

Foreign Debt and Financial Crises

Beginning in 2007 (and continuing into 2011), much of the world was beset by the largest financial crisis since the Great Depression of the 1930s—a crisis originating in the United States and other advanced economies. Debt crises in several countries have played a central role. In 2010, and again in 2011, Greece, a member of the European Union was on the verge of being unable to meet its debt obligations, and there was fear the problem would spread to Portugal, Italy, and Spain. In 2010, the other members of the European Union, notably Germany, pledged up to \$1 trillion to help Greece and, if necessary, the others meet their debt obligations. For the countries in crisis, devaluation of the currency, a policy often used to offset some of the negative effects of having to cut back on expenditures to repay debt, was not available because Greece, Italy, Spain, and Portugal use the common currency of the European Union, the euro. Our focus in this chapter, however, is on debt problems in developing countries, thus we will not deal further with the details of the debt problems of southern Europe and the threat these problems pose for the euro. Nonetheless, it is important to note that the global financial crisis that began in the advanced economies has had a severe impact on developing countries as both trade and financial flows have fallen rapidly in the late 2000s. The Mexican experience provides an informative case with which to begin our discussion of debt and financial crises in developing countries.

In the two decades following World War II, Mexico, like most developing countries, had few transactions with international capital markets. The country borrowed relatively little from international banks, and foreign investors only occasionally took a stake in Mexican firms. And, while it borrowed some funds from official lenders

(governments and international organizations such as the World Bank), Mexico's total borrowing remained small. At the time, international capital markets were relatively undeveloped compared to today, and they were only just beginning to recover from the disruptions of the two world wars and the Great Depression. But things began to change in the late 1960s and early 1970s. Capital market instruments became more sophisticated, and the costs of international transactions fell. Bankers and other investors started to look for opportunities outside their traditional Western markets. Official lending increased as well. Mexico, along with many other countries, was eager to expand investment and accelerate growth and began to look abroad for financing. In the decades since then, Mexico's foreign borrowing has had tremendous impact, both positive and negative, on its economic growth, macroeconomic stability, job creation, and even political dynamics.

Most of Mexico's foreign financing in the early years was in the form of borrowing, especially from private creditors, as opposed to foreign direct investment. Mexico was suspicious of foreign investors and wanted to maintain ownership control of its enterprises, so borrowing was more palatable than foreign direct investment. Foreign commercial banks were more than willing to lend money to the Mexican government, state-owned companies (such as PEMEX, the state oil company), and other businesses. In 1970, Mexico's foreign borrowing from private creditors was relatively small, amounting to \$350 million, or about 1 percent of the gross domestic product (GDP). But by 1980, it was borrowing nearly \$15 billion a year from private creditors, about 8 percent of the GDP. More than half the debt was short term, meaning that it had to be repaid (and usually reborrowed) within one year.

At first, the borrowing seemed to help: Mexico's GDP per capita rose 4.2 percent per year between 1972 and 1981, compared with 2.6 percent during the previous seven years. But it turned out that Mexico had borrowed too much too quickly: In August 1982, it shocked the world by declaring that it could not service its debts. The country plunged into a deep economic crisis that led to a sharp reduction in investment, negative growth rates, deep strains on government finance, and considerable economic hardship for millions of Mexicans. Mexico's crisis quickly cascaded to many other developing countries that had borrowed heavily abroad, and the consequences of these crises are still playing out today in some countries. Foreign lending to Mexico plummeted after the crisis before recovering in the early 1990s, only to plunge again when Mexico faced another payments crisis in 1994 and 1995. Since the mid-1990s, Mexico's net foreign borrowing has been negative in most years, meaning that it has been repaying international lenders more than it has been borrowing.

Globally, debt flows to developing countries have followed a pattern similar to Mexico's, swinging back and forth from large inflows to large outflows and then back again. Borrowing from private commercial banks became the dominant form of international capital flows to developing countries, especially middle-income countries, in the 1970s and 1980s, surpassing official borrowing in almost every year. But debt flows fell sharply in the 1980s after the debt crises (Table 13-1). In the early

TABLE 13-1 Debt Flows to Developing Countries, 1980-2008 (billion US\$)

	1980	1990	1996	2000	2008
Private debt finance	70.9	29.8	119.9	-0.4	107.9
Commercial Banks	28.7	3.2	30.7	-5.8	123.0
Bonds	1.1	1.1	49.5	17.5	10.5
Other	11.5	12.3	2.3	-4.3	-9.3
Short-term debt flows (net)	29.5	13.2	37.4	-7.9	-16.3
Official debt finance	20.5	26.4	2.8	4.9	-20.4
Bilateral	13.1	11.0	-10.4	-6.9	2.4
Multilateral	7.4	15.4	13.1	11.8	18.0
Total	91.4	56.2	122.7	4.5	128.3

Sources: World Bank, *Global Development Finance 2005* (Washington, DC: World Bank, 2005) and World Bank, *Global Development Finance 2009* (Washington, DC: World Bank, 2009); and International Monetary Fund, *International Financial Statistics*, (Washington, DC: IMF, 2009).

1990s, private debt flows grew sharply again, quadrupling in size in just six years from \$30 billion in 1990 to \$120 billion in 1996. But then a series of financial crises struck several emerging markets around the world, starting with Mexico in 1995; then hitting Thailand, Indonesia, Malaysia, and Korea in 1997; Russia and Brazil in 1998; and Turkey and Argentina in 2001. Debt flows collapsed, and by 2001, the \$120 billion inflow of five years earlier had completely disappeared. But once the crises abated, borrowing increased again, and private debt flows rebounded to \$72 billion just two years later in 2003. Official borrowing was much smaller and less volatile than private borrowing, but it fell steadily during the 1990s, and by 2003, developing countries as a whole were repaying more to official creditors than they were borrowing. For many of the poorest developing countries, grants, rather than loans, were the dominant source of foreign financing.

Even among the largest borrowers, foreign borrowing has always been small compared to domestic capital flows, in most years accounting for perhaps one fourth or less of available investable funds and only occasionally amounting to more than 3-4 percent of GDP. From the perspective of economic growth models that emphasize the role of capital formation in the growth process (such as the Harrod-Domar and Solow models), private debt flows are only modestly important. But foreign debt plays a more complex role than the basic numbers indicate. The economic impact of debt flows is magnified by their effect on macroeconomic stability, the exchange rate, interest rates, government budgets, and domestic financial institutions and their potential to trigger widespread financial crises.

This chapter explores the advantages, disadvantages, and risks associated with foreign borrowing. It describes various forms of debt, the patterns of debt flows to developing countries over the last several decades, and the basic conditions under which debt is sustainable. It examines in some detail the developing-country debt crises of the 1980s, the ongoing debt problems faced by some low-income countries,

and the emerging-market financial crises of the 1990s. It then explores the main lessons that have emerged from these crises for debt management in the future. We also probe some of the tough questions that arise when countries default or no longer can pay their debt service: How much should be forgiven? How should the burden of bad loans be shared between creditors and borrowers? And what conditions, if any, should be placed on countries seeking debt forgiveness?

ADVANTAGES AND DISADVANTAGES OF FOREIGN BORROWING

Foreign debt gained a bad reputation after the crises of the 1980s, the late 1990s, and the Greek and Irish debt problems of 2010–11, in many ways deservedly so. However, prudent borrowing has been an important part of the development strategy of many countries. The United States borrowed heavily in the middle and late nineteenth century to finance its westward expansion (especially the railroads). Most countries in western Europe relied on foreign borrowing at one time or another.

From a national perspective, borrowing permits a country to invest more than it can save and import more than it can export. If the additional funds finance productive investment, they should yield sufficient returns to pay the interest and principal on the initial foreign inflows. As we saw in Chapters 3 and 4, because capital is relatively scarce in low-income countries, these countries have the *potential* to realize higher rates of return on investment and more rapid economic growth than richer countries, providing the foundation for lending from rich to low-income countries. Under these circumstances, foreign borrowing can help support growth and development at the same time as it yields attractive returns to the lender.

For countries interested in augmenting domestic saving with foreign capital, borrowing brings several advantages and disadvantages relative to foreign direct investment and other forms of capital. When a domestic firm borrows abroad, there are no controversies over foreign ownership, profit repatriation, tax holidays, and the like that arise with foreign direct investment (FDI). In addition, foreign borrowing can be undertaken much more quickly and easily than can FDI. Repayments are limited to the terms of the loan, so if an investment is highly profitable, the home country can keep the profits rather than repatriate them abroad. To simplify only slightly, as long as the rate of return on investment projects exceeds the interest rate on the debt, foreign borrowing can be a very sensible strategy to augment domestic savings, add to investment, and accelerate growth. In addition, borrowing can play a critical stabilization role for countries buffeted by balance of payments shocks. When a country's export prices suddenly collapse or its import prices rise, some temporary borrowing can help bridge the financing gap until prices rebound or the economy can adjust to the change, thus helping ease the costs of adjustment.

However, there are downsides as well. Debts must be paid, even when a project goes bad. Too much borrowing of the wrong kind or for the wrong purposes can leave developing countries vulnerable to sudden capital withdrawals and financial crises. Short-term debt, in particular, can very quickly switch from rapid inflow to rapid outflow, which can cause sudden plunges in exchange rates and skyrocketing interest rates and wreak havoc on banks, private companies, and government budgets.

Borrowing too much to finance consumption or poorly conceived investments also can lead to trouble. Borrowing is much easier politically than raising taxes to pay for spending, especially if governments do not think they will still be in office when it is time to repay. If governments borrow to finance monuments, lavish office buildings, or fleets of expensive cars, there will be no future income stream to repay the debts. But even where governments borrow to finance investments that initially seem sound, sudden drops in export prices, rising interest rates or oil prices, or an unforeseen world recession can turn a worthwhile project into a financial loss. Governments strapped with large debt service payments sometimes face painful choices between repaying foreign lenders as promised, or maintaining spending on health, education, or other important domestic programs.

DEBT SUSTAINABILITY

How much aggregate debt can a country take on before it begins to get into trouble? There is no simple answer. A country's debts are sustainable if they can be serviced without resort to exceptional financing (for example, a special bailout by friendly donors) and without a major future adjustment in the country's income and expenditure. But every country's situation is different. A country's ability to repay depends on a wide array of factors: the size of its debt, its trade and budget deficits, the interest rate on its debt, the mix of loans and grants it receives, its vulnerability to shocks (for example, natural disasters such as droughts or hurricanes or a fall in export prices), and the rate of growth of GDP, exports, and government tax revenues.

At a simple level, a country's debt sustainability depends on (1) how much it owes and (2) its capacity to make the required payments. But neither of these is quite as straightforward as they first seem. There are two ways to think about how much the country owes: the total stock of debt and the amount of payments due in a particular year. The usual measure of the total debt stock is the sum of the face value of all debts outstanding, but this can be misleading if a significant portion of debt is subsidized. For example, the World Bank's International Development Association (IDA), the part of the World Bank that provides finance for low-income countries, provides loans with an interest rate of just 0.75 percent and 40 years to repay. Obviously a \$100 million loan extended on these terms creates a much smaller burden than a \$100 million loan that must be repaid in 5 years with a market-determined

interest rate of 7 percent. Under these circumstances it makes much more sense to calculate the net present value (NPV) of the debt. A loan extended on normal market terms would have an NPV equal to 100 percent of its face value, a grant would have NPV equal to 0, and subsidized loans would have an NPV in between, depending on the interest rate and the maturity structure (that is, the schedule to repay the loan's principal).

Debt service is the amount due for principal and interest payments in a given year. Policy makers need to know how much is due each year, but looking at just one year can be misleading because it leaves out how much is due the next year or the year after, when a big payment might be due. Thus an accurate projection of how much debt service is due when is an important component of assessing debt sustainability.

