As long as these individual decisions are sensible, the associated current account deficit

should promote, not detract from, economic welfare. If the new investments are profitable, they will generate the extra earnings needed to repay the claims contracted to undertake them. Thus, when current account deficits reflect strong, profitable investment programs, they work to raise the rate of output and employment growth, not to destroy jobs and production.

Historically, countries at relatively early stages of rapid economic development, such as Argentina, Australia, and Canada in the early part of this century, have enjoyed an excess of investment over saving, running large structural current account deficits for long periods. The same general pattern has held in more recent times: faster growing developing countries have generally run larger current account deficits than the slower-growing mature economies.

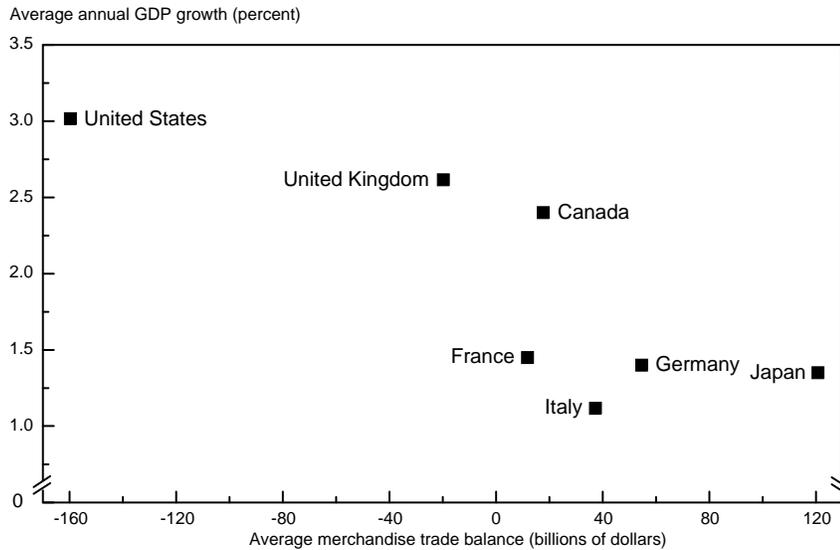
The link between trade and current account deficits and growth is also confirmed by comparing the U.S. trade balance with those of its G-7 partners since the recovery from the 1990-91 recession. Charts 6-7 and 6-8 show a clearly negative correlation between output growth and the trade balance, and between employment growth and the trade balance, respectively. The United States enjoyed the fastest output and employment growth—and the largest trade deficit—among the countries shown. Conversely, Japan had the largest trade surplus, but the second-slowest rate of growth. Trade surpluses are also the norm in Europe, where growth of output and employment has been disappointing. Similarly, unemployment in the United States has been low and falling since 1993, a period during which unemployment has remained high in Europe and has been growing rapidly in Japan.

*Budget deficits and the current account.* Although current account deficits are not usually a cause for concern when they reflect strong investment opportunities, they may be worrisome if they instead reflect a decline in national saving. Since national saving includes the government's own saving or dissaving, one cause of a growing current account deficit can be rising government budget deficits. Such deficits may be harmful, resulting in an unsustainable buildup of foreign debt, if the government spending they permit is devoted to current consumption rather than productivity-enhancing public investment.

For example, in the late 1970s many developing countries ran large budget deficits, borrowing heavily in world capital markets to finance them, and accumulating large foreign debts in the process. Much of this borrowing went to support excessive government spending in the face of insufficient tax revenue. By 1982 many of these governments were having difficulty servicing their foreign debts. A severe debt crisis erupted in that year, forcing many countries to negotiate a rescheduling of their foreign liabilities to avoid default.

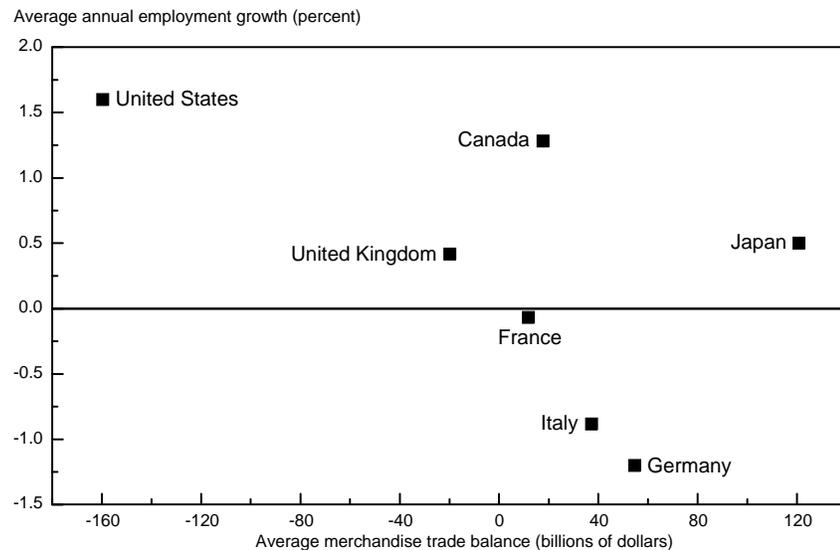
The large U.S. current account deficits of the 1980s, also driven by large fiscal deficits, were a matter of concern for the same reason. These "twin deficits," as they were labeled, led to high real interest

