2

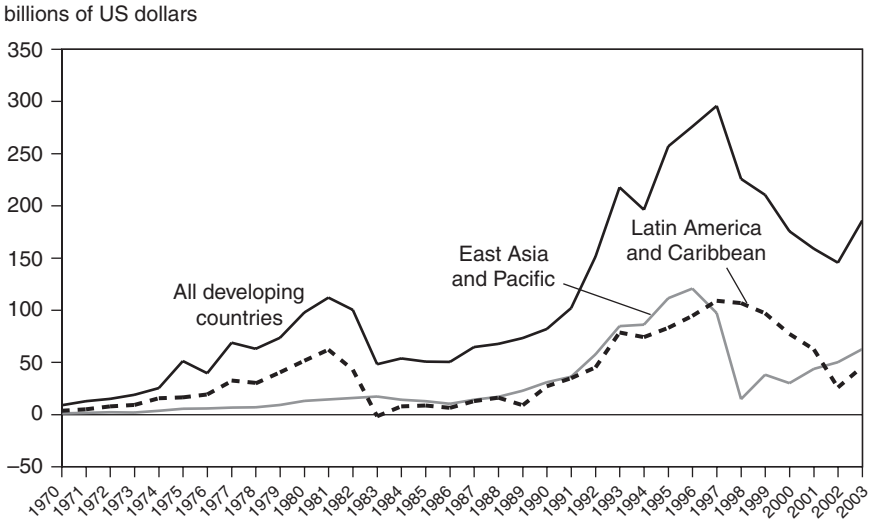
The Problem of the Boom-Bust Cycle

The history of lending to emerging markets has not been happy. Mexico took its first foreign loan in 1824, three years after the consolidation of its independence in 1821, and first defaulted just three years later, in 1827 (Eichengreen and Lindert 1989, 142). Thereafter Mexico experienced long periods when it was frozen out of the international capital market as a punishment for having defaulted; these periods were followed eventually by debt reconstruction and the resumption of borrowing for a few years, until the next time the country encountered difficulty in servicing its sovereign debt. Matters have been similar in most other Latin American countries, with the Barings crisis in Argentina in the 1890s being the most famous upset before the Great Depression. Crises, defaults, and debt reconstructions were a regular part of history long before the 1980s debt crisis.

Indeed, Michael Bordo (1999) has shown that it was not the 1930s and the post-1980 periods that were the great historical exceptions to this pattern of crises, but the Bretton Woods years in between. The Bretton Woods years were the only lengthy period since the birth of capitalism in Holland in the 17th century that lacked major banking or debt crises. The Bretton Woods years were also, not coincidentally, the period when financial repression was practically ubiquitous. The end of that period was heralded by Carlos Diaz-Alejandro, who presciently titled a 1984 paper on the debt crisis, "Goodbye Financial Repression, Hello Financial Crash."

It does not follow that financial repression is a good thing, for by now a wealth of empirical evidence shows that allowing credit to be allocated by bankers who weigh expected return against risk results in a higher average rate of return (and therefore higher productivity and growth) than the alternative of allocation by bureaucrats. What it does suggest is that

Figure 2.1 Net inflows of foreign capital to developing countries, 1970–2003



Note: Data for net inflows are provided in tables 4.1–4.3, column 10.

Source: World Bank, *Global Development Finance,* 2004.

the process of financial liberalization needs to be approached with a great deal of caution and with a lot of care to install an effective system of prudential supervision that will deter bankers from acting in the interests of their cronies rather than their ostensible principals, depositors, and shareholders. It will be argued later that one of the lasting impediments to capital mobility should take the form of rules designed to ensure that banks and other financial institutions conduct their international operations prudently.

Capital flows to developing countries were minimal throughout the Bretton Woods period. They began to build up in the early 1970s. Figure 2.1 shows the total level of net capital inflows to developing countries from 1970 to 2003 as well as the flows to each of the regions of more advanced emerging markets, namely East Asia and Latin America. Even allowing for the fact that dollar prices somewhat more than tripled from the early 1970s to the turn of the century, it can be seen that capital flows were on a strong upward trend during this period. The second thing that one notices is that the upward movement is superimposed on a strong cyclical pattern. From modest beginnings before 1974, the total exploded during the second half of the 1970s as commercial banks began recycling petro-

dollars primarily to Latin American middle-income developing countries. The total peaked in 1981 and then more than halved by the nadir of the Latin American debt crisis in 1983. Lending to Asia continued, and the total gradually climbed after 1986 as investors became enamored of the Asian miracle. By 1992, the nominal total surpassed the level of 1981. The next few years saw a renewed boom as Latin America came back to the markets in a big way in the early 1990s after the Brady Plan had dealt with the debt overhang and investors had recognized the profound policy changes in train. The year 1994 witnessed a mild decline in Latin America as a result of the tequila crisis, but lending to Asia continued to boom, and aggregate capital flows reached a new peak in 1997. The Asian crisis then brought a collapse that was reversed only in 2003, but 2003–04 again witnessed what looks to be the start of another boom. In short, capital flows to emerging markets have been nothing if not volatile.

