

Global Economic Prospects

and the Developing Countries

Beyond
Financial
Crisis

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First printing December 1998

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ISBN 0-8213-4123-5
ISSN 1014-8906

Library of Congress catalog card number: 91-6-440001 (serial)

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Foreword

THERE IS A SINGLE SET OF EVENTS THAT DOMINATES THE WORLD ECONOMIC scene today as it has for more than a year: the global economic crisis that began in Thailand on July 2, 1997, spread from there to Indonesia and Korea, then to Russia, then to Latin America. Few countries have not been touched by the global forces that this crisis—by some accounts the worst since the 1980s debt crisis—has unleashed. Some countries have gone, in the space of a few short months, from robust growth to deep recession. The social consequences of this economic downturn are already manifest, with interrupted education, increased poverty, poorer health.

In the midst of this uncertainty, it is important for us to have a sense of where the global economy is going, what has brought us to this juncture, and what can be done both to enhance our current prospects and to make another such calamity less likely. *Global Economic Prospects and the Developing Countries 1998/99* lays out the anatomy of the crisis in a clear

and concise fashion, and assesses both the short- and long-term outlooks for the world economy and the developing countries in the aftermath of the crisis.

A current snapshot of the world economy shows an economic situation dramatically different from just a year ago. What started as a regional economic slowdown grew into a global crisis. According to the report, 36 countries that account for more than 40 percent of the developing world's GDP and more than a quarter of its population will likely see negative per capita growth in 1998. In 1997, by comparison, per capita income fell in only 21 countries that accounted for 10 percent of the developing world's GDP and 7 percent of its population.

It is easier to describe where the world's economy is today than to forecast where it will be in the coming year. The art and science of economic forecasting is always risky, but it is on particularly shaky grounds when it comes to trying to forecast turning points. Indeed, inadequacies in forecasting undoubtedly contributed to the downturn: had the magnitude of the downturn been accurately foreseen, less contractionary policies might have been pursued, and the ensuing recessions might not have been as deep—these are among the lessons that are drawn out in Chapter 2. But to be fair to the economics profession, standard macro-models, augmented by an understanding of the role that weaknesses in the financial sector played in the crisis (a point also emphasized in Chapter 2), strongly suggested a major slowdown, if not necessarily of the severity of what occurred.

But while forecasting is thus inevitably highly risky, the task of putting together the

forecast—including exploring the links among the various parts of our integrated world economy, both among countries and markets—helps draw attention to sources of weakness and strength. By focusing on the downside risks and upside opportunities, it helps focus attention of policymakers not only on the actions that they should take today, but on the kinds of contingencies for which they should be prepared.

As a development institution, the World Bank is especially concerned about long-term prospects for the developing countries. Though we cannot predict, with any accuracy, when the world economy and the developing countries will fully recover from the current downturn, we do know this: there have been crises before, and the world has always recovered from them. And after recovery, the determinants of growth are underlying forces—savings, demography, the pace of technological change. Crises can, of course, have long-lasting effects that tend to persist: European unemployment rates have yet to return to the levels of 20 years ago, prior to the oil crisis. Many analysts attribute this to the attrition of skills that accompanies prolonged unemployment. Similarly, undoing the effects of the massive corporate failures that have plagued several of the affected countries will not be easy.

This report argues, however, that while 1998 was and 1999 will be very difficult years for developing countries, in the longer term growth could still reach the record setting rates of the early 1990s. But this will happen only if policies to prevent a deeper global slump are implemented quickly. In recent weeks, the G-7 countries have taken a number of important policy steps in this

direction to foster world economic recovery and to prevent a global recession.

Understanding the nature of the East Asian crisis and the response of the international community is vital to shaping how well we rise to the challenge of crises in the future. Last year, when it became clear that there would not be a magic bullet to fix Asia's financial crisis quickly, we were encouraged by our clients and shareholders to launch a research project to provide an in-depth examination of the causes of the crisis, an impartial analysis of the world's response, and some guidance on how we can make crises such as this less frequent and less painful. Chapters 2 and 3 represent our interim report on those research findings. We should be clear: there is not unanimity on many of the key issues. This report cannot resolve all of the outstanding issues. It is our hope, however, that it will serve a constructive role in moving the international discussion on these questions forward, by identifying areas where there is and where there is not a consensus; and when there is not, trying to identify the reasons, whether it is alternative models of the economy or interpretations of the evidence.

There are inevitably a multiplicity of factors that contribute to any complex phenomenon such as the crises that have beset East Asia. This is especially the case because the situation in each of the countries differed, in some respects, markedly. But our research concludes that the origins of the crisis lay fundamentally in the interaction between institutional weaknesses in managing domestic financial liberalization and international capital market imperfections. Unlike the Latin America debt crises of the 1980s, the East Asian crisis was not

characterized by excessive sovereign borrowing or severe macroeconomic imbalances. As a result, policies that were successful in responding to the debt crisis were not necessarily optimal in the circumstances of East Asia. The initial policy responses may have failed to recognize quickly enough the costs of exacerbating the downturn at a time when banks and private businesses were already in trouble, demand was falling, and capital was flowing out. In the event, the crisis had serious social consequences, in part because of the absence of social safety nets. The report suggests that the lesson to be learned from these events is that in future financial crises, the primary role for fiscal and monetary policy should be to shore up demand, expand the social safety net, recapitalize banks, and restructure corporate debt. Social safety nets in particular must be a central component of the policy response to a crisis.

The report also explores how to avoid future crises. In an age of large-scale private capital flows, developing countries face very complex problems in managing these flows but have little experience with the institutional and regulatory safeguards necessary to prevent crises. But even industrial countries have, in recent years, faced financial crises. Some of the more recent crises have occurred in industrial countries with advanced institutional structures and high levels of transparency. We know too that establishing the strong institutional infrastructure required to make markets work effectively, to enable the economy to experience stable and sustained growth, are tasks that will not be accomplished overnight, even in countries with a high level of commitment to make the necessary reforms.

When a single car has an accident on a bend in the highway, one might infer something about the driver or his car. But when, at the same bend, there are accidents day in and day out, the presumption changes—there is probably something wrong with the road. The fact that such a large number of countries have been affected by this crisis and required large official bailouts suggests some fundamental systemic weaknesses. In order to deal with the risks posed by large capital flows, especially significant when financial systems are weak, the report suggests that reforms must be comprehensive, and include a combination of more flexible macroeconomic policies, tighter financial regulation and where necessary, restrictions on capital inflows. In some cases it may be necessary to reverse the excesses of financial sector deregulation, especially in situations where countries lack the capacity for the required regulatory oversight. In each case, we need to ask what are the benefits and costs of the proposed reforms; and we need to look at the impacts on growth, stability, and poverty. The balance of benefits and costs of different policy reforms may differ in different countries. We need to recognize that in many of the poorest countries we are not likely to have, in the immediate future, robust safety nets. We have seen the devastation to the lives and livelihoods of millions of people that financial crises can have on innocent bystanders. We are seeing poverty increase overnight, undoing the slow progress that has been taking place year by year. For the poor peo-

ple in those many developing countries without an adequate safety net, the risks are indeed high, perhaps unacceptably so.

While the consequences of the crisis have been severe, the report ends on a note of optimism. Events over the past year may well herald a new, more realistic and stable environment for developing countries. We now have a better understanding of the institutional infrastructure that is required to make market economies work. The international community is giving serious attention to necessary improvements in the international financial architecture—from better bankruptcy laws, a greater willingness to accept standstills and arrangements entailing more equitable burden sharing, to a greater receptivity to interventions designed to stabilize capital flows, to a greater recognition of the need for responses to crises that are better adapted to the circumstances of the country and to protecting the most vulnerable within them. The two together—improvements in domestic institutions and in the international financial architecture—will enable greater numbers of countries to be able to enjoy more of the benefits—and minimize the risks—of the global economy.

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December 1998

The Report Team

THIS REPORT WAS PREPARED BY A TEAM IN THE DEVELOPMENT Prospects Group, and drew from resources throughout the Development Economics Vice-Presidency, the East Asia Regional Vice-Presidency, and other World Bank regions. The task manager and principal author of the report was Dipak Dasgupta, working with guidance from Uri Dadush. The core team comprised Milan Brahmbhatt and Mustapha Nabli (principal chapter authors), Elliot Riordan (forecasts), Robert Lynn and Bert Wolfe (projections), and Miria Pigato (social sectors).

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Many others from inside and outside the Bank provided comments, guidance, inputs and support to the report at various stages of its preparation. They include especially Alan Gelb, Masahiro Kawai, Homi Kharas, Frank Lysy, Richard Newfarmer, Guillermo Perry, Nicholas Prescott, Joanne Salop, John Shilling, Lyn Squire, and John Williamson. Jason Furman provided much help throughout the report and in coordinating with the Chief Economist's office. Marc Uzan, from the Re-inventing Bretton Woods Committee, helped to organize a background conference for this report. Papers from academic contributors to that

conference, and indeed the work of many others outside the Bank, are cited in the main report. The Development Data Group contributed to the Appendix. Connie Eysenck served as the External Affairs task manager, coordinated the report website, and worked closely with Phil Hay on media arrangements. Work on this report was carried out under the general direction of Joseph Stiglitz.

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Summary

BEGINNING WITH THE MUCH DEEPER THAN EXPECTED EAST ASIAN CRISIS, a series of events in the past 12 months has created a much more difficult and uncertain outlook for developing countries and the world economy over the next three years. With surprising speed and succession, Japan has lapsed into recession, Russia has run into severe financial difficulties, capital flows to emerging markets have fallen abruptly, and a growth-choking contraction in credit is evident amidst heightened risk aversion in global financial markets. In addition, adverse effects from El Niño and other natural disasters were felt in many parts of the world.

As a result, a sharp slowdown in world output, trade, and capital flows—already begun—is clouding short-term prospects. Domestic demand is growing above trend, but cooling, in countries producing 60 percent of world output—mainly the United States and Europe. It is contracting sharply in countries producing a quarter of world output—

East Asia, Japan, Russia, and the Middle East. And it is headed down in others—mainly Latin America.

Some recent policy announcements and developments are likely to be important in moving the world economy back to a safer direction. The United States and other industrial countries are easing monetary policies. Japan's legislature has passed an enhanced financial revitalization scheme and additional fiscal stimulus measures. The U.S. Congress has allocated funding for international financial institutions, leading the way for similar steps in other countries. The Brazilian government has adopted a program to reduce its fiscal deficit, which has received strong financial support from multilateral institutions, and governments. G-7 leaders have proposed a set of measures to strengthen the global economy. And more financial support has been announced for the East Asian crisis countries from Japan and others. These and other measures should give a boost to world economic recovery in the medium term and help to head off a global recession. But policies take time to work and the short-term outlook remains precarious.

The financial crises that have gripped developing countries and the global economy in the past 12 months or so have exposed several weaknesses that individually and in concert have contributed to these crises. Chief among them are fragilities in domestic financial systems, shortcomings in macroeconomic policies, imperfections in international capital markets, and weaknesses in the international financial architecture for preventing and dealing with crises. This year's Global Economic Prospects focuses on the outlook for devel-

oping countries in the wake of the crisis (Chapter 1), policies designed to deal with crises once they have erupted (Chapter 2), and ways of preventing crises in the future (Chapter 3).

Prospects

The slowdown in world economic growth in 1998–2000 will be felt most in developing countries, especially those close to weakening export markets and those relying on primary commodities for export income and on private capital flows to finance current account deficits.

Global output growth is expected to be cut nearly in half, from 3.2 percent in 1997 to 1.8 percent in 1998, and to revive only modestly to 1.9 percent in 1999. Tempered but still strong growth in continental Europe and a slowing U.S. economy with room for managing a soft landing are positive elements. More uncertain, but supported by recent developments, East Asian crisis countries and Japan are expected to shift from sharp recession in 1998 to stabilization in 1999, exerting less of a drag on world output growth. Even in the base case, developing country growth is expected to be more than halved to 2 percent in 1998, from 4.8 percent in 1997—the second worst slowdown in the past 30 years—and to commence only a modest recovery in 1999. In per capita terms, developing country growth is expected to slow to 0.4 percent in 1998, well below industrial countries' 1.4 percent. Brazil, Indonesia, Russia, and 33 other developing countries—which between them account for 42 percent of total GDP for the developing world, and more than a quarter of its population—are

likely to see negative per capita growth this year, an increase over 1997's total of 21 countries (which accounted for 10 percent of the developing world's GDP and 7 percent of its population).

In the longer term (2001–07), despite the current gloom, the world economy could still grow at slightly more than 3 percent a year, if policies to prevent a deeper global slump are implemented quickly and developing countries strengthen their financial sectors and reforms. The crisis in emerging markets will hit capital flows beyond the short term, but long-term growth in developing countries (excluding transition economies) could still reach more than 5 percent, about the same as in 1991–97.

Underlying this optimistic longer-term outlook is the expectation that industrial country growth will regain strength. OECD growth should strengthen as Japan deals with its banking problems; the European Monetary Union (EMU) helps underpin European integration and increased efficiency and growth; and the United States shows improved productivity performance. Avoiding a near-term recession is important to maintain consensus behind the policy thrust underlying globalization, and recent policy developments should support that outcome. World trade is expected to show stronger growth in the longer term, boosted by expanding global production and falling barriers to trade, transport, and communications.

Developing countries also benefit from nearly two decades of reform. But the period ahead is more challenging: private capital flows will take longer to return and are more measured, contributing to a

reduction in long-run growth projections (and the need for higher domestic saving to finance growth). Following their deep crisis, East Asian economies are unlikely to return to their extremely rapid growth rates of the early 1990s but recover to moderately strong growth (with more reliance on productivity gains and less on high investment). Smaller downward revisions (of 0.3–0.5 percentage point) have also been made for Russia, South Asia, and elsewhere, to reflect recently exposed institutional and other weaknesses.

There is still a substantial risk that the world economy will plunge into recession in 1999 rather than experiencing the sluggish growth described in the baseline outlook. This risk derives from a set of interconnected and mutually reinforcing contingencies: a worsening recession in Japan; a loss of confidence in international capital markets, leading to an extended shutdown in private capital flows to developing countries (especially Latin America); and an equity market correction of 20–30 percent that depresses growth in the United States and Europe.

Japan is taking fiscal and monetary action and has announced a stronger financial restructuring package, but difficulties in implementation could cause domestic demand to contract and consumer and business confidence to collapse, while exports could drop because of weaknesses across the rest of East Asia. Wealth effects and, more important, the loss of consumer and business confidence brought on by a collapse in equity prices (and related also to the ongoing credit crunch) would set back growth severely in the United States and

Europe. And Latin America would lapse into a severe recession if capital flows experienced an extended shutdown. Even though monetary authorities in industrial countries are assumed to undertake significant easing, world output growth in this scenario falls to zero in 1999. The results are severe for developing countries, where the effects of lack of access to private capital flows are aggravated by even sharper declines in export growth and primary commodity prices than in the baseline outlook, reducing aggregate growth by an additional 2 percentage points, to only 0.7 percent in 1999.

Dealing with crises

The interaction of institutional weaknesses in managing domestic financial system liberalization with international capital market imperfections, and the use of inconsistent macroeconomic policies, generated crucial vulnerabilities that laid the groundwork for the East Asian crises. The critical immediate vulnerability of the crisis countries came from an excessive buildup of short-term foreign currency debt on the balance sheets of private agents.

Surging capital inflows and weak financial regulation contributed to booms in domestic lending in East Asia, often to high-risk sectors such as real estate, resulting in fragile domestic financial sectors. Excessive corporate leveraging and some deterioration in returns made firms highly vulnerable to shocks affecting cash flow and net worth. In Thailand, an ailing financial sector, export slowdown, and large increases in central bank credit to failing banks helped trigger the run on the baht.

The crisis spread to other countries in the region because of common vulnerabilities—high short-term debt, financial sector weaknesses, spillovers through international trade linkages, and contagion effects of changes in capital market sentiment. Real activity in the region began a sharp decline as private investment suffered a massive shock—due to increased uncertainty, the withdrawal of external financing, and the impact of higher interest rates and currency devaluations on the cash flow and balance sheets of banks and firms.

Given the large falloff in private investment and consumption, initial fiscal policy, contrary to design, turned out to be contractionary (and would have been strongly contractionary if fully implemented). As the severity of recessions became evident, fiscal policies were significantly relaxed. Some initial policy responses also emphasized raising interest rates to stabilize exchange rates, but they did not succeed immediately in correcting exchange rate undervaluation and exacerbated negative impacts on the real economies.

Exchange rates have since partially recovered from their deep falls, due to the large turnarounds in current account balances themselves a reflection of the severity of the contractions in domestic output. Interest rates have also fallen recently to near or below pre-crisis levels. But the distress in the financial and corporate sectors (and attendant credit contraction) has remained, hampering recovery. By mid-1998, large parts of the financial and corporate sectors in the most affected countries were insolvent or suffering severe financial stress. A strong response of

exports to currency devaluation, which had supported a quick recovery after the Mexican crisis in 1994–95, was hurt by the regionwide downturn, including the weakness of the Japanese economy, as well as the credit difficulties of firms.

The primary role of fiscal and monetary policy is now to shore up aggregate demand, expand the social safety net, and contribute resources to recapitalize financial systems without adding to inflation. Continuing financial support from the international community is vital.

Cross-country experience suggests that bank restructuring in several crisis countries on the scale needed (with costs amounting to 20–30 percent of GDP) will require government intervention within a comprehensive plan for the financial sector, including big injections of public funds. To reduce incentives for excessive risk taking (moral hazard), a substantial share of losses of restructuring should be allocated to those who benefited the most from past risk taking, such as bank shareholders and managers. Achieving this longer-term goal will need to be balanced against the immediate priority of not exacerbating the credit crunch.

The success of bank restructuring will also depend on restructuring the debts of local corporations. Orderly debt workouts—less formal ways to bring creditors and debtors together for voluntary negotiation—will be important for both domestic and foreign debt. OECD governments, in particular, can support timely workouts between debtors and external private creditors—for example, by not holding out the possibility of more favorable bailouts for

creditors in the future. Expanded flows of foreign direct and equity investment can also do much for successful financial and corporate restructuring.

The crisis has exacted an enormous social cost—especially for the poor and has, for some countries, heightened social conflict. Social policy concerns need to play an integral part in the selection of policy responses to the economic crisis. While not a substitute for sound pro-growth macroeconomic policies, safety nets can help mitigate the social effects of economic crises. Another lesson from this crisis is the importance of establishing ex ante safety nets in all countries.

East Asian countries had reduced poverty and improved living standards and conditions at a pace unrivaled in history. Even so, cross-country research suggests that protracted crises lead to more poverty, greater income inequality, and on occasion, deteriorating social indicators, such as infant malnutrition. These trends can have long-lasting effects on people's physical well-being and their ability to participate in the economy. Unemployment in Indonesia, the Republic of Korea, and Thailand is expected to more than triple between 1996 and 1998. Real wages are falling dramatically in Indonesia. The number of people falling into poverty in 1998 could reach 25 million in Indonesia and Thailand alone and could be much higher if income inequality rises. Priority actions to protect the poor include ensuring food supplies through direct transfers and subsidies, generating income for the poor through cash transfers and public works, preserving the human capital of the poor through basic health care and education services, and

increasing training and job search assistance for the unemployed.

Preventing crises

Developing countries are vulnerable to financial crises, yet the domestic institutional structures and public policies needed to protect them from crises are slow to change. Partly because many small developing economies have become more exposed to waves of international capital market euphoria and panic, the frequency and costs of financial crises have increased in recent years.

Until the surge in private capital flows in the 1990s, crises in developing countries arose primarily from macroeconomic mismanagement—especially excessive public deficits and overborrowing abroad. The type of crisis seen in East Asia since 1997, in Mexico in 1994–95, and in Chile in 1982, however, is closely connected to surges in private-to-private capital flows and to the domestic and international financial systems intermediating these flows. Developing countries have been exposed to a large wave of capital inflows but have little experience with the institutional and regulatory safeguards needed to manage them safely. Institutions take time to develop, and the political constraints on prompt policy actions to avert crises are often severe. In contrast, industrial countries have implemented public policy and institutional reforms to prevent systemic crises over the past hundred years. And they appear to have reduced the incidence and severity of crises—but not eliminated them (for example, the savings and loan crisis in the United States in the 1980s,

banking crises in Nordic countries in the early 1990s, and financial sector problems in Japan). The building of required institutions and safeguards in developing countries should proceed vigorously so that the potential benefits of globalization can be realized with fewer risks.

Analysis of the causes of financial crises and the appropriate policies to prevent them highlights the interaction of various factors that amplify the risks and vulnerabilities—inadequate macroeconomic policies, surges in capital flows, fragility of domestic financial systems and ill-prepared financial or capital account liberalization (or both), and weak corporate governance.

Poor macroeconomic policies leave a country vulnerable to financial crisis, and prudent policies are the first line of defense. But in the presence of large capital inflows and weak financial systems, the room for maneuver in setting appropriate macroeconomic policies to control excessive private borrowing and risk taking is constrained by the difficult tradeoffs, including distributional considerations. A multidimensional approach is needed, often implying more flexible exchange rates, increased reliance on fiscal policy, and improvement and tightening of domestic financial regulation (and, where necessary, restrictions on capital flows) to reduce excessive capital inflows, domestic lending booms, and risks of financial crises.

Domestic financial sector liberalization, which can significantly increase the risk of crisis (particularly in conjunction with open capital accounts), should proceed carefully and in step with the capacity to design and

enforce tighter financial regulation and supervision. At the same time, however, efforts to improve prudential safeguards and banking operations will need to be accelerated. There is strong evidence of a higher probability of financial crisis following liberalization without better prudential safeguards, even in industrial countries. A developing country's regulatory structure should reflect its circumstances. Regulations that increase safety and stability need to be enhanced. Banking and capital market reform, oriented toward better risk management, remains a key ingredient of any strategy to prevent financial crisis. Public policy and institutional reforms that clamp down on connected lending and improve corporate governance are also essential.

Capital account liberalization should proceed cautiously, in an orderly and progressive manner. It is unrealistic to expect the best policies and strongest institutions to prevail in developing countries and so eliminate the risk of crisis. The benefits of capital account liberalization and increased capital flows have to be weighed against the likelihood of crisis and its costs. For foreign direct investment and longer-term capital inflows, the balance of expected benefits over the costs associated with financial crises is clearly positive, and developing countries should pursue openness. But for more volatile debt portfolio and interbank short-term debt flows (and the related policy of full capital account convertibility), there are higher associated risks of financial crisis and greater uncertainty about benefits. Tighter prudential regulations on banks and, where the domestic regulatory system is weak, restrictions on more volatile short-

term flows (through taxes, say) may help reduce the risk of crisis. For countries reintroducing such restrictions on capital inflows, these actions will need to be managed carefully so as not to lead to a loss of confidence; their reintroduction for capital outflows are not considered here but may pose more difficult issues.

Changes are needed in the architecture of the international financial system in view of the excessive volatility (euphoria and panics), strong contagion effects, and increased moral hazard in international financial markets. The most pressing issue is to develop better mechanisms to facilitate private-to-private debt workouts, including standstills on external debt under some conditions, and to restore capital flows and increased international liquidity to countries in crisis. Although there are some compelling arguments for a lender of last resort, difficult issues arise for appropriate burden sharing, the rules for intervention, and the avoidance of moral hazard. Improved regulation by creditor country authorities and better risk management of bank lending to emerging markets should also help reduce the probability of crisis. More timely and reliable information is desirable, but complete transparency and better information alone will not prevent a crisis. Still, better use of warning indicators may help governments take corrective actions early enough to reduce the extent and cost of crises. The issues are undergoing debate and consideration in different forums.

Conclusion

Events over the past 12 months or so may well herald a new, more realistic, and chal-

lenging environment for developing countries. The financial crises that have hit emerging markets do not mean that developing countries should retreat from globalization. The benefits of greater openness in trade are among the more important ways in which countries can achieve faster long-run growth. Similarly, the benefits of openness to foreign direct investment are considerable—in providing access to better technologies, productivity, and skills enhancement. Developing countries can also benefit from other long-term capital flows from world financial markets; for that, domestic bond and capital markets need to be better developed. The main lessons of the crisis are that countries need to build and strengthen regulatory and institutional capacities to ensure the safety and stability of financial systems, especially

at the interfaces with international financial markets, and that the international architecture to prevent crises and deal with them more effectively needs to be strengthened.

Institution building will take time and careful design, on questions of both financial regulation and supervision and capital account openness (to inflows). Differing country circumstances will dictate differences in the pace and sequencing of reforms. The strengthening of the international architecture also involves difficult issues. The early 1990s were unusual in the degree of euphoria that had emerged about the benefits of financial liberalization, private capital flows, and emerging markets. Now that the downside risks and costs have become more evident, a stronger foundation that would support these benefits, with fewer risks, may yet emerge.

Abbreviations and Data Notes

ADB	Asian Development Bank		
ASEAN	Association of Southeast Asian Nations		
ASEAN-4	Indonesia, Malaysia, Philippines, and Thailand		
BIS	Bank for International Settlements		
CFA	Communauté Financière Africaine		
CIS	Commonwealth of Independent States	FDI	Foreign direct investment
CPI	Consumer price index	G-3	Germany, Japan, and the United States
East Asia-5	Indonesia, Republic of Korea, Malaysia, Philippines, and Thailand	G-5	France, Germany, Japan, the United Kingdom, and the United States
ECLAC	United Nations: Economic Commission for Latin America and the Caribbean	G-7	Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States
EMU	European Monetary Union		
ERM	Exchange rate mechanism	G-8	Canada, France, Germany, Italy, Japan, Russia, the United Kingdom, and the United States
EU	European Union (formerly the EC)		
EU-4	France, Germany, Italy, and the United Kingdom		
EU-12	Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, and the United Kingdom	G-10	Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, the United Kingdom, and the United States
		EU-15	Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom

G-22	States (and sometimes Switzerland is involved) Argentina, Australia, Brazil, Canada, China, France, Germany, Hong Kong (China), India, Indonesia, Italy, Japan, Korea, Malaysia, Mexico, Poland, Russia, Singapore, South Africa, Thailand, the United Kingdom, and the United States	IMF	International Monetary Fund
		LIBOR	London interbank offered rate
		M2	A measure of broad money supply in the United States
		Mercosur	Latin America Southern Cone trade bloc (Argentina, Brazil, Paraguay, and Uruguay)
		ODA	Official development assistance
		OECD	Organisation for Economic Co-operation and Development
GCC	Gulf Cooperative Council		
GDP	Gross domestic product		
GTAP	Global Trade Analysis Project	OPEC	Organization of Petroleum Exporting Countries
HIPC	Highly indebted poor countries		
ILO	International Labour Organisation	UNCTAD	United Nations Conference on Trade and Development

Data notes

The “classification of economies” tables at the end of this volume classify economies by income, region, export category, and indebtedness. Unless otherwise indicated, the term “developing countries” as used in this volume covers all low- and middle-income countries, including the transition economies.

The following norms are used throughout.

- Billion is 1,000 million.
- All dollar figures are U.S. dollars.
- In general, data for periods through 1997 are actual, data for 1998 are estimated, and data for 1999 onward are projected.

Prospects for Developing Countries After the East Asian Crisis

IN THE AFTERMATH OF THE EAST ASIAN FINANCIAL CRISIS, THE SHORT-TERM outlook for developing countries and the world economy is now much more difficult and laden with downside risk than was anticipated in last year's report. The outlook then was for continuation of the favorable external environment and better performance of developing countries, including positive spillovers from rapid growth in the five largest countries. Growth in developing countries (excluding the transition economies) was more than 5 percent a year in 1991–97, up from only 3 percent in 1981–90. World growth was strong at more than 3 percent in 1991–97.

Even in a relatively favorable base-case projection, world growth in 1999 is now expected to register only 1.9 percent—developing country growth only 2.7 percent, with three of the largest developing countries in recession. Primary commodity prices have fallen sharply. World trade growth has decelerated abruptly. Spreads on developing country debt

have surged. And new lending to many emerging markets has come to a virtual halt. In addition, large parts of Asia, Latin America, and Africa experienced the adverse effects of El Niño (and the recent Hurricane Mitch) which caused droughts, disruption of water supplies, and the devastation of social infrastructure. In a low case scenario, world growth is revised even further downward to zero, and that for developing countries to 0.7 percent.

Large capital inflows to countries with weak financial and corporate regulation laid the groundwork for the outbreak of financial crisis in Asia.

Domestic demand growth is still above trend, although prospectively cooling, in countries producing some 60 percent of world output—mainly the United States and Europe. But it is contracting sharply in countries producing a quarter of world output—mainly developing East Asia, Japan, Russia, and the Middle East. It is headed down in others—mainly Latin America. With such a major turn in the global economy, this chapter discusses the external outlook, prospects for growth, and risks to that scenario in the near term (1998–2000) and in the longer term (2001–07). The second chapter analyzes the vulnerabilities that led to the East Asian crisis and the policy responses and social costs of that crisis. The concluding chapter takes up issues that have come to the fore in preventing such crises in the future—financial regulation, capital account liberalization, and international capital market reforms.

There are at least four—until now insufficiently appreciated—elements in the international environment that have contributed most to this unexpected deterioration in outlook. First, recent events starting with the East Asian crisis highlight the extent to which the pace of global financial integration (in developing countries with access to private capital flows) had outpaced the building of domestic institutions necessary to supervise and regulate the financial sector and its interactions with world markets. As chapter 2 elaborates, the large capital inflows to countries with weak domestic financial and corporate regulation and supervision generated a series of crucial vulnerabilities to financial crisis that both laid the groundwork for the outbreak of the financial crisis in East Asia, and ensured that its macroeconomic consequences would be severe. These included large increases in short-term foreign currency debts on the balance sheets of local banks and corporations—and booms in domestic credit that fostered speculative, low-quality investments. This augmented already high corporate leveraging, and weighed down banks' portfolios with doubtful quality loans collateralized on assets whose value had been inflated in price bubbles that eventually burst.

Second, the international environment had become too complacent about the consequences of systemic risk and financial sector collapse: about how deep such a collapse could be, how difficult (and protracted) recovery might be, how ineffective standard approaches to dealing with such crises might be, and how enormous the social costs could be. The unprecedented depth and duration of the East Asian crisis, the

region-wide slump, and, not least, the ongoing Japanese banking crisis, underscore the international costs of not handling systemic financial crises promptly. As in the case of the East Asian crisis, most analysts seriously underestimated both the gravity of the long-maturing banking crisis in Japan and the seriousness of the internal policy differences that prevented decisive actions. Japanese banks, faced with a stagnant economy and mounting bad debts at home, were among the prominent lenders to the East Asian boom of the mid-1990s. And the recession in Japan in 1998 has interacted with the crisis in East Asia to worsen the outlook for both Japan and the region—and heighten the risk of global recession. Recent substantial policy measures undertaken by the Japanese authorities to deal with the banking sector problems, and supportive fiscal policies, are important steps. Resolution of the banking crisis will, however, take time and require the effective implementation of reforms over an extended period. Events since the summer of 1997 of course demonstrate that the crisis is now no longer restricted to the region or to Japan, and that other factors have also been involved.

Third, recent events have highlighted even more imperfections in global capital markets that can foster “irrational exuberance” and unsustainable surges in capital flows in times of prolonged prosperity. But at other times, like the present, they can also lead to waves of panic and sudden pessimism that changes in fundamental economic conditions cannot adequately explain. The result: sudden, massive outflows of capital from developing countries, with grave consequences for economic growth and welfare. Not new, this lesson

apparently is too readily forgettable for all market participants (Kindleberger 1978). What started as a local crisis in the small Thai economy in July 1997 quickly spread to neighbors in the region, then to Russia in August 1998, turning into a general crisis of confidence in emerging markets. Large trading losses incurred by a number of international hedge funds and commercial banks in financial derivatives, because of the turmoil in global markets, also heightened risk aversion sharply in advanced economy markets. The severity of these developments cannot be fully accounted for either by the progressive deterioration in international conditions in the wake of the Thai crisis or by the undoubted weaknesses of structural and macroeconomic conditions and policies in many developing countries. Ways to reduce the likelihood of future international financial crises—by strengthening both the domestic institutions and policies and the institutional architecture of the world financial system—are therefore now prominent issues, discussed further in chapter 3 of this report.

For developing countries, opening the capital account and integrating with global financial markets requires adequate domestic institutions.

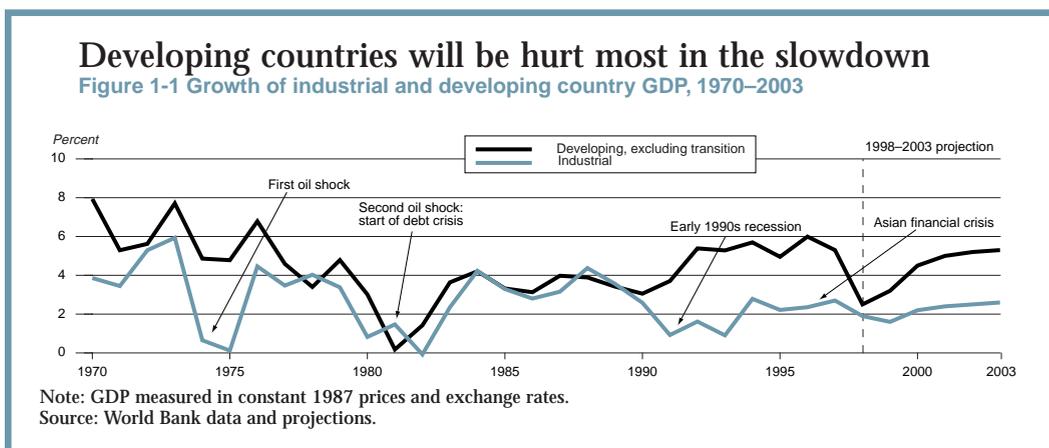
Fourth, in the wake of the 1998 crises there appears to be a growing consensus that for developing countries, opening the capital account and integrating with global financial markets should be contingent on adequate domestic institutional development. The benefits of an open capital

account have to be weighed against the associated risks of financial crises, especially in countries with fragile financial systems. In particular, capital flows need to be distinguished by the extent and type of benefits they might provide to borrowing countries as well as by their associated risks, such as their volatility and tendency to sudden, massive reversals.

The main elements of the global prospects are as follows:

- **Near-term outlook, 1998–2000.** Recent policy changes toward monetary easing in industrial countries, financial reform and additional stimulative fiscal measures in Japan, and other developments are likely to prove important in supporting world economic growth in the medium term—but short-term prospects remain weak. Global output growth is expected to be cut nearly in half, from 3.2 percent in 1997 to 1.8 percent in 1998, and to revive only modestly to 1.9 percent in 1999 (figure 1-1). This base case still looks for the world economy to scrape by with weak growth rather than out-

right recession, though the likelihood of a low-case scenario is much higher than usual. Tempered but still fairly strong growth in continental Europe is one part of this outlook. Growth in the United States is expected to slow significantly, but with room for additional cuts in interest rates to make a soft rather than a hard landing. More uncertain, but supported by recent developments, East Asian crisis countries and Japan are expected to shift from sharp recession in 1998 to stagnation in 1999, exerting less of a drag on world output growth. Even in the base case, though, developing country growth is expected to be more than halved to 2 percent in 1998 from 4.8 percent in 1997—the second-worst slowdown in the past three decades (the worst was in 1981)—and commencing only a modest recovery in 1999. Affected most will be countries or regions characterized by primary commodity dependence, large current account deficits financed by private capital flows, or reliance for export



markets on crisis-affected regions such as East Asia and Japan (table 1-1). Thirty-six of 100 developing countries are likely to have their per capita income fall in 1998.

- **Longer term outlook, 2001–07.** Despite the current gloom, the world economy could still grow at just over 3 percent in the long term (2001–07), with developing country growth at more than 5 percent. High-income OECD growth in the 1990s was weighed down by financial problems in Japan and by a slow, erratic recovery in Europe, in part as fiscal deficits were squeezed to prepare for monetary union. Industrial country growth in the long term should strengthen, however, as Japan gradually resolves its financial difficulties, and as the European Monetary Union (EMU) improves efficiency.

The potential for all countries to gain from freer trade and from expanded flows of foreign direct investment remains as compelling and valid as ever, indeed continuing to increase with advances in transport and communications technologies. Developing countries will continue, as in the first part of the 1990s, to see the payoffs of almost two decades of economic reform and structural adjustment.

In some respects, though, the next decade may be more challenging than the last. Given the dramatic demonstration of the risks associated with short-term capital flows, the fragility of financial systems in many developing countries, and the long time it will take to build adequate institutional capacity, private capital flows may be lower. The projections are thus more cautious

The external environment for developing countries is much more difficult than a year ago

Table 1-1 Global conditions affecting growth in developing countries, 1981–2007
(average annual percentage change, except for LIBOR)

Indicator	1981–90	1991–97	1997	Forecasts					
				Global Economic Prospects 1998/99			Global Economic Prospects 1997		
				1998	1999–2000	2000–07	1998	1999–2000	2001–06
Real GDP in G-7 countries	2.8	1.9	2.6	1.7	1.8	2.4	2.5	2.6	2.6
Inflation in G-7 countries ^a	4.6	2.6	1.8	1.5	2.1	2.5	2.3	2.5	2.7
World trade ^b	4.6	6.8	9.5	5.3	6.0	6.2	6.7	6.5	6.3
Nominal LIBOR (six months, US\$)	10.0	5.1	5.8	5.5	5.5	5.9	6.0	6.3	6.3
Real six-month LIBOR ^c	5.0	2.1	3.3	3.5	2.6	3.1	2.8	3.0	3.2
Price indexes (US\$)									
G-5 export unit value of manufactures ^d	3.3	1.1	-5.1	-3.8	1.9	2.5	4.6	3.0	2.5
Petroleum price ^e	-7.7	-3.6	-1.1	-25.7	7.7	0.1	-4.4	-10.9	-0.8
Nonfuel commodity price ^e	-5.4	0.2	5.0	-14.6	-0.4	0.3	-8.0	-4.2	-0.6

a. Consumer price index in local currency, aggregated using 1988–90 GDP weights.

b. Average of merchandise export and import volumes.

c. Deflated by U.S. consumer price index.

d. Data for G-5 countries (France, Germany, Japan, the United Kingdom, and the United States) weighted by exports of manufactures to developing countries.

e. Based on World Bank indexes and deflated by the export price of manufactures.

Source: World Bank data and baseline projections, November 1998.

about the ability of developing countries to sustain current account deficits as large as those in the past. That is one reason for a reduction of about 0.3 percentage points from last year's projection of long-run growth in developing countries (table 1-2).

A low-case scenario. Risks to the base-case projection in the near term are unusually large. The implications of three mutually reinforcing risks were evaluated in a low-case scenario: a deeper and longer recession in Japan, a protracted shutdown of private capital flows to developing coun-

tries in 1999 and 2000, and substantial equity market corrections in the United States and Europe. Even though monetary authorities in the United States and Europe undertake significant easing, world output growth in this scenario falls to zero in 1999. The results are more severe in developing countries. The lack of access to private capital flows, aggravated by sharp declines in export growth and further major declines in primary commodity prices, reduces aggregate developing country growth by 2 percentage points to 0.7 percent in 1999.

Growth in global output is expected to be modest in the near term

Table 1-2 World output growth, 1981–2007

(annual percentage change in real GDP)

Region	1981–90	1991–97	1997	Forecasts				
				Global Economic Prospects 1998/99				Global Economic Prospects 1997
				1998	1999	2000	2001–07	2001–06
World total	3.1	2.3	3.2	1.8	1.9	2.7	3.2	3.4
High-income countries	3.1	2.1	2.8	1.7	1.6	2.3	2.6	2.8
OECD countries	3.0	2.0	2.7	1.9	1.6	2.2	2.5	2.7
Non-OECD countries	6.6	6.4	5.3	-1.8	2.0	3.9	5.2	5.7
Developing countries	3.0	3.1	4.8	2.0	2.7	4.3	5.2	5.5
East Asia and Pacific	7.7	9.9	7.1	1.3	4.8	5.9	6.6	7.5
Europe and Central Asia	2.6	-4.4	2.6	0.5	0.1	3.4	5.0	5.2
Latin America and the Caribbean	1.9	3.4	5.1	2.5	0.6	3.3	4.4	4.4
Middle East and North Africa	1.0	2.9	3.1	2.0	2.8	3.1	3.7	3.7
South Asia	5.7	5.7	5.0	4.6	4.9	5.6	5.5	5.9
Sub-Saharan Africa	1.9	2.2	3.5	2.4	3.2	3.8	4.1	4.2
Memorandum items								
East Asian crisis countries ^a	6.9	7.2	4.5	-8.0	0.1	3.2	5.2	6.8
Transition countries of Europe and Central Asia	2.4	-5.5	1.7	-0.4	-0.6	3.0	4.8	5.3
Developing countries, excluding the transition countries	3.3	5.3	5.3	2.5	3.2	4.5	5.2	5.6
Developing countries, excluding transition and East Asia-4 ^b	3.1	5.1	5.5	3.9	3.6	4.7	5.2	5.4

Note: GDP is measured at market prices and expressed in 1987 prices and exchange rates. Growth rates over historic intervals are computed using least squares method.

a. Indonesia, the Republic of Korea, Malaysia, Philippines, and Thailand.

b. East Asian crisis countries, excluding the Republic of Korea.

Source: World Bank data and baseline projections, November 1998.

Recent developments in the world economy

The world economy has been hit hard in the past 12 months—by the East Asian crisis, Japan's lapse into severe recession, the collapse of the Russian ruble, the flight to safety from emerging markets and generally heightened risk-aversion in all financial markets. Largely because of these interrelated shocks and the spillovers, such as a large fall in oil and non-oil commodity prices, domestic demand in 1998 in countries representing some 25 percent of world demand is either contracting or growing below trend—in large parts of developing East Asia, Japan, Russia, and the Middle East (figure 1-2). (Domestic demand gives a clearer picture of underlying trends than does gross domestic product [GDP] growth.) In countries representing another 60 percent of world demand (the United States and Europe) growth of domestic demand in the first half of 1998 was running above trend, while in regions such as Latin America growth was near trend. In aggregate there was a distinct fall in world growth to about 1.8 percent in 1998. Also emerging was considerable uncertainty about the near-term outlook.

More recently, in October to November 1998, a series of important policy announcements and developments has taken place. These policy changes may prove important in supporting world economic growth in the medium term. Most notable were three 25 basis-point reductions in the federal funds rate in the United States to forestall a credit crunch (lifting stock markets), and interest rate cuts in the United Kingdom, Spain, Denmark, Italy, and Canada. The Japanese Diet also approved a Y60 trillion

(US\$500 billion) financial revitalization package and a further supplemental budget of Y17 trillion in emergency economic measures. The yen strengthened significantly against the dollar, lifting currencies and stock markets and lowering domestic interest rates in East Asia.

The IMF funding package was also passed through the United States Congress, a Brazil-International Monetary Fund (IMF) agreement on an economic adjustment program was announced, Japan's proposed \$30 billion fund for crisis-affected East Asian countries was further elaborated, and G-7 leaders proposed a set of measures to strengthen the global economy. Following presidential elections, the Brazilian government adopted a program to reduce its fiscal deficit, which received strong support from the IMF, other multilateral institutions, and governments. The

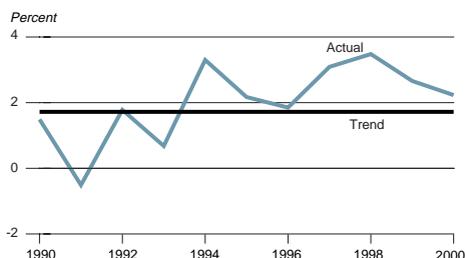
Domestic demand in 1998 in countries representing some 25 percent of world demand is either contracting or growing below trend.

Brazilian agreement was in line with the G-7 declaration establishing precautionary lines of credit for such countries pursuing IMF approved policies, in the event of their need for enhanced liquidity. At the most recent Asia-Pacific Economic Cooperation (APEC) summit meeting, drawing on the Japanese proposals, increased financial support measures were announced, from Japan, the United States, and multilateral institutions, for the purposes of corporate and financial restructuring and enhanced

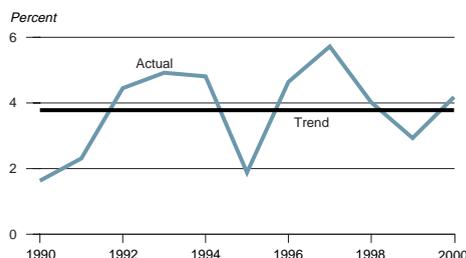
In East Asia, Japan, the Russian Federation, and the Middle East, domestic demand contracts in 1998

Figures 1-2a–1-2d World domestic demand and output growth, 1990–2000

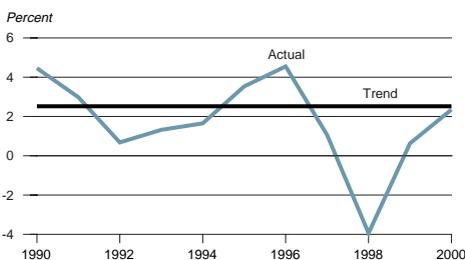
Growing faster than trend, but slowing
 1-2a Countries with 60 percent of world domestic demand



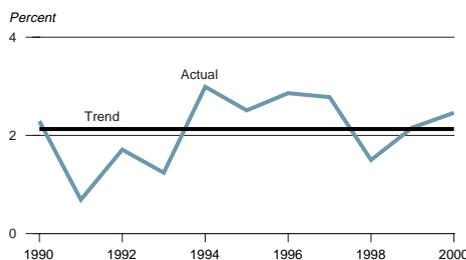
Growing close to trend
 1-2c Countries with 9 percent of world domestic demand



Showing sharp contraction, but stabilizing
 1-2b Countries with 25 percent of world domestic demand



Slowing markedly, but not in recession
 1-2d World output growth



Source: World Bank data and projections.

social protection in the East Asian crisis countries.

However, recent data on the real world economy (world trade and output) and on capital flows to developing countries remain negative. On balance, although policies have begun to create better conditions for recovery in the medium term, the downside risks in the external environment in the short term still remain high.

Crisis in East Asia much deeper than anticipated

A large part of the slowdown in aggregate growth in developing countries in 1998 is due to the unprecedented depth and severity of the recession in the five crisis countries in East Asia—Indonesia, the Republic of Korea, Malaysia, the Philippines, and Thailand. The shift in the current account position of the five from 1996 (the last

complete pre-crisis year) to 1998 is projected to total \$117 billion, reflecting mainly a decline in imports equal to 2 percent of world trade. Output contractions have been far larger than most analysts had initially expected. There has been a large downward revision of consensus forecasts for 1998 growth and equally large upward revisions for estimates of current account balances (figure 1-3). Both revisions reflect a far larger collapse in domestic investment and consumption than previously expected. Estimates of output declines in 1998 are now 15 percent in Indonesia, 7 percent in the Republic of Korea, 5 percent in Malaysia, 0.5 percent in the Philippines, and 7 percent in Thailand.

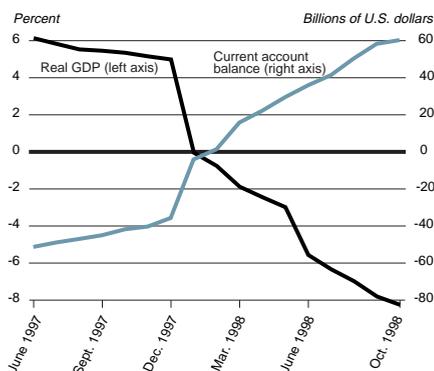
The Asian crisis already ranks with the Latin American debt crisis of the 1980s in terms of the severity of first-year impacts on the countries worst affected. For example, the

worst one-year output declines in the Latin American countries during the debt crisis ranged from 3.5 percent in Brazil to 17.2 percent in Chile. Indeed, the one-year declines in industrial production of 20 percent or more in Thailand and Indonesia (figure 1-4) are comparable to those in the United States and Germany during the Great Depression. In terms of the withdrawal of demand from the rest of the world, it was the most serious crisis since the oil shocks of the 1970s.

Some encouraging signs of a slowing of output contraction emerged in the second half of 1998 in some of the crisis countries, helped by a stabilization and subsequent appreciation of exchange rates from lower levels and a decline in interest rates, in some cases to precrisis levels. Export volume growth following currency devaluation is estimated at 15–25 percent year-on-year, one of the few positive stimuli in the demand picture (along with a shift to more stimulative fiscal policy). But large declines in export prices meant that export revenue in dollar terms was generally stagnant, stifling the ability of firms to service foreign

A big downward revision in consensus forecasts

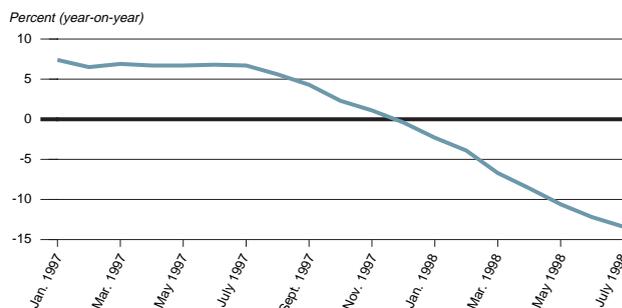
Figure 1-3 Monthly consensus forecasts for 1998 for aggregate GDP growth and current account balance in East Asia-5



Note: East Asia-5 is Indonesia, Malaysia, Rep. of Korea, Philippines, and Thailand.
Source: Consensus Forecasts, Inc.

Thailand tumbling into recession

Figure 1-4 Thailand's manufacturing production index, January 1997–July 1998



Source: Bank of Thailand.

debt. The unexpected onset of deep recession in Japan was also especially damaging to the East Asian crisis countries.

Japan's long-running economic stagnation in the first half of the 1990s turned to full-blown recession in 1997. A sharp fiscal tightening in the early part of the year curbed consumer spending. Then the financial and economic crises in the rest of East Asia led to a sharp fall in export growth—and to increases in the already huge bad-debt problems of Japanese banks, among the most prominent lenders to the East Asian crisis economies. The failure of important financial institutions toward the end of 1997 provoked a collapse in consumer confidence, and the economy spun into full recession.

One-year declines in industrial production in Thailand and Indonesia are comparable to those in the U.S. and Germany during the Great Depression.

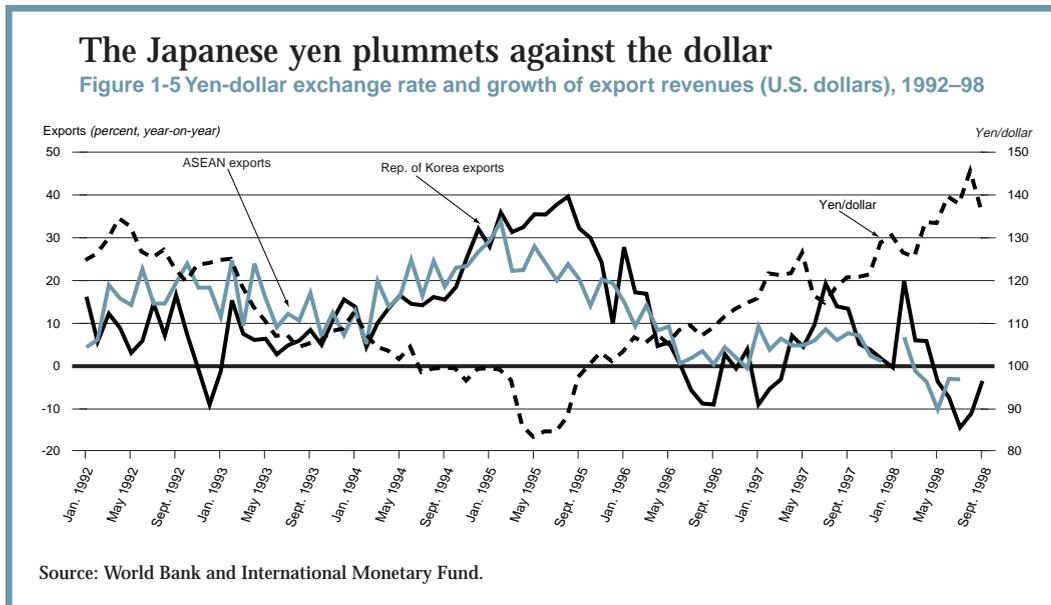
Since then, further declines in consumer and investment spending and confidence, declining output, rising unemployment, falling asset prices, rising bad debts, and tightening bank credit (despite near-zero policy interest rates) have created a vicious circle that is expected to generate a 2.5 percent decline in GDP in 1998. In addition, the yen depreciated sharply against the dollar (figure 1-5)—before rebounding dramatically in October. The initial impact was severe on the worst-hit East Asian countries, both because of the demand contraction in Japan and—particularly for Korea—the effects of yen deprecia-

tion on Japanese competitiveness in third-country markets. Japan represents more than 60 percent of the region's GDP, and its effects on the rest of the region through both trade and investment are more important than those of any other country.

Russian crisis and general loss of confidence in emerging markets

Pressure on the Russian ruble built up in 1998. Domestic political disagreements prevented progress in reducing the fiscal deficit, financed in part through short-term foreign currency borrowings channeled through the banking system. And the fall in world oil prices, in part due to recession in East Asia, reduced Russian export earnings and government revenues. With the collapse of the ruble in August, nervousness about emerging markets escalated into a major loss of confidence and a 'flight to quality' (figure 1-6). Russia's unilateral debt moratorium and the unwillingness of the international community to extend a rescue package without progress toward policy reforms, drove home to lenders that they could not always count on an international 'bailout', sharply raising the potential costs of risky private lending.

Debt moratoriums had been steadfastly avoided in the aftermath of the Mexican and East Asian crises, when large international rescue packages were assembled. These packages caused spreads on emerging market debt to fall sharply after the Mexico episode, and in many cases they remained moderate even after the onset of the East Asian crisis. But with the Russian crisis, spreads shot up once again as perceptions of the costs attached to



risky private lending were reversed, and capital flew to safety in industrial country bond markets. These followed a much more generalized outflow of capital from emerging markets, putting severe downward pressures on their currencies and asset prices (table 1-3).

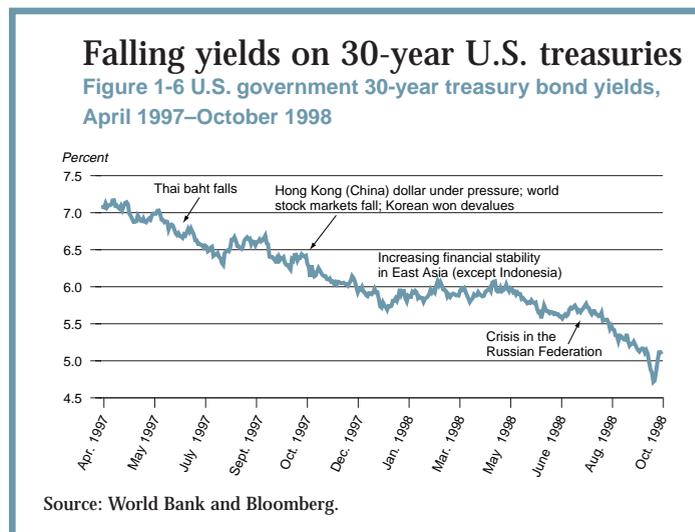
In recent months, the pressure on emerging markets has abated somewhat. Stock markets and currencies have strengthened in East Asia and interest rates have fallen, while smaller positive effects are also noted for other emerging markets, notably in Latin America. But private-source net capital flows remain strongly negative.

Short-term outlook, 1998–2000

World output growth is expected to fall from 3.2 percent in 1997 to 1.8 percent in 1998—and to revive only modestly to 1.9 percent in 1999. The risks

of the current slowdown accelerating into a world recession are also substantial.

Even so, in the base-case outlook, avoidance of recession still looks to be the most likely for several reasons. First, Europe, with about 30 percent of world output, saw its strong recovery of 1997 continue to consoli-



Emerging equity markets and currencies collapse after the Russian crisis

Table 1-3 Changes in financial variables for selected emerging markets

(as of August 28, 1998)

Country	Exchange rate (US\$/local currency)			Equity markets			Short-term interest rates (three-month interbank)		
	Percent change from: ^a			Percent change from:			Level	Percent change from:	
	Last month ^b	Dec. 1997	June 1997	Last month ^b	Dec. 1997	June 1997	Real ^c Aug. 28	Last month (basis points)	June 1997 (basis points)
Indonesia	32	-47	-76	-30	-16	-53	-8.9	236	4130
Korea, Rep. of	-8	20	-34	-10	-18	-59	2.8	-267	61
Malaysia	-1	-8	-40	-25	-49	-72	3.1	-99	214
Philippines	-5	-11	-40	-26	-36	-57	6.4	61	554
Thailand	-4	11	-42	-18	-41	-58	3.2	-488	-380
Argentina	0	0	0	-38	-47	-55	8.4	93	155
Brazil	-1	-5	-8	-37	-34	-46	17.0	-126	-122
Mexico	-11	-19	-21	-26	-40	-29	17.9	483	505
Venezuela	-3	-13	-16	-42	-70	-72	..	..	..
Czech Republic	-7	4	-1	-23	-23	-22	2.6	-29	-776
Hungary	-5	-10	-17	-37	-35	-24	2.1	-70	-429
Poland	-9	-7	-13	-29	-20	-22	6.6	-121	-314
Russian Federation	-48	-50	-52	-44	-79	-79	115.5	386	7906
South Africa	-6	-25	-30	-28	-20	-33	16.3	57	484

a. [-] implies depreciation.

b. Last month refers to July 31, 1998, except for interest rate where the changes are monthly averages.

c. Nominal three-month interest rate (one-month for Brazil) on August 28, 1998 deflated by inflation rate in July.

.. implies data is not available.

Source: Bloomberg.

date in 1998. Interest rates remained low. The fiscal stance changed from contraction to neutrality in the Euro-area. Consumer and business confidence was rising. The export exposure to Asia is relatively low, although exposure in banking is higher. There are few serious concerns about inflation or resource constraints, given high unemployment of labor and other resources. Decomposing world GDP growth in 1997-99 into contributions from different countries and regions shows that Europe is likely to contribute a positive 0.75 percentage point in both 1998 and 1999 (table 1-4).

Second, while growth in the United States is likely to cool from recent high

rates, a modest advance appears likely in 1999. Among the strengths of the U.S. economy are strong momentum in consumer demand and scope for further easing in monetary and, potentially, fiscal policy.

A third factor—held with less confidence than the first two—is that Japan's economy, after contracting sharply in 1998, is expected to show only modest declines in 1999, as a result of fiscal stimulus and the confidence-building effects of financial restructuring. Effective stabilization of output will have a positive impact on overall world growth.

Fourth, a sharp 8 percent aggregate output contraction in the five East Asian

The drag to world GDP growth coming from Asia will diminish in 1999

Table 1-4 Contributions to world GDP growth, 1997–99

	1997	1998	1999	Change ^a	
				1997–98	1998–99
World GDP growth (percent)	3.2	1.8	1.9	-1.4	0.1
Contributions to world growth (percentage points)					
OECD Europe	0.7	0.8	0.7	0.1	-0.1
United States	1.0	0.9	0.5	-0.1	-0.4
Japan	0.1	-0.4	0.0	-0.5	0.4
East Asia crisis countries	0.1	-0.3	0.0	-0.4	0.3
China	0.3	0.2	0.3	0.0	0.0
Latin America and the Caribbean	0.2	0.1	0.0	-0.1	-0.1
Republics of the former Soviet Union	0.0	-0.1	0.1	-0.1	0.0
Other developing regions ^b	0.3	0.3	0.3	0.0	0.0

Note: Contributions may not sum to world growth because of the omission of certain countries.

a. Percentage may not equal differences in levels columns because of rounding.

b. Aggregate of Middle East and North Africa, Sub-Saharan Africa, South Asia, and Central and Eastern Europe regions.

Source: World Bank estimates.

crisis countries is expected to give way to stabilization in 1999. Factors behind this improvement include the buffer to aggregate demand provided by exports, better financial conditions, and reductions in uncertainty arising from extremely large current account surpluses. Also weighing in are a strengthening of exchange rates and a fall in interest rates during the latter part of 1998, stimulative fiscal policies undertaken by governments, and the positive effects of gradual progress in bank recapitalization.

That the world economy is expected only to slow sharply rather than enter recession will be cold comfort to many, especially to people in developing countries, where the impact will be disproportionately large, especially in per capita incomes. In many developing countries, export prospects already dampened by lower market demand will be greatly aggravated by the sharp declines in oil and other primary commodity prices brought on by the world slowdown. The sudden, large swings in interna-

tional capital market sentiment away from emerging markets have led to a dramatic decline in private capital flows to developing countries and large risk premiums and spreads on new lending. That is forcing wrenching macroeconomic adjustment on many countries relying on these flows to finance large current account deficits. Only after 2000 are developing countries expected to begin returning to the rates of growth they enjoyed earlier in the 1990s.

Industrial country growth

The recovery that began in continental Europe in 1997 and gathered pace in the first half of 1998 is perhaps the most important source of strength in world demand growth going into 1999.¹ The balance of the recovery moved from export-led growth in 1997 toward stronger growth in private consumption and fixed investment. This occurred along with a long-standing accommodative stance in monetary policy and the shift of fiscal policy from contrac-

tion in 1997 (to meet fiscal targets for the European Monetary Union) to a neutral stance in 1998. With a recovery under way, nervousness about monetary union planned for January 1, 1999, has diminished (box 1-1).

The recovery that began in continental Europe in 1997 and gathered pace in the first half of 1998 is perhaps the most important source of strength in world demand growth going into 1999.

Recent policy debate in Europe has moved to concerns about the impact of a slowing world economy and financial market turmoil, and the question of whether, and when, further easing of monetary policy would be appropriate. As in the United States, Europe's exports to Asia have fallen sharply. But given the importance and general buoyancy of intra-Europe trade, the overall drag on export growth has been more modest. European export growth will prospectively slow further as the U.S. economy moves to a slower rate of expansion and as the Russian crisis is felt in Central and Eastern Europe and in other European Union (EU) export markets. Increased volatility after the Russian crisis in hitherto steadily rising European equity markets may also cool the pace of domestic demand growth. These moderating factors should help prevent a significant acceleration in currently low inflation. Europe's contribution to the adjustment in world trade occasioned by the East Asian crisis since mid-1997 will widen its external deficit. In fostering world recovery, it is crucial for all industrial countries to resist calls for

antidumping or other protectionist measures in response to the growth in imports from developing countries.

The U.S. economy displayed exceptional strength in 1997 and the first part of 1998 (figure 1-7). It is likely that growth will slow in 1999, but the policy responses already evident will likely moderate the slowdown. Domestic consumption and investment growth in 1998 more than offset the effects of sharply weakening exports to Asia (30 percent of U.S. overseas markets). Interest rates have been reduced and asset prices, although volatile, are still buoyant. Also supporting growth are strong consumer confidence and low and falling unemployment and inflation. Domestic demand growth is likely to slow in the latter part of 1998 and in 1999, however. Business investment growth should fall as profit growth and margins weaken in response to slackening overseas demand. In addition, households savings in the United States have fallen over the past decade to very low levels (only 0.6 percent of disposable income in the second quarter of 1998, and falling into negative territory in September), in part because household assets and liabilities have both risen to record highs relative to income. With savings rates unlikely to go much lower and stock market volatility likely to encourage higher rather than lower savings, growth in consumer spending is likely to slow.² Both investment and consumption are, however, likely to be given some support by the big decline in long-term interest rates in 1998. Moreover, policy interest rates are being reduced from their previously high levels in real terms. Thus output growth, while slowing sharply from near 4 percent in

1997, is expected to stay at about 2 percent in 1999–2000.

Developments in Japan remain (at the time of writing) a large contractionary impulse in the world economy. Fortunately, recent policy announcements have begun to create some of the preconditions for recovery. Public confidence had been drained earlier by the inability of policymakers to work through disagreements to devise and implement a credible response to the crisis. Earlier measures included a stimulus package to reduce income and corporate taxes and raise spending (Y16 trillion, 3 percent of GDP), supplemented by additional tax cuts and spending measures announced in August 1998. It was unclear at that time, however, whether the tax cuts would be temporary or permanent—or to what extent additional capital spending was being implemented. These fiscal measures were viewed as unlikely by themselves to underpin a self-sustaining revival of growth without a strong financial restructuring package. In December 1997 a Y30 trillion package (6 percent of GDP) was announced to insure depositors in insolvent banks and provide public funds to improve the capital base of solvent banks in temporary difficulties. Later, a bridge bank plan was announced to take over the bad debts of insolvent banks and use previously authorized public funds to maintain lending to sound borrowers. This scheme raised concerns about possible moral hazard problems, and there was little effort at implementation.

In October 1998, however, a new financial revitalization package worth Y60 trillion (12 percent of GDP), was passed by the Japanese Diet. Of the new funding (about Y43 trillion), a large proportion is

targeted toward resolution schemes for failed financial institutions, including bank nationalization, bridge bank operations, and disposal of non-performing loans. A Resolution and Collection Organization (RCO), a Japanese version of the U.S. Resolution Trust Corporation (RTC) was established to facilitate the workout process. The remainder of funding is aimed at recapitalizing weak but viable institutions—on request by the banks themselves. Measures have also been announced to counteract the existing credit crunch, particularly for small- and medium-sized businesses. Subsequently, the implementation of financial restructuring has also started, with the nationalization of the tenth largest—and perceived to be the weakest—commercial bank. In addition to these financial sector measures, a supplemental emergency budget amounting to Y17 trillion (3.5 percent of GDP) was announced in November, which included increased funding for social infrastructure projects and housing, as well as permanent reductions in personal and corporate income taxes. After reductions, the maximum personal tax rate will stand at 50 percent and corporate taxes at 40 percent.

The base-case outlook assumes that movement toward financial restructuring and reform will be progressive in Japan. The current credit crunch has been of such proportions that the government has had to extend financial assistance directly to private corporations. Hence the recovery in growth is expected to be sluggish (as in most other cross-country experiences with banking restructuring on the scale of Japan's), with modest output decline in 1999 and less than 1.5 percent growth in 2000.

Box 1-1 The EMU and its international impact

On January 1, 1999, the euro will be launched, and the European Monetary Union (EMU) will be formally created. The single currency is expected to bring substantial productivity and growth benefits through decreased transaction costs, increased allocative efficiency, elimination of exchange risk premia in interest rates, and improved investment demand. To the extent that it also serves as a catalyst for fiscal consolidation and structural reforms, growth prospects and the investment climate will be boosted further, with a considerable deepening of European capital markets.

Exchange rate stability. Will the euro be a strong and stable currency? This will require low inflation, sustained budget balances, and an independent European Central Bank, as well as a balanced net EU current-account position. Over the medium term, it is generally expected that the euro will appreciate relative to the dollar, in line with the larger current account deficit in the United States, and the respective cyclical positions of the euro zone (early recovery) and the United States (maturing). The

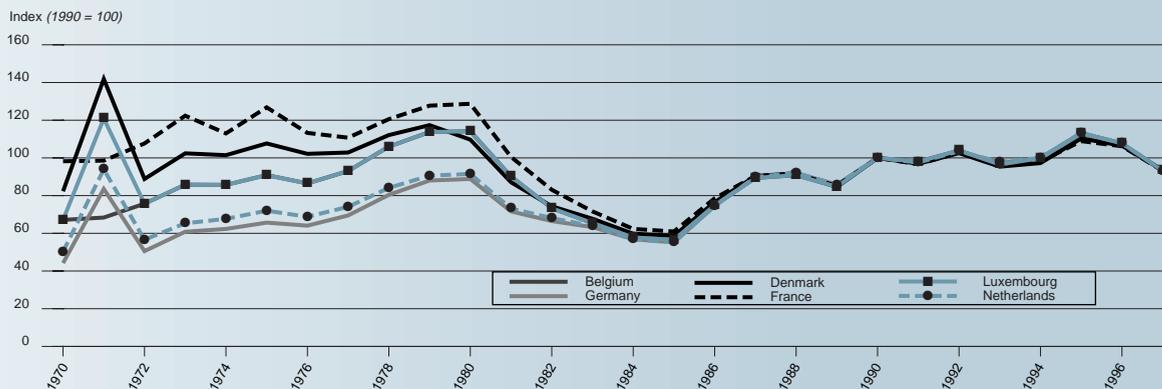
euro is also expected to gain strength over the medium term as reserve portfolios are rebalanced away from the dollar.

Use of the euro as reserve currency. The consensus is that the euro will slowly become a major international reserve currency, but the inertia of existing reserve portfolios may be strong (for example, postwar sterling holdings). For private reserves, it is widely accepted that a shift to the euro will be fairly quick, internally and externally.

Some developing countries will be more directly exposed to potential impacts of the euro, due to their close and expanding links through trade and capital flows, currency arrangements, and geographical proximity. Impact is likely to be strongest in countries where trade in manufactured goods with the EU is highest (box figure bottom right). Financial linkages are likely to be somewhat less important than trade. As evident, three groups of countries will be affected most: Central Europe, CFA franc zone Africa, and the Southern Mediterranean. If a country's currency is pegged closely to the euro, euro appreciation would cause the pegged

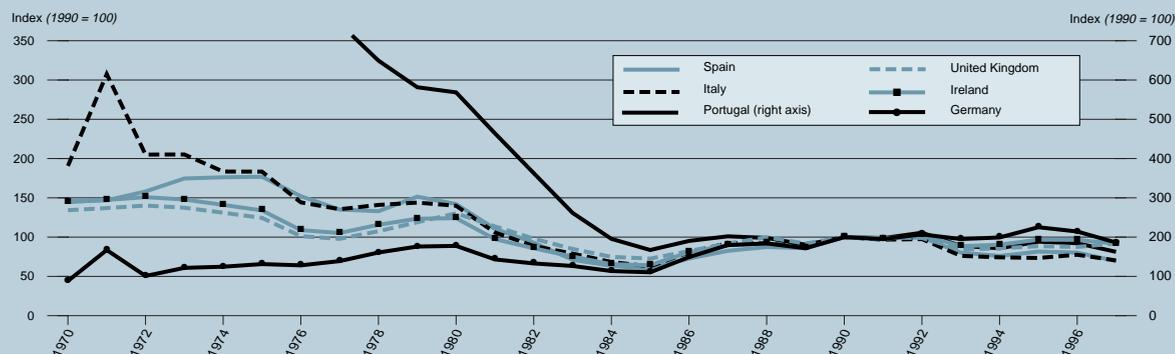
Sticking together since 1984

Core ERM country exchange rate indexes, 1970–96



Source: IMF International Financial Statistics 1998.

Converging but still disparate Non-core ERM country exchange rate indexes, 1970–96



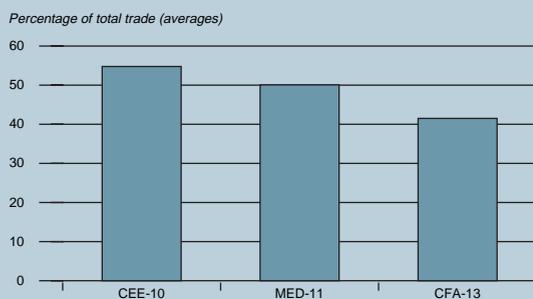
Source: IMF International Financial Statistics.

currency to also appreciate, reducing the country's competitiveness. Countries that peg their currencies to a bas-

ket closely approximating the direction of their trade (for example, Hungary) would experience only minor changes in competitiveness.

Developing regions most affected by the euro

Trade with European Union countries, 1997

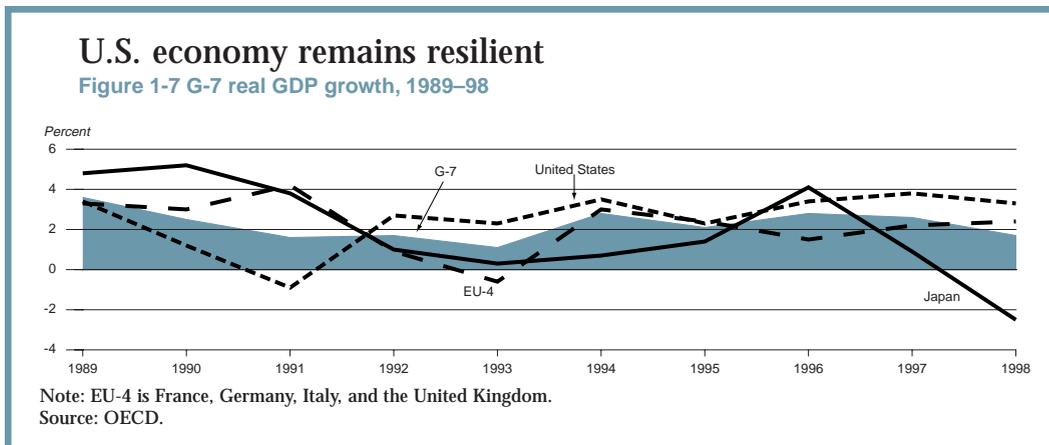


Note: Central and Eastern European countries (CEE); Southern Mediterranean (MED); African Franc Zone (CFA) excluding Comoros.

Source: IMF Direction of Trade 1998.

Countries seeking closer ties to the EU face two challenges: raising and harmonizing standards of prudential regulations in line with EU standards, and developing the capacity and policies to address potentially wide swings in capital flows (possibly coinciding with high balance of payments deficits) that can lead to liquidity problems. This implies the need for cautious capital account liberalization in line with adequate prudential safeguards in financial markets. Capital flows to non-EMU countries will also be affected by EMU-induced changes in interest rates, largely determined by the European Central Bank (for example, an increase in EMU interest rates could reduce interest-sensitive flows into other non-EMU countries). The EMU could also affect foreign debt service for countries with EMU participant obligations, through both interest rate and euro exchange rate changes.

Sources: Bayoumi 1992; Buitert, Corsetti, and Pesenti 1996; Feldman and others 1998; Hadjimichael and Galy 1997; Masson, Krueger, and Turtelboom 1997; Minikin 1993; Pelkmans 1997.

