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and the Developing Countries

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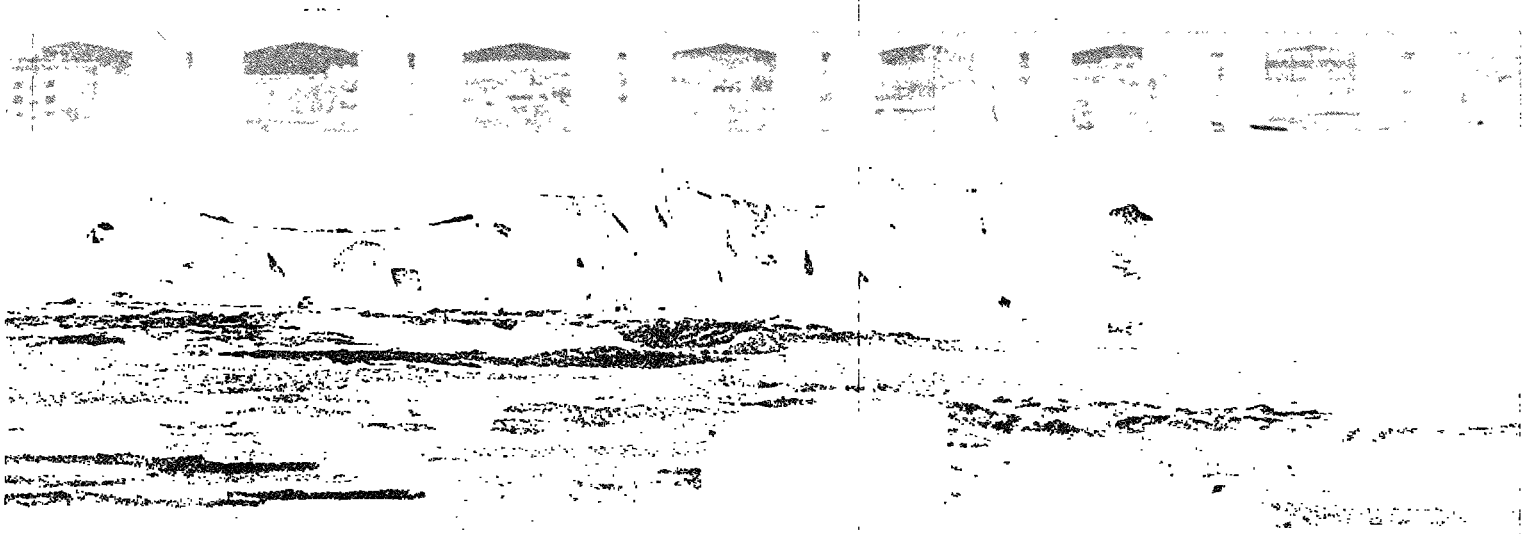

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Global Economic Prospects

and the Developing Countries

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Foreword

Developing countries are now recovering from the worst ravages of the financial crisis of 1997–98. But the recovery is uneven and fragile. Growth remains well below the precrisis trends in many countries, so much so that the average per capita income of developing countries outside of Asia is expected to fall in 1999. Long-term projections for growth in developing countries (excluding the transition economies) suggest that it is likely to be lower in 2002–2008 than in the precrisis 1990s. The experience of the past year has underscored how financial volatility can increase poverty significantly in the short to medium term. As a result, there is a growing consensus that in order to maximize the positive effects of growth that can come with openness, the international community must find ways to reduce the frequency and severity of economic crises.

For the first time, this year's *Global Economic Prospects* analyzes the trends in poverty levels in developing countries. Progress on poverty reduction in many developing countries is likely to remain slow and below poverty-reduction targets recently adopted by the international community.

This year's report also considers three areas where the crisis has had a major impact on growth and welfare in the developing world.

First, the crisis has increased poverty in the East Asian crisis countries, Brazil, and Russia. Not only has the increase in poverty been significant, whether measured by levels of income or consumption, but the crisis has engendered large costly movements of populations and sharp declines in standards of living for the middle classes. Urban poverty increased in all countries, particularly the Republic of Korea. Although efforts were made to maintain spending on social services, real public expenditures on health and education fell in the crisis countries, with a particularly severe impact on access to services in Indonesia.