Capital Flows as Drivers of Cycles in Emerging Markets

In recent years, the flow of foreign capital has become the prime driver of the business cycle in a number of emerging markets, especially in Latin America. That the process is driven primarily by variations in the availability of foreign capital rather than by developments in the host countries seems strongly indicated by the large size of the variations in the overall flow (as shown in figure 2.1). If capital flow variations were largely a reflection of differences in the attractiveness of the destination, one would expect to see little cyclical variation because the differences between one country and another would tend to cancel out. Neither can one dismiss the variations in flows as simply reflecting the business cycle in the developed countries, because these countries were not in recession throughout the debt crisis of the 1980s or the Asian crisis of the 1990s. It seems rather that, as José Antonio Ocampo (2003) has emphasized, the variations in capital flows are driven primarily by changes in risk evaluation. When foreign investors develop an appetite for risk (Ocampo points out that this should more properly be called an underestimation of risk), there is a boom in capital flows; the bust is marked by a flight to quality (risk aversion).

Why should investors' risk appetites change in this way? One factor that empirical work in the early 1990s (Calvo, Leiderman, and Reinhart 1993) showed to be of far greater importance than had previously been assumed is the state of liquidity in the markets of the developed countries. Investors flock to emerging markets when alternative investments appear unremunerative. This theory suggests that capital flows to emerging markets typically get under way early in the cycle and tend to tail off before the cyclical peak in the developed countries. Some economists have also

continued to argue that evidence of economic reform in emerging markets acts as a pull factor that cannot be neglected. The bulk of the evidence, however, seems to point to a dominant role for push factors coming from the developed countries. The policy implication is that this provides yet one more reason for urging developed countries to do as much as possible to stabilize the cycle—and also to maximize the use of fiscal rather than monetary instruments to that end. And swings tend to get magnified by what George Soros calls the "principle of reflexivity," which implies that the fundamentals really are better when capital is readily available.

When foreign investors want to lend to an emerging market, the external interest rates at which the enterprises and government of that emerging market can borrow are relatively low, and available maturities tend to be long. This encourages spending, certainly by enterprises considering investment. It also makes it easy for governments to finance budget deficits, although whether they will fall for the temptation depends upon political economy. A government that tries to resist the boom by maintaining a restrictive fiscal stance, even if its resistance is only through allowing the automatic stabilizers to work, may find itself subjected to criticism for not exploiting the country's good fortune in the new era that is always perceived to have dawned.[1] When the boom ends and capital starts to flow out, interest rates will rise; this will further worsen the budget deficit and thus cause additional cutbacks in primary spending. The effects are stronger if the public debt is predominantly short term.

A central bank that tries to dampen the boom by maintaining a restrictive monetary policy will find that its high interest rates serve to accentuate the capital inflow. This has a cost to its bottom line if it sterilizes the inflow and a cost to its inflation-fighting credentials if it does not. Even if the central bank tries to sterilize the inflow, asset prices are likely to be driven up so that wealth owners find their net worth rising without the tedium of having to save. Similarly, the real exchange rate tends to appreciate so that everyone except exporters tends to feel wealthy. Conditions are in place for a boom. All this goes into reverse, with a vengeance, if and when there is a sudden stop to the capital inflows, let alone a net outflow.

Sudden stops certainly happen. The question that is usually asked is the extent to which they can be blamed on policy weaknesses in the capital-importing country rather than on an exogenous reduction in investors'

1. It has even been argued by Talvi and Vegh (2000) that optimal fiscal policy involves a procyclical tax cut at such times; because the political pressures to spend the whole of a country's tax receipts are overwhelming, it is preferable to avoid having a surplus to spend. This is, in fact, a second-best argument conditional on the political irremovability of the propensity to spend everything combined with the postulate that public spending achieves less than the same value of private spending.

risk appetites. It is easy to identify weaknesses after a crisis has occurred: Any country that suffers a crisis is, for example, likely to experience a precipitate increase in its ratio of debt to GDP. In addition, some countries suffer capital flight, as Indonesia did after its exchange rate was set free to float in 1997.