**Chart 6-7 Economic Growth and Trade Balances of G-7 Countries, 1992-97**  
 Across the major industrial countries, positive trade balances have been associated with weak economic performance.



Source: Organization for Economic Cooperation and Development.

**Chart 6-8 Employment Growth and Trade Balances of G-7 Countries, 1992-97**  
 Across the major industrial countries, positive trade balances have also been associated with weak employment performance, and vice versa.

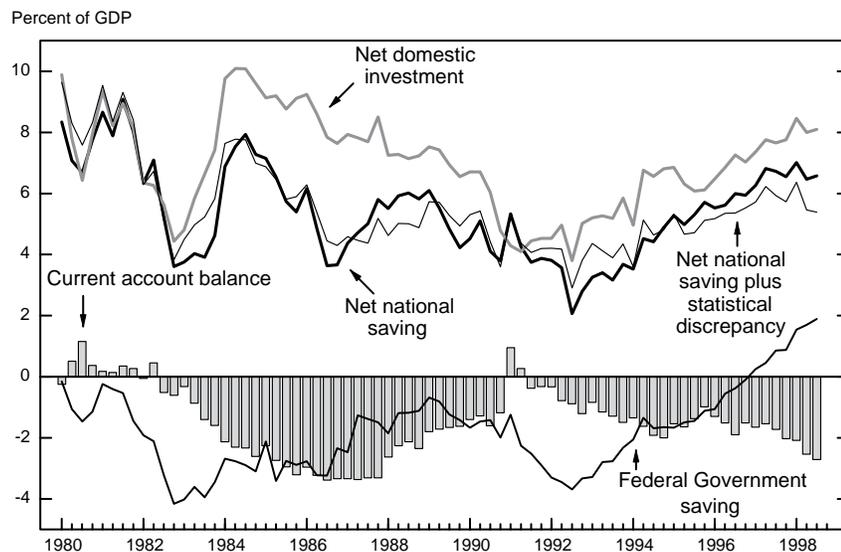


Source: Organization for Economic Cooperation and Development.

rates, a crowding out of productive investment (as evidenced by a fall in the national investment rate after its recovery from the 1982 recession), and a reduction in long-run growth opportunities. Chart 6-9 presents the U.S. current account deficit, the national and public

(Federal Government) saving rates, and the domestic investment rate. Conceptually, the current account is equal to net foreign investment, which is the difference between national saving and domestic investment; in practice, however, this equality may be obscured by measurement errors, which have been large in recent years both in the international transactions accounts and in the national income and product accounts. Thus, although over time there is a strong correlation between the current account balance and the saving-investment balance, in any given period the two measures may move in different directions. Chart 6-9 clearly shows the twin deficits of the 1980s: as fiscal deficits increased in an environment of tight monetary policy in the early 1980s, the dollar appreciated in real terms, and the current account moved into substantial deficit. The crowding out of productive investment, due to the high real interest rates associated with the fiscal deficit, is suggested by the fall in the investment rate between 1984 and 1990. The current account improved during the 1990-91 recession as the investment rate slumped sharply.

**Chart 6-9 Saving, Investment, and the Current Account Balance**  
 The current account deficit grew in the mid-1980s as saving fell faster than investment. In the 1990s, however, both investment and saving are increasing.



Source: Department of Commerce (Bureau of Economic Analysis).

During the 1990s the Federal budget deficit first declined, then disappeared, and finally turned to a surplus in 1998. National saving increased as a consequence, despite a decline in the personal saving rate. Even so, the current account deficit has again increased. However, this increased deficit can be viewed as virtuous, because it has been driven by an even stronger increase in the pace of domestic

investment. The U.S. gross investment rate rose from a low of 12.2 percent of GDP in the middle of 1991 to 16.0 percent in the third quarter of 1998.

The investment boom that the United States has enjoyed since 1993 has contributed to expanding employment and output and will provide payoffs for many years to come. It could not, however, have been financed by national saving alone: a current account deficit provided the additional capital inflow needed to finance the boom. In the absence of foreign lending, U.S. interest rates would have been higher, and investment would inevitably have been constrained by the supply of domestic saving. Therefore, the accumulation of capital and the growth of output and employment would all have been smaller had the United States not been able to run a current account deficit in the 1990s. Rather than choking off growth and employment, the large current account deficit, perhaps paradoxically, allowed faster long-run growth in the U.S. economy.