Second, though the East Asian crisis countries are experiencing a cyclical recovery, severe structural problems remain. The level of nonperforming loans remains high, and a large share of firms are insolvent. Weak firms have operated on thin margins and their inability to pay interest, following the onset of the crisis, has added to their debt burden. Such firms constitute a significant portion of each of the crisis economies and the appetite to invest in them is extremely limited. They will continue to act as a drag on investment and growth until such time as the financial claims on them are resolved and either their operations return to adequate profitability or their assets are redeployed. Without vigorous corporate and financial restructuring, the return to a sustainable growth path will likely take longer, the costs of the crisis could rise, and these economies will remain vulnerable to new external and internal shocks.

Finally, the exchange rate depreciations and declines in demand in East Asia have exacerbated the fall in primary commodity prices that began in 1996. Countries that depend on primary commodities have faced an enormous challenge in smoothing consumption in the face of booms and busts in commodity prices during the 1990s. Some commodity-dependent countries

cope with the wide swings in commodity prices more successfully than others. In the oil exporting countries, weak policy environments led to mixed savings performance and lower investment over the oil price cycle. These countries have generally been unsuccessful in reducing their dependence on oil revenues, and the fall in investment will further impede progress. By contrast, the commodity price cycle of the 1990s does not appear to have adversely affected the prospects for growth in the non-oil exporting countries of Sub-Saharan Africa. Changes in real incomes were generally smaller than in the oil exporting countries, and improvements in policies in several countries enabled them to increase savings and investment rates during both commodity-price booms and busts.

Overall, then, *Global Economic Prospects 2000* shows a mixed picture, with a number of extraordinary challenges confronting developing countries in their efforts to further economic progress and reduce poverty. We hope that this report will serve both to sharpen the World Bank's work in supporting our clients, and to inform the international community about the critical development issues of the day.

Joseph E. Stiglitz
Senior Vice President and
Chief Economist
The World Bank

November 1999

This report was prepared by the Development Prospects Group, and drew from resources throughout the Development Economics Vice Presidency, the Poverty Reduction Board, the East Asia Regional Vice Presidency, and other World Bank regions. The principal author of the report was Mustapha Nabli, assisted by William Shaw, with direction by Uri Dadush. The chapter authors were Mick Riordan (chapter 1), Mustapha Nabli (chapter 2), Ashoka Mody (chapter 3), and William Shaw (chapter 4). The report was prepared under the general direction of Joseph Stiglitz.

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Summary

DEVELOPING COUNTRIES ARE NOW RECOVERING from the worst ravages of the financial crisis of 1997–98. The East Asian economies are rebounding from last year's collapse in output. Improved prospects and an easing of monetary conditions in many parts of the developing world have boosted emerging equity markets and reduced interest rates from the sky-high levels of mid-1998. Developing countries also are benefiting from the acceleration of growth and interest rate reductions in industrial countries.

However, the recovery is both uneven and fragile, and many countries continue to struggle in the aftermath of the crisis. Several countries in Africa, Latin America, and Eastern Europe face declines in output in 1999, and outside of Asia developing countries' per capita income is expected to fall. Continued imbalances in industrial countries markedly increase the risks presented by the international economic environment. Furthermore, the cyclical recovery in East Asia has not addressed severe difficulties that were either caused or exacerbated by the crisis. In addition to a review of international economic developments and prospects, *Global Economic Prospects 2000* considers three areas where the crisis has had a major impact on growth and welfare in the developing world.

First, the crisis has increased poverty in the East Asian crisis countries, Brazil, and the Russian Federation, and elsewhere. Chapter 2 reviews the evidence on the crisis' social impact on East Asia and other developing countries and addresses the broader issue of the impact of external shocks on poverty in developing countries.

Second, though the East Asian crisis countries are experiencing a strong cyclical recovery, severe structural problems remain, notably the banking systems' high levels of nonperforming loans and the large share of insolvent firms. Chapter 3 outlines the depth of the problems faced by the corporate and financial sectors of these economies, analyzes the challenges facing the restructuring process, and discusses the appropriate role of government in supporting restructuring and reducing systemic risk.