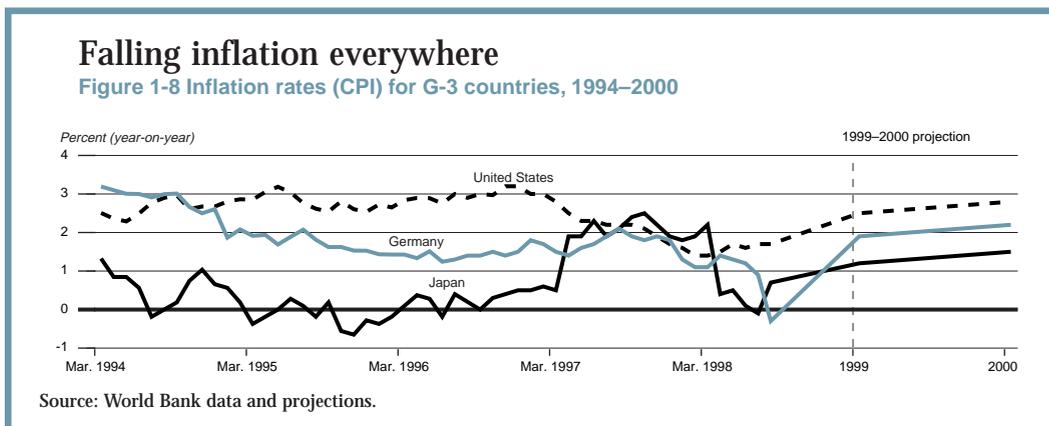


Inflation and interest rates

Moderating growth in the United States, excess capacity in Europe, recession in Japan, and declines in industrial country import prices—all these suggest little likelihood of a significant revival in industrial country inflation in the near term. The benign inflation backdrop provides a basis for long-term industrial country interest rates continuing at current low to moderate levels. It also creates room for easier monetary policy in the United States and Europe if the recession in several regions of the world proves greater than anticipated. Low or falling industrial

country interest rates may provide a floor under world demand—and at least some offset to recent sharp increases in spreads on lending to developing countries.

Despite above-trend economic growth, U.S. inflation fell throughout 1997 and into early 1998, reflecting currency appreciation, steep declines in import prices for primary commodities and manufactures (a result of recession and currency devaluation in Asia), and the moderating influence on employment costs of a one-time fall in the rate of growth of health insurance premiums (figure 1-8). Inflation is expected to be only 2



percent in 1998. Tight labor markets, however, were reflected in a pickup in wage and employment cost inflation in early 1998, and they are likely to lead to a rise in inflation in 1999 as temporary factors fade away. Slowing U.S. output and employment growth should nevertheless help keep inflation to a modest 2–3 percent, as should continuing competitive pressure from imports and underlying structural improvements in the economy's performance in the 1990s.³

Deflationary impulses from Asia in the form of lower commodity and manufactures prices also helped stem inflation in continental Europe. Any pickup in European inflation as a result of stronger growth is expected to be even more muted than in the United States because of higher cyclical unemployment and the impact of monetary union on reducing inflationary expectations in former high-inflation countries. Deflation is more of a concern than inflation in recession-hit Japan; inflation fell into negative territory in the second half of 1998 as the temporary impact of sales tax increases passed out of the calculation and, more fundamentally, as sharp declines in aggregate demand and increases in unemployment led to year-on-year declines in nominal wages.

The deflationary impact of the Asian crisis and the generally subdued inflation outlook in industrial countries have, along with slower world growth and increased volatility in world financial markets, given room for additional monetary easing by central banks, especially in the United States and the Euro area. Long-term government bond yields in industrial countries have fallen sharply in 1998, as capital flew to safe havens and as longer term inflationary expectations declined.

World trade

With this mixed outlook for industrial country output growth, world trade growth is expected to slow from 1997's exceptional 9.5 percent, but to maintain a 5–6 percent pace in 1998 and 1999, not far from average growth of the past decade (table 1-5). An expected 5–10 percent fall in Japan's import volumes (figure 1-9) and 15–25 percent contractions in the East Asian crisis countries this year are the largest sources of decline in overall import growth.

The recovery of growth in Japan is expected to be sluggish with a modest output decline in 1999 and less than 1.5 percent growth in 2000.

Sharp slowing down of imports is also expected in other developing regions. The appreciation of the U.S. dollar in 1997 and most of 1998 contributed to a dramatic slowdown in developing countries' export receipts expressed in dollars. Price declines in oil and nonoil commodities and many manufactured goods meant that export revenues of developing countries showed no growth for the first time since 1991. Historically, slowing dollar export revenues have tended to cause payments difficulties for developing countries whose debts are mainly denominated in dollars, forcing macroeconomic adjustments to compress imports. The debt crisis in the early 1980s occurred in tandem with a sharp decline in the dollar value of developing country exports, and a similar period of slow growth in export values was a precursor to the Mexican peso crisis of 1994, and the Asian crisis in 1997.

The East Asian crisis leads to sharp slowdown in developing country imports in 1998–99

Table 1-5 World merchandise trade, 1991–2007

Indicator and region	1991–97	1997 ^a	Forecasts			
			1998	1999	2000	1998–2007
World trade growth ^b	6.8	9.5	5.3	5.7	6.2	6.1
World output growth	2.3	3.2	1.8	1.9	2.7	2.9
Import growth						
High-income countries	6.2	8.8	5.8	6.4	5.9	6.1
OECD countries	5.4	9.4	7.2	6.6	5.6	6.0
United States	8.3	14.7	11.8	8.7	5.2	6.3
EU-15	4.3	7.9	7.3	6.5	5.9	6.2
Japan	6.3	1.7	-7.5	-0.8	4.0	3.6
Non-OECD countries	11.5	5.4	-2.7	5.4	8.1	6.5
Developing countries	9.2	8.8	2.8	4.4	6.2	6.2
Sub-Saharan Africa	3.5	5.8	4.7	5.9	5.9	5.3
East Asia and Pacific	13.5	3.5	-5.2	5.7	8.2	7.3
South Asia	12.1	7.9	6.1	7.6	8.3	8.4
Europe and Central Asia	5.8	9.1	5.7	5.1	5.2	5.2
Latin America and the Caribbean	14.1	16.1	7.8	0.9	5.2	5.4
Middle East and North Africa	1.3	10.8	4.0	4.9	4.7	5.5
Export growth						
High-income countries	6.4	10.1	5.3	5.3	6.3	5.9
OECD countries	5.9	10.7	4.7	5.0	6.1	5.6
United States	7.5	15.4	2.3	3.0	6.6	5.1
EU-15	5.7	9.6	6.3	6.0	6.2	5.8
Japan	2.8	11.8	-1.5	1.2	4.1	4.7
Non-OECD countries	10.3	7.1	8.9	6.7	7.3	7.5
Developing countries	8.7	9.8	6.4	6.3	7.0	6.9
Sub-Saharan Africa	2.6	7.7	3.7	4.5	4.7	5.1
East Asia and Pacific	15.2	12.7	9.4	8.5	9.0	8.5
South Asia	11.1	8.7	5.6	7.3	9.0	9.9
Europe and Central Asia	5.3	6.2	3.4	5.1	5.5	5.5
Latin America and the Caribbean	9.7	11.1	7.1	6.3	6.7	6.7
Middle East and North Africa	4.2	8.3	3.6	3.2	4.8	4.3
Memorandum items^c						
East Asia crisis country imports	12.0	3.0	-17.0	4.9	9.8	5.8
East Asia crisis country exports	12.6	7.9	15.3	8.1	8.2	8.3

Note: Growth rates over intervals are compound averages. EU-15 is Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

a. Estimate.

b. Growth rate of the sum of merchandise export and import volumes.

c. Indonesia, Republic of Korea, Malaysia, Philippines, and Thailand.

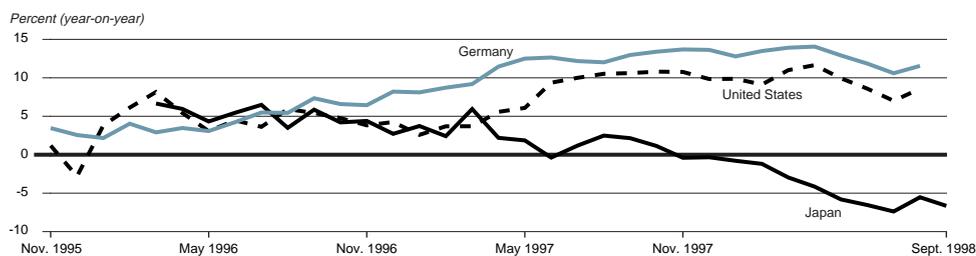
Source: World Bank data and baseline projections, November 1998.

Import growth is expected to fall especially sharply in the Middle East and North Africa, where collapsing oil prices have reduced export revenues dramatically. Sharp slowdowns in import growth are also expected in Latin America. Current

account deficits expanded substantially in the past two years, and large increases in lending spreads and reduced access to external private capital flows will likely force a substantial external sector adjustment in 1999.

Japan's import volumes drop sharply

Figure 1-9 Import volume growth in G-3 countries, November 1995–September 1998



Note: Three-month moving averages.

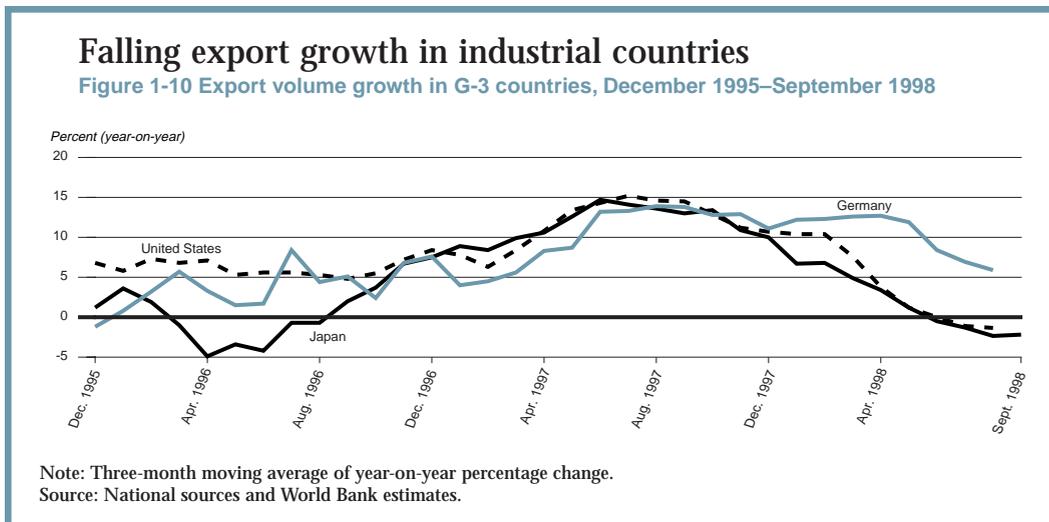
Source: International Monetary Fund; national sources.

Europe and the United States are, however, expected to be the main sources of growth in world imports in 1998, partly offsetting the depressing influences from Asia and much of the rest of the developing world, and producing an overall 5–5.5 percent expansion in world trade. Import volume growth in both these regions ran at hefty 10–15 percent year-on-year rates in the first part of 1998, reflecting buoyant domestic demand growth and, in the United States, a strengthening currency. Looking further ahead, the end of output contractions in Japan and the East Asian crisis countries expected in 1999 should also be reflected in a stabilization of import volumes, after their dramatic adjustment in 1998. This trend should also be encouraged by the substantial appreciation of East Asian currencies over the course of 1998 from their lowest crisis levels. One notable recent development has been the appreciation of the yen (attributed to the unwinding of positions by hedge funds in the wake of the Russian crisis), which may be beneficial to East Asian country exports.

The continuing expansion of world markets should provide a partial buffer for growth in many developing countries whose domestic demand is compressed by reduced access to private external capital. The benefits will differ, however, according to where developing countries' export markets are focused. Simultaneous recession in Japan and East Asia, which conduct about 40 percent of their trade with each other, make an export-led recovery in the region much more difficult. The rapid decline in Japan's export growth in 1998 was driven by falling shipments to Asian markets (figure 1-10). Difficulties in Latin America may also be increased somewhat by slowing in the United States. Still, growth in Europe should provide more support for exports from Europe and Central Asia, the Middle East and North Africa, and Sub-Saharan Africa, regions with a focus on European markets.

Commodity prices

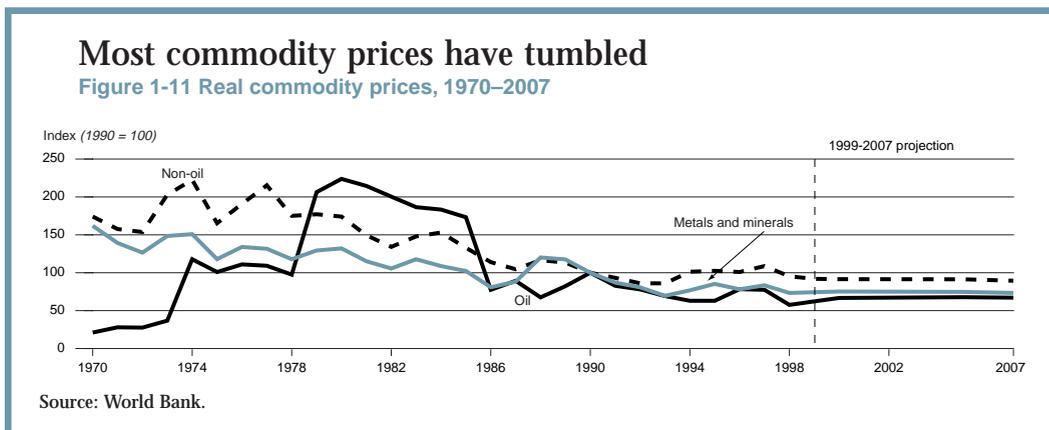
Commodity prices were already in cyclical decline from a miniboom in 1994–96, when demand cutbacks because of the Asian financial crisis pushed prices sharply lower.



Large supplies of most commodities further weakened prices. In the year to October 1998, energy prices fell 26 percent, agricultural prices 18 percent, and metals and minerals prices 16 percent. The effects of these declines will be felt by many developing countries, since primary commodities, including fuels, account for nearly one-third of export earnings (more in low-income countries). Prices of natural rubber, rice, and timber (exported primarily by countries in the Southeast Asian region) were especially

hard hit by increases in supply associated with sharp devaluation of currencies and by slower demand growth in the region. Prices of Malaysian logs, whose primary market is Japan, were halved in the year to mid-1998, for example.

Crude oil and metals prices were driven down by the lower Asian demand and supply increases occurring for other reasons (figure 1-11). The five East Asian crisis countries account for only about 6 percent of world petroleum consumption, and

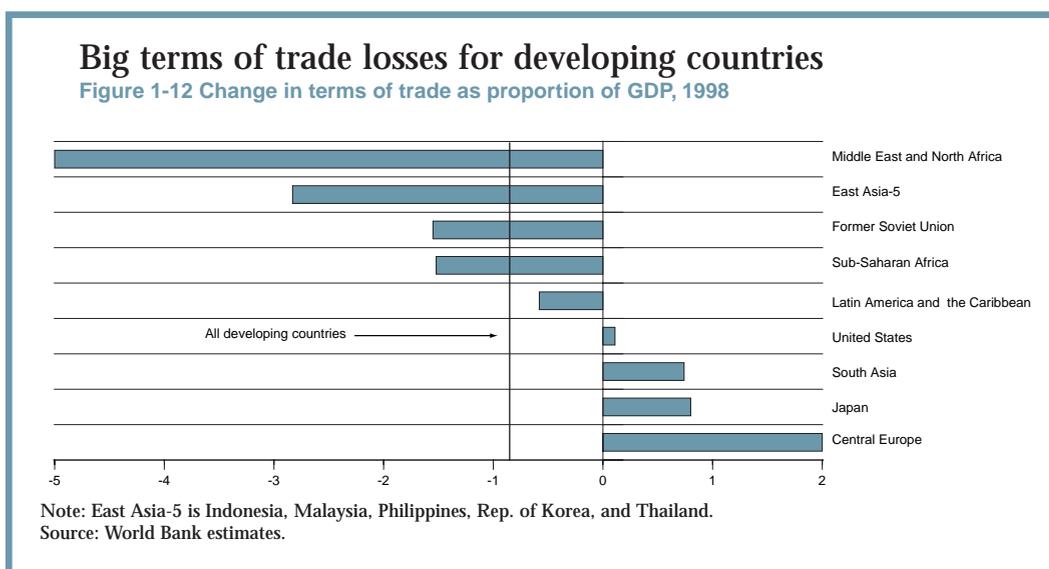


6–8 percent of aluminum and copper consumption. But the larger East Asian region, including Japan, accounts for nearly one-third of world consumption; much of the growth in global consumption was in this region. Large supplies of metals, minerals, and crude oil were also major factors contributing to the price declines. Supplies of metals and minerals rose in a lagged response to the high prices of 1994–96 and the large mining and refining investments over the past decade. Crude oil supplies had been rising because of above-quota production by OPEC countries and rising production in other countries.

For many agricultural commodities large price declines since mid-1997 were a reflection more of record world production than of the Asian financial crisis. Grain production rose 9.5 percent in the past two years to a record high, while consumption rose only 5.5 percent. Major oilseeds production was up 8.9 percent during the same period and reached a record high in

1997–98. Sugar production rose 7.2 percent over the past two years, while consumption was up 4.5 percent.

Lower commodity prices will generate large terms of trade and income losses in many developing countries (figure 1-12). According to the most recent complete data from the United Nations Conference on Trade and Development (UNCTAD), developing countries receive roughly one-third of export earnings from primary commodities, including fuels. Africa is the most dependent on commodity exports, which account for almost 80 percent of its export earnings. Latin America receives nearly 50 percent of export earnings from commodities, while for Asia the figure is slightly more than a quarter. The broad-based declines in commodity prices mean that all regions are affected, but the sharpest declines were in crude oil. This primarily affects the Middle East, where estimated income losses generated by terms of trade declines were almost 5 percent of



GDP in 1998. Many countries in Sub-Saharan Africa were spared the worst of the commodity price declines. The largest commodity exports from the Sub-Saharan Africa region are crude oil, cocoa, robusta coffee, cotton, and copper. While crude oil, copper, and cotton prices fell significantly, cocoa and coffee prices increased in 1997 and 1998.

Commodity prices are expected to stabilize in nominal terms after their sharp falls in 1998—but little price recovery is expected, and further price declines are possible. The recession in Asia will weaken demand and the large stocks accumulated in 1997 and 1998 will prevent prices from rising significantly. Overcapacity in almost all commodity markets will keep nominal prices stable for the next three to five years. Oil prices should recover next year but the trend in real prices suggest a decline of an estimated 1 percent a year for petroleum over 2000–05 and by 2.3 percent a year for nonenergy commodities (table 1-6).

Private and official capital flows to developing countries

The deepening and spread of the East Asian crisis, the financial crisis in Russia, and the loss of confidence in emerging markets, all suggest that 1998 is likely to see the first significant decline in net long-term private capital flows to developing countries since the mid-1980s. In the near term a major contraction in bank lending and portfolio flows, together with large increases in spreads, will force substantial current account adjustment in countries relying heavily on private flows to finance large current account deficits. The outlook for private capital flows to developing countries over the next 12 months is especially precarious.

Reflecting the onset of the Thai crisis in July, the growth in net private capital flows to developing countries had already slowed in 1997, rising by \$32 billion to about \$290 billion (figure 1-13). Foreign direct investment remained at about \$120 billion, while portfolio equity flows declined from \$46 bil-

Nominal commodity prices will remain weak

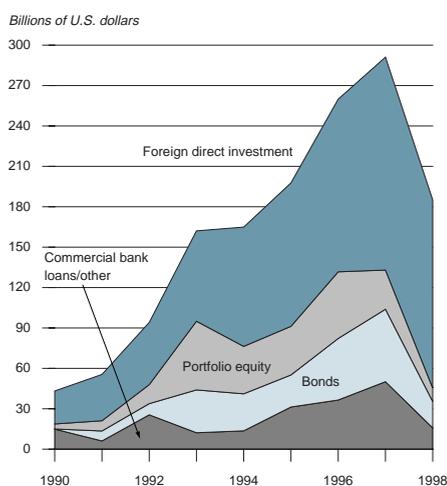
Table 1-6 Annual percentage change in energy and nonenergy commodity prices, 1981–2007
(World Bank commodity price indexes, nominal US\$)

Commodity	1981–90	1991–96	1996	1997	Forecasts		
					1998	1999	1998–2007
Nonenergy commodities	-2.3	2.4	-5.8	2.2	-15.7	-2.2	-0.2
Agriculture	-3.2	3.9	-4.4	2.6	-16.5	-3.7	-0.4
Food	-3.3	3.6	5.7	-6.1	-9.9	-1.1	0.4
Grains	-2.9	5.8	16.8	-20.3	-9.6	2.4	1.3
Beverages	-5.8	4.0	-16.3	35.2	-17.5	-11.7	-3.3
Raw materials	-0.5	4.1	-6.0	-10.5	-24.1	2.0	1.2
Metals and minerals	0.5	-1.9	-12.3	1.2	-15.4	2.6	0.5
Fertilizers	-2.5	3.1	15.6	-0.1	2.8	-2.0	-0.3
Energy	-4.7	-1.9	18.9	-6.7	-28.5	9.5	0.3
Memorandum item							
G-5 manufactures unit value	3.3	2.2	-4.4	-5.1	-3.8	1.3	1.8

Source: World Bank, Development Prospects Group, November 1998.

Growth in private capital flows slows

Figure 1-13 Net long-term private flows to developing countries, 1990–98



Note: Preliminary estimate for 1998.
Source: World Bank data.

lion in 1996 to \$32 billion in 1997. But net debt flows rose strongly to \$103 billion (from \$82 billion in 1996), as both syndicated loans and bond issues continued to increase.

The annual data on net flows mask extraordinary variation over the course of 1997. In the first part of 1997 private finance rose strongly, as lower interest rates

and high stock market valuations encouraged creditors to seek out higher yields (and accept higher risk) in emerging market debt. But the East Asian financial crisis interrupted the rise in private flows in the second half of 1997. As the crisis spread in October, flows fell to extremely low levels for the last two months of the year and remained depressed during the first half of 1998. Gross flows (including bond issues, loan commitments, and equity issues) to developing countries in the first half of 1998 totaled only \$104 billion, down from \$141 billion in the same period in 1997 (table 1-7). Flows to East Asia collapsed in the first half of 1998, with Latin America and Europe and Central Asia experiencing smaller declines.

Data for 30 countries show that flows fell further in the third quarter of 1998. Gross private capital flows averaged about \$5 billion in August and September, roughly 40 percent of the monthly average for January to July. Capital flows now amount to about one-quarter of those in the same period a year ago, when the Asian crisis was already unfolding. The severity of the credit crunch is worse than these totals would imply since China accounted for two-thirds of the total inflows and the rest

Flows to East Asia collapsed in the first half of 1998

Table 1-7 Gross private source long-term debt flows to developing countries (current US\$ billions)

Region	1996	1997	Jan.–June 1997	July–Dec. 1997	Jan.–June 1998	July–Sept. 1998
All developing countries	204.60	290.95	141.04	149.92	104.03	33.46
Sub-Saharan Africa	7.19	10.49	3.26	7.23	2.62	0.49
East Asia and Pacific	71.51	74.69	41.75	32.94	12.79	6.64
South Asia	10.40	12.55	6.05	6.50	2.37	0.15
Europe and Central Asia	26.46	51.41	25.43	25.99	25.06	9.47
Latin America and the Caribbean	83.99	121.59	58.99	62.60	55.69	11.59
Middle East and North Africa	5.05	20.22	5.56	14.66	5.50	5.12

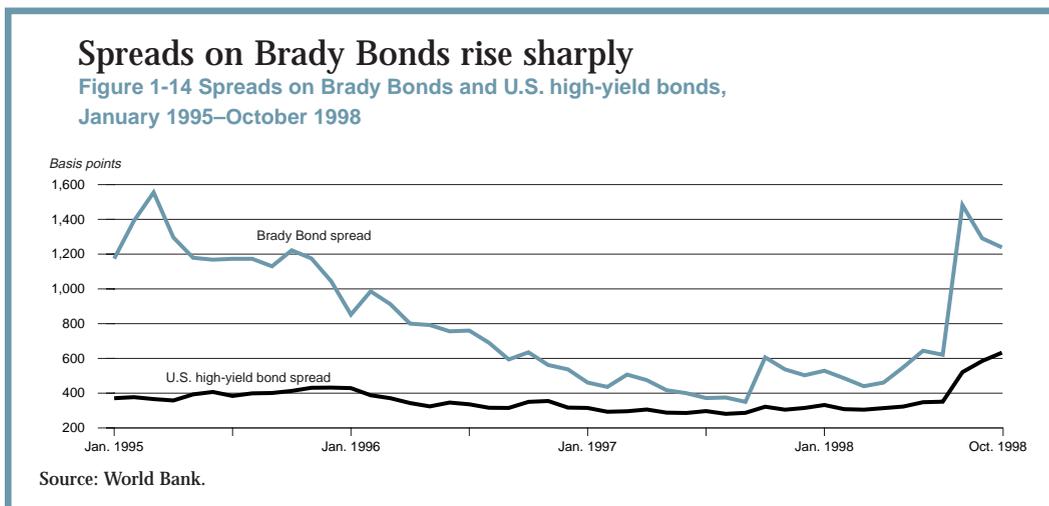
Source: Euromoney and the World Bank.

took the form mainly of short-term loans. Whereas bond market activity remained robust through July, averaging about \$7 billion monthly, less than \$0.9 billion was secured over August–September 1998, and none of that originated in Latin America. The severity of the retrenchment in capital flows reflects “stock” adjustments by international investors responding to a sharp increase in perceived risk.

Secondary market spreads on developing country sovereign bonds and Brady Bonds followed a similar pattern (figure 1-14). Spreads reached very low levels in mid-1997, but then shot up in East Asia beginning in July and in other regions in late October. By December 1997 spreads had increased by 200 basis points over their June levels for many principal borrowers. Changes in spreads were mixed in the first half of 1998, with some of the big Latin American borrowers seeing declines or rough stability in spreads, and several East Asian countries and Russia seeing sharp increases. After the Russian crisis in August 1998, however, spreads rose much more

sharply, especially on Latin American debt, as more investors fled from emerging markets. The effect was even greater than after the start of the East Asian crisis because of Russia’s unilateral declaration of a moratorium—and the realization that the international community was unlikely to “bail out” even as important a country as Russia. (The data here on rising spreads are from secondary markets because primary issues have ground to a halt.)

The huge increase in spreads and the downturn in debt-flows to emerging markets are likely to affect Latin America most. Alleviating the macroeconomic impact of this downturn will depend to some extent on success in attracting foreign direct investment (FDI), which is the largest source of capital flow to developing countries. The impact of the crisis on FDI has been mixed. Concerns about growth prospects may have constrained it, but low asset prices in countries whose exchange rates have depreciated are a powerful attraction. Limited preliminary data on FDI flows to developing countries in 1998 sug-



gest that low asset prices and strong efforts to attract FDI may be increasing inflows in East Asia compared to 1997. United States investment in business acquisition in Asia is reported at \$8 billion in the year (to April), double the total for 1997 (although the lion's share went to Japan and Korea, rather than to developing East Asia). FDI flows to Latin America during the first quarter of 1998 appear to be at the same pace as in 1997, when inflows hit a record \$42 billion.

Net official development finance received a boost in 1997 from emergency assistance to Thailand and some rise in nonconcessional lending by multilateral institutions (excluding the International Monetary Fund).⁴ Overall, net official lending rose to \$44 billion, from \$35 billion in 1996. But as emergency assistance rose, flows to other countries fell. Concessional flows continued their general decline in the 1990s. Net concessional lending and grants reported by developing countries fell from \$40 billion in 1996 to \$37 billion in 1997. Net official development assistance reported by the OECD (which includes technical assistance grants) fell to 0.22 percent of Development Assistance Committee (DAC) countries' GDP in 1997, down from 0.25 percent in 1996, the lowest recorded in the past half century.⁵

The outlook for official development assistance (ODA) flows in 1998 is not bright; ODA is likely to fall further in real terms and in relation to donors' GNP. The medium-term prospects are no better. In Europe, budgetary plans adopted to ensure compliance with the criteria for European Monetary Union are likely to continue to limit aid levels. And in Japan, the recession

and difficult budgetary situation do not augur well for ODA allocations. But the full funding for IDA in fiscal 1999 budget for the second year in a row indicates a more positive attitude developing in the United States.

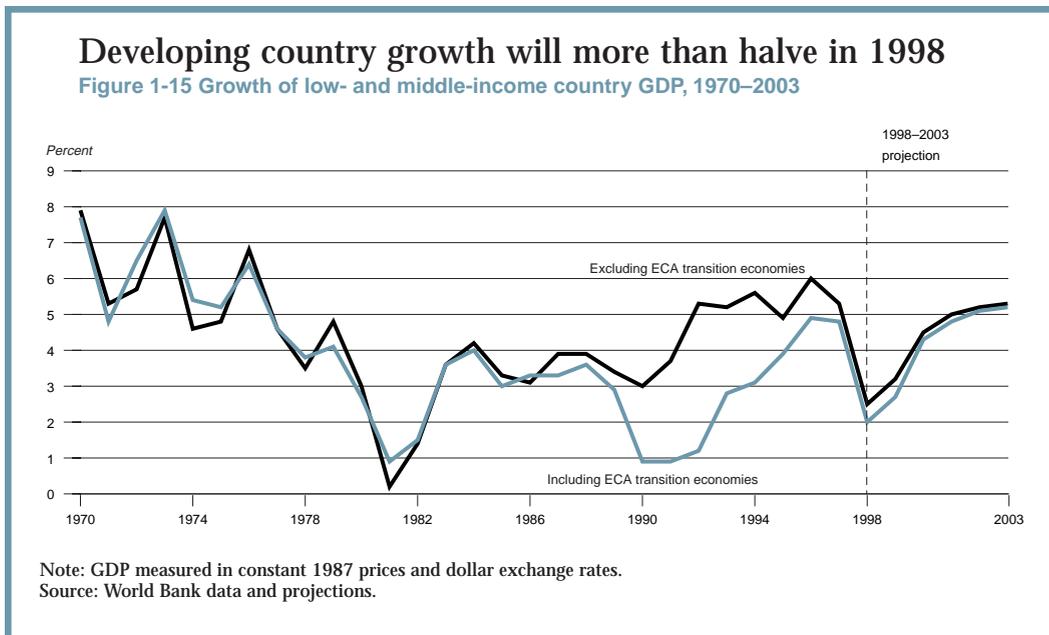
Implications for developing regions

Aggregate growth in developing countries (excluding the transition economies) is expected to fall by more than half in 1998 to 2.5 percent (the slowest in the past decade) from 5–6 percent in 1996–97 (figure 1-15). Severe output contractions in the Asian crisis countries account for a sizable part of the slowdown, but every developing region is expected to see slower growth in 1998 (table 1-8). Private capital flows are

Lower commodity prices will generate large terms of trade and income losses in many developing countries.

sharply reduced and more costly. World growth is slowing, and world trade growth and commodity prices are following (figure 1-16). The adverse effects that the East Asian crisis and related events have engendered are far more severe for developing countries than for industrial countries. This is because a large number of the former group are characterized by high primary commodity dependence, large current account deficits financed by private capital flows, or a degree of reliance on export markets in crisis affected regions such as East Asia and Japan.

Slow recovery in East Asian crisis countries. The balance sheet vulnerabilities



Recovery in output growth will be slow in East Asian crisis countries

Table 1-8 Growth of real output in selected country groups, 1991–2007

(average annual percentage change)

Region	1991–97	1997	Forecasts				
			1998	1999	2000	2001–07	1998–2007
Sub-Saharan Africa	2.2	3.5	2.4	3.2	3.8	4.1	3.8
Excluding South Africa and Nigeria	2.6	4.4	3.5	4.1	4.7	4.6	4.4
Developing East Asia	9.5	7.1	1.3	4.8	5.9	6.6	5.8
East Asia-4 ^a	6.8	3.8	-9.2	-0.5	3.0	5.1	2.8
East Asian crisis countries ^b	7.0	4.5	-8.0	0.1	3.2	5.2	3.1
South Asia	5.3	5.0	4.6	4.9	5.6	5.5	5.4
Excluding India	4.6	4.8	3.6	4.3	4.5	5.6	5.1
Europe and Central Asia	-4.0	2.6	0.5	0.1	3.4	5.0	3.9
Central and Eastern Europe	-0.4	2.3	4.0	4.0	4.5	4.9	4.7
Countries of the former Soviet Union	-7.8	1.3	-3.7	-4.3	1.7	4.7	2.6
Latin America and the Caribbean	3.6	5.1	2.5	0.6	3.3	4.4	3.7
Excluding Brazil	4.0	6.3	3.6	2.1	3.7	4.6	4.1
Middle East and North Africa	2.9	3.1	2.0	2.8	3.1	3.7	3.4
Oil exporters	3.0	2.7	0.5	2.0	2.5	3.2	2.7
All low- and middle-income countries	3.1	4.8	2.0	2.7	4.3	5.2	4.5
Excluding East Asia-4	2.7	4.9	3.2	3.0	4.5	5.2	4.7

Note: GDP in constant 1987 prices and exchange rates; growth rates over intervals are compound annual averages.

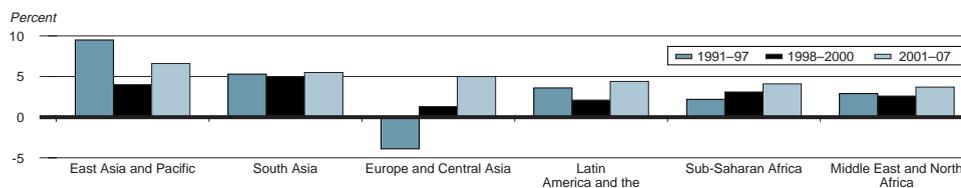
a. Indonesia, Malaysia, Philippines, and Thailand.

b. The East Asia-4 and the Republic of Korea.

Source: World Bank data and baseline projections, November 1998.

Most developing regions will see lower GDP growth in the near term

Figure 1-16 Annual GDP growth in developing regions, 1991–2007



Note: Real 1987 dollars; figures for 1998–2007 are forecasts.
Source: World Bank estimates.

of firms and banks in the East Asian crisis economies—extremely high levels of indebtedness and currency and maturity mismatches between assets and liabilities—imply a painful and protracted adjustment path, worse than for a country affected purely by a balance of payments or currency crisis. One private sector financial analysis suggests that more than 80 percent of listed companies in Korea, Thailand, and Indonesia are unable to meet interest payments or repay short-term debts under reasonable assumptions about exchange rates and interest rates. Nonperforming loans are mounting, squeezing credit as banks retrench to improve their capital base, making the banking multiplier work in reverse. Both good and bad firms are affected by the decline in voluntary new lending—forced to cut back capital expenditure, liquidate inventories, and reduce trade credits (see chapter 2).

There were signs in the latter part of 1998 that the rate of output contraction was beginning to slow in Korea and Thailand, and several factors could start to bring the cycle of decline to an end. The first is reorientation of firms from domestic

to overseas markets. This factor has played a smaller role so far than it did at an equivalent stage in the Mexican crisis. One reason is the ill fortune of simultaneous recession in Japan and developing East Asian countries, important export markets for each other. Another is the sharp decline in export prices measured in foreign currencies. A third is the significant difficulties facing most exporters in getting access to credit and trade financing.

Even so, the share of goods and services exports in Korean GDP has risen from 40–45 percent in 1995–96 to more than 60 percent, and export volumes in the past year have grown by more than 20 percent.⁶ The picture is similar in the other countries: export volumes are up 22 percent in Indonesia, 18 percent in Thailand, and a similar amount in Malaysia. But given the regional recession, the likelihood that exports alone can pull an economy out of financial crisis is low.⁷ Success in halting the cycle of decline rests on several other factors:

- Renewed capital inflows from abroad are beginning selectively—through the purchase of equity stakes in banks (allowing the rebuilding of capital) and

the acquisition of distressed firms by multinational companies, followed by restructuring. Restrictions on foreign investment are being removed and large bid-offer spreads (the “denial syndrome”) are narrowing. In August–September 1998, East Asia saw gross private capital inflows increase compared to the same period in 1997, counter to the trend in all the other emerging regions.

- Large declines in imports and steady or modest increases in U.S. dollar export revenues mean that current account balances in the crisis countries are swinging rapidly from large deficits to large surpluses. Korea, for example, reached its reserves target of \$41 billion four months ahead of schedule. Against this backdrop, exchange rates are now appreciating, interest rates are falling, and stock markets are rebounding. These moves are restoring some consumer purchasing power and the capacity to service debts by firms. And they are reducing uncertainty, the key to stabilizing investment and consumer durable demand. In agreement with the international financial institutions, governments in the crisis countries are allowing substantial increases in fiscal deficits to offset the contraction in private demand.
- Programs to recapitalize banks are taking shape, linked to incentives and mechanisms for restructuring bad debts, which will help stabilize the level of credit and economic activity. The recent Thai banking sector plan provides incentives for such a simultaneous workout of corporate debt and bank recapitalization. It is unlikely, however,

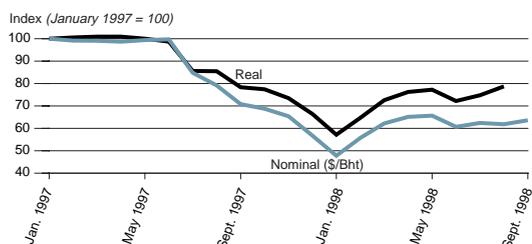
that growth will return to its long-term potential unless the underlying distressed assets and firms are fully restructured, enabling them to attract new investment and removing their dead-weight from the rest of the economy.

Given the difficult institution-building problems inherent in many of these processes, recovery in the East Asian crisis countries is expected to be relatively protracted (table 1-8). Different countries are at different stages of the process. Thailand and Korea are more advanced (figure 1-17); Indonesia is worst off. Malaysia’s starting position is better than that of the others in some respects, but it is entering the cycle later than others; and recent political uncertainty and capital controls may deter a robust recovery. In the base-case scenario for recovery in the crisis countries, output growth is expected to return to positive levels faster in Korea and the Philippines than in the other countries, because of faster export growth (table 1-9). In Indonesia, GDP is still expected to fall in 1999 but at a much slower rate. In the others, GDP should be rising marginally, reflecting a stabilization of output in mid to late 1999. Slower contraction in the East Asian crisis countries is removing a major drag on the world economy. By 2000, all countries are expected to return to significantly positive growth of about 3 percent. This scenario is in line with the general pattern of recovery in output seen in countries with banking crises (box 1-2).

Continued growth in China has been an important source of stability for the region and for the world. Growth is nevertheless expected to slow from around 9 percent in 1997 to about 7 percent in 1998, before

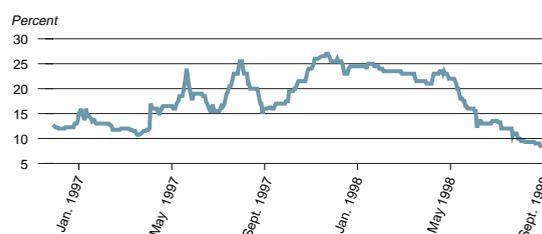
Thai exchange rate indexes improve, while interest rates return to precrisis levels

Figure 1-17a Thai nominal and real effective exchange rate indexes, January 1997–September 1998



Source: International Monetary Fund and J.P. Morgan.

Figure 1-17b Thai interest rates, January 1997–September 1998



Note: Interbank average rate (three months).
Source: Bloomberg.

recovering to roughly 7.5 percent in 1999–2000. Contributory factors are slowing domestic demand following several years of tight credit policies, some of the short-term adjustment costs of structural reform policies (for example, the impact on unemployment and consumer confidence of state enterprise reforms), and severe floods (eventually expected to reduce aggregate growth by about a percentage point). The trade effects of the crisis in the rest of East Asia also slowed growth. Exports were buoyant earlier in 1997 and the first part of 1998, and labor-intensive exports, export prices, and market shares in the rest of the world held up well. Later in 1998 however, contraction in demand and imports in Japan and the rest of the region began to have a more visible effect on exports, as did competition from imports from crisis countries (some unofficial). But these effects remained much less important than domestic factors.

Foreign direct investment flows into China also fell, given the turmoil and uncertainty in the region. But China resisted pres-

ures to devalue its currency. With the current account in large surplus (about 3 percent of GDP), substantial foreign exchange reserves, and export market shares holding up well, it had little reason to do so. Devaluation would have brought few export revenue gains given the potential for lower export prices in a soft world market. Instead, China announced a strong domestic stimulus package to boost public infrastructure spending, while seeking to improve tax collection. It has also eased credit policy and began banking sector reforms to strengthen its financial sector, including the closure of some offshore regional investment corporations. Table 1-10 summarizes the outlook for the developing East Asia and Pacific region, including China.

Latin America and the Caribbean. After advancing by more than 5 percent in 1997, output growth in Latin America and the Caribbean slowed to an estimated 2.5 percent in 1998 and is expected to fall to 0.6 percent in 1999.⁸ Large declines in the prices of key commodity exports (oil,

Recovery will be protracted

Table 1-9 Growth in East Asian crisis countries, 1996–2000

(percent)

Country	1996	1997	1998 ^a	Forecast	
				1999	2000
Thailand	6.4	-0.4	-7.0	0.3	2.6
Korea, Rep. of	7.1	5.5	-6.5	1.0	3.5
Indonesia	8.0	4.6	-15.3	-2.8	2.3
Malaysia	8.6	7.9	-5.1	0.5	4.2
Philippines	5.7	5.2	-0.5	2.5	4.4
Total	7.2	4.5	-8.0	0.1	3.2

Note: GDP in constant 1987 prices and exchange rates.

a. Estimate.

Source: World Bank staff estimates.

coffee, copper, and wheat) caused the region's terms of trade to decline by about 3.5 percent in 1998, with Colombia and Venezuela, among others, experiencing double-digit losses. Current account balances worsened from 3 percent of GDP in 1997 to 3.8 percent in 1998. Low domestic saving rates mean that foreign savings play an important role in investment—hence the close correlation between growth and current account deficits (figure 1-18). In addition, growth and exports in several countries of the region, especially Peru, Ecuador, Brazil, and Bolivia, were adversely affected by El Niño earlier, while Hurricane Mitch has had devastating effects in Central America, especially in Honduras and Nicaragua, where the destruction of social infrastructure has been enormous.

Given the region's long experience with adapting to adverse changes in the external environment, the policy response to Asia's difficulties in 1998 was—in most countries—credible, and growth was broadly favorable. But investor perceptions of emerging markets worsened following Russia's unilateral debt moratorium in August, causing secondary market spreads on benchmark international

bonds of Latin American countries to increase sharply (figure 1-19). Equity markets dropped precipitously in early September. Credit ratings for Brazil and Venezuela were downgraded, while those for Argentina and Mexico were put on watch, and Colombia devalued its peso by 9 percent. Adjustment measures to be implemented by countries in the region to rein in fiscal and current account deficits will likely dampen output growth to below 2 percent in 1999.

If the region's external environment evolves in line with the base-case projection, three factors suggest that Latin America should be fairly well placed to weather the storm in 1999, with growth rebounding toward 4 percent by 2001. First is the policymakers' ability to act quickly to address shifts in investor sentiment. Brazil demonstrated this capacity in November 1997 with measures to restore investor confidence, including tightened monetary policies that yielded a short-term slowdown in growth. Second, much has been accomplished to strengthen the financial sector, though much remains to be done. The level of bank intermediation in Latin American economies is less than 40 percent of GDP—

Box 1-2 In the aftermath of crises

The five economies most affected by the recent financial crisis in Asia have seen their GDP growth plummet from record highs to record lows. Real per capita GDP growth in Indonesia, having averaged more than 5 percent a year in 1990–96, is now expected to be as low as –16 percent in 1998. Even by the dismal standards of economies in the throes of financial crises, the growth collapse in East Asia is extreme. In 140 currency crises identified in the IMF's 1998 World Economic Outlook (May), the median per capita GDP growth in the year of the crisis was about 0.5 percent, and in only six cases was growth less than –10 percent in the year of the crisis.

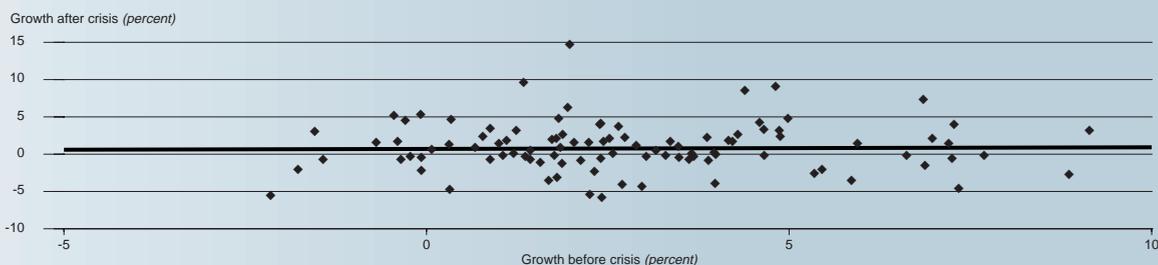
Although Asia's reversal has been dramatic, it is not without precedent, and international experience with the aftermath of crises can provide valuable insights. One important lesson is that the resumption of growth following crises is far from assured, as shown in the box figure. The graphic depicted plots five-year average real per capita GDP growth before and after currency crises, bank-

ing crises, and "growth crises," defined as episodes of growth less than –5 percent in a given country and year. Echoing the results of Easterly and others (1994) for long-run growth, the simple correlation between precrisis and postcrisis growth is only 0.06.

What distinguishes countries that restored, or even accelerated growth following crises from those that stagnated or declined? To answer this question, a regression model was estimated separately for currency crises, banking crises and "growth crises." The dependent variable was the change in growth after a crisis relative to precrisis growth, and the explanatory variables included various socioeconomic factors. The main findings are that countries with less distorted economies (as proxied by a lower black-market premium for foreign exchange) and countries that are less corrupt generally tend to recover better from crises. Countries that are more socially homogeneous also recover better from crises, perhaps because it is easier to develop consensus regarding the possibly painful policies required to restore growth (Rodrik 1998).

Precrisis growth is a poor predictor of postcrisis growth

Crisis growth



Note: To avoid double counting growth crises during sustained growth collapses, all episodes of growth less than negative 5 percent a year that were preceded by growth less than negative 5 percent in any of the previous five years were excluded. The growth crises were further restricted to those in peace time.

Source: World Development Report 1998, World Bank.

it was more than 100 percent in many of the East Asian countries that had experienced credit booms. Third, corporate external exposures are generally of manageable proportions, reflecting lower average ratios

than on Asia and a history of weak currencies. Some improvement in the terms of trade, along with a pickup in world trade growth, should provide stronger support for growth in 2000.

China's growth is one source of stability for the region

Table 1-10 East Asia and Pacific forecast summary

(percent per year)

Growth rates/ratios	1988-97	1996	1997	1998	1999	2000	1998-2007
Real GDP growth	8.8	8.8	7.1	1.3	4.8	5.9	5.8
Consumption per capita	6.1	7.4	2.0	-4.2	2.8	4.3	4.2
GDP per capita	7.4	7.5	5.9	0.2	3.7	4.8	4.8
Population 16-65 years	1.5	1.5	1.4	1.4	1.4	1.3	1.3
Median inflation ^a	8.0	6.0	7.4	9.8	3.5	3.1	4.4
Gross domestic investment/GDP	35.3	38.5	38.2	36.5	36.2	36.1	36.9
Budget balance/GDP	-0.7	-0.3	-2.2	-2.6	-2.6	-2.7	-2.2
Export volume ^b	12.8	7.6	14.3	9.5	8.5	9.0	8.5
Current account/GDP	-1.2	-1.6	0.1	3.5	4.1	4.3	2.6
Debt to export ratio ^c	88.0	70.0	65.0	70.0	75.0	70.0	70.0
Memorandum items							
GDP of region excluding China	7.3	7.2	3.9	-8.6	-0.4	3.1	2.9
GDP of ASEAN-4 countries ^d	7.5	7.3	3.8	-9.2	-0.5	3.0	2.8

a. GDP deflator.

b. Goods and nonfactor services.

c. Ratio of long-term debt outstanding and disbursed to exports of goods and nonfactor services plus net worker remittances.

d. Indonesia, Malaysia, Thailand, and Philippines.

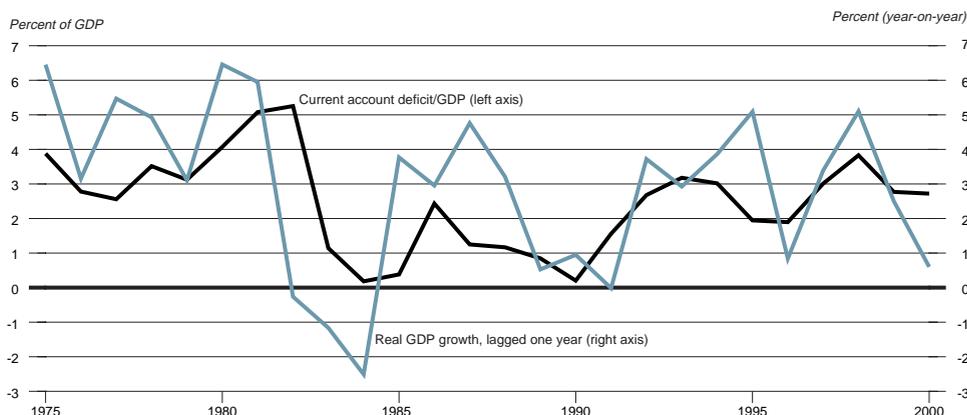
Source: World Bank baseline forecast, November 1998.

Europe and Central Asia. Following growth of 1.7 percent in 1997—the first for the transition countries in Europe and Central Asia since the move to the market econ-

omy began—current estimates suggest that output will rise in 21 of 25 countries in 1998. The critical exceptions are Russia and Ukraine. Strong opposing factors

Lower commodity prices hurt current account balances

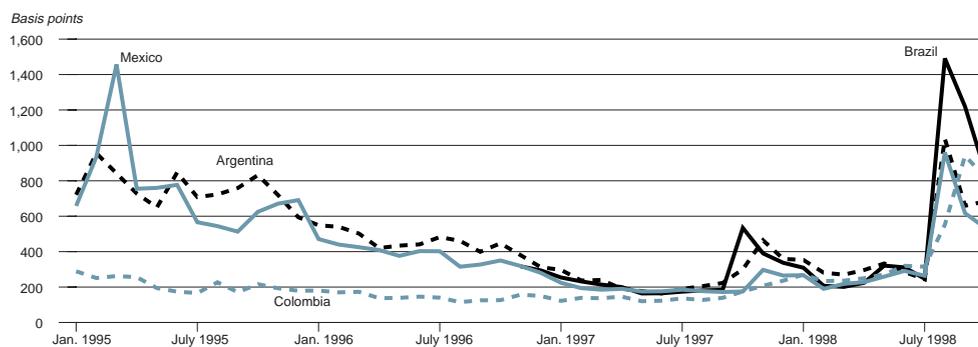
Figure 1-18 Latin America and the Caribbean current account deficit and real GDP



Source: World Bank.

Widening spreads on sovereign bonds

Figure 1-19 Secondary market spreads on sovereign bonds of selected Latin American countries



Source: Bloomberg.

shaped this result and will influence the near-term outlook. The broadening of recovery in western Europe helped support double-digit gains in exports for some Central European countries, which also enjoyed substantial terms of trade improvements from declines in oil and raw materials prices. But the acute fiscal and financial difficulties that have surfaced in Russia have clouded an outlook that appeared favorable early in 1998, especially in better inflation performance and the beginnings of output recovery. The fundamental causes of Russia's fiscal imbalance are domestic, but sharply lower oil prices and associated government revenues and heightened perceptions of risk among international investors—both tied to developments in East Asia—clearly increased the urgency.

Pressure in Russian financial markets initially prompted strong measures in defense of the currency, followed by substantial international support in July 1998. But on August 17, the government aban-

doned its strong ruble policy, allowing an effective float of the exchange rate. It declared a 90-day moratorium on repayment of selected debt to nonresidents and set in motion plans for restructuring central government domestic debt. The situation remains highly uncertain, against the background of a change in government and lack of an announced economic plan for recovery. Spillover effects to financial markets in neighboring Central and Eastern Europe—and more broadly to emerging markets—have become apparent. With prospects for growth in Russia dimmed during a period of consolidation, and Central Asia strongly affected by developments in commodity markets, 1998 growth estimates have been revised to a decline of 3.7 percent for the countries of the former Soviet Union and 1999 output projections lowered to -4.3 percent, a revision of more than 9 percentage points from last year's figures.

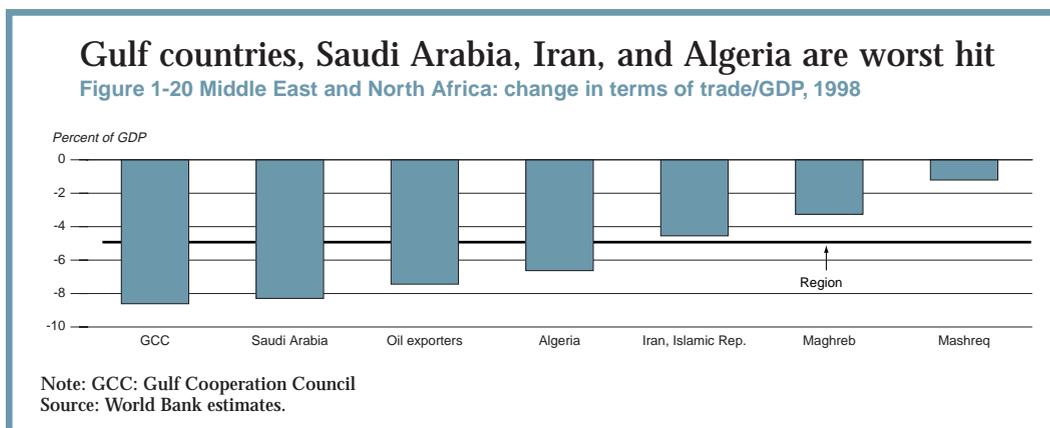
The picture is quite different for the five countries of Central and Eastern Europe that

have been enrolled on the short list for accession to the European Union (the Czech Republic, Estonia, Hungary, Poland, and Slovenia). Anticipation of eventual membership is likely to provide an incentive for additional large flows of direct investment to those countries, supporting investment and export-led growth for a number of years. If the EU recovery consolidates and conditions in Russia stabilize, output growth of 4–5 percent for the group is likely, with continuing strong advances in Poland, improved performance in Hungary, and gradual acceleration in the Czech Republic.

Middle East and North Africa. Oil exporters of the Middle East and North Africa are facing the largest terms of trade shock related to the Asian crisis, a decline of about 25 percent, or a loss of revenues representing 7 percent of GDP in 1998. Although conditions in the region differ, worst hit are the Gulf countries, Saudi Arabia, Algeria, and the Islamic Republic of Iran (figure 1-20). As current account balances deteriorate by \$35 billion, growth in the oil-dominant countries is expected to slow from 2.7 percent in 1997 to 0.5 percent, bringing the region's growth to 2 per-

cent for 1998. Although countries in the region have attracted growing foreign direct investment and portfolio flows—from low levels—these will not be sufficient to cover the increase in current account deficits. Some drawdown of reserves and foreign assets is expected, particularly in the Gulf states, and new external borrowing will be required by other exporters. But because stock markets are not very developed and have little foreign participation, they are generally not exposed to the contagion effects of the Asian crisis felt by other emerging markets.

Prospects for recovery in the region, particularly in the Gulf and the Mashreq (the Arab Republic of Egypt, Jordan, Lebanon, and the Syrian Arab Republic) depend on a pickup in global demand for fuel and more stable oil prices. To contain the drop in price, OPEC producers are expected to continue to restrict oil output. That will further contain GDP growth and cause negative secondary-demand effects in economies reliant on oil producers for their worker remittance flows and their export markets, such as Jordan and Lebanon. Petroleum exporters in the Gulf are revisit-



ing their budgets, and delays in investment programs are expected. For major oil exporters with large populations, Algeria and the Islamic Republic of Iran, which have been undergoing macrostabilization programs, the decline in fuel prices and tighter macroeconomic policies have been aggravated by poor rainfall. For Morocco, Tunisia, and Egypt the projected near-term growth has not been revised significantly, as stronger conditions in markets of the European Union should help to support export volumes.

Sub-Saharan Africa. In Sub-Saharan Africa, growth slowed from 4–5 percent in 1995–96 to 3.5 percent in 1997 and 2.4 percent in 1998. Declines in terms of trade (related in part to global trends), effects of El Niño in eastern Africa, and the resurgence of civil strife in the Congo contributed to the slowdown. But subpar growth in Nigeria and South Africa—the largest economies of the region—was the decisive factor in the poor performance; Nigeria underwent a difficult political transition and South Africa suffered a loss of investor confidence with significant depreciation of the rand. Sharp price declines in principal commodity exports of the region (copper, cotton, groundnuts, petroleum, and gold) more than offset lower food and fuels import prices (and higher cocoa and robusta coffee export prices). That pushed the region's terms of trade down by about 2 percent of GDP in 1998. Oil exporters were the hardest hit, followed by metals and minerals exporters. Unusually heavy rainfall attributed to El Niño hurt agricultural production in the east and central region, with Uganda's coffee output declining by more than 10 percent in 1998 and

Kenya's tourist industry adversely affected. The flareup in the Republic of Congo took a toll on economic activity and diverted scarce resources for military purposes in several neighboring countries that participated in the conflict.

Prospects for growth are not as bleak as recent trends in regional output would suggest, however. CFA countries have maintained 5 percent annual increases in 1997 and 1998 due to increased competitiveness from the 1994 devaluation, further depreciation of the French franc (to which they are tied) against the dollar, and firming import demand in Europe. In the near term, these countries, as well as others in the region, should continue on a favorable growth trend as European demand remains strong and commodity prices stabilize. Additional low-income countries could join Burkina Faso, Côte d'Ivoire, Mali, Mozambique, and Uganda in gaining debt reduction through the highly indebted poor countries initiative. Finally, although progress on reforms is neither uniform across Sub-Saharan African countries nor as rapid as in other developing regions, the investment climate and growth prospects have improved where reforms have been attempted in earnest.

Excluding Nigeria and South Africa, growth is projected at 4–4.5 percent a year in 1999–2000. Given the risks to economic recovery in Nigeria (political uncertainty) and South Africa (investor confidence), growth in these two countries is projected to average 2–3 percent over the period. Although economic and political uncertainty in the Republic of Congo, Nigeria, and South Africa pose downside risks to the outlook, regional GDP is expected to

grow 3.6 percent annually (0.7 percent in per capita terms) in the next two years.

South Asia. Growth in South Asia slowed from 7 percent in 1996 to 5 percent in 1997 and is estimated at about 4.6 percent for 1998, largely tracking developments in the Indian economy. Pakistan's financial position is fragile, with foreign exchange reserves in the summer of 1998 at just 2–3 weeks of import cover. The country's already difficult balance of payments situation approached crisis following the imposition of U.S. and G-8 sanctions (which are expected to amount to \$1.5 billion, or 2.5 percent of GDP). Although the financial contagion of the East Asian crisis has largely bypassed South Asia, the reductions in

Despite the gloomy near-term outlook, long-term world economic growth is projected at 3.2 percent a year.

exports and trade (in India and Pakistan) have taken a toll. In addition, difficulties in East Asia threaten a slowdown in foreign direct investment from sources in that region, especially important for Bangladesh and Sri Lanka. South Asia has been helped, however, by a 6 percent rise in terms of trade in 1998 (an income boost equal to 0.75 percent of GDP), given the size of energy imports and the sharp decline in oil prices.

Financial trends stemming from East Asia have had smaller effects on the region for various structural reasons. Current account deficits have been small (other than in Pakistan); large domestic credit booms have been absent. Retention of tight controls on foreign borrowing prevented

buildup of large external exposures in the private sector, including banks, and offshore forward markets for currencies, including the Indian rupee, remain thin. The slowing of output growth in 1998 and anticipated moderate gains of 5–5.5 percent over the period to 2000 are tied instead to domestic policy considerations, whose effects the sluggish world trade environment will likely augment. In India, the slowdown from GDP gains averaging 7.5 percent in 1994–97 may be attributed to persisting large public sector deficits (crowding out private investment), a sharp decline in exports, and a cut-back in investment growth due to concerns about the pace of reforms. The short-term outlook for Pakistan is uncertain. Given recent developments, the government has announced austerity measures, with onshore foreign exchange accounts frozen and wide-ranging capital controls introduced. Aimed at preserving scarce reserves in the immediate term, these measures may discourage worker remittances and inhibit investment, possibly hurting medium-term growth.

Long-term prospects

Despite the gloomy near-term outlook, world economic growth in the long-term part of the forecast (2001–07) is projected at 3.2 percent a year, 0.2 of a percentage point lower than in last year's Global Economic Prospects. This reduction, although small in aggregate, comes from more sizable adjustments in several regions and countries. First, among the industrial countries, long-run growth projections for Japan have been reduced to 2–2.4 percent in 2001–07 (in the range of

other industrial countries) from an earlier 2.5–3.0 percent. Among developing regions, growth projections in the countries of the former Soviet Union and in South Asia have also been reduced. The biggest reductions, however, have been made for the crisis-affected countries in East Asia—Indonesia, the Republic of Korea, Malaysia, the Philippines, and Thailand. Here the changes are on the order of one to two percentage points, with East Asian countries (excluding China) growing at around 5–5.5 percent in the long run.

The growth outlook divides the real GDP projections into two periods: 1998–2000, which is expected to be dominated by the adjustment to the emerging market and Japanese financial crises, and 2001–07, the longer run in the aftermath of the crises. The projected world growth of 3.2 percent in 2001–07 would be substantially higher than that achieved in 1991–97 and also moderately better than in the 1980s. Two factors account for the improvement. First, growth in high-income OECD countries was weighed down in the 1990s by the long-maturing financial crisis in Japan and by Europe's slow and erratic recovery from the recession of the early 1990s—in part the result of strong fiscal adjustment measures undertaken in preparation for monetary union. Industrial country growth in the longer term should strengthen, however, as Japan resolves its financial sector difficulties and Europe reaps the economic efficiency gains associated with monetary union (box 1-1).

Second, the transition economies experienced substantial declines in output in 1991–97, in the aftermath of commu-

nism's fall. But robust, sustainable growth has already emerged in the reforming economies of Central and Eastern Europe, and this is expected to continue. The outlook for Russia and some other countries of the former Soviet Union is less certain. Current projections remain for modest growth to resume after a severe near-term contraction in output. But the swing from sharp contraction in the 1990s to even modest growth in the longer term has a significant positive impact on world growth between 1991–97 and 2001–07.

Long-term growth among developing countries (excluding the transition economies) is projected at a little more than 5 percent, about the same as in 1991–97. There are significant changes in the composition of this growth, however. Moderate but widespread improvements are expected in Sub-Saharan Africa, the Middle East and North Africa, and Latin America, building on moderate improvements made in the 1990s. This will reflect the continuing payoff to economic reform and structural adjustment efforts that developing countries have put in over almost two decades and the benefits of greater integration with world trade and foreign direct investment flows. Not least, it will also reflect the building of institutional capacities that allow developing countries to gain access to the benefits of other types of financial integration, without running the risks that brought so many so low in the emerging market financial crises of 1997–98.

Counterbalancing these improvements, long-run growth in East Asia (excluding China) is expected to be substantially lower than in 1991–97, a period of exceptionally rapid investment and output growth even

by East Asian standards. Long-run growth fundamentals are still intact—high levels of savings, human resources, and openness. Investment also will pick up but on a more balanced growth path: lower investment rates than in the 1990s, but with much more focus on productivity improvements in a more open, competitive environment.

A regression model of average real per capita GDP growth of about 70 developing and industrial countries—estimated for the 1960s, 1970s, and 1980s, using standard explanatory variables covering economic structure, macroeconomic policies, and institutional quality—provides a useful framework for evaluating potential changes in long-run growth trends in East Asia (table 1-11).⁹ Per capita income at the beginning of the decade enter as a broad control for the initial conditions of each economy. The estimates suggest that, once other relevant factors are controlled for, the higher a country’s initial income, the lower its expected growth—reflecting, for example, less scope for technological catchup by

achieving faster growth through assimilating new technologies from more advanced countries. In general, growth increases with the schooling of the population and the rate of investment. Greater financial depth is also associated with stronger long-run growth. A higher black market premium, interpreted as a broad measure of economic distortions, reduces growth, as does a higher fiscal deficit.¹⁰ Taking account of institutional conditions, greater corruption¹¹ and more political instability (political murders or assassinations) are associated with lower growth.

Possible changes in long-run growth in East Asia (from 2001 onward) can be evaluated on the basis of illustrative changes in the factors that determine growth in the model (table 1-12). The changes are evaluated relative to the 1980s.

Despite the crisis, real per capita income at the beginning of the 2000s is expected to be higher than at the start of the 1990s, especially for Korea and Thailand—and substantially higher than at the

Among other factors, the higher a country’s initial per capita GDP or the greater the distortions, the lower its growth

Table 1-11 Real per capita GDP growth: a cross-country growth regression model

	Coefficient	T-statistic
Constant	-0.14066	-1.50
Logarithm of real per capita GDP at start of decade	0.04804	1.96
Logarithm of real per capita GDP at start of decade squared	-0.00414	-2.60
Schooling (log of 1 plus average years of school attainment)	0.00648	1.5
Ratio of investment to GDP	0.00086	3.85
Financial depth (ratio of financial system liquid liabilities to GDP)	0.01156	2.13
Economic distortions (black market premium)	-0.01715	-4.37
Fiscal balance	0.1105	3.91
Institutional quality (Knack and Keefer measure of corruption)	0.00496	3.62
Political stability	-10.602	-1.25
Regional dummy: Sub-Saharan Africa	-0.01812	-3.91
Regional dummy: Latin America and the Caribbean	-0.00859	-2.42

Note: R-squared: 0.6204; adjusted R-squared: 0.5471; S.E. of regression: 0.01586; Durbin-Watson statistic: 1.5335.

Model estimated for the 1980s.

Source: Data are from Easterly et al 1994.

start of the 1980s. Growth was so robust in the 1990s boom that, despite the large declines in real income projected for 1998–99, real incomes in Korea and Thailand are expected to be 45–50 percent higher in 2001 than in 1991 (and about 15 percent higher in Indonesia), cautioning against drawing overly negative assessments of East Asia’s structural problems. Exceptionally rapid growth in East Asia in the first part of the 1990s was associated with an enormous speculative credit and investment boom. This bubble has burst, however, and reforms should lead to more rigorous financial regulation and the reduction of implicit government guarantees and other close government-business ties. Investment rates are assumed to fall from the exceptional pace in the 1990s boom to 25–30 percent, around their level in the 1980s.

Economic reforms to establish a more open competitive environment and to strengthen institutions should also improve the efficiency of resource use. To capture something of this effect, the measure of the black market premium (interpreted as a general index of economic distortions) is arbitrarily reduced by about the same amount for all three countries. Improvements in institutional quality and in the level of education are also assumed to contribute significantly to stronger growth. Countries are assumed to run balanced budgets, with significant primary surpluses offsetting the costs of financial restructuring—and this also contributes to growth, relative to the 1980s, when the countries averaged moderate fiscal deficits. Adding projected population growth to estimates for per capita income growth shows GDP

Long-term slowing in real per capita growth

Table 1-12 East Asia: changes in real per capita GDP growth in 2001–10 relative to growth in the 1980s (percent)

	Indonesia	Rep. of Korea	Thailand
Initial income	-0.7	-2.1	-1.3
Schooling	0.2	0.1	0.2
Investment	0.0	-0.4	0.0
Financial depth	0.1	0.0	0.0
Black market premium	0.1	0.1	0.1
Fiscal balance	0.2	0.1	0.3
Institutional quality	0.3	0.3	0.3
Total change	0.2	-2.0	-0.4
Per capita GDP growth in 1980s	3.6	6.6	4.6
Per capita GDP growth 2001–10	3.8	4.6	4.2
Population growth 2001–10	1.4	0.7	1.0
GDP growth: 2001–10	5.2	5.3	5.2
Memorandum items			
GDP growth in 1981–90	6.3	9.1	7.9
GDP growth in 1991–97	7.4	7.2	6.9

Source: World Bank estimates.

growth in the three countries at 5–5.5 percent a year, a significant decline, certainly, from the exceptionally robust growth of the 1990s and, for Korea and Thailand, the 1980s. Note, though, that the estimated per capita GDP growth rates of 3.5–4 percent a year are low only relative to East Asia’s extraordinary past growth. Such a pace of income increases is far above the 1 percent or so median per capita growth among developing countries outside East Asia in 1991–96. More important, as East Asia renovates the institutional base of its economies, growth recovery should quicken and strengthen (box 1-2).

Private capital flows

Given the severity of the current crises in capital flows to emerging markets, it is likely that a number of deterrent effects will persist into the medium term. Therefore, the base-case projections adopt a more cau-

tious line on recovery and growth of capital flows in the future—thus the ability of developing countries to sustain current deficits as large as those in the first half of the 1990s. The projections assume that, in aggregate, all low- and middle-income countries turn around from a current account deficit of –1.3 percent of GDP in 1991–97 to near balance in 2001–07, which indicates the size of adjustment involved. Almost all of this is accounted for by more cautious projections for private capital flows; all regions are affected, but East Asia more severely. Gross capital flows should nevertheless revert to some strength in the longer term, this time more differentiated for policy performance and more

Gross capital flows should revert to some strength, and confidence in the still-favorable, long-term prospects for developing economies should start to improve.

adapted to longer term capital needs rather than responding to emerging markets euphoria. Strengthening domestic capital and bond markets is particularly important. Confidence in the still-favorable, long-term prospects for developing economies should start to improve. Macroeconomic conditions in industrial countries should be conducive to a recovery of private flows to developing countries—because of the same factors (higher returns and the benefits of portfolio diversification) that drove the 1990s surge in flows, but with much more caution this time.

Returns to investment in emerging markets tend to exceed those in industrial

countries: developing countries have lower capital-output ratios, so the marginal productivity of capital is higher. Even in East Asia, returns to assets in 1988–96 were higher than in many industrial countries. Historical simulations have shown that portfolios that include assets from emerging markets have outperformed portfolios with assets limited to industrial economies (De Santis 1993).¹² The exceptions are recent analyses of the extremely strong performance of the U.S. and European stock markets over the past few years. The potential for further diversification of industrial country portfolios to developing countries is considerable. The emerging market share of industrial country portfolios remains low. Dadush and others (1994) report that less than 1 percent of pension fund holdings are invested in emerging markets. And Chuhan (1994) shows that institutional investors hold less than 5 percent of their foreign equity holdings and about 0.2 percent of their total assets in emerging markets. By contrast, developing countries accounted for 21 percent of world GDP, 25 percent of world investment, and 24 percent of world exports.

The share of emerging markets in global investment provides an interesting historical perspective. In 1913, during an era of free capital movements, emerging markets made up about 50 percent of global investors' holdings of foreign stocks compared with 12 percent in 1996. In the United Kingdom, 46 percent of foreign equity portfolios in 1913 were invested in countries that make up today's emerging markets, well above present levels of industrial-country investment in the developing world (Bruno 1996). In 1929 emerging markets accounted for

54 percent of U.S. residents' foreign portfolio equity holdings (Lewis 1938),¹³ compared with only 17 percent in 1996 (Scholl 1997). Despite the strong surge in private capital flows in the first half of the 1990s, the participation of emerging markets in global investment remained below that of the previous era of large international capital movements. The small investments in emerging markets compared with the global total mean that small changes in desired portfolios can result in large flows to emerging markets. For example, the IMF (1997) calculated that a 1 percent shift in the assets managed by institutional investors toward emerging markets would represent a capital inflow of \$200 billion. Still, as in the past (after the 1980s debt crisis, for instance), it can take a long time—five to seven years—for a complete recovery.

The allocation of greater investment to developing countries also needs to better reflect the need for longer term capital—not volatile short-term flows that create boom-bust cycles and can quickly reverse themselves. The policy challenge is to find better mechanisms (for example, developing local currency long-term bond markets) for facilitating more stable and longer term flows to developing countries, including FDI and portfolio flows. Regulations in recipient countries on the capital flows they wish to encourage, and those they wish to discourage, may also be an important component.

A world trade and investment model assesses the implications of the East Asian crisis for the crisis countries themselves, for other developing regions, and for the world economy (box 1-3).¹⁴ Among the important findings, the modeling work suggests two

effects of the crisis on longer term capital flows:

- Within East Asia, growth in longer term capital inflows slows (because of higher risks and lower returns perceived by investors), and investment rates in the crisis countries are much lower. Such reduced capital deepening, in turn, is associated with a much slower pace of industrial transformation.

The policy challenge is to find better mechanisms to facilitate more stable and longer term capital flows to developing countries.

- Capital flows that would have gone to East Asia mainly return to industrial source countries, but some are diverted to other developing regions. The effects may be significant in raising these regions' longer term investment rates—if they can continue to offer an attractive, risk-adjusted rate of return.

Risks to the forecast and a low-case scenario

There are substantial risks that the world economy will fall into recession in 1999 rather than merely enduring the period of sluggish growth expected in the baseline. These risks are strongly interconnected and potentially mutually reinforcing as a result of transmissions and amplifications through financial markets—meaning that the occurrence of any one increases the probability of the others. The low-case scenario developed here changes three

Box 1-3 Longer run impacts of the East Asian crisis

An analysis was conducted using the Global Trade Analysis Project (GTAP) database and dynamic computable general equilibrium model. A new base case incorporating the crisis (1992–2010) was developed, using World Bank macro-economic projections for the affected East Asian countries and Japan. This was then compared against two alternatives: a scenario in which the crisis does not occur; and another where the crisis is deeper and longer. From these experiments, inferences about the effects of the crisis on East Asia and on the rest of the world were developed. The main mechanisms at work in the model are the changes in relative product and factor prices and the corresponding trade volumes and international capital flows.