What about the second part of sustainability, a country's capacity to pay? Three measures of capacity are most common: GDP, exports, and government tax revenue. GDP is the broadest measure of the economic resources available to repay the debt. The larger a country's productive capacity and corresponding income, the greater its ability to repay debt. But if a country is repaying foreign debt, the real constraint may not be total income, but the ability to earn the dollars (or other foreign exchange) needed to repay the loans denominated in foreign currency. When Thailand, Indonesia, and Korea could not fully service their debts in late 1997, the problem was not a lack of sufficient income, but a lack of available foreign exchange. Under these circumstances, exports earned each year or the stock of foreign exchange reserves held by the central bank may be more suitable indicators of debt servicing capacity. Exports and reserves focus attention on the **external transfer problem**, the challenge of generating sufficient foreign exchange to transfer to external (foreign) creditors. But foreign exchange is not always the binding constraint either. If the government is the major debtor, an important indicator of repayment capacity is its ability to generate tax revenue that can be used to repay the debt. The importance of tax revenues points to the **internal transfer problem**, the government's challenge of raising enough revenue from households and firms to enable the government to repay the nation's debts.

DEBT INDICATORS

Analysts typically turn these broad measures into ratios, with the numerator containing either debt or debt service and the denominator showing a measure of the capacity to repay. The most common debt sustainability indicators include the following:

- *Debt/GDP*, perhaps the broadest measure of debt sustainability, compares total debt to the economy's total capacity to generate resources to repay. A closely related measure uses the net present value: *NPV debt/GDP*.

Where most debt is on market terms (for example, commercial bank loans), the difference between these two measures is small; to the extent debts are contracted on concessional (subsidized) terms, the two differ. Although each country is different, history suggests that debt distress tends to be more likely in countries where the NPV debt/GDP ratio exceeds 30 to 50 percent.¹

- *Debt/exports* (and NPV debt/exports) compares the total debt to the capacity to generate foreign exchange. A wide range of debt/export ratios might be compatible with sustainability, reflecting the tendency for exports to vary more widely than the GDP. Analysts tend to place threshold levels for individual countries anywhere between 100 and 300 percent, most frequently around 200 percent.
- *Debt/revenue* (or NPV debt/revenue) is most relevant when the government is the largest debtor and there are concerns about its ability to generate tax revenue to repay the loans. Analysts cite ratios of anywhere between 140 and 260 percent as thresholds for individual countries.
- *Debt service/exports* has the great advantage of focusing attention on the amount owed in a single year relative to the export earnings available to make the payments, but it tells less about the overall burden of debt over time. Concern about debt distress tends to grow when this ratio exceeds 20 to 25 percent.
- *Debt service/revenue* focuses on the government's ability to generate tax revenues to make payments due in a single year. The higher this ratio, the more tax revenue that must be devoted to making debt payments and the less available for other government expenditures on health, education, infrastructure, or other purposes. History suggests that debt distress tends to appear once this ratio exceeds 10 to 15 percent.
- *Short-term foreign debt/foreign exchange reserves* focuses on the amount of debt due to be repaid within the next year compared to the available amount of foreign exchange reserves. Analysts suggest that a country is vulnerable to a rapid withdrawal of capital and a financial crisis when this ratio approaches 1:1.

These ratios reflect two broadly different ways that countries can face debt difficulties: insolvency and illiquidity. An **insolvent borrower** lacks the net worth to repay outstanding debts out of future earnings. An **illiquid borrower** lacks the ready cash to repay current debt-servicing obligations, even though it has the net worth to repay the debts in the long term. An illiquid debtor may need cash to make immediate payments, but still has the capacity to repay the debt over time, while an insolvent

¹International Monetary Fund, "Debt Sustainability in Low-Income Countries: Proposal for an Operational Framework and Policy Implications," February 3, 2004. Available at www.imf.org/external/np/pdr/sustain/2004/020304.htm, accessed March 2012.

debtor does not have the income or assets to repay. The debt/GDP ratio in effect is a measure of overall solvency, indicating the value of debt relative to aggregate economic resources (in theory, ideally we would like a measure of overall wealth—the value of all assets—not just annual income, but this is extremely difficult to measure for a country). The debt service/exports, debt service/revenue, and short-term debt/reserves indicators are measures of liquidity, indicating whether a country has the capacity to make the payments due this year.

These ratios appear at first to be simplistic and mechanical, but each captures and depends on important broader features of both the debt and the economy. To see this, we examine two of the ratios in more depth: debt/exports and debt/GDP.

To explore the debt/export ratio, recall that foreign saving (F) equals the difference between imports and exports of goods and nonfactor services ($M - X$), or roughly the current account of the balance of payments. For simplicity, assume all foreign saving is in the form of borrowing. Therefore, the increase in debt in any year is

$$\Delta D = iD + M - X \quad [13-1]$$

where ΔD represents the change in the debt stock and i is the average interest rate. For simplicity, assume that X and M grow at the same exponential rate, g_X . In that case, the stock of debt also grows exponentially at the same rate, and in the long run, the ratio of debt to exports settles at

$$D/X = a/(g_X - i) \quad [13-2]$$

where a is the ratio of the current account deficit to exports, $(M - X)/X$, and is a constant, assuming that imports and exports grow at the same rate.²

Equation 13-2 tells us that the long-run ratio of debt to exports depends on the size of the current account deficit, the growth rate of exports, and the interest rate. If exports are growing faster than the average rate of interest ($g_X > i$), a country can continue to import more than it exports, meaning that a can remain positive. This should make intuitive sense: Borrowing to cover the gap between imports and exports is sustainable so long as exports are growing more than enough to cover interest payments.

Consider a numerical example. If the current account deficit as a share of exports were 8 percent ($a = 8$), the average interest rate were 5 percent, and exports were growing 9 percent a year, then the ratio of debt to exports would settle at 2 (or 200 percent). If exports grew faster than 9 percent, the debt-export ratio would fall. If, on the other hand, export growth fell to 5.5 percent, the debt/export ratio would explode

²Equation 13-1 is solved to yield equation 13-2 by letting $\Delta D = g_X D$ and substituting into equation 13-1. Then equation 13-1 becomes $g_X D = iD + M - X$, from which equation 13-2 can be readily derived (*hint*: start by dividing each side by X). The result is given by Albert Fishlow, "External Borrowing and Debt Management" (220-21) in Rudiger Dornbusch and F. Leslie C. H. Helmers, eds., *The Open Economy: Tools for Policymakers in Developing Countries* (New York: Oxford University Press, 1988).

to 1,600 percent. If it fell below the interest rate (either because export growth fell or world interest rates rose), the numerator a also would have to turn negative; that is, the current account deficit would turn to a surplus. The country could no longer run a deficit and borrow to make up the difference; instead it would have to run a surplus of exports over imports and use the balance to repay debts. This is precisely what has happened to many low-income, high-debt countries, with enormous adverse consequences in some cases.

Turning to the debt/GDP ratio, instead of examining imports and exports, a similar calculation can be made from the investment-saving perspective. Because we know from Chapter 10 that the current account balance $M - X$ is equal to the investment-saving balance $I - S_d$, equation 13-1 can be converted to the following:

$$\Delta D = iD + I - S_d = iD + \nu Y - sY = iD + (\nu - s)Y \quad [13-3]$$

In this equation, $Y = \text{GDP}$ and ν and s are the investment and saving shares of GDP, respectively. As with the trade balance perspective, assume that debt and GDP grow at the same exponential rate, g_Y . Then the long-run equilibrium ratio of debt to GDP is

$$D/Y = (\nu - s)/(g_Y - i) \quad [13-4]$$

In this case, if investment exceeds saving by 1 percentage point, the growth rate of GDP (expressed in current dollars) is 7 percent a year, and i averages 5 percent, the debt/GDP ratio settles at 0.5 (or 50 percent). But if GDP slips to a long-run rate of 5.5 percent, the ratio balloons to 200 percent.

Thus a country with poor overall economic performance, reflected in low export or GDP growth rates, is far more likely to get into trouble than a country with better performance. Policy makers must take these factors into account in determining how much a country can borrow and on what terms. Strong debt management, however, goes beyond these basics and includes allowing for the risk of a sudden fall in export receipts, higher interest rates, or other adverse shocks. And, as we shall see, the terms on which the debt is obtained (especially the maturity structure) can have a profound impact on vulnerability to a crisis.

FROM DISTRESS TO DEFAULT

Many developing countries have seen their debt ratios climb to uncomfortable levels at one time or another during the last two decades. Sometimes, even countries with good economic management can get into debt difficulties when they face drops in export prices or unexpected increases in import prices, say, from an increase in world oil prices. As debt-service payment burdens grow and it becomes more difficult to service the debts, countries face several important questions and trade-offs. To what extent should they continue to raise taxes and cut spending to service debts?

At what point do they try to renegotiate the terms of these loans, or in more extreme circumstances, consider outright default?

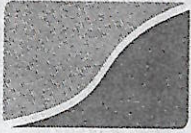
Most countries rightly see debt agreements as legal contracts in which they have an obligation to fully repay. Most want to avoid default because it can have significant negative consequences, just as filing for bankruptcy can have adverse consequences for a company. A country defaulting on its debts is likely to have much more difficulty borrowing in the future, at least for some period of time, until their prospects brighten. When creditors begin to lend again, they are likely to charge higher interest rates to compensate for the higher risks. Moreover, the process of renegotiation and restructuring can be time-consuming and costly and is something most finance officials would rather avoid. And most countries do not want the stigma and bad publicity that a default might generate.

At the same time, in extreme situations policy makers may see the costs of continuing to service their debts as outweighing the cost of default. Political leaders are willing to ask their citizens to undertake only so much austerity to repay foreign creditors. Moreover, sometimes, it might be fully appropriate for creditors to bear some of the cost of bad loans, especially if they pushed hard to provide funds for questionable projects. To the extent that creditors were partially responsible, they should absorb some of the costs through smaller repayments or even forgiveness of some of the remaining loan. Defaults are not uncommon for either private companies or public entities and certainly are not limited to developing countries (Box 13-1). Defaults occurred frequently in many Latin American and European countries during the nineteenth century and the 1930s, and Greece threatened to default in 2010 before being bailed out by the European Union, only to find itself once again facing a potential default in 2011 and 2012. Several U.S. states defaulted on their debts in the nineteenth century.

In addition, it is possible that continued repayment might undermine a country's ability to make future payment to such an extent that both the debtor *and* the creditor would be better off with some debt forgiveness. This situation is known as a **debt overhang**: The debt creates such a drag on growth that it undermines the ability of the country to make repayments.³ Inflows of foreign financing should have a positive impact on growth, but debt service has a negative impact. As debt service grows, the negative impact becomes larger, and with debt service large enough, the overall impact on growth could be negative.

To see how this could happen, consider the following scenario. A government starts to raise taxes to repay the debt, and private companies and individuals begin to anticipate even higher taxes in the future, so they reduce investment. The growing

³Paul Krugman, "Financing versus Forgiving a Debt Overhang," *Journal of Development Economics* 29 (1988), 253-68; Jeffrey Sachs, "The Debt Overhang of Developing Countries," in R. Findlay, G. Calvo, P. Kouri, and J. Braga de Macedo, eds., *Debt, Stabilization and Development: Essays in Honor of Carlos Díaz Alejandro* (Oxford: Basil Blackwell, 1989).



BOX 13-1 A SHORT HISTORY OF SOVEREIGN LENDING DEFAULT

In 1979, then-Citicorp chairman Walter Wriston famously pronounced that "countries don't go bankrupt." While it may technically be true that a country cannot go bankrupt, the assertion that they cannot default runs counter to the historical record. Default by governments is a practice as old as the concept of credit. Throughout history, there are many examples of countries that have refused to pay their bills or unilaterally written off debts incurred by previous governments.

The first such recorded default occurred in the fourth century B.C.E. when 10 of 13 Greek city-states with debts to the Delos temple walked away from their contractual obligations. Not long after, the island of Chios announced publicly that payments on its unsustainable debt would cease until economic conditions improved. Default in ancient times often took the form of currency depreciation, rather than a declaration of bankruptcy. For example, over the course of the three Punic Wars (241–146 B.C.E.), Rome reduced the metallic content of its monetary unit from 12 ounces to 0.5 ounce, in a series of *de facto* government defaults.