Third, exchange rate depreciations and declines in demand in East Asia exacerbated the fall in primary commodity prices that began in 1996. Countries that depend on primary commodities have faced an enormous challenge in smoothing consumption in the face of booms and busts in commodity prices and adjusting to the secular decline in commodity prices relative to manufactures. Chapter 4 examines how the most commodity-dependent economies in the world—the major oil exporting countries and the non-oil exporters of Sub-Saharan Africa—have adjusted to the commodity price cycle.

Prospects for growth and poverty reduction in developing countries

The effects of the crises of 1997–99, from East Asia to Russia and Brazil, persist in many aspects. In most developing countries growth remains weak and well below the precrisis trends. Social dislocations are severe and progress in poverty reduction has stalled. At the same time, recent developments in the global economy have been largely encourag-

ing, with signs of strong initial recovery in the East Asian crisis economies and continued expansion in the industrial countries leading to a bottoming-out of world industrial production and trade.

Recent events have confirmed the importance of the factors identified in *Global Development Finance* (March 1999) as shaping the global recovery, notably the easing of macroeconomic policies in industrial countries, early signs of recovery in the East Asian crisis countries, and easier financial conditions in developing countries. But the magnitude of these effects has been much larger than anticipated, and recent evidence has yielded some surprising developments: adjustment in some of the worst-hit countries, such as Russia and Brazil, has been much more favorable than expected in March, and a sharp increase in oil prices, following the decision of the Organization of Petroleum Exporting Countries (OPEC) in April 1999 to curtail oil supplies, has benefited developing countries that depend heavily on oil exports.

The positive evidence has been strong enough to support an upward revision of the March projections for growth. Growth for the G-7 countries this year is likely to register 2.6 percent, 0.9 percentage points higher than the forecast made six months ago. Continued strong growth in the United States is the principal factor in the revision, but Japan's performance in the first half of 1999 (3.2 percent annualized GDP growth), which was much better than anticipated, also contributes to the change. Europe, which had been hampered by inventory overhang, is now showing signs of a strong revival. Reflecting these developments, world industrial production appears to be on an accelerating path. For developing countries, GDP growth for 1999 is expected to be 2.7 percent—a revision of 1.2 percentage points from the March forecasts—and the outlook for 2000 has been upgraded by 0.5 percentage points.

Positive as these revisions are, they mask the considerable fragility of developing countries, which have yet to recover fully from the financial crises of 1997–99, nor do they reflect the markedly different patterns of growth and recovery among regions. Except for East Asia and South Asia (regions bolstered by growth in China and India), aggregate real per capita incomes in 1999 are expected to decline or stagnate in several developing regions. Further, the news since March has not been all good. The tightening of oil supply has meant higher import bills for many developing and industrial countries. And the favorable financial conditions have not made international investors less risk-averse, as shown by the high levels of interest rate spreads. International capital flows to developing countries have fallen much more sharply than anticipated.

Although improving, the external environment for developing countries remains subject to a high degree of uncertainty.

The underpinnings of growth, especially in the developing countries, remain fragile. Capital flows to emerging markets continue to be scarce and expensive. In such an environment, the prospective unwinding of large imbalances in the industrial countries presents potential risks for these projections. Chief among these risks are the consumption boom (driven by the stock market) and widening external deficit in the United States, and the uncertain outlook for Japan.

One potential scenario assumes a tightening of monetary policy in the United States (in response to signs of increased inflation), which sharply reduces equity prices, resulting in slow growth in the United States and Europe and a relapse into recession in Japan. For developing countries, effects are transmitted through a further slowing in export market growth, declines in oil and non-oil commodity prices because of deteriorating demand conditions, and increased risk aversion in financial markets. Although policy responses to these external circumstances would vary widely across developing countries depending on current conditions, most countries would be obliged to adjust through a compression of domestic demand and imports. An assumed

closure of the financing gap on the demand side (almost $100 billion) results in a loss of 2 percentage points of growth for developing countries as a group in both 2000 and 2001, implying a loss of nominal GDP of some $260 billion.

Long-term projections for growth in developing countries have been downgraded by some 0.3 percentage points, suggesting that growth for the group (excluding the transition economies) in 2002–2008 is likely to be lower than in the precrisis 1990s.