Some crises are clearly initiated by the results of misguided policies, as when reserves erode in a country that is trying to maintain a relatively fixed exchange rate. A lot of theory was built on the notion that countries tended to guarantee their borrowings (either explicitly or implicitly, e.g., by fixing their exchange rates in terms of the dollar, which may have attracted investors to think of dollar borrowing as almost riskless) and, in that way, encouraged currency mismatches that made them vulnerable. But in other cases—Malaysia and Indonesia in 1997 were perhaps the clearest examples until little Uruguay got clobbered by the Argentineans, who, when they were unable to withdraw their bank deposits in Argentina in 2001, turned instead to their accounts in Montevideo—crises were initiated by contagion. None of this is to deny the motherhood-and-apple-pie observation that countries are less likely to get hit by crises if they follow disciplined macroeconomic and financial policies.

Excessive Capital Inflows

A number of countries—Chile, Colombia, Malaysia, and even Brazil and Thailand at one point—have come to believe in real time that the inflows they were experiencing were excessive; they have therefore tried to dampen them by imposing some form of restraint. What problems did they see in large inflows?

A first and major issue is the fear of catching "Dutch disease."[2] Some economists argue that a country should unreservedly welcome capital inflows because capital inflows provide more real resources and therefore permit more consumption or higher investment. Others (including myself) regard this as a case in which more is not necessarily better. The

2. Dutch disease derives its name from its initial diagnosis in the Netherlands in the early 1970s, after large-scale development of newly discovered reserves of natural gas. The resulting inflation and improvement in the balance of payments led to an appreciation of the real value of the Dutch guilder, which devastated the traditional tradable-goods industries, meaning manufacturing. This led to unemployment in the short run and a fear that the rundown in the technologically progressive part of the economy would jeopardize future growth in the long run. Nowadays, Dutch disease is used to refer to anything—a boom in exports of natural resources, a capital inflow, or even large sums of aid—that causes a large real appreciation and thus jeopardizes manufacturing and other employment-generating traded-goods industries. See Corden (2002) for discussion by an economist who takes a much less tragic view of the problem than I do.

argument is that there are pretty convincing reasons for believing that it is only the tiniest countries that can expect to thrive without a dynamic manufacturing sector because manufacturing offers possibilities of learning by doing and cumulative progress that are largely absent in most other sectors. It follows that a country can jeopardize its long-run prospects by allowing such a large real appreciation—the natural consequence of a large capital inflow—that it undercuts the ability of its manufacturing sector to compete in world markets.

This is not just a theoretical curiosum. In 1979, the time of the second oil shock, Indonesia and Nigeria had similar per capita incomes. Both experienced a large increase in oil receipts because of the sudden rise in the price of oil, but their macroeconomic policy reactions were diametrically different (even if their tolerance of corruption was uncomfortably similar). Indonesia devalued its currency to keep its nonoil exports competitive; Nigeria allowed its currency to become hopelessly overvalued and thus killed off its other export industries as well as any import-substituting industries that were not the beneficiaries of protection (Bevan, Collier, and Gunning 1999). This was perhaps the most important of the policy differences that enabled Indonesia to reduce poverty to a fraction of what it was 30 years ago (despite the 1997 crisis) as Nigeria stood still.

The importance of a competitive exchange rate in promoting exports and growth has recently been popularized in the writings of Dooley, Folkerts-Landau, and Garber (e.g., 2003), who have drawn a parallel between the Bretton Woods system and the actions of China and other East Asian countries in pegging their exchange rates to the dollar. As a historical analogy, the parallel is far-fetched because the Bretton Woods system included an obligation to adjust an exchange rate in the event of a fundamental disequilibrium, and the United States ran current account surpluses instead of deficits virtually throughout the period, but their papers have succeeded in propagating the notion that growth can be promoted by an undervalued exchange rate. This is an important half-truth, but it is only a half-truth. The serious critique of their analysis is that it ignores the traditional constraint on growth that was discussed in the preceding paragraph: the resource scarcity that normally constrains investment and, thus, growth.[3] A proper analysis (such as I attempted in Williamson 2003) factors in both the importance of a competitive exchange rate in stimulating the demand to invest and the availability of savings—which are diverted from the domestic economy by a current account surplus—with which to undertake the investment.

3. It can be argued that in China today the real constraint on growth comes not from investment but from absorptive capacity, but, even so, one should ask whether investing in US Treasury bills, with their likely negative return in terms of Chinese goods, rather than increasing consumption, is the way to maximize intertemporal welfare.