The practice of governmental default continued through the Middle Ages and into modern times. An eighteenth-century French minister of finance contended that "each government should default at least once every century, in order to restore equilibrium." In the nineteenth century, as the practice of lending abroad became more common, government default increased, and most European nations at least partially defaulted on their debt commitments. Some defaulted multiple times, with Spain and its seven recorded defaults leading the way. The record in developing nations was similar: Every Latin American nation without exception defaulted during the nineteenth century.

While the U.S. government avoided outright default, many individual states defaulted during this period. Some defaulted on civil war debts, while others did so on bonds issued to failed enterprises, usually railroad or bank endeavors. Arkansas and Florida each defaulted three times during the nineteenth century. And at the conclusion of the Spanish-American War in 1898, the U.S. government repudiated the debts that had been incurred by Cuba while under Spanish rule.

Germany's reparation obligations after World War I led to protracted debt difficulties that nurtured German grievances in the early 1930s. In the wave of defaults that accompanied the Great Depression of the 1930s, the international capital market collapsed, thereby leading to further widespread default. International capital flows fell sharply during the Depression and World War II,

so sovereign defaults were rare in the late 1940s and the 1950s. But the international capital markets gradually revived in the 1960s and 1970s, and the debt crises of the 1980s saw a return to the sovereign defaults that had been common in the nineteenth century.

Adapted from Nancy Birdsall and John Williamson (with Brian Deese), *Delivering on Debt Relief: From IMF Gold to New Aid Architecture*, Center for Global Development and Institute for International Economics, (Washington, DC: Peterson Institute of International Economics and Center for Global Development, April 2002).

debt service burden makes lenders more reluctant to provide new finance, as they begin to fear the possibility of default. As debt burdens grow very large, the government begins to face perverse incentives against undertaking stringent adjustment measures. Economic reforms may help the country avoid default, but local citizens bear the cost of adjustment while creditors gain the benefits. Worse policies might lead to poorer economic performance but could lead to a larger debt write-off. Thus the debt burden becomes a disincentive for the very economic reforms that might be most needed. Empirical evidence on the existence of a debt overhang is mixed, but the idea has been influential in thinking about the rationale for debt restructuring and write-offs in developing countries.

Finally, while debt agreements are legal contracts, under some circumstances, governments may see the agreements as illegitimate, making default an easier option to contemplate. Debts taken on by a military dictator who took power through a coup and stole the money may not be seen as legitimate obligations by a succeeding democratically elected government. We discuss these **odious debts** later in the chapter.

THE 1980s DEBT CRISIS

The questions about default and debt restructuring are much more than hypothetical possibilities: They became very real issues for many developing countries during the last several decades. During the 1970s a large number of developing countries, especially in Latin America, borrowed extensively and accumulated large amounts of debt, so large that, by 1983, long-term debt owed by developing countries to commercial banks had grown from \$19 billion to \$307 billion, 16 times larger than it had been in 1970 (Table 13-2). Total debt stocks grew by a factor of 10 between 1970 and 1983, then doubled again in the 10 years that followed. But the rapid growth of debt in the 1970s and early 1980s led to trouble for some countries that had accumulated too much debt too fast. In the first half of 1982, eight countries had to reschedule their

TABLE 13-2 Long-Term Debt, All Developing Countries, 1970-2009 (billion US\$)

STOCKS	1970	1983	1993	2003	2009
All sources	61	618	1,316	1,960	2,759
Official creditors	33	218	697	805	764
Private creditors	28	400	619	1,155	1,995
Of which, commercial banks	19	307	304	580	136

Sources: World Bank, *Global Development Finance 2005* (Washington, DC: World Bank, 2005); and World Bank, *Global Development Finance 2011* (Washington, DC: World Bank, 2011).

debt payments (that is, negotiate new terms to stretch out repayment). In August 1982, Mexico stunned global markets by declaring that it could not make its debt payments, signaling the beginning of a much broader series of debt crises affecting dozens of countries. From 1983 to 1987, more than \$300 billion of debt repayments had to be rescheduled. Now, almost 30 years later, the effects of these crises are still reverberating in some countries, and the lessons learned are crucial for future economic management in developing countries. That much is clear from the fact that the total stock of developing country debt had grown to exceed \$2.7 trillion by 2009, nearly \$2 trillion of which was owed to private creditors (Table 13-2). (It is interesting to note, however, that the role of commercial banks among private creditors has declined substantially over time.)

CAUSES OF THE CRISIS

The crisis resulted from several things going wrong at once: adverse international economic shocks outside of the control of the debtor countries, poor domestic economic management, and bad lending decisions by international banks.⁴

INTERNATIONAL ECONOMIC SHOCKS In 1973, the Organization of the Petroleum Exporting Countries (OPEC) announced that it would restrict oil production, sparking a very sharp increase in world oil prices. Import values and trade deficits

⁴A huge literature examines the 1980s debt crisis. We cite some of the key works here. Jeffrey D. Sachs, ed., *Developing Country Debt and Economic Performance*, 4 vols.: Vol. 1, *The International Financial System*; Vol. 2: *Country Studies: Argentina, Bolivia, Brazil, Mexico*; Vol. 3 (with Susan Collins): *Country Studies: Indonesia, Korea, the Philippines, Turkey*; Summary vol.: *Developing Country Debt and the World Economy* (Cambridge, MA: National Bureau of Economic Research, 1989-1990). William Cline, *International Debt: Systematic Risk and Policy Response* (Washington, DC: Institute for International Economics, 1984); William Cline, *International Debt Reexamined* (Washington, DC: Institute for International Economics, 1995); Ishrat Husain and Ishac Diwan, eds., *Dealing with the Debt Crisis* (Washington, DC: World Bank, 1989); Joseph Kraft, *The Mexican Rescue* (New York: Group of Thirty, 1984).

immediately increased for oil importers around the world (including developing countries), slowed global economic growth (hampering export markets for many developing countries), and created volatility in a wide range of other commodity markets. In 1979, OPEC again cut back its production, leading to even larger increases in oil prices.

At the same time, the U.S. economy was facing a combination of slow growth and accelerating prices. With the economy under pressure, in August 1971, President Richard Nixon released the dollar from the gold standard that had determined its value since the end of World War II. This move led to a sharp depreciation of the dollar and an increase in currency volatility and uncertainty around the world. Large budget deficits emanating from spending on the Vietnam War and the sharp hike in world oil prices added to the pressure. By the end of the 1970s, U.S. inflation reached double digits, and interest rates rose very sharply, reaching 16 percent in 1981. The increase in interest rates substantially increased the interest burden for developing country debtors, whose original loans were written with variable interest rates. For a group of 15 countries in Central and South America, the rise in interest rates between 1978 and 1981 added over \$13 billion to the costs of servicing their debts in 1981 alone.

DOMESTIC ECONOMIC POLICIES Even in the face of these shocks, not all debtors suffered equally. South Korea and Indonesia were among the world's largest debtors, yet sound economic policies enabled them to service their debt while continuing to grow throughout the 1980s. In particular, these countries responded by reducing their budget deficits, restraining the expansion of domestic demand, and encouraging export production. But in many other countries, reactions by policy makers exacerbated the crisis.

In the face of rising imports and trade deficits, escalating prices, and growing budget deficits, it was much easier for governments to convince themselves that the oil crisis would be short-lived rather than try to limit demand. Many believed they could borrow to cover the deficits (from either their central banks or from foreign banks) and even increase spending, rather than restrain demand and close the deficits. But this strategy, while perhaps politically expedient in the short run, could not be sustained and typically led to even higher rates of inflation and larger debts.

At the same time, some governments tried to compensate for rising import prices by maintaining an overvalued exchange rate, which restrains price increases for imports and exportable goods. This step is popular with consumers because it makes imports cheaper, but it discourages export growth and encourages capital flight. More generally, countries that had been actively promoting manufactured exports, mainly in East Asia, were in a better position to further spur exports and close their deficits than countries that followed a less open trade strategy, such as in Latin America. Ultimately, countries with overvalued exchange rates and less-active export

promotion strategies faced larger current account deficits and, therefore, larger borrowing needs. Instead of improving, their debt crises just got worse.

IMPRUDENT BANK LENDING The foreign banks also bear some responsibility for making poor lending decisions. Banks were more than happy to keep lending to governments, even after the economic situation began to deteriorate and normal lending strategies suggested more prudence. Banks believed that, because the debts were **sovereign** (that is, either contracted or guaranteed by governments), they did not have to worry as much about the normal risks of default. And once the banks were heavily involved, further lending seemed a sensible way to keep debtor countries liquid enough to continue servicing earlier loans. Banks were encouraged by their own governments and the international agencies, all of which hoped that more lending would help countries grow out of the crisis, especially once the world economy recovered from its instability.

IMPACT ON THE BORROWERS

Once it became clear that many debtors would be unable to meet their obligations, the commercial banks stopped making new loans. From 1980 to 1982, private creditors provided more than \$50 billion a year in new lending to developing countries; in 1987, the net resource flow was essentially zero.

The impact on the most indebted countries was severe. In effect, countries very quickly had to turn from net borrowers into net repayers of loans. We know from balance of payments accounting that net capital inflows always must equal the current account deficit, which in turn is equal to the balance of investment over domestic saving:

$$\text{Net capital inflows} = M - X = I - S_d \quad [13-5]$$

Before the crisis, foreign borrowing (and other capital inflows) allowed the countries to finance imports in excess of exports and investment in excess of saving. But when countries began to default on the loans, banks demanded immediate repayment and reduced new lending. In the absence of other new capital inflows, countries had to reverse the signs and run a surplus of exports over imports and of saving over investment. Economic growth fell abruptly. Many governments found it difficult to raise taxes and reduce spending (to increase domestic saving), so they resorted to inflationary financing, which further destabilized the economy.

These kinds of dramatic changes were clearly evident in Mexico before and after the 1982 crisis, as shown in Table 13-3. In the five years up to and including 1981, imports exceeded exports in Mexico by the equivalent of about 2 percent of GDP and investment exceeded domestic saving by the same amount. There was strong growth in investment, GDP, and GDP per capita. But the crisis changed everything. Between

TABLE 13-3 Mexico before and after the 1982 Debt Crisis

	BEFORE THE CRISIS, 1977-81	AFTER THE CRISIS, 1982-86
Exports of goods and services (% of GDP)	9.6	16.9
Imports of goods and services (% of GDP)	11.5	10.6
Resource balance (% of GDP)	-2.0	6.3
Gross domestic investment (% of GDP)	24.7	20.4
Gross domestic savings (% of GDP)	22.7	26.7
Saving-investment gap (% of GDP)	-2.0	6.3
Gross domestic investment (real, average annual growth %)	13.0	-12.2
GDP (real, average annual growth %)	7.6	-0.6
GDP per capita (real, average annual growth %)	5.0	-2.9
Inflation, consumer prices (average annual %)	23.7	73.2
GDP, gross domestic product		

Source: World Bank, *World Development Indicators*, <http://databank.worldbank.org/ddp/home.do>, accessed 2005.

1982 and 1986, imports fell and exports expanded sharply, providing the trade surplus necessary to pay foreign creditors. The **resource balance** (the excess of exports over imports, and the opposite of net capital inflows) shifted by a huge 8.3 percent of GDP (from -2 percent to +6.3 percent). Investment fell by over 4 percent of GDP, and domestic saving rose by a similar amount. GDP per capita fell, the budget deficit grew, and inflation skyrocketed to 73 percent per year.