This estimate reflects several factors, including a somewhat less favorable external environment and, importantly, prospects for a protracted work-out of structural weaknesses in developing countries—particularly in financial systems and fiscal positions—which have become more apparent in the wake of the crisis. One implication of lower long-term projections is that progress on poverty reduction will be slower. For some regions, including Sub-Saharan Africa and Latin America and the Caribbean, reductions in poverty are likely to remain below the targets recently adopted by the international community. Effective policy actions to encourage rapid and equitable growth are essential to reduce poverty.

External shocks, financial crises, and poverty in developing countries

The financial crisis has underlined how globalization, especially financial integration, exposes developing countries to external shocks.

External shocks can reduce the gains in poverty reduction from openness and increase poverty significantly in the short to medium term. This fact underscores the importance of addressing the issue of volatility in order to maximize the positive effects of growth on poverty reduction. The countries most affected by the East Asian crisis illustrate the asymmetric impact of changes in per capita income on poverty and the negative effects of volatility on growth.

Any development strategy for stable and sustainable growth must include both adequate safety nets and appropriate policies and institutions designed to prevent financial crises, and to respond when crises occur. Prospects for poverty reduction depend not only on future growth but also on countries' capacity to manage volatility and reduce growth fluctuations.

Though less dramatic than early predictions suggested and very heterogeneous, the negative social impact of the East Asian crisis and consequent crises in Russia and Brazil has been enormous.

The increase in income or consumption poverty has been significant. In addition, the crisis has engendered costly, large reallocations of people and sharp declines in middle-class standards of living. Unlike the situation in Latin America, where income inequality increased significantly during crises, in East Asia the effects on income distribution have been small and highly differentiated. The extent of these effects depends on the country's income level and the impact of the crisis on different economic sectors.

Urban poverty increased in all countries, particularly Korea, where total employment declined and open unemployment grew more than in other countries in the region. Falling real wages in the urban formal sector affected mostly high-income groups. In Thailand the impact was felt mostly in rural areas because of the large inflows of workers from urban areas and the relatively small increases in agricultural prices.

The severity of the crisis in Indonesia is reflected in the strong responses of households to increase consumption as a share of income, adjust their asset holdings, and increase the share of staple foods in their consumption baskets. In Korea and Malaysia the response of households was to increase the savings rate. The composition of consumption expenditures changed significantly. Households spent more, primarily on essential items such as food, fuel, housing, health, and education.

The crisis demonstrated the flexibility of labor markets in developing countries. These

markets help absorb the effects of shocks through reduced wages and labor mobility within and between urban and rural areas.

Wages fell sharply during the East Asian crisis, with particularly spectacular declines in Indonesia. Wage declines moderated the impact of the recession on employment. Thus the decline in total employment in Thailand and Malaysia was limited, and employment actually rose in Indonesia. Labor was reallocated from the formal (urban) sector to other activities, particularly the informal sector and agriculture, where exchange rate depreciations improved incentives.

Real public expenditures on education and health fell in the crisis countries, although efforts were made to increase spending on safety nets.

The extent to which households were able to adjust their spending to offset this decline varied across countries as well as income groups. In Thailand, families and government programs acted to cushion the impact of the crisis in order to avoid declines in school enrollment rates or in access to health services. In Indonesia, however, the severity of the crisis led to significant declines in poor households' access to both education and health services, particularly in urban areas. Such setbacks can have irreversible effects on human development.

Even where public spending on safety nets increased significantly, the impact on poverty was limited for several reasons. These included the absence of safety nets before the crisis, response lags, institutional problems, and low levels of spending relative to the scale of poverty. In some cases, evidence suggests that well-functioning programs were underfunded relative to the potential impact of shocks on poverty.

Asian restructuring: from recovery to sustainable growth

The aftereffects of the externally triggered liquidity crisis in Indonesia, Korea, Malaysia, and Thailand indiscriminately submerged both strong and weak producers and financiers. The rising tide is lifting the strong, but the financially weak continue to struggle because of both crisis-induced and longstanding vulnerabilities.