Impacts of the East Asian crisis (relative to no crisis): In the new base case, GDP in the crisis economies in 2000 is \$170 billion lower. As the effects are modeled, this loss in GDP is associated with a relative decline in capital and physical investment. The crisis countries see a moderate reorientation of activity away from capital-intensive industries, and the overall effect is to lower wages. By 2005 the crisis-adjusted wages of skilled labor in East Asia are 30 percent lower than the reference scenario, and

unskilled wages lower by slightly less. The crisis also affects industrial countries, especially exports of the capital goods sector, lowering skilled wages 3–5 percent in North America and Europe in relative terms.

Effects of deeper, longer crisis on East Asia: In a controlled experiment comparing the base case to the case of deeper, longer crisis, the share of 2010 GDP generated in the transport, machinery, and equipment sectors in Korea, Indonesia, Malaysia, the Philippines, and Thailand is 5 percent, 9 percent, 6 percent, 2 percent, and 4.8 percent lower, respectively, than in the base case (see box figure), attributable to the lower investment rates and reduced capital flows. Terms of trade for the crisis countries turn worse in the short term as they export more. But through time they improve, as trade surpluses and falling interest payments reduce the need to export, and exports fall.

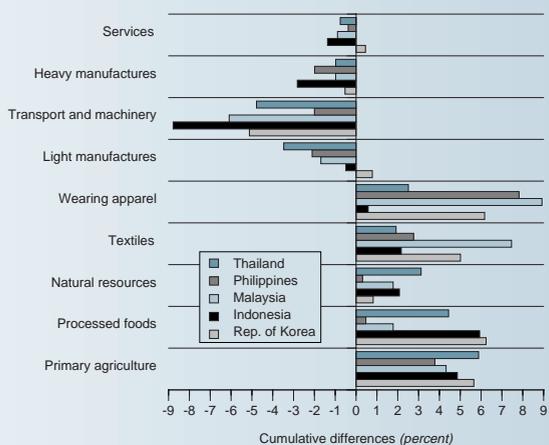
Effects of a longer, deeper crisis on other regions: If the financial crisis remains confined, the effect of a longer, deeper crisis on other regions is modest. Small welfare losses occur in Western Europe, Australia, and New Zealand. Among developing regions, the effect is negative on Sub-Saharan Africa, and negligible on South Asia. Latin America and China may even benefit (subject to caveats). These effects can be traced to changes in the terms of trade and to returns to capital.

The demand for capital drops even more in East Asia, relative to the base case. This leads to a decline in the rate of return to capital worldwide—a gain for net debtor regions and a loss for net creditor regions (Western Europe, Japan). Capital flows are also diverted from crisis countries to other developing regions, an effect that would be offset by perceptions of higher risks, not formally modeled in the analysis.

For the noncrisis regions as a whole, long-run terms of trade effects are negative, as the crisis economies become poorer consumers of their exports and weaker suppliers of their imports. Prices of characteristic exports of crisis economies (textiles and light manufactures) rise, and prices of agricultural and resource-intensive products fall. Negative effects are especially pronounced for Sub-Saharan Africa and the rest of the world (including Australia), which suffer as suppliers of primary products. Industrial countries also suffer losses as importers of light manufactures. But some positive effects are projected in some regions that compete with the crisis economies in export markets, such as China and Latin America.

A slight shift away from capital goods

Change in composition of value added in East Asia, 2010



Source: Ianchovichina, Hertel, and McDougall 1998.

Source: Ianchovichina, Hertel, and McDougall 1998.

important assumptions underlying the baseline.

- The recession in Japan is worse, as efforts by the authorities to stimulate growth and shore up the financial sector lack sufficient credibility and are not enough to stem a collapse in consumer and business confidence.
- Mounting loss of confidence for developing countries in international capital markets leads to a shutdown in private capital flows to Latin America, compressing the region's current account deficit to near zero in 1999.
- Steep equity market corrections of 20–30 percent further depress growth in the United States and in Europe.

More severe recession in Japan

Given the evidence of the past year, there is a risk that differences over policy and hesitancy to accept the bad-debt losses of the Japanese banking system will lead to drift

on key issues of financial sector restructuring and implementation of fiscal stimulus measures. Against this backdrop, domestic demand could continue to contract along with falling consumer and business confidence, while exports stagnate because of continuing recession or slowdown across the rest of East Asia. In the low-case scenario, stock and other asset market values continue to tumble, further reducing the net worth of firms. Bank bad debts balloon, reducing bank capital and intensifying the credit crunch. GDP falls 4 percent in 1999, and 2 percent in 2000 (table 1-13). Growth is diminished in the longer term (2001–07), reflecting the continuing sluggish environment resulting from more drawn out financial sector restructuring. Sharply falling imports aggravate economic difficulties in East Asia, while a subsequent weakening of the yen—the result of recession and increased financial sector risk—also increases competitive devaluation pressures in Asia.

And if worse comes to worst?

Table 1-13 Global conditions in the baseline and low-case scenarios
(average annual percentage change, except for LIBOR)

Indicator	Low-case scenario			Baseline scenario		
	1999	2000	2001	1999	2000	2001
World GDP	0.0	1.7	2.9	1.9	2.7	3.0
GDP in G-7 countries	-0.3	1.0	2.4	1.4	2.1	2.4
United States	-0.2	1.4	2.3	1.6	2.1	2.3
Japan	-4.0	-2.0	2.2	-0.2	1.4	2.3
Major EU economies	1.9	2.2	2.5	2.1	2.6	2.4
Imports in G-7 countries (volume)	2.0	4.5	5.6	6.3	5.2	5.6
World merchandise exports	3.5	5.3	6.3	5.5	6.5	6.3
Nominal LIBOR (six months; US\$)	4.5	3.1	3.2	5.0	6.0	6.0
Price indexes (US\$)						
Petroleum ^a	-16.0	7.3	5.0	8.1	7.3	0.2
Nonfuel commodities ^a	-10.7	-4.8	3.3	-1.7	0.9	0.5

a. Based on World Bank indexes and deflated by the G-5 unit value of manufactures.
Source: World Bank projections, November 1998.

Shutdown in private capital flows to Latin America

Private capital flows to emerging markets fell dramatically following Russia's moratorium on debt servicing in August 1998. Rather than easing after a period, as expected in the baseline forecast, the spiraling recession in Japan in the low-case scenario intensifies the flight to quality in capital markets—principally to high-grade instruments in North America and Western Europe. It also puts the seal on a protracted withdrawal from emerging markets, accompanied by mounting domestic capital flight. The impact is felt most severely in Latin America, where private flows had financed a large increase in external deficits through 1996 and 1997. There the closing down of flows leads to a dramatic compression in the regional current account deficit from \$75 billion in 1998 to near zero in 1999.

Stock market corrections in the United States and Europe

Earnings prospects for U.S. and European firms are likely to deteriorate as Japan's recession deepens and much of the developing world resorts to import compression. A sustained drop in stock market prices would affect consumer spending directly through wealth effects—and indirectly through a break in confidence in the United States and Europe. In turn, falling industrial country stock prices could drag down stock indexes globally. Price-earnings ratios in major industrial country stock markets reached unusual highs (24 times earnings for the U.S. Standard & Poor's 500 stock index at its peak in July 1998, compared with a historic average of about 14). Interest rates have also fallen, but the gap

between stock and bond yields has remained high. Industrial country stock markets fell sharply in August and the first part of September 1998 because of downward revisions to corporate earnings in the United States and a re-evaluation of global growth conditions after the Russian crisis.

Stock market corrections are likely to have a fairly small impact on consumption. In the United States, the marginal propensity to consume from a change in corporate equity wealth is only 0.3 with a mean response lag of about two years.¹⁵ A \$1 increase or fall in the value of stocks could be expected to increase or decrease consumer spending by about 3¢ over the following two years. On this basis, a 20-percent (perceived) permanent fall in equity value in the United States would lead to a 0.45 percent drop in aggregate consumption over two years.¹⁶ This would, however, be offset by gains from other appreciating assets—such as gains in bond holdings as long-term interest rates fall.

On past experience, therefore, the wealth effects on consumption would likely be small. But there are grounds for a stronger wealth effect now than in 1987: the rise over the past decade in the share of households owning equity (40 percent in 1995 compared to 32 percent in 1989), the rising share of equities in household assets, and the much higher value of equity holdings relative to GDP (1998 market capitalization of more than \$13 trillion or 140 percent of GDP). The private consumption effects of a stock market decline in Japan or Europe would be smaller than in the United States, because of a lower market capitalization and a smaller share of household wealth in equities. The larger

risk thus lies not in the direct wealth effects but in a sharp worsening in consumer confidence—because “periods of euphoria or distress tend to feed on themselves” (Greenspan 1998).

Results: a severe slowdown in global activity

Under the low-case scenario, world economic growth would suffer its most serious decline since the 1982 recession, falling to zero in 1999, about 2 percentage points lower than in the baseline, and expanding by 1 percentage point less than in the baseline case in 2000 (table 1-13). Among principal industrial countries (other than Japan, where output falls 4 percent), the United States is the most seriously affected, experiencing a recession in 1999. Here the impact of the large decline in equity prices reinforces an existing momentum toward slower growth in the baseline scenario. Compared with Europe's, U.S. growth is also affected by the greater exposure of its exports to recession-hit areas, such as Latin America, Japan, and East Asia. U.S. banks also have a greater exposure to Latin Amer-

ica (table 1-14). Their exposure to the five largest economies (Argentina, Brazil, Chile, Mexico, and Venezuela) amounted to 15 percent of their capital in 1997, compared with 11 percent for all G-7 countries.¹⁷ The U.S. federal funds rate is assumed to be cut to 3 percent in 1999, buoying the economy and fostering a modest recovery in 2000. Growth in Europe is affected more moderately, dipping only to below 2 percent in 1999, since many continental countries are still in cyclical upswing and a high proportion of trade is conducted within the region.

The recessionary climate in the industrial countries has powerful effects on the developing world through several channels. G-7 import growth slows to only 2 percent, with especially sharp downturns in Japan and the United States. This has severe consequences for developing regions with export concentration on these markets, East Asia in the first case and Latin America the second. Even more seriously, perhaps, the fall in industrial country demand for oil, industrial raw materials, and other primary commodities contributes to large (10–20 percent) declines for these products

The United States is more exposed to Latin America

Table 1-14 Share of total exports and debt outstanding

	Argentina	Brazil	Mexico	Latin America and the Caribbean
Percent of total exports from:				
World	0.4	1.0	1.4	5.1
Industrial countries	0.4	0.9	2.0	5.4
United States	0.8	2.3	9.8	18.6
Commercial bank exposure in 1997 (percent of capital)				
G-7 countries	2.4	3.6	3.4	11.0
United States	2.9	4.6	5.1	14.5
Canada	4.9	6.6	10.6	25.7

Source: IMF Direction of Trade Statistics for exports; Bank for International Settlements, and the Organisation for Economic Co-operation and Development for bank exposure.

Box 1-4 Three channels for contagion in international stock markets

Contagion in financial markets is defined as “co-movement of markets not traceable to a common co-movement of fundamentals” (Wolf 1997). It is attracting renewed attention. Three channels may help to explain such contagion effects.

A first channel is herd behavior, attributed to asymmetric information problems. Institutional fund managers often follow investment trends of other investors to protect themselves from being blamed in the event of losses for not following trends. Another interpretation (Eichengreen, Rose, and Wyplosz 1996) is that investors may not discriminate among different fundamentals across markets and regard emerging-market stock as an asset class. Decisions based on such imperfect information may become self-fulfilling, and investor behavior might then depict herd behavior. But investor herding is difficult to prove empirically. There is little evidence in the United States (Lakonishok, Shleifer, and Vishny 1992), but Aitken

(1996) finds some evidence elsewhere. Calvo and Reinhart (1995) suggest its existence from the co-movement of stock and Brady Bond returns in Latin America following the Mexican crisis, despite differences in fundamentals.

A second channel is portfolio allocation: any shock that leads to changes in asset returns in one emerging market will contribute to changes in portfolio allocation to all other emerging markets (Buckberg 1996). A third channel is portfolio interdependence. In response to large capital losses in one country (such as the Mexican and East Asian crises), a sell-off in holdings in other markets occurs in an effort to raise cash to meet investor redemptions. These channels suggest why equity markets are becoming much more closely integrated, and why shocks are rapidly transmitted in global stock markets (see box table).

Source: Kaminsky and Schmukler 1998.

Financial markets are becoming more integrated

Mean correlations of monthly equity market returns, 1970s–1990s

Region	Mean correlations of monthly returns					
	Among countries in a region			Among countries in another region		
	1970s	1980s	1990s	1970s	1980s	1990s
Asia	0.11	0.11	0.41	0.08	0.25	0.41
Europe	0.14	0.33	0.38	0.07	0.24	0.37
G-7	0.15	0.3	0.29	0.11	0.17	0.22
Latin America	0.07	-0.01	0.26	-0.14	0.25	0.32

Source: Kaminsky and Schmukler 1998.

in 1999 instead of stabilizing or increasing, as in the base case. These price declines add to balance of payments pressure for the major oil and commodity exporting regions. With private capital flows in full retreat from emerging markets, and additional official aid hard to come by, developing countries are unable to finance much of the increases in their current account deficits already caused by weaker export

volumes and prices through more borrowing. They are obliged to adjust by compressing domestic demand.

Developing country growth is restricted to less than 1 percent in 1999 (or about half a percentage point fall in per capita income) and does not return near its baseline path until 2001 (table 1-15). Latin America—where the flight of private capital from emerging markets is assumed to

Developing regions are hard-hit in the low-case projection

Table 1-15 Developing country GDP growth in the low-case scenario

(annual percentage change)

Indicator	1998 ^a	Low-case scenario			Baseline scenario		
		1999	2000	2001	1999	2000	2001
Real output							
Developing countries	2.0	0.7	3.3	4.7	2.7	4.3	4.8
Sub-Saharan Africa	2.4	2.4	3.1	3.6	3.2	3.8	3.9
East Asia and Pacific	1.3	1.9	5.4	6.3	4.8	5.9	6.3
East Asia-4 ^b	-9.2	-3.1	2.8	4.2	-0.5	3.0	4.4
South Asia	4.6	4.0	5.1	5.4	4.9	5.6	5.7
Europe and Central Asia	0.5	-2.0	2.1	3.8	0.1	3.4	4.3
Latin America and the Caribbean	2.5	-2.2	1.4	3.6	0.6	3.3	4.1
Middle East and North Africa	2.0	1.8	2.7	3.3	2.8	3.1	3.5

a. Estimated.

b. Indonesia, Malaysia, Philippines, and Thailand.

Source: World Bank projections, November 1998.

require elimination of current account deficits and where export revenues are dragged down by both U.S. recession and falling commodity prices—is hardest hit. The large current account adjustment reduces regional growth to -2.2 percent in 1999, down by 2.8 percentage points from the baseline forecast (figure 1-21).

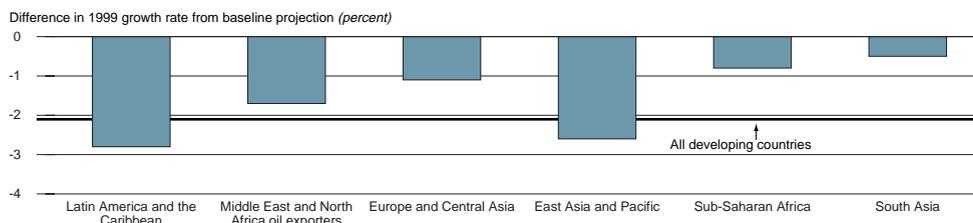
The downturn in Latin America may not be as severe as that in East Asia in 1998 for several reasons, however. Financial intermediation in Latin America is generally smaller (measured, for example, by credit to the private sector as a percent of

GDP) than in East Asia. Banks are less likely to have accumulated vast portfolios of bad debts. Corporations are much less heavily leveraged than in East Asia.

Brazil came under severe exchange rate pressure in the wake of the Russian crisis and is vulnerable because of a budget deficit of 7 percent and a current account deficit of 4.1 percent of GDP. It is assumed under this scenario to accentuate policies of expenditure reduction and switching. Brazil thus suffers a near 4 percent output contraction in 1999. With Brazil accounting for 40 percent of regional GDP, the second-

Latin America suffers most in low-case scenario

Figure 1-21 Low-case scenario: output effects across regions, 1999



Source: World Bank estimates.

round effects on the rest of the region through trade and investor confidence losses are also large. The Mercosur countries and their affiliates are the most vulnerable, with Argentina—which ships 28 percent of its exports to Brazil—likely to experience a severe test to maintain its currency board. But many other countries in the region with smaller direct trade links also suffer, especially those with serious domestic imbalances (Venezuela), large external imbalances (Peru), or large external debt payments (Mexico).

Heavily oil-export-dependent regions are also seriously affected. Oil exporters in the Middle East and North Africa experience growth 3 percentage points lower than in the baseline in 1999, while Europe and Central Asia see around 2.5 percentage points lower growth, owing to even more serious recessions in significant oil exporters, such as Russia and several other countries of the former Soviet Union. The recession in the East Asian crisis economies also intensifies by about 0.5 percentage point or so, primarily because of slower growth in exports, and in Southeast Asia, because of lower commodity export prices. These countries are no longer constrained by lack of external financing, however, having moved to large current-account surpluses in 1998.

Notes

1. The U.K. economy is following a cyclical path distinct from much of the rest of Europe, having entered its recovery much earlier and being likely to slow sharply in 1999.

2. The effects of changes in wealth on consumption can, however, take some time to play out. National Institute of Economic and Social Research (NIESR) (July 1998) estimates that a 10 percent

decline in real wealth is associated with 1.8 percent lower consumption, with the full effect taking some time to emerge.

3. The decline in the economy's nonaccelerating inflation rate of unemployment (NAIRU) is discussed in *Global Economics Prospects and the Developing Countries 1997*.

4. Disbursements under the rescue package for Korea are not included, as Korea was not considered a developing country in the data set for *Global Development Finance and the Developing Countries 1998*.

5. The level of recorded ODA in 1997 was depressed by changes in the list of ODA recipients—most importantly the removal of Israel. Perhaps one-tenth of a percentage point of the decline in the ODA/GDP ratio is due to these changes.

6. J.P. Morgan, "Asian Financial Markets," July 17, 1998.

7. In 1995, Mexico, whose financial problems were not nearly as severe, saw export volumes soar 35 percent and dollar prices hold. However, the initial export share in GDP in the East Asian crisis countries was 50 percent to 100 percent higher than in Mexico.

8. Prospects in regions other than in East Asia and Pacific are described in more detail in Appendix 1.

9. The data set employed was developed in Easterly et al (1994). Although cross-country regression models have some technical drawbacks, the results of these models are generally consistent with new growth theories, and are useful in evaluating quantitatively the direction of expected changes in longer run growth.

10. The latter result reflects the harmful effects on growth of large and chronic fiscal deficits, a prime source of macroeconomic instability. It is not inconsistent with temporary increases in fiscal deficits as a countercyclical policy measure at a time of sharply falling private aggregate demand, such as are being undertaken in the East Asian crisis countries at present. See chapter 2.

11. As measured, an increase in the relevant index represents a reduction in corruption. The coefficient on the variable is therefore positive.

12. Harvey (1993) reported that the tradeoff between risk and return in an internationally diversified asset portfolio could be greatly improved by investing up to 20 percent in developing country securities. Cosset and Suret (1995) found that the inclusion of countries with significant political risk in portfolios

would have increased returns for the same variance. Brooks-Senfleben (1994) showed that during 1988–93, an investment portfolio comprising 12 percent Latin American securities and 88 percent U.S. securities would have earned a 3.3 percent premium over a portfolio comprising only U.S. securities, for the same level of risk.

13. Lewis reports outstanding U.S. loans to foreign countries. The figure for emerging markets refers to all countries outside of Western Europe.

14. The dynamic GTAP (Ianchovichina and McDougall 1997) is a multiperiod extension of the standard multiregion and sector model of the world economy (Hertel and Tsigas 1996), incorporating capital mobility, adaptive expectations, and income flows from foreign investments.

15. The logarithmic aggregate consumption equation in the United States was estimated (Federal Reserve 1996) as:

$$c^* = 1.0v + .62strans - .15sprop + .52sstock + 1.28s0 + .013x$$

where c is consumption, v is wealth related to income Y (labor + transfer + property), $strans$ is transfer of wealth/total wealth, $sprop$ is property wealth/total wealth, $sstock$ is value of corporate equity/total wealth, $s0$ is other financial and intangible assets, and x is the aggregate output gap (Brayton and Tinsley 1996).

16. A 20 percent fall would be equivalent to a drop in total market capitalization of about \$1.7 trillion, and household share of this would be about one-half (\$850 billion); a 3 percent share of this would represent a 0.45 percent decline in estimated 1997 aggregate private consumption.

17. The exposure to these five countries for all Bank for International Settlements (BIS) reporting commercial banks stands at 16 percent, much lower than 58 percent in 1982, at the start of the debt crisis of the 1980s. It would nevertheless add to the erosion of industrial country bank loan portfolios and capital already resulting from the East Asian and Russian crises.

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Responding to the East Asian Crisis

IN THE SECOND HALF OF 1997 SEVERAL EAST ASIAN CRISIS COUNTRIES experienced a massive reversal of the large foreign private capital inflows they had enjoyed through much of the 1990s. The net swing from inflows to outflows between 1996 and 1997 amounted to more than \$100 billion for the five crisis countries—Indonesia, the Republic of Korea, Malaysia, the Philippines, and Thailand—or 11 percent of their gross domestic product (GDP) before the crisis. The reversal precipitated steep devaluations of currencies, large increases in interest rates, and severe declines in stock and other asset prices, initiating the deep financial and economic crises that have gripped these countries since. Contagion effects from the crisis spread throughout the developing world. But instead of dying away quickly, as they did after the 1994 Mexico peso crisis, they were the precursor of currency and financial crises in the Russian Federation in August 1998, followed by a more general withdrawal of private capital from emerging markets.

While financial crises in emerging markets have many common elements—capital outflows, falling currencies, failing banks, and loss of confidence—their specific causes and, in particular, the factors precipitating loss of confidence, often differ and merit different policy responses. This chapter tries to advance our understanding of crisis response by focusing on the features of the East Asian countries that—with benefit of hindsight—made them so vulnerable to the outbreak of financial crisis, as well as the reasons for the emergence of these vulnerabilities. Different views on the causes of the crisis lead to different policy pre-

Financial crises in emerging markets have many common elements—capital outflows, falling currencies, failing banks, and loss of confidence—but their specific causes often differ.

scriptions for dealing with it. The chapter then analyzes the evolution and propagation of the crisis since its outbreak, dealing especially with reasons for its severity and duration, and the role of the policy responses implemented by governments to stem, manage, and resolve it. The discussion of policy responses reviews macroeconomic policies and financial and corporate sector restructuring and reforms, including efforts to work out the foreign debt difficulties of the private sector. The last section considers the social impact of the crisis and policy measures to mitigate these effects.

This chapter's key messages:

- The crises in several East Asian countries highlighted the extent to which their integration in global financial mar-

kets had outpaced the building of domestic institutions necessary to supervise and regulate the financial sector. The interaction of these institutional weaknesses with international capital market imperfections, and the use of inconsistent macroeconomic policies to manage surging capital inflows, generated crucial vulnerabilities that laid the groundwork for the subsequent financial crises—and ensured that their consequences would be severe.

- The critical immediate vulnerability came from an excessive buildup of short-term foreign currency debt on the balance sheets of private agents. This debt made countries vulnerable to sudden swings in international capital market sentiment. Macroeconomic policies to manage large-scale private capital inflows tended to create upward pressure on local interest rates. Large local interest rate premiums over falling international rates encouraged unhedged short-term foreign currency borrowing. In the euphoric business climate of the time, many market participants ignored the risk of exchange rate depreciation, lulled as well by the stability of exchange rates in the region, resulting from policies of pegging currencies. Surging capital inflows and weaknesses in financial regulation and supervision in the wake of financial liberalization in the 1980s and early 1990s also contributed to booms in domestic lending. These credit booms augmented already high levels of corporate leveraging, fostered speculative, low-quality investments, and weighed down banks' portfolios with doubtful

loans collateralized on assets whose value had been inflated by asset price bubbles. Banks and corporations became highly vulnerable to shocks affecting their cash flow and net worth.

- An ailing financial sector and large increases in central bank credit to failing banks helped trigger the run on the Thai baht and the collapse of the peg. The crisis quickly spread to other countries in the region, in part because of common vulnerabilities (such as high short-term debt and financial sector weaknesses) and spillovers through international trade linkages, but also through the contagion effects of a sudden change in capital market sentiment. Real activity began a sharp decline as private investment suffered a massive shock because of increased uncertainty, withdrawal of external financing, and the impact of interest rate increases and currency devaluations on corporate and bank cash flow and balance sheets. Personal consumption, especially of durables, also fell sharply. A strong export response, which had helped recovery in Mexico after the December 1994 peso crisis, failed to materialize because of the weakness in overseas market demand due to the regionwide downturn, sharp declines in export prices, and the credit problems facing firms.
- Given the large declines in private investment and consumption, the initial fiscal policy responses to the crisis turned out, contrary to design, to be contractionary and would have been strongly contractionary if fully implemented. As the severity of recessions

became apparent, fiscal policies were relaxed in favor of a more stimulative stance. The use of monetary policy also threw up extremely difficult tradeoffs between macroeconomic and financial sector stabilization objectives. Orthodox monetary policies in defense of currencies are appropriate in many circumstances, but not necessarily in all. Some initial policy responses in the crisis countries stressed raising interest rates to stabilize exchange rates (thus limiting the damage to the balance sheets and cash flow of firms with heavy foreign currency debts). But higher interest rates were themselves likely to damage economywide balance sheets and cash flows, and so weaken the real economy. Also, by increasing the risk of default on instruments issued by financially weak banks and corporations, higher rates could undermine rather than strengthen currencies. In the event, none of the initial policy responses had much immediate effect in stemming pressures on currencies—much of the decline occurred after these measures were taken.

- The primary role of fiscal and monetary policy now is to alleviate the collapse in aggregate demand, expand the social safety net, and recapitalize the financial system in a noninflationary manner. Financial support from the international community is vital. The initial reform packages in some countries were notable for their focus on structural reforms. Some of these (such as those dealing with the financial sector or corporate governance issues) addressed significant causes of the cri-

sis; others, however, while important for medium-term progress, have raised some questions about priorities in short-term crisis management.

- By mid-1998 large parts of the financial and corporate sectors in the most affected East Asian countries were insolvent or suffering severe financial distress. In several countries the cost of recapitalizing banking systems is expected to rise to 20–30 percent of GDP or more. Cross-country experience suggests that restructuring on this scale will require government intervention within a comprehensive plan for the financial sector, including the injection of substantial public funds. To reduce incentives for excessive risk taking (moral hazard), restructuring should allocate a substantial share of losses to bank shareholders, managers, and others who benefited the most from past risk taking. But these longer term goals will need to be balanced against the immediate priority of not exacerbating the credit difficulties facing viable firms.
- The success of bank restructuring and of restructuring debts of local corporations is intimately linked. Orderly workouts—less formal ways to achieve the same economic objectives as bankruptcy proceedings, by bringing creditors and debtors together for voluntary negotiation—will be important for both domestic and foreign debt. Although this is a difficult and protracted process, experience suggests that strong government leadership can play a critical role. OECD governments, in particular, can facilitate timely workouts between debtors and external private creditors, for example, by not holding out the possibility of more favorable bailouts for creditors in the future. Expanded flows of foreign direct and equity investment can also contribute to successful financial and corporate restructuring.
- The crisis has had an enormous social cost, placing a huge burden on the poor and, in some countries, exacerbating social conflict. Many of these consequences are likely to be protracted. Social policy concerns thus need to be an integral part of policy responses to the crisis. While not a substitute for sound, pro-growth, macroeconomic policies, social safety nets can play a major role in mitigating the social effects of crises. In recent decades East Asian countries have reduced poverty and improved living standards at a pace unrivaled in history. Nevertheless, cross-country research suggests that protracted crises lead to more poverty, greater income inequality, and deteriorating health indicators such as infant malnutrition—trends that can have enduring effects on people’s health and their ability to participate in the economy. An important lesson from this crisis is therefore the importance of establishing appropriate ex-ante social safety nets in all countries, prior to a crisis.
- Unemployment in Indonesia, the Republic of Korea, and Thailand is expected to more than triple between 1996 and 1998. Real wages are likely to fall dramatically in Indonesia. Conservative estimates put the number of people falling into poverty in 1998 at

25 million in Indonesia and Thailand alone, and the number could be much larger if income inequality rises. Priority actions to protect the poor include ensuring food supplies through direct transfers and subsidies, generating income through cash transfers and public works, preserving the human capital of the poor through basic health care and education services, and increasing training and job search assistance for the unemployed.

Buildup of vulnerabilities leading to crisis

What the crisis was not

Unlike the debt crisis of the 1980s, the crisis in East Asia was not driven by severe macroeconomic imbalances or instability, particularly those originating in large, money-financed public sector fiscal deficits. Fiscal positions in the East Asian crisis countries were either balanced or in surplus throughout the 1990s¹ (table 2-1). Public

sector debt was also generally low and falling as a share of gross domestic product (GDP) in the 1990s. Despite large private capital inflows and rapid output growth, there was little evidence of economic overheating in the form of inflation, which remained moderate, ranging from around 4 percent in Malaysia to 9 percent or so in Indonesia and the Philippines. In several countries inflation was actually falling in the year to mid-1997.

The main expressions of excess demand were large and widening current account deficits in Thailand, Malaysia, and Korea, and somewhat smaller ones in Indonesia and the Philippines. By and large, these were not accompanied by a deterioration in countries' ability to service their foreign debts from export revenues. A comparison of debt-service ratios (amortization and interest on long-term and short-term external debt expressed as a percentage of export revenues) at the start of the debt crisis of the 1980s and on the eve of the latest crisis, shows that for most East Asian countries debt-service ratios were relatively low

The crisis countries were in fiscal surplus for most of the 1990s

Table 2-1 Central government fiscal balances, 1977–96

(percentage of GDP)

	1977–81	1982–86	1987–91	1992–96	1996
Indonesia	-2.4	-1.4	-1.0	0.9	1.2
Korea, Rep. of	-2.1	-1.3	0.0	0.2	0.5
Malaysia	-7.9	-9.7	-3.9	0.7	0.7
Philippines	-1.8	-3.1	-2.6	-0.1	0.3
Thailand	-3.7	-4.6	2.1	2.4	2.3
Argentina	-3.9	-4.7	-1.1	-0.7	-1.8
Brazil	-1.6	-7.3	-10.4	-6.6 ^a	..
Chile	2.3	-2.0	1.3	2.2	2.3
Colombia	0.2	-2.1	-1.2	-2.6	-4.3
Mexico	-3.7	-9.6	-6.4	0.2 ^b	..

a. 1992–94.

b. 1992–95.

.. implies data is not available.

Source: International Monetary Fund.

in 1982 and had fallen even further by 1996 (figure 2-1). Only in Indonesia did the ratio rise, although even there it remained below the 1982 levels in many Latin American countries.

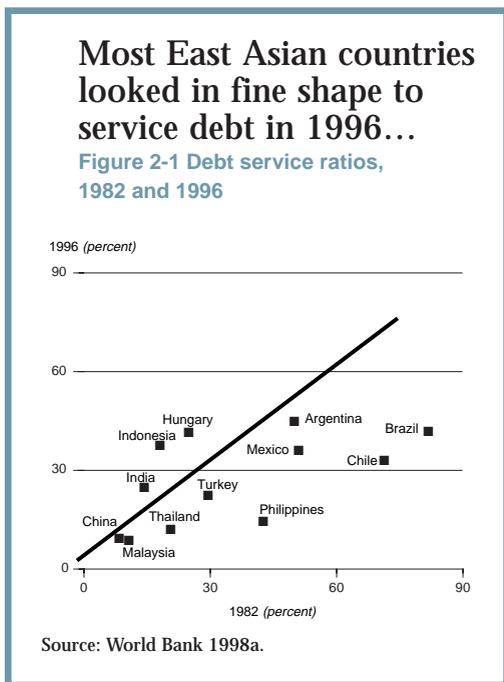
The buildup of short-term foreign debt

The chief external source of vulnerability arose not from major macroeconomic imbalances but from a rapid buildup from the late 1980s onward of risky forms of leverage on the balance sheets of financial institutions and nonfinancial corporations, in particular short-term foreign currency debt in excess of foreign currency resources available on short notice. Mismatches between the currency and maturity of liabilities and assets made firms vulnerable to sudden swings in international investors' confidence and to the

possibility of being unable to borrow from international capital markets to roll over short-term debt or meet other current debt service obligations.²

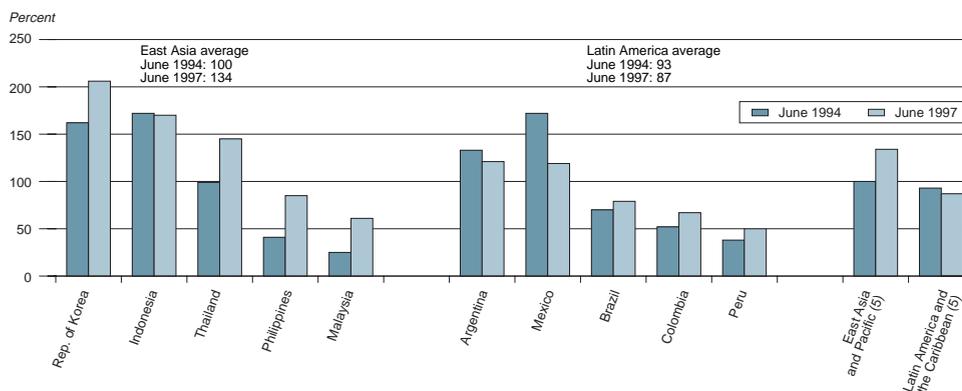
The ratio of short-term debt to foreign reserves is a rough measure of a country's ability to meet its current obligations from its own liquid resources.³ These increased sharply in 1994–97 in most of the crisis countries (figure 2-2). In the three worst affected countries—Indonesia, Korea, and Thailand—short-term debt to reserves ratios had risen to well over 100 percent by mid-1997. Malaysia and the Philippines, with short-term exposures less than 100 percent, avoided the need for emergency financial support packages from multilateral institutions.⁴ High short-term debt ratios in these countries were also associated with a broader measure of vulnerability, the ratio of M2 money to reserves (figure 2-3). This ratio indicates the potential for a run on the foreign exchange reserves of a country with a fixed exchange rate regime by its own residents when confidence in the local currency fails. (The figure also shows that the Russian currency crisis in the second half of 1998 was foreshadowed by very high levels of short-term foreign debt.)

The buildup of foreign liabilities by private agents took different forms. In Thailand banks and finance companies were a principal conduit of external loans. Their net foreign liabilities rose from 6 percent of domestic deposit liabilities (M2) in 1990 to one-third by 1996 (table 2-2). Financial institutions' net foreign liabilities also rose significantly in Korea. In Indonesia, however, direct foreign borrowing by nonfinancial corporations was more prominent.



...but short-term debt was high...

Figure 2-2 Ratio of short-term debt to foreign reserves, 1994 and 1997



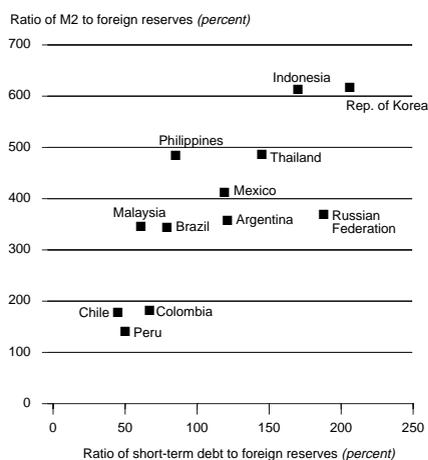
Source: Bank for International Settlements, International Monetary Fund.

Several factors furthered the emergence of these vulnerabilities in the 1990s. Macroeconomic policies adopted to manage the large-scale private capital inflows to the region tended to emphasize monetary policy as a way of sterilizing inflows. This created upward pressure on local interest rates at a time when international rates were falling in response to modest growth, low inflation, and accommodative monetary policies in industrial countries (figure 2-4). The large rate differentials created incentives for unhedged foreign currency borrowing, especially at short maturities, which carried the lowest rates. In the euphoric financial climate of the time, market participants ignored or discounted the associated risk of exchange rate depreciation. These excessively risky financial strategies were also fostered by the exchange rate stability in many countries that had pegged currencies to the dollar or to baskets of currencies with a high dollar weight.

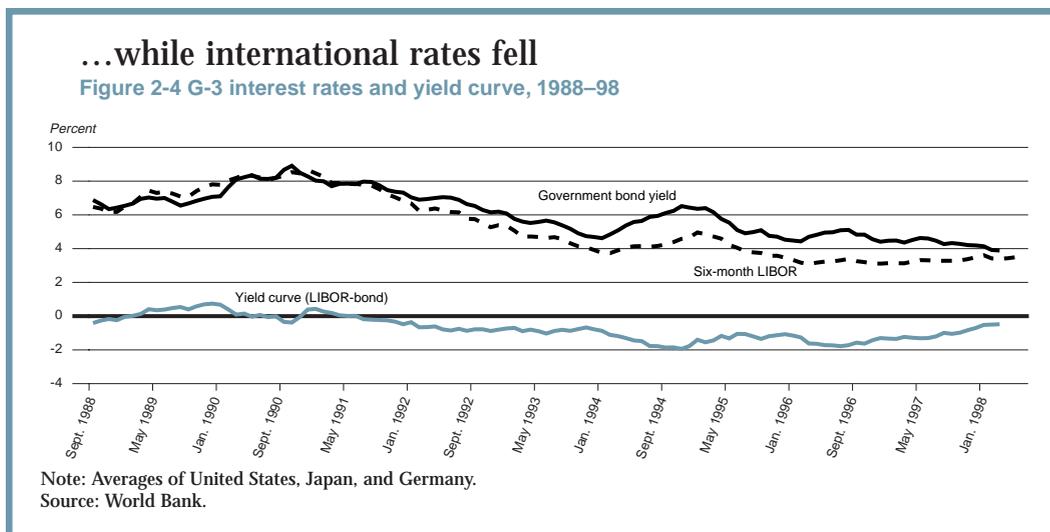
High interest-rate differentials and low variability in exchange rates may have been

...and vulnerability increased...

Figure 2-3 Vulnerability indicators, June 1997



Source: Bank for International Settlements, International Monetary Fund.



especially important to the short-term debt accumulation in Indonesia and Thailand (table 2-3). Obstfeldt (1998) notes that similar conditions fostered short-term foreign currency over-borrowing by Mexican financial institutions in the early 1990s. When the peso crisis struck at the end of 1994, a private sector financial crisis emerged alongside the problems arising from the government's own dollar-linked foreign borrowing. Diaz-Alejandro (1985) describes a similar process before the Chilean financial crisis of the early 1980s. The buildup of short-term debt

in East Asia occurred during several waves of international capital market enthusiasm for emerging market debt in the 1990s. The most recent wave, from late 1995 well into 1997, was marked by an unprecedented fall in spreads on such debt, which, several studies argue, was unjustified by observable economic trends and represented a significant underpricing of risk.⁵

Finally, the liberalization of domestic financial systems and external capital accounts that took place in the late 1980s and in the 1990s occurred without an ade-

Banks were the biggest borrowers in Korea and Thailand

Table 2-2 Foreign exposure of banks and finance companies (percent)

	Ratio of foreign liabilities to M2			Ratio of foreign liabilities to assets		
	1990	1994	1996	1990	1992-96	1996
Indonesia	1.2	7.0	3.2	108	193	143
Korea, Rep. of	4.4	8.3	14.1	140	149	174
Thailand	6.1	25.1	32.8	265	519	775
Argentina	33.7	10.1	9.5	313	197	158
Brazil	20.6	10.0	17.3	207	177	282
Mexico	55.3	66.8	44.7	901	750	498

Source: IMF International Financial Statistics.

Incentives for unhedged foreign borrowing rose in the 1990s

Table 2-3 Macroeconomic conditions related to unhedged foreign currency borrowing in East Asia, January 1991–June 1997

Country	Interest rate spread ^a	Average annual appreciation ^b (+) vs. US\$	Exchange rate volatility ^c
Indonesia	11.5	-3.8	0.7
Korea, Rep. of	4.1	-3.2	3.4
Malaysia	1.6	1.2	2.6
Philippines	6.5	0.9	3.8
Thailand	4.0	-0.3	1.2
Memorandum items			
Germany	1.2	-2.0	6.4
Japan	-2.2	2.5	10.7

a. Local deposit rate less LIBOR (US\$) for East Asian countries. Local LIBOR less LIBOR (US\$) for Japan and Germany. Interest rate spread in percentage points.

b. Relative to the U.S. dollar (in percent); a minus sign indicates depreciation.

c. Standard deviation of percentage deviation of exchange rate (US\$) from regression on a time trend.

Source: International Monetary Fund and World Bank data and estimates.

quate strengthening of prudential regulation and supervision, facilitating excessive risk taking by financial institutions on both the liability and asset sides of their balance sheets. Several countries created offshore financial markets with tax and regulatory advantages aimed at fostering the development of regional financial centers. These became channels for so-called out-in transactions—that is, external bank funding for local firms. In Thailand foreign bank loans through the Bangkok International Banking Facility soared from \$8 billion in 1993, the first year of its operation, to \$50 billion in 1996, \$30 billion of it out-in transactions and \$20 billion out-out transactions (Kawai 1997). Financial liberalization is also likely to have contributed to the buildup of short-term debt relative to other external financing. Some East Asian coun-

tries had welcomed or accepted long-term foreign capital in the form of foreign direct investment (FDI) or long-term debt for some time. Liberalization therefore tended to focus on removing barriers to short-term flows. Others, like Korea, maintained controls on long-term flows like FDI, while liberalizing short-term ones.

Private sector debt, corporate vulnerability, and financial fragility

The buildup of short-term foreign debt was only one element, though the most important, in a wider increase in corporate sector vulnerability and financial sector fragility in many East Asian countries. Strong economic growth, buoyant domestic savings, booming private capital inflows, and lower reserve requirements resulting from financial liberalization fostered surges in domestic lending in the 1990s, especially in Thailand, Malaysia, and the Philippines (table 2-4). In Indonesia the boom in credit to the private sector occurred with financial liberalization in the second half of the 1980s, and bad debt problems had already surfaced in the early 1990s (Caprio and Klingebiel 1996a).⁶ Marked credit booms also preceded the outbreak of financial crisis in Chile in 1982 and, to a lesser extent, in Mexico in 1994. Although financial depth rises systematically with per capita income on a cross-country basis, in several East Asian countries the amount of private credit relative to GDP had risen by 1996 to levels well above those suggested by incomes alone (figure 2-5). By contrast, credit levels in major Latin American countries by this time were close to or below those suggested by their income levels.

There were marked lending booms in several crisis countries in the 1990s

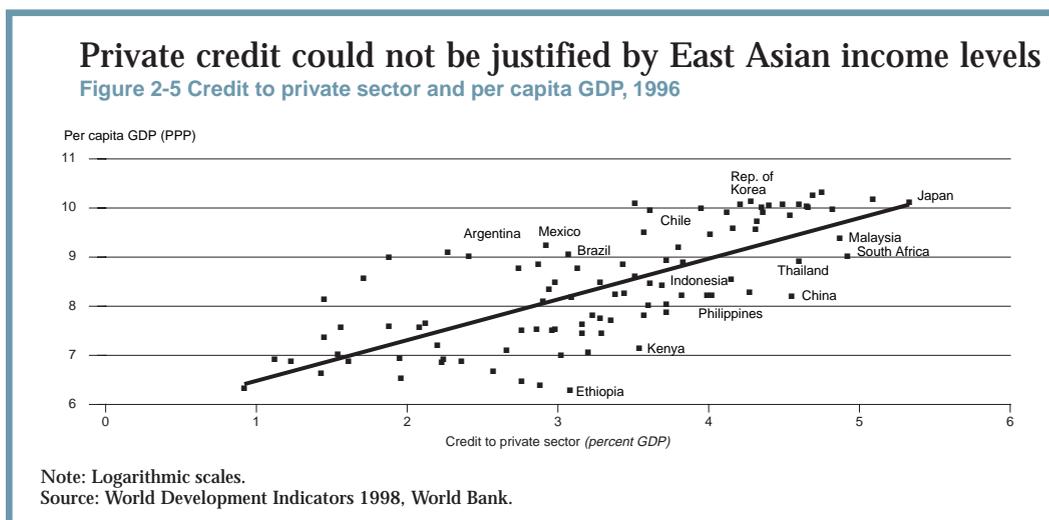
Table 2-4 Credit to private sector, selected years, 1975–96
(percentage of GDP)

Country	1975	1982	1990	1994	1995	1996
Indonesia	20	14	47	52	54	56
Korea, Rep. of	42	55	65	69	69	75
Malaysia	33	47	71	115	130	142
Philippines	32	46	22	36	45	54
Thailand	28	46	83	128	139	100
Argentina	16	34	16	18	18	19
Brazil	55	44	38	51	35	31
Chile	9	84	47	51	53	55
Mexico	27	16	21	47	36	22
Venezuela	34	55	25	13	12	10

Source: World Bank 1998c.

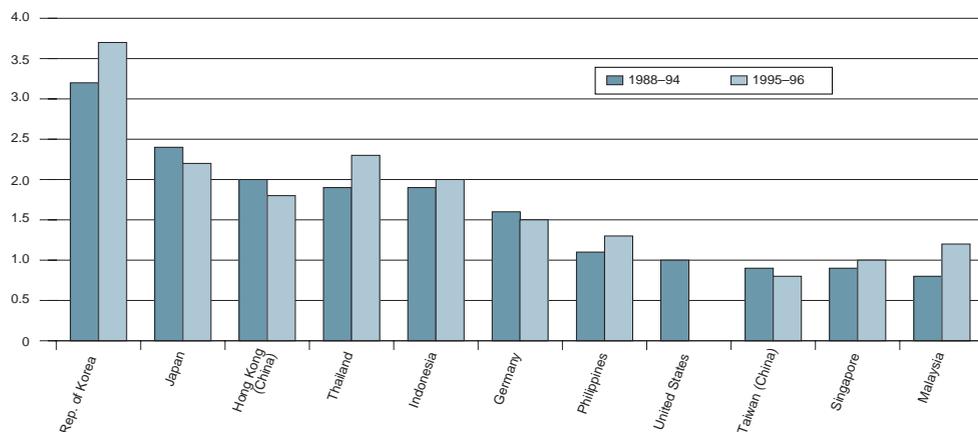
High levels of bank credit were reflected in high leverage, or debt to equity ratios, in East Asian corporate sectors. Highly leveraged firms are especially vulnerable to sharp fluctuations in cash flow and net worth as a result of external shocks or macroeconomic volatility, a fact that goes a long way to explaining the severe impact of the crisis on real output and growth. Over the past decade, the debt of nonfinancial corporations was two to three

times higher than equity in the most seriously affected countries (Korea, Indonesia, Thailand), and that leverage was generally rising in 1995–96, the runup to the crisis (figure 2-6). By 1996 the median value of foreign debt alone ranged from 70 percent of firms' equity in Indonesia and 80 percent in Thailand to 150 percent in Korea. Even more striking, short-term foreign debt ranged from about 40 percent of equity in Indonesia to nearly 100 percent in Korea.⁷



Corporate debt was excessive in the most seriously affected crisis countries

Figure 2-6 Debt to common equity ratios of nonfinancial corporations, 1988-96



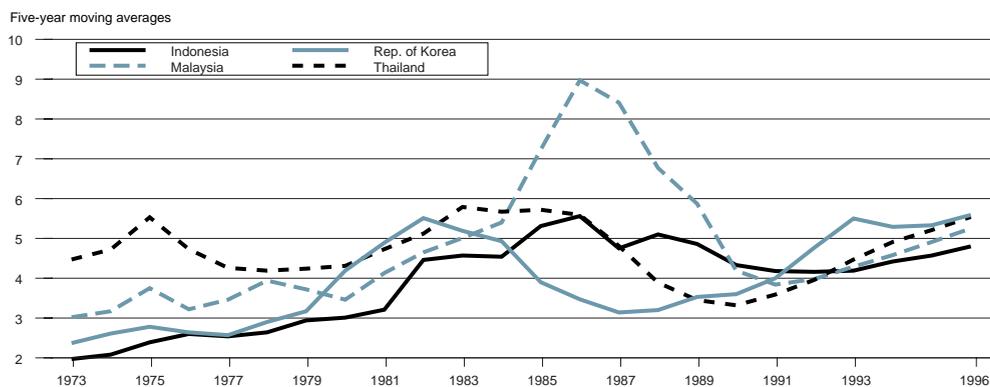
Source: Claessens, Djankov, and Lang 1998.

While the excessive buildup of leverage on corporations' balance sheets was the main source of their increased vulnerability, some cyclical deterioration in returns to investment likely contributed as well. Incre-

mental capital-output ratios (the amount of investment needed to generate an extra unit of output) rose in the 1990s, implying some decline in returns to capital (figure 2-7). Such declines are consistent with the sus-

Investment efficiency declined in the 1990s...

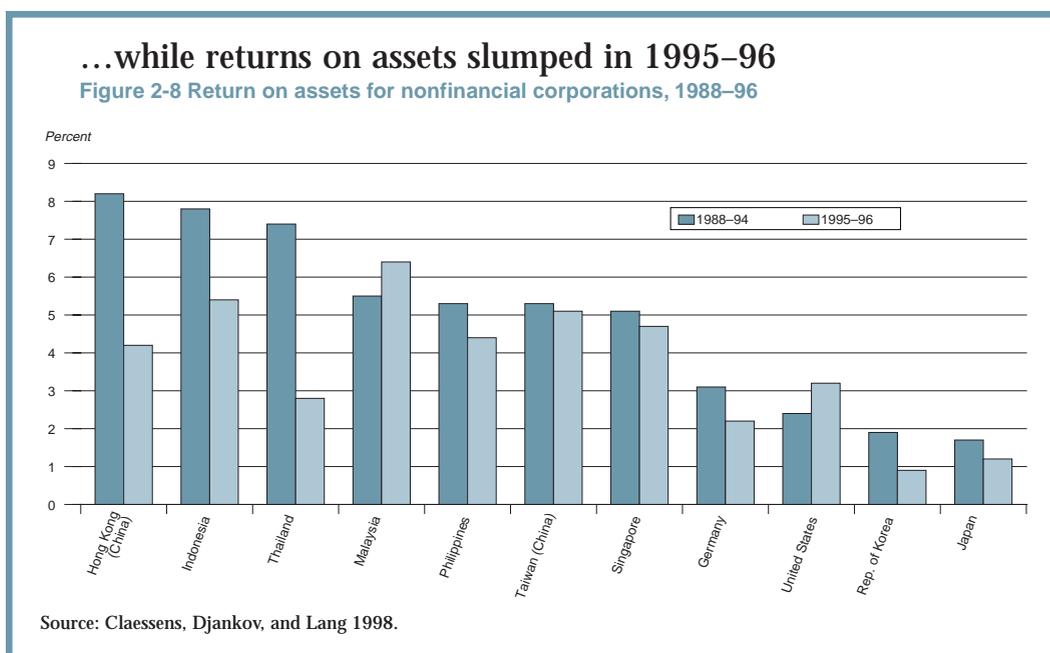
Figure 2-7 Incremental capital output ratios, 1973-96



Source: World Bank data and staff estimates.

tained, exceptionally high rates of investment in East Asia in the 1990s, as well as with some deterioration in investment quality during a credit and investment boom.⁸ Credit booms occur in times of general prosperity and rising asset prices, conditions that increase the information problems facing banks by temporarily boosting borrower collateral, making most firms appear profitable and blurring differences between good and bad long-run risks. The likelihood of credit flows into poor investment projects increases (Gavin and Hausmann 1996). The low levels of expertise in screening, selecting, and monitoring loans commonly found in recently liberalized financial systems tend to be further strained by the rapid increase in loan activity. Increased competition in the banking sector in the wake of financial liberalization also tends to reduce the franchise value of banks, which also encourages more risk taking.

Incremental capital output ratios in the recent period had not significantly exceeded the upper end of their range over the past 25 years, however. Similarly, while accounting rates of return on assets of nonfinancial corporations in some East Asian countries fell sharply in 1995–96, average returns in most East Asian countries in 1988–94 had run in a relatively high 5 to 8 percent range (figure 2-8). Claessens and others (1998) comment that “These ROAs [returns on assets] can be compared to ROAs in mature market economies of about 1–3 percent, providing support to the notion that the corporate sector contributed significantly to the East Asian Miracle during most of this period.” Indeed, it is only in Korea and Japan, among East Asian economies, that returns on assets were persistently low over the period. These patterns make it more difficult to argue that the decline in investment productivity in the mid-1990s was in all



cases a long-run trend related to long-standing structural distortions or rigidities associated with a single East Asian model of development, rather than a characteristic element in the buildup of vulnerabilities in a credit and investment boom.⁹

The combination of high leveraging and deteriorating returns among nonfinancial firms in the mid-1990s translated into a decline in the quality and an increase in the riskiness of bank loans to the private sector. In East Asia, bank fragility rose as lending to higher risk firms and sectors increased, especially loans for real-estate and stock market speculation. Property is estimated to have accounted for 25–30 percent of total bank loans in Indonesia and 30–40 percent in Thailand and Malaysia (J.P. Morgan 1998a). But weaknesses in banks' loan books were concealed so long as there was strong growth, and asset prices continued to rise. Indeed, nonperforming (bad) loans relative to total loans were generally estimated to be at modest levels and in several cases to be falling in the runup to the crisis, even though underlying conditions were worsening (IMF 1997).¹⁰ When macroeconomic conditions became less favorable, however, bad debt problems quickly came to the fore and played an important part in precipitating the crisis.

The links between financial sector liberalization, credit booms, and banking crises in East Asia is corroborated in a growing body of cross-country research. A recent study of 53 countries in 1980–95 finds a strongly significant association between the probability of a banking crisis and earlier financial liberalization (proxied by the removal of interest rate controls) (Demirgüç-Kunt and Detragiache 1998). The study also

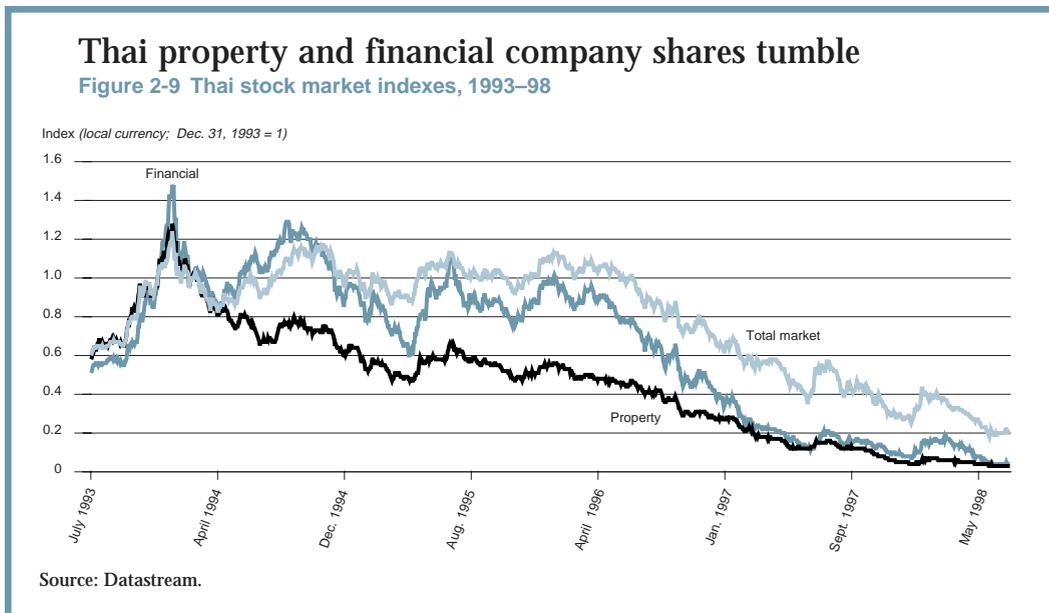
finds an association between the probability of banking and other characteristics of the financial system, such as rapid credit growth and vulnerability to currency crises, (as represented by high levels of M2 to foreign reserves), and macroeconomic factors that increase corporate distress among borrowers, such as slower economic growth, falling terms of trade, and high real interest rates. The study does find, however, that the likeli-

In East Asia, bank fragility rose as lending to higher-risk firms increased, especially loans for real-estate and stock market speculation.

hood of a crisis following financial liberalization is lower where there is a stronger institutional environment for the proper operation of financial markets, as measured by indexes for the rule of law, corruption, the quality of contract enforcement, and the quality of the bureaucracy.¹¹

Outbreak and spread of the crisis

Two main events triggered the crisis in Thailand in 1997. The first was the bursting of the bubble in asset prices. Real estate values had turned down as early as 1992, while stock market prices, especially those for property and financial company shares, began to decline in 1994 (figure 2-9). Asset price declines dragged down the value of borrowers' net worth and collateral, precipitating a deterioration in the quality of banks' and finance companies' loan portfolios and balance sheets. Construction activity began to fall sharply in 1996.



The second trigger was the abrupt slowdown in export growth in Thailand and many other East Asian countries in 1996. The slowdown appears to have been caused mainly by cyclical factors: falling world import demand, a sharp cyclical downturn in world semiconductor demand, and appreciation of many pegged Asian currencies as the U.S. dollar rose against the yen and other major currencies.¹² A swing toward fiscal contraction in Japan in 1997 contributed to slowing demand growth in the region, as well as to accelerating weakness in the yen. This harsh external shock reduced sales revenue and corporate cashflow growth in the export-oriented manufacturing sector, leading to further deterioration in bank asset portfolios. Private investment and consumer demand growth slowed, the latter reflected, for example, in large declines in Thai automobile and department store sales in 1996.

A more flexible currency regime (a floating rate or a floating rate inside broad target bands) could have allowed the real exchange rate to adjust to weaker external conditions and, more important, could have made local borrowers more aware of the true foreign currency risk. Banks and corporations, assuming that the currency peg was there to stay, piled on more short-term foreign debt as a (supposed) low-cost and low-risk financing option to tide over a (presumably) temporary economic downturn. Thailand's short-term borrowings from Bank for International Settlement banks rose by \$15 billion between the end of 1994 and the end of 1996.

Significantly, Thailand had been one of the countries more seriously affected by contagion effects in the wake of the Mexican crisis at the end of 1994. Speculative pressure on the currency recurred several times thereafter, and intensified in 1996

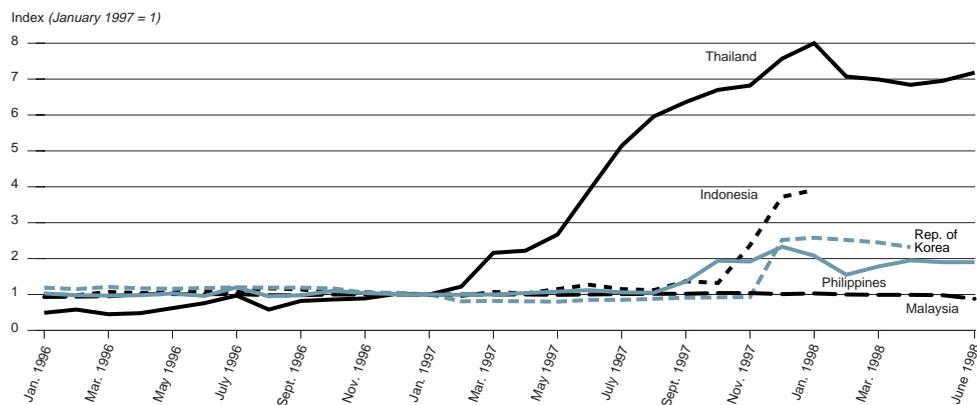
and 1997 as the difficulties of Thai financial intermediaries and corporations became more obvious. The authorities defended the exchange rate peg during these episodes by raising interest rates and using foreign exchange reserves. These defenses lacked credibility, however, since investors understood that the authorities would ultimately be unwilling to inflict the kind of damage on the financial and corporate sector that would be caused by the sustained high interest rates necessary to defend the peg indefinitely. Highlighting this implicit contradiction, the central bank began massive liquidity infusions to support ailing commercial banks and finance companies in December 1996. In the next six months, these credits increased four times in real terms, providing the backdrop for the intensifying pressure on the exchange rate that culminated in the floating of the currency in July 1997 (figure 2-10). Central bank credit to finan-

cial institutions rose from 2 percent of GDP at the end of 1996 to 15 percent at the end of 1997. Central bank credit to the financial system also rose sharply in Indonesia and Korea immediately before, or at the time of, significant declines in their currencies.

It is common for central banks to provide short-term loans as an immediate measure to support a troubled banking system. The problem is to distinguish between lending that may be justified as temporary liquidity support to solvent banks, and lending that is an unsustainable attempt to prop up fundamentally insolvent banks. The central bank's ability to maintain an exchange rate commitment erodes as it monetizes its support for the banking system or issues debt to finance it, raising expectations of a future monetization. Even without a central bank bailout, chronic banking difficulties may reduce the central bank's ability to raise interest rates or take other measures to

Central banks prop up ailing banks and finance companies

Figure 2-10 Real central bank credit to banks and other financial institutions, January 1996–June 1998



Source: International Monetary Fund, IFS, deflated by CPI.

maintain an exchange rate peg. Consistent with these arguments, there is considerable evidence that banking crises are significant precursors of subsequent balance of payments or currency crises (Kaminsky and Reinhart 1996; Calvo and Mendoza 1996; Sachs, Tornell, and Velasco 1996). In a sample of 20 countries in 1970–95, for example, 56 percent of banking crises were followed by a currency crisis within three years, although only 12 percent of currency crises were followed by banking crises in the same interval (Kaminsky and Reinhart 1996).

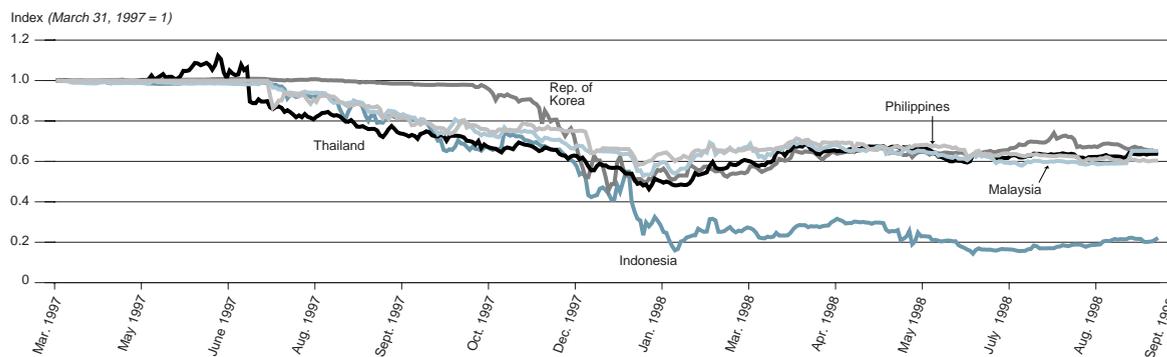
Spread of the crisis

Pressure on the currencies of neighboring Southeast Asian nations built quickly after the fall of the Thai bhat, leading to the floating of the Malaysian ringgit and Philippine peso in mid-July 1997 and the Indonesian rupiah in mid-August. All four currencies declined by 25–30 percent against the U.S. dollar between June and

the end of November. After that the rupiah entered a second phase of deep decline, while the other three currencies, moving closely together, began to stabilize (figure 2-11). The rupiah fell by a further two-thirds between the end of November 1997 and the end of January 1998, accompanied by a two-thirds increase in central bank loans to commercial banks aimed at propping up a failing financial system, and a two-thirds increase in loans by commercial bank to their own faltering private sector customers. Mounting political instability added to the pressure on the exchange rate. In Korea, growing bankruptcies of major conglomerates in 1997 fueled concerns about the health of the corporate sector. The won was forced to devalue at the end of October, as international banks failed to roll over large volumes of maturing short-term debts. The won fell 50 percent in two months before partially stabilizing. With the attack on the won, capital outflows and

Most crises currencies have moved together closely

Figure 2-11 Exchange rate indexes, March 1997–September 1998



Note: U.S. dollar per local currency exchange rates.
Source: International Monetary Fund.

speculative pressure on currencies spread within the region—to Hong Kong (China) and Taiwan (China)—and then, outside the region—to Argentina, Brazil, Mexico, and Russia. Although these pressures were largely fended off, they returned with redoubled energy later in 1998, leading to Russia's devaluation of the ruble and declaration of a debt moratorium in August; this then contributed to a severe, more generalized downgrading of emerging market financial instruments and intense pressure on currencies in Latin America and other emerging markets.

The sequence of events in East Asia confirms several patterns seen in earlier major currency crises of the 1990s, such as the European Monetary System crisis of 1992 and the “tequila crisis” of 1994–95. First, currency crises do not occur randomly in time but are clustered, appearing to pass contagiously from one country to another. Second, a currency crisis in one country significantly increases the probability of a crisis in other countries, even after controlling for domestic macroeconomic fundamentals. Third, crises also tend to be clustered geographically, for example in Europe in 1992,

in Latin America in 1994–95 and, at least initially, in East Asia in 1997.

Thus in East Asia most currencies fell by large and similar amounts (except for Indonesia's, which fell furthest) despite substantial differences in conditions (table 2-5). Current account deficits varied considerably (highest in Thailand, lowest in Indonesia), as did overall external debt burdens. Ratios of short-term debt to foreign reserves, a critical indicator of vulnerability to speculative attack, were high in Thailand, Indonesia, and Korea, but lower in Malaysia and the Philippines. Export growth had slowed dramatically throughout much of the region in 1996, but the slowdown was most severe in Thailand, where it persisted through 1997. However, countries like the Philippines maintained high double-digit export growth through 1996 and 1997, while others, such as Indonesia and Korea, saw a recovery in export growth in 1997. In the domestic economy, the extent of financial sector weakness as reflected in measures of credit booms, exposure to the real estate sector, and nonperforming loans also varied significantly.

Despite different conditions, most currencies fell by similar amounts

Table 2-5 East Asia: selected macroeconomic and financial sector conditions, 1996–98

(percent)

	Ratio of current account deficit to GDP 1996	Ratio of nonperforming loans to bank assets 1997	Ratio of real-estate exposure to bank assets 1997	Change in reserve money Jan. 1997–Jan. 1998	Change in real exchange rate June 1995–June 1997	Change in real exchange rate June 1997–Jan. 1998
Indonesia	-3.8	11.0	25:30	362.2	14.0	-68.0
Korea, Rep. of	-4.7	16.0	15:25	4.4	2.5	-41.6
Malaysia	-4.9	7.5	30:40	25.8	9.3	-34.2
Philippines	-4.8	5.5	15:20	12.1	20.0	-30.2
Thailand	-7.9	15.0	30:40	13.4	16.1	-44.2

Source: World Bank data; International Monetary Fund; J.P. Morgan 1998a.

While a full analysis of contagion effects in the East Asian crisis still remains to be done, the wide range of conditions in the region is consistent with earlier results that the transmission of currency crises is only partially explained by domestic economic fundamentals. The East Asian crises are also consistent with earlier evidence that currency crises tend to be transmitted between countries with strong trade links.¹³ Among the five crisis countries, exports to the East Asia region (excluding Japan) average 31 percent of total exports and range from 24 percent in the Philippines to 40 percent in Malaysia. East Asian countries

Recession in one country can reduce demand for other countries' exports, and devaluation in one can increase competitive pressure on others' exports in world markets.

also tend to be more represented in each others' export markets than in the world market, suggesting a greater degree of competition with each other than with countries from other regions (Bhattacharya and others 1998). These channels provide a "fundamentals" rationale for how a crisis in one country can change macroeconomic conditions in others, and make transmission of currency crises more likely. Recession in one country can reduce demand for other countries' exports, and devaluation in one can increase competitive pressures on others' exports in world markets.

Still, the quantitative impact of these fundamental trade channels in the transmission of the crisis from Thailand to the other East Asian countries is likely to have been

limited. For example, Thailand accounts for only 2 percent of the exports of Korea and Indonesia, 4 percent of Malaysia's, and 5 percent of Philippine exports. Similarly, Thailand's share as a competitor in the export markets of the other four countries amounts to only 1–2 percent. Thus Thailand's devaluation creates little pressure for competitive devaluations by those countries. The statistical significance of trade links in contagion may rather reflect the fact that countries near each other geographically tend to trade more,¹⁴ and it is this physical proximity that coordinates and focuses international investors' fears about country vulnerabilities, such as high short-term debt to foreign reserve ratios. These ratios had been high for several years without provoking much concern, but, once Thailand was attacked, a creditor panic or run on inadequate foreign reserves in Korea and Indonesia became much more likely. In addition, the importance of fundamental trade channels rises with each additional neighboring country affected by contagion, so that once a number of neighbors have suffered crises, trade channels become more important in amplifying pressure on currencies in the region.

The issue of contagion has important implications for policy. First, if an attack on one country has adverse effects on other countries unrelated to any fundamental weaknesses, there is a stronger argument for coordinated multilateral action to stem the spread of the contagion. Second, the same circumstances mean that there can be a stronger rationale at the national level for greater caution on full liberalization of the capital account, or for the use of carefully designed controls on short-term capital

inflows to developing countries. Third, the regional dimension of contagion and the role it plays in intensifying currency and other economic pressures in each country may provide a stronger rationale for coordinated regional responses to the crisis.

Impact on the real economy

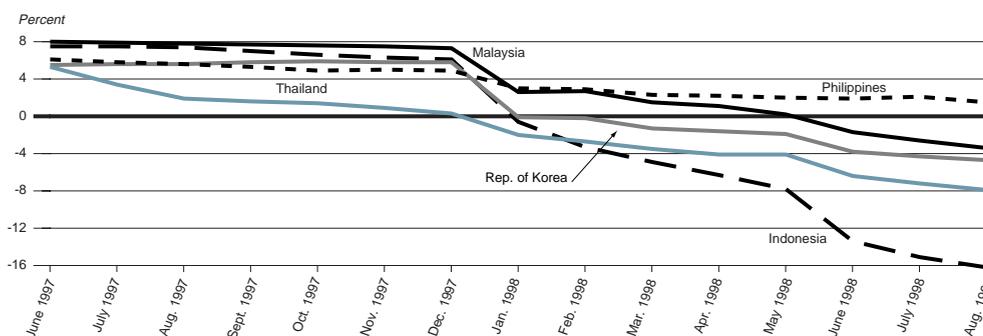
Experience in many countries shows that financial crises can produce deep and prolonged downturns in the real economy. Even a relatively mild financial crisis can initiate or exacerbate a downturn, as seen in the contribution of the U.S. savings and loan episode to the U.S. recession of 1990–91. One implication is that policymakers need to take account of the high degree of uncertainty during financial crises. In particular, they need to take account of the downside risk of a shortfall in demand, pushing a weak economy into deep recession through a vicious circle of bankruptcy, financial market collapse, and further declines in demand.

Most initial estimates of the impacts of the financial crisis in East Asia on the real

economies of the region (not least those in last year's Global Economic Prospects) vastly underestimated their depth and duration. Consensus estimates of GDP growth for 1998 were progressively cut over the year since the outbreak of the crisis (figure 2-12). This widespread over-optimism was at variance with a range of indicators showing a weakening in domestic demand even before the outbreak of the crisis, as well as with accepted macroeconomic reasoning and empirical evidence on the impact of financial crises on the real economy. Such optimism may have been based on the 1994–95 crisis in Mexico, where output fell sharply for two quarters but began growing thereafter, led by a powerful expansion in exports (figure 2-13). But differences in the Mexican case may have made it a misleading analogy, and basing the initial policy responses in East Asia on an overly optimistic scenario may have made it more difficult to protect against the worst outcomes—and may even have exacerbated the downturn.

Last year's forecasts on GDP growth were over-optimistic

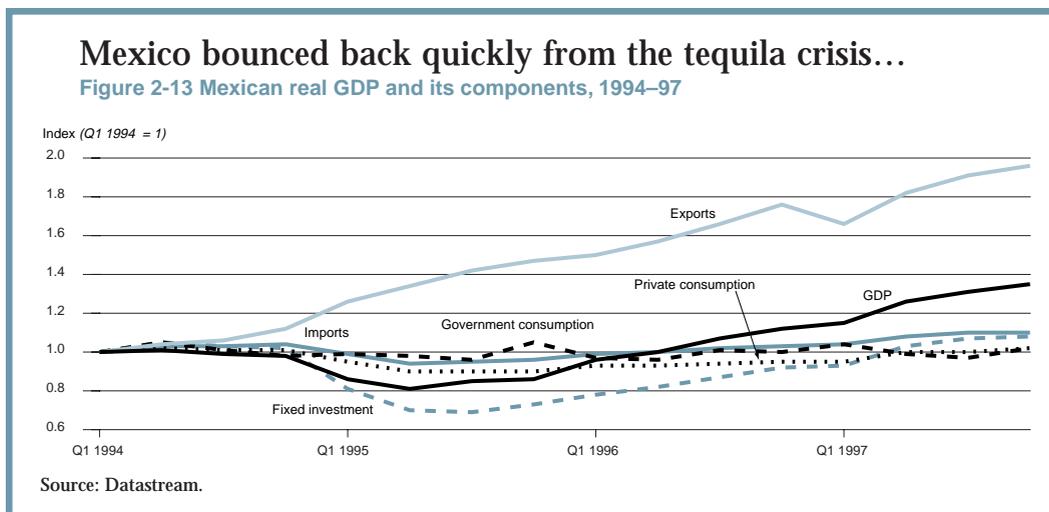
Figure 2-12 Evolution of consensus forecasts for 1998 GDP growth in East Asian crisis countries, June 1997–August 1998



Source: Consensus Forecasts, Inc.

Mexico bounced back quickly from the tequila crisis...