These kinds of adjustments were not limited to Mexico. Between 1978 and 1981, a group of 15 heavily indebted countries imported about \$9 billion more than they exported. But from 1983 to 1988, they were forced into a reverse transfer of almost \$34 billion a year to service their debt. From 1970 to 1981, these countries had enjoyed per capita income growth of 2.7 percent a year, invested 25 percent of their GDP, and tolerated inflation of 39 percent a year on average. During the debt crisis, however, from 1982 to 1988, GDP growth per capita was -0.7 percent a year, investment fell to 18 percent of GDP, and annual inflation grew to 149 percent.⁵

ESCAPE FROM THE CRISIS, FOR SOME COUNTRIES

For the international commercial banks and many of the countries that had borrowed from them, especially the middle-income countries, the debt crisis of the 1980s essentially was over by the mid-1990s. For other countries (mainly low-income

⁵Rudiger Dornbusch, "Background Paper" (31), in Twentieth Century Fund Task Force on International Debt, ed., *The Road to Economic Recovery* (New York: Priority Publications, 1989).

countries in sub-Saharan Africa, South Asia, and Central America) that had borrowed predominantly from other governments and the international financial institutions, the debt crisis lingered unresolved into the new century.

Debt ratios improved substantially for Latin American countries from the 1980s to the 1990s and were much lower by 2005 compared to their previous high levels (Table 13-4). In most cases, improvements continued through 2009, albeit at a slower pace. Latin American debtors worked out of insolvency through debt relief agreements that involved a combination of several forms of debt restructuring and reorganization:

- *Refinancing*, involving making new loans to repay the old. In a refinancing, the amount of debt owed does not change, but the terms for repayments are eased, usually through longer repayment periods and perhaps lower interest rates.
- *Rescheduling*, closely related to refinancing, in which the original loans stay on the books, but the schedule of payments is altered to allow longer repayment periods and possibly lower interest rates.
- *Reduction*, in which the amount actually owed is reduced (that is, forgiven), either partly (a write-down) or completely (a write-off).
- *Buybacks*, whereby the debtor buys the loan from the creditor, usually for a percentage of the face value of the debt. Creditors might prefer getting an ensured payment today for part of the debt rather than taking the risk of less payment later.

TABLE 13-4 Debt Ratios, Developing Countries, 1980-2009 (percent)

	MAXIMUM OF 1980-97	2005	2009
<i>All developing countries</i>			
Long-term debt to GNP	43	26	22
Long-term debt to exports	203	75	75
Total debt service to exports	33	13	11
<i>Latin American countries</i>			
Long-term debt to GNP	60	29	24
Long-term debt to exports	343	111	111
Total debt service to exports	48	24	18
<i>Selected countries: total debt service to exports</i>			
Argentina	83	19	17
Bolivia	63	16	14
Brazil	82	46	23
Chile	71	15	23
Mexico	51	22	13

GNP, gross national product.

Sources: World Bank, *Global Development Finance 2004* (Washington, DC: World Bank, 2004); and World Bank, *Global Development Finance 2011* (Washington, DC: World Bank, 2011).

- *Debt-equity swaps*, in which creditors are given equity in a company (such as a state-owned telecommunications company) in return for eliminating the debt outstanding.

Strategies to resolve the 1980s debt crisis evolved slowly in two broad stages. In 1985, nearly three years after Mexico first defaulted, U.S. Secretary of the Treasury James Baker announced what came to be known as the **Baker Plan**. This two-pronged strategy involved providing new finance to the debtor countries in return for them undertaking significant economic reforms aimed at stabilizing their economies and reducing their current account deficits. The plan did not reduce the amount of debt; it was based on the assumption that, with enough new financing and economic adjustment, the debtor countries could begin to grow and would fully repay the banks.

Financing was provided in part by the creditor banks refinancing and restructuring existing debts and partly through new funds provided by the International Monetary Fund (IMF), World Bank, and official aid agencies. The new financing provided some breathing room for the debtors because it reduced the amount of immediate adjustment necessary in the current account deficit. But adjustment was still necessary. The policy adjustment programs involved a range of steps aimed at reducing deficits in the government budget and the balance of payments, containing inflation, stimulating savings, and generating more resources for investment and debt service. These **stabilization and structural adjustment programs**, which were designed and overseen by the IMF and World Bank, typically involved devaluing the currency (or allowing it to depreciate through a float) to reduce imports and stimulate exports, cutting government expenditures, raising taxes, reducing growth in the money supply, and closing loss-making state companies.

These programs were controversial, and the austerity measures created huge burdens on the ordinary citizens of debtor countries in the form of reduced income, higher taxes and fees, reduced services from government, and other adjustments. Critics argued that, while some of these steps were necessary, the programs were not always well designed and required more austerity than was necessary while creating little burden for the creditors. Although it was hoped that this combination of new money and policy reforms eventually would allow countries to resume growth and fully repay the banks, in the end, the Baker Plan proved insufficient to resolve the debt crisis.

The key breakthrough came in 1989, when new U.S. Secretary of the Treasury Nicholas Brady unveiled a different strategy, this time incorporating the idea that the value of the debt would be written down and the commercial banks would share in some of the losses. The **Brady Plan** recognized that debtor countries needed a permanent reduction of their debt burdens to get back on sound economic footing. The strategy called for banks and debtor governments to renegotiate debts on a case-by-case basis from a menu of options, including reducing the face value of the debt,

reducing the interest rate, providing new loans, and other forms of restructuring. The debtor countries issued new bonds to the banks, called **Brady bonds**, to replace the old debt. The amount of debt relief encompassed in these deals varied from country to country. Mexico's commercial bank debt was reduced by about 35 percent, whereas Costa Rica's was reduced by about 65 percent. By May 1994, Brady deals were in place covering about \$190 billion in debt for 18 countries, including Poland, Ecuador, Venezuela, the Philippines, Brazil, Peru, the Ivory Coast, and other countries. Over \$60 billion in debt had been forgiven. As with the Baker Plan, the new scheme included stabilization and structural adjustment programs under the auspices of the IMF and World Bank, new lending from these organizations, and bilateral debt relief.

The key to the program was the recognition by the international community and the creditor banks that by continuing to insist on full repayment, they were undermining the strength of these economies and ultimately receiving less repayment than they would under a negotiated settlement. By the early 1990s, growth had resumed and prices had stabilized. Net capital inflows, after falling to \$10 billion per year between 1983 and 1989, rose to \$60 billion in 1992. Debt reduction alone could not have solved the crisis, but debt reduction combined with new financing, strong adjustment efforts by the countries themselves, and especially the revival of the world economy in the early 1990s helped bring an end to the crisis, at least for some countries. A similar approach would be adopted for other heavily indebted nations almost a decade later.

THE DEBT CRISIS IN LOW-INCOME COUNTRIES

Although the debt crisis effectively ended in the early 1990s for most middle-income countries that had borrowed heavily from commercial banks, it continued for many low-income countries, especially many countries in Africa. Most of the debts of these countries are owed to either official multilateral organizations, such as the IMF and World Bank, or to donor governments, rather than to commercial banks. Thus, although the terms of the debts were more generous (and usually subsidized), the Brady Plan was not a solution for these countries because it was designed for commercial banks, ultimately providing the creditor with new bonds that it could sell on private bond markets. Different approaches were needed for these countries.

Low-income countries borrowed in the 1970s and 1980s for many of the same reasons as other developing countries. They were hit by the same set of strong international economic shocks: high oil import prices, low commodity prices, the end of the gold standard, and weak market demand in the industrialized countries. These challenges were even more difficult to meet in the poorest countries, which had a limited number of well-trained financial and economic experts, many of which had

gained their independence only recently and had new and untested government institutions. The impact of these shocks was exacerbated in many countries by a prolonged period of economic mismanagement. Governments kept budget deficits high, erected significant barriers to trade, distorted market prices, and failed to provide basic infrastructure and health and education services.

Even where economic policies later improved, however, growth remained elusive, partly because many of these countries also face very difficult geographical challenges, such as being landlocked, located in the tropics (where disease is much more virulent), or located in or near the Sahara Desert. Several currently are ravaged by the HIV/AIDS pandemic, which further undermines their capacity for sustained economic growth and repayment of debt.

As with the debt crisis in Latin America, creditors sometimes added to the crisis by making loans for bad projects (many designed by the very same donors that provided the loans), although in this case the major creditors were government and multilateral agencies rather than commercial banks. In some cases industrialized country governments provided loans for poor investments and grandiose consumption projects in an attempt to win countries over to one side or the other of the cold war. Some Western loans supported corrupt governments that had little intention or capability of repaying the loans to finance presidential palaces, showcase steel mills, and other wasteful expenditures.

During the 1980s and early 1990s, the international community's strategy for the low-income countries had two components, similar to the original Baker plan: provide new finance in return for significant economic reforms in the hopes that the debtor countries could grow out of their difficulties. Beginning in 1988, the financing was augmented by partial write-downs from government creditors. Multilateral creditors, including the IMF, World Bank, and other multilateral organizations (such as the African Development Bank and Asian Development Bank) offered no write-downs until 1996.

DEBT REDUCTION IN LOW-INCOME COUNTRIES

Individual creditor governments provide debt rescheduling and debt reduction through an informal group called the **Paris Club**. The governments of the United States, the United Kingdom, Japan, Germany, France, and 14 other creditor countries coordinate to offer common terms for debt restructuring to each debtor. The first meeting was in 1956, when Argentina met with a group of its creditors in Paris. Since that time, the Paris Club has negotiated over 400 agreements with at least 80 different countries. Until 1988, all Paris Club agreements involved debt rescheduling rather than reduction. Since then, agreements typically provide debt rescheduling for middle-income countries and partial debt reduction coupled with rescheduling for low-income countries. The first debt reduction deals in 1988 provided 33 percent reduction for certain qualifying debts; by 1999, the Paris Club was

providing 90 percent reduction for at least some debts owed by certain countries. Many creditor governments have gone further and provided 100 percent debt relief in some circumstances.

The arguments for providing debt relief to the poorest countries were similar but not identical to those made for the middle-income countries. The first argument was a variant of debt overhang: The debts were so large that they were impeding growth and development, partially by undermining private sector incentives but also by impeding the government's ability to make critical investments in health, education, and infrastructure.

The second argument was that the creditor governments and institutions should not have been providing so much of their financing as loans to the world's poorest countries in the first place because history suggested that accelerating growth sufficiently to repay the loans would be a major challenge. The world's poorest countries have had the most difficulty in initiating and sustaining growth, for reasons that we discussed: adverse geography, disease burdens, weak institutions, frequent climate and trade shocks, and poor policies. Providing loans to these countries rather than outright grants was based on the presumption that growth could be turned around relatively easily, providing these countries with the basis to repay their loans. But for many of the world's poorest countries, growth rates remained low, debts piled up, and many countries were able to service their loans only by receiving new loans.

The third argument is that creditors knowingly lent money to dictatorships to garner their political support, even when the dictators wasted and stole the money. Once the dictators left, the citizens of the country were left with the responsibility of repaying these debts. The Democratic Republic of the Congo, formerly Zaire, piled up large debts under the ruthless dictatorship of Mobutu Sese Seko, as Western donors happily lent him more money, even when it was obvious that most of the money was wasted or stolen. Many argue that *odious debts* (obligations accumulated by an illegitimate government in the name of a country) should be forgiven, with the costs born by the creditor (Box 13-2). The United States, which often has resisted attempts by some countries to claim odious debts, pushed hard in 2004 for other countries to forgive debts owed by Iraq. Although the United States was careful to avoid the term *odious debt* because of the legal precedent, it nonetheless argued that Iraq's debts were amassed by an illegitimate dictator and were a large impediment to future growth. In November 2004, the Paris Club agreed to cancel over \$29 billion of Iraq's debts and reschedule an additional \$7 billion, by far the largest debt forgiveness operation ever undertaken for a single country.

THE HEAVILY INDEBTED POOR COUNTRY INITIATIVE

By the middle of the 1990s, it was becoming increasingly clear that some of the poorest and most heavily indebted countries would not be able to repay their debts. Most of these countries almost never actually defaulted on their debt payments: Instead,

BOX 13-2 ODIOUS DEBT

Under the law in many countries, *individuals* do not have to repay if others fraudulently borrow in their name and *corporations* are not liable for contracts that their chief executive officers enter into without proper authority. The legal doctrine of odious debt makes an analogous argument that sovereign debt that is incurred without the consent of the people and that does not benefit the people should not be transferable to a successor government, especially if creditors are aware of these facts in advance. But many developing countries carry debt incurred by rulers who borrowed without the people's consent and who used the funds either to repress the people or for personal gain.