Since the onset of the East Asian crisis more than two years ago, the corporate sectors and financial systems in the crisis economies have remained in severe distress. The banking systems' nonperforming loans have skyrocketed to unprecedented levels: nonperforming loans range between approximately 30 percent of GDP for Korea and Malaysia to 60 percent of GDP for Thailand. In contrast, nonperforming loans in other major emerging market crises (Chile in the early 1980s and Mexico in 1995) were less than 20 percent of GDP. In the Scandinavian banking crises during the early 1990s, nonperforming loans amounted to approximately 5 percent of GDP.

East Asia's heavy reliance on bank-based financial systems and the high debt-equity ratios of corporations have made the economic distress especially acute. Weak firms in East Asia operated on thin margins in the years leading up to the crisis, and their inability to pay interest following the onset of the crisis has added to their debt burden. Such firms constitute a significant portion of the corporate sector in each of the crisis economies, and the appetite to invest in them is extremely limited. They will continue to act as a drag on investment and growth until the financial claims on them are resolved, and either their operations return to adequate profitability or their assets are redeployed.

Without vigorous corporate and financial restructuring, the return to sustainable growth will likely take longer, the fiscal costs of the crisis could rise, and the economies will remain vulnerable to new external and internal shocks.

Recognizing the urgency, East Asian governments were quick to create an institutional structure for corporate and financial restructuring; they also earmarked funds for bank recapitalization. The political momentum for

reform has, however, slowed down, in part because the deeper structural problems now need to be addressed. Experience from other economies, including Japan's, shows that a slackening of the reform effort can undo progress.

Government restructuring policies need to be guided by two principal considerations: limiting the likelihood of systemic disruption while also containing fiscal costs; and clarifying financial claims and building an environment conducive to asset reallocation. Based on these two principles, fiscal costs come principally from the government's social contract to protect bank depositors and to prevent systemic failure. Government funds are not required for corporate restructuring.

Bank restructuring is important because it contributes to both policy objectives. Expeditiously restoring the health of the banking system is required, but the process of restructuring itself can be disruptive.

Restructuring is necessary because a poorly capitalized banking sector creates continued systemic risks and growing fiscal liabilities for governments. Healthy banks are also best positioned to enforce claims and to pursue corporate restructuring. But restructuring should be undertaken in a manner that ensures the integrity and the organizational capital of the financial system so that prudent lending to businesses and households may continue. Achieving this objective requires making difficult choices. Having provided implicit or explicit guarantees, governments can either move ahead rapidly by taking fiscal responsibility for the costs of the crisis, or they can encourage private resolution of the distress while applying regulatory forbearance. Waiting to resolve problems is likely to make them worse. However, expeditious and transparent action should be accompanied by market-based measures to recoup fiscal costs and to signal a credible commitment to severely restrict guarantees and bailouts in the future.

Corporate restructuring needs to deal first with the delineation and allocation of losses. Improvements in accounting standards and bankruptcy regimes can help support this process. However, in the absence of effective bankruptcy procedures, out-of-court procedures offer a mechanism for resolution. Once financial claims are resolved, corporate restructuring can be expected to occur through natural market forces, except where a major impediment prevents such forces from working. Governments can facilitate asset mobility by creating the framework for effective domestic and cross-border mergers and acquisitions. The Japanese experience cautions that, without an adequate infrastructure for resolving claims and for fostering asset mobility, fundamental corporate restructuring can be interminably deferred at a high economic cost even in a sophisticated economy.

Managing the recent commodity price cycle

Primary commodity prices have undergone a pronounced cycle since the mid-1990s, driven by both temporary and secular factors.

Primary commodity prices continue to be more volatile than the prices of manufactures. Energy prices have been especially volatile. Crude oil prices rose 74 percent from early 1994 through the end of 1996, then fell 56 percent by the end of 1998, and in 1999 recovered nearly the entire decline of the previous two years. Average non-oil commodity prices rose by 46 percent from the monthly low in mid-1993 to mid-1997, and then dropped 30 percent by late 1999. The cycle in primary commodity prices was driven by changes in global demand, weather-related supply shocks, supply responses to the high prices of the early 1990s, technological innovations that have reduced production costs, and exchange rate depreciations among large commodity exporters linked to the East Asian crisis.