Figure 2-13 Mexican real GDP and its components, 1994–97



The collapse in the near-term growth outlook in East Asia has been driven by large declines in private aggregate demand, private investment in particular, even without taking into account possible effects of the monetary and fiscal policies taken as initial responses to the crisis. Contributing to the contraction of private demand were the decline in external financing to the region, and the impact of falling asset prices, deteriorating balance sheets, rising interest rates, and high uncertainty on credit supply, and on private investment and consumption. Moreover, various domestic and international factors resulted in a weaker export response to currency devaluation in some of the crisis countries than initially expected.

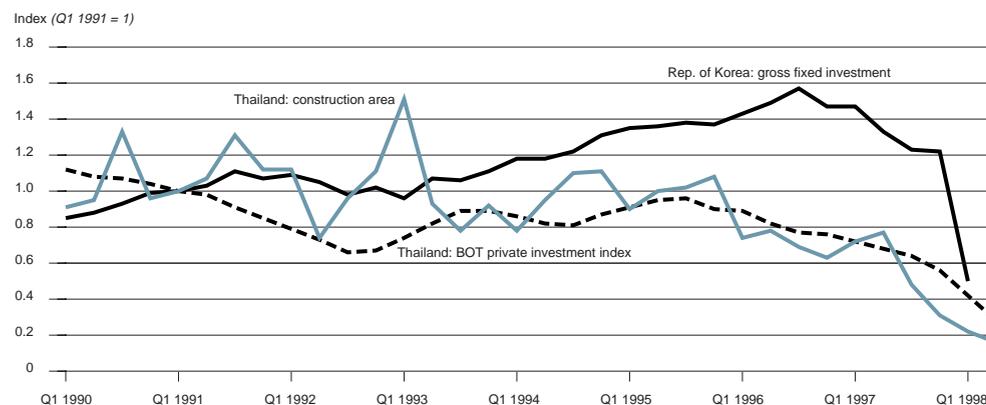
Private investment. Indicators showed a weakening in private investment in several countries even before the Thai crisis. In Thailand, construction activity and the Bank of Thailand's composite monthly index of private investment activity were moving downward from early 1996, while in Korea large corporate bankruptcies were

on the rise and gross fixed capital formation was weakening through 1997 (figure 2-14). Rates of decline in investment accelerated sharply with the currency crises, as external financing was suddenly closed off, reducing the availability of savings for investment and of foreign exchange for imports of capital equipment. In 1996 current account deficits (an approximate measure of capital inflow) represented 10–20 percent of gross domestic investment in the crisis countries, being channeled to firms either directly through corporate foreign borrowing or indirectly through the domestic banking system. Other things being equal, the sudden shutting down of capital inflows would be reflected in East Asian firms facing much tighter quantitative constraints on credit and a higher cost of capital.¹⁵

The macroeconomic adjustment forced by the loss of external financing is vividly illustrated by the size and rapidity of the move from external current account deficits to surplus in the crisis countries. There was a net swing in Korea's quarterly current

...but things were very different in East Asia

Figure 2-14 Private investment indicators in East Asia, 1990–98



Source: Datastream.

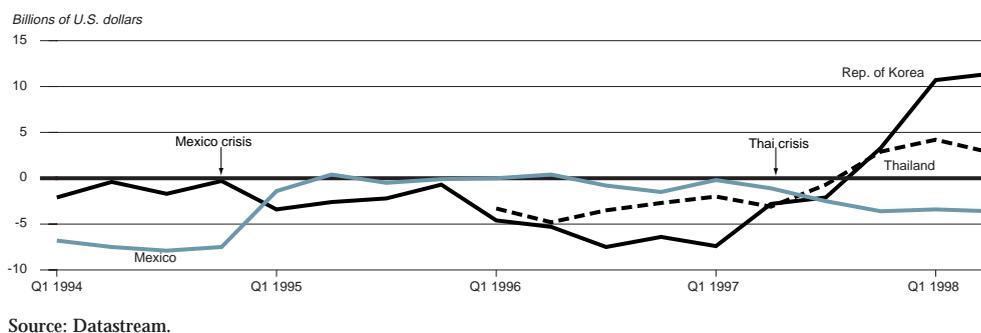
account balance of about \$15 billion between the second quarter of 1997 and the second quarter of 1998, or 12 percent of its precrisis (1996) average quarterly GDP. The net swing for Thailand amounted to 13 percent of precrisis GDP. Both were substantially larger than the 7 percent swing in Mexico between the last quarters of 1994 and 1995 (figure 2-15).¹⁶ Fixed investment in Korea fell almost 60 percent in the first quarter of 1998, three times the fall in Mexico in the first quarter of 1995. The current account adjustment was more severe in East Asia in part because less emergency funding was made available. Indonesia, Korea, and Thailand together received about \$118 billion, about the same amount relative to GDP as the \$50 billion package Mexico received. Some \$44 billion of the Korean and Indonesian packages was contingent second line of defense funds from individual governments, with little chance of early disbursement. Indeed, only about \$35 billion was disbursed by the end

of the first quarter of 1998, mostly by the multilateral institutions (IMF 1998; Radelet and Sachs 1998b).

Other factors worsening the financial conditions facing East Asia firms include the bursting of asset price bubbles, leading to enormous declines in real estate and stock prices, and the huge increase in the local currency cost of servicing foreign debt brought on by devaluation. Together these factors dramatically reduced the value of firms' net worth, rendering many of them insolvent; reduced the value of security on bank loans to firms; and greatly increased banks' stock of bad loans. Private sector estimates of nonperforming loans of the domestic banking system range from 25–30 percent of total loans for Korea and Thailand, to 30–35 percent for Indonesia (J.P. Morgan 1998b). These conditions increase banks' difficulties in finding out about, selecting, and monitoring borrowers, leading to less credit availability at given interest rates—a “credit crunch.”¹⁷

Thailand's and Korea's current account adjustments were much greater than Mexico's

Figure 2-15 Mexico, Republic of Korea, and Thailand: current account balances, 1994–98



When firms are already highly leveraged, as in East Asia, these effects are magnified, since a fall in asset prices reduces net worth by a greater proportion. Emergency sales of assets by credit-constrained firms can cause a vicious circle of further asset price and net worth declines that affect more and more firms, including those that had followed a relatively prudent, lower leverage policy. Some such process of amplification of financial shocks (such as the bursting of an asset price bubble or a devaluation) appears necessary to explain the astonishing asset price declines in East Asian countries, where stock prices, especially for property and financial companies, have fallen to less than 20 percent of their level 4–5 years ago in nominal local currency terms.¹⁸

Adverse selection problems in financial markets are also likely to have been worsened by higher interest rates in the immediate aftermath of the currency crises. Higher rates affect firms' net worth by putting further downward pressure on asset prices and, where firms have high volumes of short-term

or floating-rate debt, by reducing firms' free cash flow. More uncertainty, as a result of high volatility in exchange rates, asset prices, and macroeconomic variables, is another key factor that tightens credit conditions by increasing the informational difficulties of sorting out good risks from bad (Mishkin 1996). Higher uncertainty also tends to lower investment (where the investment is irreversible) by increasing the value of waiting for more information about the investment environment.¹⁹ According to Rama (1993), virtually all studies of investment in developing countries that look at uncertainty (measured as the volatility of various macroeconomic indicators) find it to have a significant adverse impact.

Direct evidence suggests the existence of a credit crunch to varying degrees in the five most severely affected East Asian countries.²⁰ Data on credit aggregates are of only limited value, however, since they are the outcome of both demand and supply factors. Lower bank lending may reflect a fall in demand for credit, as firms scale

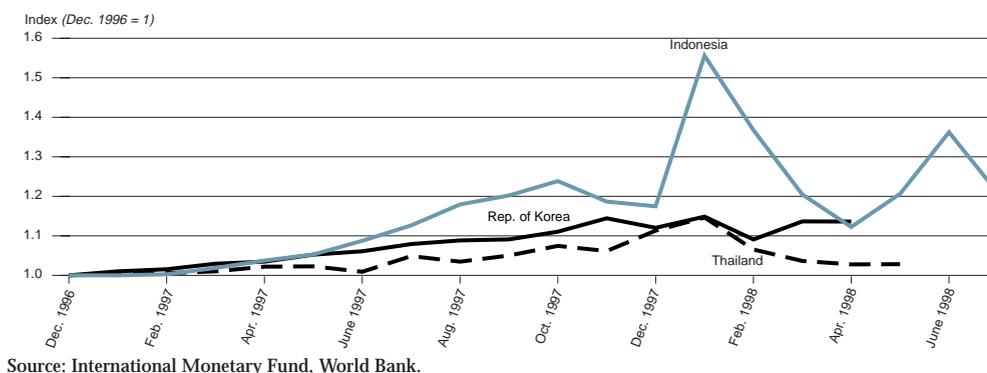
back investment plans, as much as a greater unwillingness by banks to lend. In the first half of 1998, volumes of real bank credit to the nonfinancial private sector in Indonesia, Korea, and Thailand were flattening out, though in a highly erratic manner, and in Indonesia only after the credit explosion at the start of the year noted earlier (figure 2-16). Studies in the United States and elsewhere suggest that at first lending continues to grow, as firms attempt to smooth declines in internal cash flow by borrowing more, earlier in the cycle. Credit begins to fall only six to nine months after a monetary tightening.²¹ In East Asia much new lending is also likely to represent a rollover of bad and doubtful debts, capitalization of interest arrears (which themselves will rise because of higher interest rates), and extension of new loans to bad debtors, to avoid declaring them bankrupt and acknowledging large losses. Overall credit aggregates could then conceal a significant tightening of credit to new borrowers.

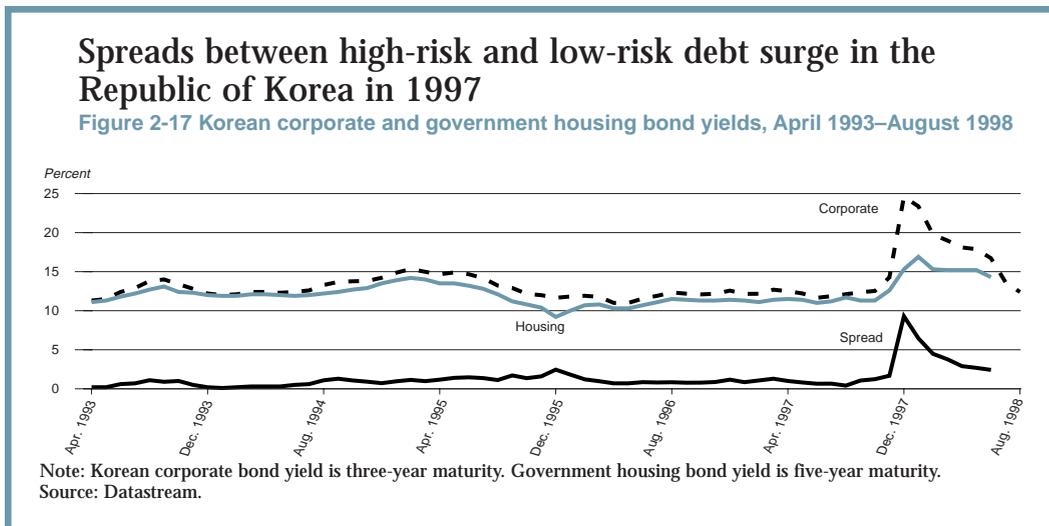
Some evidence for difficult credit conditions comes from rising risk premiums. Spreads between rates charged to high-risk and low-risk borrowers widened—for instance, between yields on corporate bonds and government housing bonds in Korea (figure 2-17). Other evidence comes from the sharper impact of the recession on capital spending by small firms, which generally have weaker balance sheets, have less access to corporate bond markets, and rely more on bank financing. Survey data from Korea shows small- and medium-size firms expecting to raise a significantly smaller share of their total funding from financial institutions, and a decline of around two-thirds in their fixed investment spending in 1998.

How much is investment in East Asia likely to fall? Using estimated coefficients from an empirical study of private investment in East Asia, a rough calculation can be made of the potential impact of the crisis on private investment in Thailand in 1998 (Larrain and Vergara 1993). This indicates a

Real bank credit to corporations flattened out in the first half of 1998

Figure 2-16 Real credit extended to nonfinancial private sector, December 1996–June 1998





hefty 9.3 percentage point fall in the ratio of private investment to GDP (table 2-6).²² Over half this fall is associated with heightened uncertainty (proxied here by the coefficient of variation of the real exchange rate), which worsens information problems in credit markets and increases the option value of delaying investment. Another 3 percentage points of the decline is associ-

ated with weakening economic activity. Activity affects investment in two ways—by its impact on expectations of future profitability and by its impact on the current profitability, cash flow, and net worth of credit-constrained firms (Romer, D. 1996). In common with most studies on investment in developing countries, credit to the private sector has a significant positive association

More uncertainty could account for much of the fall in private investment in Thailand in 1998

Table 2-6 Determinants of private investment in East Asia as applied to Thailand, 1997–98

	Coefficient	T-statistic	1997	1998	Change
Dependent variable: real private investment ^a			23.50	13.8	-9.3
Explanatory variables					
Uncertainty (coefficient of variation of real exchange rate) ^b	-1.402	-2.94	0.04	0.2	-5.2
Activity (previous year change in per-capita real GDP)	0.019	4.76	5.00	-2.0	-3.1
Real public investment ^a	0.178	2.78	10.00	10.0	0.0
Debt overhang (external debt) ^a	-0.153	-3.39	59.60	72.5	-0.7
Credit to private sector ^a	0.177	2.48	114.00	110.0	-0.1
Real interest rate	-0.015	-2.20	10.00	12.0	-0.1

Note: Adjusted R-squared: 0.919; S.E. of regression: 0.082; number of observations: 54.

a. Percentage of GDP, shown in levels in table but calculated in logs in estimation.

b. Coefficient of variation over three years.

Source: Larrain and Vergara 1993, World Bank data and estimates; Thailand: Memorandum of Economic Policies, May 28, 1998. Econometric estimates use panel data for four East Asian countries in 1975–88.

with investment. Since actual credit volumes are not in themselves an appropriate measure of the severity of credit constraints, however, they are left out of the calculation. Real interest rates had risen significantly in 1997 and in this model had the bulk of their effect on investment in that year, with only a small further effect in 1998. A direct estimate of the impact of worsening credit conditions cannot be made without appropriate measures. However, the role of credit in magnifying the impact of shocks is implicit in the importance of uncertainty and declining activity as the major forces leading to a contraction in investment (table 2-6).

Personal consumption. In Thailand, and to a lesser degree in Korea, personal consumption indicators were also weakening before the outbreak of the currency crisis (table 2-7), with rates of decline quickly

accelerating after it. Retail sales volumes fell 10–15 percent below levels a year earlier by the first quarter of 1998. Again, the size of the declines was not inconsistent with accepted macroeconomic models and cross-country evidence. Greater imperfections in developing country credit markets mean that consumers are less able to borrow to maintain consumption during temporary downturns. Shocks to current income thus have strong impacts on current consumption, as do fluctuations in wealth, a factor of obvious importance in East Asia given the huge declines in stock market and real estate values.²³

A study of household savings in 10 developing countries (including Korea, the Philippines, and Thailand) estimates that a 10 percentage point fall in the ratio of financial wealth to disposable income proxied by the ratio of M2 money to disposable income is associated with a 2 percentage point fall in the ratio of consumption to income (Schmidt-Hebbel and others 1992). It also finds that a reduction in the availability of foreign savings (a reduction in the current account deficit) has a significant negative impact on household consumption, presumably as a result of tighter credit. Finally, the massive increase in uncertainty during the financial crisis is also likely to have a negative impact on consumer durable purchases, as people increase precautionary savings to guard against bad times, and as they delay purchases to gather more information. C. Romer (1990–1993), for example, argues that the uncertainty generated by the U.S. stock market crash of 1929 and the subsequent financial volatility was a major force in the sharp fall in U.S. personal consump-

Personal consumption was weakening in Thailand and Korea before the crisis

Table 2-7 East Asia: personal consumption indicators

(percentage change from year ago)

	Thailand			Rep. of Korea
	New car sales	Retail Sales		
		Bangkok—38 stores ^a	Entire kingdom		Retail sales
Q1 1996	11.3	0.9		10.9
Q2 1996	3.1	-2.9		10.1
Q3 1996	3.6	-14.4		11.2
Q4 1996	-1.8	-16.8		9.4
Q1 1997	-8.8	-14.7		6.4
Q2 1997	-19.9	-24.0		6.5
Q3 1997	-48.7		-8.0	5.6
Q4 1997	-73.5		-7.3	0.3
Q1 1998	-70.7		-12.3	-9.9
Q2 1998				-10.3 ^b

a. Discontinued.

b. April to May.

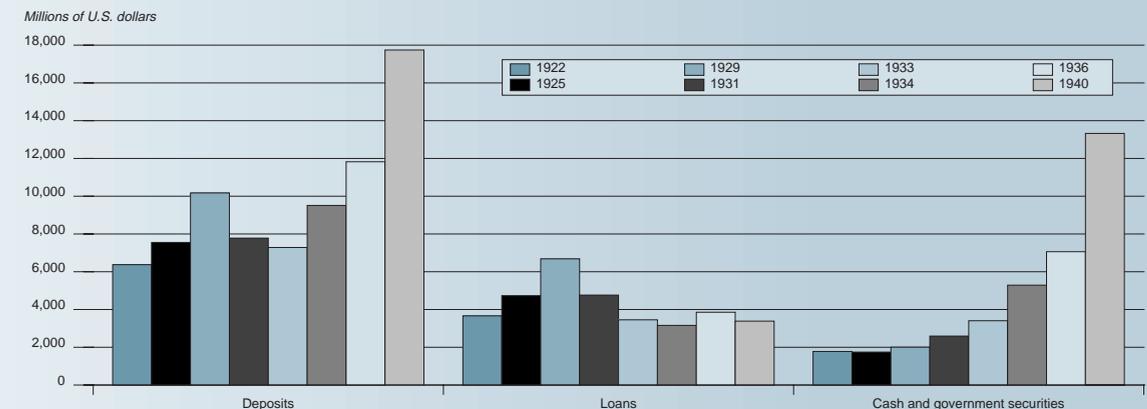
Source: World Bank.

Box 2-1 U.S. banks and the credit crunch during the Great Depression

The U.S. economy witnessed three major business cycle contractions between 1920 and 1940: the recession of 1920–21, the Great Depression of 1929–1933, and the recession of 1937–38. In response to severe loan losses in the early 1930s and high costs of raising new capital, U.S. banks faced pressures to

reduce depositors’ perceptions of risk. They cut dividends but found it difficult to raise new capital. The primary means to reduce depositor risk and prevent withdrawals was contraction in the supply of loans. Banks substituted riskless assets for loans, a process that took place over several years. This is consistent with the view that the

Credit crunch in the Great Depression; New York Fed member banks
Balance sheets of New York City banks, 1922–40



Source: Calomiris and Wilson 1998.

tion in 1930 and the onset of the Great Depression. For the 1980s and 1990s, Hasler (1996) finds a significant negative association between increased financial volatility in Sweden and the United States, and the most important element in consumer durable purchases—automobiles.

Exports. One expected outcome of a large devaluation (combined with a contraction in domestic demand) is a strong export response, which would strengthen the ability of firms to service foreign debts. Such a textbook response indeed occurred in the

aftermath of the Mexican peso crisis, when export growth in U.S. dollar terms almost doubled from 17 percent in 1994 to 31 percent in 1995 (table 2-8). The acceleration in Mexican export earnings growth came from a doubling in export volume growth, while export prices in U.S. dollars remained roughly flat. The export boom was helped by continued economic expansion in Mexico’s major market, the United States (which took 85 percent of Mexico’s exports), and the recent conclusion of the North American Free Trade Agreement (NAFTA), which

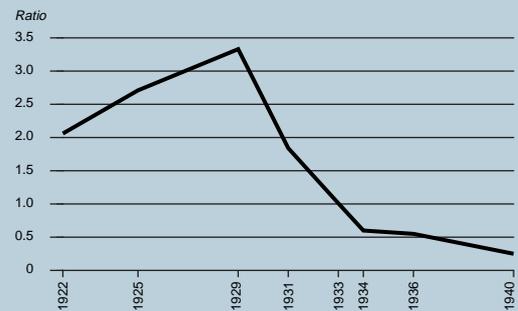
contraction in bank credit during the Depression was largely a result of a capital crunch that forced banks to limit loan portfolio risk. An alternative explanation is that banks became more risk-averse.

Relative to other recessions, the Great Depression saw extreme declines in loan ratios and capital ratios. It was also unusual in another respect: a reduction in deposits by more than 30 percent between 1930–32. The history of American interwar business cycles is reflected in the balance sheets of New York city banks (see box figure left)—rapid loan growth, reductions in the ratio of liquid assets, and large capital injections during the boom of 1922–29—whereas recessions are associated with declines in lending activity, increases in riskless assets, (cash plus government securities), and falls in bank capital.

Clearly, the primary means banks employed for controlling their asset risk was the decline in ratio of risky assets to riskless assets. This variable declined steadily throughout the 1930s. The ratio of the book value of loans to cash, reserves, and government securities rose first from 2.06 in 1922 to 3.33 in 1929, and then fell to 1.89 in 1931 and continued falling, eventually reaching 0.25 in 1940 (see figure right). The alternative would have been for banks to raise new capital. But banks did not replace the capital they lost during the Depression. Virtually no stock was offered after 1930. This is consistent with the view that in the aftermath of the Depression, as the potential for loan losses loomed large, the cost of new stock issues was prohibitive,

A significant decline in lending

New York City banks, loans to cash plus government securities ratio, 1922–40



Source: Calomiris 1998.

and thus banks sought to satisfy the depositor risk constraint by continuing reductions in portfolio risk. Reduction in bank lending was a response to the need to avoid depositor “discipline” and the adverse selection costs of raising equity. The banks’ capital crunch contracted the supply of lending and thus worsened the severity of the Depression.

Source: Calomiris and Wilson 1998

Dollar export revenues in East Asia are flat or only modestly higher

Table 2-8 Growth merchandise export revenues (U.S. dollars), 1994–97 (percent change)

Year	Mexico	Rep. of Korea	Indonesia	Thailand
1994	17.4	16.3	8.7	22.8
1995	31.2	31.0	13.7	25.6
1996	20.9	4.6	8.6	-0.6
1997	15.1	5.1	8.9	3.3
July 1997– June 1998	12.6	6.9	2.6	0.4

Note: Average of 12 months over previous 12 months.
Source: World Bank.

spurred a boom in export-oriented foreign direct investment in Mexico.

Factors suggesting a similar favorable outcome in East Asia included the large size of the currency devaluations, flexible factor markets (allowing for speedy redeployment of resources into export industries), and the strong export marketing channels and experience built up over decades of successful exporting. Set against these positive conditions, however, was the fact that East Asian countries’ principal regional export markets—other East Asian countries and Japan—

were slowing down and entering recession at about the same time. About 50 percent of the exports of the most seriously affected crisis countries go to Japan and the rest of Asia.

Added to this weakness were falling foreign currency export prices. The recession in the region has reduced world demand and prices for primary commodities, such as oil, rubber, and timber, exported by the crisis-affected countries. Foreign currency prices of manufactured exports were also falling sharply as region-wide devaluations and weakness in the yen shifted large new supplies from the region into highly competitive (and in part recession-affected) world markets. In Korea, almost entirely an exporter of manufactures, export volumes in June 1998 were estimated to be 15 percent higher than a year earlier, while export prices in U.S. dollar terms were down 17 percent, resulting in a year-on-year decline in dollar revenues. The picture was the same among the crisis countries generally, with export volumes increases of 15–25 percent in the year since the Thai crisis offset by price declines. The result was flat or only modestly higher dollar export revenues.

In contrast with crises in Mexico and Argentina in 1994–95, initial policy responses had surprisingly little effect in reducing pressure on currencies or stabilizing investor confidence in East Asia.

Thus, while growth in export volumes provides important near-term support for output and employment in an otherwise bleak demand picture, weak foreign currency revenues hamper firms' abilities to resolve their

external debt problems, making a return to financial health, revived investment, and sustainable growth more difficult.

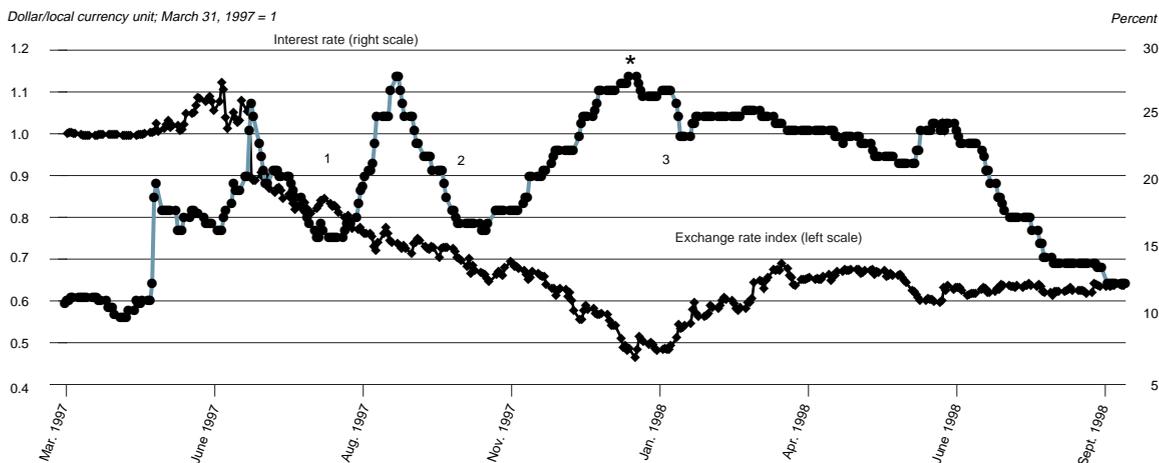
Immediate policy responses

In contrast with the crises in Mexico and Argentina in 1994–95, one of the great surprises in East Asia was how little immediate effect the initial policy responses appeared to have had in reducing pressure on currencies or stabilizing investor confidence. To the contrary, much or even most of the depreciation in currencies occurred after these measures were taken (figure 2-18). This was the case whether the initial package entailed new agreements with the multilateral institutions (Indonesia, Korea, and Thailand) or not (Malaysia and the Philippines).²⁴

Financial and real economic conditions deteriorated much more than expected, requiring several quick changes in initial packages. Some stabilization of currencies occurred in the first part of 1998 in most countries, other than Indonesia. Nominal interest rates have come down in recent months—some to below precrisis levels. In Korea negotiations between the government and foreign commercial banks (supported by the U.S. government) led to a standstill on short-term foreign debt servicing and then to an agreement to roll over and restructure short-term debt. This move toward an orderly workout may have reduced immediate balance of payments pressures on the currency and eased creditor panic. Some have argued that currency stabilization in Thailand may have been encouraged by government guarantees on bank liabilities, including those to foreign

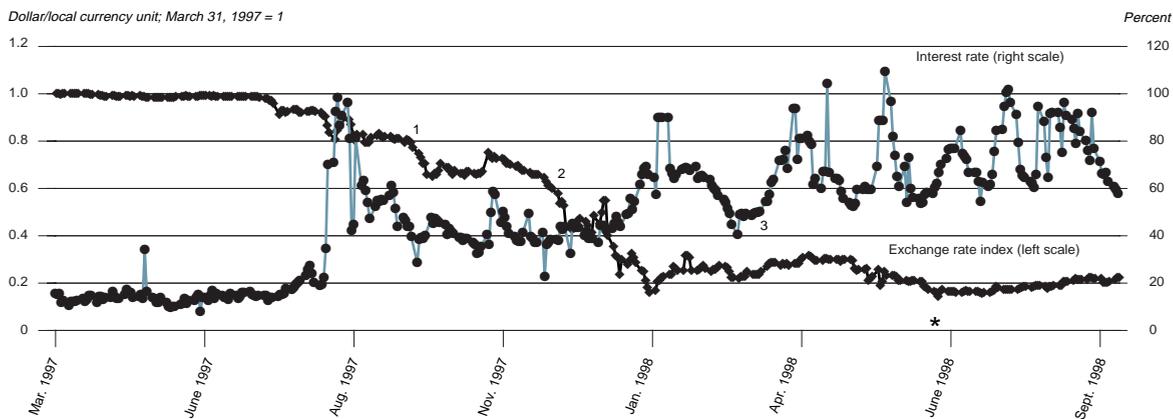
Much of the depreciation in currencies came after initial policy responses

Figure 2-18a Effects of policy responses: Thailand



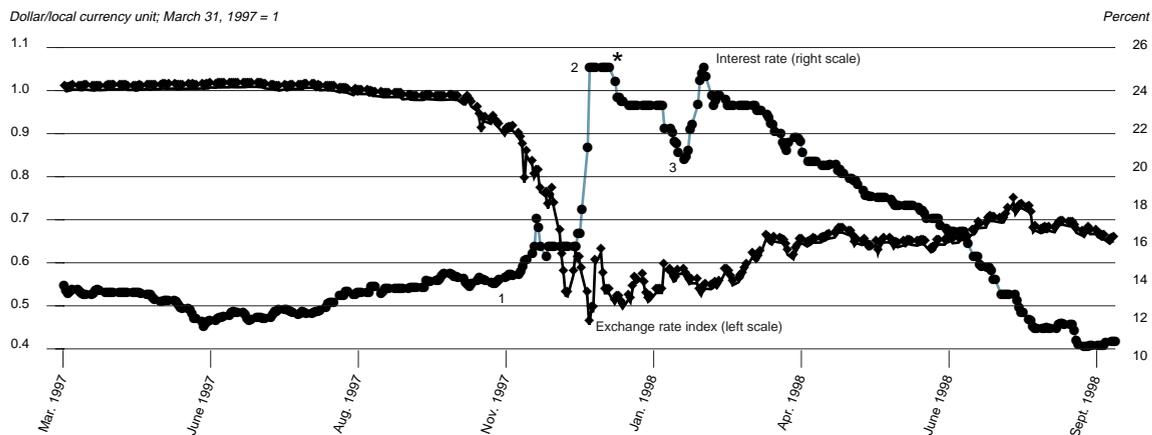
1 – Initial package 2 – First revision 3 – Second revision * Bank liabilities guarantee
 Source: International Monetary Fund, World Bank.

Figure 2-18b Effects of policy responses: Indonesia



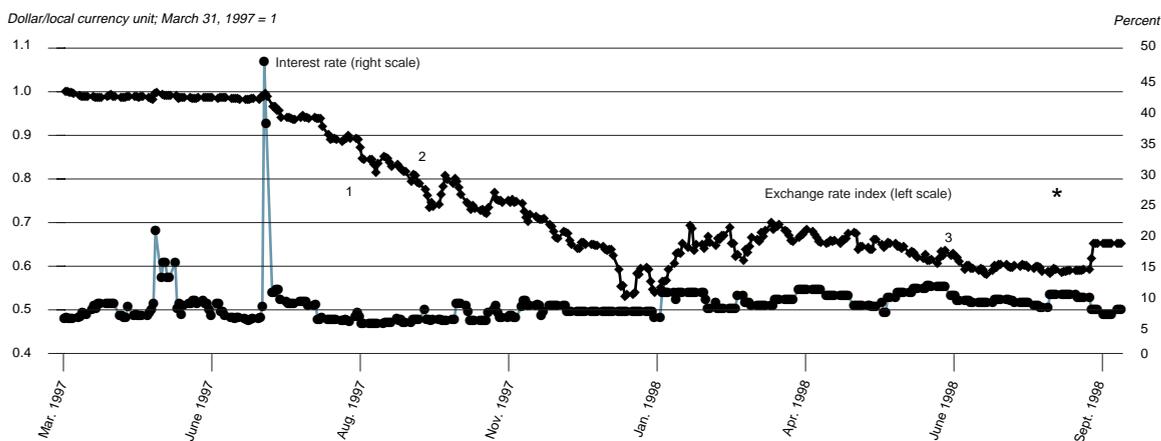
1 – Initial package 2 – First revision 3 – Second revision * Debt restructuring agreement
 Source: International Monetary Fund, World Bank.

Figure 2-18c Effects of policy responses: Republic of Korea

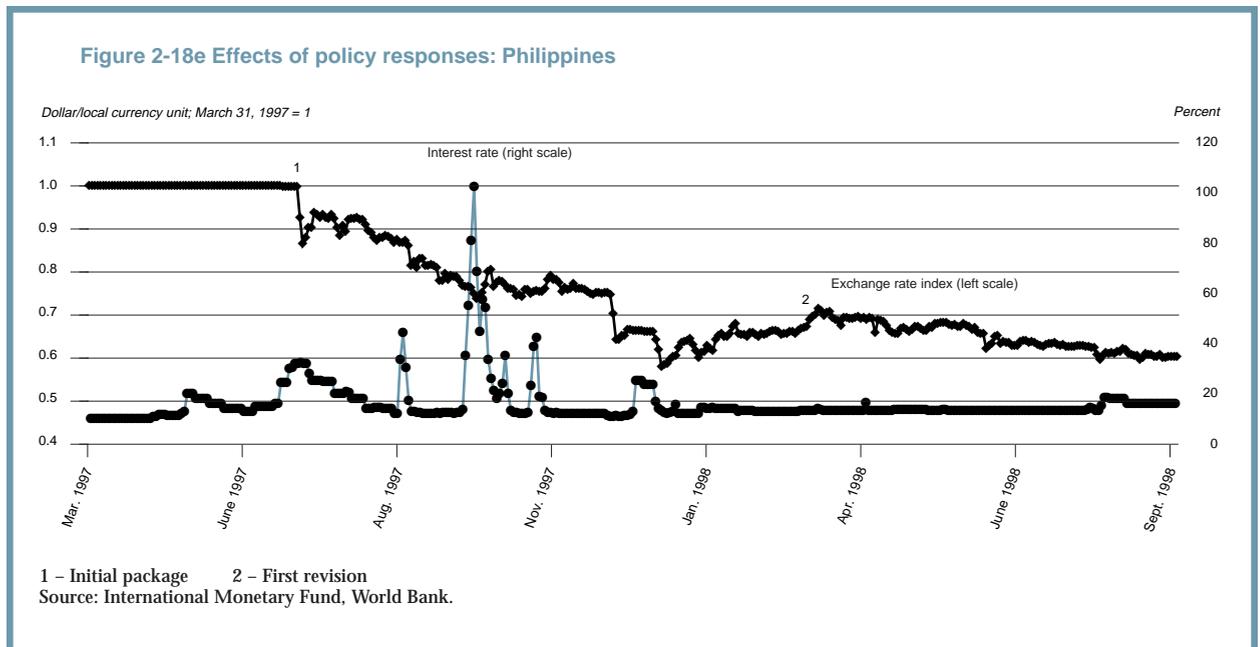


1 – Initial package 2 – First revision 3 – Second revision * Debt restructuring agreement
 Source: International Monetary Fund, World Bank.

Figure 2-18d Effects of policy responses: Malaysia



1 – Initial package 2 – First revision 3 – Second revision * Foreign exchange controls
 Source: International Monetary Fund, World Bank.



creditors (Radelet and Sachs 1998b). In Indonesia, however, a debt workout initiative in June 1998 did little to reverse what by then amounted to an 80 percent nominal devaluation.

Initial programs agreed with multilateral institutions called for some \$118 billion in loan commitments from multilateral and bilateral sources to help stabilize exchange rates and provide resources for repayment of debts to international creditors, although East Asia appears to have had less immediate access to disbursements than Mexico in 1995. Countries agreed to fiscal tightening to preserve budget balance or surplus, and to adopt more restrictive monetary policies (higher nominal interest rates, quantitative targets for domestic credit aggregates) to support exchange rates and curb inflation. Other important elements of initial programs included commitments to restructure the financial sector and adopt structural

reforms to further liberalize foreign trade and investment and deregulate domestic markets, including elimination of monopolies and other restraints on trade, privatization, and removal of price controls and subsidies. Initial responses in countries without agreements with the multilateral institutions, such as Malaysia, agreed with the emphasis on fiscal tightening, but differed on other provisions, such as the stance of monetary policy.

Fiscal policy

Fiscal balances in the affected countries had all been in surplus or virtual balance through the 1990s, so that excess demand generated by fiscal imbalances was not among the main sources of the crisis. Indeed, given the plunge in private investment and consumption, weak rather than excess aggregate demand became the principal macroeconomic characteristic of the

crisis economies in late 1997 and in 1998. From the onset of the crisis through early 1998, fiscal policies (contrary to their design and with benefit of hindsight) were contractionary. If the initially announced fiscal targets had been implemented, they would, indeed, have been strongly contractionary. As the severity of recessions became apparent, however, the aim of achieving fiscal balance or surplus was quickly relaxed and more stimulative measures adopted (table 2-9).

While adopting fiscal policies that are more supportive of economic activity in the near-term as a first priority, policymakers also face the daunting task of making prudent medium-term provisions for the expected high fiscal costs of financial sector restructuring. Estimating the fiscal costs of restructuring has just begun and will likely not be completed for some years. Preliminary private sector estimates of bank recapitalization needs range from 20 percent of GDP for Indonesia and

Malaysia, to 30 percent for Korea and Thailand (table 2-10).²⁵

Fortunately, the most seriously affected countries are relatively well placed to take on these costs because of their earlier fiscal prudence and resultant low levels of public debt (figure 2-19). These relatively low starting points make it more feasible to finance restructuring through increased government borrowing, either foreign (for example, from multilateral institutions) or domestic, since the resulting higher government debt to GDP ratios could be stabilized by primary fiscal balances not too different from those before the crisis (table 2-10).²⁶ In Thailand, for example, government borrowing to finance the entire financial restructuring would raise the ratio of government debt to GDP from 4 percent in 1996 to 34 percent. The primary fiscal surplus needed to stabilize this debt depends on how far the real rate of interest in Thailand exceeds the growth rate of the economy. But for a reasonable range the implied primary surpluses

Initial fiscal targets were contractionary, but were relaxed as recession worsened

Table 2-9 Central government fiscal balances, 1987–98
(percentage of GDP)

	1987-91	1992-96	1996	1997	1998			
					Initial package	First revision	Second revision	Third revision
Indonesia—Fiscal balance	-1.0	0.9	1.2	-0.2	1.0	-1.0	-3.0	-8.5
Primary Balance	1.6	2.7	2.4					
Korea, Rep. of—Fiscal balance	0.0	0.2	0.5	0.3	0.0-0.3	0.0-0.3	-0.8	-1.8
Primary balance	0.7	0.8	1.1	0.8				
Malaysia—Fiscal balance	-3.9	0.7	1.1	2.6	2.5	0.5	-3.5	
Philippines—Fiscal balance	-2.6	-0.1	0.3	-0.9	0.0	-1.0	-3.0	
Thailand—Fiscal balance	2.1	2.4	2.4	-0.9	1.0	1.0	-1.6	-2.4
Primary balance	4.3	3.0	2.5	-0.6				

Note: The primary balance includes interest on government debt. Data above for Indonesia refer to fiscal year starting that year (1997 refers to FY1997/98 April to March) and that for Thailand ending in that year (1997 refers to FY1996/97 October to September).

Source: IMF International Financial Statistics; World Bank data and staff estimates: Rep. of Korea 1997a, 1997b, 1998a, 1998b; Indonesia 1998a, 1998b; Thailand 1998a, 1998b. 1998 excluding projected interest costs of financial restructuring.

Bank recapitalization costs will be high, but fiscal surpluses needed to finance them are not large

Table 2-10 Fiscal costs of financial restructuring
(percentage of 1996 GDP)

	Government debt	Cost of financial restructuring	New government debt	Primary fiscal surplus needed to stabilize new debt-to-GDP ratio assuming a gap between real interest and growth rates of:			
				1%	2%	3%	4%
Indonesia	24	19	43	0.43	0.86	1.29	1.72
Korea, Rep. of	9	30	39	0.39	0.78	1.17	1.56
Malaysia	36	20	56	0.56	1.12	1.68	2.24
Thailand	4	30	34	0.34	0.68	1.02	1.36

Note: End-1996 government debt numbers are used because 1997 data are not yet fully available.
Source: IMF International Financial Statistics; J.P. Morgan 1998b; Daniel 1997.

are all substantially less than the 3–4 percent of GDP that Thailand averaged between 1987 and 1996.²⁷ Restoring the economy to fast growth and full employment is, therefore, an important condition to help medium-term fiscal stabilization.

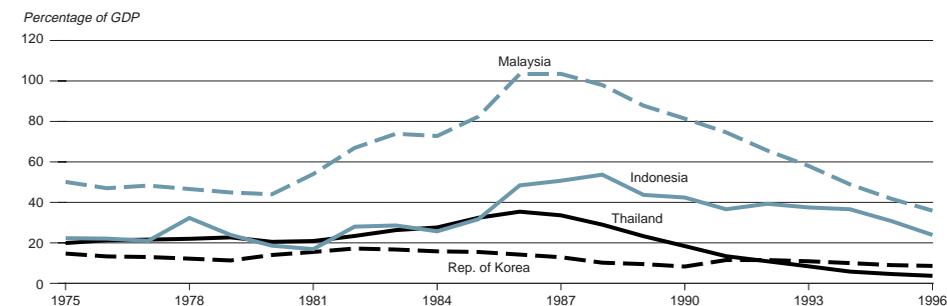
Monetary policy

The use of monetary policy to manage the East Asian crises threw up extremely difficult tradeoffs between macroeconomic and financial sector stabilization objectives. In

several cases initial adjustment programs adopted by the East Asian crisis countries stressed tightening monetary policy to stabilize exchange rates and curb inflationary pressures, the benefit of a more stable exchange rate being to limit the damage to the balance sheets and cash flow of banks and firms with heavy foreign currency debts. Orthodox monetary policies in defense of currencies are still appropriate in many circumstances. But higher interest rates could themselves be expected to have

Governments are well-placed to meet the costs of financial restructuring

Figure 2-19 Central government debt, 1975–96



Source: IMF International Financial Statistics.

damaging effects on already weak bank and firm balance sheets and real economic activity, as discussed above. In evaluating this difficult tradeoff, policymakers were concerned about how reliably, and under what conditions, higher interest rates would in fact serve to stabilize exchange rates during a currency crisis, a subject on which there had been surprisingly little formal research.

The use of monetary policy to manage the East Asian crises threw up extremely difficult tradeoffs between macroeconomic and financial sector stabilization objectives.

Higher interest rates should strengthen exchange rates by making it more attractive to hold financial instruments denominated in the particular currency.²⁸ Under some circumstances, however, this mechanism may not represent the full (or general equilibrium) impact of interest rates on exchange rates. If tighter credit and higher interest rates worsen the financial condition of already weak banks and corporations, an increase in the probability of default on financial instruments issued by them could weaken the exchange rate by increasing the risk premium attached to the currency. Monetary tightening could also weaken the exchange rate by reducing expectations of future output, demand for money, and interest rates.²⁹

The relative importance of these diverging influences in the East Asian crisis is something of an open question, especially given the difficulty of establishing counterfactual scenarios of what would have hap-

pened without a given policy action. Casual inspection of the evolution of interest rates and exchange rates in the East Asian countries does not suggest any simple connection between the two (figures 2-18a to 2-18e). This perception is confirmed at a slightly more systematic level by consideration of correlations over a rolling 30-day interval between exchange rates and interest rates in Korea, Malaysia, the Philippines, and Thailand (figures 2-20a and 2-20b: a positive correlation indicates an association between higher interest rates and exchange rate appreciation).³⁰ Clearly, negative correlations are at least as common as positive ones, although the significance of this fact is not clear, since it is consistent with both interest rate increases weakening exchange rates through the channels noted above, or with falling exchange rates inducing defensive increases in interest rates.

The cross-country movement of exchange rates over time also provides interesting observations. Leaving aside the special case of Indonesia, where the exchange rate fell more than 80 percent against the dollar in the year to mid-1998, currencies in the other four crisis countries moved closely together, each depreciating 35–40 percent by mid-1998. This similarity in exchange rate paths is notable, since several of these countries pursued quite different interest rate policies. Thailand and Korea tightened monetary policies, Malaysia did not raise interest rates apart from a brief effort in July 1997, and the Philippines reduced interest rates to near precrisis levels after increases in the second half of 1997.

Kraay's (1998) study of interest rate policies in some 186 speculative attacks on currencies in 75 middle- and high-income

There appears to be no simple connection between the evolution of interest rates and exchange rates

Figure 2-20a Thirty-day rolling correlations between interest rates and exchange rates, March 1997–September 1998: Malaysia and Thailand

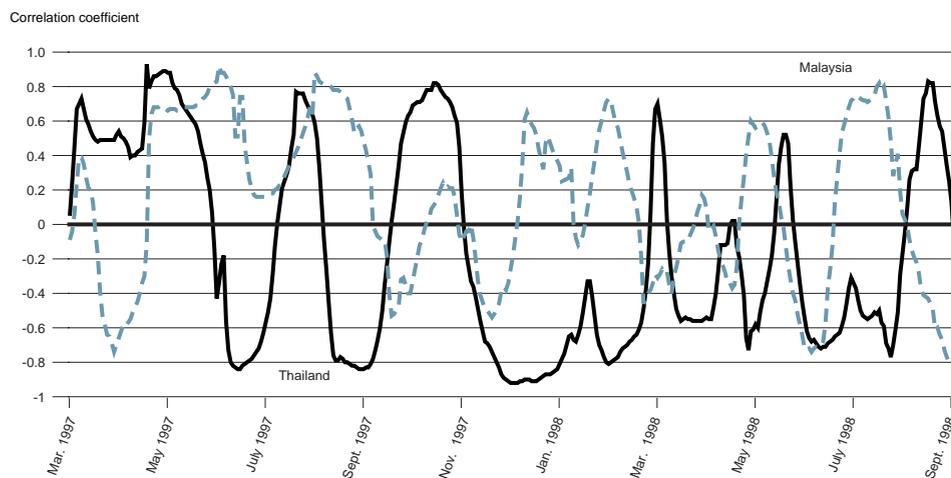
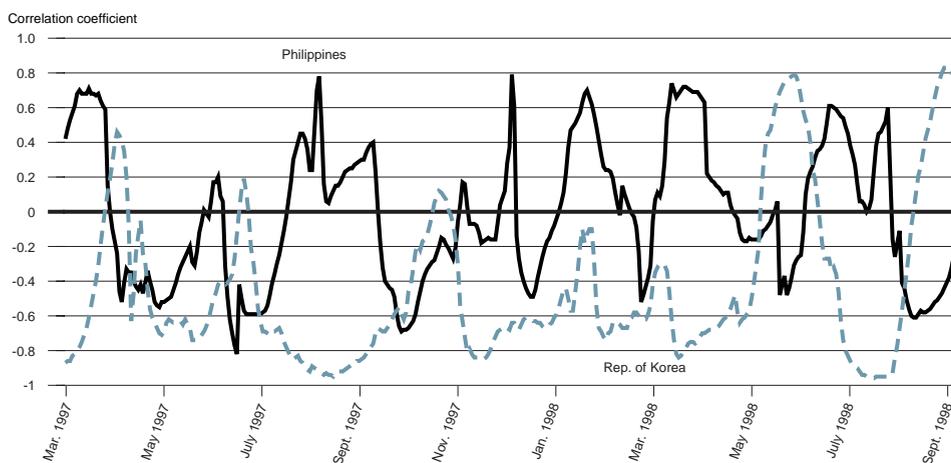


Figure 2-20b Thirty-day rolling correlations between interest rates and exchange rates, March 1997–September 1998: Philippines and Republic of Korea



Source: Kraay 1998.

countries in 1960–97 found that interest rate increases are not always necessary to ward off a speculative attack (table 2-11). Rates were not increased in 50 of the 117 cases (43 percent) in which attacks failed, and increases failed to foil speculative attacks in 35 of the 102 instances where they were used (33 percent of the cases). The study was unable to reject the hypothesis of no significant relationship between interest rate policy, and the success or failure of speculative currency attacks. It could, however, be that, where rate increases were not necessary, the speculative attacks were less serious. Similarly, where rate increases were not sufficient to prevent a successful attack, it could be that the speculative attacks were more severe. These considerations were addressed by controlling for various fundamental conditions that earlier studies have found to be good predictors of speculative currency attacks. It was still not possible to reject the hypothesis of no significant association.

Goldfajn and Gupta (1998) find more evidence for a positive link between interest rates and exchange rates in the general case, but this link is reversed when a country is facing a banking crisis. For a large set

One study found interest rate hikes are not always successful in fending off speculative attacks...

Table 2-11 Discount rate policy in 186 speculative attacks on currencies, 1960–97 (number of instances)

Policy	Attack succeeds	Attack fails	Total
Discount rate raised	35	67	102
Discount rate not raised	34	50	84
Total	69	117	186

Source: Kraay 1998.

of undervaluations of real exchange rates in the aftermath of currency crises, they find tight monetary policy significantly increases the probability of reversing the undervaluation through an appreciation of the nominal exchange rate, rather than through higher inflation. But the opposite is true when the country is facing a banking crisis. In that event, a monetary tightening is found to significantly reduce the probability of reversing undervaluation through an appreciation of the nominal exchange rate (table 2-12). They conclude that “the relationship between high interest rates and stable currencies hinges crucially on the state of the banking system.”

Overall, the still early state of the research into the behavior of interest rates and exchange rates during crises may not allow firm conclusions. There is, however, more evidence about the adverse impact of high interest rates on real economic activity, confirming the importance of undertaking monetary policy in a flexible and nuanced way that gives due consideration to the pol-

...another study finds a more positive link between interest rates and exchange rates, but this is reversed in countries in banking crises

Table 2-12 Conditional probability of reversing an undervaluation of the real exchange rate through appreciation of the nominal exchange rate

	Tight money	Nontight money
All countries	0.37	0.26
Countries with banking crises	0.29	0.45

Note: Estimates are for cases in which the real exchange rate is undervalued by at least 15 percent, and at least 50 percent of the undervaluation is removed by a rise of the nominal exchange rate.

Source: Goldfajn and Gupta 1998.

icy dilemmas that arise, such as in East Asia, where the financial system is fragile, corporations are highly leveraged, and shortfalls in aggregate demand are large.

Structural reforms

Adjustment programs in East Asia are distinguished by the importance they place on structural reforms. Many of these focused appropriately on financial and corporate restructuring, and strengthening of financial regulation, supervision, and corporate governance areas. Especially for Indonesia, adjustment efforts also included a variety of other structural reforms (table 2-13). These focus on liberalizing domestic markets and foreign trade and, in fiscal affairs, removing public subsidies. The valid general rationale

for these structural measures is that they will reduce impediments to long-run growth by increasing efficiency, improving resource allocation, and enhancing competition.

From the perspective of successful implementation, however, it may also be useful to evaluate what the most promising times and conditions for initiating such reforms might be. On the one hand, “if there is one single theme that runs through the length of the political economy literature it is the idea that crisis is the instigator of reform.” (Rodrik 1996. See also Williamson 1994). Thus the study of trade reform in the period up to the 1980s debt crisis by Papa-georgiou, Choksi, and Michaely (1990) finds that most “strong” trade reforms took place in the context of a general perception

In Indonesia, structural reforms focused on domestic and foreign trade liberalization and removing subsidies

Table 2-13 Structural reform programs in East Asia

Reform	Indonesia	Rep. of Korea	Thailand
Domestic trade	Eliminate monopolies in food, plywood, and clove distribution.		
Foreign trade	Reduce tariff on a broad range of items, including agricultural products, chemicals, and metal products. Phase out all nontariff barriers. Eliminate or reduce export taxes and quantitative restrictions on palm oil, leather, cork, minerals, logs, timber, and other exports.	Phase out Import Diversification Program. Align import certification procedures with international practice. Permit foreigners to engage in securities dealing, insurance, leasing, and other property-related businesses.	
Fiscal issues	Eliminate subsidies and raise prices on domestic fuel, electricity, rice, soybeans and soymeal, sugar, wheat flour, corn, and fishmeal. Discontinue tax, trade, and credit privileges for national car and aircraft projects.	Review and rationalize subsidy programs.	
Privatization	Privatization of state enterprises over the medium term.	Privatize five state-owned enterprises immediately, another six by 2002.	Privatize and restructure energy, telecommunications, water, and railways.

Note: Financial and corporate restructuring and reform programs are not included.
Source: Indonesia: 1998b. Rep. of Korea: 1998b, 1998c. Thailand: 1998b.

of complete economic collapse, a change of political regime, or both, and the close association between crisis and reform was, if anything, even more evident in the 1980s. Various arguments have been proposed to explain this empirical observation: for example, that crises create a sense of urgency and public solidarity and so strengthen the hands of reformist governments relative to obstructive special interest groups, or, even more simply, that lack of resources obliges governments to accept the advice of external leaders.

Adjustment programs in East Asia are distinguished by the importance they place on structural reforms.

Researchers have noted a number of qualifications to the significance of the empirical association between crisis and reform, however. First, there is great variation in the necessary intensity and duration of crises needed to bring about reform. Haggard and Webb (1993) note that at various points in the 1980s, the Thai, Colombian, and Indonesian governments undertook reforms as preemptive responses to warning signs of impending difficulties, while, at the other end of the response continuum, several African countries endured full-blown economic disasters year after year without taking action. They state, however, that we do not really understand why governments behave in these different ways. They also note that “a crisis in no way guarantees that any remedial actions taken will be sustained or institutionalized,” as evidenced by the main instances where reforms are reversed once a crisis is

over, an event especially likely where governments are not themselves firmly committed to, or “have ownership” of, reforms.³¹

Rodrik (1996) also notes that “the emphasis on crisis has in itself little predictive content as to what form the response will take,” and that, in particular, some structural reforms undertaken during macroeconomic crises have little logical connection with the task of macroeconomic stabilization and indeed can even complicate that effort. Classical examples are where reductions in tariffs result in loss of fiscal revenue and higher fiscal deficits, or where the “compensating” devaluation required by trade liberalization conflicts with a nominal exchange rate anchor adopted to stabilize inflationary expectations. Here, as in other areas of response to the crisis, difficult trade-offs become apparent.

Crises may open windows of opportunity for structural reforms and should be taken advantage of in many circumstances. However, more research is also needed on circumstances in which structural reforms may complicate immediate crisis management tasks during financial crises. For example, dealing with structural impediments that are genuine but related in only a limited way to the causes of the immediate financial and macroeconomic crisis may undermine confidence, and aggravate uncertainty and informational problems, and thereby make crisis management appear even more difficult than it already is. The fact that well-considered structural reforms are often difficult to design and monitor, and take years to implement and assess, may also add to the difficulties of economic agents in evaluating the immediate stabilization pro-

gram. In some circumstances, could the inherently higher social contentiousness of some structural reform policies make it more difficult to achieve social consensus on immediate adjustment tasks during a financial crisis?³²

Financial and corporate restructuring and reform

By the middle of 1998, large parts of the private corporate and financial sectors in the five crisis countries were insolvent or suffering severe financial distress. Economic recovery policymakers need to undertake what experience has shown to be the unusually long, complex, and arduous task of nurturing these sectors back to health, as well as strengthening institutions of prudential supervision, regulation, and governance that would reduce the likelihood of such crises in the future.

Given the systemic nature of the crisis, financial restructuring will require strong government leadership within a clear strategic framework, including, inevitably, the injection of substantial public funds. Returning viable corporations to health will mean restructuring their often enormous domestic and foreign debts, by rescheduling, writing down, or converting debt to equity. The involvement of foreign investors, who can provide new equity and risk capital, will be important for both financial and corporate restructuring. There is much that OECD governments can do to speed the resolution of debt overhang, especially with external private creditors. The need for resolution of domestic debt problems is equally compelling if economies are to move ahead. Restructur-

ing on the scale needed in the East Asian crisis countries is relatively unexplored territory, however, and new approaches may well be needed.

Dimensions of financial sector restructuring

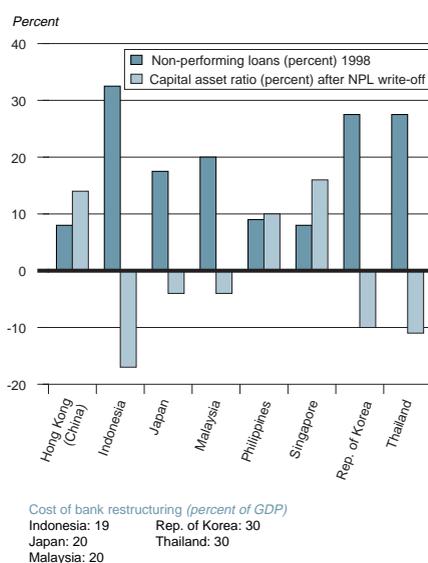
The dimensions of financial restructuring are staggering. In Indonesia, Korea, Malaysia, and Thailand, nonperforming loans are thought to be so extensive that writing them off against bank capital will result in a negative net worth in the banking system. Recapitalizing banking systems to achieve the 8 percent capital adequacy ratios recommended by the BIS will cost an estimated 20 to 30 percent of GDP (figure 2-21).

Given the systemic nature of the crisis, financial restructuring will require strong government leadership within a clear strategic framework, including, inevitably, the injection of substantial public funds.

Systemic banking crises—often defined as a situation of negative net worth in the banking system (Caprio and Klingebiel 1996b)—exact large real economic costs. Under such conditions, banks are especially susceptible to sudden losses of confidence and runs by depositors. Contagion effects can result in shutting down significant portions of the payments system and the critical information-collecting and -processing function performed by banks, with severe consequences for economic activity. Ultimately, even more harm can result when insolvent and poorly regulated banks

Recapitalizing banks in Indonesia, Korea, Malaysia, and Thailand could be 20–30 percent of GDP

Figure 2-21 Estimates of non-performing loans, capital asset ratios, and costs of recapitalizing banking systems



Note: NPLs are mid-points of ranges cited in source; recapitalization assumes 8 percent capital asset ratios. Source: J.P. Morgan 1998b.

remain open, protected against bank runs by explicit or implicit government guarantees of deposits. This kind of “silent, protracted financial distress,”³³ common in developing and transition economies, results in mounting misallocation of resources as banks continue to lend new money to insolvent debtors, to avoid having to write off bad debts, or gamble on new high-risk investments to recoup earlier losses.

A prompt, comprehensive program of financial restructuring aims to avoid or

minimize these costs by shutting down or merging insolvent banks and restructuring and recapitalizing those judged to be viable. Restructuring can involve market-based solutions or government intervention—or both. Market-based solutions include liquidating insolvent banks without more compensation for depositors than that provided under existing deposit insurance schemes (for example, the liquidation of BCCI in the United Kingdom in 1991) or selling (or merging) sick banks to other banks without government financial assistance. These methods are evidently better suited to situations where bank insolvency or distress is limited or localized.

In systemic financial crises, however, where the risk of significant economic disruption and loss of confidence is high, government intervention, involving the use of public resources for bank restructuring, has been common. In a study of eight bank restructuring exercises in the 1980s and the early 1990s (Argentina, Chile, Colombia, Ghana, Malaysia, the Federal Republic of Yugoslavia, Spain, and the United States), although market-based solutions were tried in most cases, there was government intervention in all eight (Sheng 1996). Mechanisms used include public recapitalization and sale to new owners, government-assisted merger with a viable bank, temporary nationalization, or even, failing all else, bailouts.

Financial restructuring programs need, however, to create strong incentives against future moral hazard, typically by writing off bad debt against the capital of existing shareholders, replacing bank management, and otherwise ensuring that those who benefited from earlier risky behavior bear a significant part of the cost

of restructuring. In addition, problem institutions must not be allowed to continue to expand credit to high-risk or delinquent borrowers.³⁴ Of course, closing down insolvent financial institutions or allocating losses to bank owners, shareholders, managers, or employees is politically difficult. The credibility of restructuring programs will depend heavily on the willingness of governments to deal with existing majority bank shareholders from influential business groups.

These priorities need to be balanced against other, more immediate, ones. The first is to maintain public confidence in the financial system when closing down insolvent banks. This requires a comprehensive and credible plan for financial restructuring that demonstrates to the public that the remaining banks will be solvent, well-capitalized, and will have adequate access to lender of last resort liquidity. The failure to do this when closing 16 Indonesian commercial banks in November 1997 under the initial program with multilateral institutions sparked bank runs and large transfers from local private banks to state- and foreign-owned banks, as well as capital flight offshore, and contributed to a second round of currency collapse.

To buttress confidence among depositors and creditors, Indonesia, Korea, and Thailand announced public guarantees of deposits as well as of other domestic and foreign liabilities. Such socialization of bank liabilities is not without its costs, however, such as increasing the fiscal cost of restructuring by forgoing some contribution from depositors.³⁵ Although it is often feared that imposing losses on depositors will lead to bank runs, that does not

appear to be the case, at least when the action is taken within a comprehensive plan. This is the conclusion of Baer and Klingebiel (1994) from five episodes where depositors were asked to share in the cost of resolving banking crises—in the United States (1933), Japan (1946), Malaysia (1985–88), Argentina (1980–82), and Estonia (1992).

Restructuring also needs to be done in ways that ease the stringent credit crunch for viable corporate borrowers.

Restructuring also needs to be done in ways that ease the stringent credit crunch for viable corporate borrowers, for example, by facilitating credit to exporting firms (that confirm their viability by earning foreign exchange in world markets). In this context, the implementation of capital adequacy standards needs to be handled flexibly and not on a rigid timetable, so that it comes about through injections of new capital into banks rather than through banks further cutting back on loans, which worsens the credit squeeze.

Financial sector restructuring and reform efforts

Most of the crisis-affected countries have revised legislation to strengthen prudential regulation and supervision of the financial sector. They have tightened up loan classification and provisioning requirements (generally aiming to achieve at least the 8 percent BIS capital adequacy standards by the year 2000) and improved disclosure, accounting, and auditing standards to

international levels. They have set limits on lending to shareholders and other connected parties and strengthened rules to limit maturity and currency mismatches on external borrowing.

Countries have also created institutions to carry through financial restructuring—such as the Indonesia Bank Restructuring Agency, the Korean Financial Supervisory Commission, and the Thai Financial Sector Restructuring Authority—although in cases such as Indonesia their operations are seriously hampered by a shortage of trained personnel. A strong, independent, public agency with the political and legal clout to implement difficult decisions is essential for successful financial restructuring (for example, the Resolution Trust Corporation in the United States to handle the savings and loan crisis). Inadequate powers and dispersal of functions can be disastrous; pooling of financial talent may be essential given the thinness of such human resources. These agencies are evaluating banks, their portfolios, systems, and management to sort institutions into sound, well-managed ones that could form the core of a new revitalized banking system; the nonviable that need to be shut down; and the weak that could be restructured and recapitalized under the direction of the supervisory authority to regain viability.

In Thailand, 56 finance companies were shut down and their assets were auctioned. By the end of August 1998, six commercial banks had been temporarily nationalized (with the aim of later privatization) through writing off bad debts against shareholder capital, replacement of management, and recapitalization through

conversion of short-term credit from the central bank into equity. Initially, the government adopted a market-based approach to recapitalization of the rest of the banking system, encouraging voluntary infusions of private capital. The need for public support was recognized in the second half of 1998, however, when some 300 billion baht in public funds were made available to support tier 1 and tier 2 bank capital, largely on condition that bad debts be written off or provisioned on an accelerated timetable (implying acceptance of painful writedowns of shareholder equity).

In Korea, the government had by August 1998 provided for up to 75 trillion won of public support for financial restructuring, about 16 percent of GDP. Some 10 merchant banks were shut down, and two commercial banks temporarily nationalized for later privatization. Five of 12 commercial banks that did not meet the 8 percent capital adequacy rule at the end of 1997 were to be taken over by other banks after much of their bad debts were acquired by the newly formed Korea Asset Management Corporation. The remaining seven undercapitalized banks were to present voluntary rehabilitation plans with sufficient infusions of new private capital, failing which they will be subject to temporary nationalization, mandatory merger, or closure. In the rest of the banking system, workouts of loans to the corporate sector are to be handled under a voluntary framework.

In Indonesia, 16 banks were closed in November 1997. In the absence of a comprehensive plan, this action provoked runs on other banks. Many other weak banks were placed under control of the bank restructuring agency. In August 1998,

plans were announced to nationalize, merge, or close 11 banks, involving considerable writedowns of shareholders' capital, and efforts to recover intergroup or connected loans made by banks to shareholders from these shareholders' other assets.

Mustering the political will to raise adequate public funds to recapitalize banks in a noninflationary way is one of three basic principles in managing financial crises (Rojas-Suárez and Weisbrod 1996).³⁶ This will not be easy where countries are correctly expanding fiscal deficits to buoy aggregate demand and where the interest costs of financial restructuring are likely to be significant. One solution is to attract external capital to recapitalize banks and distressed corporations. Thailand, which has attracted about \$3 billion in foreign investment and sold four banks to foreign investors, has made the most progress in this direction. Korea and Indonesia have also attracted some external investment on the corporate side. Foreign investment inflows will also make stronger managerial and technical capabilities and skills available to the financial sector. Success in attracting foreign capital will depend in part on the credibility of official programs, as well as on the legal ease, transparency, and speed of the foreign investment process. One reason for Latin America's better economic performance in recent years (and Mexico's quick recovery after its crisis) has been success in privatizing and in attracting new FDI.

Corporate restructuring, bankruptcy law, and debt workouts

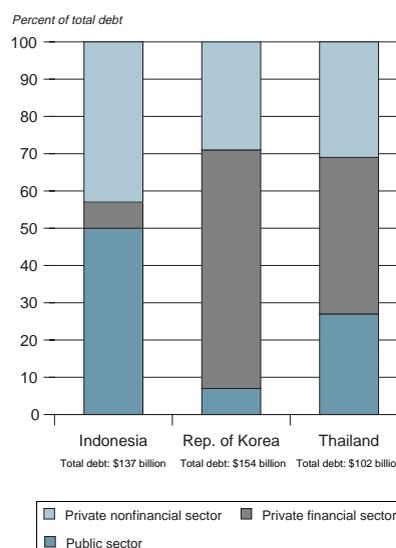
The success of financial restructuring in East Asia will be closely bound to the suc-

cess of restructuring in corporate sectors, which hold most loans made by domestic banking systems. The indebtedness of local corporations to local banks is one corner of a triangle of debt relationships that will need to be simultaneously addressed. The other two are the debts of local corporations and local banks to external creditors, mostly foreign banks.

The relative weight of these debt relationships varies considerably. In Indonesia, direct borrowing by the corporate sector makes up the bulk of external borrowing by the private sector (figure 2-22). At exchange rates of the 10,000–15,000 rupiah to the dollar prevailing in the first half of 1998, the cost of debt servicing was so high that

In Indonesia, most external borrowing was by the corporate sector

Figure 2-22 Structure of external debt by class of borrower, year-end 1997



Source: J.P. Morgan 1998b.

virtually the entire Indonesian corporate sector was probably insolvent, and the improvement in exchange rates since then permits more leeway. In Korea, where corporate regulations made such borrowing difficult, a much larger proportion of external debt was taken on by local banks for lending to local corporations. In Thailand, both banks and corporations were big external borrowers. Given the insolvency of large parts of the local financial and corporate sectors, the resolution of debt overhangs on each corner of the triangle is likely to require restructuring of the original terms of borrowings, either through court-ordered corporate rehabilitations or reorganizations, or through orderly debt workouts between debtors and creditors.

One obstacle in working out debt difficulties is the weakness of bankruptcy law and administration in East Asian countries.

One obstacle in working out debt difficulties is the weakness of bankruptcy law and administration in East Asian countries. A well-developed bankruptcy law recognizes that, left to themselves, debtors and creditors may take a long time to reach a voluntary reorganization and that delays in reaching agreement have real economic costs for society.³⁷ One is the failure to exploit profitable new investment opportunities because of conflicts of interests among the parties (for example, among shareholders of the debtor firm, existing lenders, and potential new lenders). Another is to encourage investments to be overly risky, when they are made. Yet

another is the possibility of “grab races” between creditors, which force a borrower into liquidation even if it is in the interest of all lenders to maintain the borrower’s enterprise as a going concern.

Bankruptcy law attempts to overcome some of these problems through a collective proceeding in which the court provides binding arbitration between the claims of the parties, balancing two broad aims. The first is to maximize the income and growth prospects of firms that appear able to earn at least their economic cost of capital (through debt rescheduling, writing down unserviceable debt, or introducing new debt with priority over older claims), while liquidating unviable firms. The second is to create incentives for strict adherence to debt contracts in future, for example, by penalizing debtors for resorting to bankruptcy.

Since most claims in the East Asian crisis are between private parties, a well-developed bankruptcy system could provide one channel for sorting out problems in a way that would be in the long-run interest of both debtors and creditors. Resort to bankruptcy is unlikely by itself to provide a complete framework for dealing with East Asian debt overhangs, however. First, in a systemic economic and financial crisis many even well-managed firms become insolvent as a result of factors such as steep devaluations, interest rate hikes, and drops in aggregate demand. Without a coordinated approach to the debt problem, a case-by-case treatment could lead to the liquidation of many firms that would be viable under more normal macroeconomic conditions. The loss of the information and knowledge capital represented by these

firms could then have a harmful long-run effect on growth.

Second, bankruptcy law systems in most East Asian countries are antiquated and lack adequately trained personnel. Legal processes are so costly, prolonged, unpredictable and, in some cases, open to political influence and corruption, that resort to the courts is usually not attempted. In Indonesia, for example, virtually all companies have stopped servicing debt, but few have applied for bankruptcy court protection (see box 2-2). Until this year, bankruptcy law was based on a one-page Dutch edict of 1906, which emphasized liquidation but did not allow for court-supervised corporate rescues. More significantly, corruption and personal influence were perceived to pervade the administration of bankruptcy law. In Korea, filing bankruptcy papers is straightforward, but progress thereafter is slow. Eight Korean chaebol (conglomerates) filed for bankruptcy court protection in 1997. Since then the companies have continued to operate while in default on debt, but there has been little progress in presenting business plans for corporate restructuring to the court. In Thailand, too, lengthy proceedings and other weaknesses have created a credit culture in which companies have been able to default on debt with impunity.³⁸

In the aftermath of the crisis, many countries have moved ahead to revamp and modernize their bankruptcy and foreclosure law, and to strengthen corporate governance. In Thailand and Indonesia, amendments to bankruptcy laws strengthen the capacity of the courts to approve reorganization (rather than just liquidation), reduce the discretionary power of the

Box 2-2 Filing a bankruptcy petition in Indonesia

Foreign creditors gained some experience of the Indonesian bankruptcy system after 1991, when the Bentoel cigarette company declared insolvency, owing \$300 million in equal parts to foreign and domestic banks. After the failure of voluntary negotiations with the company, the foreign banks filed a bankruptcy petition in 1992. The court first ruled that creditors could not enforce a personal guarantee on debt given by a Bentoel shareholder until the company entered liquidity proceedings. It then ruled there were no grounds for putting the company into liquidation. The case continues.

Source: J.P. Morgan 1998b.

courts, and increase transparency, certainty, and efficiency in court proceedings. Indonesia, recognizing the low level of professional skills, is also making provisions for improved training, licensing, and selection of judges, receivers, and administrators.

These efforts, vital as they are for long-run prosperity, are unlikely to provide a quick fix for the problems at hand. Passing legislation is one thing: developing the necessary human skills, knowledge, expertise, credibility, and respect for the rule of law in the day-to-day administration of bankruptcy law is a task that will take years, if not decades, to complete. Even a working bankruptcy system would not deal with the problems of insolvency in a systemic economic crisis. Thus, what will become important are orderly debt workouts—that is, less formal ways in which governments or other arbitrators attempt to achieve the same economic objectives as formal bankruptcy court proceedings by bringing together debtors and creditors to negotiate resolution of debt problems.

Unlike bankruptcy courts, whose decisions are binding, orderly workouts must rely on voluntary agreements between debtors and creditors, although in practice moral suasion, political pressure, or financial incentives play an important part. But voluntary negotiation can take a long time, especially in the case of default on debt. A number of earlier debt crises illustrate the problems (Aggarwal 1998). The debt crisis of the 1980s was not resolved until the U.S. government threw its weight behind market-based debt restructuring with the Brady plan. Often, allocating losses between and among debtors and creditors requires strategic direction from some such central player.

By mid-1998 the East Asian crisis had led to two main initiatives on workouts for external debt. In January, Korea worked out a deal with creditor banks to reschedule \$24 billion of maturing short-term debt owed by Korean banks, converting it to government-guaranteed loans with maturities of one to three years. Several features are noteworthy: first, the high proportion of Korean debt owed by local banks provided a strong motivation for averting disruption to the domestic payments system. Second, the relatively small number of bank debtors and creditors helped coordination. Third, the deal, while not envisaged in the initial adjustment program with multilateral institutions, had behind it the strong support of the United States government. Fourth, the deal seems to have eased immediate pressures on the won in foreign exchange markets. The currency stabilized and gradually strengthened in the following months.

Indonesia's June 1998 agreement with its creditor banks attempts to create a

framework to deal with the much more complicated question of the \$65 billion or so of foreign debt owed by thousands of its corporations. This initiative provided an incentive for voluntary debt restructuring through a government guarantee of foreign exchange for debt service at a fixed rate, to be determined by the actual course of exchange rates over a 12-month period ending in 1999. It was modeled on the plan to restructure Mexican private corporate external debt in the wake of the 1982 debt crisis. Running from 1983 to 1992, the Mexican plan helped restructure \$12 billion of debt. However, the plan came at the potentially high cost of a substantial public subsidy to the private sector in the event that the exchange rate depreciated against the dollar by more than that implied by Mexican-United States interest rate differentials. It remains to be seen whether the Indonesian scheme (described in World Bank 1998b) can succeed without a subsidy. Initial results were not encouraging, with very few transactions. The rupiah exchange rate also initially remained extremely weak, averaging 14,000–15,000 to the dollar in the month after the deal and falling below 15,000 in July; however, by October 1998, the rupiah had strengthened sharply to about 7,000–8000, thanks to the falling value of the dollar. Overall, the Indonesian experience so far is consistent with earlier experiences that orderly international debt workouts are more likely to succeed when they have strong support from the governments of creditor countries.

Some East Asian governments are also promoting voluntary workouts for corporate debt owed to domestic banks. They are removing tax disincentives to debt restruc-

turing, removing legal barriers to debt-equity swaps, and encouraging creditor committees and workout units at commercial banks. Korea has gone furthest toward a formal framework, bringing some 200 financial institutions to sign a corporate restructuring agreement. Voluntary debt workouts with corporations will follow London Rules for extrajudicial resolution of claims, and disagreements will be submitted to formal arbitration. Potential incentive problems of purely voluntary approach are addressed to some extent by guidelines to curtail the scope for emergency or rescue loans to troubled corporate debtors and to curb cross-guarantees within industrial groups, which allow weak affiliates to continue borrowing via stronger affiliates.