The doctrine of odious debt originated in 1898 after the Spanish American War. During peace negotiations, the United States argued that neither it nor Cuba should be responsible for debt the colonial rulers had incurred without the consent of the Cuban people and had not used for their benefit. Although Spain never accepted the validity of this argument, the United States implicitly prevailed, and Spain took responsibility for the Cuban debt under the Paris peace treaty.

Though legal scholars elaborated the details of the doctrine of odious debt, it has gained little momentum within the international legal community—still, many countries could qualify. For example, through the 1980s, South Africa's apartheid regime borrowed from private banks, devoting a large percentage of its budget to financing the military and police and repressing the black majority. The South African people now bear the debts of their repressors. Despite appeals—from the archbishop of Cape Town and South Africa's Truth and Reconciliation Commission—to have the apartheid-era debt written off, the post-apartheid government has accepted responsibility for it, perhaps out of fear that defaulting would make the country seem not to be playing by the rules of capitalism and would hurt its chances of attracting foreign investment. South Africa is not poor enough to qualify for debt relief under the HIPC Initiative.

Among other dramatic instances of odious debt, Anastasio Somoza was reported to have looted \$100 to \$500 million from Nicaragua by the time he was overthrown in 1979; Ferdinand Marcos amassed a personal fortune of \$10 billion in the Philippines; Mobutu Sese Seko expropriated a reported \$4 billion from the Democratic Republic of the Congo (then Zaire); and Jean-Claude Duvalier reportedly absconded with \$900 million from Haiti. Some of the money that built these fortunes was drawn from amounts that these dictators borrowed in the name of their people. Recently, the United States successfully argued that debts accumulated by Saddam Hussein in Iraq were illegitimate and should be

forgiven, although, to avoid setting a legal precedent for other countries to follow, the United States did not use the *odious debt* terminology. The international community forgave over \$29 billion in Iraqi debt in 2004.

Economists Michael Kremer and Seema Jayachandran have argued for the creation of an independent institution to assess whether regimes are legitimate and declare sovereign debt incurred by illegitimate regimes odious and thus not the obligation of successor governments.

Adapted from Michael Kremer and Seema Jayachandran, "Odious Debts," *Finance and Development* 39, no. 2 (June 2002).

as the debt payments grew, the creditors lent them new money so they could repay the old, a strategy known as **defensive lending** (because the loans defend the creditor against the possibility of the debtor defaulting). But this strategy could not be sustained indefinitely, and debt levels continued to grow while growth rates remained stubbornly low.

In 1996, the international community recognized that deeper debt reduction would be necessary. The World Bank and IMF, in conjunction with other multilateral agencies and creditor governments, launched the rather awkwardly named Heavily Indebted Poor Countries (HIPC) Initiative.⁶ The HIPC include 38 countries with per capita incomes below \$900 (converted using official exchange rates rather than purchasing power parity [PPP]) and with NPV debt/export ratios exceeding 150 percent.⁷ Most had much higher debts. From 1982 to 1992, the NPV debt/export ratio deteriorated from an average of 266 percent to 620 percent for the HIPC. The new initiative had two key features, deeper debt relief from bilateral government creditors (initially up to 80 percent of qualifying debts, then in 1999 up to 90 percent), and for the first time ever, partial write-downs of debts owed to the multilateral agencies.

The first version of the HIPC initiative turned out to be too cumbersome and time-consuming to be effective. In the first three years, only five countries received debt relief, and the amounts involved were relatively small. In 1999 a new, enhanced HIPC Initiative was introduced to provide more relief and provide it more quickly.

To be eligible for debt reduction, a country must first establish a track record of good economic policies, as determined by the IMF and World Bank, usually

⁶For a thorough analysis of the HIPC program and related debt issues, see Nancy Birdsall and John Williamson (with Brian Deese), *Delivering on Debt Relief: From IMF Gold to New Aid Architecture* (Washington, DC: Center for Global Development and Institute for International Economics, April 2002).

⁷In certain circumstances, where countries have very open economies and the NPV/export ratio may not be appropriate (because large exports drive down the ratio), countries qualify if the NPV debt/revenue ratio is above 250 percent. For more information on HIPC, see www.worldbank.org/hipc.

including a stable macroeconomic environment, lower trade restrictions, policies to support private-sector growth, and strengthening of the financial and legal systems. Countries must develop **Poverty Reduction Strategy Papers**, detailing their plans for growth, development, and poverty reduction. Once countries establish this track record, they reach the **decision point** at which creditors provide interim relief—that is, they forgive debt payments as they fall due but do not yet forgive the stock of debt. Countries that maintain strong economic policies for an additional year or more and carry out specific reforms determined at the decision point reach the **completion point**, at which time they receive irrevocable debt reduction.

Under the program as it was conducted until 2009, countries that reach the completion point received debt reduction sufficient to reduce their NPV debt/export ratio to 150 percent, a level the IMF and World Bank deem to be the threshold for sustainable debt for low-income countries. Two features of this approach are noteworthy. First, a single threshold level is used for all countries. Basic economics would suggest that each country can sustain a different level of debt, but politically and institutionally, it was simpler for these organizations to treat all countries the same. Second, note that whereas the Paris Club forgives a percentage of debt, HIPC forgives the excess over the threshold. Thus a country with a NPV debt/export ratio of 200 percent would receive 25 percent debt forgiveness, whereas a country with a 300 percent ratio would receive a 50 percent write-off.

In 2005, the shareholders of the IMF, World Bank, and African Development Bank decided to go a step further and offer 100 percent forgiveness of all obligations owed to the three organizations for countries that reached the completion point. This step represented a major change and is the first time any of the organizations provided 100 percent forgiveness.

As of 2009, 35 HIPC had reached the post-completion point, and 12 countries were at the interim or predecision point (several mired in civil conflict were technically eligible but had made little progress). The 35 countries that reached their post-completion points had received debt relief amounting to \$118 billion from the HIPC Initiative and a variety of other related bilateral and multilateral debt relief initiatives. The debt service/export ratio fell from an average of about 18 percent in 1999 to 6 percent in 2009, while debt service/revenues fell from 22 percent to 6 percent. In many countries, the benefits from the program were already evident. For example, Ghana used its savings to construct 509 new classroom blocks around the country, provide micro credit to about 43,000 farmers, and fund 560 sanitation and 141 water projects. Both Uganda (Box 13-3) and Tanzania used some of their saving to eliminate primary school fees, leading to sharp increases in school enrollment.

The HIPC Initiative demonstrates that, even after policy makers decided that some debt forgiveness is warranted, they face several key questions. These issues are more difficult in forgiving debts owed to government and multilateral institutions because market-based mechanisms are less relevant. Which countries should be eligible and which should not (that is, what are the right cutoffs for “poor” and “heavily indebted”)? How much debt should be forgiven and over what time frame? Should

BOX 13-3 DEBT RELIEF IN UGANDA

When Uganda gained its independence from Britain in 1962, there was widespread optimism that its vibrant agricultural base and diverse, talented people could provide the basis for sustained economic development. However, political instability in the late 1960s and a 1971 coup led by Idi Amin ushered in a long period of political terror and economic destruction. By the time Yoweri Museveni assumed power in 1986, Uganda was one of the poorest countries in the world. Food production had fallen by a third in 15 years; average income had declined by over 40 percent; and life expectancy was just 48 years.

The new government embarked on a broad-based economic rebuilding program that focused on rehabilitating infrastructure, restoring macroeconomic balance, lowering barriers to trade, and investing in the social sectors. In the 15 years that followed, the economy staged a remarkable recovery. Average income increased by nearly 60 percent, and the share of the population living below the poverty line fell from 56 to 44 percent. By the mid-1990s, however, Uganda had accumulated a substantial debt burden. By 1993, total external debt was more than 12 times the value of annual exports, one of the highest such ratios in the world (total debt equal to twice the value of exports is generally considered a heavy burden). Two thirds of the debt was owed to multilateral agencies, so the traditional methods for debt relief (for private sector or bilateral debt) had limited potential.

In April 1998, Uganda was the first country to become eligible for debt reduction under the Heavily Indebted Poor Countries (HIPC) Initiative. In the first formulation of the program, Uganda received about \$650 million in debt relief, reducing its \$3.2 billion debt stock by about 20 percent. Two years later, Uganda became the first country to qualify for the enhanced HIPC program, which offered deeper debt relief. This second phase reduced Uganda's debts by about \$1.3 billion, bringing the total debt reduction to approximately \$2 billion. These steps reduced Uganda's debt service payments by about \$80 million per year, or about two thirds of debt service payments due. In 2005, Uganda became eligible for 100 percent forgiveness of debts owed to the International Monetary Fund (IMF), World Bank, and African Development Bank. Uganda's early success with the program was encouraging: The country sharply increased the net primary school enrollment rate from 62 to 86 percent between 1992 and 2003, raised investments in farm-to-market roads by 75 percent, and brought the share of the urban population with access to safe water from 54 percent in 2000 to 65 percent in 2003 (however, the country also increased its military spending in response to regional conflicts). Gross domestic product (GDP) per capita grew at a rate just below 3.6 percent between 1995 and 2010, increasing average income by 70 percent over that period.

This information is drawn primarily from multiple World Bank websites on the HIPC program and

growth of 5 percent or more two years after their respective crises. As we shall see, the relatively rapid recovery is at least partly a reflection of the central role played by creditor panic in many of these crises.

How did the crises happen? The affected countries had several characteristics in common. First, they tended to be middle-income and upper-middle-income countries that had been growing quickly. Second, all had received large flows of private international capital, much of it with short-term maturity structures. Third, they recently had liberalized their financial systems and had recorded a very rapid—perhaps too rapid—expansion of bank lending and other financial services. Fourth, most of the crisis countries had exchange rates heavily controlled by their central banks, often strictly fixed (or pegged) to the U.S. dollar. Fifth, some countries, but not all, had large government budget deficits financed by a combination of borrowing from local and overseas banks and bondholders. These similarities suggest that government policies contributed to the crises, especially banking, financial, and exchange rate policies. However, the quick recovery in several countries, the fact that crises struck so many countries in such a short period of time, and the consistent pattern of rapid buildup and then withdrawal of private foreign capital all suggest that flaws in the operations of international capital markets played an important role as well.

DOMESTIC ECONOMIC WEAKNESSES

Each of the crisis countries had liberalized its financial systems in the late 1980s and early 1990s and had done it in ways that inadvertently left the financial systems fragile and overextended. Entry requirements were eased for banks and other financial institutions, allowing new private banks to open. Governments removed regulations that controlled interest rates and forced banks to allocate credit to particular firms and investment projects, so banks had more flexibility in their lending and interest rate decisions. At the same time, banks were given much greater freedom to raise funds through offshore borrowing, indeed in some countries government policies actively encouraged banks to borrow from foreign banks and relend to domestic companies. In Thailand, total foreign liabilities of banks and financial institutions rose from 5 percent of GDP in 1990 to 28 percent of GDP in 1995, mostly reflecting Thai banks borrowing from foreign commercial banks. The combination of these changes led to very rapid increases in domestic lending by banks, which grew by the equivalent of more than 50 percent of GDP in just seven years in South Korea, Malaysia, and Thailand.

Of course, financial liberalization can bring about many benefits to developing countries, including the mobilization of additional resources, reduced intermediation costs, and improved allocation of credit. The problem was not financial liberalization per se but how it was done, especially how rapidly it was done. The speed and magnitude of the expansion of financial activities outstripped the government's ability to establish strong legal and supervisory institutions to safeguard the system.