Such volatility poses real challenges to developing countries that depend on primary commodities for a substantial share of their export revenues. Countries where consump-

tion rises with real incomes during commodity price booms may face either painful reductions in consumption or declines in investment that reduce long-term growth when prices fall. Countries' savings and investment behavior differed markedly over the recent commodity price cycle; these differences primarily reflected the quality of policies rather than shifts in the terms of trade.

In the oil exporting countries weak policy environments led to mixed savings performance and lower investment over the oil price cycle. On average, countries allocated to increased consumption about half of the average 5 percent of GDP improvement in real incomes during the upswing in oil prices (1996–97). During the 1998 drop in oil prices, however, consumption did not decline, implying that savings fell by the full amount of the decline in real incomes. Countries' performances varied greatly, depending on their specific political and economic circumstances.

Oil exporting countries' investment fell relative to output over the commodity price cycle. The decline in investment was actually greater than the decline in domestic savings, so the current account deficit fell. The major oil exporting countries have generally failed to reduce their dependence on oil revenues, and the fall in investment will further impede progress. At the same time, several of these countries face high levels of unemployment, continued slow growth, and rapidly expanding populations. They need to strengthen their policies to encourage greater private sector (and non-oil) activities and to improve the institutional environment.

The commodity price cycle of the 1990s does not appear to have adversely affected the prospects for growth in the non-oil exporting countries of Sub-Saharan Africa. Changes in real incomes were generally smaller than in the oil exporting countries because the price of their commodity exports changed by less than the price of oil, and the losses from declining export prices were partially offset by gains from lower import prices, particularly energy prices. More important, however, improvements in policies in several countries enabled them to increase savings and investment rates during both commodity price booms and busts. Many countries cut their fiscal deficits in an effort to rein in the growth of debt and to reduce inflation, while private savings rose in response to improved policies that increased the return to investment, particularly in export sectors. Countries with better policies, as measured by the World Bank, achieved larger increases in savings and higher growth of GDP than countries with worse policies, despite smaller increases in real incomes in the former group.

Abbreviations, Acronyms, and Data Notes

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
CPI	Consumer price index
East Asia-5	Indonesia, Malaysia, the Philippines, the Republic of Korea, and Thailand
ECB	European Central Bank
ECLAC	United Nations: Economic Commission for Latin America and the Caribbean
EMU	European Monetary Union
ERM	Exchange rate mechanism
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
EU-15	Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom
FDI	Foreign direct investment
G-3	Germany, Japan, and the United States
G-5	France, Germany, Japan, the United Kingdom, and the United States
G-7	Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States
G-8	Canada, France, Germany, Italy, Japan, Russia, the United Kingdom, and the United States
G-10	Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, the United Kingdom, and the United States (and sometimes Switzerland is involved)
G-22	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

GCC	Gulf Cooperation Council
GDP	Gross domestic product
GTAP	Global Trade Analysis Project
HIPC	Heavily indebted poor countries
ILO	International Labour Organisation
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)
MUV	Manufactures unit value index
NIE	Newly industrializing economy
ODA	Official development assistance
OECD	Organisation for Economic Co-operation and Development
OPEC	Organization of Petroleum Exporting Countries
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 Growth and Poverty Reduction in Developing Countries

The effects of the crises of 1997–99, from East Asia to Russia and Brazil, persist in many aspects. In most developing countries growth remains weak and well below precrisis trends. Social dislocations are severe, and have increased not only in Asia but also in other affected countries. Progress in poverty reduction has stalled in the developing world at the end of the 1990s, and the number of poor is rising in most regions. At the same time, recent developments in the global economy have been encouraging, with signs of strong initial recovery in the East Asian crisis economies and continued expansion in the industrial countries leading to a bottoming-out of world industrial production and trade.