Given the high corporate leveraging in East Asian countries, a strong focus on debt-to-equity conversions may be the key to resolution of the debt problem—especially if supplemented by policies to liberalize conditions for foreign equity ownership and to foster the development of domestic capital markets, through mutual funds, pri-

vately managed pension funds, and so on. The purchase from the banks of newly created equity positions in corporations by strongly managed foreign and domestic mutual funds and pension funds would help to clean up bank balance sheets. It would also strengthen corporate governance by breaking down the concentration of corporate control by a few insider family groups and provide much stronger independent monitoring of management. Limits on foreign investment have been almost completely removed in Indonesia and significantly loosened in Korea and Thailand.

Social impact of the crisis

In recent decades East Asia has reduced poverty and improved living standards and social conditions at a pace unrivaled in history (table 2-14).³⁹ Per capita income growth averaged a remarkable 5.5 percent a year over the past 30 years. In the mid-1970s, six out of every 10 people in the region lived on less than \$1 a day. By the mid-1990s, only two of 10 did.

Living standards improved dramatically throughout East Asia in the 20 years to 1995

Table 2-14 Living standards in East Asia, selected years, 1970–96

Country	Number of people in poverty (million)		Headcount index ^a (percent)		Life expectancy (at birth)		Infant mortality rate (per 1,000 live births)		Net primary school enrollment (percent)	
	1975	1995	1975	1995	1970	1996	1970	1996	1970	1995
China	568.9 ^a	269.3	60 ^a	22	62	70	69	33	76	99
Indonesia	87.2	21.9	64	11	48	65	118	49	76	97
Korea, Rep. of					61	72	46	9	>99	100
Malaysia	2.1	<0.2	17	<1	62	72	45	11	84	91
Philippines	15.4	17.6	36	26	57	66	71	37	>99	100
Thailand	3.4	<0.5	8	<1	58	69	73	34	79	88

Note: All estimates of poverty are based on \$1 per person per day poverty line at 1985 PPP prices.

a. Data are for 1978 and apply only to rural China.

Source: World Bank 1998c.

Growth has led to larger and faster reductions in poverty in East Asia than in other regions.⁴⁰ One reason is that the region started off 30–40 years ago with a relatively equal distribution of income and wealth, and with a strong policy focus on widely spread human capital gains, rural development, and labor-intensive growth that has protected this distribution. Integration with the world economy, coupled with flexible labor markets, translated into high rates of job creation and rising real wages. Between 1986 and 1993, employment and manufacturing productivity growth allowed real wages to rise 3–6 percent a year. Countries also invested in human development, focusing on areas that benefit the poor most directly: basic curative and preventive health services, primary education, and others. One study found that higher school enrollment rates in East Asia accounted for 38 per cent of the predicted difference in economic growth between East Asia and Latin America in 1960–90.

In recent decades East Asia has reduced poverty and improved living standards and social conditions at a pace unrivaled in history.

The social achievements of the East Asian miracle are genuine and undeniable. Nevertheless, many of the social consequences of the present economic crisis are likely to be protracted. Most countries lack formal mechanisms to protect people from job losses and their consequences, while private savings and informal safety nets may be insufficient to deal with economy-wide

shocks. Governments do not have systems in place to adequately track the impact of shocks or policy interventions on household welfare or the institutional capacity to deal with mass layoffs (for example, through retraining schemes or massively scaled-up public works programs).

Social impact of crises and stabilization policies

What are the social costs of crises? Which groups will be hurt more than others? The impact of crises on household welfare is complex and often difficult to isolate from the impact of policies to manage crises. Important dimensions are a loss in household income due to layoffs, unemployment, and reduced hours of work; a decline in purchasing power due to price increases and a fall in real wages; and reduced access to social services because of lower personal incomes and, in some cases, public spending. Output losses, unemployment, and higher inflation are associated with an increase in poverty. There is also a worsening in the condition of those who are already poor, including lower living standards and greater malnutrition (see box 2-3). Income inequality often rises as well.⁴¹

How much poverty increases during crises depends on initial levels of poverty and inequality, the mix of stabilization policies, the structure of the economy, the flexibility of output and factor markets, and other factors. Wage and price rigidities in the modern sector of the economy may shift the burden of adjustment to the informal sector, and thus onto the poor. Different policies also affect the poor differently. Devaluation may have a positive effect on the poor who are employed in sectors pro-

Box 2-3 The impact of crises on the poor may be irreversible

Economic crises hurt poor and rich. The poor, however, are much less able to respond to a non-diversifiable risk like a recession. If domestic capital markets were perfect, all economic agents could borrow to smooth consumption and maintain welfare during a crisis. But capital markets are imperfect: credit or insurance is not available to the poor, and there is little they can do to smooth out consumption and welfare. Thus, crises and recessions may result in irreversible damage to the poor: malnutrition or death from starvation (in extreme cases) and lower schooling levels (Thomas and others 1996).¹

In Côte d'Ivoire, higher food prices in the stabilization program of the 1980s may have increased malnutrition (Thomas and others 1996; Grootaert 1994). Sudden fluctuations in income or food availability can be fatal to already malnourished children. The most common types

of malnutrition (iodine, vitamin A, and iron deficiency) may lead to lower IQ, retarded physical growth, mental disabilities, reduced learning capacity, and lower resistance to infections. These conditions are associated with increased repetition and dropout rates in school. The effects of malnutrition on child mortality are severe: results from 53 developing countries indicate that 56 percent of child deaths were attributable to the collateral effects of malnutrition and 83 percent of these were due to mild to moderate malnutrition.

¹ Alderman and Paxson (1994); Bourguignon, Lambert and Suwa (1996); Cornia et al. (1987). See also Jolly and van der Hoeven (1991).

Source: World Bank (1993b); Pelletier and others (1995).

of malnutrition (iodine, vitamin A, and iron deficiency) may lead to lower IQ, retarded physical growth, mental disabilities, reduced learning capacity, and lower resistance to infections. These conditions are associated with increased repetition and dropout rates in school. The effects of malnutrition on child mortality are severe: results from 53 developing countries indicate that 56 percent of child deaths were attributable to the collateral effects of malnutrition and 83 percent of these were due to mild to moderate malnutrition.

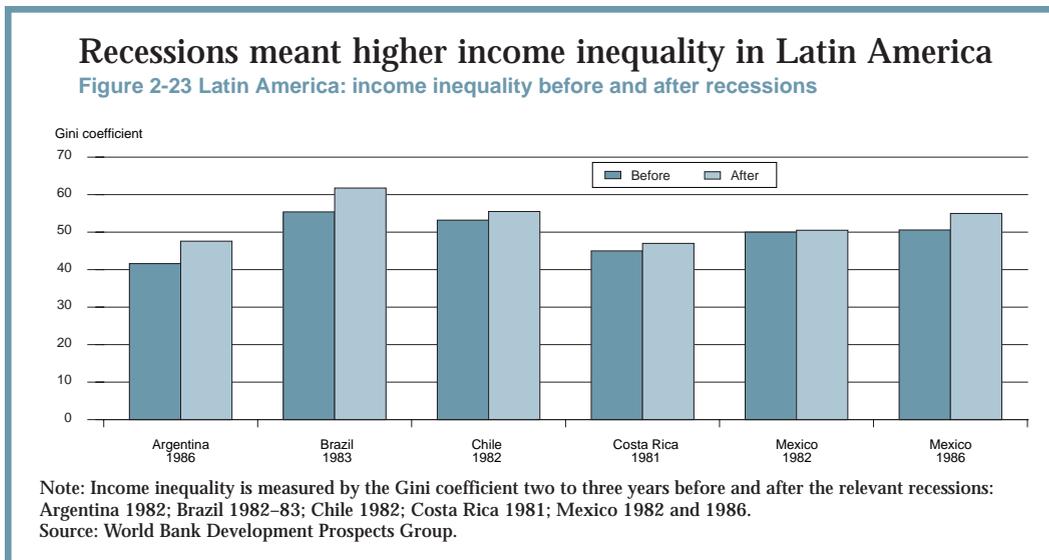
ducing tradable goods and services. Laying off public sector employees may create a new group of poor. Eliminating consumer subsidies and reducing social expenditures would affect the well-being of all the poor.⁴²

Both poverty and inequality increased in Sub-Saharan Africa during most episodes of economic crises and attempted adjustment (Demery and Squire 1996).⁴³ The same thing happened in Eastern Europe during the transition of the 1990s (Ravallion and Chen 1996; Milanovic 1995). Poverty increased in 55 of 58 recessions in Latin America during the 1980s and decreased or remained unchanged in 25 of 32 recoveries (Morley 1994). Recessions were also associated with higher income inequality in Latin America (figure 2-23). High and variable inflation was particularly damaging to the poor, who have limited access to mechanisms for protecting consumption. Workers were forced to

accept large wage cuts, unemployment, and low paid jobs in the informal sector because of the absence of social safety nets.

The impact on unemployment and poverty in East Asia

Unemployment in the crisis countries has risen sharply as firms have reduced output or shut down operations. Unemployment could rise to about 13 million in Indonesia by the end of 1998, 3.5 million in Thailand, and 1.6 million in Korea, for a total of 18 million, compared with 5.3 million in 1996.⁴⁴ Construction and financial sector employment are being especially hard hit. Inevitably, given the uncertainties and potential structural shifts associated with financial crises, the band for plausible estimates of the impact on unemployment (as well as other social indicators) is likely to be a wide one. Official Indonesian estimates suggest unemployment of 20 million



in 1998, for example. In Thailand and Indonesia, where agriculture employs 40 percent and 55 percent of the labor force, respectively, and where underemployment is also a significant problem, the impact of the crisis was greatly exacerbated by drought (box 2-4).⁴⁵ In Thailand, at the end of 1997, 70 percent of the unemployed were in agriculture, most in the poor north-east area. Migrant workers from neighboring countries will also be severely affected:

about a million will go back to Bangladesh, Cambodia, and Myanmar in 1998. Real wages are expected to fall dramatically in Indonesia, with the sharp depreciation of the currency since June 1997 and the collapse of industrial activity, exceeding even real wage declines in Latin America during the crises of the 1980s (table 2-15).

How this affects poverty in the crisis countries will depend on how much output declines and how income distribution

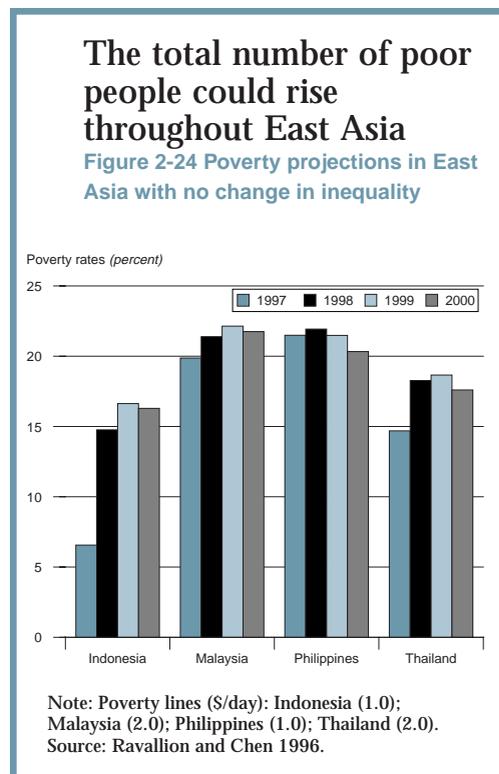
Box 2-4 There will be more poverty in Asia because of El Niño

El Niño—an abnormal warming of sea-surface temperatures in the central and eastern Pacific Ocean off the coast of South America—affected atmospheric conditions worldwide and contributed in 1997 to one of the worst droughts reported in 50 years in Indonesia, Papua New Guinea, some areas in the Philippines and Thailand, and the central and northeastern parts of China. Forest fires, smoke, and haze aggravated environmental conditions. Irregular rains and floods were seen

in Bangladesh, Myanmar, and Sri Lanka. Indonesia was particularly affected by El Niño. In addition to low rainfall during the 1997 cropping season, the late onset of rains in the last quarter of 1997 delayed rice planting by one to two months. Rice production in 1997 fell by 4 percent, but some areas saw larger declines. Food shortages and outright hunger have emerged in the most affected areas. Much of the poverty increase in Asia in 1998 will be determined by the drought rather than the financial crisis.

evolves. Let's look at projected increases in poverty in some East Asian countries (assuming no change in the distribution of income and using a \$1 a day poverty line for Indonesia and the Philippines and \$2 a day for Malaysia and Thailand) (figure 2-24). Almost 17 million more people in Indonesia are expected to fall below the poverty line in 1998. Moreover, many people in Indonesia live only slightly above the poverty line, so measured poverty is quite sensitive to the poverty line chosen. With a poverty line of \$1.25 a day, for example, the number of poor people would rise by 22 million, bringing the total number of poor to 56.5 million. In other countries the increase would be less pronounced, but still large: 2.3 million in Thailand, 665,000 in the Philippines, and under 500,000 in Malaysia.⁴⁶

Poverty calculations are also very sensitive to changes in distribution. A deterioration in both growth and income distribution (a 10 percent worsening in the Gini coefficient) would bring the poverty incidence in



most countries back to the levels of the early 1990s, practically eliminating the effects of 10 years of growth (figure 2-25).

Real wages are expected to collapse in Indonesia

Table 2-15 Real wages and unemployment during crises in East Asia and Latin America

Country (year of crisis)	Real wages (percent change)			Unemployment rate (percent) ^a		
	One year before crisis	Year of crisis	One year after crisis	One year before crisis	Year of crisis	One year after crisis
East Asia and Pacific						
Indonesia (1997)	13.5	5.5	-40 to -60	4.9	5.9	13.8
Korea, Republic of (1997)	7.3	-1.4	-0.4	2.0	2.6	7.5
Thailand (1997)	2.3	2.1	-10.3	1.5	3.5	10.9
Latin America and the Caribbean						
Argentina (1982)	-11.0	-10.1	26.3	4.8	5.3	4.7
Chile (1982)	9.0	0.0	-11.0	25.0	26.2	21.4
Costa Rica (1981)	n.a.	-12.0	-19.3	5.9	8.8	9.4
Mexico (1995)	0.0	-13.1	-8.2	3.7	6.2	5.5

a. Urban unemployment rate only for Latin America and the Caribbean.

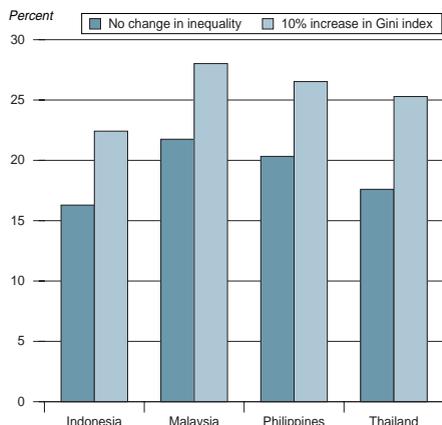
Source: International Labour Organisation; Central Banks; World Bank staff estimates; U.N. Economic Commission for Latin America and the Caribbean; Economic Survey of Latin America (various issues); World Bank 1994.

In Indonesia (using the local currency definition of the poverty line), poverty in the next couple of years would almost double in urban areas and increase by half in rural areas (figure 2-26). The sharpest increases are expected to be among workers employed in trade and manufacturing.

Poverty is just one dimension of welfare. Will life expectancy or education and health indicators deteriorate as well as a result of the crisis? Certain to come is a reduction in access to social services, because of losses in household income, higher costs of imported drugs, and decreasing nongovernmental organization (NGO) activities. Anecdotal evidence suggests that this is happening everywhere in

Lower growth and distribution would eliminate the effects of 10 years of growth

Figure 2-25 Poverty projections for the year 2000 with no change in inequality and with a 10 percent increase in inequality



Note: Poverty lines (\$/day): Indonesia (1.0); Malaysia (2.0); Philippines (1.0); Thailand (2.0).
Source: Ravallion and Chen 1996.

Poverty will increase faster among Indonesian workers in trade and manufacturing, but rural poverty will increase most

Figure 2-26a Projected poverty trends in Indonesia

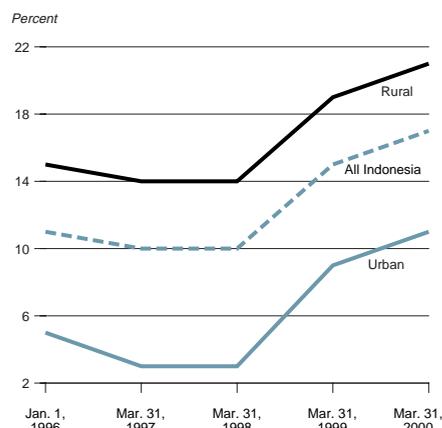
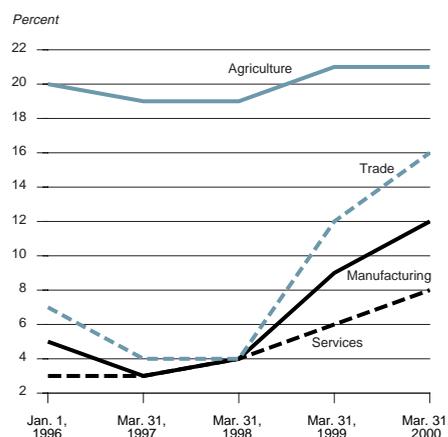


Figure 2-26b Projected poverty trends in Indonesia, by sector



Source: World Bank staff estimates.

East Asia. But whether social indicators will worsen is not straightforward. First, indicators such as education or the infant mortality rate are determined by past

investments in physical and human capital. Second, increased public spending in social sectors and special programs for the most vulnerable can counteract the negative impact of a drop in personal income. In Latin America, infant mortality, life expectancy, and primary enrollment continued to improve in the 1980s, even as poverty and inequality increased. It is conceivable that they would have improved even more without the economic crisis. But in Chile, where the crisis was especially severe, reduction in infant mortality accelerated because of public actions to safeguard the poorest. By contrast, in 1986–87, education spending in Indonesia was not maintained: enrollment rates fell dramatically for the poor and it took almost a decade to return to previous levels (Lustig 1995; Pritchett 1998). Preliminary reports from Thailand and Indonesia indicate that a growing number of children are not returning for the new school year in 1998 as parents lose jobs and cannot afford school and transportation fees. The health status of women and children is also reported to be deteriorating, as medicine and preventive care become more expensive. Reported increases in child labor, prostitution, and domestic violence in all the countries affected by the crisis may have long-lasting effects on the social fabric.

Responding to social impact of the crisis

The policies and instruments selected for crisis management can have a considerable impact on the welfare of the poor. The consideration of policies to mitigate adverse social impacts in the immediate aftermath of macroeconomic crises needs to be an up-

front consideration in crisis management. Counterfactual experiments in a study of stabilization in seven countries in the 1980s (Ecuador, Indonesia, Malaysia, Chile, Côte d'Ivoire, Ghana, and Morocco) suggest that some stabilization measures have higher social costs than others. For example, a moderate reduction in the pay of public employees has less damaging effects on poverty and inequality than laying off public employees or increasing indirect taxation. Public expenditure can be reduced while still maintaining public spending for essential public services (Bourguignon and Morrison 1992; Bourguignon, de Melo, and Morrison 1991). Moreover, while social safety nets are not a substitute for good

The policies and instruments selected for crisis management can have a considerable impact on the welfare of the poor.

macroeconomic policies, they mitigate the social costs of crises, especially in the short run. The advantages, however, need to be balanced against potential costs—for example, diversion of resources from investment, thereby compromising future growth, reducing work incentives, or displacing private transfers. There is thus an important distinction between short-term crisis management tasks and those in the longer term. During a crisis, some immediate priorities arise, which are described below. In the longer-term, these should be replaced by other instruments, such as fostering faster growth, human capital improvements of the poor, and building more flexible labor markets. Going further, an important lesson

from this crisis is the need for ex-ante social safety nets, that ensure appropriate, temporary, responses during crises to protect the poor. The appropriate instruments and design of such social safety nets will vary with the economic, institutional, and social structures and fiscal capacity of countries at different levels of development—a subject on which work is beginning and where more effort will be needed in the future.

Priority actions to protect the poor during crises⁴⁷ include:

- Generating income for the poor through direct cash transfers and public works for the unemployed. Cash transfers are effective when the poor are easily identified or when a self-selection method is employed, for example, by linking transfers to child nutrition programs or some work requirement. If well designed, public works are one of the most efficient ways of reaching the poor during economic downturns. Experience (Chile in the early 1980s, for example) shows that public works can achieve the multiple objectives of providing income support, creating local infrastructure, and keeping people in their villages—and the programs can be phased out as the economy strengthens. Their effectiveness and cost, however, depend on how they are designed, monitored, and evaluated. In particular, the wage rate must be low enough not to attract the nonpoor, and the share of wages in total costs must be high—international experience suggests between 50 percent and 66 percent (World Bank 1997).

Project design and implementation difficulties can make a huge difference

in the cost of public works programs and their impact on poverty. Ravallion (1998) estimates that the cost of a \$1 gain to the poor of a typical workfare program is \$2.50 in both middle-income and low-income countries. In Indonesia, transferring a dollar to the poorest 15 percent of the population is estimated to cost between \$2.08 and \$3.81. This range reflects differences in such factors as the administrative leakage of funds to officials and mistargeting of wage opportunities to the nonpoor. Lack of coordination and monitoring and corruption could push costs even higher.

In the present crisis, public work programs are expected to create about 50,000 temporary jobs in the public sector in Korea. In Thailand, they are expected to create about one million person/months of employment and over 900,000 person/months of training in 1998. Another 700,000 person/months of employment will be created over the following three years. In Indonesia a large share of the budget has been devoted to employment creation, through funds provided to local authorities and communities or through line agencies (including ministries). Their impact, however, will depend on design and implementation, which are highly uncertain: thus it is estimated that employment generation could reduce the unemployment rate by anywhere between 1 percent and 5 percent (Pritchett 1998).

- Ensuring food supplies through direct transfers and price subsidization of essential commodities. Direct food dis-

tribution is the last resort for reaching areas where people are starving because of drought or the collapse of local markets. Where markets function, a more efficient transitional way to sustain food consumption by the poor is to subsidize essential commodities. In Indonesia, where the price of rice has practically doubled since June 1997, the government has brought in huge quantities of imported rice to stabilize the price. This is an effective way of sustaining the poor in the short run, since the poorest 20 percent of the population spend 25 percent of their total budget on rice, compared to 5 percent for the richest 10 percent. Price subsidies are a tax on farmers, however, and in the medium-term may severely distort price incentives in agriculture. Rice subsidies are an expensive way of transferring resources to the poor. In Indonesia, the cost of transferring \$1 to the poorest 15 percent has been estimated at \$8.20. The same nutritional adequacy could be maintained—and targeting the poor could be improved—by subsidizing lower-quality rice. This could reduce the cost of transferring \$1 to the poor to about \$3.60 (World Bank 1998b).⁴⁸

- Preserving the human capital of the poor. An important consideration is maintaining basic health care services for a population whose income has fallen and whose health status has suffered because of worsening nutrition, homelessness, and other factors. The health and nutrition of pregnant women and girls is particularly at risk. Possible remedies include waiving user charges for the poor and extending

health care to workers dismissed from their jobs. Studies show that in most countries in East Asia public spending in primary education is pro-poor (though this is less true for secondary education).⁴⁹ Maintaining or increasing

Ensuring basic food supplies and maintaining basic health care are vital where people's incomes have fallen sharply.

real public spending to keep children in school should therefore be a preferred policy choice. In Indonesia the government launched a “Stay in School Campaign” culminating in the “National School Enrollment Week” before school began in July. Other interventions include block grants targeted to the poorest 40 percent of primary and junior secondary schools, to compensate for the increased costs due to the crisis, and a targeted scholarship program for the poorest primary and junior secondary-school children. Real spending in education and health will be increased (relative to 1997) in both Thailand and Korea. Changes in legislation allow laid-off workers to continue their health insurance coverage for twelve months, instead of six.

- Provide training opportunities, job search, and other assistance to the unemployed, who may not benefit from public work programs. In Korea, the social crisis is primarily one of unemployment, not poverty. The 1998 budget includes measures to strengthen public employment services and job cre-

ation. A new program will fund startup loans for some of the unemployed. New training and redeployment policies will relax restrictions on private employment and personnel leasing services. Unemployment insurance coverage has been extended, and minimum unemployment benefits raised.⁵⁰ In Thailand, the Labor Protection Act of January 1998 raised severance payments and mandated the creation of provident funds for the purpose.

Notes

1. Thailand's fiscal position moved to a small 0.9 percent of GDP deficit in 1997, as the economy slowed.

2. Chang and Velasco (1998) and Radelet and Sachs (1998a and b) discuss international illiquidity as a source of financial crises.

3. Data on short-term foreign debt are notoriously imperfect. Figures 2-2 and 2-3 use Bank for International Settlements (BIS) data on short-term loans by banks resident in its member countries (BIS 1998) and various earlier issues). By definition, these data provide only incomplete estimates of total quantities of short-term debt.

4. The Philippines' extended arrangement with the International Monetary Fund was expiring at the time the Thailand crisis started; this was extended and augmented as a precautionary measure, and a new two-year arrangement was subsequently approved and agreed to in March 1998.

5. The role of macroeconomic policies in managing capital inflows and in the buildup of vulnerabilities in East Asia is discussed further in chapter 3 of this report, as well as in World Bank (1998a) and in Bhattacharya and others (1998). Recent empirical studies find a significant part of the reduction in spreads on emerging market debt unexplained by economic fundamentals include Eichengreen and Mody (1998) and Cline and Barnes (1997).

6. Earlier banking crises were also experienced in Malaysia in 1985-88 and in Thailand in 1983-87.

7. Discussion of financial structure and performance variables in this and subsequent paragraphs

draw on Claessens, Djankov, and Lang (1998), who draw on *Worldscope* and *Extel* databases of 5550 East Asian firms in nine countries.

8. The ratio of gross domestic investment to GDP in Indonesia, Korea, Malaysia, and Thailand in 1991-96 averaged 5-10 percentage points higher than in the preceding 15 years.

9. Studies of total factor productivity (TFP), a measure of aggregate economic productivity, also do not provide clear-cut evidence of a secular deterioration in economic performance in the 1990s. Sarel (1997) estimates that in most cases TFP growth in the ASEAN countries in 1991-96 actually increased relative to the whole period 1978-96. Collins and Bosworth (1996) also find average East Asian annual TFP growth (excluding China) to have increased from 0.5 percent in 1973-84 to 1.6 percent in 1984-94, with most individual countries also experiencing increases.

10. For example in Indonesia, which had suffered serious banking difficulties in the early 1990s, in the wake of a credit boom in the second half of the 1980s, nonperforming loans were estimated to have fallen from 12 percent in 1994 to 8.8 percent in 1996.

11. Other evidence on financial liberalization, credit booms and banking crises is presented in Gavin and Hausmann (1996) and Kaminsky (1998).

12. Dasgupta and Imai (1998).

13. Eichengreen, Rose, and Wyplosz (1996a and b) find transmission more closely associated with trade links than with macroeconomic fundamentals. One study that does include the 1997 East Asian crisis in its data set is Glick and Rose (1998). It finds that in the 1997 crisis, as well as in earlier episodes, the probability of crisis transmission is significantly increased by the extent of trade links between transmitter and transmittee, while indicators of macroeconomic fundamentals are generally insignificant.

14. As in standard gravity models of trade.

15. The empirical literature on the determinants of investment in developing countries (surveyed in Rama 1993) confirms that the cost of capital has a generally significant inverse relation with investment. In addition, those studies that took into account the availability of foreign exchange always found it to have a strong, positive association with investment.

16. Expressed as a percent of average quarterly GDP in 1994.

17. In particular, borrowers, having less to lose in terms of net worth, have an incentive to propose riskier projects for funding (adverse selection) and to take greater risks after obtaining it (moral hazard). Stiglitz and Weiss (1981), Bernanke and Gertler (1995), and Mishkin (1996) discuss the role of asymmetric information in financial markets.

18. As described by Kiyotaki and Moore (1997) and Edison and others (1998).

19. As discussed for example by Dixit and Pindyck (1994).

20. Ding, Domaç, and Ferri (1998) and Dwor-Frecaut (1998) provide a detailed review of the evidence.

21. Bernanke and Gertler (1995), Bernanke and Blinder (1993).

22. Compared to a 7 percentage point decline estimated in the Thai Government Memorandum on Economic Policies, 5/28/98.

23. Studies of the determinants of consumption in developing countries, including those measuring the incidence of liquidity constraints, are reviewed in Agenor and Montiel (1996) and Schmidt-Hebbel and others (1992).

24. See also footnote 4.

25. Given a smaller bad debts problem, the Philippines is currently not expected to face large bank restructuring costs.

26. The primary balance is the fiscal balance before deducting interest on government debt. While table 2-10 draws on private estimates of costs of bank restructuring, these are not the only ones available. For instance, Indonesia's Supplementary Memorandum of Economic and Financial Policies (MEFP) of April 10, 1998, released to the public, contained an initial estimate of costs of bank restructuring of 15 percent of GDP, subsequently noted to have risen further in the Supplementary MEFP of June 24, 1998.

27. The primary balance required to stabilize a given debt to GDP ratio is that ratio multiplied by the gap between the real interest rate and the growth rate of the economy. Daniel 1997 and sources cited therein provide additional details.

28. While there is no reason to believe that a temporary rise in interest rates will lead to a permanent strengthening of the exchange rate, the argument is that it may help stability in the short term.

29. See Goldfajn and Gupta (1998), Kraay (1998), and Stiglitz (1998) for discussion of these

points. The argument in the text is set out in the standard monetary model of exchange rates:

$$m - p = \alpha y - \beta i \text{ (money demand)}$$

$$i = i^* + e(t+1) - e(t) + \theta(t) \text{ (modified uncovered interest parity)}$$

$$p = p^* + e + \varpi \text{ (purchasing power parity)}$$

where variables (except i and i^*) are measured in logs, $\theta(t)$ is the composite risk premium, and ϖ is a real exchange rate shock. The solution for the nominal exchange rate is given by:

$$e(t) = \frac{1}{1 + \beta} \sum_{j=0}^{\infty} \beta^j \left(\frac{\beta}{1 + \beta} \right)^j (m_t^e + j - \alpha y_t^e + j + \theta_t^e + j) \quad (1)$$

where i^* , p^* and ϖ are set equal to 0. A monetary tightening ($dm < 0$) would lead to a depreciation of the exchange rate ($de > 0$) if it is also expected to lead to a sufficiently large decline in output (y) or increase in the risk premium (θ), the latter reflecting a greater risk of default, corporate bankruptcy, and the like. The monetary model of exchange rates was introduced by Frenkel (1976) and Mussa (1976), and is expounded in Obstfeldt and Rogoff (1996, 526-8). The model as set out here follows Ghosh (1998).

30. Following Kaminsky and Schmukler 1998.

31. Indeed several World Bank studies of structural adjustment lending concluded that without such commitment external lending can undermine rather than fortify reform efforts (World Bank 1990a, 1992).

32. Rodrik (1994) argues that structural reform policies like trade liberalization generate a high degree of income redistribution relative to net social benefit, and are therefore inherently more contentious than policies (ending very high inflation, for example) with a lower "political cost-benefit ratio."

33. Described by Caprio and Klingebiel (1996b) as "perhaps the most pernicious type of insolvency."

34. Modes of bank recapitalization and the tradeoffs between objectives and constraints in financial restructuring are discussed by Claessens and Klingebiel (1998), Rojas-Suárez and Weisbrod (1996) and Daniel (1997), among others.

35. Depositors may also lose their incentive to monitor the activity of bank owners and managers, thereby increasing the moral hazard problem in banking.

36. The other two being, first, to ensure that the parties who benefited from risk taking bear a large

portion of the cost of restructuring and, second, to prevent problem institutions from continuing to expand credit.

37. Such delays occur because of disagreement among the parties about contingencies unforeseen in initial contracts, the costs of renegotiating contracts, and the existence of asymmetric information about the state of the business and its assets, which may encourage the parties to adopt time-consuming bargaining strategies. The costs of delay and the economic rationale for bankruptcy law and orderly debt workouts are discussed in Eichengreen and Portes (1995), Cornelli and Felli (1995), Krugman (1988), Sachs (1989), and Williamson (1988).

38. Asian bankruptcy law systems before the crisis are discussed in Gamble (1998); see also *The Economist* (1998).

39. The incidence of poverty is the share of a country's population whose consumption level falls below a poverty level—a threshold level of consumption based on minimum food and nonfood requirements. Poverty lines vary among countries, making international comparisons difficult. For the latter purpose, a 'dollar a day' poverty line is taken, defining an internationally comparable minimum level of private consumption per person—usually \$1 a day, measured in purchasing power parity—adjusted 1985 dollars.

40. The link between growth and poverty is well established in the literature (World Bank (1990–95), Ravallion (1995)). Estimates of the responsiveness of poverty to growth in mean incomes (assuming distributional neutrality), indicate that in the late 1980s a 1 percent increase in growth was associated with a 3.5 percent reduction in poverty incidence in Malaysia and Thailand, 2.8 percent in Indonesia, less than 2 percent in most of Sub-Saharan Africa, and less than 1 percent in Brazil. See Demery, Sen, and Vishwanath (1995), Ahuja et al (1997), Watkins (1998), and World Bank (1993).

41. Morley (1994). The association between recession and higher inequality may not be so strong in developed countries where wages are sticky and firms may stockpile labor if the recession is perceived to be transitory, and where there are unemployment insurance and other benefits to protect the incomes of the poor.

42. Deininger and Squire (1997) find a strong and significant relationship between initial inequality of assets (measured by land) and the elasticity of poverty with respect to growth. However, they could

not confirm the hypothesis of a negative relationship between initial income inequality and subsequent growth, as reported in Persson and Tabellini (1994) and Alesina and Rodrik (1994). Addison and Demery (1994) discuss the impact of factor market rigidities in the formal sector. The differential impacts of policies are discussed in Bruno, Ravallion, and Squire (1996).

43. It is important to note, however, that adjustment remained incomplete in many countries. World Bank (1994) found that only 6 of 26 countries in Africa achieved a significant improvement in policies during the 1980s. On the positive side, Demery and Squire (1996) found that poverty declined in five African countries (out of the six for which household consumption data were available) where there was an improvement in an index measuring policy performance.

44. Estimates of employment and unemployment are only indicative, in part because they are derived from past elasticities of employment to output, which may not hold in crisis situations when there are large and abrupt changes. For Thailand the 0.74 employment elasticity prevailing in 1986–94 is used. For Indonesia an elasticity of 0.29 from the period 1985–95 is used. Official unemployment forecasts for Korea are used. (Projections of output are reported in footnote 54.) In addition, as is well known, employment and unemployment data in developing countries with large rural and informal sectors are not very reliable.

45. In Indonesia, for example, 37 percent of those employed in urban areas and 50 percent in rural areas work less than a 35 hour week.

46. Poverty estimates in this section (Chen and Ravallion [1998]) are made using the a dollar a day poverty line, in purchasing power parity, to allow comparison across countries. All poverty lines are arbitrary, and alternative definitions will yield different estimates. These poverty forecasts use data on the distribution of consumption (or income) from the most recent household surveys. They represent a first, quick approximation based on the assumption that household consumption falls at the same rate as GDP per capita. They consider neither differences in the impact on subgroups (some of the poor may lose while others gain), nor the differential effects of different patterns of relative price changes, access to credit, sectoral spending, and so on. The assumed GDP growth rates for 1998–2000 are: Indonesia, –15 percent, –2 percent, 2 percent; Thai-

land, -7.2 percent, -0.2 percent, 3 percent; Philippines, 1 percent, 3 percent, 4.5 percent; Malaysia, -2.6 percent, -1 percent, 3 percent. The exercise was not performed for Korea because of a lack of recent household survey information. (However, poverty incidence in Korea was already as low as 13 percent in the early 1980s. At the end of the 1980s Korea also had one of the most equal income and land distributions.)

47. Measures to protect the poor are being financially supported by the international community. During 1998 specific interventions by the World Bank to address the social crisis have included, for Indonesia: two rural development projects to promote income generation activities in some of the poorest areas (\$37 million); the Kecamatan Development Project targeting investment priorities in the poorest subdistricts (\$225 million); the West Java Basic Education project providing basic education improvement programs (\$104 million); the Fifth District Health project (\$54 million) to improve the health status of rural and poor populations; the Early Child Development project (\$21.5 million) to protect educational needs of the poorest children. Moreover, part of a \$1 billion policy reform support loan will help Indonesia to finance imported food and drugs, and subsidize the price of these foods and provide intensive job creation schemes. For Thailand, the World Bank has approved a \$300 million Social Investment project to establish safety nets and fund job creation schemes, low-income health insurance schemes, and training for the unemployed. A \$300 million economic recovery and social sector loan will help the government of Malaysia maintain spending on social sectors. In Korea a \$2 billion Structural Adjustment Loan will, among other objectives, strengthen social safety nets.

48. In the short run the cost of subsidizing the rice is simply the fiscal cost of the subsidy and its administration. It is assumed that there are no producer income losses.

49. Particularly in Indonesia; see World Bank (1993b).

50. Under the "Basic Employment Act" (February 1998), the ministry of labor is authorized to implement unemployment measures; under the "Manpower Leasing Act" (February 1998) manpower leasing services are introduced for selected jobs that require professional knowledge and skills. The "Wage Bond Guarantee Fund Act" (February 1998) entitles those

laid off from a bankrupt firm with more than five workers to a sum equal to three months' pay from a state-managed compensation fund from July 1; and the "Labor Welfare Fund for Small and Medium Enterprises Act" (February 1998) extends the use of the Labor Welfare Fund to cover school and medical care expenses. The "Employment Insurance Act" (February 1998) reduces the minimum contribution period from 12 to 6 months temporarily until June 30, 1999; increases minimum duration of benefit period to 60 days and minimum amount of Job Search Allowance from 50 to 70 percent of minimum wage.

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Preventing Financial Crises in Developing Countries

FINANCIAL CRISES OCCUR WHEN FINANCIAL SYSTEMS BECOME ILLIQUID or insolvent. Such crises have recurred throughout the history of capitalism. A collapse in investor confidence, usually after a period of market euphoria, marks such crises—examples include the Dutch tulip mania crisis of 1637–38, the Indian cotton futures market crash of 1866, and the Great Depression of 1929. When foreign lenders are involved, cross-border payments problems arise as well.

The East Asian crisis belongs to the class of twin financial crises, involving both banking and currency problems. According to modern economic theory, information asymmetries and financial market failures are central in explaining macroeconomic fluctuations and financial crises.¹ Because lenders know less than borrowers about the use of their funds and cannot compel borrowers to act in the lenders' best interests, lenders can panic and withdraw their funds when they perceive increased risks, in the absence of adequate public regulation and safeguards. That can trigger

much wider financial crises, with spiraling real-sector effects. The costs can be severe. Such crises can bring down the financial system, cause asset prices to collapse, and bankrupt sound as well as unsound banks and corporations. The East Asian crisis is expected to cause output in Indonesia, the Republic of Korea, and Thailand to drop 12–24 percent in 1998 (from previous trend levels), throwing millions into unemployment and poverty.

Over the past 100 years industrial countries have reduced the incidence and severity of systemic crises through public policy and institutional reforms—although they have not eliminated crises entirely.

Over the past 100 years industrial countries have reduced the incidence and severity of systemic crises through public policy and institutional reforms. They have not eliminated them entirely, however, as the savings and loan crisis in the United States in the 1980s, the banking crises in Nordic countries in the early 1990s, and the unfolding financial sector problems in Japan illustrate. In developing countries there is often a mismatch between public policies and the institutional structures (which are slow to change) intended to prevent financial crises, and their integration with world financial markets. Thus the number of such crises remains large and their costs have been growing. Reducing their incidence calls for policy and institutional reforms in both national and international settings.

Until the surge in private capital flows in the 1990s, most crises in developing

countries (including the sovereign debt crisis of the 1980s in Latin America) stemmed from macroeconomic mismanagement, including excessive public deficits and over-borrowing abroad. As evident in the light of recent events in Russia, reforms and policies to avoid such sovereign debt crises are important and still relevant in developing countries. The focus of this chapter, however, is on the type of crisis which involves private-to-private capital flows, and the role of domestic and international financial systems in intermediating such flows. The international setting is important because these crises (East Asia in 1997, Mexico in 1994, and Chile in 1982) are closely connected to rapidly rising cross-border private capital flows. These flows have grown massively in the past decade, but without the improvements in institutions and public regulation needed for their safe management.

The analysis of financial crises and the appropriate policies needed to prevent them highlights the way various factors interact and amplify risks. These include inadequate macroeconomic policies, surges in capital flows, fragility of domestic financial systems, weak corporate governance, and ill-prepared financial and capital account liberalization. Policymakers need to be concerned about these interactions in the sequencing and timing of policy and institutional reforms.

This chapter's key messages:

- The number and costs of financial crises have risen in developing countries since the 1980s, partly because relatively small economies are more exposed to the risks of international capital flow reversals. Many recent

crises are in fact both currency and banking crises, including the East Asian crisis (1997) and the Mexican peso crisis (1994). Developing countries have recently been exposed to a wave of capital inflows but have little experience with the institutional and prudential safeguards needed to minimize associated risks. The easier availability of cheap international capital in good times encourages excessive private risk taking, which can turn into a major problem when favorable financial sentiment erodes. The institutions needed to minimize the risks of such crises take a long time to develop, while the political constraints on prompt policy actions to avert them are often severe. However, the building of such required institutions and safeguards needs to proceed vigorously in all countries, so that the potential benefits of globalization can be realized with fewer risks.

- Poor macroeconomic policies leave a country vulnerable to financial crisis, and prudent policies are the first line of defense. In the presence of large capital inflows and weak financial systems, however, the room for maneuver in setting appropriate macroeconomic policies to control excessive private borrowing and risk taking is constrained because of the presence of numerous tradeoffs and their distributional consequences. Fixed or pegged exchange rates help anchor expectations and reduce uncertainty. But they may also provide unintended incentives to the private sector to overborrow (as in Thailand), while sterilizing capital inflows may be costly and ineffective

and shift the composition to short-term and volatile inflows. Flexible exchange rates help regain autonomy for monetary policy, improve risk perceptions, and reduce incentives for excessive borrowing, but they are not always enough to avoid crises and may result in volatile and misaligned real exchange rates. Countercyclical fiscal policy is important, but it too has tradeoffs (fewer schools and roads, for instance, to accommodate more shopping malls and office towers). What is needed is a multidimensional approach, often with more flexible exchange rates, greater reliance on fiscal policy, and better and tighter domestic financial regulation (and, where necessary, restrictions on capital flows) to reduce excessive capital inflows, domestic lending booms, and risks of financial crises.

- Financial sector liberalization, which can significantly boost the risk of crisis (particularly in conjunction with open capital accounts), should proceed carefully and in step with the capacity to design and enforce tighter regulation and supervision. At the same time, however, efforts to improve prudential safeguards and banking operations will need to be accelerated. There is strong evidence of a higher probability of crisis following liberalization without stepped-up prudential safeguards (even in industrial countries). Regulations that increase safety and stability are needed. Banking and capital market reforms, oriented toward better risk management, are critical in any strategy to prevent financial crises. Public policy and institutional reforms that

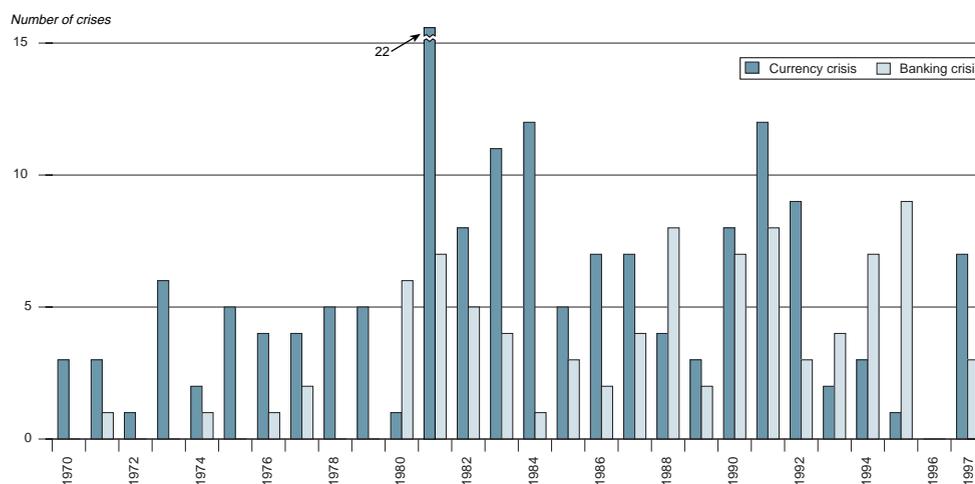
- clamp down on connected bank lending and improve corporate governance are equally essential to support the safety of the financial system.
- Capital account liberalization should also proceed cautiously, in an orderly and progressive manner, given the large risks of financial crises—heightened by international capital market failures—in developing countries. Benefits of capital account liberalization and increased capital flows have to be weighed against the likelihood of crises and their costs. Clearly the benefits from foreign direct investment (FDI) and longer-term capital inflows outweigh the costs associated with the increased likelihood of financial crisis, and developing countries should pursue a policy of openness. But for more volatile debt portfolio and interbank short-term debt flows and the related policy of full capital account convertibility, there are higher associated risks of financial crisis and greater uncertainty about the benefits. Tighter prudential regulations on banks, and, where the domestic regulatory and prudential safeguards are weak, restrictions on more volatile short-term inflows that minimize distortions and are as market-oriented as possible (through taxes, for instance), may reduce the risk of financial crisis. For countries that are reintroducing such restrictions on capital inflows, these actions will need to be managed carefully so as not lead to a loss of confidence; their reintroduction for capital outflows during a crisis may pose difficult problems (not considered here).
 - Changes are needed in the architecture of the international financial system in view of the excessive volatility (euphoria and panics), strong contagion effects, and increased scope for moral hazard in international financial markets. The most pressing issue is to develop better mechanisms to facilitate private-to-private debt workouts—including, under some conditions, “standstills” on external debt—and help resume capital flows and increase international liquidity to countries in crisis. Although there are some compelling arguments in favor of a lender of last resort, appropriate burden-sharing, rules for intervention, and moral hazard remain difficult and unresolved problems. Improved regulation by creditor-country authorities and better risk management of bank lending to emerging markets should also help reduce the probability of crisis. More timely and reliable information is desirable, but complete transparency and better information alone will not prevent crises. Still, better use of warning indicators may help governments take corrective actions early enough to reduce the extent and cost of crises. The issues are undergoing debate and consideration in different forums.

Costs and causes of financial crises

Financial crises have become more frequent in developing countries since the start of the 1980s (figure 3-1). They have taken three main forms: currency crises, banking crises, or both. Currency crises are usually attacks on the domestic currency that

Increased incidence of financial crises since the 1980s

Figure 3-1 Incidence of financial crises, 1970–97



Source: Caprio and Klingebiel 1996a; Frankel and Rose 1996; and Kaminsky and Reinhart 1997.

end with a large fall in its value, although they can include speculative attacks that are successfully warded off by the authorities.² Banking crises refer to bank runs or other events that lead to closure, merger, takeover, or large-scale assistance by the government to one or more financial institutions.

Sometimes, both currency and banking crises occur around the same time—the so-called twin crises. The 1997 financial crisis in East Asia is the most recent example—with Indonesia, the Republic of Korea, Malaysia, and Thailand all experiencing currency turbulence along with serious banking sector problems. Earlier examples include the Southern Cone countries—Argentina (1981), Uruguay (1982), and Chile (1982). More recently, Mexico (1994), Argentina (1995), and the Czech Republic (1997), as well as Finland, Norway, and Sweden in 1991 and 1992 have

experienced similar problems (Kaminsky and Reinhart 1997). While these crises have been associated with large volumes of private-to-private capital inflows, many other currency or twin crises in developing countries, including most recently in Russia, are of the traditional type where excessive public borrowing plays a central role.

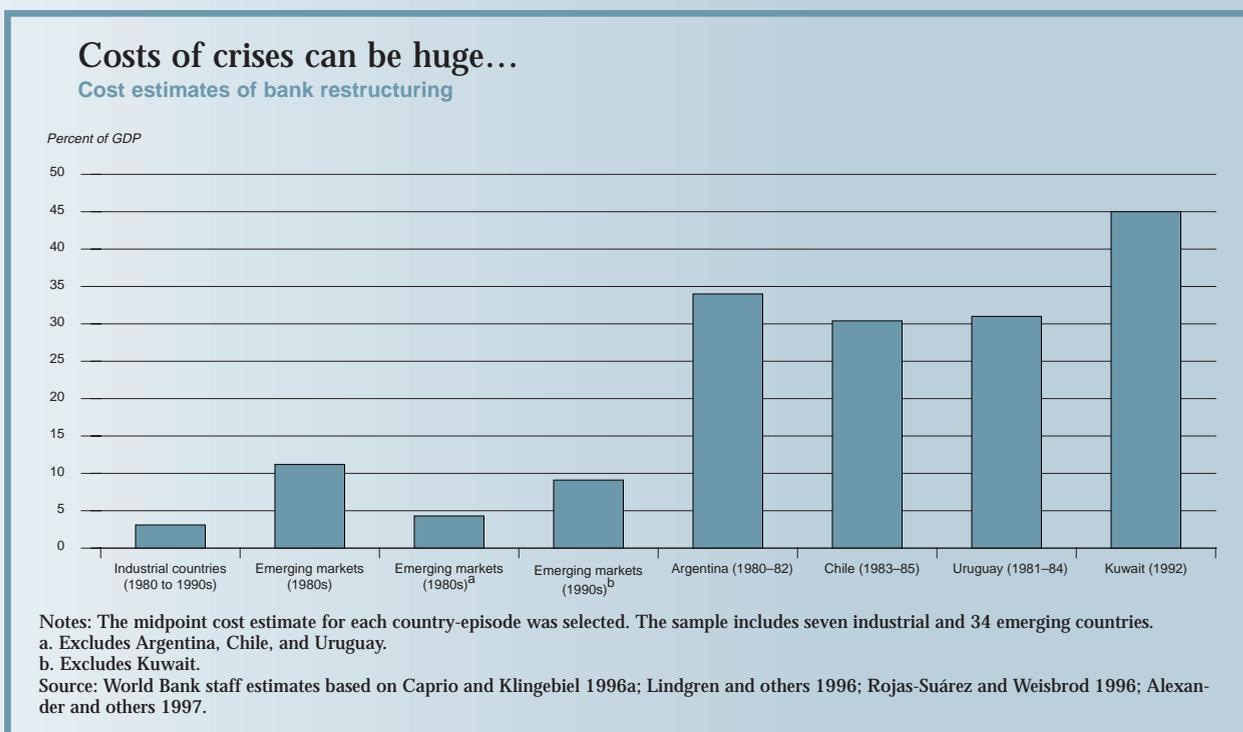
Financial crises can entail large costs (in lost output and welfare) and distributional effects, which are substantially magnified in a twin crisis. Banking crises exacerbate the negative impacts on the economy through a reduction in the volume of loans, the misallocation of financial resources, and the ensuing contraction in credit and cutbacks in investment (box 3-1).

The greater frequency and cost of currency and twin crises have been associated with surges in international capital inflows—especially private-to-private flows—

Box 3-1 Costs of financial crises

A World Bank study found for a sample of 14 banking crises a 5.2 percent average decline in output growth after crisis (World Bank 1997b). Another study found in emerging markets an average cost in lost output (over to trend output) of 14.6 percent of gross domestic product (GDP) per crisis (IMF 1998b). Yet another study found that both output growth and efficiency fall after a banking crisis, with exchange rate volatility and currency crisis common in their after-

math (Lindgren and others 1996). Such crises can also result in significant resolution costs, stretched over many years. A study in Latin America found that at least 4 to 5 years are required to resolve banking crises (Rojas-Suárez and Weisbrod 1996). The direct fiscal or quasi-fiscal outlays for bank restructuring vary between industrial countries and emerging markets and between individual countries from 1.5 percent of GDP for U.S. commercial banks in 1989 to 45 percent for Kuwait in 1995 (box figure



to developing countries and the growing integration of these economies with world financial markets (see below and Kaminsky and Reinhart 1997).

Private capital flows have surged

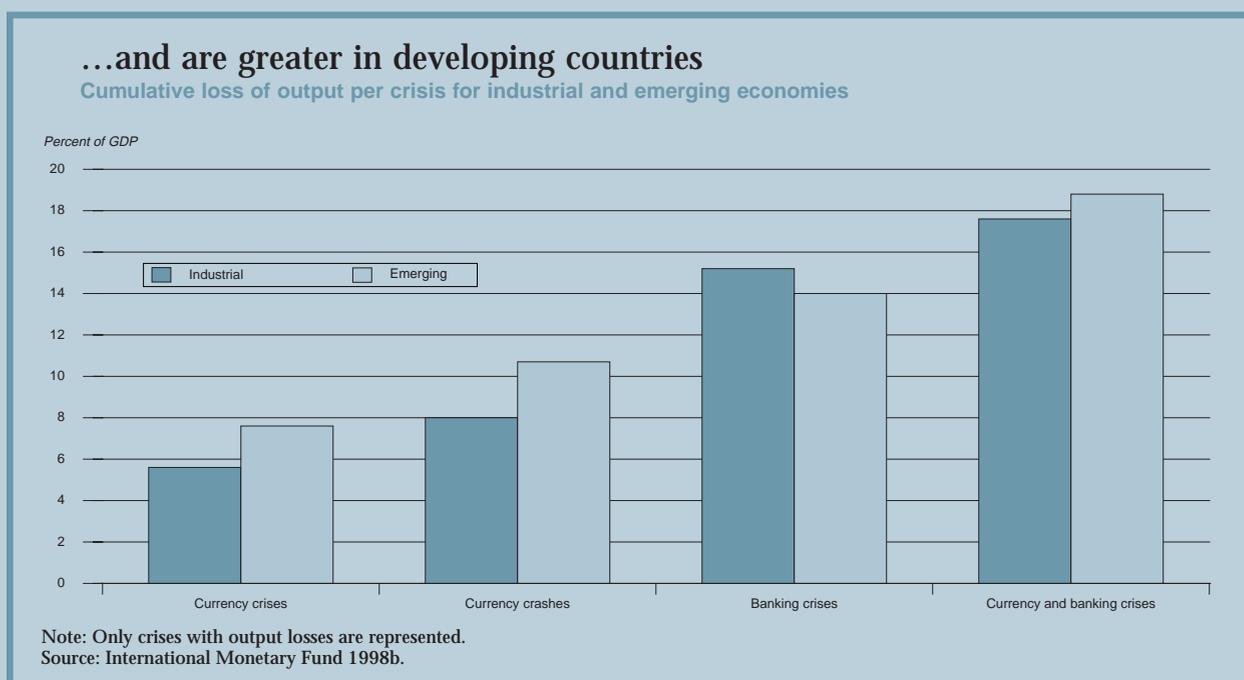
Private capital flows to developing countries rose from about \$42 billion in 1990 to

roughly \$250 billion in 1996. Long-term private capital flows went from less than 1 percent of developing countries' GDP in 1990 to a peak of 3.7 percent in 1993, and about 2.8 percent in 1996 (figure 3-2). The surge in private capital flows is unprecedented (at least since the end of the First World War),³ being twice as high as the pre-

below). In general, restructuring costs are higher in developing countries—where they range between 3 percent and 25 percent in Africa, between 1.8 percent and 13.2 percent in Asia, between 0.3 percent and 41.2 percent in Latin America, and between 1 percent and 15 percent in Europe and Central Asia—than in industrial countries, where they average less than 6 percent.

Costs of currency crises are higher for emerging markets than for industrial countries, and even higher in cases of currency crashes (see box figure below).

These costs are also much higher for twin crises reaching 18 percent of GDP in 26 emerging markets, and for developing countries than for industrial countries. Moreover, the average recovery time back to trend growth rates is longer for such crises (2.6 years, compared with 1.5 years for currency crises and 1.9 years for banking crises). Calculations for selected individual countries (for this report) find that the cumulative loss of output (relative to trend) ranges from a low of 0.2 percent of GDP (Mexico 1976) to a high of 30.6 percent (Chile 1971).



vious peak in private capital flows during the oil-boom years (1978–82). Further setting them apart, much of recent capital flows has been private-to-private, rather than private-to-public, flows. Some surges in capital inflows have been particularly massive: in 1989–96 cumulative private capital inflows reached 55 percent of GDP

in Thailand and 50 percent in Malaysia; and in 1993–96, they reached 43 percent in Hungary and 35 percent in the Czech Republic. By contrast, the peak for Organisation for Economic Co-operation and Development (OECD) countries in 1989 was 2 percent of GDP per year (on a weighted average basis).

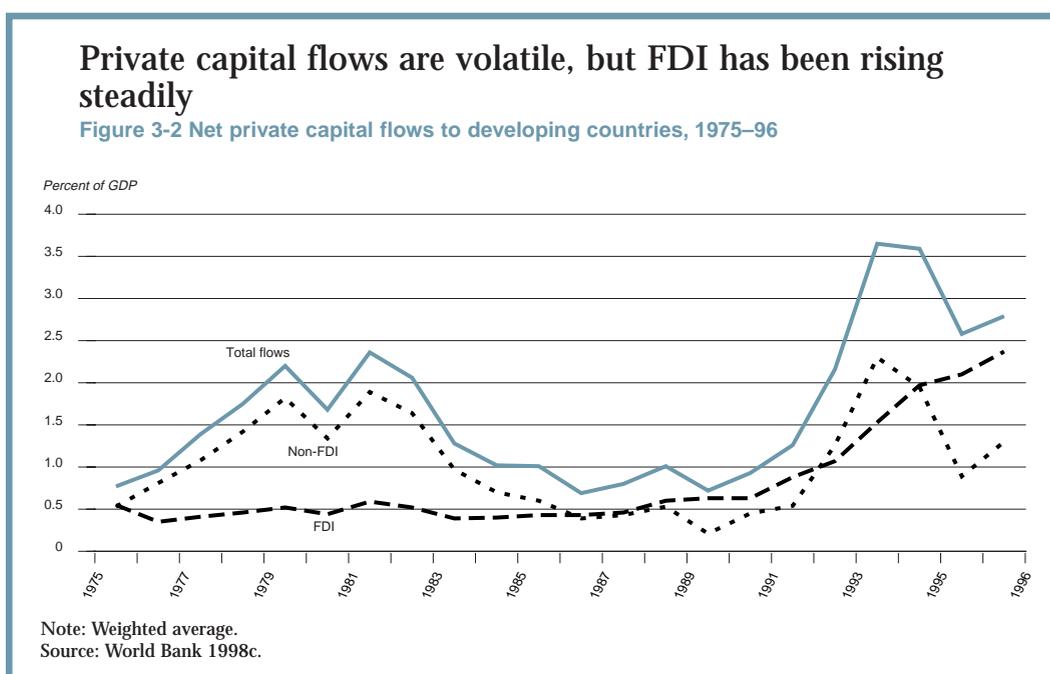
High volatility of private capital flows

Private capital flows have also been volatile and subject to large reversals. This is seen in the decline during the debt crisis of the 1980s, and in the reversal after Mexico's crisis in 1994, and after East Asia's crisis in 1997. FDI has been more stable and rose steadily throughout the various crises in developing countries (figure 3-2). Thus the recent rapid increases in FDI flows might be construed as being of the "jet-airplane" variety, bringing benefits with fewer risks.⁴ Non-FDI flows show far greater volatility, with sudden reversals.⁵ Analysis (see below) of non-FDI flows (portfolio equity, bonds and other debt securities, and bank loans) shows that medium-term bank loans have declined and have been replaced by portfolio flows, which show greater volatility than FDI, and sudden reversals, as evident

after the 1994 Mexican crisis. Short-term bank loans are even more volatile, as witnessed in the East Asian crisis.

In the context of the increasing integration of developing economies with world financial markets, the fundamental causes of twin crises of the type seen in East Asia lie both in domestic policies and institutions and in international capital market failures. The analysis in the rest of the chapter focuses on these causes of financial crises and appropriate policies to prevent them.⁶ The discussion highlights the interaction of these factors, especially the interaction of international capital markets with domestic financial vulnerabilities, which amplify the risks of a crisis:

- Macroeconomic policies may either exacerbate financial risks or fail to prevent boom-bust cycles, often a cause of financial crises.



- Inadequate prudential regulation and premature liberalization of domestic financial systems (along with poor corporate governance) may create conditions for excessive risk taking by lenders and borrowers.
- These two factors, coupled with short-term private-to-private capital inflows surges (as in East Asia) and premature capital account liberalization, can create even greater risks, and increase the likelihood of financial crises.
- Reliance on capital inflows exposes developing countries to external panics that may cause sudden and massive reversals in capital inflows, deep illiquidity, and strong contagion effects. Minimizing these risks and dealing more effectively with such financial crises would require a better architecture of the international financial system.

Moreover, political economy constraints may also prevent governments from

acting decisively to prevent a crisis, even when there are warning signals of vulnerability (often for many variables at the same time) and a crisis is known to be brewing—as in Thailand and Mexico (box 3-2).

Macroeconomic policies to manage capital flows and reduce financial risks

Macroeconomic policies designed to avoid large external and internal imbalances are a first line of defense in the prevention of financial crises. Crises are often a result of boom-bust cycles, with significant interaction between macroeconomic factors and weaknesses in financial and corporate sectors. For instance, an economic boom may result when weak regulation and government guarantees of financial liabilities lead financial institutions to engage in excessively risky lending (Krugman 1998; Corsetti, Pesenti, and Roubini

Box 3-2 Political economy and financial crises

Preventive measures to avert a crisis are obviously preferable to waiting for one to occur. Policymakers, however, often respond to other pressures.

Governments may fail to act because politicians give greater weight to short-term costs and less to long-term gains. Bad information and analyses may also play a role. Interest groups likely to lose out from policies that would minimize the risks of crises lobby to protect their interests. For example, measures to correct banking system fragility hurt bank owners, managers, shareholders, and well-connected firms (as in Indonesia) almost immediately, while benefits are long-term and diffused. Countries that have not experienced financial crisis lack a realistic notion of their costs. The lessons of crises influence the behavior of policymakers. The hyper-inflation experience of the 1920s has left German policymakers extremely sen-

sitive to inflationary signs, while policymakers in industrial countries have a strong collective memory of the effects of the Great Depression. Finally, policy conflicts abound, and the process of policymaking within countries is sometimes flawed (in Korea and Thailand, for example, with limited information sharing between the central bank and the Ministry of Finance).

Some of the most effective banking sector reforms have taken place only in the wake of major crises, as in Chile in the 1980s and Argentina after the 1994–95 Mexican crisis. Once the domestic financial system is in deep trouble, with large external borrowing requirements, the conflicts in policy may no longer be manageable. Bailing out domestic banks only results in more pressure on the external situation. A “soft landing” scenario may no longer be practical.

1998). Macroeconomic policies can either lessen or aggravate these risks. Surges in capital inflows can create the conditions for boom-bust cycles and compound macroeconomic and financial management problems—especially in small, open developing economies with fragile financial systems (McKinnon and Pill 1997; Corbo and Hernandez 1996).⁷ Moreover, real exchange rate movements affect resource allocation, particularly between tradable (export and import-competing) and nontradable (for instance, real estate) sectors. Loss of competitiveness for tradables and booms in nontradables can contribute to strains in the domestic financial system while aggravating external imbalances.

Sterilization of capital inflows may work in the short term, but it is increasingly costly over time.

Government's room for macroeconomic policy maneuver is often restricted by important tradeoffs and ineffective instruments. Fiscal policy may be too blunt to offset the effects of volatile capital inflows, while reducing public spending may conflict with other goals. Tighter monetary policies and sterilization may even increase capital inflows, particularly volatile short-term flows, while an exchange-rate peg eliminates the effectiveness of monetary policy and increases incentives for private borrowing abroad. A shift to flexible exchange rates increases the latitude in monetary policy maneuver but by itself may be insufficient to control overborrowing and may lead to greater exchange rate volatility. Flexible exchange

rates can also result in big losses of competitiveness and misalignments when capital flows surge to high levels.

Fixed exchange rates and sterilization of inflows

Policymakers use fixed or quasi-fixed exchange rates to reduce uncertainty about exchange rates, avoid nominal appreciation and maintain external competitiveness, and provide a nominal anchor to preserve domestic stability.

When private capital inflows surge, however, fixed or pegged exchange rates may become untenable and costly because of the implications for domestic macroeconomic goals (such as reducing unemployment), the inflationary pressures they generate, and the incentives they create for private agents to overborrow. The pursuit of a pegged nominal exchange rate contributed to the East Asian crisis, especially in Thailand.

The typical initial response to a surge in capital flows is to increase official reserves to maintain the exchange rate and guard against sudden reversals. An analysis of 27 episodes of capital inflows shows that, on average over the period of surge, one-third of the capital account surplus was absorbed by reserve accumulation. This ratio rises to 50 percent when the capital inflow is at the lower (0–3 percent of GDP) or the higher range (more than 9 percent of GDP; box 3-3).⁸

Under a currency board arrangement, an extreme form of fixed exchange rate, a country formally gives up its autonomy in monetary policy and strongly anchors its currency to a fixed rate (box 3-4). With a pegged exchange rate, however, the authorities tend to retain some autonomy in monetary policy in the pursuit of domestic objectives. During

Box 3-3 Capital inflows and reserve accumulation

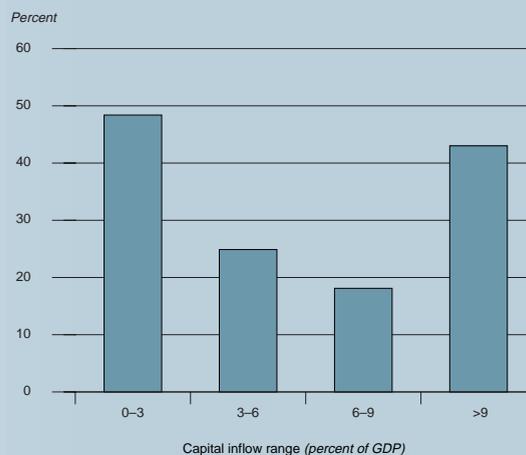
Monetary authorities frequently intervene to increase foreign reserves when capital inflows begin to surge, in order to preserve stability of the exchange rate (when the domestic currency is implicitly or explicitly anchored to an exchange rate peg) and to reduce market uncertainty. When capital began to flow into Morocco in 1990, its foreign reserves were low, and the authorities absorbed 75 percent of the incoming capital in the first three years. Similarly, in the Czech Republic in 1993, the authorities built up reserves of roughly 70 percent of capital surpluses for the following three years. In 27 inflow episodes in 21 developing countries, reserve accumulation absorbed an average of 32 percent of the change in the capital account surplus, with the extent of reserve accumulation depending on the size of flows.

At low levels of capital inflows, reserve accumulation absorbs close to half of the capital account surplus (box figure). This may be due to the buildup of reserves for trade purposes during the initial phase of capital inflows and determination of authorities to defend the exchange rate. At intermediate levels of inflow (3–9 percent of GDP) reserve accumulation falls to about 20 percent of the capital account surplus. When inflows are large (exceeding 9 percent of GDP), the authorities once again intervene aggressively, possibly because of increased perceived risks of reversals. The rate of reserve accumulation is also clearly related to the composition of capital inflows. The larger the non-FDI component of the increase in capital inflows, the higher the reserve accumulation.

Accumulation of reserves has a social cost (different from the cost of sterilization) measured by the difference between the cost of servicing the capital inflow equivalent

A sizeable share of capital inflows goes to reserve accumulation

Reserve accumulation and capital inflows



Note: Average reserve accumulation as percentage of capital account surplus during inflow surge period.
Source: World Bank staff calculations based on data from IMF International Financial Statistics.

to the accumulated reserves and the income earned on these reserves. This estimated cost for some East Asian countries (Malaysia and the Philippines) reached about 0.1 percent of GDP a year for many years. But this cost may be significantly higher: it was 0.16 percent of GDP a year for the Czech Republic and 0.12 percent for Peru.

the early stages of a surge in capital inflows, the authorities buy foreign exchange (which immediately expands the supply of domestic high-powered money) and simultaneously sell domestic bonds or increase reserve requirements to sterilize the effects of the inflows on domestic money supply. Without such sterilization, capital inflows would expand the domestic monetary base, creating a temporary economic and lending boom

and increasing financial system fragility. Economic agents would lose confidence in the authorities' ability to maintain the peg, and expectations of a devaluation would increase, possibly leading to an attack on the currency.

The fundamental problem with sterilization is the "inconsistent trio" or "open economy trilemma": any two, but not all three, features of macroeconomic policy—a fixed exchange rate, full capital mobility,

Box 3-4 Currency boards—when do they work?

Under a currency board, a country gives up its discretionary power over monetary policy, committing itself to issue no money that is not backed by reserves and to tolerate the interest rates that result. The hope is that the very strong commitment to maintaining the value of the currency reduces its susceptibility to attack, helping to sustain a fixed exchange rate and creating greater confidence. But does it work?

A currency board is different from a pegged exchange-rate system primarily because the authorities have chosen—through legislation (Argentina and Estonia) or other arrangements (an automatic link arrangement, as in Hong Kong [China])—to subordinate domestic policy and objectives to policies to maintain a fixed exchange rate. Under a pegged exchange rate, the monetary authority commits to the currency peg as a mechanism to maintain low inflation, but can abandon the peg in the event of a large shock to output (Obstfeld and Rogoff 1996). The authority weighs the costs of maintaining the peg (lower output, higher unemployment) against the costs of abandoning it (loss of credibility, higher inflation).

Speculative attacks on the peg can happen under either arrangement, and the required response to such attacks is to raise domestic interest rates and squeeze domestic credit high enough to stop the attacks. But if the costs to domestic output (primarily in nontradable sectors) are severe—as they tend to be if interest rates remain high for a long period—chances are the peg will be abandoned. By ruling out this possibility a currency board creates greater credibility for the arrangement. Currency boards appear to work best for only two groups of economies: small, open ones with large tradable sectors (Hong Kong [China] and Estonia); and economies that have been extremely unstable, where a currency board would restore badly needed credibility to domestic monetary policy (Argentina and Bulgaria). Other requirements for successful currency board arrangements include tight fiscal policies, with substantial fiscal surpluses and flexibility in fiscal policy; labor market flexibility; successful high interest rate defense against previous attacks (without large residual costs to the economy); and enough initial reserves to make the system credible.

Source: ADB and World Bank 1998; Obstfeld and Rogoff 1996.

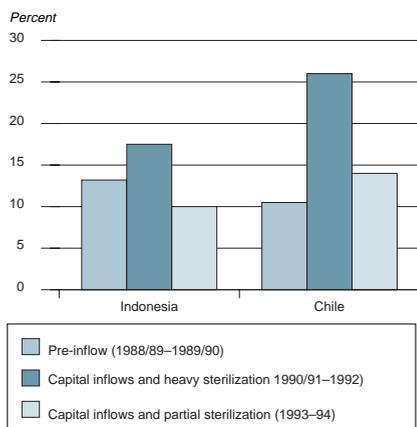
and monetary policy independence—are feasible (Mundell 1963; Wyplosz 1998; Obstfeld and Taylor 1998).⁹ Sterilization presupposes that independent domestic monetary policies can be pursued effectively (to control domestic money supply) under conditions of international capital mobility. But when exchange rates are fixed or pegged and there is a large degree of capital mobility (that is, when a country's financial assets issued in its currency are reasonably substitutable (in private portfolios) for other internationally accepted assets), sterilization policies may be ineffective, because any contraction or expansion of the domestic assets of the central bank will give rise to an offsetting capital inflow or outflow (Montiel 1993).¹⁰

Sterilization may work in the short term, but it is increasingly costly over time. If inflows persist, this strategy becomes even harder to maintain because of rising fiscal costs, reflecting the fact that interest rates on domestic bonds exceed the interest that central banks earn on foreign deposits abroad.¹¹ Moreover, sterilization leads to higher domestic interest rates, which attract further inflows of capital (figure 3-3). Short-term capital flows—which tend to be the most sensitive to interest rate differentials—increase, raising the vulnerability to liquidity crises (Montiel and Reinhart 1997).

Pegged nominal exchange rates can create unintended incentives to domestic residents to overborrow, thereby fueling surges in capital inflows. Maintaining the peg (as

Sterilization means higher interest rates and more short-term capital inflows

Figure 3-3 Interest rates and sterilization policies, Indonesia and Chile



Source: Asian Development Bank and World Bank 1998.

long as it is credible), as in Thailand prior to the recent crisis and in Chile in the late 1970s, effectively guarantees against any exchange rate risk to domestic borrowers acquiring foreign liabilities.¹² It lowers the cost of borrowing by socializing the exchange rate risk and allowing private borrowing without currency hedging. Normally, a prudent borrower facing exchange rate risks (and without a natural hedge, such as exports) would be expected to partly or fully hedge those risks in forward exchange markets, thereby lowering incentives to borrow abroad.

Shifting to flexible exchange rates

Placing restrictions on capital mobility can return autonomy to monetary policy under a fixed exchange-rate regime.

Switching to a flexible exchange rate also returns autonomy to monetary policy and provides incentives that, in a world of greater capital mobility, may reduce the likelihood of crises (Goldstein 1995; Corbo and Hernandez 1996). Flexible exchange rates—whether managed floats, exchange-rate bands (usually with a crawling peg; Williamson 1996), or fully floating exchange rates—offer several benefits. Through nominal and real appreciation, exchange rates take the brunt of the adjustment to large capital flows and allow greater independence for domestic monetary policy (that is, more effective application of sterilization policies) and lower inflation.¹³ Unintended incentives to overborrow are avoided because market participants are unsure about the future direction of exchange rates. By minimizing the impact of capital inflows on the external component of high-powered money,¹⁴ flexible exchange rates limit the effects of capital flows on the (potentially fragile) domestic banking system (Goldstein 1995). Malaysia and Chile, for example, managed surges in capital flows better than most other countries because of wider targets for exchange rates and capital controls (Corbo and Hernandez 1996; Goldstein 1995).