Central banks did not have supervisors with the skills and authority necessary to determine which banks were vulnerable and take steps to penalize or close poorly performing institutions. Bank regulations were weak, poorly enforced, or both. In some cases, supervisors were pressured (or bribed) to overlook violations by banks with politically influential owners. As a result, some banks were undercapitalized, nonperforming loans were at high levels, and many prudential regulations were broken with no penalty. Over time, loans tended to go to weaker investment projects, and the quality of banks' loan portfolios deteriorated. This left the banks (and the financial systems more broadly) in a vulnerable situation. In Thailand, for example, extensive lending was directed at real estate, construction, and property. When property prices began to fall in late 1996, banks exposed to these markets began to weaken considerably, making these banks' foreign creditors increasingly nervous.

Exchange rate policies added to the problems. Each of the crisis countries had either fixed or heavily managed exchange rate systems; none had fully flexible currencies. Although fixed exchange rates help keep import prices stable and provide a price anchor in a highly inflationary environment, they can create three kinds of problems.

First, they tend to encourage short-term capital inflows, which are especially vulnerable to rapid withdrawals. With fixed exchange rates, investors believe there is little chance they will lose money from a rapid change in the exchange rate. A foreign investor is more likely to buy a one-month bond denominated in Mexican pesos if the investor believes there is little risk that the exchange rate will change during the month. In countries with flexible exchange rates, foreign investors must take into account the risk that a relatively small exchange rate movement quickly could wipe out any gain they realize from higher interest rates.

Second, fixed exchange rates tend to become overvalued, which makes imports cheap and undercuts the profitability of exports. Partly because of their exchange rate policies, the crisis economies generally experienced growing imports, a slowdown in export growth, and a widening of the trade deficit in the years preceding the crisis.

Third, and more subtly, once capital withdrawals begin in the early stages of a crisis, fixed exchange rates tend to help accelerate the withdrawals. Once investors recognize that withdrawals are under way, they begin to speculate against the local currency, betting that the government will have to remove the fixed exchange rate.⁸ This speculation adds to the loss of reserves and the pressure on the exchange rate.

⁸Such speculation takes place along the lines of the following, very simplified example. A foreign investor believes that the Philippine peso will have to be devalued. The investor takes out a short-term loan of 25 million pesos from a bank in the Philippines. The investor then converts the money into dollars using the current exchange rate of 25 pesos to the dollar, yielding \$1 million. If the investor is right and the exchange rate moves, fewer dollars will be required to repay the loan. For example, if the exchange rate moves to 50 pesos to the dollar, the investor need convert only \$500,000 dollars to get the 25 million pesos needed to repay the loan, allowing the investor to pocket a tidy profit of the remaining \$500,000. This strategy is called *shorting the peso*.

When the central bank finally runs out of reserves, it has little choice but to allow the currency to float, which usually leads to a very large depreciation. The Thai baht jumped from 25 baht to the dollar in July 1997 to 54 baht to the dollar in January 1998, and the Korean won moved from about 900 won to over 1,900 won to the dollar in just a few months before appreciating back in early 1998. It is easy to see why someone holding assets denominated in either baht or won and expecting a devaluation would have wanted to get money out of these countries as quickly as possible.

SHORT-TERM CAPITAL FLOWS

While policy weaknesses undoubtedly created vulnerabilities in these economies, to fully explain the speed and ferocity of the crises we must turn to the operations of the international capital markets and the actions of the foreign creditors.

A key reason that so much capital was able to leave these countries so quickly was that so much of it had very short-term maturity structures. A large portion of the loans to the firms, banks, and governments in the crisis countries was scheduled to be repaid in just a few months or even weeks. These **short-term loans** (with full repayment due in one year or less) were attractive to both borrowers and lenders. For the borrowers, short-term loans generally carry lower interest rates; for the lender, short-term loans carry lower risk (and require less provisioning by the supervisory authorities)⁹ because the lender is not exposed over long periods of time. As long as these economies continued to grow, creditors were happy to roll over the loans when they fell due (that is, make a new loan for the same amount to repay the old loan), allowing borrowers to continue their operations. So as long as things are going well, short-term loans *appear* to pose few problems. However, as soon as there is any trouble—or more precisely, as soon as creditors think there *may* be trouble—creditors quickly withdraw their lines of credit and demand immediate repayment of loans. This is precisely what happened in East Asia: When Thailand's economy began to noticeably weaken in late 1996 and early 1997, creditors began to close off their lines of credit and demand repayment, setting off a chain of events that led to financial panic and severe economic crisis.

Economies become vulnerable to a sudden withdrawal of international capital when the short-term foreign exchange *liabilities* of the economy grow in excess of short-term foreign exchange *assets*. In that situation, economies can become *illiquid*: Roughly speaking, there may not be enough dollars (or whatever relevant foreign currency) on hand to pay all the international debts falling due. Table 13-7 shows the size of one significant type of foreign liability for the crisis countries: short-term debts

⁹Central banks require commercial banks to set aside (or provision) a percentage of all new loans to ensure that the bank has some capital on hand in case loans fail. The amount of provisioning varies by the perceived risk of the loan and generally is smaller for short-term loans. In part because banks do not have to provision as much for these loans, short-term loans carry lower interest rates than long-term loans.

owed to foreign commercial banks by the government, state-owned companies, commercial banks, and private corporations in each economy. The table also shows data for the main liquid foreign exchange asset of an economy: the foreign exchange reserves held by the central bank. The last column shows the key point: In each of the crisis economies, short-term foreign debts exceeded or nearly exceeded the available foreign exchange reserves. In this situation, economies are *vulnerable* to a severe crisis because if all short-term loans are called in for repayment, not enough foreign exchange is available to repay every debt.

Bear in mind that the short-term bank loans shown in Table 13-7 are just one kind of short-term foreign exchange liability. Other kinds of foreign capital also can be withdrawn quickly, including portfolio equity (that is, stock purchases), foreign-exchange bank deposits, hedging instruments, and long-term loans with clauses that

TABLE 13-7 Short-Term Foreign Debt and Reserves (million US\$)

COUNTRY	PERIOD	SHORT-TERM DEBT	RESERVES	SHORT-TERM DEBT/ RESERVES
<i>Crisis countries</i>				
Argentina	June 1995	21,509	10,844	1.98
Argentina	June 2001	40,916	21,077	1.94
Argentina	September 2001	37,792	20,555	1.84
Argentina	December 2001	32,320	14,553	2.22
Brazil	December 1998	41,038	42,580	0.96
Indonesia	June 1997	34,661	20,336	1.70
Korea	June 1997	70,612	34,070	2.07
Malaysia	June 1997	16,268	26,588	0.61
Mexico	December 1994	33,149	6,278	5.28
Philippines	June 1997	8,293	9,781	0.85
Russia	June 1998	34,650	11,161	3.10
Thailand	June 1997	45,567	31,361	1.45
Turkey	June 1994	8,821	4,279	2.06
Turkey	June 2000	26,825	24,742	1.08
Turkey	September 2000	27,845	24,255	1.15
Turkey	December 2000	28,360	22,488	1.26
Venezuela	June 1994	4,382	5,422	0.81
<i>Noncrisis countries</i>				
Chile	June 1997	7,615	17,017	0.45
Colombia	June 1997	6,698	9,940	0.67
Egypt	June 1997	4,166	18,779	0.22
India	June 1997	7,745	25,702	0.30
Jordan	June 1997	582	1,624	0.36
Peru	June 1997	5,368	10,665	0.50
Sri Lanka	June 1997	414	1,770	0.23
Taiwan	June 1997	21,966	90,025	0.24

Sources: Bank for International Settlements, *The Maturity, Sectoral, and Nationality Distribution of International Bank Lending* (Basel, Switzerland: various issues); International Monetary Fund, *International Financial Statistics* (Washington, DC: various years); Joint BIS-IMF-OECD-WB Statistics on External Debt (November 30, 2004) at www.jedh.org accessed in 2005.

allow accelerated repayment, but data on these forms of capital are not available. Moreover, the withdrawals generally are not limited to foreigners: Local citizens also begin to try to convert their assets out of domestic currency and into dollars (or yen), putting further pressure on the exchange rate. Note that longer-term loans and FDI generally cannot be reversed as quickly as short-term loans and therefore are less prone to rapid withdrawals.

CREDITOR PANIC

These financial crises were at least partially the result of what are known as rational panics by the creditors. Under certain circumstances, investors may have the incentive to quickly withdraw their money from an otherwise reasonably healthy economy, if they believe that other investors are about to do the same thing. The classic example from within one economy is a bank run, in which bank depositors suddenly withdraw their funds and deplete the capital of the bank. The particular conditions under which a rational panic can occur are described in Box 13-4.

BOX 13-4 MODEL OF SELF-FULFILLING CREDITOR PANICS

Self-fulfilling creditor panics are best understood by beginning with the critical distinction between illiquidity and insolvency. An *insolvent* borrower lacks the net worth to repay outstanding debts out of future earnings. An *illiquid* borrower lacks the ready cash to repay current debt servicing obligations, even though it has the net worth to repay the debts in the long term. A *liquidity crisis* occurs if a solvent but illiquid borrower is unable to borrow fresh funds from the capital markets to remain current on debt-servicing obligations. Because the borrower is solvent, capital markets could in principle provide new loans to repay existing debts with the expectation that both the old loans and the new loans will be fully serviced. The unwillingness or inability of the capital market to provide fresh loans to the illiquid borrower is the nub of the matter.

Why might markets fail this way? The primary reason is a problem of collective action. Suppose each individual creditor is too small to provide all of the loans needed by an illiquid debtor. A liquidity crisis results when creditors as a group would be willing to make a new loan, but no individual creditor is willing to make a loan *if the other creditors do not lend as well*. One possible market equilibrium is that no individual creditor is willing to make a loan to an illiquid borrower precisely because each creditor (rationally) expects that no other creditor is ready to make such a loan.

Consider a simple illustration. Suppose that a borrower owes debt D to a large number of existing creditors. The debt requires debt service of θD in period one, and debt service of $(1 + r)(1 - \theta)D$ in period two, where r is the rate of interest charged on the unpaid balance of the loan. The debtor owns an investment project that will pay off Q_2 in the second period. (Note that for the project to be profitable, $Q_2/(1 + r)$ must be greater than the present value of total debt service payments in both periods $\theta D + [(1 + r)(1 - \theta)D]/(1 + r)$, which must be equal to D .) The debtor lacks the cash flow to repay θD because the investment project pays off only in the second period. Moreover, if the debtor defaults, the loan repayment schedule is accelerated (that is, creditors demand immediate repayment). The investment project is then scrapped, with a salvage value of $Q_1 < D$. In that case, the partial repayment of the outstanding loan from the salvage value is shared among the existing creditors on a pro rata basis.

Typically, this solvent but illiquid borrower would borrow a fresh loan, L , in the first period, use it to repay θD , and then service $(1 - \theta)D + L$ in the second period. Thus with $L = \theta D$, the total repayment due in the second period is $(1 + r)\theta D + (1 + r)(1 - \theta)D = (1 + r)D$, which by assumption is less than Q_2 . In this case, then, the project remains profitable.

Suppose, however, that each individual creditor can lend at most λ , where $\lambda < D$ (that is, λ is much smaller than D). This lending limit might result from prudential standards imposed on individual bank lenders, which limit their exposure to particular debtors. If only one lender is prepared to lend in the first period, the borrower will be forced into default because it will not be able to service its debts in the first period. The new creditor lending λ in the first period would then suffer an immediate loss on its loans (indeed, it might receive nothing if repayments are prioritized such that all of the preceding creditors have priority on repayment). Obviously, a first period loan will require at least n_1 new lenders, where $n_1 = \theta D/\lambda$.

There are clearly multiple rational equilibria in this situation. In the normal case, n_1 lenders routinely step forward, the existing debts are serviced, and the future debts are also serviced. The investment project is carried to fruition. In the case of a financial crisis, each individual creditor decides not to lend on the grounds that no other creditor is making loans. The debtor is pushed into default. The debt repayments are accelerated, and the investment project is scrapped with sharp economic losses because the salvage value Q_1 is less than $Q_2/(1 + r)$. Each individual creditor, of course, feels vindicated in its decision not to lend; after all, the debtor immediately goes into default.