*The Asian crisis and the current account deficit.* The experience of the Asian crisis countries demonstrates that current account deficits can be dangerous not only when they finance unsustainable budget deficits but also when they finance investments of low profitability. As already noted, the crisis-afflicted East Asian economies all enjoyed high saving rates. Their large current account deficits were attributable to their even higher investment rates. Even so, the buildup of debt deriving from these current account imbalances became unsustainable, because, as discussed above, distortions in the operation of East Asian financial systems led to excessive investment in low-profitability projects. Investment-driven current account deficits enhance economic welfare only when expected investment returns exceed the cost of the borrowed funds. Throughout the East Asian region the rate of return to capital, although still positive, appears to have been falling in the 1990s, signaling a deterioration in the quality of the investment projects.

Moreover, foreign debt must be serviced and, at some point, fully repaid. Therefore, debtor countries must ultimately run trade surpluses, which may require adjustments in their real exchange rates. Borrowing in world capital markets is perhaps least problematic when the new investments it permits augment a country's capacity to produce goods for sale in foreign markets. In contrast, many Asian countries borrowed abroad to finance commercial and residential investments, producing goods, such as office buildings and houses, that are not usually traded internationally.

*The U.S. international investment position.* If current account deficits continue year after year, creditor countries eventually become net debtors: every year the stock of net foreign liabilities rises by an amount equal to the current account deficit (ignoring valuation effects). Not all of these liabilities consist of debt: the capital inflows

that finance current account deficits can take the form of equity investment, as in foreign direct investment. Thus an increase in a country's net foreign liabilities does not automatically translate into an increase in foreign debt, strictly speaking, but rather a decrease in the net international investment position.

Chart 6-10 shows the relationship between the U.S. current account and the change in the U.S. net international investment position (where direct investment is valued at current cost). In the 1970s the United States was a net creditor country. However, the string of current account deficits in the 1980s led to a reduction of net foreign assets and eventually, in 1987, turned the United States into a country with growing net external liabilities.

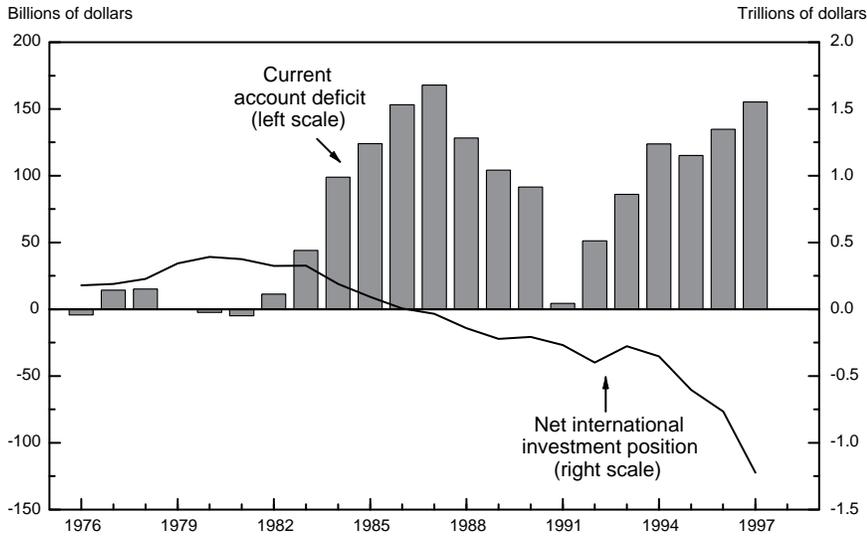
Because the U.S. current account deficits of the 1980s were primarily driven by fiscal deficits and low national saving rates, the accumulation of net foreign liabilities was greeted with some concern. The large fiscal deficits were financed by government bonds, some of which foreign investors purchased directly. Since 1993, however, current account deficits have been driven by increases in investment, with foreign financing taking the form of both direct and portfolio investment. (Chart 6-11 shows trends in both inward and outward foreign direct investment.) At present, U.S. net foreign liabilities amount to a relatively modest 15 percent of GDP.

### *Policies Toward the External Imbalance*

Calls for protection from import competition typically increase when the U.S. trade deficit burgeons, as it has since the onset of the Asian crisis. Although the crisis has caused dislocations in some export and import-competing industries, overall employment growth remains strong in the U.S. economy. As we have argued, the growing U.S. trade imbalance primarily reflects strong investment and growth opportunities in the United States in comparison with our trade partners, rather than increased barriers to trade in foreign markets. Looked at another way, the countries affected by the crisis have been forced to reduce their own current account deficits by their sudden inability to finance those deficits through foreign borrowing. The increased U.S. trade deficit, at least through the first three quarters of 1998, primarily reflects falling exports to these economies—declines in their imports engendered by the sharp economic contractions those countries have suffered.