While shifting to a floating exchange rate may limit some of the boom-bust effects of capital flows, it may create other problems (Gavin and Hausmann 1996) in the process of reaching equilibrium. Exchange rates and interest rates may become more volatile. A large appreciation will worsen external competitiveness (especially if trade reforms require a depreciation), with potentially severe consequences

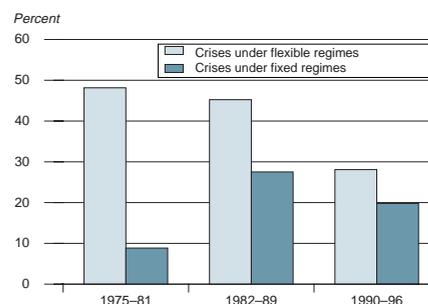
for the sustainability of capital flows in highly open and small economies.¹⁵ Further, when exchange rates appreciate, they feed expectations of a lasting boom, reduce domestic interest rates, boost the demand for credit, lower the costs of—and raise demand for—foreign borrowing (in domestic currency), and raise the returns on domestic assets (stock markets, for instance) to foreign investors, thereby encouraging more capital inflows. All these elements can continue to support a boom-bust cycle.

Indeed, it is the underlying real appreciation (the price mechanism that can operate either through nominal exchange rate changes or through domestic nontradable prices) that puts the boom-bust cycle in place (Corbo and Hernandez 1996). Shifting to a flexible exchange rate does not preclude a crisis (Khatkhate 1998; IMF 1997a). Indeed, crises are as likely to occur under flexible exchange rates as under fixed exchange rates, especially if other conditions, such as adequate prudential and regulatory safeguards on the financial sector are not in place (figure 3-4).

Under flexible exchange rate regimes, the monetary authorities may attempt to sterilize a surge in capital inflows or they may opt not to. If they choose to sterilize flows, domestic inflation is moderated, domestic interest rates do not fall rapidly, and capital flows continue, but the fiscal costs may be high. If they choose not to sterilize, interest rates fall more sharply, reducing incentives for foreign borrowing, but inflation may rise. Often, however, domestic interest rates will remain persistently high in developing countries.¹⁶ The incentive for increased capital inflows thus remains, contributing to vulnerability. There are also

Crisis are more frequent under flexible exchange rate regimes

Figure 3-4 Frequency of crises under flexible and fixed exchange rate regimes



Note: Ratio of number of crises during period to number of countries with flexible and fixed exchange rates, respectively.

Source: World Bank staff estimates based on data from International Monetary Fund 1998b, and IMF Exchange Arrangements and Exchange Restrictions, various issues.

other shortcomings with flexible exchange rate regimes, notably the loss of a nominal anchor and lower inflation gains.

Countercyclical fiscal policy

Given large and potentially destabilizing capital flows, a tightening of fiscal policy can help curb borrowing from abroad and reduce appreciation of the real exchange rate, but only if higher public savings are not offset by lower private savings.¹⁷ In practice, few countries take significant countercyclical fiscal action to temper a capital inflow boom (Schadler et al. 1993). That places too great a burden on monetary policy to restrain aggregate demand, which leads to accumulation of short-term liabilities and increases vulnerability.

Three factors make it difficult to take the required fiscal adjustment measures:

first, the state is to some extent held hostage to private capital inflows; second, the fiscal process is inflexible relative to the volatility of capital flows; and third, demand is not met for many essential public goods and services—often those (such as human resources and physical infrastructure) that might be essential to increase the longer-term efficiency of the economy and the absorption capacity of resources from abroad. The result is that fiscal policy is often procyclical, which makes the situation even worse (as happened in East Asia recently).

Resorting to other instruments

If the surge in capital inflows is large, the standard tools of macroeconomic policy—shifting to flexible exchange rates, avoiding strong sterilization efforts, and implementing strong countercyclical fiscal adjustment—may prove ineffective or impractical. Other instruments may be needed. Indeed, since fragile financial sectors are a prime vulnerability of developing economies, policies should support the conduct of prudent macroeconomic policies by improving and tightening the prudential regulatory framework of the financial system (and implementing other measures related to external financial liberalization).

Financial liberalization, domestic banking reforms, and corporate governance

In the past two decades developing countries have been encouraged to liberalize their domestic financial sectors—lift controls on domestic interest rates and credit

allocation, privatize financial institutions, and allow entry and competition from new private institutions. A growing body of evidence shows the importance of strong financial systems and financial deepening for long-run growth and development (King and Levine 1993; Levine 1997; Levine and Zervos 1998). Demirgüç-Kunt and Detragiache (1998) find that moving from financial repression to liberalization of domestic financial systems results in faster long-run growth of almost 1 percent per year.

Domestic financial liberalization

Financial liberalization also requires more—not less—and effective prudential regulation to ensure the safety and soundness of financial systems. It also requires better corporate governance structures and arm's-length relationships between banks and corporations. These arrangements take time to build, and without them, financial liberalization associated with surges in capital inflows often leads to financial crises. These crises are not limited to developing countries—Scandinavian countries that undertook financial liberalization at the end of the 1980s and early 1990s also experienced these problems.¹⁸

A study of the relationship between banking crises and financial liberalization by Demirgüç-Kunt and Detragiache (1998) for 53 countries between 1980 and 1995 found that crises are more likely in liberalized financial systems¹⁹ (figure 3-5). Several mechanisms link deregulation and liberalization to crisis (Goldstein and Turner 1996):

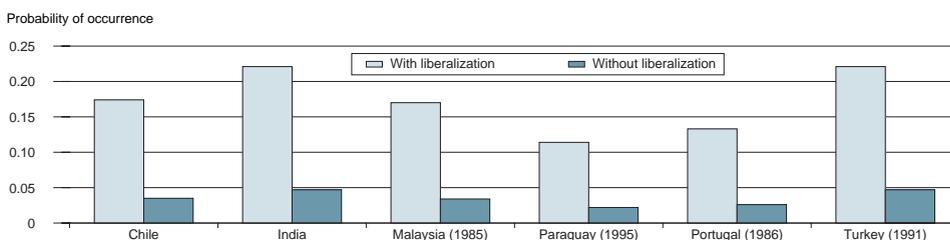
- Increased competition among financial institutions (from existing banks, the entry of new banks, development of nonbanks, and expansion of capital

markets) may lower bank margins, profitability, and franchise values or effective capital base (Asian Development Bank [ADB] and World Bank 1998). Empirical evidence of this effect on franchise values is found by Demirgüç-Kunt and Detragiache (1998; figure 3-6). The decline in bank margins and profits may be an objective of financial liberalization, but if excessive competition leads to sharp declines in franchise values, it may reduce the incentives for prudent banking and lead to excessive risk taking by bank managers. Sheng (1996) finds these factors to be responsible for bank failures in Argentina, Chile, Kenya, Spain, and Uruguay.

- Higher real interest rates often emerge following liberalization (Galbis 1993). If firms are operating with high debt-equity ratios, a hike in interest rates can lead to distress borrowing and an inelastic demand for credit, which perpetuate high interest rates.²⁰ A bidding up of deposit rates may also weaken banks.
- Rapid credit expansion due to reduced reserve requirements and a larger money multiplier released pent-up demand for credit or easier access to foreign resources, and expanded bank lending to boom-bust prone activities (Caprio, Atiyas, and Hanson 1994). Bank credit managers trained in a controlled environment may not have the skills needed for a riskier environment.
- Freeing deposit rates with weak banks, in developing countries and even more in transition economies, leads to higher deposit and lending rates to reflect the higher risk. This tends to attract riskier investors and increases the overall portfolio risk of banks. An increase in systemic risk further pushes up interest rates (Mas-sad 1994).
- Many episodes of banking crises are associated with the entry of bank owners bent on engaging in risky and questionable activities (as in Chile in the 1970s and many transition economies in recent years).

Banking crises occur more in liberalized financial systems

Figure 3-5 Interest rate liberalization and probability of crisis

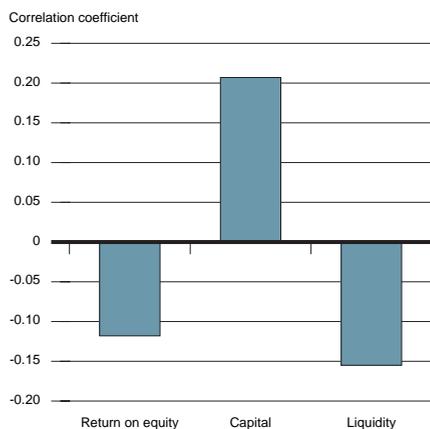


Note: Countries are classified as crisis cases if the predicted probability is greater than 0.05, which is actual frequency of crisis.

Source: Demirgüç-Kunt and Detragiache 1998.

More competition may lower bank margins and franchise values

Figure 3-6 Financial liberalization and bank franchise value



Note: Pearson correlation coefficient between dummy for financial liberalization and variable (based on Bank-level variables which are averaged by country for the period 1988–95).

Source: Demirgüç-Kunt and Detragiache 1998.

In view of the benefits and risks from domestic financial liberalization, the transition needs to be carefully managed.²¹

Supervisory capacity has to be developed quickly and should precede liberalization. New bank owners and managers need to meet the criteria for prudent professional bankers. Similarly, bank managers, loan officers, and other professional staff need to be properly trained. Entry of foreign banks may help achieve this objective. But lifting restrictions on domestic and foreign entry to increase competition and innovation needs to be monitored to avoid large declines in the franchise values of banks and excessive risk taking.

Authorities should be vigilant in curbing lending booms following liberalization,

for example through higher reserve and capital requirements.²² Developing countries might temporarily impose limits on credit growth to avoid the risks associated with credit booms, especially during rapid transformation of the banking system, when the supervisory system is insufficiently developed.²³ Alternately, countries may wait to lift constraints or decide to impose more stringent and explicit limits and restrictions on risky lending activities (and concentration of risk), such as real estate, securities, and foreign exchange exposure.

Finally, careful sequencing of domestic and external liberalization is called for. Restrictions on the capital account, especially on the more volatile capital flows, should be lifted only after the domestic financial sector has been strengthened.

Supporting the financial system and improving corporate governance

How well the financial system functions also depends on the legal framework to enforce contracts and protect property rights and the state of corporate governance. While these measures are not discussed in detail here, improvements in this area are nevertheless of vital importance. When transparency is lacking and corporate governance is weak, both banking systems and corporate sectors are more fragile.²⁴ Cozy relations among banks, government, and corporations weaken market discipline, encourage connected lending, increase the scope for moral hazard, and foster inefficient outcomes. Other signs of weaknesses are loose financial accounting and disclosure and high leveraging, which facilitates excessive risk taking. Concentration of

power in family dominated and politically connected companies, with weak protection of minority shareholders, is also common in developing countries.

These factors have contributed to weak performance and banking sector distress in East Asia, their effects intensified by increased access to foreign resources and domestic financial liberalization. Debt-to-equity ratios rose significantly in many countries, and economic efficiency and profitability declined.

Banking reform, strongly oriented toward risk management, is a key ingredient of any long-term strategy to minimize the risks and costs of financial crises.

The policy prescriptions to support development of the financial system and improve corporate governance are straightforward.²⁵

- Developing accounting, auditing, and disclosure standards to increase the flow of information, and enhance efficiency by improving the quality of investment, reducing misallocations, correcting mistakes rapidly, and strengthening business risk assessment and the accountability of managers to shareholders.
- Setting up the legal infrastructure—bankruptcy laws, debt workout procedures, enforcement of collateral and guarantees—to write and enforce contracts confidently and to protect and balance the interests of creditors, shareholders, and managers, thereby creat-

ing a credit culture in which trust and expectations of repayment and transaction costs are reduced.

- Restricting connected lending practices. Such policies would also support the development of capital markets and alternatives (equity and long-term debt) to short-term debt finance and reduce the extent of leverage and vulnerability of firms to shocks.²⁶

Strengthening domestic banks through better regulation and market incentives

Banking reform, strongly oriented toward risk management, is a key ingredient of any long-term strategy to minimize the risks and costs of financial crises. An efficient banking sector with effective supervision and regulation helps reduce the distortions that increase vulnerability to potential crises.²⁷ The central aim should be to reduce information asymmetries and develop a risk management culture in the banking sector. Internal systems of risk management have to be developed and strengthened, and best practice techniques used. Bank supervisors tend to prefer ensuring the adequacy of a bank's internal controls to directly assessing financial conditions.²⁸ This is important in developing countries, since the risks facing the banking sector are especially great because of problems in the state of development and competitiveness of domestic financial markets, corporate law and governance, contract enforcement and bankruptcy, sophistication of bankers and their regulators, extent of political connections between institutions and governments, and susceptibility of the economy to domestic and international economic shocks.²⁹

Developing country regulation should take account of the strengths and weaknesses of financial systems and of regulators. Regulations, controls, and restrictions that produce inefficiencies and distortions should be abandoned. However, the vulnerabilities and frequent failures of financial systems indicate that some restraints are needed (World Bank 1998b, chapter 6). For instance, mild restraints on deposit interest aimed at creating franchise value for banks may induce outcomes that are more efficient than financial repression (where interest rates are kept at low negative real levels, inducing inefficient deepening and misallocation of resources) or immediate financial liberalization (Hellman, Murdock, and Stiglitz 1996, 1997; World Bank 1998b). Financial restraint features played a significant role in improving stability in East Asian countries in the past; while some of the other features such as market incentives have been implemented with some success in Chile, New Zealand, and the United States (Nicholl 1997; Caprio and Klingebiel 1996b; Goldstein and Turner 1996).

Banking regulation and supervision. Weak regulation and supervision are the most widely recognized sources of vulnerability in developing countries' banking systems.³⁰ Most industrial countries subscribe to "Core Principles for Effective Supervision" of the Basle Committee in the design of banking regulation and supervision to reduce vulnerability of the financial system.³¹ In addition to macroeconomic stability, the building blocks include:

- Higher standards of competence and integrity of bank management, as well as effective management controls.

- More transparency and adequate information on the soundness of banks.
- Public financial safety nets that boost confidence in the financial system but also limit induced distortions, such as explicit or implicit government guarantees, that encourage excessive risk taking.
- Effective regulatory and supervisory oversight for controlling risk and limiting the adverse impact of official safety nets.
- Transparent ownership structure that enhances competitive behavior, and limits on connected lending.

The Basle committee's core principles can also be extended to include accounting and information disclosure, loan classification, and bankruptcy regimes. International accounting and auditing standards are also available.³² International financial institutions can help countries adopt and implement these regulations.³³

Recommending that developing countries build a sound and healthy financial system according to these principles is not sufficient, however. Building such systems takes a long time, and it is hard to determine a minimal requirement for the quality of the banking sector. Also, adjustments are needed to take account of specific features in developing countries.

Incentives and market discipline. Relying heavily on regulation and supervision to control excessive risk taking is of questionable efficacy, particularly for developing countries (Caprio and Klingebiel 1996b; Caprio 1997; Goldstein and Turner 1996). It takes too long to develop supervisory capacity and skills. Moreover, supervisors are often unable to detect risky behavior and take action against troubled

banks, because the kinds of behavior tend to change over time and supervisors are not prepared for them. They may also be prevented by policymakers from taking action.

These factors argue for relying more on market-imposed discipline and improving incentives for prudent banking. In addition to raising capital adequacy ratios, this strategy could include:³⁴ increasing the financial and personal liability of managers and directors (going to unlimited liability), or introducing mutual liability; requiring a tier of uninsured subordinated debt for individual banks (to increase the incentives for private monitoring of banks); and requiring banks to regularly publish key information, such as credit ratings. Clear exit policies and resolution mechanisms should also be spelled out, covering automatic or structured early intervention and graduated responses by the authorities as bank capital reaches some predetermined thresholds (Caprio 1997).

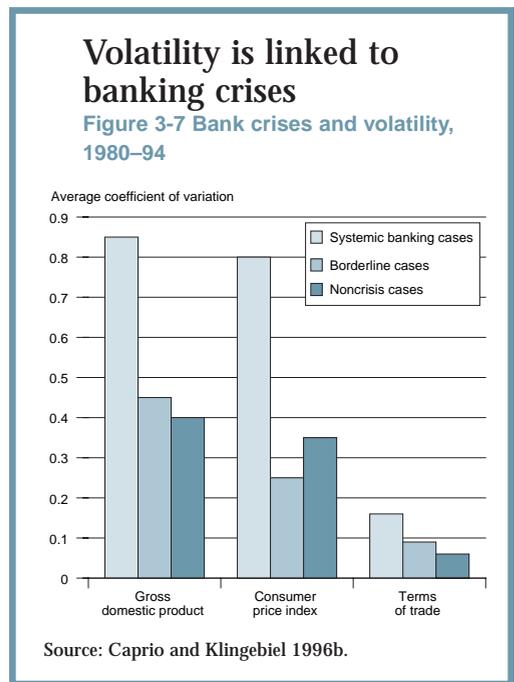
Volatility and the need for more stringent regulations. Developing countries share structural characteristics that subject them to greater volatility. These include an unstable macroeconomic environment, concentrated economic activity and exports, and susceptibility to greater shocks—terms of trade, weather, interest rates, and policy volatility (figure 3-7).³⁵

Vulnerability to external shocks and, especially, to changes in international interest rates, has been shown to be the most important factor in banking crises.³⁶ A reversal of macroeconomic conditions in capital-exporting countries leads to higher interest rates, curtailed capital inflows, and slower growth of bank lending.

These structural features have implications for the institutional framework of the banking sector in developing countries, such as a need for higher capital-adequacy ratios than the Basle international standard (see Goldstein and Turner 1996; and Honohan 1997) and for more stringent limitations on the concentration of risks (such as loans for real estate or securities).³⁷

The role of government, guarantees, and moral hazard. Government often plays a pervasive role in the banking sector in developing countries. This generates serious conflicts, especially moral hazard problems, that are a major underlying factor in risky lending. Necessary reforms include:

- Above all, severely limiting the government’s role in directly running and managing banks. This can mean privatization of banks, which has to be handled carefully, especially with respect to



pricing (and its effect on franchise values), treatment of risks, capital adequacy, and management.

- Reducing the government's direct involvement in allocating credit and in providing guarantees to commercial enterprises so as to enhance market-oriented banking behavior. Because of moral hazard, implicit or explicit government guarantees can lead to excessive risk taking. Banks tend to raise money at safe rates and lend at premium rates to finance speculative investments beyond prudent levels (McKinnon and Pill 1997; Krugman 1998).
- Setting up a formal deposit insurance scheme to deal with the negative externalities that individual failures may have on the rest of the banking system. Insured depositors, however, have little incentive to monitor banks, and regulators may engage in regulatory forbearance and delay action against troubled banks. Indeed, Demirgüç-Kunt and Detragiache (1997) find that deposit insurance has a significant positive effect on the likelihood of a banking crisis. Thus, supervision, minimum capital requirements, and mandatory issues of subordinated debt would help reduce moral hazard and induce banks to reduce their risks. In addition, there should be limits on the amounts insured, and co-insurance should be required (that is, covering less than 100 percent of deposits), as well as charging risk-weighted deposit insurance premiums. Policymakers should also consider mutual liability for banks, clear procedures for closing insolvent banks, and possibly private provision and management of the insurance program.

Benefits and associated risks of capital account liberalization

Capital account (or external) liberalization and financial integration with world capital markets can potentially bring large benefits, and both have been advocated for developing countries for that reason.³⁸ Letting domestic agents trade financial assets with foreign economic agents may increase access to capital and lower its cost. Productivity improvements, risk diversification, and consumption-smoothing are other potential benefits.

Many developing countries have liberalized capital accounts in the past decade (box 3-5), but recent experience suggests that such liberalization and increased financial integration can sharply raise the risks of financial crisis (box 3-6).

Many developing countries have liberalized capital accounts in the past decade, but recent experience suggests this can sharply raise the risks of financial crisis.

In fact, the duality of benefits and risks of international capital mobility is inescapable in a world of asymmetric information (Obstfeld 1998), where lenders do not know as much as borrowers about the uses of their money and are therefore prone to panic. Thus, the benefits of capital account liberalization and increased capital flows have to be weighed against the likelihood of such crises and their costs. Recent discussions at international forums have heightened the recognition of the issues, especially in relation to volatile short-term flows.

Box 3-5 How far has capital account liberalization progressed?

The OECD's Code of Liberalization of Capital Movements of 1961 (extended to include all capital account transactions by 1989) and the European Union's 1988 Second Directive on Liberalization of Capital Movements were milestones in the liberalization of industrial countries' capital accounts. It is only since the late 1980s and early 1990s that most industrial countries have accelerated the pace of capital-account liberalization. The number of industrial countries with neither separate exchange rates nor restrictions on payments for capital transactions increased from 3 in 1975 to 9 in 1985 and 21 in 1995. The number increased in developing countries as well, from 20 in 1975 to 31 in 1995.

Most industrial and developing countries still had some type of capital controls at the end of 1997, mainly on direct investment (143 countries), real estate transactions (128), and capital market securities (127). In addition, most countries implement provisions specific to commercial banks and other credit institutions (152).

Only a few industrial countries (Luxembourg and the Netherlands) and developing countries (Armenia, Djibouti, El Salvador, Panama, and Peru) report no capital controls, and a few report just one type of control (Canada, Denmark, Mauritius, Uganda, and Paraguay).

Most countries still have some form of capital controls

Controls on capital-account transactions, year-end 1997

	Total	Developing countries	Industrial countries
Number of IMF member countries	184	157	27
Controls			
Capital-market securities	127	112	15
Money-market instruments	111	102	9
Collective investment securities	102	97	5
Derivatives and other instruments	82	77	5
Commercial credits	110	107	3
Financial credits	114	112	2
Guarantees, sureties, and financial backup facilities	88	86	2
Direct investment	143	126	17
Liquidation of direct investment	54	54	0
Real estate transactions	128	115	13
Personal capital movements	64	61	3
Provisions specific to:			
Commercial banks and other credit institutions	152	137	15
Institutional investors	68	54	14

Sources: Quirk and others 1995; Mathieson and Rojas-Suárez 1993; International Monetary Fund 1996, 1997b, and 1998c.

Evidence suggests that for FDI and similar long-term foreign capital flows, the benefits are significant and the risks low. The benefits of capital account openness to short-term debt and other volatile non-FDI flows are less certain; the greater volatility of such flows is strongly associated with financial crises. While the clear demarca-

tion between these two categories of inflows is not watertight (see further below), in practice, the effects are clearly differentiated. There are larger benefits and fewer risks for FDI-type flows, which tend to be more resilient in times of crises and to carry important benefits beyond finance, than for short-term flows. Thus, developing

countries should tailor their openness to their capital inflow needs and their ability to bear the risks.

In addition to foreign direct investment and trade credits, capital flows can range from pure debt such as short- and medium-term bank loans, to long-term bonds, very long-term debt (century and perpetual bonds), quasi-equity (such as convertible bonds), and portfolio equity flows. The extent of use of these financial instruments by developing countries reflects investors' preferences in terms of risk sharing between the parties in the source and destination countries, currency exposure and maturity risk to the developing country firm, and extent of diversity of sources of finance using the instrument (table 3-1).

Derivatives can also reduce the cost and risk developing country firms face in accessing international capital markets. For example, through interest rate swaps, borrowers can assume the kind of liability they prefer (fixed or floating rate) at a lower interest rate than through regular borrowing. Currency-swaps enable borrowers to match the currency composition of assets and liabilities.

The analysis below highlights the evidence for the benefits and risks of capital flows, differentiated mainly by FDI and non-FDI flows. While it is simplified, it illustrates the major issues and their policy implications, which in practice have to take account of the variety of financial instruments, the mechanisms of their intermediation, and the use of the associated resources.

Benefits of capital account liberalization and capital flows

The theoretical benefits from capital account liberalization include increased access to capital and faster productivity growth, risk diversification, and consumption smoothing.³⁹

Capital accumulation and growth. Benefits include increased investment and more efficient allocation of resources, which result from taking advantage of differences among countries in the productivity of capital and opportunities for risk diversification. Incomplete risk markets discourage investors from undertaking risky projects, many of which have high potential returns. By allowing more risk diversification, more of these projects will be undertaken, leading to higher expected returns. The

In capital markets, the risk depends on the type of borrowing

Table 3-1 Financial instruments and their risks

Instrument	Risk sharing	Currency exposure	Maturity risk	Diversity of sources
Borrowing facilities	Low	High	High	Low
Syndicated bank loans	Low	High	Moderate	Low
Straight bonds	Low	High	Moderate/low	High
Leasing	Moderate	High	Moderate	Low
Limited recourse financing	Moderate	Moderate/low	Moderate	Low
Quasi-equity instruments	Moderate	Moderate	Moderate	High
Portfolio equity investment	High	Low	Low	High

Source: World Bank.

Box 3-6 Are capital flows the main culprit?

Fragile domestic financial systems are often the root cause of a financial crisis, and while capital inflows are also blamed, they are but one element. Risks carried by capital inflows and excessive borrowing are important. In the Republic of Korea, excessive domestic financial risk taking—including low equity and heavy bank borrowing—was a long-standing practice. What may have tipped the balance in the 1997 crisis, however, was capital flows: when in the context of its

entry into the OECD, Korea liberalized the ability of its banks to borrow (short-term) abroad (instead of tightening safeguards), there was a massive surge in such inflows; their reversal subsequently precipitated the crisis. The problems may have been aggravated by Korea's retaining tight controls on FDI inflows, preventing precisely the type of flows that it should have encouraged—more stable, longer-term flows that would have brought equity, technology, and better risk management.

expected results are higher capital accumulation and productivity growth. Benefits vary by type of flow.

For FDI and similar long-term, relatively stable, flows the benefits are well documented. FDI flows accounted for 5–6 percent of aggregate investment in developing countries in the 1990s, above the 1–2 percent of the previous 15 years (World Bank 1997a). FDI also tends to “crowd in” more domestic investment: every \$1 of FDI in developing countries is associated with \$0.50–\$1.30 of additional domestic investment. While it is difficult to establish causality, increased FDI flows are generally associated with faster aggregate long-run growth (and total factor productivity growth), with each percentage point increase of FDI in gross domestic product (GDP) associated with a 0.3–0.4 percentage point faster growth in per capita GDP (Wacziarg 1998).

For non-FDI—particularly short-term debt and more volatile flows—the benefits are less certain.⁴⁰ Among 18 countries that received significant private capital flows in the late 1980s and early 1990s, the surge in such capital flows was associated with increased investment, as expected; each \$1 of non-FDI inflows appears to be associ-

ated with just \$0.60 of additional investment, however. One reason is that a significant share of such inflows goes into reserve accumulation and results in a net social loss, rather than a gain (see box 3-3).⁴¹ Prudent behavior also implies that short-term financial resources should not be used to finance long-term investment projects. Taking this into account, and using the sample average capital-output ratio of 2.5 and elasticity of output with respect to capital stock of 0.4, a 1 percentage point increase of non-FDI capital inflows in GDP would be expected to generate additional growth of only about 0.10 percent of GDP in gross terms and less in net (GNP) terms.⁴² Some benefits on productivity could also be expected, especially in low-savings countries where non-FDI inflows might make possible highly productive investments. Again, while there are direction of causality issues and results should be interpreted with caution, simple correlation on a sample of countries showed little evidence of a significant positive association between non-FDI inflows and productivity growth; in the one case that showed statistically significant association—the subsample of low-savings countries—the association was strongly negative (figure 3-8).

Benefits depend on the policy environment. The opposing signs and different values of correlation shown in figure 3-8 imply that the impact of non-FDI capital flows and capital account openness may depend more on the economic and policy environment in individual countries than on the extent of capital account openness and flows themselves. This is the case for FDI inflows (World Bank 1997b) and official aid flows (Dollar 1998), for both the size and direction of impacts on productivity depend on the policy environment.

Some indirect evidence about the benefits of non-FDI inflows can also be inferred by looking at the counterfactual case: are

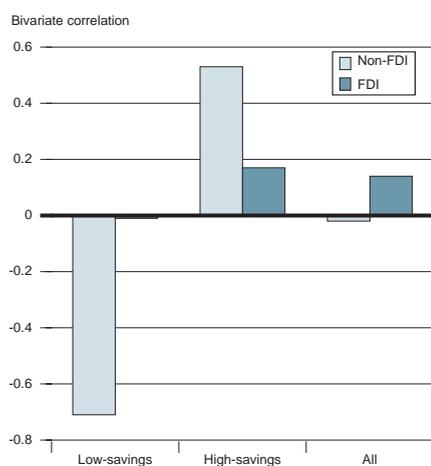
there significant losses in terms of slower growth when countries have capital controls, especially on short-term and portfolio flows? Based on the experience of 20 OECD countries in 1950–89, Alesina, Grilli, and Milesi-Ferretti (1994) find no negative impact of capital controls on GDP growth. Using a simulation model, Razin and Yuen (1994) show that the long-run effects of liberalizing capital flows are very modest. Rodrik (1998) uses a GDP per-capita growth equation and a simple index of capital account openness with a sample of almost 100 industrial and developing countries for 1975–89 and finds that capital account convertibility has no significant effect on growth once other effects are taken into account (figure 3-9). Carrasquilla (1998) finds similar results for 1985–95 for 19 Latin American countries using more direct measures of capital controls (figure 3-10).

Risk sharing and consumption smoothing. In developing countries characterized by a concentration of exports and economic activity, allowing domestic banks to diversify their portfolio helps reduce their vulnerability to external (terms of trade) and internal output shocks. The scope for gains from open capital accounts may also arise from risk sharing and asset diversification. The evidence for such gains is based on simulation models whose results are mixed. Obstfeld (1995) estimates that the potential gains may be very significant, while Tesar (1995) finds them small. Levine and Zervos (1998) find no evidence of significant effects on growth of international risk sharing through increased integration of stock markets.

Another potential source of welfare improvement from capital flows is increased opportunities for consumption

There is little connection between non-FDI inflows and productivity growth

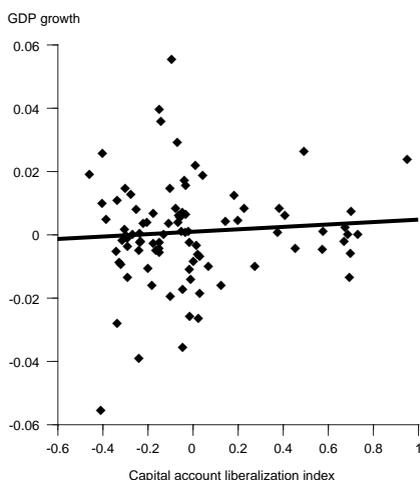
Figure 3-8 Correlation between capital inflows and total factor productivity growth in low- and high-savings countries



Note: Sample of 18 countries receiving substantial capital inflows in the late 1980s and early 1990s.
Source: World Bank staff estimates.

There is no evidence...

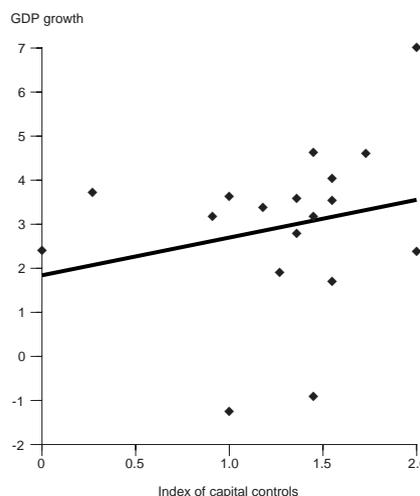
Figure 3-9 Economic growth and capital account liberalization in 100 countries, 1975–89



Note: The figure is a partial scatter plot (controlling for per capita income, secondary education, quality of governmental institutions, and regional dummies for East Asia, Latin America and the Caribbean, and Sub-Saharan Africa). Source: Rodrik 1998.

...that capital controls slow growth

Figure 3-10 GDP growth and capital controls in Latin America, 1985–95



Source: Carrasquilla 1998.

smoothing in the presence of high income volatility.⁴³ A country that is isolated financially would have to accommodate any external shock through changes in consumption and investment. In contrast, a country that is well integrated with world financial markets can lend and borrow and thus maintain consumption and investment close to desirable levels—even when national income is fluctuating. The gains may be larger for developing countries with more income volatility.⁴⁴ The general observation, however, that capital flows tend to be procyclical in developing countries indicates that consumption smoothing is not significant.⁴⁵ More detailed evidence also suggests that while capital inflows may

have reduced the volatility of consumption relative to that of income, on average they are associated with increased volatility. Results for a sample of 17 countries that gained significantly greater access to private capital flows show that volatility during the inflow surge remained higher for consumption than for income, with the difference increasing in 10 countries. Thus, the gains from consumption smoothing appear uncertain and limited.

Risks associated with capital account openness

The risks associated with capital account liberalization and capital flows for a developing country depend on the ability of policy-making institutions as well as the financial and corporate sectors to adjust to shocks

and absorb risk, as well as on its own volatility. Various financial assets traded internationally differ in their volatility and implications for increased vulnerability to crisis,⁴⁶ but three arguments link financial integration and increased risks of financial crises.

The first is that openness to capital flows may increase the risk of currency crises if surges and reversals of capital flows (and crises) occur independently of a country's policies and actions.⁴⁷ When international interest rates rise, international investors are likely to cut back their financing to developing countries. At the same time, the capacity of developing country banks, firms, and governments to service debt is reduced. There is strong empirical evidence that international interest rates are a major determinant of non-FDI capital flows,⁴⁸ and are a big factor in the probability of crises (Frankel and Rose 1996; Kaminsky and Reinhart 1997). Foreign interest rates and a volatile external environment have also been found to be significant determinants of banking crises and, therefore, indirectly of currency crises (see discussion of domestic financial sector).

A second argument against financial integration is that international capital market failures can aggravate domestic financial weaknesses and have contagion effects. A third is that integration, while not the root cause of financial crises in emerging markets, may contribute to crises whose origin is domestic—especially given weak financial systems and inappropriate macroeconomic policies.⁴⁹

While there is little direct evidence of the role of capital account liberalization or capital inflows in financial crises, there is some indirect evidence. Since the 1980s

there has been a negative correlation between capital flows and the lifting of capital controls (IMF 1997a). At the same time, currency crises have increased, which may indicate causality between capital account liberalization and currency crises (Wyplosz 1998). Most empirical analyses, however, have failed to find statistical evidence linking the volume of capital inflows to crises (Sachs and others 1996). An exception is Radelet and Sachs (1998), who find some evidence of a relationship between crises and capital account deficits (but not current account deficits). Frankel and Rose (1996) also find that higher FDI flows (relative to debt) are associated with a lower probability of crises.

There is additional indirect evidence linking capital flows with crises for a sample of 27 capital inflow surges in 21 countries (table 3-2). In 1996 these countries accounted for 69 percent of private flows to developing countries (or 83 percent, when

The risks associated with capital account liberalization depend on a developing country's ability to adjust to shocks and absorb risk, and on the volatility of flows.

China is excluded). The mean ratio of total private-to-private capital flows to GDP over the inflow periods ranges from 2.2 percent to 11.8 percent. The composition of these inflows varies considerably, with the mean ratio of FDI to non-FDI private-to-private flows ranging from a negative 0.1 to 3.4. In about two-thirds of the cases, there was a banking crisis, currency crisis, or twin crises in the wake of the surge.

Volatility of non-FDI and portfolio flows. The risks associated with capital account liberalization hinge on the volatility of capital flows and the risks of reversal during bad times, when access to additional financing is especially important. For FDI

flows, the risks are small because these flows respond more to longer-term considerations than to short-term international interest rates, and because they interact less with domestic financial markets. The risks of large reversals are even lower because

Indirect evidence links capital inflow surges with crises

Table 3-2 Surges in private-to-private net capital inflows and financial crises

Country	Inflow	Mean ratio of annual capital flows to GDP	Mean ratio of FDI to non-FDI capital inflows	Crisis following inflow episode
Argentina	1991–94	2.5	1.0	1994–95 banking crisis following Mexican devaluation
Brazil	1992–96	3.1	0.2	1995 banking crisis
Chile	1978–81	11.1	0.1	1982–83 currency and banking crisis
Chile	1989–96	5.1	0.7	No crisis
Colombia	1992–96	4.4	1.2	No crisis
Costa Rica	1986–95	5.5	1.0	No crisis
Czech Republic	1993–96	8.3	0.6	1997 currency crisis
Estonia	1993–96	5.4	3.4	1997 near-crisis
Hungary	1993–95	11.8	1.1	1995 crisis
India	1994–96	2.5	0.3	No crisis
Indonesia	1994–96	3.7	1.1	1997 crisis
Korea, Rep. of	1991–96	2.5	-0.1	1997 crisis
Malaysia	1982–86	3.1	(a)	1985–88 banking crisis
Malaysia	1991–96	9.8	2.5	1997 crisis
Mexico	1979–81	2.5	0.7	1982 crisis
Mexico	1989–94	4.5	0.6	1994/95 financial crisis
Morocco	1990–96	3.2	0.6	No crisis
Pakistan	1992–96	3.5	0.4	No crisis
Peru	1988–96	6.9	0.4	No crisis
Philippines	1989–96	4.5	0.5	1997 crisis
Philippines	1978–82	3.0	0.0	1981 banking crisis 1983–84 currency crisis
Sri Lanka	1991–95	5.3	0.3	No crisis
Thailand	1978–84	3.0	0.3	1983 banking crisis 1984 currency crisis
Thailand	1988–96	9.4	0.2	1997 crisis
Tunisia	1992–96	3.6	2.5	No crisis
Venezuela	1992–93	2.2	0.0	1993–94 banking crisis 1995 currency crisis
Venezuela	1976–79	3.9	-0.1	1980 banking crisis

Note: The inflow episodes were selected based on the length (minimum of two years) and the volume of total private-to-private capital flows as a percentage of GDP (minimum ratio of 2 percent).

Total private-to-private capital flows = total private capital flows – public and publicly guaranteed private creditors.

Total private capital flows = total flows – official flows – net use of IMF credit.

Total flows = foreign direct investment + portfolio investment + other investment + net errors and omissions.

Total non-FDI private-to-private capital flows = total private-to-private capital flows – foreign direct investment.

a. The mean ratio is very high and negative, reflecting a very low negative denominator (non-FDI private-to-private capital flows).

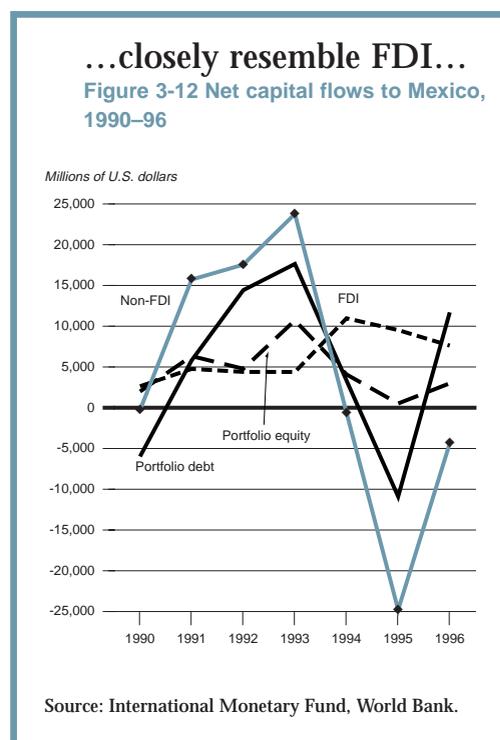
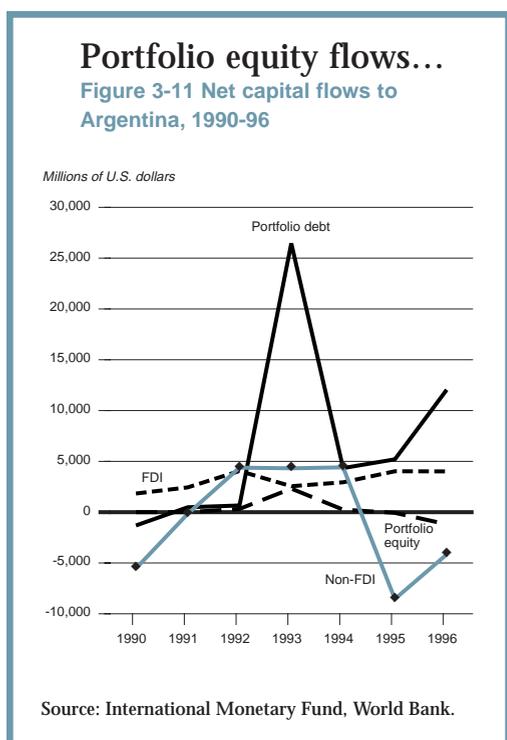
Source: IMF Balance of Payments 1996 and 1997; World Bank 1998a; Kaminsky and Reinhart 1997.

FDI inflows are usually invested in longer-term assets (plant and machinery, and services, for instance) that cannot be liquidated quickly. For non-FDI flows, there are clearly more risks of volatility and reversals, but they may differ according to various categories.⁵⁰

Volatility of non-FDI flows and stability of FDI flows for three countries—Argentina, Mexico, and Hungary—suggest different characteristics and behavior, particularly in times of downturns (figures 3-11 to 3-13). FDI is far less volatile and less subject to reversals.⁵¹ It even continues to increase in downturns. Non-FDI private-to-private flows, in contrast, are much more volatile. Portfolio equity most closely resembles FDI, but is more volatile. Debt portfolio investment (including private-to-

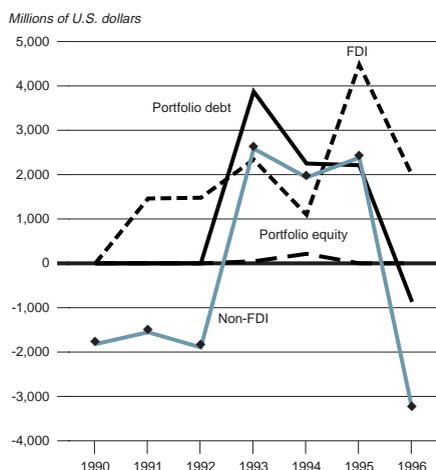
public) is volatile and intensifies the severity of financial crises. Non-FDI and debt portfolio flows increase in the years just before a crisis, then reverse sharply after the crisis occurs. These features magnify boom-bust cycles and, hence, the severity of financial crises in small, financially open developing countries.

Volatility of short-term interbank flows. Interbank borrowing also tends to be highly volatile. The reversal in flows from Bank for International Settlements (BIS) reporting banks in Korea and Thailand was dramatic in the second half of 1997 (figure 3-14). The liquidity crisis in both countries largely reflects this reversal, particularly in short-term interbank credit lines. In contrast, FDI flows held up, at least in the first half of 1998 (when they



...but debt investment is volatile

Figure 3-13 Net capital flows to Hungary, 1990-96



Source: International Monetary Fund, World Bank.

What are the implications?

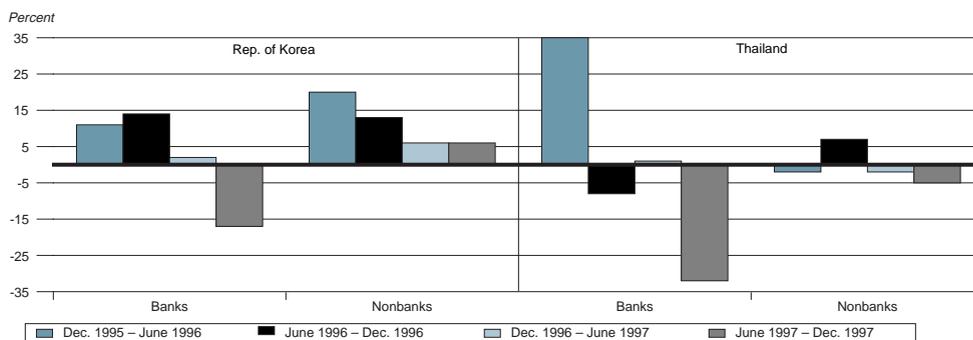
The larger risks and uncertain benefits of portfolio and short-term flows for countries with weak institutional capability and financial systems suggest proceeding carefully with capital account convertibility. Because the risks stem largely from the distortions and externalities associated with international borrowing and from the wedge between social and private rates of return, and social and private risk, policy should attack distortions at or close to their source. Since the capacity to implement such policies and their effectiveness may not be perfect, this approach must be pragmatic and take account of developing countries' specific conditions.

The first step is to eliminate tax incentives and other distortions that encourage short-term capital inflows. Another is to use prudential regulations on currency and maturity positions by banks. The Basle Core Principles for Effective Banking Supervision recommend only that banking supervisors

were higher than in 1997), even though the prospects for the following period will also depend on the global situation.

The reversal in short-term credit in the second half of 1997 was dramatic

Figure 3-14 Rate of change of total debt outstanding by BIS-reporting banks to banks and nonbanks



Source: Bank for International Settlements.

ensure that bank managers set appropriate limits and implement adequate internal controls on foreign currency exposure. But developing countries should also introduce specific limits on currency and maturity mismatches (for example, requiring minimum liquid foreign currency assets to cover short-term foreign currency liabilities), and prudential regulations limiting the aggregate open currency positions of banks, including derivatives. But because even well-managed firms and financial institutions have run into severe losses through the use of such instruments, there is also a need for better supervision of these regulations and of risk management procedures. Countries may also introduce more stringent liquidity requirements in terms of foreign assets relative to foreign liabilities than for domestic currency liabilities.

Prudential regulations of banks and financial institutions does not resolve the risk of excessive exposure by the corporate sector. Banks may satisfy foreign currency exposure requirements by borrowing in foreign currency and lending in foreign currency to domestic firms. If domestic corporations do not have foreign exchange cover, the currency risk for banks is transformed into a credit risk. Thus, additional measures are needed for domestic corporations. These may include requiring disclosure of short-term and unhedged borrowing, reducing the tax deductibility of such borrowing, and the rating of firms raising funds abroad and listing on the domestic stock exchange.⁵²

When the domestic regulatory and supervisory system for banks is weak, controls over corporations are ineffective, and access lender of last resort is uncertain, restrictions on capital flows may be useful.

This often implies maintaining or reinforcing capital account restrictions. For countries that are reintroducing such restrictions, this may mean loss of credibility, so such actions have to be managed in a way

The larger risks and uncertain benefits of portfolio and short-term flows for countries with weak institutional capability and financial systems suggest proceeding carefully with capital account convertibility.

that does not lead to even greater loss of confidence. The imposition of capital account restrictions, as part of a preventive package to minimize the risks of financial crisis, is concerned mainly with capital inflows. Their reintroduction for capital outflows during a crisis poses many difficult problems, not considered here.

Restrictions on capital flows should minimize distortions and be as market-oriented as possible. One way is explicit taxes or reserve requirements on foreign exchange liabilities according to holding period. In Chile and Colombia implicit taxes have substantially shifted the composition of such flows and discouraged short-term flows without having much impact on the volume of flows (box 3-7; World Bank 1997b; Montiel and Reinhart 1997). Restrictions on capital flows have to reflect specific factors, such as administrative capability, and have to balance the need to be comprehensive in order to minimize distortions and evasions with the need to discriminate between capital inflow categories, according to the benefits and risks associated with such flows.

The international financial system

The international environment plays an important part in financial crises in emerging markets. Volatility in international interest rates and economic growth in industrial countries affect the allocation of assets to emerging markets and create risks of booms and reversals in capital flows. Other characteristics, such as volatility and sudden shifts in market sentiment associated with euphoria, panics, herd behavior, and contagion are also influential. These failures in international financial markets have implications for international financial institutions.

Proposals for reforming the international financial system architecture have been under discussion since the Mexican crisis. A working group, under the auspices of the Group of 10 (G-10) industrial countries, drafted the Resolution of Sovereign Liquidity Crises, which focuses on sovereign bonds.⁵³ Discussions have gained urgency

with the outbreak of the East Asian crisis and its global spread. The Group of 22 countries (G-22) established three working groups on enhancing transparency and accountability; strengthening financial systems; and managing international financial crises. These working groups have now finalized and submitted their reports,⁵⁴ and discussions of these proposals in official forums began in early October 1998. The G-7 countries have since agreed on a number of specific initiatives to strengthen the international financial system (Group of Seven 1998). These include, in the immediate context, an enhanced IMF facility to provide a precautionary line of credit and a World Bank emergency facility to provide support to countries at times of crisis for the protection of vulnerable groups and financial sector restructuring; and, in the longer-term, agreement on other principles to strengthen the global financial system, including greater transparency, enhanced surveillance, orderly and progressive capital

Box 3-7 Restrictions on capital flows in Chile and Colombia

Chile introduced restrictions on capital inflows in 1991 through unremunerated reserve requirements (World Bank 1997b). These reserves, which have to be maintained for one year regardless of loan maturity, constitute an implicit tax on foreign borrowing that varies inversely with the holding period. In 1995, reserve requirements were extended to all types of foreign financial investments, including American depositary receipts. Colombia introduced capital controls in 1993 through unremunerated reserve requirements on direct external borrowing with a maturity of less than 18 months. These were subsequently tightened, requiring reserves for all loans with maturities of less than five years.

Chile has since lowered the reserve requirement to zero.

It is difficult to gauge the effects these restrictions have on the volume of flows, as a change in flows could also be caused by other macroeconomic and financial developments. The restrictions in Chile and Colombia can be thought of as an implicit tax that significantly increased the interest differential between domestic and foreign short-term interest rates. Econometric studies that use this approach to estimate their effects suggest that they substantially changed in the term structure of external borrowing—discouraging short-term inflows—and encouraged equity investment in Chile and Colombia (Cardenas and Barrera 1997; Quirk and others 1995).

account liberalization, orderly resolution of future crises, and the need for good practices in social policy to protect the most vulnerable. Other announcements include the need to pursue further proposals for strengthening prudential regulations in industrial countries to promote safe and sustainable capital flows, strengthening financial systems in emerging markets, and improvements in other related areas. This section considers five main issues that are still evolving and remain subject to some debate.⁵⁵

An international lender of last resort?

Arguments have been advanced for an international lender of last resort, but such arguments also raise unresolved issues.

The traditional argument concerns the possibility of systemic risk. If a country fails to serve bank debt—whether sovereign or private—it may undermine the liquidity and even the solvency of banking systems in creditor countries. This risk was clearly present during the debt crisis of the 1980s, when BIS reporting banks' direct exposure to major emerging markets exceeded their capital, but it was much weaker in the 1997 East Asian crisis (table 3-3). This argument has lost some of its force with the greater risk diversification by banks and use of non-bank-based financial instruments.⁵⁶

A second argument is based on the absence of an effective national lender of last resort (Mishkin 1998), whether because the country has chosen a currency board or because of the intrinsic difficulty in a small, highly open economy of an internal resolution of the liquidity problems of the domestic financial system.⁵⁷

A third argument is based on the risks caused by contagion and the potential spread of panic among international investors (the Asian crisis provided yet another striking example of this). When a vulnerable currency is attacked, the attack may spread to other countries' currencies, even when their fundamentals are sound. A lender of last resort would provide reserves to emerging markets threatened by speculative attacks and thus prevent a currency collapse.

A final justification for a lender of last resort is on social welfare grounds. While market participants should bear the consequences of their actions and incur the costs of a crisis, some costs are borne by groups not responsible for the crisis, particularly the more vulnerable.

The G-7 adopted the principle of establishing a precautionary bilateral and multilateral line of credit to countries that are at risk and pursuing strong IMF-approved policies—to be drawn only in the event of a

BIS banks' exposure to emerging markets is much less than in the 1980s

Table 3-3 Commercial (BIS-reporting) banks' exposure to emerging markets
(debt as percentage of banks' capital)

	East Asia-5 ^a	Latin America-5 ^b	Major emerging markets ^c
All BIS-reporting banks			
End 1982	19.1	58.1	101.1
June 1997	18.8	14.2	50.0
German banks	17.0	13.7	
Japanese banks	39.2	5.2	
U.S. banks	6.8	14.5	

a. Indonesia, Republic of Korea, Malaysia, Philippines, and Thailand.

b. Argentina, Brazil, Chile, Mexico, and Venezuela.

c. Major emerging markets: East Asia-5, Latin America-5, China, Colombia, Czech Republic, Hungary.

Source: Bank for International Settlements and Organisation for Economic Co-Operation and Development

liquidity need. This would have potentially important benefits in helping to avert crises by reducing perceptions of uncertainty about international support and securing country policy improvements. There are also potential caveats to the effectiveness of this proposal, the problems being the same as those that apply to a lender of last resort.

Bailouts, moral hazard, and risk and burden sharing

Whether through a formal lender of last resort or ad hoc rescue packages, bailouts create moral hazard. Three types are possible: the first type relates to expectations by

Whether through a formal lender of last resort or ad hoc rescue packages, bailouts create moral hazard.

developing country governments of a bailout, which can reduce incentives to implement better policies. In most circumstances, however, the economic, social, and political costs of a financial crisis are too high for such moral hazard to operate. In fact, governments may delay calling on international financial institutions—despite the fact that a prompt response would reduce the costs of a crisis. A second type of moral hazard can arise because international creditors expect to be protected if a crisis occurs. A third type can arise because banks and private corporations undertaking risky activities expect to be bailed out under workouts of foreign debts, leading to the domestic socialization of these debts.

Hard evidence about the extent of moral hazard in international lending is

elusive. It has been argued that the Mexico bailout may have contributed to excessive risk taking in Asia, but the very large generalized decline in spreads on lending during the period preceding the East Asian crisis across all emerging markets may have also owed significantly to a generalized climate of euphoria. Still, it would be hard conclude that moral hazard has not been playing a significant role in influencing investor and borrower behavior in recent times, especially in the case of Russia before the immediate runup to the crisis (when spreads were still moderate). The abrupt cut-off in capital flows and sharply higher spreads to all emerging markets as a risk-class following Russia's collapse may also be partly ascribed to the realization that bailouts were no longer certain.

A supervisory role would be required for an international lender of last resort to minimize moral hazard. This implies using conditionalities for prudent macroeconomic management, implementing institutional reforms to reduce risks of crisis, and supporting measures that reduce incentives for (and introduce restrictions on) excessive risk taking.⁵⁸ Imposing this supervisory role on sovereign governments poses many challenges, however (Obstfeld 1998).

Bailouts also require dealing with risk and burden sharing issues, which means adopting clear rules to make sure that private operators bear some of the costs of their risky behavior. For domestic debtors, guarantees may be justified only for commercial banks in order to protect the payments system. These guarantees have to be paired with significant debt-reduction concessions by private creditors (Goldstein 1998), which must bear some of the costs of a crisis and

not be the only ones bailed out through the intervention of the lender of last resort.⁵⁹

The size of rescue packages has increased dramatically in recent years. Large amounts are thought to be necessary to quiet down markets as they panic. But such “rescue creep” has risks. No reasonable amount of public money can stop a justified speculative attack. By themselves, larger packages worsen moral hazard problems and may lead to excessively tough conditions, defeating the end objectives.

In the final analysis, recourse to a lender of last resort depends on resolving a series of issues: the political concerns associated with the need to supervise sovereign governments, the tradeoff between the short-run benefits of avoidance or reduction in the severity of crisis and the long-run risks from moral hazard, and the availability of alternatives to official new lending. In the present international architecture, the mandate and corresponding resources to play this role are lacking. Given such limits, better national risk management in private and public spheres will remain a key.

Complements to new official lending, and involvement of the private sector in crisis prevention and resolution

A first cushion against a reversal in capital flows is adequate international reserves, a common but costly policy. Another possibility is to enter into private market arrangements that guarantee liquidity up to a predetermined limit. Argentina has such a contingent repo facility with international banks.⁶⁰ Indonesia had standby credit options, but the amounts were far too small

to cope with the country’s financial crisis in 1997.

Another alternative is to promote debtor-creditor negotiations to reach restructuring agreements allowing rollovers, extension of maturities, and reduction of debt. If clear and predictable, such workouts can help reduce lending distortions and induce better pricing of risk.⁶¹ The main implementation issue is collective action by creditors. Every creditor has an incentive to try to get out first or to “free-ride” on others’ accep-

By themselves, larger packages worsen moral hazard problems and may lead to excessively tough conditions, defeating the end objectives.

tance of workout arrangements. Negotiations are difficult to initiate, protracted, and hard to enforce because of information asymmetries and transactions costs (Eichengreen and Portes 1995). The collective action problem is much more challenging in a crisis that involves mostly private-to-private debt (as in East Asia) than in one involving public debt (as in the crisis of the 1980s).⁶² Further complicating the process is the much greater number of creditors and debtors than in the past and the centrality of exchange risk, as recent debt workouts in Korea and Indonesia show.

Three types of contract clauses in debt instruments can be used to improve creditor coordination: collective representation, such as in bondholder councils; qualified majority voting; and sharing clauses that discourage dissident creditors from engaging in disruptive legal proceedings (Eichengreen and Portes 1995, Goldstein 1998).⁶³

Debtor and creditor country governments are the central players in orderly workouts of private debts, as well as sovereign debt (Aggarwal 1998). The debtor country usually has primary responsibility for setting negotiations, especially given the adjustment policies they will have to implement. This should not lead to provision of government guarantees and the socialization of private debts, however, which happens frequently (including in the recent Korean and Indonesian agreements) and exacerbates moral hazard. Creditor governments play a crucial role by forcing their financial institutions to the negotiating table, to see that the private sector bears some of the costs of risk taking. International financial institutions, which have restrictions on lending into arrears, need to formalize the conditions for exceptions (which are frequent in practice) if they are to negotiate with private creditors in providing additional liquidity.

The external debt workout must also be properly sequenced with domestic debt restructuring. External creditors should not receive undue precedence or seniority.

The most critical aspect of a debt workout, however, is the temporary suspension of debt payments, which helps stop the decline in the currency and buys time to put in place a credible adjustment program and to organize debtor-creditor negotiations. By allowing an orderly debt restructuring, it could result in better outcomes for both the debtor country and creditors.

To be effective, however, the standstill has to come at the right time. That timing has to take into account three factors: one is that governments may delay declaring a debt standstill, fearing a loss of confidence and

credibility and thereby greatly reduce the benefits. This seems to have been the case in East Asia in 1997. A second consideration is the need to prevent debtor governments with weak reputations from making excessive use of standstills; debt standstills should be possible only under exceptional circumstances and in extreme distress. The third is the need to get a standstill in place at the earliest possible date, so that all (or at least most) creditors share in the costs of restructuring.

Improved regulation and stepped-up supervision on bank lending in creditor countries

Asymmetric informational problems are more acute in cross-border lending and can lead to less discriminating and more risky lending. This was the case in the runup to the debt crisis in the 1980s, and seems to have occurred in the East Asia crisis. Witness the dramatic drop in spreads for Korean and Thai private borrowing, with spreads between bank and corporate borrowers nearly equalized by 1996–97 (figures 3-15 and 3-16).

Improved prudential regulation and stepped-up supervision of internationally active banks in creditor countries can help reduce these risks.⁶⁴ One proposal is to require a higher risk weight (than the 20 percent under the Basle rule) for lending to emerging markets,⁶⁵ based on the assessment of the country's financial system. This would raise the cost of borrowing to many developing countries,⁶⁶ but by improving the pricing of risk, it should reduce the incidence of crisis and the volatility of lending and interest rate spreads, and increase incentives for reform.

Information about and assessment of national financial systems, including the

quality and effectiveness of supervision and implementation of domestic regulations or global standards, may be valuable. Market participants may make use of it, and regulators in creditor countries may require its use in risk management by lending banks under their supervision.

Information and monitoring of vulnerabilities

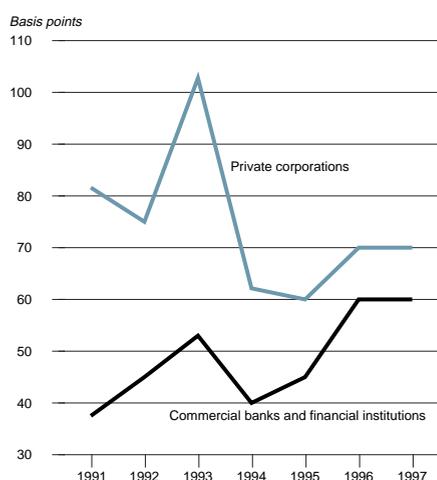
More good information is always better than less. At the same time, complete transparency does not exist, and better information (recognizing the limits of costs in compiling such information) will not necessarily prevent crises. Even with elaborate disclosure rules, information asymmetry remains, as recent crises in industrial countries (for example, Republic Bank and

Orange County bankruptcies in the United States, and financial crises in a number of Scandinavian countries) demonstrate. Still, there are potential benefits to better information and disclosure and there are two different sets of issues under discussion: improvements in information and disclosure standards, and better use of information to assess national vulnerabilities and undertake measures to forestall crises.

Transparency and accountability. As in the Mexican crisis in 1994, the East Asia crisis highlighted weaknesses in the coverage, frequency, and timeliness of information available to assess vulnerabilities. Before the onset of the Asian crisis, and for several weeks (if not months) after, the amounts of foreign liabilities to which the countries were exposed were not precisely

Spreads dip in Korea...

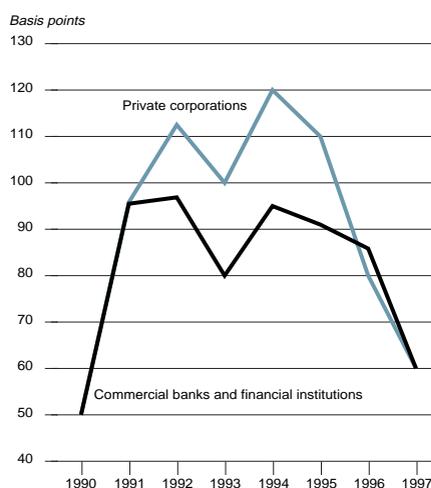
Figure 3-15 Spreads between corporate and bank borrowers in the Republic of Korea, 1991–97



Source: Euromoney (loanware).

...and in Thailand

Figure 3-16 Spreads between corporate and bank borrowers in Thailand, 1990–97



Source: Euromoney (loanware).

known. Uncertainty about short-term debt and foreign exchange reserves exacerbated the financial panic and crisis. The East Asian crisis has illustrated the role of private position-taking by nonfinancial firms, which are difficult to monitor in a liberalized environment. Questions have also been raised about the disclosure of information and transparency of international agencies themselves. Accordingly, improvements are

Warning indicators are unlikely to predict crises, particularly their timing, but they can provide timely and better information about impending problems so that policymakers can take preventive actions.

needed on information and disclosure at all levels (private sector, national authorities, and international financial institutions), but international standards need to be applied carefully and progressively over time, recognizing constraints and costs.

Following the Group of Seven (G-7) Halifax proposals, international financial institutions, in conjunction with national authorities, are working to improve the quality and timeliness of information on central bank reserves, short-term foreign currency debt (including central bank derivatives transactions), and domestic financial sector indicators (such as nonperforming loans and short-term debt).⁶⁷ For national authorities, better disclosure and accounting standards, especially about foreign exchange liquidity positions, with respect to their financial institutions and private corporations, are also important. For international institutions, the presump-

tion is toward greater release of information to the public, except in clearly defined cases where confidentiality requirements override the gains from making information public.

More and better information can also be made available from creditor country sources and from the BIS. This information can be used to improve risk assessment. There is also a case for better private efforts at collecting information, despite the failure of rating agencies to adequately assess risks in Asian countries during the runup to the crisis.⁶⁸ The G-22 working group on transparency and accountability has also recommended that modalities for compiling and publishing data on international exposure of investment banks, hedge funds, and other institutional investors be examined.

Warning indicators and manifestations of vulnerability. Warning indicators are unlikely to predict crises, particularly their timing, but they can provide timely and better information about impending problems so that policymakers can take preventive actions. The literature has used two approaches. The first, the signals approach, aims at determining characteristic and abnormal behavior of a set of variables—leading indicators—preceding crises, relative to tranquil periods. The indicators that predict the most actual crises and produce the least false alarms are used as leading indicators. The second is the regression approach, which looks at the statistical significance of various indicators in models of crisis determination.⁶⁹ Warning indicators of vulnerability usually flash positive signals for many variables at the same time. There is, however, no uniform, well-defined

set of indicators. Country conditions tend to be crucial in determining the significance of specific indicators (IMF 1998b; Goldstein and Reinhart 1998). Almost all studies have found that traditional indicators of vulnerability—notably those relating to indebtedness, fiscal policy, sovereign risk ratings, and interest spreads—have failed to send useful warning indicators of currency crises.

Vulnerability indicators of currency crises. The most important signals of a currency crisis are real exchange rate appreciation; international illiquidity, as measured by the ratio of short-term liabilities to reserves, money stock to reserves, or foreign assets to liabilities (of banks); and lending booms financed by foreign borrowing. Other significant indicators are slower GDP and export growth, higher foreign interest rates, deteriorating terms of trade, a decline in equity prices, and a banking crisis (Kaminsky and Reinhart 1997; Goldstein and Reinhart 1998).

The indicator most commonly associated with currency crises is the size of the current account deficit.⁷⁰ Empirical work has generally failed to find current account deficits helpful by themselves in predicting crisis, however (Frankel and Rose 1996; Sachs and others 1996; Milesi-Ferretti and Razin 1996; Radelet and Sachs 1998). An exception is Goldstein and Reinhart (1998), who find that ratios of current account deficit to GDP and to investment top the list of leading indicators of currency crises. In any case, current account deficits remain important in assessing vulnerability if complemented by analysis of the causal factors. Large or fast-increasing deficits should always be monitored, since they

usually reflect rising capital inflows. Deficits should also be carefully monitored if spending is going to consumption rather than investment—particularly in the tradables sector—since there is presumption of lower risks (because of faster growth of GDP and exports). The East Asian crisis has shown that the allocation and efficiency of the increased investment is also relevant.

Warning indicators of banking crises. Most indicators of banking crises are macroeconomic, and closely related to those for currency crises (Goldstein and Turner 1996; Demirgüç-Kunt and Detragiache 1997; Kaminsky and Reinhart 1997). Work is being done on developing structural or microeconomic warning indicators. Relevant variables include spreads between deposit and lending rates, access to interbank loans, changes in the ratio of capital to risk-weighted assets, the loans-to-deposits ratio, foreign currency exposure, government ownership, and the proportion of lending at the discretion of banks and directed by government (Honohan 1997; Rojas-Suárez 1998).

Notes

1. Greenwald, Stiglitz, and Weiss (1984); Greenwald and Stiglitz (1993); Mishkin (1991, 1997); Stiglitz (1998b, 1998c).

2. Many empirical studies consider currency crises to be episodes of large devaluations (Edwards 1989; Edwards and Montiel 1989; Frankel and Rose 1996). In contrast, Eichengreen, Rose, and Wyploz (1995) and Kaminsky and Reinhart (1997) favor a broader approach, focusing on devaluations as well as episodes of unsuccessful speculative attacks. Oker and Pazarbasioglu (1996) regard crises as including cases of devaluation, increases in the rate of crawl, and shifts to a more flexible exchange rate system.

3. During 1870–1913 a number of then-emerging economies also received large amounts of capital

inflows. For 1870–89 and 1890–1913 the largest volumes (mean absolute value of current account as percentage of GDP) were respectively: 18.7 percent and 6.2 percent for Argentina, 8.2 percent and 4.1 percent for Australia, and 7.0 percent and 7.0 percent for Canada (Obstfeld 1998).

4. Stiglitz (1998a); Summers (1998).

5. Kumar, Moorthy, and Perraudin (1998) find that a decline in portfolio flows has a stronger impact on the probability of crisis than a decline in FDI.

6. Other factors include the greater degree of inherent risks present in developing countries, due to their narrower economic bases (smaller economies specialized in fewer economic activities).

7. Surges in capital inflows can occur either exogenously, because of events in the world economy outside the control of policymakers of the economy in question, or endogenously, because of changes in country policies and circumstances (Hernandez and Rudolf 1995; Gavin et al. 1995; Montiel and Reinhart 1997). They also respond to the macroeconomic policy mix of the capital importing country, as well as the capital market structure (Montiel and Reinhart 1997).

8. Fernandez-Arias and Montiel (1995) also find that in half of a sample of 12 countries experiencing the largest inflows relative to the size of their economies, reserve accumulation accounted for about 40 percent of the inflows.

9. In Corsetti, Pesenti, and Roubini (1998) this inconsistency is between fixed exchange rate, government bailout guarantees (and their implication for monetary policy), and foreign debt accumulation and current account deficits (or capital mobility).

10. There is evidence showing a significant degree of both openness and capital mobility in developing countries. It is based on interest parity tests: Edwards and Khan (1985); Khor and Rojas-Suárez (1991); Haque and Montiel (1991); Reisen and Yèches (1993); Robinson (1991); and Dasgupta and Dasgupta (1995); and correlation between savings and investment: Dooley, Frenkel, and Mathieson (1987); Wong (1988).

11. The cost of sterilization may be significant: from 0.5 to 2 percent of GDP per year in Chile and Colombia in the 1990s (Williamson 1996), and 0.3 to 0.75 percent of GDP per year for Malaysia, Thailand, and Indonesia in 1990–96 (ADB and World Bank 1998).

12. Private borrowers in Latin America in the 1990s generally displayed a far greater willingness to hedge their foreign exchange liabilities, while borrowers in East Asian countries generally avoided them—partly because historical nominal exchange rate volatility (and the volatility of financial prices) was much higher in Latin America than in East Asia.

13. The changes in the real exchange rate are particularly welcome if they reflect price adjustments in response to fundamental factors such as a permanent transfer of resources from increased capital inflows, shifts and gains in productivity following reforms, improved terms of trade, correction of earlier excessive depreciation, or increased levels of consumption to equilibrium levels consistent with higher permanent income (and the need to incur current account deficits).

14. The impact is minimized even in the absence of sterilization simply because, as the currency appreciates, the extent of the impact on domestic money is reduced by that exact amount of appreciation.

15. Assuming that the prevailing conditions do not justify a rise in long-term equilibrium exchange rates. Measuring whether prevailing exchange rates are misaligned with fundamentals is, however, notoriously difficult. In particular, relative purchasing power parity movements may not always provide the correct picture of misalignments from equilibrium exchange rates, and there may be other, better measures (Broner, Loayza, and Lopez 1998).

16. Schadler et al. (1993) and Dasgupta and Dasgupta (1995) find such evidence. This may be due to lack of credibility of low-inflation programs (Kaminsky and Leiderman 1998), to a rise in credit demand, or to increased riskiness of the financial sector.

17. The forms of such tighter fiscal policy may have differential effects. An adjustment that curbs spending or raises taxes on nontradables would reduce domestic inflation and interest rates. Alternatively, one that curbs spending or raises taxes on tradables would improve the current account deficit and reduce borrowing from abroad. Cutting spending would have a more direct and immediate effect on aggregate demand than raising taxes, because of lags.

18. Kaminsky and Reinhart (1997) find that more than half of the 26 banking crises they studied were followed by a balance of payments crisis within three years. Conversely, only about 1 in 10 of the balance of payments crises were followed by banking

crises within three years. Also, regression of the measure of banking crises against the balance of payments measure indicates that balance of payments crises do not help predict banking crises. Sachs, Tornell, and Velasco (1996) find that banking sector fragility is a major determinant of currency crisis. Milesi-Ferretti and Razin (1996) show that the banking sector plays an important role in determining current account sustainability.

19. However, Eichengreen and Rose (1998) find no evidence for a role of domestic financial fragility in predicting banking crises.

20. Sundarajan and Balino (1991) provide evidence of this effect in the case of the crises in the Southern Cone countries during the 1980s: Chile (1981–83), Argentina (1980–82), and Uruguay (1982–85).

21. In addition to any measures and regulations on foreign currency exposure and access to foreign borrowing by banks, discussed below.

22. There is some disagreement as to the effectiveness of higher reserve requirements as an instrument for restraining lending booms.

23. Honohan (1997); Caprio, Atiyas, and Hanson (1994). Such limits may be set at high levels that would not normally be reached, but restrain occasional bursts of overexuberant and risky expansion (World Bank 1998b).

24. The contributions of weak corporate governance and transparency to the East Asian crisis are analyzed in ADB and World Bank (1998).

25. World Bank (1998b). Also, work on developing standards for corporate governance is being undertaken within the OECD.

26. For extensive discussion see World Bank (1997b) and ADB and World Bank (1998).

27. See also the G-22 working group report on strengthening financial systems, October 1998.

28. An example is the more recently developed value-at-risk techniques for risk management.

29. These factors determine the balance of benefits (in terms of efficiency and stability) according to the type of banking system structure, ranging from “narrow banking” to “universal banking” (Kaufman and Kroszner 1997).

30. Caprio and Klingebiel (1996b) find faulty supervision and regulation to be significant in 26 of 29

bank insolvency cases. Poor bank management is a factor in 20 cases.

31. This consensus also constitutes the core of the IMF (1998a) guidelines.

32. Published by the International Accounting Standards Committee (IASC) and the International Federation of Accountants (IFAC). The International Organization of Securities Commissions (IOSCO) is also working on establishing universal principles for securities market regulations, improving disclosure requirements, and developing standards for cross-border offerings.

33. Some may also argue the usefulness of competition in setting standards as against harmonization.

34. More radical options would entail the abolition of deposit insurance, the adoption of narrow banking, or the adoption of free banking; see Caprio and Klingebiel (1996b).

35. Goldstein and Turner (1996); Sundarajan and Balino (1991); Kaminsky and Reinhart (1997); Caprio and Klingebiel (1996b); Demirgüç-Kunt and Detragiache (1997); Gavin and Hausmann (1996).

36. Eichengreen and Rose (1998) find a highly significant correlation between changes in industrial country interest rates and banking crises in emerging markets. Also, Kaminsky and Reinhart (1997) find that foreign-domestic interest rates signaled crises in all 20 cases for which data are available.

37. Banking consolidation, which at first sight should allow pooling and diversification of risks, does not necessarily do that: larger banks may still take on excessive risks without an adequate management structure in place. Bank supervision in the past conventionally focused on balance sheets, but much more attention is now devoted to the soundness of banks' management processes in assessing and managing risks (Mishkin 1996).