A second possible reason to be suspicious of excessive capital inflows is the fear that some inflows may "immiserize." The original analysis of immiserizing capital inflows was presented by Brecher and Diaz-Alejandro (1977), who showed that under standard neoclassical assumptions a country would be worse off if capital were attracted into its protected sector and received the full (untaxed) value of its marginal product. That case is of limited relevance today, given the trade liberalization that has occurred since 1977 and the presumption that foreign direct investment (FDI) usually brings spillover benefits with it. Some people, however, regard recent investment in the Chinese automobile industry as a possible example. Moreover, Ronald I. McKinnon and Hugh Pill (1999) argue that many of the same dangers arise when capital flows into ill-regulated financial sectors, especially if such capital receives implicit credit guarantees, since it can again lead to investment in projects that are socially uneconomic.

A third reason is that most models suggest that there is an optimum level of capital inflow and that a greater inflow will serve to decrease rather than increase welfare. For example, Liqing Zhang (2004) built a model in which the optimum level of capital inflow occurs when the marginal revenue of the capital inflow equals its marginal cost. The latter may remain unchanged over a wide range, but the former may be expected to decrease with the capital inflow because other productive factors (including institutional variables like effective macroeconomic management, sound corporate governance, and banking supervision as well as skilled labor and appropriate technology) are predetermined.

A fourth and overwhelmingly important reason for fearing excessive inflows arises from the role of inflows in promoting the boom-bust cycle. A forward-looking government should fear that at some unpredictable moment the inflows will go into reverse and capital will rush for the exits or, at the least, the new inflows will suddenly stop. This situation becomes more likely the larger the stock of foreign capital is (especially the stock of short-term foreign capital) relative to the means of servicing the debt, of which the conventional measures are reserves, exports, or GDP. Hence, a capital inflow that raises the ratio of short-term debt to reserves, or the ratios of debt to exports and debt to GDP, will make a country progressively more vulnerable to a run, especially if the country has a fixed exchange rate. The worst situation is to have a big foreign debt (relative to exports and GDP), of which a large part is in the form of short-term loans that can be quickly withdrawn without the investor suffering a financial penalty even if other investors are trying to do the same thing at the same time. It is when a country is unable to finance such an outflow that it has guaranteed to permit—which is what pegging the exchange rate amounts to—that it suffers a foreign exchange crisis.

Overborrowing and the East Asian Crisis

The East Asian crisis[4] started in Thailand in 1997 for fairly traditional reasons involving the attempt to hold a fixed exchange rate that had become overvalued in the face of a large balance of payments deficit and a large volume of short-term foreign debt. It was then transmitted to the other countries of Southeast Asia (especially Indonesia and Malaysia) by contagion. Korea's situation is less clear than Indonesia's and Malaysia's because it already had a domestically induced banking problem, but it is not obvious that this would have spilled over to a foreign exchange crisis in the absence of the ill-advised foreign borrowing of the preceding years and contagion from the crises in Southeast Asia.

These countries were vulnerable to contagion because they had large stocks of badly structured foreign debt accumulated in previous years as a result of the capital inflows. The debt was badly structured in that it involved too much debt relative to equity,[5] too much short-term debt relative to long-term debt, too much foreign currency debt relative to domestic currency debt, and too much borrowing from the same set of creditors. Both the policy of pegging the exchange rate, which encouraged currency mismatches, and the peculiarities of the corporate sector, which induced borrowing rather than the sale of equity, contributed to the bad debt structure. Some believe that implicit guarantees of bank deposits by the public sector were a major factor generating moral hazard that led to excessive debt, but this view seems difficult to square with the particular countries that fell victim to crisis (Thailand instead of Bangladesh, for example).

The main alternative to contagion in explaining the outbreak of the crisis is that it was provoked by crony capitalism and insufficient diligence in implementing free-market orthodoxy. No one doubts that crony capitalism and corruption were present in unhealthily large measure, but the key question is whether they had worsened in the years before the crisis. The International Monetary Fund (2003) asserts that such a worsening occurred through the 1990s in the case of Indonesia, but I am not aware of similar evidence that cronyism had worsened in the case of Malaysia. In the absence of any such demonstration, one has to ask why a crisis should

4. The large literature on the East Asian debt crisis includes an important study of the IMF's Independent Evaluation Office (IMF 2003) and a recent review article by me (Williamson 2004). Some earlier contributions are the project of the National Bureau of Economic Research (see www.nber.org/crisis), Radelet and Sachs (1998), Furman and Stiglitz (1998), Krugman (1998), and Berg (1999). The classic source has long been the Web site of Nouriel Roubini, www.stern.nyu.edu/-nroubini/asia/AsiaHomepage.html.