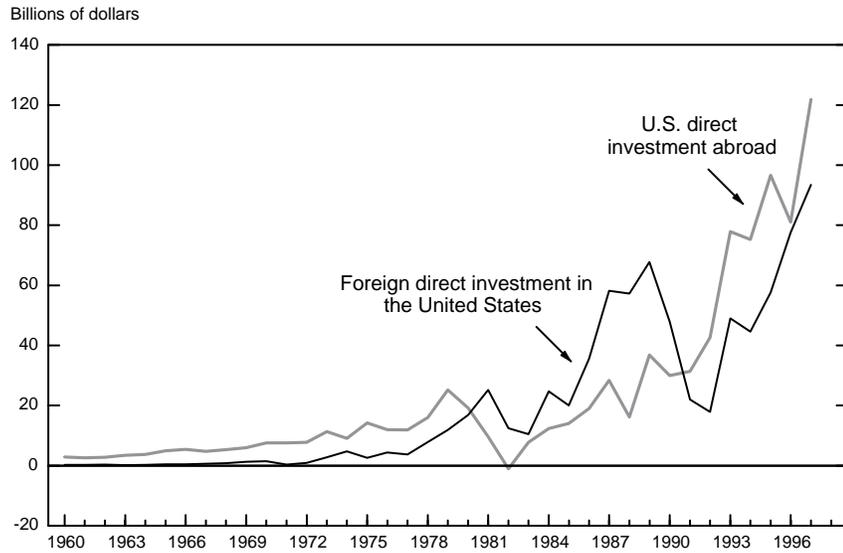
To restore world economic growth to its level before the crisis, the United States and other industrial countries must maintain open markets. Higher barriers to trade in the United States would not only hinder recovery in Asia and other crisis countries but provoke emulation and retaliation by our trading partners, which would hamper our own growth prospects. It is worth remembering that it was a dramatic switch to protectionist policies in the United States

**Chart 6-10 Current Account Deficit and Net International Investment Position**  
 As the United States started to run large current account deficits in the early 1980s, the net international investment position declined.



Note: Net international investment position at current cost.  
 Source: Department of Commerce (Bureau of Economic Analysis).

**Chart 6-11 Foreign Direct Investment Flows**  
 The 1980s saw a surge in foreign direct investment into the United States. In the 1990s, however, direct investment outflows have again surpassed inflows.



Source: Department of Commerce (Bureau of Economic Analysis).

and other industrial countries that deepened the Great Depression. As the crisis economies recover, their demand for U.S. goods and services will increase as well, once again fueling our own export growth.

Recognizing the need to maintain open markets worldwide, the President has called for a new consensus on trade, to continue to expand America's opportunities in the global economy while ensuring that all of our citizens enjoy the benefits of trade, through greater prosperity, respect for workers' rights, and protection of the environment. The President asked the Congress to join him in this new consensus by restoring his traditional trade-negotiating authority (so-called fast-track authority), to allow him to pursue an ambitious trade agenda. At the top of this agenda is a far-reaching new round of global trade negotiations within the World Trade Organization aimed at shaping the world trading system for the 21st century.

## CONCLUSION

During a period of great turmoil in the global economy, the first imperative of the Administration has been to work with the international community to sustain worldwide growth. That is a prerequisite for the recovery of the countries now afflicted by crisis. No country, not even the United States, is an island in the world economy. The growth prospects of all the world's industrial nations will suffer unless all do their part. The United States and its G-7 partners have clearly recognized this imperative.

The United States remains committed to opening markets to international trade, recognizing that an open trade environment will be the best policy for domestic growth, support the recovery of the crisis-afflicted countries, and ensure the continued growth of the world economy. At the start of his Administration in 1993, the President declared, "The truth of our age is this—and must be this: Open and competitive commerce will enrich us as a nation. . . . And I say to you in face of all the pressure to do the reverse, we must compete, not retreat." Now, as then, the Administration remains strongly committed to outward-looking, internationalist policies.

Beyond working to ensure growth in the industrial world, the United States has focused since this crisis began on the need to contain financial contagion and restore market confidence so that capital flows can continue, and on the need to promote recovery and alleviate suffering in the crisis-afflicted countries. The Administration has supported the IMF in its mission of providing financial assistance to those countries in crisis that are willing to implement the often tough reforms needed to strengthen the underpinnings of their economies. At the same time, the Administration is collaborating

with other countries to strengthen the architecture of the international financial system, with the goal of enhancing its stability in a world of continued integration of global product and financial markets. These reforms of the international financial architecture are discussed in Chapter 7.