38. The ability of foreign financial institutions to enter domestic markets, which may be part of external financial liberalization but not formally part of capital account liberalization, also contributes to financial integration and provides benefits similar to those of trade liberalization, in terms of competitive effects and improved quality of services and reduced prices. Claessens, Demirgüç-Kunt, and Huizinga (1997) provide empirical evidence that broader foreign ownership of banks renders domestic banking markets more competitive and reduces domestic bank costs. Also,

foreign banks that are internationally and in terms of their activities more diversified help strengthen the domestic financial system. The reverse implication is that the franchise value of domestic banks may fall, inducing more risk taking. While this negative impact is real and the ensuing risk should be managed, on balance the benefits and risks of foreign entry are the same as those associated with FDI (in the financial sector) and warrant similar treatment.

39. World Bank (1997b) discusses these benefits at length. Another benefit sometimes cited is that financial openness submits governments to the hard scrutiny of international markets and would restrain any tendencies for mismanagement. Also, financial deepening through increased capital flows helps develop capital markets and allows more banking system intermediation, which are shown to affect growth positively (Levine and Zervos 1998). Increased international competition also enhances the quality of the financial system.

40. Of course the associated benefits of some flows such as trade credit which are closely related to trade should not be assessed only within this framework.

41. In capital inflow surges the increase in total inflows is due mainly to non-FDI flows, and the contribution is larger when the size of capital inflows is large (greater than 9 percent of GDP). As seen in box 3.3, reserve accumulation is also larger.

42. Because these flows have to be serviced, the net gains are a fraction of the gross. FDI flows too have to be serviced through profit repatriation, but a significant part of such profits are reinvested, consistent with the long-run nature of such inflows.

43. Low-income developing countries may also benefit from long-term consumption smoothing. They may borrow and increase their consumption now in view of increased income in the future.

44. The precise welfare improvement associated with increased consumption smoothing depends on a number of factors, such as the time-preference and the shape of the utility function, as well as assumptions about market structure, country size, and technology. The estimates of utility benefits from consumption smoothing vary widely, from nearly 0 percent of lifetime consumption (Backus, Kehoe, and Kydland 1992; Cole and Obstfeld 1991; Tesar 1995) to a very significant (15 percent)

fraction of lifetime consumption (Obstfeld 1995; van Wincoop 1994). Typically, models that allow income growth to endogenously depend on diversification appear to arrive at higher estimates of gains than models where income is fixed. The alternative sets of assumptions also have differing degrees of ability to account for the stylized facts about consumption volatility.

45. This ignores longer-term consumption-smoothing effects, which are important.

46. Sachs and others (1996) find that countries with large short-term, variable, interest and foreign currency-denominated debt are more prone to crisis. Radelet and Sachs (1998) find that the ratio of short-term debt to reserves is strongly associated with the onset of crisis, whereas the ratio of long-term debt to reserves is not. Frankel and Rose (1996) find that the lower the reliance on FDI flows (compared to total debt), or the greater the reliance on more volatile capital flows, the higher the probability of crisis.

47. Models of self-fulfilling expectations of currency crisis imply that the intrinsic instability of the international financial system is a major contributor to currency crisis and, therefore, complete openness of the capital account implies greater risks for developing countries. This issue is discussed below.

48. The evidence is discussed in World Bank (1997b), chapter 2. See also Montiel and Reinhart (1997).

49. For instance, McKinnon and Pill (1997) model how excessive foreign borrowing can take place in a recently liberalized domestic financial system with inadequate supervision, and the presence of moral hazard, possibly due to government guaranties, in the context of unrestricted access to external finance.

50. Some argue, however, that such distinctions are not operational, that is, that volatility of flows cannot be distinguished among capital account categories, due to a high degree of substitution among these categories. Claessens and others (1995) researched capital inflows to five developing and five industrial countries over a 15-year period (or longer) and found no evidence of patterns in the volatility among components of the capital account. Specifically, long-term flows were as likely to be volatile as short-term flows. Similar research was later conducted by Chuhan and others (1996), who also found that various types of capital flows behave similarly. However, they rejected the notion that flows are essentially the

same. They focused on interrelationships of the behavior of flows, that is, on the relative responsiveness of one flow to changes in another. They determined that the composition of capital flows does matter, specifically that short-term inflows are more responsive to a change in FDI than the reverse and, therefore, suffer much more from contagion effects. Some have also argued that multinational corporations, for instance, hedge long-term FDI by rolling over opposite short-term currency positions, but there is little empirical evidence to support that view.

51. This may be partly due to lags in the measurement of FDI, with disbursement for new investments spread over many years.

52. A more difficult and controversial measure is to set prudential ratios for firms borrowing abroad—such as a minimum equity to liability ratio, maximum foreign to domestic liability ratio, and maximum open foreign exchange position.

53. The so-called Rey Report (May 1996), which recommends that financial systems in emerging markets be strengthened, that collective action clauses be added to bond contracts to facilitate orderly workouts, and that international financial institutions consider “lending into arrears” on sovereign debt owed to private creditors.

54. The three working groups, established by the Finance Ministers and Central Bank Governors of 22 systemically significant economies included senior officials from these countries and international financial institutions, focused on: increasing transparency and disclosure; strengthening financial systems; and improving the management of international financial crises. Three reports of the working groups were published in October 1998. Also the G-7 summit (Birmingham, May 1998) has considered ways to strengthen the global financial architecture.

55. Another issue concerns regional arrangements. Contagion tends to have, at least initially, a strongly regional character as demonstrated in both the Mexican and East Asian crises. These “neighborhood” spillover effects may be due to underlying linkages or regional similarities as perceived by investors. This provides an argument for institutional arrangements of a regional character to improve monitoring and surveillance and help initiate and implement policies to prevent financial crises. Regionally coordinated (and pooled) intervention may also be useful in responding to crisis.

56. There may be increased bank exposure, however, to the extent counterparty risks have increased in recent years with the proliferation of hedge funds and investing on margins.

57. An expansionary monetary policy or lender of last resort activity to contain financial crisis and provide liquidity is often counterproductive. Such a policy would cause expected inflation to rise and the domestic currency to depreciate. The depreciation of the currency would aggravate the domestic financial crisis, since it leads to a deterioration in the balance sheets of domestic banks and firms that have debt denominated in foreign currency. It may also lead to a jump in expected inflation, which would cause interest rates to rise, worsening the balance sheets of firms and households and potentially causing greater losses to banking institutions. The total net result is a worsening of the situation. An international lender of last resort would help overcome these problems and contain the domestic crisis.

58. These include the various rules discussed above: adequate disclosure requirements for banks, adequate capital standards, penalties and sharing in the costs by managers and shareholders, careful monitoring of banks’ risk management procedures, prompt corrective action, and so on.

59. The U.S. Shadow Financial Regulation Committee (1998) has proposed a mandatory loss-sharing system imposing “haircuts” on foreign lenders who withdraw or fail to roll over their claims before IMF loans are paid back.

60. The facility allows the Central Bank of Argentina the option of issuing short-term dollar-denominated government bonds and provincial loans totaling \$6.7 billion to international banks subject to a buyback clause. It pays a fee as long as the facility is available, and a spread is determined if it is used. The mechanism allows the Central Bank to act as a lender of last resort without resorting to domestic money creation, which is not possible under the currency board arrangement.

61. International debt workouts are usefully complemented by strong domestic bankruptcy laws and systems of debtor-creditor workouts.

62. The case of sovereign debt is discussed in the Rey Report of the G-10.

63. In order to avoid the adverse selection effects of such contract clauses, industrial countries should include them in their own government bond contracts.

64. There are also questions about the effects of international hedge funds on the volatility of exchange rates and stock markets in small countries.

65. This proposal was made recently by Alan Greenspan, Chairman of the U.S. Federal Reserve Board, in a speech before the 34th Annual Conference on Bank Structure and Competition of the Federal Reserve Bank of Chicago.

66. The implicit tax is paid by the borrowing country. This is unlike the imposition of taxes on capital flows by the borrowing country, where the tax revenues accrue to the government of the borrower.

67. To this end, the IMF has established the Special Data Dissemination Standards (SDDS) and the General Data Dissemination System (GDDS). See also the recommendations of the G-22 report of the working group on transparency and accountability, October 1998.

68. It has been argued that rating agencies suffer from a conflict of interest, having to respect local sensitivities to gain and maintain a foothold in emerging markets. It is very unlikely that a rating agency will survive if it brazenly misleads its customers.

69. A survey is in IMF (1998b).

70. A rule of thumb is that a current account deficit greater than 5 percent is often an indicator of vulnerability—for sustainability, the growth of that debt which should not exceed the average rate of economic growth.

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Appendix 1

Regional Economic Prospects

Sub-Saharan Africa

Following more than a decade of near-continuous decline, per capita income in Africa began to grow again in 1993, rising 1.2 percent a year from 1994 to 1997.¹ Private investment went from 12.7 percent of GDP to 13.6 percent, fiscal deficits (including grants) shrank from 4.3 percent of GDP to 2.9 percent, and inflation dropped, from 12.3 percent to 8.5 percent. Domestic factors accounted for much of the region's improved performance, from a lower incidence of civil strife, to greater macroeconomic stability, and modest progress in liberalizing markets and privatizing state enterprises. Countries that did better on these fundamentals reaped the benefits of improved economic efficiency, and grew at 5.5 percent on average in 1995–97, while countries that were directly affected by conflict performed poorly.²

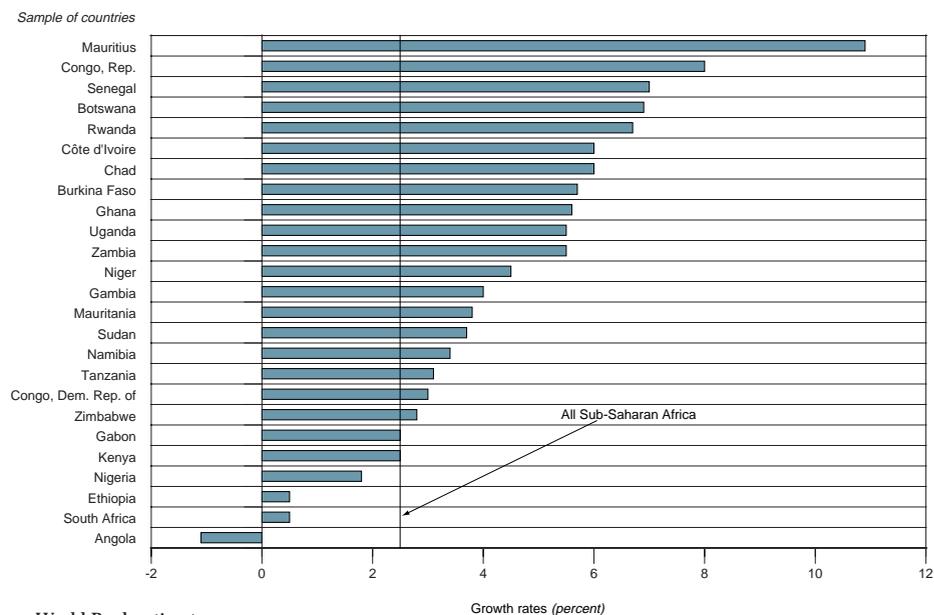
Favorable external conditions also contributed, most notably the rapid growth in world trade, surging private capital flows, and a mini-boom in commodity

prices (in 1994–95). These are encouraging signs after a decade of pessimism about the region's prospects. But most countries remain at substantial risk from external and internal shocks. The East Asian crisis is expected to buffet Africa through all three of the main transmission channels—private capital flows, terms of trade, and export market growth. How countries are affected and how hard they are hit will depend on the resilience of the economic structure and the soundness of initial conditions.

Growth has already begun to slow in Sub-Saharan Africa, from 4.2 percent in 1996 to 3.5 percent in 1997. Growth is expected to fall again in 1998 to 2.1–2.4 percent before rebounding to 3.5 percent in 1999–2000 under the relatively favorable baseline scenario assumptions (figure A1-1 and table A1-1).³ The recent faltering reflects a diverse set of factors with the effects of the crisis in East Asia dominating. Among domestic factors, the most notable are the political transition in Nigeria, the effects of El Niño in eastern Africa, and the resur-

Growth slows in 1998...

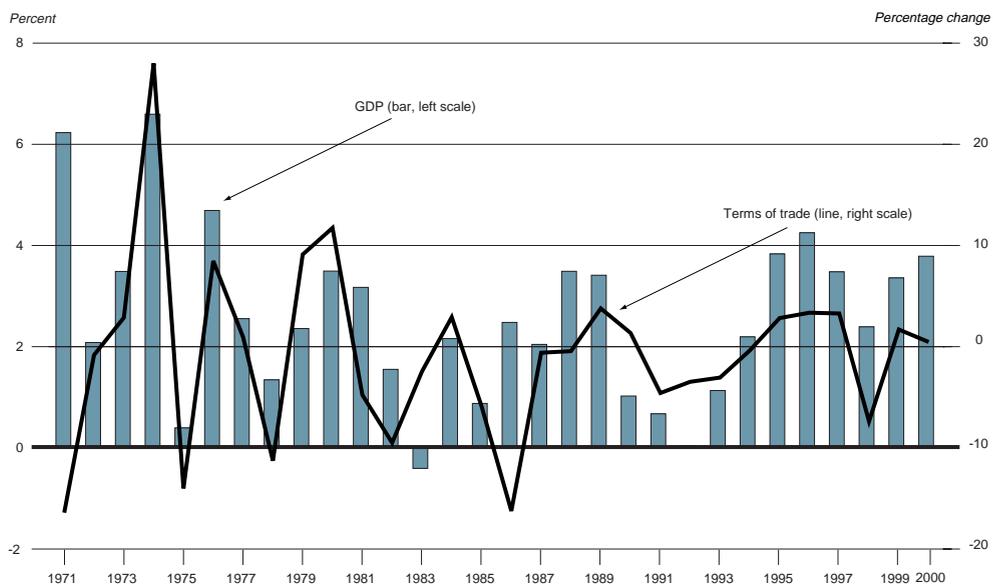
Figure A1-1a Sub-Saharan Africa: GDP growth, 1998



Source: World Bank estimates.

...but prospects improve toward 2000

Figure A1-1b Sub-Saharan Africa: GDP and terms of trade, 1971–2000



Source: World Bank data and projections.

Table A1-1 Sub-Saharan Africa forecast summary
(percent per year)

Growth rates/ratios	Baseline forecast						
	1988-97	1996	1997	1998	1999	2000	1998-2007
Real GDP growth	2.3	4.2	3.5	2.4	3.2	3.8	3.8
Consumption per capita	-0.4	0.8	0.8	-0.3	0.7	1.2	0.8
GDP per capita	-0.4	1.4	0.5	-0.5	0.4	1.0	1.0
Population 16-65 years	3.1	3.1	3.2	3.2	3.2	3.1	3.1
Median inflation ^a	10.2	7.1	6.6	7.5	7.7	7.6	8.0
Gross domestic investment/GDP	16.0	16.6	16.2	16.2	16.3	16.4	17.0
Budget balance/GDP	-6.0	-4.4	-3.8	-3.6	-3.6	-3.7	-3.7
Export volume ^b	4.8	10.1	8.1	4.0	4.7	4.8	5.2
Current account/GDP	-1.4	0.0	1.9	-0.3	0.0	0.2	0.3
Debt to export ratio ^c	345.0	300.0	290.0	300.0	295.0	290.0	275.0
Memorandum item							
GDP of major oil exporters ^d	3.9	4.0	4.4	1.2	2.6	3.0	3.4
GDP of region excluding South Africa and oil exporters	2.4	4.8	4.3	3.8	4.2	4.8	4.5

a. GDP deflator.

b. Goods and nonfactor services.

c. Ratio of long-term debt outstanding and disbursed to exports of goods and nonfactor services plus net worker remittances.

d. Nigeria, Gabon, and Angola.

Source: World Bank baseline forecast, November 1998.

gence of conflict in the Republic of Congo and in a number of other countries. Sub-par growth in Nigeria and South Africa—the region's economic giants—had a decisive influence on the recent slowdown.

Recent region-wide slackening in growth is thus a setback, but prospects are not as bleak as the broad regional averages might suggest. The CFA countries, for example, have maintained close to 5 percent annual growth, and this pace should continue to be driven by their improved policies and strong ties to a resurgent Europe. Several other countries also stand to gain from reductions of their debt burdens (HIPC initiative) tied to improving policy performance, and others are also making progress.

The effects of the East Asian crisis will be felt most directly by the region's largest oil exporters, Nigeria, Angola, and Gabon, which will see their terms of trade deteriorate by an average of 23 percent in 1998,

implying a decline in income equivalent to almost 8 percent of GDP. These countries are also likely to experience the largest deceleration in export volumes, reflecting the sharp slowing in world demand for oil in the wake of the Asian recession. Foreign direct investment in Africa, which has grown substantially since 1990 (from near zero to near \$4 billion in 1997), is directed mainly to the minerals and metals sector and is likely to decline in response to falling commodity prices and the shrinking profitability of firms in industrial countries as the world economy slows. The oil exporting countries will also face a large decline in fiscal receipts (amounting to several percentage points of GDP) resulting from lower oil-related revenues. Growth in these oil exporting countries is expected to slow from over 4 percent in 1997 to near 1 percent in 1998 and then to accelerate with a modest oil price recovery in 1999 to 2.6 percent.

South Africa, representing some 40 percent of the region's GDP, is the continent's most diversified exporter, with manufactures making up over one-third of exports, of which about 20 percent are destined for Asia. It is also the only country in the region whose financial markets are well integrated with international capital markets. Over the past 18 months or so, South Africa has experienced a sharp deterioration in its external environment, mainly through reduced capital inflow, increased capital flight, and rapid deceleration of exports. The terms of trade also deteriorated in both 1997 and 1998, reflecting the decline in gold prices. South Africa's economy is likely to slow from 1.7 percent growth in 1997 to under one percent in 1998 and then recover to 2 percent in 1999.

Africa's nonoil exporters, excluding South Africa, are a highly diverse group. They are less dependent on international private capital inflows and, for the most part, more dependent on exports of agricultural commodities, including cocoa, coffee (primarily robusta, in West Africa), cotton, and groundnuts. Cocoa and robusta coffee prices have held up relatively well in world markets, but cotton and groundnut prices have fallen sharply. Growth prospects in these countries, with few exceptions, will depend more on internal developments than on the external effects resulting from the Asian crisis. As a group, these economies should see aid flows continue at close to current levels in the near term, and a smaller overall deterioration in their terms of trade since falling import prices of oil and manufactures should largely offset price declines in their agricultural exports—although the latter hurts agricultural producer incomes

more widely. The African nonoil exporters are also expected to experience only modest deceleration in export volumes. Aggregate growth for the group of nonoil exporters (excluding South Africa) is expected to remain near 4 percent over 1998 and 1999, in line with their growth performance over the past two years.

Some specialized exporters such as Zambia (copper), Mali (cotton, livestock, and gold), Zimbabwe (tobacco and gold), Malawi (tobacco), and Ethiopia (arabica coffee), will be hurt more by deteriorating terms of trade. In addition to the demand factors associated with the Asian crisis, supply factors also hurt African growth in 1998. Heavy rains reduced the output of coffee, tea, and cotton in east and central Africa. Uganda, Africa's largest coffee producer, is expected to export just 3.8 million bags in 1998, down from 4.5 million bags last year.

Other countries in this group, including several in West Africa, will suffer smaller terms of trade deterioration in the short term, reflecting the protection afforded them by institutional arrangements. The CFA countries have maintained the near 5 percent growth achieved since the devaluation of the CFA franc improved their competitiveness in 1994. At 4.8 percent forecast for 1998, their growth performance is expected to be similar to that in 1997, and better than that of a comparable group of non-CFA countries (4.2 percent).

Despite the challenges of adjusting to a less favorable external environment over the next two years or so, the longer term outlook for Africa offers the promise of significant improvement. Population growth is expected to remain high, but

people should see their incomes rise by a modest 1 percent a year, thanks to annual growth rates near 4 percent for 1998–2007, a doubling of the 2 percent average in the past 10 years (1988–97). Underlying this projection are a moderately favorable external environment over the medium term and better policies at home leading to greater macroeconomic stability and lower budget deficits and inflation. The regions' current account deficit is expected to narrow (with improved export performance). The implementation of debt reduction initiatives and higher growth rates are expected to lead to reduced debt service burdens over the next ten years. Most of the output gains will come from greater efficiency in resource use, since only a small increase in investment as a share of GDP is projected, leaving Africa with the lowest investment share in GDP among developing regions. Long-term growth rates are a full percentage higher for the nonoil producers (excluding South Africa) than for the oil producers, a reflection of the pessimistic outlook for oil prices and for the policy responses of producer countries to these projections.

There are significant downside risks, however. The risks from the low-case scenario would be particularly harsh for the oil producers (no oil price recovery in 1999), and South Africa (the most vulnerable to financial contagion and a sharper downturn in world trade volumes). Another source of risks, with potentially catastrophic long-term implications is the proliferation of conflicts that could delay indefinitely the crucially important recovery in private investment in large parts of the continent.

South Asia

To reduce poverty and raise standards of living faster, the economies of South Asia—and their 1.2 billion people—need to accelerate growth rates to 7 percent and keep them there. Growth picked up significantly between 1992–96 following trade and investment liberalization and significant depreciation of real exchange rates, especially in India. Favorable global economic conditions helped out, giving exports and FDI inflows a boost. But new challenges are clouding the region's prospects, from the effects of economic sanctions to wavering attention to reform and worrisome dangers that the trade fallout of the East Asian crisis will impact South Asia.

Though still relatively insulated by the structure of their economies from the immediate fallout from the global financial crisis, South Asian economies are slowing perceptibly—growth went from about 7 percent in 1996 to 5 percent in 1997. The global economic slowdown will exert some drag on regional growth as a slackening in export markets pulls growth down to 4.6 percent in 1998 and holds it below 5 percent in 1999. Policy drift and weak industrial performance have slowed India's economy. Following the imposition of U.S. and G-8 sanctions (expected to reach \$1.5 billion, or 2.5 percent of GDP) Pakistan's foreign reserves dipped to just 2–3 weeks of import coverage in the summer of 1998, leaving it much more fragile financially. Depressed export markets in East Asia and Japan are a blow since these markets had come to account for a significant share (and growth) of South Asia's exports. Competition from East Asia in other markets will

slow the growth of exports, especially from India and Pakistan, while a slowdown in FDI from East Asia will hurt Bangladesh and Sri Lanka in particular. There are a few positive forces as well however. The steep drops in oil prices are a boon to the region's oil importers; the resulting improved terms of trade have improved purchasing power by about 1 percent of regional GDP.

While the effects of the East Asian crisis have been felt through trade and FDI links, the financial effects have been muted, largely because of the structure of these economies. First, their vulnerabilities to external shocks—represented by current account deficits—have been limited (except in Pakistan). Second, banks have not been permitted to fuel large domestic credit booms. Third, the modest rather than complete relaxation of capital controls has meant little external exposures for banks (with Indian banks having little short-term foreign debt). Finally, offshore forward markets for currencies remain thin and hard to use for speculative purposes. Some currencies, (including the Indian rupee) fell about 7.5 percent in the first quarter of 1998–99, but that reflected mainly concerns related to sanctions which cut foreign aid from the United States and Japan.

The Indian economy nevertheless slowed to 5 percent in fiscal 1997–98, following three years of rapid advances averaging 7.5 percent. While a decline in agricultural output was a contributing factor, nonagricultural GDP growth had begun to slow in 1996–97. Indeed, industrial output had fallen from 12.5 percent in 1995–96 to 6.4 percent in 1996–97 and then declined further to 5.7 percent in 1997–98. Contributing to the slowdown was the persis-

tence of large public sector deficits (crowding out private investment), a decline in export growth since 1995–96, and cutbacks in investment because of uncertainty about reforms. The public sector deficit fell slightly to 9.1 percent of GDP in 1997–98 thanks to a cut in subsidies on petroleum products that brought domestic oil prices closer to world prices. But the 1998–99 budget contains no concrete proposals for substantial further reductions, and proposes to increase revenues through higher excise collections and import tariffs—potentially a step in the wrong direction. If growth targets of over 6 percent do not materialize, the total public sector deficit could well persist at more than 9 percent of GDP, representing one of the biggest challenges for the Indian economy. Domestic financial weaknesses remain a concern and will need to be addressed if the financial system is to be a source of strength rather than a drag on longer-term growth—as evidenced most recently by a run on deposits with the state-owned investment corporation, Unit Trust of India. Domestic stock markets, already depressed, slumped further in response.

India's export performance shows large recent declines in nominal dollar value, though it has been more stable in volume terms. After three years of high (19 percent between 1993 and 1996) growth, the growth in the nominal value of export slowed dramatically to 4.6 percent in 1996–97 and 2.7 percent in 1997–98 (but volume growth dropped by much less, from 9 percent in 1996 to about 6 percent in 1998). Import value growth also fell, yielding a modest increase in the current account deficit to 1.6 percent of GDP (the

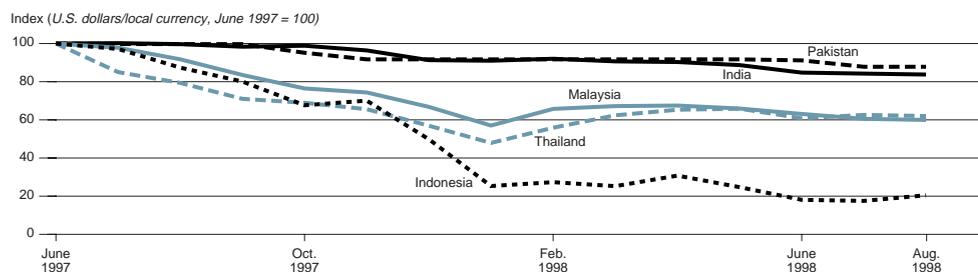
real volume of imports fell reflecting the slowdown in domestic growth). While the 16 percent decline in the rupee against the dollar over the past year will offset some of the loss of export competitiveness to ASEAN countries, competitiveness conditions for Indian and other South Asian export growth to EU and North American markets will remain difficult for some time (figure A1-2 shows widening gaps in nominal exchange rate depreciation; the gap is generally smaller for real exchange rate movements and recent strengthening of exchange rates in East Asia will help ease the relative competitiveness difficulties for South Asia).

The outlook for Pakistan is more worrisome. Output growth slowed to 4.6 percent in 1995–96 and then to 3.1 percent in 1996–97 after implementation of adjustment programs weakened. Recent data show output rising by 5.4 percent in 1997–98, but against the background of recent developments, consensus projections for 1998–99 suggest a drop to 3.0 percent.

The deficit on current account worsened significantly to 6.8 percent of GDP in 1995–96 and 6.4 percent in 1996–97. Preliminary figures suggest some improvement in 1997–98 because of compressed import growth and higher worker remittances. The government has been forced to implement austerity measures, including sharp spending cuts and a 25 percent increase in gasoline prices. The convertibility of onshore foreign exchange accounts (with deposits of about \$11 billion, of which over a third has since been withdrawn into rupees) has been frozen, and wide-ranging capital controls have been introduced. Imposed to stem capital flight and preserve scarce foreign reserves in the immediate term, these measures will discourage worker remittances and inhibit domestic and foreign investment, with potentially harmful effects on longer-term growth. Assuming that Pakistan gets back on track with an easing of sanctions and improved policies, the outlook should improve in the medium term, but very large risks remain. Recent difficul-

Currencies fell against the dollar—but less than in ASEAN competitors

Figure A1-2 India, Pakistan, and selected ASEAN countries: exchange rate developments, June 1997–August 1998



Source: International Monetary Fund.

ties with private power projects may mean, for example, that private foreign investment is unlikely to revive quickly even with the easing of sanctions.

Bangladesh's medium-term prospects are better. Although the worst floods in recent history are expected to cut growth sharply in 1998, the effect is temporary. Growth had picked up to 5.5 percent over the past couple of years, and export growth was strong at more than 15 percent in 1997–98. FDI soared from a meager \$30 million in 1993 to an average of \$320 million in 1994–97. Massive gas reserves have been discovered, and foreign investor interest has surged, but a weakening of FDI inflows and export markets is likely after the East Asian crisis. Bangladesh needs to address structural problems: the savings rate, while improving, remains low; the export base needs to become more diversified; and greater progress is needed in privatizing loss-making state enterprises. Elsewhere in the region, Sri Lanka's recent economic performance has also improved (5 percent growth), but Nepal's case is

more difficult, with growth slipping to less than 3 percent in 1998.

Table A1-2 presents the consolidated regional forecast. Compared to the immediate past decade, when the momentum of reforms was stronger, growth is expected to moderate over the next decade to about 5.4 percent a year. This would mark a small downward revision of 0.5 percentage points from last year's growth forecast. Achievement of this growth would still permit significant improvement in per capita incomes (although not as rapidly as had been occurring in the mid-1990s). The main sources of growth are expected to be rising investment rates and relatively rapid export growth (in part reflecting prospective gains from MFA abolition, which would especially benefit South Asia). Budget deficits are also expected to narrow and the current account deficits would remain small, with net capital inflows to the region moderated in the aftermath of the East Asian crisis. Inflation and external debt sustainability would improve. These relatively

Table A1-2 South Asia forecast summary
(percent per year)

Growth rates/ratios	Baseline forecast						
	1988–97	1996	1997	1998	1999	2000	1998–2007
Real GDP growth	5.8	6.9	5.0	4.6	4.9	5.6	5.4
Consumption per capita	2.8	4.8	2.9	2.2	2.5	3.3	2.9
GDP per capita	3.7	5.0	3.1	2.7	3.1	3.8	3.6
Population 16–65 years	2.4	2.3	2.4	2.3	2.3	2.3	2.4
Median inflation ^a	9.6	7.0	8.2	7.6	7.1	6.9	6.8
Gross domestic investment/GDP	23.2	25.8	25.5	25.9	26.3	26.6	27.3
Budget balance/GDP	-6.9	-5.4	-4.5	-4.3	-4.3	-4.1	-3.7
Export volume ^b	10.6	6.6	8.9	5.6	7.3	8.9	9.9
Current account/GDP	-2.1	-2.1	-1.2	-0.6	-0.7	-1.0	-0.4
Debt to export ratio ^c	240.0	185.0	180.0	177.0	170.0	160.0	150.0

a. GDP deflator.

b. Goods and nonfactor services.

c. Ratio of long-term debt outstanding and disbursed to exports of goods and nonfactor services plus net worker remittances.

Source: World Bank baseline forecast, November 1998.

favorable prospects would however require substantial success in policy reforms. Reducing public deficits (thereby allowing private investment to rise and economy-wide efficiency to rise) will require broadening of the tax base (which still relies too heavily on trade and indirect taxes) and reducing subsidies to loss-making state enterprises. Moreover—and mindful of lessons of the East Asian crisis—reinvigorated liberalization of trade and investment (while managing capital accounts cautiously in step with improvements in institutional capabilities and financial regulation) would be essential to improve efficiency and to achieve forecast success in exporting. The risks to this outlook are, however, significant, originating mainly from domestic sources—from an inability to regain the momentum of required policy reforms. In addition, worsening of external trade and investment conditions are an immediate risk.

Europe and Central Asia

Regional growth averaged 2.6 percent in 1997—and the first advance (1.7 percent) for the transition group in Europe and Central Asia since the move to market began. Central and Eastern Europe benefited from improving conditions in Europe and strong growth in investment flows. The Russian Federation and the Ukraine seemed to be getting their macroeconomic house in order and looked on the road to recovery and growth in output. But the East Asian crisis—and its ripple effects—has played some part in altering that optimistic picture, especially for Russia and other countries of the Commonwealth of Independent

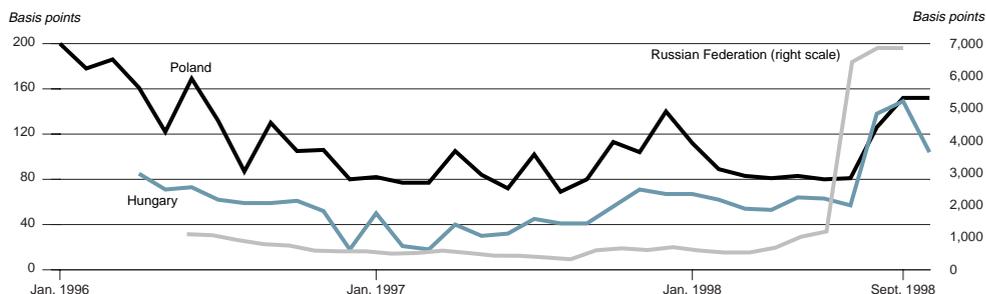
States (CIS). This has created a sharp contrast in the region, since performance and prospects for the other Central and Eastern European countries look more favorable.

The crisis in Russia—and the potential for spillover effects within the region—dominates near-term concerns (figure A1-3a). Still, output is expected to rise in 21 of 25 countries during 1998, with Russia, Ukraine, and Romania, as well as the Czech Republic, being the critical exceptions (figure A1-3b).⁴ The widening recovery in Western Europe, particularly in Germany, has allowed several Central European and Baltic countries to keep exports booming at double-digit rates during 1998. These countries also enjoyed substantial gains in terms of trade as oil and raw material prices fell, in part because of falling demand in Asia. Performance suffered the largest setbacks in Russia and Ukraine. This poses a threat to the smaller CIS states, including the Transcaucasus countries and the Kyrgyz Republic, whose stabilization programs and other reforms were beginning to yield improvements in growth. Many have also seen their terms of trade deteriorate.

Acute fiscal and financial difficulties in Russia, aggravated by declining international oil prices, prompted strong but ultimately unsuccessful measures to defend the ruble. A large international support program in July 1998 failed as well, a victim of the non-supportive political and economic environment into which it was channeled. In August, the authorities opted for a devaluation of the ruble, a restructuring of domestic public debt, and a 90-day moratorium on repayments of certain foreign liabilities. Although the fundamental causes

Secondary market spreads rise...

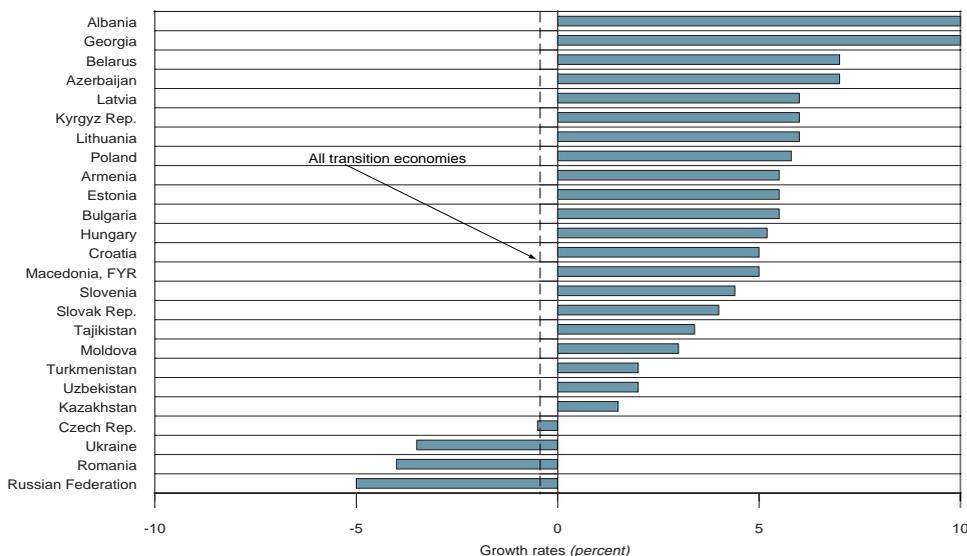
Figure A1-3a Secondary market spreads on benchmark sovereign bonds of selected Central and Eastern European countries



Source: Bloomberg.

...but positive growth is expected in nearly all transition economies

Figure A1-3b Transition economies: GDP growth, 1998



Source: World Bank estimates.

of Russia's fiscal imbalance are domestic, the loss of confidence in international capital markets following the East Asian crisis also played a major role.

The main indirect spillover of the Russian crisis has been a rise in spreads on lend-

ing (figure A1-3) and the risk of a reversal of capital flows. However, in Central and Eastern Europe policy responses to avoid capital outflows and currency declines have been prudent, in part reflecting lessons from earlier crises experienced by most

countries in the region. Poland and the Baltic countries have taken measures to curb too-rapid credit growth and to ensure adequate commercial bank provisioning. Several countries have raised interest rates sharply when their currencies have come under pressure and some have widened bands of variation for crawling-peg regimes to deter speculative inflows of capital. These measures may slow economic activity in the short run, but they likely helped to avoid more harmful consequences for a number of countries.

Equity markets in Central Europe and Russia fared well for a time as private capital withdrawn from East Asia sought alternative markets. Poland attracted a record \$6.6 billion in FDI flows during 1997, while Hungary issued a large Eurobond at favorable spreads after Moody upgraded its sovereign debt ratings in May 1998. Since then, however, Russia's equity and treasury-bill markets have collapsed, credit ratings have been downgraded, and Eurobond spreads rocketed (figure A1-3). Russia's difficulties imply large direct effects for other CIS countries with substantial trade links with Russia, and for countries that had benefited from informal cross-border trade in consumer goods (especially Poland and Turkey).

Developments in international commodity markets had highly differentiated effects across the region. The 30 percent decline in oil prices and similar drops in metals and agricultural-resource prices pressured Russia's current account into deficit, (and 25 percent of government revenues are tied to oil and gas sales). Resource-dependent Azerbaijan, Kazakhstan, and Uzbekistan are being hurt as well. Terms of trade

for the CIS countries are down an estimated 13.5 percent in 1998 (1.5 percent of GDP). Central European countries and Turkey in contrast saw a 6 percent gain in terms of trade (2 percent of GDP).

These sharply divergent conditions among the main groups of countries are reflected in the long-term growth forecasts for the region (table A1-3). For middle-income Western Europe, growth is likely to slow sharply from about 7 percent to below 5 percent, as Turkey faces much more severe difficulties in external financing. For the second group of countries in Central and Eastern Europe, expectations for longer-term growth of 4.7 percent remain largely unchanged from the projections in *Global Economic Prospects 1997*.

For the five countries on the short-list for EU accession (the Czech Republic, Estonia, Hungary, Poland, and Slovenia), policy will increasingly be driven by the need to harmonize economic and financial standards and institutions with those of the EU. Negotiations are expected to continue for some time, as many difficult issues—agriculture important among them—will need to be addressed for integration to proceed smoothly. Anticipation of accession may provide an incentive for additional large inflows of direct investment to the applicant countries, supporting rapid investment and export-led growth. Strengthening financial sectors and reducing inflation to European norms will prove a significant challenge for policymakers. Nevertheless, assuming a consolidation of EU recovery, improving domestic policies, and diminishing adverse effects of the Russian crisis, output growth of 4–5 percent is likely for the group, with continued strong advances

Table A1-3 Europe and Central Asia forecast summary
(percent per year)

Growth rates/ratios	Baseline forecast						
	1988-97	1996	1997	1998	1999	2000	1998-2007
Real GDP growth	-2.7	0.0	2.6	0.5	0.1	3.4	3.9
Consumption per capita	-1.1	1.9	3.0	1.0	-0.4	2.7	3.1
GDP per capita	-3.2	0.0	2.5	0.0	-0.4	2.9	3.4
Population 16-65 years	0.6	0.1	0.3	0.6	0.6	0.7	0.8
Median inflation ^a	36.0	32.7	50.0	43.8	14.0	13.0	16.3
Gross domestic investment/GDP	32.1	27.8	27.5	27.0	27.4	27.9	28.6
Budget balance/GDP	-7.5	-6.7	-5.5	-5.0	-4.5	-4.0	-3.8
Export volume ^b	-0.4	6.6	7.9	3.8	5.5	5.6	5.7
Current account/GDP	1.3	0.5	1.0	0.4	0.7	0.7	0.8
Debt to export ratio ^c	135.0	110.0	105.0	110.0	105.0	107.0	115.0
Memorandum item							
GDP of mid-income Western Europe	4.1	6.7	7.1	4.8	3.6	5.1	5.5
GDP of Central and Eastern Europe	-0.9	3.3	2.3	4.0	4.0	4.5	4.7
GDP of former Soviet Union	-5.3	-4.3	1.3	-3.7	-4.3	1.7	2.6

a. GDP deflator.

b. Goods and nonfactor services.

c. Ratio of long-term debt outstanding and disbursed to exports of goods and nonfactor services plus net worker remittances.

Source: World Bank baseline forecast, November 1998.

in Poland, improved performance in Hungary, and gradual acceleration in the Czech Republic.

Elsewhere in the second group of Central European reformers, Bulgaria and Romania have made progress in their stabilization programs, and signs of recovery are apparent. In Bulgaria, the currency board and closure of several weak banks appear to have stabilized the banking system. In the Slovak Republic, rising inflation and fiscal deficits have resulted in a downgrading of credit ratings. Even as monetary policy remains tight and the exchange rate firm in the Baltic states, growth has been strong, driven by a booming services sector; but despite efforts to cool economic activity, current account deficits remain at around 10 percent of GDP. Continued FDI financing and a pick-up in exports will be required to make these imbalances more manageable. The near-term outlook for these countries, and for Croatia and the former Yugoslav

Republic of Macedonia, will thus reflect a mix of export strength with European recovery and policy impacts on domestic demand—rising in countries emerging successfully from adjustment programs (Bulgaria, Romania) and moderating in others.

The outlook for the third group of countries, Russia and the other CIS countries, is now murkier. Clouded by financial crisis and a new government of uncertain policy intentions, hopes for a near-term broadening of recovery in Russia have evaporated. Private forecasts see a decline of 4–6 percent in 1998, followed by similar contractions in 1999. Getting on a path of robust longer-run growth will require fundamental institutional reforms, together with economic stabilization and tax and investment reforms that replenish public resources while supporting the private sector. Recent events have underscored the institutional fragility of a number of CIS states. With growth in Russia (and Ukraine) falling or severely con-

strained, and Central Asia hurt by developments in commodity markets, 10-year growth projections for the region as a whole have been lowered to 2.6 percent, a major 2.4 percentage point revision from *Global Economic Prospects 1997*.

Latin America and the Caribbean

Latin America and the Caribbean grew strongly in 1997 and the first half of 1998, propelled by a surge in exports and investment made stronger by recent policy reforms (and the successful response to the Mexican peso crisis of 1994). The region continued to attract large flows of private capital which supported robust growth. The East Asian crisis had little immediate effect on the region (for a detailed discussion see Perry and Lederman 1998). But in November of last year, Brazil was forced to announce severe austerity measures which induced a sharp slowdown in growth. And with the spread of the crisis to Russia in August 1998, investors began pulling their money out of all emerging markets, with especially severe consequences in Latin America. In other developments, some countries in the region such as Peru, Ecuador, and El Salvador were also affected adversely by El Niño earlier in the year, lowering their growth and exports; the more recent Hurricane Mitch in November 1998 has also had devastating effects in some Central American countries (especially Honduras and Nicaragua), destroying a significant part of productive capacity in agriculture and infrastructure.

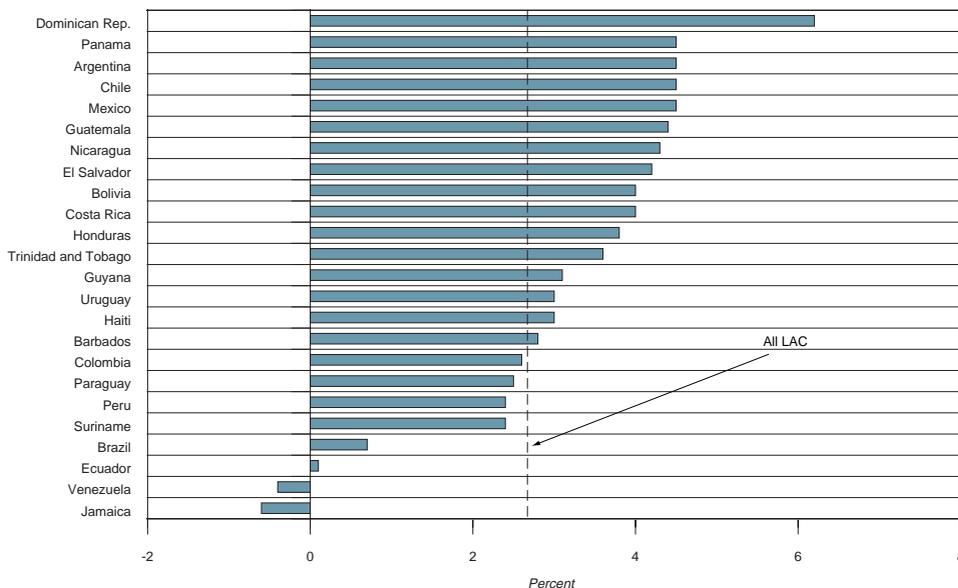
The region's 5 percent advance in 1997 is expected to slide to 2.5 percent in 1998

and further to 0.6 percent in 1999, before eventually recovering to an expected longer-term growth rate of about 4 percent. The sharp slowdown reflects primarily a severe deterioration in the world economic environment that will hurt Latin America through all three channels—drastic cutbacks in international capital flows and rising costs of external financing (following the flight to safety in world markets), large price declines for both oil and nonoil commodities (which still account for much of the region's export earnings), and a sharp slowdown in world trade growth (following the collapse of Asian demand). But the effects of the global crisis are expected to be less severe than in Asia, in large part because of the generally improved policy environment and earlier experience with such crises. No country in the region has suffered a currency free-fall. Almost a third of countries are expected to grow 4 percent or faster during 1998, with only a handful growing less than 2 percent (figure A1-4a), and, under the base-case assumptions, the slowdown in 1999 would not be protracted.

Some countries were more resilient than others during this shock. Countries that were on the upswing of their business cycles as a result of past policy improvements—Argentina, Chile, Mexico, and Peru growing by 7 to 8 percent in 1997 (figure A1-4b)—were better able to adjust. Some of these countries had already experienced several crises—most recently the Mexican peso crisis of 1994–95—and management teams were prepared to address shifts in investor sentiment. Brazil, although it was somewhat behind in the regional growth and policy improvement cycle, was still able to respond effectively in November 1997

One-third of countries to grow 4 percent or more in 1998

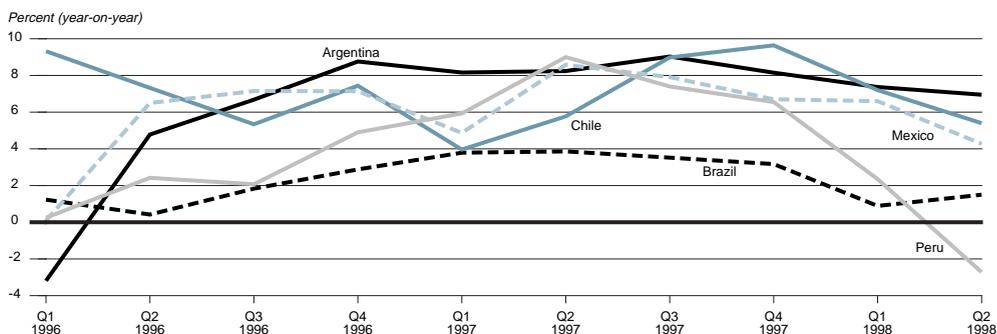
Figure A1-4a Latin America and the Caribbean: GDP growth, 1998



Source: Bloomberg.

Some countries were on an upswing when the crisis hit

Figure A1-4b GDP growth for selected Latin American countries



Source: World Bank estimates.

by tightening monetary policies, and again in late 1998, when amid renewed turbulence in global capital markets after the Russian crisis concerns surfaced about its fiscal and current account deficits. Many countries in the region had already encoun-

tered difficulties with their banking systems and had made real progress in addressing problems. Though the reform agenda remains incomplete (for example, in Mexico), financial sectors are generally less exposed to external shocks than in Asia;

bank intermediation is less than 40 percent of GDP compared with more than 100 percent in many East Asian countries. Working against these positive factors in the region, however, were widening current account deficits, large budget deficits in some countries (such as in Brazil), growing reliance on external financing, and a bunching of elections throughout the region.

As growth of domestic economies accelerated in 1997 and early 1998, trade and current account balances worsened across the region, especially in the larger countries (figure A1-5). Terms of trade deteriorated for commodity exporting countries, especially as prices of key commodity exports (oil, coffee, copper, and wheat) fell. The region as a whole suffered a terms of trade decline of about 0.6 percent of GDP (with Bolivia, Colombia, Ecuador, Peru, Trinidad and Tobago, and Venezuela experiencing much larger declines). Regional export volume growth slowed from 11 percent in 1997 to near 6 percent in 1998 on weaker world import demand (as in Chile and Peru, for example) and greater competition from Asian exporters (as in Brazil and Mexico, for example), as well as the effects of adverse weather from El Niño in some countries. Low commodity prices are also affecting adversely prospects in the Caribbean.

Many countries reacted to widening deficits by attempting to tighten fiscal and monetary policies, and some through a widening of their currency bands, but deficits still grew because of the depth of the slowdown in Asian growth and the resulting weakness in commodity prices. Many also were facing elections in 1998, which delayed adjustment measures. Elec-

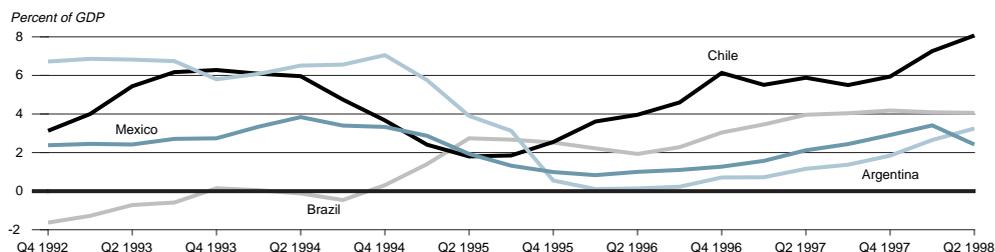
tions were held in Ecuador (June), Colombia (July), Brazil (October), and are expected shortly in Venezuela (December).

Countries in the region remain vulnerable to shifts in international investor sentiment, particularly in the wake of developments in Russia. Little improvement in domestic private savings rates over earlier periods means that countries continue to rely heavily on external private capital flows. Risks have increased as widening current account deficits create larger external financing needs, which have become more costly and difficult to obtain. Average spreads on Latin American bonds rose about 150 basis points between mid-1997 and mid-1998, and by August secondary market spreads on benchmark international bonds of Latin American countries had increased sharply, especially for Brazil (figure A1-5b). Several countries encountered severe pressure on their currencies. Colombia had to devalue by 9 percent, Ecuador by 10 percent, the Mexican peso lost 12 percent of its value, and Brazil used up \$25 billion in reserves to shore up the real.

Reliance on foreign savings means that growth and current account deficits are closely correlated (figure A1-6). With an inevitable forced reduction in current account deficits because of reduced private capital flows, the region's GDP growth will slow sharply in 1999. Brazil is still at an early stage in its structural adjustment, and the correction of its twin deficits to improve investor confidence will mean a period of even slower growth. Argentina is sensitive to a recession in Brazil and has to complete reforms to make its labor market more flexible—a key element in improving economy-wide efficiency. Other countries in the region

Current account balances worsened in 1997 and 1998...

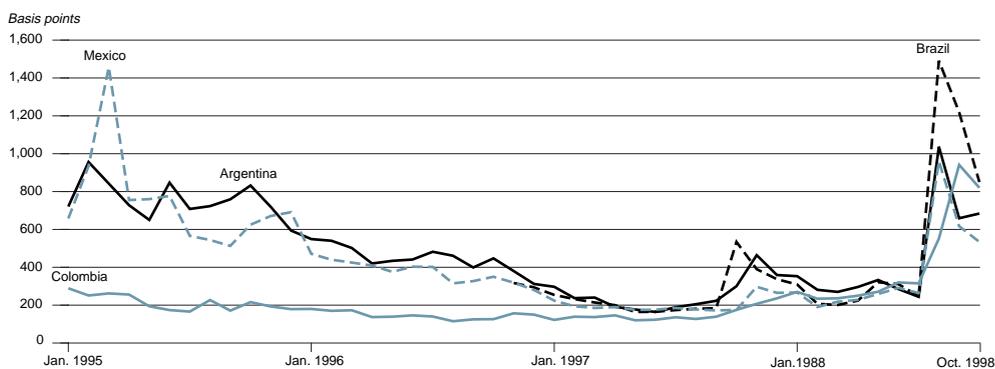
Figure A1-5a Current account deficits in Latin America and the Caribbean



Source: Bloomberg.

...and secondary market spreads rose sharply in mid-1998

Figure A1-5b Secondary market spreads on sovereign bonds of major Latin American countries



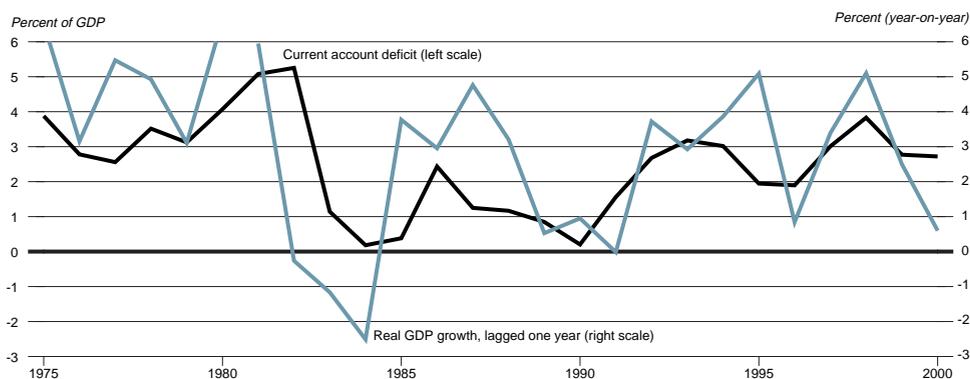
Source: Bloomberg.

will also experience slower growth with the expected downturn in the global economy and reduced capital flows. There also remains some risk that if the region faces an extended shutdown of private financing (requiring the current account deficit to swing to zero instead of to lower, but still significant, net flows under the baseline), regional growth might slip to -2 percent in 1999. Announced increases in official support (and contingency credit lines) are likely to avert such a scenario, however.

Prospects are still good for stronger regional growth in the longer term given the strength of recent reforms (see Easterly, Loayza, and Montiel 1997)—reaching about 4.5 percent a year toward the end of the projection period—for a number of reasons. First, total factor productivity growth turned positive in the 1990s after declining during the 1970s and 1980s.⁵ Privatization in the telecommunications and transport sectors in the early 1990s contributed to this trend. Privatization of Brazil's telecom-

Growth and current account deficits

Figure A1-6 Current account deficit and real GDP, Latin America and the Caribbean



Source: Bloomberg.

munications giant Telebras is likely to raise total factor productivity growth in the next few years, as similar efforts did in Argentina and Chile earlier. Second, labor productivity has been growing in the 1990s, after contributing negatively to GDP growth in the 1980s.⁶ Labor market reforms have been slow in Latin America, due in part to political sensitivities, but they are progressing. Third, FDI is now producing capacity expansion, not just a transfer of asset ownership as in the early 1990s. According to the United Nations Economic Commission for Latin America and the Caribbean, FDI inflows reached an estimated \$50 billion in 1997 and could easily rise once the current downturn in markets eases. FDI has also been shifting away from traditional mining and energy sectors and toward services and manufacturing (especially automobile production in Argentina, Brazil, and Mexico). Finally, and most importantly, domestic savings rates need to rise, reducing the region's reliance on exter-

nal financing for growth. As pension reform takes hold in more countries over the next five years there is an expectation that savings may rise, although the evidence for this is mixed (Samwick 1998).

These factors are reflected in the prospects presented in table A1-4. GDP growth is forecast to recover to an average of 3.7 percent for the ten-year projection period, with modestly rising investment rates, but lower budget deficits, lower inflation, and a current account deficit that is contained to about 2.5 percent of GDP, implying significantly improved resource use, macroeconomic stability, and higher domestic savings. Nonetheless, Latin America faces a difficult transition. Many countries remain highly indebted or heavily dependent on commodity exports and are therefore vulnerable to interest rate and terms of trade shocks. Access to international capital markets has tightened in the current environment, raising the possibility of a sharper required reduction in external

Table A1-4 Latin America and the Caribbean forecast summary
(percent per year)

Growth rates/ratios	Baseline forecast						
	1988-97	1996	1997	1998	1999	2000	1998-2007
Real GDP growth	2.6	3.4	5.1	2.5	0.6	3.3	3.7
Consumption per capita	1.3	1.7	3.8	1.1	-1.9	1.1	1.8
GDP per capita	0.8	1.7	3.5	1.0	-0.9	1.8	2.2
Population 16-65 years	2.4	2.3	2.2	2.1	2.1	2.1	2.1
Median inflation ^a	18.8	11.4	9.0	9.8	9.8	9.2	8.3
Gross domestic investment/GDP	21.1	21.8	23.0	23.4	23.1	23.5	24.2
Budget balance/GDP	-3.0	-1.9	-2.3	-2.0	-1.5	-1.0	-1.5
Export volume ^b	8.7	10.3	9.4	6.3	6.1	6.3	6.4
Current account/GDP	-2.0	-1.9	-3.1	-3.8	-2.8	-2.7	-2.6
Debt to export ratio ^c	200.0	163.0	164.0	180.0	178.0	175.0	160.0

a. GDP deflator.

b. Goods and nonfactor services.

c. Ratio of long-term debt outstanding and disbursed to exports of goods and nonfactor services plus net worker remittances.

Source: World Bank baseline forecast, November 1998.

deficits over the next few years. Elections in a number of large countries in the next two years may increase investor nervousness about a slippage on fiscal policy at a time when these economies must still rely heavily on private capital flows to refinance existing debt—although actions on the fiscal front have been strongest in Argentina and Mexico, two countries facing elections. On balance, the growth potential of many countries in the region has improved with better public and private management, suggesting a growth potential in per capita incomes averaging 2.2 percent a year over the next 10 years (a full percentage point higher than in the past 10 years), although risks to this outlook remain large, especially in the near term.

Middle East and North Africa

Signs of a more favorable outlook for the region began to emerge last year. Reforms were gaining momentum in some

large economies in the region, (notably in the Arab Republic of Egypt, the largest country by population), while reviving growth in the EU (an important trade partner), was contributing to faster growth along with progress on structural reforms in trade, investment, and other areas. But the East Asian crisis has clouded prospects in the region, especially for some countries, with effects coming through all three channels: a decline in terms of trade (especially severe for oil producers), slowing export growth, and reduced capital flows.

The region's oil exporters are experiencing the largest terms of trade shocks related to the Asian crisis. Economic growth in the region will consequently slow to about 2 percent in 1998 (from 3.1 percent in 1997) and recover only modestly in 1999. The shift from growth to contraction in the region's important oil exporters will, however, be offset by output recovery in North Africa (following a drought in 1997) and stronger growth (3.8 percent in 1998, up from 3.5 percent in 1997) in other coun-

tries with diversified exports and trade ties to Europe. But, even for the diversified exporters, there is a risk that export prices and market shares may weaken as they face increasingly intense competition from East Asia, especially in textiles, clothing, and related goods. Prospects for recovery in the region, particularly in the Gulf and the Mashreq, remain contingent on a pick-up in global demand for fuel and stabilization of oil prices—with OPEC producers expected to restrain output (a move that will slow their GDP growth).

The key development for the region's sparsely populated oil producers—mainly Bahrain, Oman, and Saudi Arabia—is the enormous 27 percent deterioration in their terms of trade, equivalent to some 8.5 percent of GDP. The energy price decline, in large part (but not wholly) traceable to the effects of the East Asian crisis, is expected to cut developing Gulf Cooperation Council (GCC) countries' export receipts by more than \$15 billion and lead to cuts in government and other spending. GDP is expected to contract by about 2.5 percent in 1998. These economies, which have some capacity to finance current account deficits from reserves, may also be able to borrow abroad.

The high-population oil producers face a similar environment, but their more diversified economies give them greater resilience. The 24 percent deterioration in their terms of trade in 1998, equivalent to about 5 percent of GDP, is large enough to slow growth in Algeria and the Islamic Republic of Iran but not so large as to cause output to contract. Unlike the low-population oil exporters, these countries may be forced to cut imports or use reserves since their capac-

ity to finance a current account deficit with new debt is limited. The Islamic Republic of Iran will likely use its international reserves to remain current on its debt service.

Economic performance among the reforming and relatively diversified economies in the region (Egypt, Jordan, Lebanon, Morocco, the Syrian Arab Republic, and Tunisia,) is likely to hold up fairly well in 1998, with growth of 3.5 to 4 percent. The aggregate current account deficit will widen moderately. A small deterioration in terms of trade (0.5 to 1.5 percent), equivalent to less than 0.5 percent of GDP, should be offset by a 3 to 3.5 percent increase in export volume (mainly to Europe) and a drop in food imports as drought conditions ease in the Maghreb. But the effect of lower oil prices will be spread through the region because of smaller remittances from expatriate workers, less generous transfers in some cases, and reduced intraregional trade.

The main financial impact of the Asian crisis on the region will be reduced access to portfolio capital. Before the crisis in 1997, Egypt, Lebanon, and Morocco collectively tapped international capital markets for nearly \$1.5 billion in long-term financing. This represented an 80 percent increase over 1996 and a 130 percent increase over 1995. This financing dried up once the East Asian crisis emerged in 1998. Foreign interest in equity markets also diminished, resulting in a drop in IFC equity indexes for Egypt, Jordan, Morocco, and Tunisia.

A smaller but more widespread impact is being transmitted through financial markets. Not all banks in the region are protected by a cushion of substantial net foreign

assets, but few have large net foreign liabilities (figure A1-7). Macroeconomic risks do not point in the direction of banking crises. Unlike the East Asian economies, economies in the Middle East and North Africa exhibit neither excessive domestic credit growth nor rising inflation. And, with the possible exception of Lebanon, there is little evidence of a speculative real estate boom. Furthermore, thanks in part to fiscal consolidation and adjustment efforts, budget and balance of payments deficits are, on the whole, manageable.

Problems are particularly unlikely in the Gulf countries because most banks in this region are large, well-capitalized, and still profitable. While ultimately the fate of the Gulf banks depends on the oil market, they were in good shape at the end of 1997. The Bank for International Settlements (BIS) reported that the net foreign assets of Gulf banks grew during 1995–97, buoyed by firmer oil prices. At the end of that

period, every Gulf country except Qatar, which is financing a major gas development project, had positive net assets with the OECD. With oil prices in decline, however, net assets can be expected to fall. Elsewhere in the region, banks show greater vulnerability because of low transparency, inadequate capitalization, and dominance by state-held banks.

Once the effects of the Asian crisis have dissipated, growth in the Middle East and North Africa region is expected to recover (table A1-5). Average growth for the coming decade should approach 3.4 percent a year, a significant improvement over the 2.6 percent growth for 1988–97. The improvement is expected to be especially significant for the diversified exporting economies of Egypt, Jordan, Lebanon, Morocco, Syria, and Tunisia, whose growth could recover to about 4.4 percent a year for the next 10 years, reaching nearly 5 percent toward the middle of the forecast period. If this growth

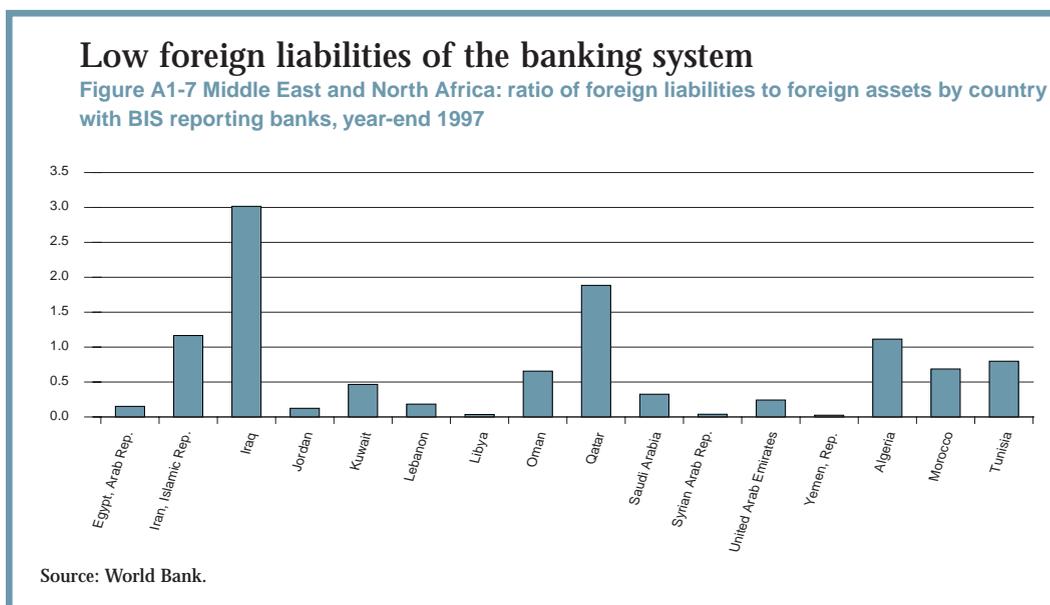


Table A1-5 Middle East and North Africa forecast summary
(percent per year)

Growth rates/ratios	Baseline forecast						
	1988-97	1996	1997	1998	1999	2000	1998-2007
Real GDP growth	2.6	5.3	3.1	2.0	2.8	3.1	3.4
Consumption per capita	-0.5	3.0	0.1	-0.8	0.0	0.3	0.6
GDP per capita	-0.1	2.9	0.6	-0.5	0.3	0.6	0.9
Population 16-65 years	3.1	2.9	3.0	3.0	3.0	2.9	2.8
Median inflation ^a	8.2	8.1	4.5	4.1	6.0	6.3	6.0
Gross domestic investment/GDP	22.6	23.3	23.9	24.0	24.3	24.7	25.4
Budget balance/GDP	-4.7	-0.2	-1.7	-1.4	-1.5	-1.4	-3.0
Export volume ^b	5.5	3.6	5.1	-2.1	3.2	4.8	3.8
Current account/GDP	-2.5	2.5	1.8	-4.0	-2.0	0.0	0.0
Debt to export ratio ^c	210.0	177.0	174.0	170.0	175.0	170.0	160.0
Memorandum item							
GDP of oil dominant economies	3.2	4.6	2.7	0.5	2.0	2.5	2.7
GDP of diversified exporters	4.1	6.5	3.5	3.9	4.0	4.2	4.4

a. GDP deflator.

b. Goods and nonfactor services.

c. Ratio of long-term debt outstanding and disbursed to exports of goods and nonfactor services plus net worker remittances.

Source: World Bank baseline forecast, November 1998.

is achieved, per capita incomes (and employment growth) would improve substantially. These prospects are, however, contingent on further fiscal reforms, a shift toward private sector growth, rising domestic savings, and expanding nonoil exports. For the oil exporters, however, absent significant reforms, growth may be significantly below the previous 10-year average (with rising budget deficits) and per capita incomes may stagnate or fall.

For the diversified group of exporting countries, realization of the better growth prospects will depend on successful consolidation of domestic and international economic policy reforms (such as privatization). Problems of low labor productivity and high unemployment will have to be dealt with. Solutions will require decisions on a smaller role for the state and a larger one for the private sector in development, including heavy pruning of overgrown public sectors and excessive government spending. Countries in the region spend 9.8 per-

cent of GDP on public wages, nearly twice as much as the average (5 percent) in the OECD countries, Asia, and Latin America (World Bank 1997a). It is difficult to imagine dynamic growth in the region without solid progress in the Middle East peace process and without an end to the daily occurrence of civil strife in the Arab world.

Also important for the diversified exporters is how well they manage globalization in light of the East Asian experience. The most important step is to implement reforms so that domestic producers can compete successfully in the EU under the Euro-Mediterranean Initiative.⁷ For Maghreb countries, it is a matter of preparing for implementation of an agreement already in place. For Mashreq countries, it is a matter of completing negotiations, implementing agreements, and restructuring economies to adapt to competition. Intensified competition from the Central and Eastern European applicants to the EU and from the now more price competitive East Asian

exporters makes this task even more challenging. Countries like Morocco and Tunisia need to find new export markets as well, especially since EU growth prospects, while on the upswing, are still modest (2–3 percent) and attention has shifted to the Central European applicants to the EU and away from the Maghreb (to some degree).

Notes

1. This appendix covers the prospects for all developing regions other than East Asia. East Asia's prospects are discussed in detail in the main text of Chapter 1, and generally, in the main report.

2. This section draws heavily from Gelb 1998.

3. The region's overall growth forecast for 1998 might be somewhat lower (2.1 percent in 1998), based on recent data revisions and consistency checks.

4. Latest data suggest the possibility of growth slipping to a small negative level (–0.5 percent growth) in the Czech Republic in 1998, instead of the small positive level reported here.

5. Growth in total factor productivity for a sample of 19 Latin American countries was estimated to be 0.4 a year in 1991–95, up from –0.7 and –2.4 in the 1970s and 1980s (Lora and Barrera 1997).

6. Labor productivity growth has improved (1.1 in 1991–95 compared with –1.3 in the 1980s), but there is still need for greater labor market flexibility, notably in Argentina (Lora and Barrera 1997).

7. Euro-Mediterranean bilateral association agreements were signed by Tunisia in 1995, and there-

after by Morocco, Jordan, and the Palestinian Authority. Such agreements are currently being negotiated with Algeria, Egypt, and Syria. Partnership is a precursor to entry into the proposed Euro-Med free-trade area by 2010, but also covers more diverse issues such as human rights, social, cultural, and environmental issues.

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Appendix 2

Global Economic Indicators

Table A2-1 Growth of real GDP, 1966–2007

(current 1997 dollars and 1987 prices and exchange rates—average annual percentage growth)

	1997 GDP (US\$ billions)	1966–73	1974–90	1991–97	1997	1998 estimate	1998–2007 forecast
World	29,100	5.1	2.8	2.3	3.2	1.8	2.9
High-income economies	22,670	4.9	2.7	2.1	2.8	1.7	2.4
Industrial	21,480	4.8	2.6	2.0	2.7	1.9	2.3
G-7	18,465	4.8	2.7	1.9	2.6	1.7	2.2
United States	7,745	3.0	2.5	2.9	3.8	3.3	...
Japan	4,200	9.7	3.9	1.3	0.9	-2.5	...
G-4 Europe	5,900	4.4	2.3	1.5	2.2	2.4	2.5
Germany ^a	2,100	4.6	2.1	1.5	2.0	2.8	...
Other industrial	3,015	5.0	2.3	2.0	3.0	3.1	2.9
Other high-income	1,190	9.1	6.5	6.4	5.3	-1.8	4.0
Asian NIEs	1,000	10.2	8.3	6.8	6.0	-2.2	4.2
Low- and middle-income economies	6,430	6.4	3.2	3.2	4.8	2.0	4.5
Excluding Eastern Europe and former Soviet Union	5,150	6.3	3.3	5.4	5.3	2.5	4.7
Asia	2,105	5.5	6.3	8.5	6.4	2.4	5.7
East Asia and Pacific	1,610	7.6	7.3	9.9	7.1	1.3	5.8
China	925	9.0	9.0	11.8	9.1	7.2	...
Indonesia	215	6.9	6.6	7.3	4.6	-15.3	...
South Asia	495	3.6	5.0	6.2	5.0	4.6	5.4
India	380	3.7	4.9	6.6	5.0	4.7	...
Latin America and the Caribbean	2,020	6.6	2.5	3.3	5.1	2.5	3.7
Brazil	820	10.4	3.4	3.4	3.0	0.7	...
Mexico	400	6.8	3.2	1.9	7.0	4.5	...
Argentina	325	4.7	0.4	3.7	8.4	4.5	...
Europe and Central Asia	1,475	6.1	3.1	-4.4	2.6	0.5	3.9
Russian Federation ^b	450	6.6	3.6	-7.1	0.9	-5.0	...
Turkey	190	4.9	4.1	4.3	7.1	4.8	...
Poland	135	7.5	0.0	5.1	6.9	5.7	...
Middle East and North Africa	500	8.7	1.1	2.9	3.1	2.0	3.4
Saudi Arabia	130	13.3	0.6	0.8	3.0	-2.5	...
Iran, Islamic Rep.	100	10.1	-0.4	3.6	3.8	1.8	...
Egypt, Arab Rep.	75	4.0	7.0	4.2	5.4	3.7	...
Sub-Saharan Africa	330	4.7	2.1	2.4	3.5	2.4	3.8
South Africa	130	4.8	2.0	2.0	1.7	0.5	...
Nigeria	50	8.6	0.9	2.7	3.9	1.8	...

Note: Growth rates over intervals are computed using least squares method.

a. Data prior to 1991 covers the Federal Republic of Germany.

b. Data prior to 1992 covers former Soviet Union.

Source: World Bank data and staff estimates.