5. The *IMF Survey* of December 14, 1998, gave estimates of debt-equity ratios of more than 900 percent in Indonesia, about 500 percent in Korea, more than 400 percent in Thailand, and about 100 percent in Malaysia (which is about the level typical of industrial countries). IMF (2003) revised the estimate of the Indonesian debt-equity ratio down to a still high, though no longer astronomical, 250 percent.

Table 2.1 Corruption rankings and scores of selected Asian countries, 1996

Country	Ranking	Score
Singapore	7	8.80
Japan	17	7.05
Hong Kong SAR	18	7.01
Malaysia	26	5.32
South Korea	27	5.02
Taiwan	29	4.98
Thailand	37	3.33
Philippines	45	2.65
India	46	2.63
China	50	2.43
Bangladesh	51	2.29
Pakistan	53	1.00

SAR = special administrative region

Note: Countries are selected from a total of 54 countries ranked. A high ranking and a low score indicate a more corrupt country; a perfect score is 10, which indicates no corruption.

Source: TI Corruption Perception Index 1996, Transparency International, Berlin. www.transparency.org/cpi/1996/cpi1996.pdf.

suddenly have exploded when it had not done so during the many years before and when the economic performance of Malaysia, as of the other countries of the region, had been spectacularly good. The simple fact of the existence of crony capitalism does not build up a cumulatively larger danger, in the way that capital inflows do as a debt burden progressively accumulates.

It is in any event possible to examine whether the countries that succumbed to crisis were indeed particularly corrupt. Transparency International calculates and publishes each year a Corruption Perceptions Index for a large number of countries, based on foreign businesspeople's assessments of how much corruption they face in each country. The rankings for 1996 (the year preceding the crisis) are shown in table 2.1 for each of the 12 Asian countries among the 54 that were covered by the index that year (unfortunately Indonesia was not among them).

Everyone agrees that Indonesia, Malaysia, Korea, and Thailand were engulfed by the crisis. It has been conventional to include the Philippines as a fifth crisis country, but in Williamson (2004) I argue that, if one measures by the impact on GDP, one should include Hong Kong instead. In either event it can be seen that the crisis countries are at worst in the middle of the pack instead of being distinguished by a particularly high level of corruption. This is not surprising if one takes the view that the crisis was essentially caused by the countries borrowing too much, for it requires a certain minimal level of governance before the markets will be prepared

Table 2.2 Economic freedom rankings and scores of selected Asian countries, 1997

Country	Ranking	Score
Hong Kong SAR	1	1.25
Singapore	2	1.30
Taiwan	7	1.95
Japan	11	2.05
Thailand	23	2.35
South Korea	27	2.45
Sri Lanka	27	2.45
Malaysia	36	2.60
Philippines	50	2.80
Indonesia	59	2.85
Pakistan	78	3.10
Mongolia	93	3.35
Cambodia	106	3.55
Nepal	108	3.60
Bangladesh	118	3.70
India	118	3.70
China	125	3.80
Myanmar	140	4.30
Vietnam	143	4.70
Laos	148	5.00
North Korea	148	5.00

SAR = special administrative region

Note: These are the Asian countries among a total of 148 countries ranked. The scale goes from 1 (perfect economic freedom) to 5 (total economic repression).

Source: 1997 Index of Economic Freedom, Heritage Foundation, Washington.

to lend a country enough to get it into trouble. Counting Hong Kong among the crisis countries makes the countries that succumbed to crisis less rather than more corrupt than average.

As for the lack of free markets, perhaps the best measure we have of countries' performance in this regard is the Heritage Foundation's economic freedom index. Table 2.2 shows the 1997 rankings and scores of the 21 Asian countries that were covered by the index that year. (Those measures were assessed in 1996, before the crisis had a chance to influence perceptions.)

All the crisis countries come in the top half of table 2.2. Indeed, if one agrees with my contention that Hong Kong should be counted as a crisis country, the crisis countries become quite clearly the countries that enjoyed markedly above-average economic freedom. Even the lowest ranked country, Indonesia, ranked 59th out of 148 countries. These figures suggest that countries with free markets were more, not less, likely to get overwhelmed by the crisis. The reason is not difficult to fathom: One aspect of free markets is capital account convertibility, and it is this that

made countries vulnerable to contagion and capital flight.[6] This is a far more convincing explanation than one that blames the East Asian crisis on crony capitalism or a lack of free-market orthodoxy.