Source: Excerpt from "The East Asian Financial Crisis: Diagnosis, Remedies, Prospects" by Steven Radelet, et al., *Brookings Papers on Economic Activity*, No. 1, 1998. Reprinted by permission of Brookings Institution Press.

In an international context, two conditions provide the foundation for such a panic. The first is a high level of short-term foreign liabilities relative to foreign assets. In this situation, each creditor begins to recognize that, if all creditors demanded repayment, not enough foreign exchange would be available to pay everyone. The second is that some event makes creditors believe that other creditors may begin to demand repayment. The event could be a military coup, a natural disaster, a sharp fall in export prices, a fall in property prices that weakens the domestic banking system, or an event in a neighboring country that makes creditors nervous about an entire region. Once creditors believe that others might pull out, the only rational action for each creditor is to immediately demand repayment ahead of everyone else, to avoid being the last in line and left unpaid if foreign exchange reserves are depleted. This is why the very rapid withdrawals are called *rational panics*. The irony, of course, is that the simultaneous demand for repayment by all the creditors ultimately depletes reserves and brings on the very crisis that all would rather avoid. In this sense, these crises are often referred to as *self-fulfilling*: The fact that more creditors believe that a crisis is possible in itself makes a crisis more likely to actually happen.

In Asia, once Thailand's economy began to slow in late 1996 and early 1997 and banks came under increasing pressure from falling property prices, foreign creditors that had lent to Thai banks began to get nervous and withdraw their loans. Other creditors came to believe that Thailand might run out of foreign exchange reserves, devalue the baht, or both, and began to withdraw their credits. These events ultimately depleted foreign exchange reserves and forced the large depreciation of the baht that began in July 1997. The weaknesses in Thailand made creditors more nervous about its neighbors, specifically Korea, Malaysia, Indonesia, and the Philippines. A similar chain of events (with differences in the specific details and triggering events) occurred in most of the other crisis countries.

Once a panic begins, it tends to perpetuate itself for a period of time, for several reasons. First, as foreign creditors demand repayment and the exchange rate begins to depreciate, local citizens try to convert their financial assets from local to foreign currency, putting additional pressure on reserves and the exchange rate. This was a particularly large problem in Argentina, Brazil, Indonesia, and Russia. Second, the depreciations wreak havoc on the balance sheets of banks and corporations that had borrowed in foreign currency. For example, as the Indonesian rupiah jumped from about 2,500 rupiah to the dollar in mid-1997 to over 10,000 rupiah to the dollar in early 1998, Indonesian corporations with dollar debts had to come up with *four times* more rupiah to make their payments. The crippling effect of the exchange rate movement was obvious to the creditors, so the more the exchange rate fell, the faster the foreign creditors tried to withdraw any remaining loans, putting even more pressure on the exchange rate. Third, as exchange rates fall in one country, creditors begin to believe something similar will happen in neighboring countries, so they start to withdraw their funds from other emerging markets. There was no hint of trouble in

Malaysia, Indonesia, and the Philippines until the Thai baht collapsed in July 1997. Within weeks contagion had struck, and creditors were withdrawing their money from almost every country in the region.

These emerging market financial crises were not new phenomena. Similar events have been recurring in slightly different forms since the development of banks and the emergence of international capital flows several centuries ago. Economists have long recognized that financial markets (both domestic and international) tend to be prone to instability and panic. Early in the twentieth century, industrialized country governments put into place mechanisms and institutions specifically designed to reduce the frequency and severity of financial crises, including lender-of-last-resort facilities at the central bank, deposit insurance, and bankruptcy procedures, making crises much less common within these countries.

However, these key institutions generally do not exist in international financial markets, leaving these markets vulnerable to panics. When central banks face a run on their foreign exchange reserves (akin to a commercial bank facing a depositor run), no international lender of last resort stands ready to supply it with the foreign exchange it needs to remain liquid (the IMF only partially fulfills this role, as discussed later). Similarly, no international insurance mechanism akin to deposit insurance assures creditors that they will be paid if a borrower defaults. And there is no international bankruptcy court that can call for a mandatory standstill on debt service payments and oversee the distribution of assets when a country cannot meet its short-term foreign currency obligations. On each count, there is extensive debate as to whether these institutions *should* exist and, if so, how they might realistically be designed to operate effectively in an international context, where there is no single legal authority. For example, an international agency that insures creditors could lead to excessive lending to weak companies because the creditor always could rely on an insurance settlement if the company goes bankrupt. In any event, in the absence of these institutions, international financial markets continue to be prone to rapid oscillations and financial panics.

STOPPING PANICS

Once a financial panic from international capital withdrawals is under way, it is very hard to stop. There are four basic options:

1. Governments can try to convince foreign creditors and citizens to stop withdrawing funds and even supply new funding. They can reduce the demand for foreign exchange by tightening fiscal and monetary policies and, perhaps, restricting imports. They can also implement policy reforms aimed at correcting perceived weaknesses in the economy. For example, if creditors are worried about the banking sector, reforms to strengthen banks might convince creditors to begin lending again.

2. Governments can try to increase the supply of foreign exchange by borrowing from official sources (such as the IMF and World Bank), much like a commercial bank borrows from its central bank in the event of a bank run. New funds can help assure creditors that enough foreign exchange is on hand to pay everyone, if need be, and allow the economy to operate normally.
3. Governments can try to stop the creditor rush for repayment by restructuring foreign debts so they will be repaid over longer periods of time. This option may include a formal debt rescheduling, a limited standstill period during which loan repayments are postponed, or in some cases outright default.
4. The government can do nothing (intentionally or unintentionally) and let the panic run its course until all creditors have fled, foreign exchange reserves are exhausted, debts are in default, and the economy is in deep recession. At some point, even in these dire circumstances, some investors will begin to return to take advantage of low asset prices, the foreign exchange market will begin to stabilize (at a greatly depreciated exchange rate), and the economy slowly will begin to recover.

The appropriate combination of policy actions and financing depends on the root causes of the crisis and the perceptions of international creditors, but there is little doubt that both policy adjustments and financing are necessary to avoid complete collapse. The problem, of course, is that correctly diagnosing a panic and prescribing the right response is very difficult when markets are changing by the hour, little accurate information is available, and the perceptions and reactions of creditors are impossible to measure. It therefore is not surprising that both the affected countries and the international community often make mistakes when dealing with incipient crises, like the ones faced by the emerging market economies.

In most of the affected economies, once the crisis was under way, the government turned to the IMF for advice and financial assistance. The IMF was established in 1945 in the aftermath of the Great Depression and World War II to help support stability in the international monetary system, including promoting the balanced expansion of world trade, the stability of exchange rates, and orderly corrections of balance-of-payments problems.¹⁰ It aims to prevent crises or moderate their impact by encouraging countries to adopt what it sees as sound economic and financial policies and by providing temporary financing when necessary to address balance-of-payments problems. The IMF was undoubtedly in a difficult situation in working on these crises. The policies and programs it promoted during the crises were hotly debated, with analysts divided on whether the programs initially helped ease the

¹⁰See the description of the purposes of the IMF at www.imf.org/external/pubs/ft/exrp/what.htm.

crisis or unintentionally added to the panic, at least in its early stages, by shaking the confidence of investors and further weakening the economy.¹¹

The IMF's initial set of policy prescriptions, consistent with option 1, centered on tightening both fiscal and monetary policies (to reduce aggregate demand and the demand for foreign exchange) and closing weak financial institutions. Each requires a delicate balance. In countries in which the fiscal deficits were large and part of the problem (because they required significant financing) such as Argentina and Turkey, some fiscal tightening was necessary. However, in other countries, particularly those in Asia, where the fiscal balance was either a small deficit or even a surplus, tightening fiscal policy was more debatable, and some analysts believe this step may have added to the economic contraction. Tightening monetary policy and raising interest rates is even more complex. On the one hand, high interest rates might attract some foreign currency and slow capital withdrawals. On the other hand, foreign creditors might believe that high interest rates would further weaken banks and corporations, leading them to accelerate their demands for repayment. The empirical evidence on this issue is far from conclusive. Perhaps the most controversial issue was reform of financial institutions. There is no doubt that banking systems were weak and overextended and needed significant reform. However, the very abrupt closure of some of these institutions may have added to the panic in the short run, leading to an acceleration of bank runs as depositors feared their bank would be the next closed.

Actions by governments in several of the crisis economies exacerbated rather than eased the crisis. Thailand's reluctance to float its currency earlier and take steps to address the problems facing banks that were heavily exposed to property markets made the crisis more severe than it otherwise would have been. The Indonesian central bank made huge loans to try to prop up weak banks, ultimately fueling capital flight and further weakening the currency.

Turning to the second option, these programs were supported by substantial financing from the IMF and, in some cases, bilateral funding from the governments of Japan, the United States, and European countries. This financing was designed to augment the foreign exchange reserves of the crisis economies, convince creditors that sufficient funds would be available to repay everyone, and ease pressure on the exchange rate. In several cases, the amount of financing pledged by the international community was extremely large (Table 13-8). International financial commitments to Mexico, Brazil, South Korea, and Turkey all exceeded \$30 billion.

¹¹For debates on these issues, see Steven Radelet and Jeffrey D. Sachs, "The East Asian Financial Crisis: Diagnosis, Remedies, Prospects," *Brookings Papers on Economic Activity* 1 (1998), 1-90; Jason Furman and Joseph Stiglitz, "Economic Crises: Evidence and Insights from East Asia," *Brookings Papers on Economic Activity* 2 (1998), 1-136; Martin Feldstein, "Refocussing the IMF," *Foreign Affairs* 77, no. 4 (March-April 1998), 20-33; Stanley Fischer, "In Defense of the IMF," *Foreign Affairs* 77, no. 4 (July-August 1998); Timothy Lane et al., "IMF-Supported Programs in Indonesia, Korea, and Thailand: A Preliminary Assessment," IMF Occasional Paper 178 (1999); World Bank, *East Asia: The Road to Recovery* (Washington, DC: World Bank, 1998); Martin Feldstein, ed., *Economic and Financial Crises in Emerging Market Economies* (Chicago: University of Chicago Press, 2003); Nouriel Roubini and Brad Setser, *Bailouts or Bail-Ins? Responding to Financial Crises in Emerging Economies* (Washington, DC: Institute for International Economics, 2004).

TABLE 13-8 International Financing for Selected Crisis Countries

COUNTRY	IMF COMMITMENTS		BILATERAL COMMITMENTS		TOTAL COMMITMENTS		ACTUAL DISBURSEMENTS	
	BILLION DOLLARS	PERCENT GDP	BILLION DOLLARS	PERCENT GDP	BILLION DOLLARS	PERCENT GDP	BILLION DOLLARS	PERCENT GDP
Mexico (1995)	18.9	4.6	20	5.0	38.9	9.6	27.6	6.8
Thailand (1997)	4.0	2.2	10.0	5.5	14.0	7.7	11.2	6.2
Indonesia (1997)	11.3	5.0	15.0	6.6	26.3	11.6	10.8	4.7
Korea (1997)	20.9	4.0	20.0	3.8	40.0	7.7	19.4	3.7
Russia (1998)	15.1	3.5	0	0.0	15.1	3.5	5.1	1.2
Brazil (1998-99)	18.4	2.3	14.5	1.8	32.9	4.1	17.5	2.2
Turkey (1999-2002)	33.8	17.0	0	0.0	33.8	17.0	23.1	11.6
Argentina (2000-01)	22.1	7.8	1.0	0.4	23.1	8.1	13.7	4.8
Uruguay (2002)	2.7	14.5	1.5	8.0	2.7	14.5	2.2	11.8
Brazil (2001-02)	35.1	6.9	0	0.0	35.1	6.9	30.1	5.9

GDP, gross domestic product.