Figure A2-1 Real GDP growth, 1988–2007

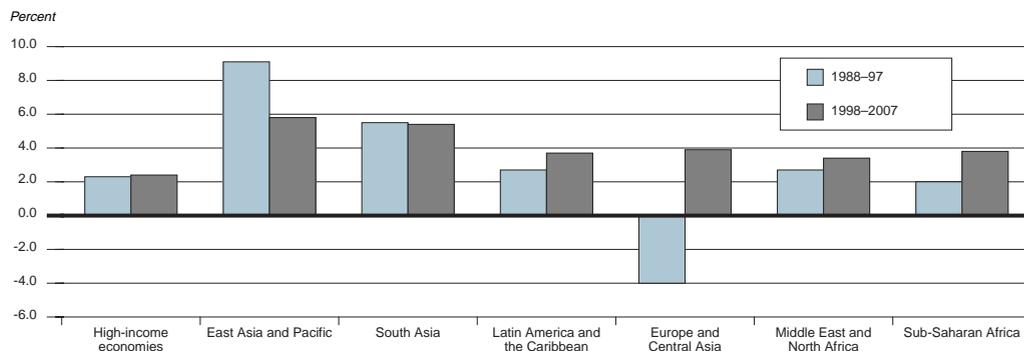


Table A2-2 Growth of real per capita GDP, 1966–2007

(current 1997 dollars and 1987 prices and exchange rates—average annual percentage growth)

	1997 GDP per capita (US\$)	1966–73	1974–90	1991–97	1997	1998 estimate	1998–2007 forecast
World	5,175	2.9	1.1	0.8	1.8	0.3	1.5
High-income economies	24,710	3.8	2.0	1.4	2.2	1.1	2.0
Industrial	25,895	3.9	2.0	1.3	2.2	1.4	1.9
G-7	27,200	3.8	2.1	1.3	2.1	1.1	1.8
United States	28,950	1.9	1.5	1.9	2.9	2.2	...
Japan	33,325	8.4	3.2	1.0	0.6	-2.8	...
G-4 Europe	22,960	3.8	2.1	1.2	2.0	2.3	2.4
Germany ^a	25,590	4.0	2.1	1.1	1.8	2.5	...
Other industrial	19,970	4.1	1.7	1.5	2.6	2.7	2.6
Other high-income	13,500	6.6	4.7	5.1	3.9	-2.8	3.2
Asian NIEs	12,960	7.9	6.7	5.6	4.9	-3.0	3.5
Low- and middle-income economies	1,370	3.9	1.2	1.6	3.2	0.4	3.0
Excluding Eastern Europe and former Soviet Union	1,200	3.6	1.2	3.6	3.5	0.7	3.0
Asia	730	2.9	4.3	6.9	4.9	1.0	4.3
East Asia and Pacific	990	4.8	5.6	8.5	5.9	0.2	4.8
China	750	6.2	7.5	10.6	8.1	6.2	...
Indonesia	1,075	4.4	4.5	5.6	3.2	-16.4	...
South Asia	395	1.2	2.6	4.3	3.1	2.7	3.6
India	395	1.4	2.6	4.8	3.2	3.0	...
Latin America and the Caribbean	4,230	3.9	0.3	1.5	3.5	1.0	2.2
Brazil	5,020	7.7	1.2	2.0	1.7	-0.6	...
Mexico	4,185	3.4	0.8	0.1	5.1	2.7	...
Argentina	9,050	3.1	-1.1	2.4	7.4	3.6	...
Europe and Central Asia	3,190	5.0	2.1	-4.7	2.5	0.0	3.4
Russian Federation ^b	3,060	5.6	2.7	-7.0	1.2	-4.7	...
Turkey	2,965	2.3	1.8	2.4	5.4	3.2	...
Poland	3,510	6.8	-0.8	4.9	6.8	5.4	...
Middle East and North Africa	1,865	5.8	-2.0	0.6	0.6	-0.5	0.9
Saudi Arabia	6,585	8.8	-4.6	-2.7	-0.4	-5.7	...
Iran, Islamic Rep.	1,660	7.0	-3.7	1.9	0.9	-1.0	...
Egypt, Arab Rep.	1,250	1.9	4.3	2.2	3.6	2.0	...
Sub-Saharan Africa	560	2.0	-0.9	-0.2	0.5	-0.5	1.0
South Africa	3,370	2.6	-0.4	0.3	-0.1	-1.6	...
Nigeria	440	5.7	-2.1	-0.3	1.0	-1.0	...

Note: Growth rates over intervals are computed using least squares method.

a. Data prior to 1991 covers the Federal Republic of Germany.

b. Data prior to 1992 covers former Soviet Union.

Source: World Bank data and staff estimates.

Figure A2-2 Real per capita GDP growth, 1988–2007

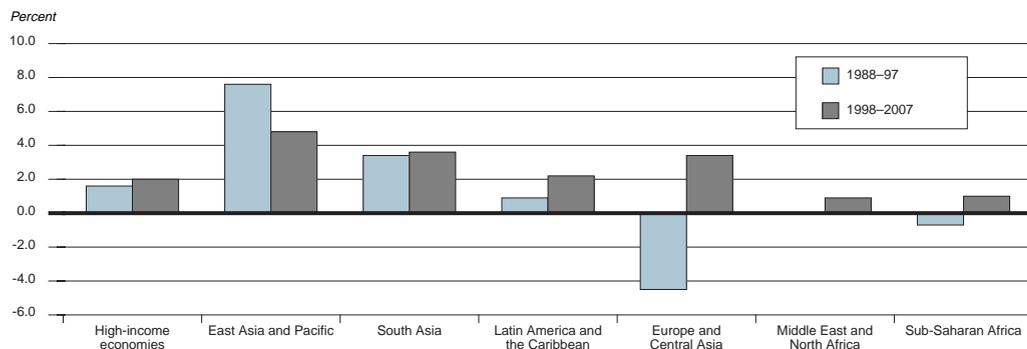


Table A2-3 Inflation: GDP deflators, 1966–2007
(percentage change)^a

	1966–73	1974–90	1991–97	1997	1998 estimate	1998–2007 forecast
World	5.4	7.8	4.4	2.8	2.9	3.2
High-income economies	5.6	7.1	2.6	1.6	1.6	2.1
Industrial	5.5	6.8	2.5	1.6	1.5	2.0
G-7	5.3	6.5	2.4	1.5	1.3	1.8
United States	4.8	6.3	2.5	2.0	1.6	...
Japan	5.8	3.6	0.6	1.1	0.5	...
G-4 Europe	5.4	8.3	3.4	1.3	1.6	1.8
Germany ^b	4.9	3.5	3.4	0.1	1.1	...
Other industrial	6.4	8.5	3.0	2.0	2.5	2.8
Other high-income	8.7	17.2	5.5	3.4	3.9	4.6
Asian NIEs	9.4	9.7	4.7	3.0	3.5	4.5
Low- and middle-income economies	4.5	10.7	11.7	7.6	7.9	7.4
Excluding Eastern Europe and former Soviet Union	4.5	10.9	11.0	7.0	7.8	7.0
Asia	5.6	8.4	7.8	6.0	7.6	5.7
East Asia and Pacific	5.4	7.4	6.3	4.9	6.7	4.0
China	-1.7	3.8	11.2	2.3	1.7	...
Indonesia	65.6	13.3	8.6	12.2	21.1	...
South Asia	5.8	8.5	9.5	9.2	7.6	6.8
India	6.2	8.1	8.5	7.3	6.8	...
Latin America and the Caribbean	5.1	18.0	15.5	9.0	9.8	8.3
Brazil	22.8	145.0	475.0	7.3	6.0	...
Mexico	5.9	48.0	19.5	15.8	16.2	...
Argentina	24.0	203.0	12.7	1.2	2.0	...
Europe and Central Asia	2.4	5.1	44.6	50.0	43.8	16.3
Russian Federation ^c	0.9	1.3	340.0	15.4	20.0	...
Turkey	10.8	44.5	79.3	81.3	71.6	...
Poland	2.0	31.2	30.0	14.3	15.2	...
Middle East and North Africa	4.2	9.6	6.6	4.5	4.1	6.1
Saudi Arabia	10.5	4.0	0.9	-0.6	1.5	...
Iran, Islamic Rep.	5.6	17.0	32.2	35.5	26.0	...
Egypt, Arab Rep.	2.4	12.4	10.6	6.3	7.1	...
Sub-Saharan Africa	4.1	10.1	10.9	6.6	7.4	8.0
South Africa	6.2	14.5	10.1	7.8	8.0	...
Nigeria	10.7	14.5	35.0	9.0	10.0	...

Note: Deflators are in local currency units. Growth rates over intervals are computed using least squares method.
 a. High-income group inflation rates are GDP-weighted averages of local currency inflation; low- and middle-income group rates are medians; world is GDP-weighted average of the two groups.
 b. Data prior to 1991 covers the Federal Republic of Germany.
 c. Data prior to 1992 covers former Soviet Union.
 Source: World Bank data and staff estimates.

Figure A2-3 GDP inflation, 1988–2007

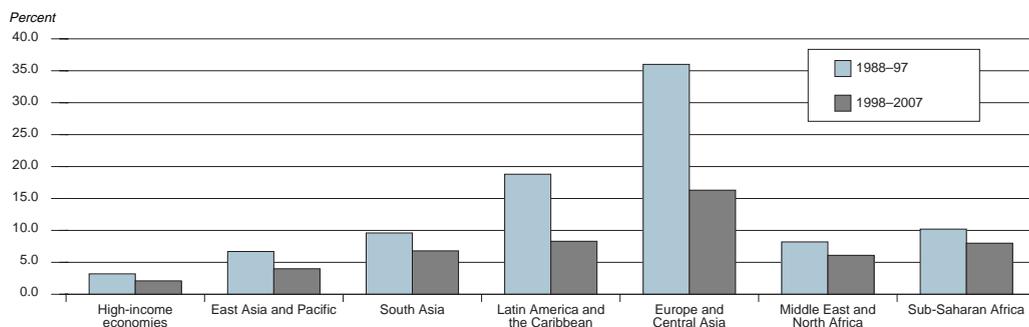


Table A2-4 Current account balances, 1970–2007
(percentage of GDP)

	1997 current account (US\$ billions)	1970–80	1981–90	1991–97	1997	1998 estimate	1998–2007 forecast
World	50.5	-0.1	-0.4	-0.1	0.2	0.0	0.0
High-income economies	87.7	-0.1	-0.3	0.1	0.4	0.2	-0.2
Industrial	64.2	-0.1	-0.5	0.1	0.3	-0.1	-0.3
G-7	-3.2	0.1	-0.5	-0.1	0.0	-0.4	-0.6
United States	-155.0	0.1	-2.1	-1.5	-2.1	-2.8	...
Japan	94.4	0.7	2.4	2.4	2.3	2.9	...
G-4 Europe	78.5	0.2	0.4	-0.1	1.3	0.9	0.7
Germany ^a	-2.8	0.5	2.6	-0.8	-0.1	0.2	...
Other industrial	67.4	-0.9	-0.9	0.9	2.2	2.0	1.2
Other high-income	23.5	3.5	6.8	1.3	2.0	6.2	3.1
Asian NIEs	19.3	-2.6	4.0	1.8	1.9	8.1	3.6
Low- and middle-income economies	-37.2	0.1	-1.0	-1.3	-0.6	-0.7	0.2
Excluding Eastern Europe and former Soviet Union	-46.2	-0.5	-2.3	-1.9	-1.0	-0.9	0.1
Asia	-3.8	-0.9	-1.8	-1.4	-0.2	2.5	1.9
East Asia and Pacific	2.2	-1.0	-1.6	-1.3	0.1	3.5	2.6
China	19.2	-0.4	0.1	1.0	2.1	2.6	...
Indonesia	-9.7	-1.4	-3.1	-2.9	-4.5	-2.7	...
South Asia	-6.0	-0.5	-2.2	-1.8	-1.2	-0.6	-0.4
India	-3.0	0.3	-1.8	-1.2	-0.8	-0.7	...
Latin America and the Caribbean	-60.0	-2.8	-1.8	-2.5	-3.1	-3.8	-2.5
Brazil	-33.5	-4.1	-1.6	-1.3	-4.3	-3.8	...
Mexico	-7.4	-3.5	-0.8	-3.9	-1.9	-3.0	...
Argentina	-10.0	-0.4	-2.2	-2.1	-3.1	-3.7	...
Europe and Central Asia	12.0	0.5	2.4	1.0	1.0	0.4	0.9
Russian Federation ^b	9.5	2.0	3.9	2.7	1.0	-0.6	...
Turkey	3.0	-2.0	-1.3	-0.4	1.6	1.5	...
Poland	-5.0	-0.9	-1.4	-2.6	-4.1	-1.1	...
Middle East and North Africa	9.0	6.6	-3.6	-2.3	1.8	-4.0	0.0
Saudi Arabia	-0.5	19.8	-7.2	-9.3	-0.4	-12.3	...
Iran, Islamic Rep.	7.0	2.4	-0.5	0.9	7.0	1.0	...
Egypt, Arab Rep.	-2.5	-4.9	-3.9	2.8	-3.4	-4.9	...
Sub-Saharan Africa	5.6	-2.0	-2.8	-1.4	1.9	-0.3	0.3
South Africa	-1.0	-1.7	0.6	0.1	-0.7	-1.0	...
Nigeria	3.4	0.8	-0.7	1.3	10.6	-1.2	...

Note: Current account after official transfers. Shares over intervals are period averages.

a. Data prior to 1991 covers the Federal Republic of Germany.

b. Data prior to 1992 covers former Soviet Union.

Source: World Bank data and staff estimates.

Figure A2-4 Ratio of current account balance to GDP, 1988–2007

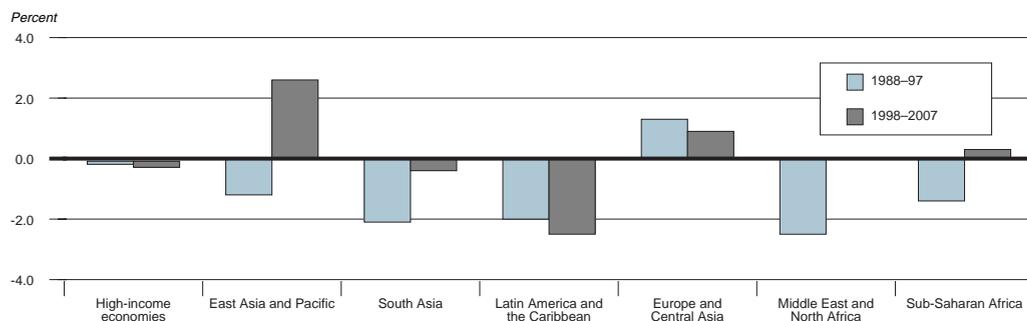


Table A2-5 Exports of goods, 1996
 (percent)

	Merchandise exports (US\$ millions)	Average annual growth 1987-96	Effective market growth 1987-96 ^a		Merchandise exports (US\$ millions)	Average annual growth 1987-96	Effective market growth 1987-96 ^a
World	5,296,662	6.3	6.3	Europe and Central Asia (continued)	6,300	...	4.7
All developing economies	1,123,729	7.1	6.6	Kazakhstan	531	...	...
Asia	418,651	14.0	8.5	Kyrgyz Republic	1,424	...	...
East Asia and Pacific	368,299	14.6	8.9	Latvia	3,335	...	...
China	151,197	12.8	9.6	Lithuania	805	...	...
Fiji	745	10.2	7.2	Moldova	24,440	6.2	3.6
Indonesia	49,814	14.5	8.5	Poland	8,085	-8.2	3.4
Malaysia	78,327	17.0	9.5	Romania	89,110	...	4.7
Myanmar	732	13.8	12.4	Russian Federation	8,829	...	2.6
Papua New Guinea	2,514	8.4	7.6	Slovak Republic	8,312	...	4.6
Philippines	20,417	11.4	7.4	Slovenia	770	...	...
Thailand	55,721	16.3	7.6	Tajikistan	1,147	...	4.6
Vietnam	7,337	...	...	TFYR Macedonia	1,628	...	...
South Asia	50,352	10.3	6.6	Turkmenistan	23,224	6.0	5.4
Bangladesh	3,297	12.6	6.1	Turkey	14,441	...	4.7
India	33,054	12.3	6.6	Ukraine	3,781	...	...
Nepal	385	10.3	5.3	Uzbekistan	...	...	...
Pakistan	9,321	2.2	7.2	Middle East and North Africa	146,055	2.0	7.0
Sri Lanka	4,095	11.5	6.0	Algeria	12,620	0.5	5.8
Latin America and the Caribbean	211,987	6.2	6.7	Bahrain	4,700	5.2	8.6
Argentina	23,811	6.8	8.0	Egypt, Arab Rep.	3,535	-1.2	5.2
Bolivia	1,137	9.2	10.0	Iran, Islamic Rep.	22,391	2.7	7.4
Brazil	47,747	4.6	7.2	Iraq	1,482	-33.4	5.8
Chile	15,405	8.7	7.7	Jordan	1,817	4.0	4.6
Colombia	10,578	13.3	6.0	Morocco	6,881	2.4	6.0
Costa Rica	3,014	11.5	5.6	Oman	7,339	10.1	10.0
Dominican Republic	817	-7.3	5.4	Saudi Arabia	60,730	5.5	7.7
Ecuador	4,900	6.8	6.5	Syrian Arab Rep.	4,000	9.9	4.3
El Salvador	1,024	10.1	6.2	Tunisia	5,517	8.3	4.8
Guatemala	2,031	5.1	6.3	Yemen, Rep.	2,260	9.7	12.1
Jamaica	1,379	4.7	5.0	Sub-Saharan Africa	86,332	2.4	5.8
Mexico	59,084	9.0	6.0	Angola	5,087	5.2	5.2
Panama	700	10.0	6.5	Botswana	3,231	-1.8	4.8
Paraguay	1,044	10.1	9.0	Côte d'Ivoire	4,371	1.4	5.5
Peru	5,897	8.7	6.9	Cameroon	1,769	3.8	5.5
Trinidad and Tobago	2,500	2.8	5.1	Ethiopia	417	-7.5	4.9
Uruguay	2,397	1.8	8.5	Gabon	2,900	6.8	6.0
Venezuela	23,060	5.2	6.2	Ghana	1,571	8.4	5.3
Europe and Central Asia	260,704	1.3	4.1	Kenya	2,067	7.6	4.1
Armenia	290	...	...	Madagascar	299	-3.7	6.5
Azerbaijan	631	...	...	Nigeria	18,613	4.0	6.2
Belarus	5,652	...	...	Senegal	986	-1.2	5.6
Bulgaria	4,890	-17.6	1.3	South Africa	29,330	1.2	5.7
Czech Republic	21,906	...	2.6	Sudan	620	-2.1	8.4
Estonia	2,079	...	...	Zambia	1,041	1.5	8.3
Georgia	372	...	...	Zimbabwe	2,500	3.9	6.8
Greece	9,480	6.7	5.2	High-income economies	4,172,933	6.1	6.5
Hungary	12,686	0.0	3.3	Industrial	3,538,687	5.4	6.4
				G-7	2,563,018	4.9	6.6
				Canada	201,633	6.5	5.8
				France	288,468	4.2	5.6
				Germany	524,198	4.0	5.4

Table A2-5 Exports of goods, 1996 (continued)

(percent)

	Merchandise exports (US\$ millions)	Average annual growth 1987-96	Effective market growth 1987-96 ^a		Merchandise exports (US\$ millions)	Average annual growth 1987-96	Effective market growth 1987-96 ^a
Italy	252,000	5.9	5.7	Other industrial (continued)	Sweden	84,854	6.9
Japan	410,900	2.3	8.0		Switzerland	76,196	6.5
United Kingdom	260,746	4.2	6.2				
United States	625,073	7.3	7.9				
Other industrial	975,669	6.8	5.8		Other high-income	634,246	10.0
Australia	60,479	7.2	8.5		Brunei	2,329	2.7
Austria	57,818	7.6	5.1		Hong Kong,		
Belgium ^b	170,297	5.1	5.5		China	180,750	13.5
Denmark	50,108	5.4	5.6		Israel	20,610	7.8
Finland	38,435	6.8	5.2		Korea, Rep.	129,715	7.8
Iceland	1,898	0.2	5.2	Kuwait	14,858	11.5	
Ireland	48,282	11.2	5.5	Qatar	4,377	2.5	
Netherlands	197,417	6.2	5.4	Singapore	125,014	15.0	
New Zealand	14,422	5.3	7.6	Taiwan, China	115,726	6.1	
Norway	49,645	6.1	5.5	United Arab Emirates	33,220	5.4	
Portugal	23,824	6.3	5.8				
Spain	101,994	10.5	5.7				

Note: Merchandise exports are f.o.b. in current U.S. dollars. Growth rates are for export volumes. Growth rates over intervals are computed using least squares method.

... implies data is not available.

a. Effective market growth is a weighted average of import volume growth in the country's export markets.

b. Includes Luxembourg.

Source: See Technical Notes.

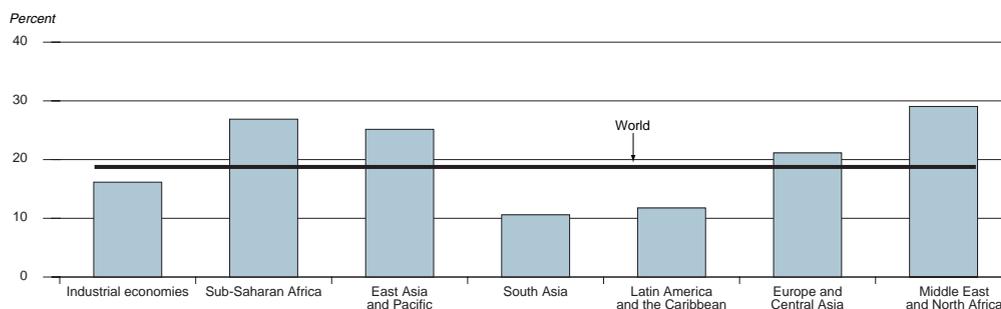
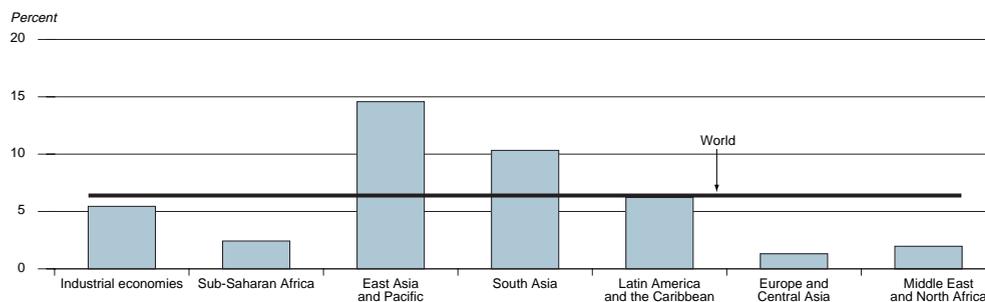
Figure A2-5a Merchandise exports as share of GDP, 1996

Figure A2-5b Average annual growth rate of export volumes, 1987-96


Table A2-6 Imports of goods, 1996

(percent)

	Merchandise imports (US\$ millions)	Annual average growth 1987-96	Merchandise imports/GDP		Merchandise imports (US\$ millions)	Annual average growth 1987-96	Merchandise imports/GDP
World	5,391,486	6.1	18.7	Europe and Central Asia (continued)			
All developing economies	1,212,241	8.6	20.9	Kazakhstan	6,600	..	31.4
Asia	454,839	12.8	23.5	Kyrgyz Republic	894	..	48.9
East Asia and Pacific	391,232	14.4	26.7	Latvia	2,311	..	45.0
China	138,944	11.0	16.8	Lithuania	4,468	..	57.4
Fiji	980	6.4	47.3	Moldova	1,079	..	46.8
Indonesia	47,929	13.2	21.1	Poland	37,137	14.1	27.6
Malaysia	78,418	19.2	79.0	Romania	11,435	0.2	34.6
Myanmar	1,358	21.5	13.6	Russian Federation	62,278	..	14.5
Papua New Guinea	1,741	1.3	33.7	Slovak Republic	11,445	..	60.4
Philippines	34,122	15.7	40.7	Slovenia	9,423	..	50.0
Thailand	73,332	17.4	40.4	Tajikistan	808	..	40.6
Vietnam	10,481	..	44.9	TFYR Macedonia	1,464	..	69.1
South Asia	63,607	6.7	13.4	Turkmenistan	1,173	..	26.7
Bangladesh	6,616	8.7	20.8	Turkey	43,627	9.2	24.0
India	37,375	5.6	10.4	Ukraine	18,639	..	41.8
Nepal	1,442	7.8	32.4	Uzbekistan	4,712	..	19.8
Pakistan	12,131	7.4	18.7	Middle East and North Africa	122,842	2.8	24.4
Sri Lanka	5,416	10.3	38.9	Algeria	8,840	-0.4	19.3
Latin America and the Caribbean	236,495	10.3	13.1	Bahrain	4,273	1.2	73.6
Argentina	23,762	21.5	8.1	Egypt, Arab Rep.	13,019	4.0	19.2
Bolivia	1,635	8.8	21.7	Iran, Islamic Rep.	16,274	3.2	15.5
Brazil	56,947	12.9	7.6	Iraq	1,793	-27.3	..
Chile	17,828	10.7	24.0	Jordan	4,428	2.4	60.3
Colombia	13,684	8.8	16.1	Morocco	9,704	10.5	26.4
Costa Rica	3,479	8.9	38.6	Oman	4,578	8.8	37.8
Dominican Republic	3,686	5.2	28.0	Saudi Arabia	27,765	1.0	20.3
Ecuador	3,935	6.9	20.7	Syrian Arab Rep.	5,380	13.2	31.4
El Salvador	2,671	10.0	25.6	Tunisia	7,745	7.3	39.7
Guatemala	3,146	12.0	20.1	Yemen, Rep.	2,290	1.7	44.9
Jamaica	2,927	6.6	72.3	Sub-Saharan Africa	77,599	3.7	24.2
Mexico	61,160	13.6	18.3	Angola	2,240	9.6	29.4
Panama	2,780	12.8	33.7	Botswana	1,735	3.0	35.1
Paraguay	3,204	22.6	33.1	Côte d'Ivoire	2,980	-1.2	27.9
Peru	9,473	9.3	15.5	Cameroon	1,227	-5.7	13.5
Trinidad and Tobago	2,144	1.9	39.2	Ethiopia	1,000	-1.9	16.6
Uruguay	3,323	11.9	18.3	Gabon	950	1.9	16.8
Venezuela	9,880	1.1	14.7	Ghana	2,297	9.4	36.2
Europe and Central Asia	320,466	6.8	26.0	Kenya	2,912	-1.0	31.5
Armenia	856	..	53.8	Madagascar	507	3.0	12.7
Azerbaijan	961	..	26.3	Nigeria	7,996	7.2	17.2
Belarus	6,939	..	33.9	Senegal	1,268	-0.9	26.4
Bulgaria	4,700	-17.7	47.8	South Africa	30,126	4.7	23.9
Czech Republic	29,102	..	53.0	Sudan	1,340	-0.1	16.4
Estonia	3,231	..	73.9	Zambia	1,413	4.7	41.7
Georgia	686	..	15.9	Zimbabwe	2,215	2.8	25.7
Greece	27,392	9.1	22.3	High-income economies	4,179,245	5.6	18.1
Hungary	15,896	3.0	35.4	Industrial	3,510,801	4.8	16.0
				G-7	2,576,902	4.8	13.7
				Canada	175,158	5.0	30.2
				France	277,673	3.4	18.0
				Germany	458,783	5.3	19.5

Table A2-6 Exports of goods, 1996 (continued)

(percent)

	Merchandise imports (US\$ millions)	Annual average growth 1987-96	Merchandise imports/GDP		Merchandise imports (US\$ millions)	Annual average growth 1987-96	Merchandise imports/GDP
Italy	208,114	2.7	17.2	Other industrial (continued)			
Japan	349,152	6.7	7.6	Sweden	66,851	5.6	26.7
United Kingdom	285,997	2.8	25.0	Switzerland	74,462	-0.6	25.4
United States	822,025	5.6	11.2	Other high-income	668,444	11.5	56.9
Other industrial	933,899	4.8	29.8	Brunei	2,000	10.9	40.1
Australia	65,427	5.7	16.7	Hong Kong,			
Austria	67,331	5.4	29.8	China	198,550	13.1	128.8
Belgium ^a	161,303	3.5	57.2	Israel	31,620	8.1	34.4
Denmark	44,493	4.2	25.5	Korea, Rep.	150,339	12.3	31.0
Finland	29,264	1.1	23.6	Kuwait	8,374	-0.3	26.9
Iceland	2,032	-2.3	27.9	Qatar	3,805	10.5	50.0
Ireland	35,871	7.6	51.5	Singapore	131,388	12.5	141.7
Netherlands	180,639	5.4	46.0	Taiwan, China	101,287	10.1	37.2
New Zealand	14,725	6.4	22.6	United Arab Emirates	23,520	12.7	52.1
Norway	35,615	3.1	22.6				
Portugal	34,104	6.6	32.8				
Spain	121,782	8.2	20.9				

Note: Merchandise imports are c.i.f. in current U.S. dollars. Growth rates are for import volumes. Growth rates over intervals are computed using least squares method.

.. implies data is not available.

a. Includes Luxembourg.

Source: See Technical Notes.

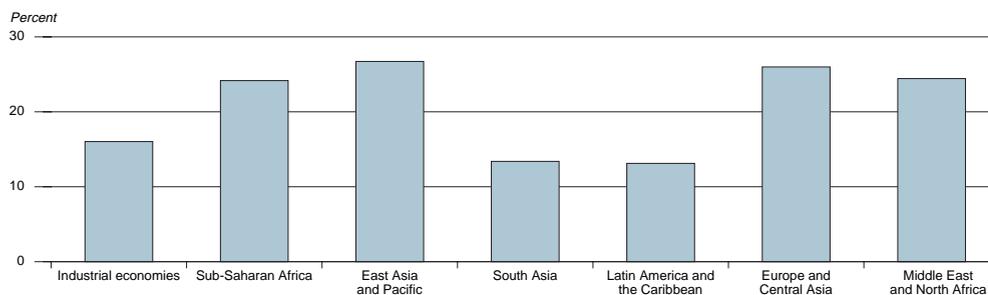
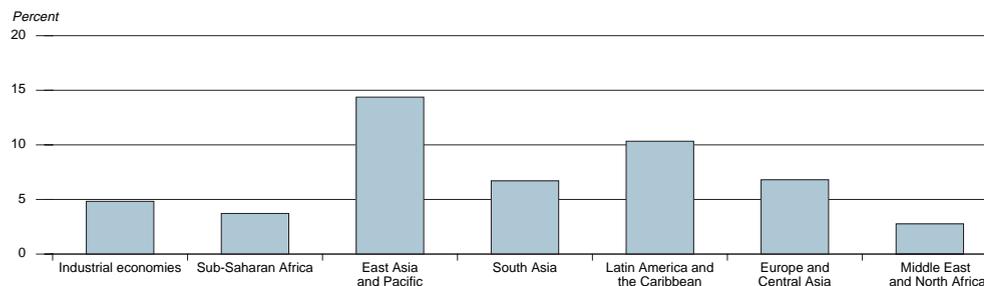
Figure A2-6a Merchandise imports as share of GDP, 1996

Figure A2-6b Average annual growth rate of import volumes, 1987-96


Table A2-7 Direction of merchandise trade, 1996^a
(percentage of world trade)

Source of exports	High-income importers					Low- and middle-income importers						World		
	United States	EU-15	Japan	Other industrial	All industrial	Other high-income	All high-income	Sub-Saharan Africa	East Asia and Pacific	South Asia	Europe and Central Asia		Middle East and North Africa	Latin America and the Caribbean	All low- and middle-income
High-income economies	10.8	30.7	4.0	6.4	51.9	8.0	59.9	1.0	6.8	0.8	3.9	1.7	4.0	18.2
Industrial	8.5	29.2	2.7	6.0	46.3	6.1	52.4	0.9	3.7	0.6	3.6	1.6	3.6	13.9
United States	...	2.5	1.3	3.0	6.8	1.7	8.5	0.1	0.8	0.1	0.2	0.3	2.1	3.6
EU-15	2.8	23.5	0.9	2.3	29.4	1.8	31.3	0.6	1.1	0.3	3.2	1.1	1.0	7.3
Japan	2.2	1.2	...	0.3	3.7	2.0	5.8	0.1	1.5	0.1	0.1	0.1	0.3	2.2
Other industrial	3.5	2.1	0.5	0.3	6.4	0.5	6.9	0.0	0.4	0.1	0.1	0.1	0.1	0.9
Other high-income ^b	2.3	1.6	1.3	0.4	5.5	1.9	7.5	0.1	3.1	0.2	0.3	0.2	0.3	4.3
Low- and middle-income economies	4.5	5.5	2.2	0.7	12.9	2.7	15.7	0.4	1.5	0.4	2.2	0.6	1.2	6.2
Sub-Saharan Africa	0.3	0.6	0.1	0.0	1.0	0.1	1.1	0.2	0.1	0.0	0.0	0.0	0.0	0.4
East Asia and Pacific	1.3	1.1	1.4	0.3	4.1	1.7	5.8	0.1	0.8	0.1	0.1	0.1	0.1	1.4
South Asia	0.2	0.3	0.1	0.0	0.6	0.1	0.7	0.0	0.1	0.0	0.0	0.0	0.0	0.2
Europe and Central Asia	0.2	2.0	0.1	0.1	2.5	0.1	2.6	0.0	0.2	0.1	1.9	0.2	0.1	2.3
Middle East and North Africa	0.2	0.9	0.3	0.1	1.5	0.5	2.0	0.1	0.2	0.1	0.1	0.2	0.0	0.7
Latin America and the Caribbean	2.2	0.7	0.2	0.2	3.3	0.1	3.4	0.0	0.1	0.0	0.1	0.1	0.9	1.3
World	15.3	36.3	6.1	7.1	64.8	10.7	75.5	1.4	8.3	1.2	6.1	2.3	5.1	24.5

0.0 implies less than 0.1 percentage point of world exports.

a. Expressed as a share (percent) of total world exports. World exports in 1996 amounted to some \$5,300 billion.

b. "Other high-income" includes the Asian newly industrialized economies, several oil exporters of the Gulf region, and Israel.

Source: IMF Direction of Trade Statistics.

Table A2-8 Growth of current dollar merchandise trade in nominal dollars, 1987–96
(average annual percentage growth)

Source of exports	High-income importers					Low- and middle-income importers						World			
	United States	EU-15	Japan	Other industrial	All industrial	Other high-income	All high-income	Sub-Saharan Africa	East Asia and Pacific	South Asia	Europe and Central Asia		Middle East and North Africa	Latin America and the Caribbean	All low- and middle-income
High-income economies	6.8	8.6	11.0	8.1	8.3	14.8	8.9	5.3	18.4	7.6	12.4	3.6	12.1	11.9	9.6
Industrial	6.4	8.4	10.4	8.0	8.0	13.9	8.6	4.8	15.1	5.9	12.0	3.5	11.7	10.3	8.9
United States	...	8.6	9.6	10.9	9.8	14.8	10.6	8.0	16.4	6.8	10.8	5.4	13.4	12.4	11.1
EU-15	6.1	8.5	13.8	6.0	8.2	15.0	8.5	4.6	15.1	7.1	13.5	3.7	11.4	10.0	8.7
Japan	3.3	6.4	...	1.4	4.0	12.4	6.2	3.7	14.9	1.4	-1.9	-0.9	7.1	9.2	6.9
Other industrial	9.2	7.9	7.7	11.5	8.7	14.1	9.0	2.8	13.8	6.8	4.0	3.6	5.6	7.6	8.9
Other high-income	8.6	13.8	12.4	9.2	10.7	18.4	12.2	10.2	24.4	12.9	20.4	4.7	19.3	20.1	14.5
Low- and middle-income economies	14.1	9.4	11.6	13.0	11.4	17.0	12.2	12.6	17.2	12.5	7.0	3.6	14.0	10.0	11.5
Sub-Saharan Africa	9.3	5.5	6.5	3.3	6.4	17.3	7.1	13.6	12.4	18.5	2.2	10.7	11.4	11.9	8.1
East Asia and Pacific	19.4	16.8	14.5	18.2	16.8	17.7	17.0	15.3	20.4	14.9	6.6	6.9	21.8	15.7	16.8
South Asia	14.0	15.4	8.9	12.0	13.7	18.0	14.5	17.1	21.9	14.4	-0.7	6.5	23.0	9.8	13.1
Europe and Central Asia	13.5	10.7	6.5	12.3	10.8	23.5	11.2	2.6	8.9	7.1	8.3	-0.5	9.4	7.4	9.2
Middle East and North Africa	7.3	5.4	8.3	11.1	6.5	13.0	7.6	13.8	21.1	12.1	-6.3	4.0	0.4	6.5	7.3
Latin America and the Caribbean	13.4	6.4	7.6	12.8	11.1	18.5	11.3	9.6	13.6	10.1	5.5	6.3	15.3	13.2	11.8
World	8.4	8.7	11.2	8.5	8.8	15.3	9.5	7.0	18.2	8.9	10.1	3.6	12.5	11.4	10.0

Note: Growth rates are compound averages.
Source: IMF Direction of Trade Statistics.

Table A2-9 Structure of long-term public and publicly guaranteed (PPG) debt, 1996
 (percentage of long-term PPG debt)

	Concessional	Nonconcessional			Concessional	Nonconcessional	
		Variable	Fixed			Variable	Fixed
All developing economies	30.6	32.9	36.5	Europe and Central Asia (continued)			
Asia	45.2	22.9	31.8	Belarus	12.9	68.9	18.2
East Asia and Pacific	36.9	25.5	37.6	Bulgaria	4.7	77.1	18.2
China	18.2	28.8	53.0	Czech Republic	0.6	26.0	73.3
Indonesia	43.5	31.9	24.6	Estonia	14.6	49.1	36.4
Malaysia	16.2	23.5	60.3	Georgia	37.3	17.3	45.4
Myanmar	90.2	0.0	9.8	Hungary	2.2	23.5	74.3
Papua New Guinea	52.4	22.4	25.2	Kazakhstan	6.6	65.2	28.2
Philippines	33.6	31.5	34.9	Kyrgyz Republic	57.2	40.6	2.1
Thailand	41.5	18.4	40.1	Latvia	21.4	57.8	20.8
Vietnam	90.5	0.0	4.6	Lithuania	13.3	44.6	42.1
South Asia	62.4	17.9	19.7	Moldova	28.0	66.5	5.6
Bangladesh	97.9	0.3	1.9	Poland	25.8	59.8	14.4
India	53.4	20.8	25.8	Romania	7.1	30.1	62.8
Nepal	98.1	0.0	1.9	Russian Federation	27.1	43.8	29.1
Pakistan	66.7	21.0	12.2	Slovak Republic	3.2	19.0	77.8
Sri Lanka	92.0	2.5	5.5	Slovenia	3.7	67.0	29.2
Latin America and the Caribbean	14.1	43.1	42.8	Tajikistan	83.5	14.7	1.8
Argentina	4.0	36.1	59.9	Turkmenistan	6.3	50.4	43.2
Bolivia	67.1	9.2	23.7	Turkey	13.6	22.8	63.6
Brazil	2.0	58.6	39.4	Ukraine	3.4	77.2	19.5
Chile	6.9	67.9	25.2	Uzbekistan	30.9	41.2	27.9
Colombia	6.4	43.0	50.6	Middle East and North Africa	37.3	35.7	27.0
Costa Rica	28.5	24.4	47.0	Algeria	10.6	51.9	37.6
Dominican Republic	45.8	26.9	27.3	Egypt, Arab Rep.	82.4	4.0	13.6
Ecuador	15.1	49.5	35.4	Jordan	50.6	23.3	26.1
El Salvador	51.0	21.6	27.4	Morocco	24.3	39.7	36.0
Guatemala	46.7	20.0	33.3	Oman	22.7	49.9	27.4
Jamaica	41.3	25.6	33.0	Syrian Arab Rep.	90.3	0.0	9.7
Mexico	1.5	44.8	53.7	Tunisia	34.2	26.4	39.3
Panama	8.1	74.8	17.2	Yemen, Rep.	62.6	1.4	35.9
Paraguay	59.5	10.2	30.3	Sub-Saharan Africa	49.1	13.0	37.9
Peru	27.5	36.8	35.6	Angola	22.9	7.7	69.4
Trinidad and Tobago	1.1	51.1	47.8	Botswana	52.8	13.6	33.6
Uruguay	5.2	50.3	44.5	Côte d'Ivoire	42.3	41.6	16.1
Venezuela	0.4	57.1	42.5	Cameroon	51.7	11.8	36.5
Europe and Central Asia	18.7	42.8	38.6	Ethiopia	91.7	0.3	8.0
Armenia	46.5	52.6	1.0	Gabon	21.2	13.9	64.8
Azerbaijan	26.3	73.7	0.0	Ghana	81.8	0.8	17.4
				Kenya	67.8	6.1	26.1
				Madagascar	57.7	8.3	34.0
				Nigeria	5.3	19.3	75.3
				Senegal	77.2	7.2	15.7
				Sudan	50.0	14.9	35.1
				Zambia	72.7	6.0	21.3
				Zimbabwe	43.2	15.8	41.0

Source: World Bank data.

Figure A2-9a Structure of long-term PPG debt, by group, 1996

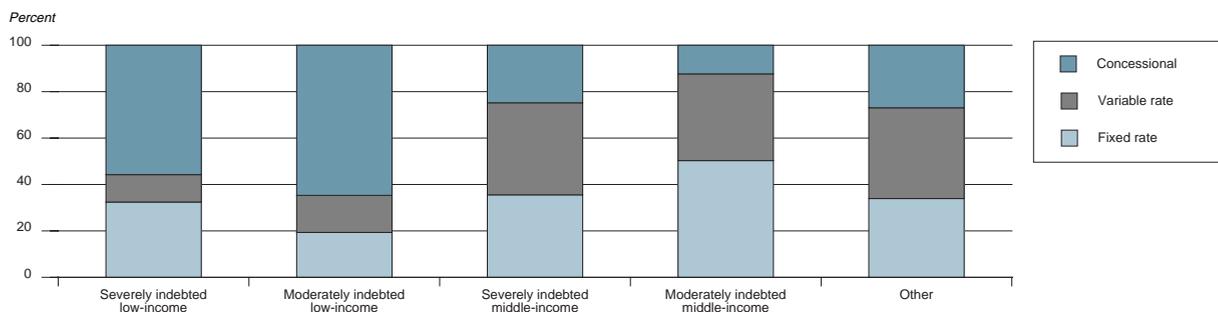


Figure A2-9b Structure of long-term PPG debt, by region, 1996

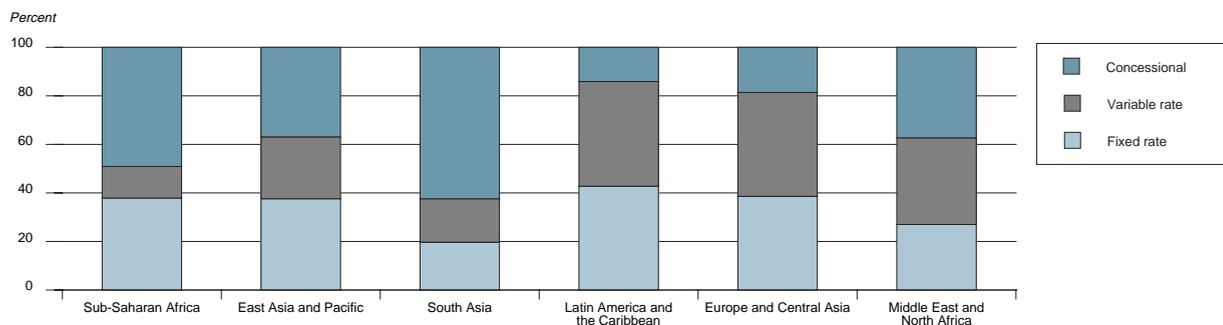


Figure A2-9c Top ten ratios of nonconcessional debt to GDP, 1996

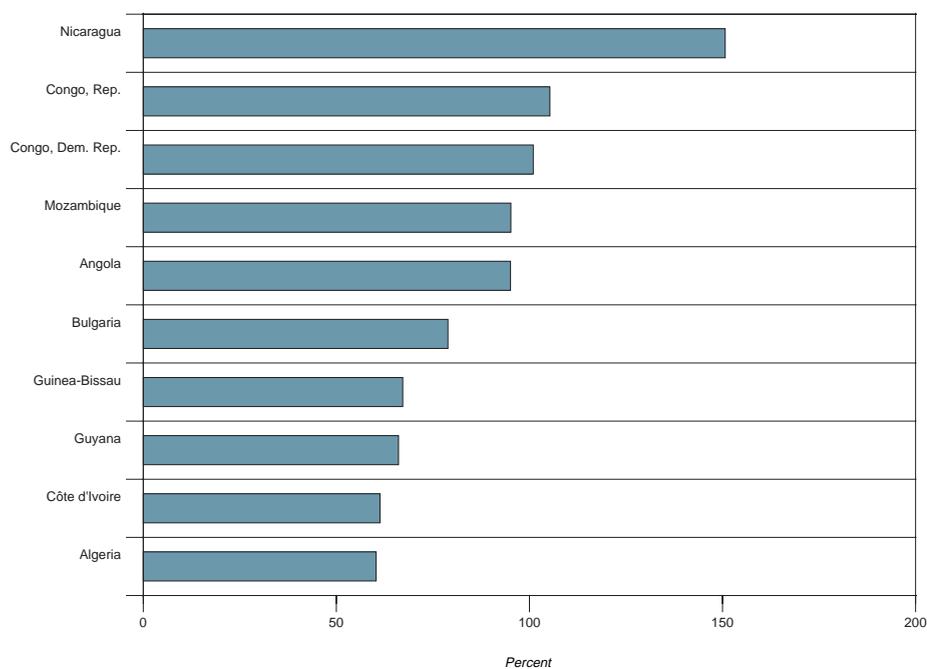


Table A2-10 Long-term net resource flows to developing economies, 1996
(US\$ millions)

	Total	Percentage of GDP	Private				Official		
			Total	Net debt flows	FDI	Portfolio	Total	Official development assistance	Other
All developing economies	281,603	4.69	246,945	82,155	118,960	45,830	34,658	40,115	-5,457
Asia	120,866	6.23	110,015	28,308	62,120	19,587	10,851	9,515	1,336
East Asia and Pacific	107,442	7.34	101,272	28,202	58,681	14,389	6,170	5,665	505
China	54,707	6.63	50,100	6,454	40,180	3,466	4,607	2,038	2,569
Indonesia	17,418	7.66	18,030	6,972	7,960	3,099	-613	883	-1,496
Malaysia	11,325	11.41	12,096	3,243	4,500	4,353	-770	-741	-29
Myanmar	236	2.36	129	19	100	10	107	108	-1
Papua New Guinea	621	12.02	414	2	225	187	207	256	-49
Philippines	4,537	5.41	4,600	1,859	1,408	1,333	-64	285	-349
Thailand	14,247	7.85	13,517	9,630	2,336	1,551	730	865	-135
Vietnam	2,586	11.08	2,061	171	1,500	390	525	556	-31
South Asia	13,424	2.83	8,743	106	3,439	5,198	4,681	3,850	831
Bangladesh	1,516	4.76	92	47	15	30	1,424	1,436	-13
India	6,842	1.90	6,404	-581	2,587	4,398	438	125	313
Nepal	306	6.86	10	-10	19	0	296	296	0
Pakistan	3,286	5.07	1,935	545	690	700	1,350	809	542
Sri Lanka	575	4.13	124	-66	120	70	452	457	-5
Latin America and the Caribbean	90,261	5.01	95,570	43,662	38,015	13,893	-5,309	3,952	-9,261
Argentina	14,555	4.94	14,417	9,268	4,285	864	138	-44	182
Bolivia	1,161	15.42	571	44	527	0	590	615	-24
Brazil	27,950	3.73	28,384	14,514	9,889	3,981	-434	-220	-214
Chile	6,211	8.36	6,803	2,608	4,091	103	-592	50	-642
Colombia	7,708	9.05	7,739	4,127	3,322	290	-31	79	-110
Costa Rica	312	3.47	387	-24	410	1	-75	-30	-45
Dominican Republic	401	3.05	366	-28	394	0	35	42	-7
Ecuador	969	5.09	816	368	447	1	153	166	-13
El Salvador	422	4.05	48	23	25	0	374	173	201
Guatemala	173	1.10	5	-72	77	0	168	117	51
Jamaica	107	2.65	191	16	175	0	-84	49	-133
Mexico	15,884	4.74	23,647	12,107	7,619	3,922	-7,763	-8	-7,755
Panama	169	2.05	300	57	238	5	-132	15	-147
Paraguay	274	2.83	202	-18	220	0	72	48	23
Peru	6,070	9.96	5,854	-467	3,581	2,740	217	466	-249
Trinidad and Tobago	324	5.93	343	23	320	0	-19	3	-22
Uruguay	558	3.07	499	325	169	5	58	9	50
Venezuela	4,067	6.04	4,244	670	1,833	1,740	-177	24	-201
Europe and Central Asia	45,873	3.72	35,005	11,359	14,941	8,705	10,868	6,901	3,967
Armenia	185	11.65	18	0	18	0	168	158	10
Azerbaijan	698	19.11	601	0	601	0	97	89	8
Belarus	79	0.38	7	-11	18	0	71	48	23
Bulgaria	367	3.73	300	-314	115	500	67	82	-15
Czech Republic	4,963	9.04	4,894	3,295	1,435	164	69	93	-24
Estonia	279	6.37	191	36	150	5	88	39	49
Georgia	221	5.14	40	0	40	0	181	180	1
Hungary	1,021	2.28	1,618	-1,369	1,982	1,004	-597	184	-781
Kazakhstan	990	4.71	615	305	310	0	376	85	291
Kyrgyz Republic	225	12.32	46	0	46	0	179	178	1
Latvia	412	8.03	331	3	328	0	81	49	32
Lithuania	638	8.20	469	296	152	21	168	52	116
Moldova	184	7.99	115	74	41	0	70	23	47
Poland	6,246	4.64	5,333	113	4,498	722	913	812	101
Romania	3,143	9.50	1,814	1,540	263	11	1,329	174	1,155
Russian Federation	11,108	2.59	7,454	-33	2,479	5,008	3,654	459	3,195
Slovak Republic	1,403	7.40	1,265	984	281	0	138	104	34
Slovenia	1,189	6.30	1,219	673	186	360	-30	3	-33

Table A2-10 Long-term net resource flows to developing economies, 1996 (continued)

(US\$ millions)

	Total	Percentage of GDP	Private				Official		
			Total	Net debt flows	FDI	Portfolio	Total	Official development assistance	Other
Europe and Central Asia (continued)									
Tajikistan	121	6.05	16	0	16	0	105	98	6
Turkmenistan	279	6.35	355	247	108	0	-75	2	-78
Turkey	5,069	2.79	5,635	4,114	722	799	-566	-115	-451
Ukraine	885	1.99	395	45	350	0	490	412	78
Uzbekistan	700	2.94	431	376	55	0	269	103	166
Middle East and North Africa	7,403	1.47	1,980	-266	614	1,632	5,423	5,399	24
Algeria	822	1.80	-72	-81	4	5	895	353	541
Egypt, Arab Rep.	2,642	3.90	1,434	-435	636	1,233	1,207	1,403	-196
Iran, Islamic Rep.	-764	-0.73	-352	-362	10	0	-413	140	-552
Jordan	501	6.82	-119	-159	16	25	620	489	131
Morocco	571	1.55	388	-145	311	222	183	468	-285
Oman	149	1.23	69	-24	67	25	81	69	12
Syrian Arab Rep.	222	2.12	77	-12	89	0	145	164	-19
Tunisia	941	4.82	697	377	320	0	244	113	131
Yemen, Rep.	322	6.31	100	0	100	0	222	204	18
Sub-Saharan Africa	17,200	5.36	4,375	-908	3,271	2,012	12,825	14,351	-1,526
Angola	1,105	14.51	754	454	300	0	352	380	-28
Botswana	60	1.21	66	-9	75	0	-7	29	-35
Côte d'Ivoire	614	5.73	160	109	21	30	454	814	-360
Cameroon	194	2.13	-28	-63	35	0	222	381	-159
Ethiopia	426	7.09	-205	-210	5	0	631	609	22
Gabon	-28	-0.49	-114	-49	-65	0	87	96	-9
Ghana	967	15.24	477	232	120	124	490	516	-26
Kenya	199	2.15	-104	-160	13	43	303	424	-121
Madagascar	337	8.42	5	-5	10	0	331	307	25
Nigeria	310	0.67	706	-690	1,391	5	-396	117	-513
Senegal	446	9.27	34	-11	45	0	411	448	-37
Sudan	169	2.07	0	0	0	0	169	154	15
Zambia	355	10.49	33	-25	58	0	322	444	-122
Zimbabwe	309	3.58	42	-38	63	17	267	208	59

Source: World Bank data.

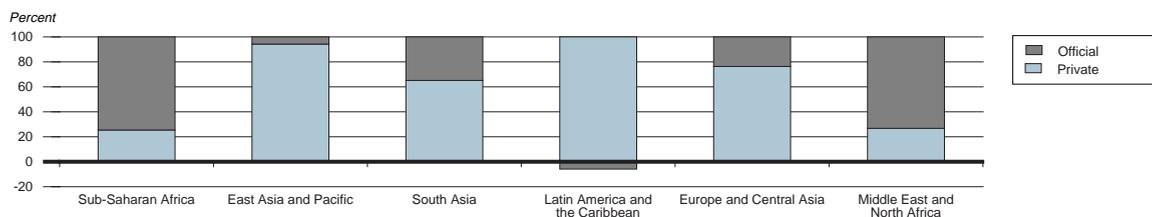
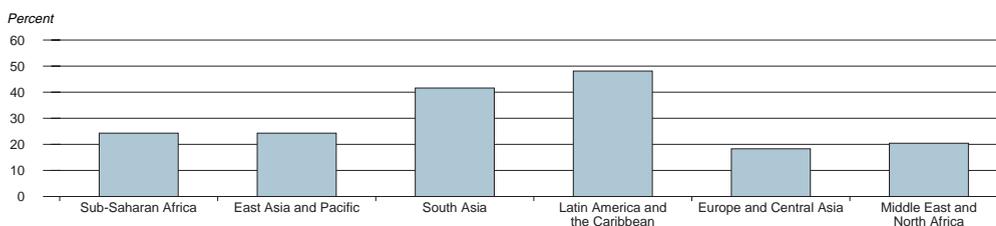
Figure A2-10a Distribution of long-term net resource flows, 1996

Figure A2-10b Change in share of private long-term flows, 1990–96


Table A2-11 Manufactures unit value, LIBOR, and commodity prices, selected years, 1965–98

	1965	1970	1975	1976	1977	1978	1979	1980	1981	1982	1983
G-5 unit value index of manufactures ^a	21.6	25.1	45.2	45.8	50.4	57.9	65.6	72.0	72.3	71.2	69.5
LIBOR ^b	5.0	8.9	7.7	6.1	6.4	9.2	12.2	14.0	16.7	13.6	9.9
Commodity price indexes, current dollar terms (1990=100)	Weights (percent)										
Petroleum	6	5	46	51	55	57	135	161	155	143	130
Nonfuel commodities	40	44	75	87	109	101	116	125	108	95	103
Agriculture	69.1	42	45	80	98	127	116	130	118	103	112
Food	29.4	42	46	100	86	90	99	113	123	96	104
Beverages	16.9	47	57	82	156	268	199	208	146	148	156
Raw materials	22.8	37	36	54	71	71	76	93	104	90	88
Metals and minerals	28.1	37	41	53	61	66	68	85	95	83	75
Fertilizers	2.7	39	30	158	76	75	73	100	129	122	105
Commodity prices, current dollars	Units										
Agriculture											
Cocoa	cents/kg	37	67	125	204	379	340	329	260	208	174
Coffee	cents/kg	100	115	144	315	517	359	382	347	287	309
Tea ^c	cents/kg	107	90	120	128	214	160	167	180	161	164
Sugar	cents/kg	5	8	45	26	18	17	21	63	37	19
Banana	\$/mt	159	165	247	257	275	287	326	379	401	374
Beef	cents/kg	88	130	133	158	151	214	288	276	247	239
Wheat	\$/mt	59	55	149	133	103	128	160	173	175	160
Rice	\$/mt	119	126	341	235	252	346	313	411	459	272
Maize	\$/mt	55	58	120	112	95	101	116	125	131	109
Coconut oil	\$/mt	348	397	394	418	578	683	985	674	570	464
Palm oil	\$/mt	273	260	434	407	530	600	654	584	571	445
Soybean oil	\$/mt	270	286	563	438	580	607	662	598	507	447
Soybeans	\$/mt	117	117	220	231	280	268	298	296	288	245
Cotton	cents/kg	63	63	116	169	155	157	169	205	185	160
Rubber	cents/kg	50	41	56	77	81	99	126	142	112	86
Other											
Logs	\$/cm	35	43	68	92	93	97	170	196	155	146
Sawnwood	\$/cm	157	175	223	264	265	272	366	396	349	339
Urea	\$/mt	..	48	198	112	127	145	173	222	216	159
Metals and minerals											
Copper	\$/mt	1,290	1,413	1,237	1,401	1,310	1,367	1,985	2,182	1,742	1,480
Aluminum	\$/mt	474	556	797	896	1,050	1,088	1,230	1,456	1,263	992
Nickel	\$/mt	1,735	2,846	4,570	4,974	5,203	4,610	5,986	6,519	5,953	4,838
Gold	\$/toz	35	36	161	125	148	193	307	608	460	376
Phosphate rock	\$/mt	13	11	67	36	31	29	33	47	50	42
Steel products index	1990=100	25	31	52	54	53	68	76	79	82	71
Energy											
Crude petroleum	\$/bbl	1.4	1.2	10.4	11.6	12.6	12.9	31.0	36.9	35.5	32.7
Coal	\$/mt	..	..	..	..	33.4	39.6	35.4	43.1	56.5	52.2

a. Unit value index in U.S. dollar terms (1990=100) of manufactures exported from the G-5 countries (France, Germany, Japan, United Kingdom, and

Figure A2-11a Price indexes relative to manufactures unit value index, 1985–97

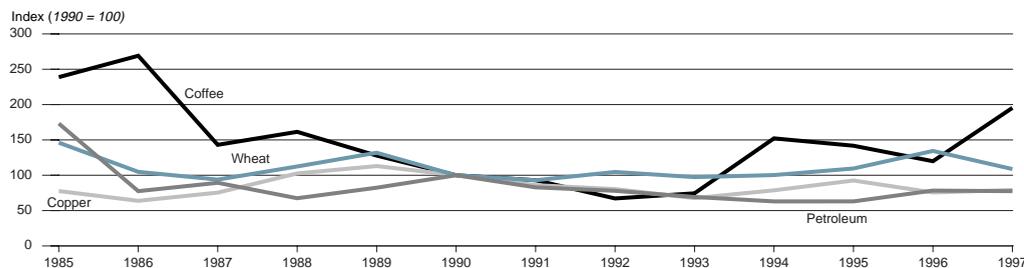
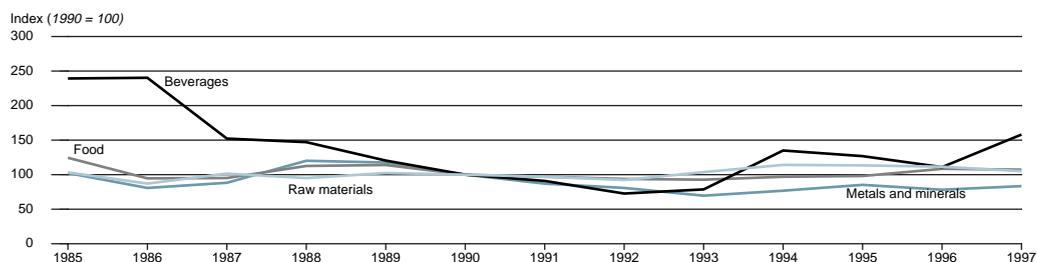


Table A2-11 Manufactures unit value, LIBOR, and commodity prices, selected years, 1965–98 (continued)

1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	Sept. 1998
68.1	68.6	80.9	88.8	95.3	94.7	100.0	102.2	106.6	106.3	110.2	119.2	114.0	108.2	..
11.3	8.6	6.8	7.3	8.1	9.3	8.4	6.1	3.9	3.4	5.1	6.1	5.6	5.9	5.4
125	119	63	79	64	78	100	85	83	74	69	75	89	84	60
104	91	92	93	111	107	100	95	92	91	112	122	115	118	95
117	100	103	99	110	106	100	98	94	99	123	131	125	129	102
106	85	77	84	107	108	100	99	100	99	107	117	124	116	100
176	164	194	135	140	114	100	93	77	84	149	151	126	171	125
87	71	70	90	91	97	100	99	98	110	126	135	127	114	87
74	70	65	78	114	111	100	89	86	74	85	102	89	90	75
98	89	89	94	109	106	100	102	96	84	93	104	120	120	124
240	225	207	199	158	124	127	120	110	112	140	143	146	162	169
319	323	429	251	303	239	197	187	141	156	331	333	269	417	247
292	181	173	167	163	187	205	172	170	168	158	153	169	210	189
11	9	13	15	22	28	28	20	20	22	27	29	26	25	16
370	380	382	393	478	547	541	560	473	443	439	445	470	503	419
227	215	209	239	252	257	256	266	245	262	233	191	179	186	165
152	136	115	113	145	169	136	129	151	140	150	177	208	159	108
232	197	186	215	277	299	271	293	268	235	268	321	338	303	321
136	112	88	76	107	112	109	107	104	102	108	123	166	117	86
1,155	590	297	442	565	517	337	433	578	450	608	670	752	657	652
729	501	257	343	437	350	290	339	394	378	528	628	531	546	714
724	572	342	334	463	432	447	454	429	480	616	625	552	565	615
282	224	208	216	304	275	247	240	236	255	252	259	305	295	216
179	132	106	165	140	167	182	168	128	128	176	213	177	175	146
96	76	81	98	118	97	86	83	86	83	113	158	139	102	68
157	122	139	202	201	191	177	191	210	390	308	256	252	238	150
352	307	329	401	402	485	533	553	607	758	821	740	741	664	504
171	136	107	117	155	132	157	172	140	107	148	212	205	146	119
1,377	1,417	1,374	1,783	2,602	2,848	2,662	2,339	2,281	1,913	2,307	2,936	2,295	2,277	1,648
1,251	1,041	1,150	1,565	2,551	1,951	1,639	1,302	1,254	1,139	1,477	1,806	1,506	1,599	1,342
4,752	4,899	3,881	4,872	13,778	13,308	8,864	8,156	7,001	5,293	6,340	8,228	7,501	6,927	4,102
360	318	368	446	437	381	383	362	344	360	384	384	388	331	289
38	34	34	31	36	41	41	43	42	33	33	35	39	41	43
70	61	62	72	94	106	100	99	88	91	93	107	96	89	72
28.6	27.2	14.4	18.2	14.7	17.8	22.9	19.4	19.0	16.8	15.9	17.2	20.4	19.2	13.8
48.6	46.6	43.9	36.2	37.1	40.5	41.7	41.5	40.6	38.0	36.5	39.2	37.2	36.4	33.5

United States) weighted by the country's exports to developing countries. b. London interbank offer rate on six-month U.S. dollar deposits.
c. Tea prices are average for auctions at Calcutta, Colombo, London, and Nairobi/Mombasa.

Figure A2-11b Price indexes relative to manufactures unit value index, 1985–97



Technical Notes

The principal sources for the data in this appendix are the World Bank's central databases.

Regional aggregates are based on the classification of economies by income group and region, following the Bank's standard definitions (see country classification tables that follow). Debt and finance data refer to the 138 countries that report to the Bank's Debtor Reporting System (see the World Bank's Global Development Finance 1998). Small economies have generally been omitted from the tables but are included in the regional totals.

Current price data are reported in U.S. dollars.

Notes on tables

Tables A2-1 through A2-4. Projections are consistent with those highlighted in Chapter 1 and Appendix 1.

Tables A2-5 and A2-6. Merchandise exports and imports exclude trade in services. Imports are reported on a c.i.f. basis. Growth rates are based on constant price data, which are derived from current values deflated by relevant price indexes. Effective market growth is the export-weighted import growth rate of the country's trading partners. The UNCTAD trade database is the principal source for data through 1995; in some cases these data have been supplemented by IMF and UN Comtrade databases or by World Bank staff estimates. Trade figures for countries of the former Soviet Union now reflect the total of non-CIS and intra-CIS exports and imports.

Tables A2-7 and A2-8. Growth rates are compound averages and are computed for current dollar measures of trade.

Table A2-9. Long-term debt covers public and publicly guaranteed external debt but excludes IMF credits. Concessional debt is debt with an original grant element of 25 percent or more. Nonconcessional variable interest rate debt includes all public and publicly guaranteed long-term debt with an original grant element of less than 25 percent whose terms depend on movements of a key market rate. This item conveys information about the borrower's exposure to changes in international interest rates. For complete definitions, see Global Development Finance 1998.

Table A2-10. Long-term net resource flows are the sum of net resource flows on long-term debt (excluding IMF) plus non-debt-creating flows. Foreign direct investment refers to the net inflows of investment from abroad. Portfolio equity flows are the sum of country funds, depository receipts, and direct purchases of shares by foreign investors. For complete definitions, see Global Development Finance 1998.

Table A2-11. Commodity price data are collected by the Development Prospects Group of the World Bank. World Bank commodity price series for wheat, rice, rubber, sawnwood, and crude petroleum were revised in April 1995. As a result, commodity price indexes are not strictly comparable to editions of Global Economic Prospects published before 1995.

Classification of Economies

Table 1 Classification of economies by income and region, 1998

		Sub-Saharan Africa		Asia		Europe and Central Asia		Middle East and North Africa		Americas
Income group	Subgroup	East and Southern Africa	West Africa	East Asia and Pacific	South Asia	Eastern Europe and Central Asia	Rest of Europe	Middle East	North Africa	
Low income		Angola Burundi Comoros Congo, Dem. Rep. ^a Eritrea Ethiopia Kenya Lesotho Madagascar Malawi Mozambique Rwanda Somalia Sudan Tanzania Uganda Zambia Zimbabwe	Benin Burkina Faso Cameroon Central African Republic Chad Congo, Rep. Côte d'Ivoire Gambia, The Ghana Guinea Guinea-Bissau Liberia Mali Mauritania Niger Nigeria São Tomé and Príncipe Senegal Sierra Leone Togo	Cambodia Lao PDR Mongolia Myanmar Vietnam	Afghanistan Bangladesh Bhutan India Nepal Pakistan	Albania Armenia Azerbaijan Bosnia and Herzegovina Kyrgyz Republic Moldova Tajikistan Turkmenistan		Yemen, Rep.		Haiti Honduras Nicaragua
		Djibouti Namibia Swaziland	Cape Verde Equatorial Guinea	China Fiji Indonesia Kiribati Korea, Dem. Rep. Marshall Islands Micronesia, Fed. Sts. Papua New Guinea Philippines Samoa Solomon Islands Thailand Tonga Vanuatu	Maldives Sri Lanka	Belarus Bulgaria Georgia Kazakhstan Latvia Lithuania Macedonia, FYR ^b Romania Russian Federation Ukraine Uzbekistan Yugoslavia, Fed. Rep. ^c		Iran, Islamic Rep. Iraq Jordan Syrian Arab Republic West Bank and Gaza	Algeria Egypt, Arab Rep. Morocco Tunisia	Belize Bolivia Colombia Costa Rica Cuba Dominica Dominican Republic Ecuador El Salvador Grenada Guatemala Guyana Jamaica Panama Paraguay Peru St. Vincent and the Grenadines Suriname
Middle income	Lower									
	Upper	Botswana Mauritius Mayotte Seychelles South Africa	Gabon	American Samoa Malaysia Palau		Croatia Czech Republic Estonia Hungary Poland Slovak Republic	Isle of Man Turkey	Bahrain Lebanon Oman Saudi Arabia	Libya Malta	Antigua and Barbuda Argentina Barbados Brazil Chile Guadeloupe Mexico Puerto Rico St. Kitts and Nevis St. Lucia Trinidad and Tobago Uruguay Venezuela
Subtotal:	157	26	23	22	8	26	2	10	6	34

Table 1 Classification of economies by income and region, 1998 (continued)

		Sub-Saharan Africa		Asia		Europe and Central Asia		Middle East and North Africa		Americas
Income group	Subgroup	East and Southern Africa	West Africa	East Asia and Pacific	South Asia	Eastern Europe and Central Asia	Rest of Europe	Middle East	North Africa	
High income	OECD economies			Australia Japan Korea, Rep. New Zealand			Austria Belgium Denmark Finland France Germany Greece Iceland Ireland Italy Luxembourg Netherlands Norway Portugal Spain Sweden Switzerland United Kingdom			Trinidad and Tobago Canada United States
	Non-OECD economies	Reunion		Brunei French Polynesia Guam Hong Kong, China ^d Macao New Caledonia Northern Mariana Islands Singapore OAE ^e		Slovenia	Andorra Channel Islands Cyprus Faeroe Islands Greenland Liechtenstein Monaco	Israel Kuwait Qatar United Arab Emirates		Aruba Bahamas, The Bermuda Cayman Islands French Guiana Martinique Netherlands Antilles Virgin Islands (U.S.)
Total:	211	27	23	35	8	27	27	14	6	44

a. Formerly Zaire.

b. Former Yugoslav Republic of Macedonia.

c. Federal Republic of Yugoslavia (Serbia/Montenegro).

d. On 1 July 1997 China resumed sovereignty over Hong Kong.

e. Other Asian economies (Taiwan, China).

Source: World Bank data.

Definitions of groups

For operational and analytical purposes, the World Bank's main criterion for classifying economies is gross national product (GNP) per capita. Every economy is classified as low income, middle income (subdivided into lower middle and upper middle), or high income. Other analytical groups, based on geographic regions and levels of external debt, are also used.

Low-income and middle-income economies are sometimes referred to as developing economies. The use of the term is convenient; it is not intended to imply that all economies in the group are experiencing similar development or that other economies have reached a preferred or final

stage of development. Classification by income does not necessarily reflect development status.

These tables classify all World Bank member countries, and all other economies with populations of more than 30,000.

Income group: Economies are divided according to 1997 GNP per capita, calculated using the World Bank Atlas method. The groups are: low income, \$785 or less; lower middle income, \$786–\$3,125; upper middle income, \$3,126–\$9,655; and high income, \$9,656 or more.

Table 2 Classification of economies by income and indebtedness, 1998

Income group	Subgroup	Severely indebted	Moderately indebted	Less indebted	Not classified by indebtedness		
Low income		Afghanistan Angola Bosnia and Herzegovina Burkina Faso Burundi Cameroon Central African Republic Congo, Dem. Rep. ^a Congo, Rep. Côte d'Ivoire Ethiopia Ghana Guinea Guinea-Bissau Haiti Honduras Liberia Madagascar Malawi Mali Mauritania	Mozambique Myanmar Nicaragua Niger Nigeria Rwanda São Tomé and Príncipe Sierra Leone Somalia Sudan Tanzania Uganda Vietnam Yemen, Rep. Zambia	Bangladesh Benin Cambodia Chad Comoros Gambia, The India Kenya Lao PDR Pakistan Senegal Togo	Albania Armenia Azerbaijan Bhutan Eritrea Kyrgyz Republic Lesotho Moldova Mongolia Nepal Tajikistan Turkmenistan Zimbabwe		
	Middle income	Lower	Algeria Bolivia Bulgaria Cuba Ecuador Equatorial Guinea Guyana Indonesia Iraq Jamaica Jordan Peru Syrian Arab Republic	Colombia Georgia Macedonia, FYR ^b Morocco Panama Philippines St. Vincent and the Grenadines Thailand Tunisia	Belarus Belize Cape Verde China Costa Rica Djibouti Dominica Dominican Republic Egypt, Arab Rep. El Salvador Fiji Grenada Guatemala Iran, Islamic Rep. Kazakhstan Kiribati Korea, Dem. Rep. Latvia	Lithuania Maldives Namibia Papua New Guinea Paraguay Romania Russian Federation Samoa Solomon Islands Sri Lanka Suriname Swaziland Tonga Ukraine Uzbekistan Vanuatu Yugoslavia, Fed. Rep. ^c	Marshall Islands Micronesia, Fed. Sts. West Bank and Gaza
		Upper	Argentina Brazil Gabon	Chile Hungary Malaysia Mexico Turkey Uruguay Venezuela	Antigua and Barbuda Bahrain Barbados Botswana Croatia Czech Republic Estonia Lebanon Libya Malta	Slovak Republic South Africa St. Kitts and Nevis St. Lucia Trinidad and Tobago	American Samoa Guadeloupe Isle of Man Mayotte Palau Puerto Rico

Table 2 Classification of economies by income and indebtedness, 1998

Income group	Subgroup	Severely indebted	Moderately indebted	Less indebted	Not classified by indebtedness
				Mauritius Oman Poland Saudi Arabia Seychelles	
High income	OECD economies				Australia Austria Belgium Canada Denmark Finland France Germany Greece Iceland Ireland Italy Japan Korea, Rep. Luxembourg Netherlands New Zealand Norway Portugal Spain Sweden Switzerland United Kingdom United States
	Non-OECD economies				Andorra Aruba Bahamas, The Bermuda Brunei Cayman Islands Channel Islands Cyprus Faeroe Islands French Guiana French Polynesia Guam Greenland Hong Kong, China ^d Israel Kuwait Liechtenstein Macao Martinique Monaco Netherlands Antilles New Caledonia Northern Mariana Islands Qatar Reunion Singapore Slovenia United Arab Emirates Virgin Islands (US) OAE ^e
Total:	211	52	29	67	63

a. Formerly Zaire.

b. Former Yugoslav Republic of Macedonia.

c. Federal Republic of Yugoslavia (Serbia/Montenegro).

d. On 1 July 1997 China resumed sovereignty over Hong Kong.

e. Other Asian economies (Taiwan, China).

Source: World Bank data.

Definitions of groups

These tables classify all world Bank member economies, plus all other economies with populations of more than 30,000.

Income group: Economies are divided according to 1997 GNP per capita, calculated using the World Bank Atlas method. The groups are: low income, \$785 or less; lower middle income, \$786–\$3,125; upper middle income, \$3,126–\$9,655; and high income, \$9,656 or more.

Indebtedness: Standard World Bank definitions of severe and moderate indebtedness are used to classify economies in this table. Severely indebted means either: present value of debt service to GNP exceeds 80 percent or present value of debt service to exports exceeds 220 percent.

Moderately indebted means either of the two key ratios exceeds 60 percent of, but does not reach, the critical levels. For economies that do not report detailed debt statistics to the World Bank Debtor Reporting System (DRS), present-value calculation is not possible. Instead, the following methodology is used to classify the non-DRS economies. Severely indebted means three of four key ratios (averaged over 1994–96) are above critical levels: debt to GNP (50 percent); debt to exports (275 percent); debt service to exports (30 percent); and interest to exports (20 percent). Moderately indebted means three of the four key ratios exceed 60 percent of, but do not reach, the critical levels. All other classified low- and middle-income economies are listed as less indebted.