Costs of Crises

Virtually no one benefited from the crises. Many investors lost a lot of money despite all the talk about bailouts and moral hazard: IMF loans saved the skins of some banks, but other banks and almost all equity investors suffered losses. Michael Barth and Xin Zhang (1999, 204) estimate that at one point foreign investors had lost something on the order of $166 billion during the crisis. Of course, this was not all permanent loss: Most asset prices recovered somewhat, and those investors who did not panic and sell out in the middle of the crisis benefited from that subsequent rebound. Nonetheless, the financial losses suffered by investors are not to be dismissed.

Far more serious, the countries that were victims of the crisis suffered severe recessions. This is not historically abnormal: Bordo et al. (2001, 28) summarize the historical experience of financial crises during the past 120 years as resulting in "downturns lasting on average 2 to 3 years and costing 5 to 10 percent of GDP." Table 2.3 shows three estimates of the growth that the East Asian countries at the center of the recent crisis forfeited as a result of the crisis. The top part of table 2.3 shows actual growth rates over 1991–2003. The bottom parts of the table show three estimates of the losses they suffered as a result of the crisis during the 1997–2000 period. The first block of the lower part shows how much GDP fell short of where it would have been had these countries maintained the average growth rates they achieved in the first half of the 1990s. The sums of these figures provide an estimate of the cumulative growth shortfall caused by the crisis. Below is a single column showing comparable estimates of cumulative lost GDP for the same four-year period, 1997–2000, made in a study by the Committee for Economic Development. The final block of columns shows similar calculations for three of the four crisis countries, plus the Philippines, using Centre d'Études Prospectives et d'Informations Internationales (CEPII) estimates of what potential growth rates would have been in the absence of the crisis instead of assuming that potential growth would have equaled actual growth rates in the earlier part of the decade.

It is obvious that the losses are staggering for all countries except the Philippines, which actually did somewhat better during the crisis period

6. One might also note that the poor scores of China, India, and Vietnam, the three fastest growing large countries in the world in the second half of the 1990s, cast doubt on the usefulness of this index as a predictor of future growth.

Table 2.3 Growth rates and growth gaps in East Asia, 1991–2003

Growth rates

Country	1991–95 (average)	1996	1997	1998	1999	2000	2001	2002	2003
Hong Kong SAR	5.6	4.3	5.1	–5.0	3.4	10.2	0.5	2.3	3.3
Indonesia	7.3	8.0	4.5	–13.1	0.8	4.9	3.5	3.7	4.1
South Korea	7.5	7.0	4.7	–6.9	9.5	8.5	3.8	7.0	3.1
Malaysia	9.5	10.0	7.3	–7.4	6.1	8.6	0.3	4.1	5.2
Thailand	8.5	5.9	–1.4	–10.5	4.4	4.8	2.1	5.4	6.7
Memorandum:									
Philippines	2.2	5.8	5.2	–0.6	3.4	4.4	3	4.4	4.5

Growth gaps

Lost GDP, cumulative (percentage of a year's GDP)	1997	1998	1999	2000	Total, 1997–2000
Hong Kong SAR	0.5	11.1	13.2	8.6	33.4
Indonesia	2.8	23.2	29.7	32.1	87.8
South Korea	2.8	17.1	15.1	14.0	49.0
Malaysia	2.2	19.0	22.4	23.2	66.8
Thailand	9.9	29.0	33.1	36.9	108.9
Memorandum:					
Philippines	–3.0	–0.2	–1.5	–3.7	–8.4

Lost GDP (percentage of a year's GDP)	Cumulative, 1997–2000
Indonesia	82
South Korea	27
Malaysia	39
Thailand	57

Lost GDP	**Trend without crisis** (middle scenario)	1997	1998	1999	2000	Total, 1997–2000
South Korea	7.1	2.4	16.4	14	12.6	45.4
Malaysia	6.5	–0.8	13.1	13.5	11.4	37.2
Thailand	6.4	7.8	24.7	26.7	28.3	87.5
Memorandum:						
Philippines	2.5	–2.7	0.4	–0.5	–2.4	–5.2

SAR = special administrative region

Sources: Growth rates: Berg (1999); IMF, *World Economic Outlook,* April 2004; Committee for Economic Development (2000, table 5); Berthelemy and Chauvin (2000).