Source: Nouriel Roubini and Brad Setser, *Bailouts or Bail-Ins? Responding to Financial Crises in Emerging Economies* (Washington, DC: Institute for International Economics, 2004).

The amounts actually disbursed were often smaller, either because the simple announcement of the amounts available helped ease creditor concerns, the crisis began to pass before the full amounts were necessary, or sometimes because the recipient countries did not fulfill specified conditions so funds were withheld. In Mexico, South Korea, Brazil, and Turkey, the funds clearly were sufficiently large to help ease the panic; in other cases, it is less clear the amounts were sufficient. However, some analysts believe that large financing packages are harmful in the long run: Some suggest that the bailout of Mexico in 1995 made private creditors more relaxed about lending aggressively to other emerging markets and so may have contributed to the buildup in capital flows that led to other crises in 1997 and 1998. This kind of situation is known as **moral hazard**, the risk that an agreement or contract will alter the behavior of interested parties in perverse ways.¹² In this case, the agreement to bail out Mexico might have led investors to believe they could take greater risks in other emerging markets, as they would get bailed out in the event of another crisis. However, many analysts dispute whether Mexico's bail out had this effect.

Option 3 is to restructure the debts to either stretch out the maturity dates so the debts can be paid later or to write off part or all of the debt. In the most extreme cases, such as Argentina, Ecuador, and Russia, governments adopted a unilateral **standstill**—that is, they halted all debt payments—or simply defaulted. In effect, these steps effectively forced the creditors to provide financing involuntarily, what economists Nouriel Roubini and Brad Setser refer to as “bailing in” the creditors.¹³ The option for default is even more complicated when the creditors are not just foreign banks but local banks or citizens who hold government bonds. When governments have borrowed from local banks, defaulting on those debts further weakens the domestic banking system and can lead to a freeze on deposits, obviously a politically unpopular step.¹⁴

Steps less dramatic than outright default are possible and less disruptive. Brazil and Turkey persuaded at least some of the foreign banks to roll over existing lines of credit, but these were not mandatory and many banks did not do so. More-formal restructurings are also an option. Turkey exchanged about \$8 billion of short-term local currency debt, held mostly by domestic banks and residents, into longer-term dollar and lira debt. Argentina extended the maturity of about \$15 billion in government debt and capitalized interest on another \$15 billion in long-term debt. These deals were expensive in terms of the interest rates charged, but they provided immediate financing and avoided the disruptions of default.

Perhaps the most interesting and important debt restructuring was in South Korea. In late December 1997, under pressure from the U.S. government and the IMF,

¹²The classic example of moral hazard is insurance markets, where coverage against a loss might increase risk-taking behavior by the insured.

¹³Roubini and Setser, *Bailouts or Bail-Ins?*

¹⁴Defaulting on debts owed to foreign banks similarly can weaken those banks, but they tend to be a much smaller share of the foreign banks' balance sheets, so the impact is more limited.

the major creditors to South Korea's banks agreed to reschedule about \$22 billion in debt payments that were to fall due in the first quarter of 1998. This step was taken very early in the crisis, and its preventative effect in stopping the panic was immediate: The Korean won began to appreciate, and the Korean stock market rebounded the day after the rescheduling was announced. Within weeks, the most intense part of the Korean crisis effectively was over, and the Korean economy rebounded very quickly.

Debt restructurings have several advantages. First, they at least partially share the burden of adjustment between the creditors and debtors, rather than forcing the debtor to make all the adjustments. This is not only more fair, it may have a preventative aspect: With standstills or restructuring realistic possibilities, creditors should be less likely to engage in excessive lending. Second, when debts are restructured less new finance is required from the international community (and its taxpayers). Third, because pressure to immediately repay debts is at the heart of the creditor panic, restructuring can have an immediate salutatory effect, as was the case in Korea. Debt restructurings and standstills are the centerpiece of bankruptcy proceedings in most industrialized economies, but engineering them in cross-border situations is much more difficult. Several analysts have suggested different ways to establish an international bankruptcy regime, but putting these ideas into action has proven difficult.

Panics eventually end, even when little or no action is taken to stop them, simply because foreign exchange eventually is depleted, so creditors stop demanding repayment and debt falls into default. But the resulting economic contraction can be very deep, and the financial system can be left in a shambles. In Indonesia, for example, where the financial crisis quickly cascaded into a political crisis that led to widespread rioting and destruction of property and ultimately the resignation of President Suharto in May 1998. GDP contracted by about 15 percent in 1998 before the economy finally began to stabilize in 1999, and GDP per capita did not recover to the level of 1997 until 2004.

LESSONS FROM THE CRISES

There are several things we can learn from such economic crises. First, these crises are cautionary tales about rapid financial liberalization and the difficulties involved in building strong institutions in emerging markets. The crisis economies liberalized their financial systems very quickly, without fully establishing and strengthening the institutions necessary to oversee and regulate financial transactions. Building well-functioning financial systems remains a major challenge in the development process. These crises suggest that governments should proceed carefully in liberalizing domestic financial transactions and ensuring parallel development of the requisite regulatory institutions. The financial crisis in the United States and Europe in 2008-10 further strengthened awareness of the need for caution in financial liberalization when it became apparent that even the most developed financial systems were vulnerable partly as a result of insufficient regulatory oversight of the financial system.

Second, the crises reveal the vulnerabilities of relying on a fixed exchange rate, at least for countries with large private capital inflows. The conditions under which fixed or floating exchange rates are preferable for long-run growth and development is an open question that economists have debated for two centuries, and the debate is far from resolved. Fixed rates reduce volatility in thin foreign exchange markets and can provide some certainty to skittish investors. But the crises indicate that fixed rates create vulnerability to a panic and ultimately lead to huge economic adjustments when the exchange rate no longer can be defended. Increasingly, many economists suggest that the choice for developing countries is between a very rigidly fixed rate defended with abundant foreign exchange reserves or a freely floating exchange rate. Most economists now tend to believe that the rigid fixed rate options, including a currency board or outright dollarization,¹⁵ are appropriate in only a very limited number of developing countries and flexible exchange rates generally are the preferred choice. However, the debate on this issue is far from over and likely to continue in the years to come.¹⁶

Third, in terms of foreign capital inflows, there are clear differences between FDI and other long-term capital and short-term capital. Long-term capital flows are much less prone to panic and more strongly associated with long-term investment and growth. Because short-term flows create vulnerability to a panic, governments should be much more careful about, and at times possibly even discourage, short-term flows, especially while they are in the process of strengthening weak financial institutions. Some analysts support restrictions on short-term capital inflows as a temporary step to protect nascent financial systems, so long as the restrictions are limited to short-term capital (there is little support among economists for restrictions on long-term capital or outflows of any kind). Chile has been at the forefront of countries trying to encourage long-term capital flows and discourage short-term flows. During the 1990s, Chile required that foreign investors deposit a share of their investment funds in a non-interest-bearing account for one year, a step that made short-term investment much less profitable. Such restrictions reduced short-term capital flows to Chile without reducing aggregate capital flows.¹⁷

¹⁵Recall that, with a currency board, the government issues domestic currency only when it is fully backed by available foreign exchange reserves at the given (fixed) rate, thereby keeping the ratio of foreign currency to domestic currency constant. With dollarization, a country adopts the dollar (or another widely traded currency) as its legal currency, thereby giving up an independent monetary policy.

¹⁶An excellent recent survey of exchange rate policies is Michael W. Klein and Jay C. Shambaugh, *Exchange Rate Regimes in the Modern Era* (Cambridge: MIT Press, 2010).

¹⁷For discussions of short-term capital flows, see Richard Cooper, "Should Capital Controls Be Banned?" *Brookings Papers on Economic Activity* 1 (1999), 89–141; Jaime Cardoso and Bernard Laurens, "The Effectiveness of Capital Controls on Inflows: Lessons from the Experience of Chile," IMF Monetary and Exchange Affairs Department, 1998; Sebastian Edwards, "Capital Flows, Real Exchange Rates, and Capital Controls: Some Latin American Experiences," Department of Economics, University of California at Los Angeles, 1998; Felipe B. Larraín, ed., *Capital Flows, Capital Controls, and Currency Crises: Latin America in the 1990s* (Ann Arbor: University of Michigan Press, 2000).

Fourth, vulnerability to crises can be reduced not only by reducing short-term capital inflows but also by building up foreign exchange reserves. China and Taiwan employed just this kind of self-insurance and were able to avoid serious difficulties while crises swirled around them in 1997 and 1998, even though China, in particular, displays some of the same financial sector weaknesses evident in the crisis countries. Although China had over \$30 billion in short-term foreign debt in 1997, its foreign exchange reserves were almost \$150 billion. After the crises, China continued to build up its reserves, which reached an astonishing \$3 trillion in 2010. Taiwan, with about \$20 billion in short-term debt in 1997, had over \$90 billion in reserves, so also was safe from this kind of crisis (it subsequently built its reserves to over \$300 billion by 2010). Korea, whose usable reserves had dwindled to about \$3 billion when its crisis erupted (compared to \$70 billion in short-term debts), subsequently built up its reserves to \$300 billion by 2011, effectively ensuring that it will not soon face a similar international payments crisis and have to look to the IMF for emergency financing.

Fifth, the operations of international financial markets and the immediate reactions by the official international community probably added to the severity of the crisis. As a result, there has been widespread discussion about possible reforms to the international financial architecture. These debates have proceeded on several fronts, including reforming the operations of the IMF itself, strengthening international banking standards, and establishing new international mechanisms for debt standstills and rollovers, but few fundamental changes have been made.¹⁸ As they have been for two centuries, financial crises are likely to continue to be recurring yet difficult-to-predict phenomena affecting emerging markets around the world.

SUMMARY

- Debt flows to developing countries have oscillated widely since the 1970s. They grew rapidly until the 1980s, then fell in the aftermath of the 1980s debt crises. They accelerated again in the early 1990s, only to drop sharply after the financial crises of the late 1990s then rebound again after 2001. Middle-income countries tend to borrow from both private lenders and official creditors (such as the World Bank), whereas low-income countries borrow mainly from official sources (including IDA loans from the World Bank).

¹⁸See Roubini and Setser, *Bailouts or Bail-Ins?*; Feldstein, *Economic and Financial Crises in Emerging Market Economies*; Barry Eichengreen, *Toward a New International Financial Architecture: A Practical Post-Asia Agenda* (Washington, DC: Institute for International Economics, February 1999); Morris Goldstein, *Safeguarding Prosperity in a Global Financial System, Report of an Independent Task Force for the Council on Foreign Relations* (Washington, DC: Institute for International Economics, September 1999).

- Debt can play an important role in financing investment and stabilizing an economy buffeted by shocks, but too much borrowing, especially of the wrong kind and for the wrong purposes, can create debt problems. In particular, borrowing for consumption or weak investment projects, borrowing too much when GDP growth or export growth rates remain low, or borrowing too much on short-term debt can leave countries vulnerable to crisis.
- The debt crises of the 1980s caused major economic dislocations in many countries around the world, especially in Latin America. For countries that had borrowed heavily from private commercial banks, the debt crises by and large were resolved through Brady bonds restructurings in the late 1980s and early 1990s. However, for lower-income countries that had borrowed from official sources, debt burdens continued to grow through the 1990s. The heavily indebted poor-country initiative has begun to reduce the debt burdens for some, but not all, the countries.
- The financial crises of the late 1990s struck emerging markets that had borrowed substantial funds with short maturities and had relatively low levels of foreign exchange reserves, fixed exchange rates, and weak financial systems. The rapid withdrawal of funds caused exchange rates to plummet and interest rates to soar and caused significant damage to domestic banks, private companies, government financial accounts, and overall economic well-being.
- International capital flows are more vulnerable to these kinds of crises than domestic capital because the institutions that can help reduce risks domestically do not operate well across borders, including lender-of-last-resort facilities, deposit insurance, and bankruptcy procedures. Countries have taken steps to minimize their risks by reducing (or restricting) short-term capital flows, building up reserves, introducing more flexible exchange rates, and strengthening financial systems.