Table 2.4 Indicators of collapse of Asian intermediaries and estimates of cost of bank recapitalization since 1997 Asian crisis

Indicator	Indonesia	Korea	Malaysia	Thailand	Philippines
Banks and finance companies[a] (percent)					
Closed or suspended	7.0	28.6	0.0	51.9	n.a.
Nationalized, administered by restructuring agency, or planning to merge	29.4	3.6	68.3	3.7	n.a.
Costs of bank recapitalization (percent of GDP)					
JPMorgan	20	30	20	30	0
Standard & Poor's	20+	20+	18	34	n.a.
Cost of bank restructuring (percent of GDP)					
IMF	32.5	19.5	19.3	35	4.5

n.a. = not available

a. Percentage based on number of firms affected as of April 1998 relative to firms existing in July 1997.

Sources: Statistics on affected intermediaries: *The Economist* (April 4, 1998); recapitalization costs: Berg (1999); restructuring costs: IMF (2003).

than its historical norm, which is why it is silly to count it as a crisis country. (Doubtless it, too, suffered pressures, as did other countries like Singapore, but its reactions—including the decision to take much of the strain by letting the exchange rate depreciate—sufficed to fend off the crisis.) For the other five countries, losses far exceeded the historical norm of 5 to 10 percent of GDP. With historical experience as the counterfactual, losses come to more than 80 percent of a year's output in Indonesia and Thailand and to sums between one-third and two-thirds of GDP in the other crisis countries. The CED and CEPII figures show only modestly smaller losses. Unless one believes that the East Asian miracle was in any event running out of steam and that growth would have been much slower than in the early 1990s even without the crisis, it seems that both Indonesia and Thailand lost over a half year's output and that the losses in all five of the crisis countries exceeded one-quarter of a year's output.

The currency crises were accompanied by banking crises in Indonesia, Korea, Malaysia, and Thailand. Estimates of the costs of recapitalizing the banking systems of these countries are shown in table 2.4. These costs largely involve recognition of costs that were imposed on society by bad lending during the preceding boom, although depreciation and recession added to the number of loans that turned bad and in that way accentuated the costs. Some economists will argue that these costs are only transfer payments, not real costs like the loss of GDP that results from a recession. That is true, but it does not mean that these large payments have no wel-

Table 2.5 Impact of East Asian crisis on unemployment, 1990–2003
(percent)

Country	1990–95 (average)	1996	1997	1998	1999	2000	2001	2002	2003	Job losses, 1998 (thousands)
Indonesia	3.7	4.9	4.7	5.5	6.4	6.1	8.1	9.1	n.a.	2,944
South Korea	2.4	2.0	2.6	6.8	6.3	4.1	3.7	3.3	3.4	1,222
Malaysia	3.6	2.5	2.6	3.2	3.4	3.1	3.7	3.5	3.6	162
Thailand	1.7	1.1	0.9	4.4	4.2	3.6	3.3	2.4	2.2	805
Memorandum:										
Philippines	8.6	7.4	7.9	9.6	9.6	10.1	9.8	10.2	10.1	362

n.a. = not available

Source: Asia Recovery Information Center database.

fare significance. An interesting paper by Diwan (1999) established that the share of labor in national income usually falls sharply following a financial or banking crisis. Although it recovers subsequently, the recovery is typically only partial. A natural interpretation of Diwan's stylized facts is that the bill for recapitalizing the banking system is paid largely by immobile factors of production, meaning, in practice, unskilled labor. For anyone who worries about income distribution, the cost of recapitalizing the banking system should certainly be a matter of concern.

One reason that it is right to be concerned about economic losses is because of the human costs they impose. The East Asian crisis resulted in increases in unemployment (table 2.5), which were sharp at least in South Korea and Thailand. The increase shown for Indonesia looks extremely modest, indeed implausibly so, inasmuch as the figure given by the same source for the number of job losses in 1998 suggests that the increase in unemployment must have been much larger. Moreover, in most cases the victims lacked unemployment compensation. The crisis interrupted and at least temporarily reversed the decline in poverty that had been the crowning achievement of the East Asian miracle (table 2.6): At least 10 million people (one World Bank estimate was as high as 20 million) were pushed back below the World Bank's extremely modest dollar-a-day absolute poverty line. Fortunately the impact on the social statistics appears to have been rather less brutal than that on poverty; for example, infant mortality only edged up (and Thailand avoided even that), but before the crisis it had been declining each year.

Crises and Progress

It would only be if crises were inseparable from progress that one could look at such statistics without concluding that it would make sense to try to attenuate the cycle of boom and bust. There are indeed economists who

Table 2.6 Impact of East Asian crisis on social indicators in East Asia, 1990–2002

Social indicator	1990	1996	1997	1998	1999	2000	2001	2002
Population living under national poverty line (percent)								
Indonesia	20.6	7.8	n.a.	n.a.	12	10.5	8.9	7.5
South Korea	n.a.	9.6	n.a.	19.2	n.a.	n.a.	n.a.	n.a.
Thailand	12.5	2.2	n.a.	3.9	4.3	3.7	3.2	2.6
Philippines	19.1	14.8	12.1	14.5	13.0	12.0	11.3	11.0
Population living on less than $1 per day (millions)								
Indonesia	39.6	15.5	n.a.	n.a.	24.9	22.1	19.0	16.3
Thailand	7.3	1.3	n.a.	2.4	2.7	2.3	2.0	1.6
Philippines	n.a.	10.4	8.7	10.6	9.7	9.2	8.8	8.7
Infant mortality rate (per 1,000 live births)								
Indonesia	63	49	47	48	48	44	42	40
South Korea	12	9	9	10	22	10	8	7
Malaysia	15	11	11	11	11	11	7	6
Thailand	38	34	33	29	29	22	18	21
Philippines	44	37	35	35	36	33	31	29

n.a. = not available

Source: Database, Asia Recovery Information Center.

believe that crises are the inevitable price of progress, and they attribute this view to Schumpeter (creative destruction). A somewhat less extreme view is that of Ranciere, Tornell, and Westermann (2005), who argue that financial liberalization tends to both increase growth (by facilitating risky investment) and induce crises. If a crisis at the end of several decades of vigorous growth is the price to be paid for the preceding growth, it might be a bargain, but the question is whether it is plausible to suppose that growth is promoted by policies that also give rise to crises. The evidence that domestic financial liberalization leads to faster growth (at the cost of a greater likelihood of crises) is persuasive, but the evidence that a liberalized capital account accelerates growth is thin (see chapter 3). In contrast, the evidence that an open capital account makes a country more vulnerable to crises is overwhelming.

An alternative view is that it is perfectly possible to combine the dynamism of a market economy with a reasonable measure of macroeconomic stability and an absence of financial crises. It is, after all, possible to argue that macroeconomic stability encourages investment and innovation rather than that stability precludes investment and innovation. The weak entrepreneurs and dumb ideas that some of Schumpeter's disciples argue are weeded out by a stock market decline and the accompanying recession can perfectly well be eliminated by investors figuring that the present

value of a particular enterprise is negative without the whole market having to collapse. Indeed, the panic associated with a general market collapse runs the danger of wiping out worthwhile companies along with the rubbish. Financial supervision is intended to reconcile decentralized decisions on credit allocation that will result in high productivity of the loans and, therefore, high growth with prudence that will minimize the chances of crises developing. Capital can be channeled to enterprises and regions enjoying high returns without allowing booms to get out of hand. Indeed, it is when capital flows into countries experiencing asset price booms that it is most prone to be wasted.

How can one decide whether booms followed by crises are the inevitable price of progress or whether a fierce boom-bust cycle actually impedes progress? Ask yourself whether you believe that one of the factors underlying the East Asian investment boom was the region's macroeconomic stability preceding the mid-1990s or whether, on the contrary, you believe that the boom of the mid-1990s was just what was needed to cap off the miracle. Ask whether there were dot-coms that went bust while the NASDAQ was booming, or whether its bust was necessary to weed out the junk. Consider whether you believe that all the companies that went under during the Great Depression were either run by weak entrepreneurs or were pursuing dumb ideas. Recall that the investors who fed the speculative booms in East Asia and New York lost a lot of money, and ask whether you think they were the agents responsible for emergence of the New Economy.

Anyone who agrees with my answers to those rhetorical questions will also agree that progress is best fostered by creating a microeconomic environment in which those who innovate can be confident of retaining the fruits of their initiative, within a stable macroeconomic environment. No one should imagine that this is going to entail perfect macroeconomic stability without any business cycle, but there is a world of difference between the wild oscillations that so many emerging markets have suffered in recent years and the rather gentle cycle that the industrial countries have become accustomed to. The objective is to tame the boom-bust cycle of the emerging markets to make it something closer to the genteel fluctuations of the rich world. Obviously other things are involved in creating growth besides establishing property rights and macroeconomic stability—for example, providing good technical education in which potential innovators will get the training to be able to figure out what innovations are worth making and how to make them—but the point is that there is little reason to suppose that the environment will be improved by a sequence of booms and busts rather than by a measure of stability. That is why it is worth asking whether and how it might be possible to curb the boom-bust cycle.