For countries at the epicenter of the crisis in East Asia, corporate restructuring and a restoration of sound financial institutions will need to be addressed in an aggressive manner for growth to broaden and attain sustainability. As well, many commodity and oil-dependent countries, especially in Sub-Saharan Africa, have been affected by extreme volatility in commodity prices and more recent weakness in prices of tropical products. This report reviews the evidence of the social impact of the recent crisis, and more broadly of external shocks, with a particular focus on the poor in chapter 2. The intertwined issues of corporate and financial restructuring and their significance for growth recovery and its sustainability in East Asia are assessed in chapter 3. Chapter 4 explores how two of the groups of countries most affected by recent boom-bust cycles in commodity prices, the major oil exporting and Sub-Saharan countries, have adjusted and assesses the implications for their growth prospects.

In forecasts prepared in March, the growth rate for developing countries was estimated at 1.5 percent for 1999—which would have marked the weakest performance for these countries since the debt crisis of the early 1980s.[1] But a gradual build-up in the momentum of developing country growth through 2001 was anticipated to be driven by several factors: the effects of policy measures undertaken in major industrial countries (including interest rate reductions in the United States and Europe, and large fiscal stimulus measures in Japan); early signs of recovery in the crisis countries of East Asia, especially apparent in the Republic of Korea, Malaysia, and Thailand; and more broadly, an easing of financial conditions in developing countries, evidenced in widespread declines in domestic interest rates and rising equity markets. Private capital flows to emerging markets were anticipated to fall well below levels of 1998, but to show a gradual improvement over the course of the year.

The importance of the factors identified in the March forecasts in shaping the global recovery has generally been confirmed—but the magnitude of these effects have been much larger than anticipated, especially with respect

to the strength of Asian recovery. Additionally, evidence from the second and third quarters of 1999 has revealed two surprising developments. First, the adjustment in some of the worst-hit countries, including Russia and Brazil, has been much more favorable than expected. Second, a sharp increase in oil prices followed the decision of the Organization of Petroleum Exporting Countries (OPEC) in April 1999 to curtail oil supplies, benefiting developing countries that depend heavily on oil exports.

The positive evidence has been strong enough to support a substantial upward revision of the March projections for growth, not only for developing countries but also for the world economy. Developing country growth is expected to be significantly higher for 1999 and moderately higher for 2000. The growth rate for 2001 is expected to remain at about the March level (table 1.1). Global growth is now expected to accelerate to 2.6 percent in 1999 and 2.9 percent in 2000, marking upward revisions of 0.8 and 0.5 percentage points respectively from earlier projections. For developing countries, GDP growth for 1999 is expected to be 2.7 percent—a revision of 1.2 percentage points from the March forecasts—and the outlook for 2000 has been upgraded by 0.5 percentage points.

Table 1.1 Global conditions affecting growth in developing countries, 1998–2001
(percentage change from previous year, except LIBOR)

	Current				*Global Development Finance 1999*		
	Estimate	Forecast			Forecast		
	1998	1999	2000	2001	1999	2000	2001
World GDP growth	1.9	2.6	2.9	2.9	1.8	2.4	2.9
G-7 countries[a]	1.9	2.0	2.4	2.1	1.7	1.9	2.1
Low- and middle-income countries	1.6	2.7	4.2	4.2	1.8	3.7	4.6
Excluding Eastern Europe and CIS	2.1	3.0	4.6	4.9	2.1	4.0	4.8
Memo item							
Low- and middle-income countries per capita GDP	0.1	1.2	2.8	3.1	0.0	2.2	3.1
World trade volume	4.2	7.0	6.4	6	4.2	6.8	6.2
Inflation (consumer prices)							
G-7 countries[a,b]	1.4	1.3	1.6	1	1.4	1.8	2.0
United States	1.6	2.2	2.2	2.0	2.3	2.6	2.7
Commodity prices *(nominal U.S. dollars)*							
Commodity prices, except oil	-15.7	-11.2	-1.8	4.2	-6.3	1.7	5.1
Oil price (weighted average)	-31.4	47.8	2.8	-23.7	-8.2	25.0	6.7
Manufactures export unit value[c]	-3.4	0.6	2.3	2.7	1.3	2.6	2.7
Interest rates							
Six-month LIBOR *(U.S. dollars, percent per annum)*	5.6	5.2	6.0	6.0	5.0	6.0	6.0
Exchange rates[d]							
U.S. dollar per German mark	-1.7	—	—	—	—	—	—
U.S. dollar per Japanese yen	-7.6	—	—	—	—	—	—

— Not applicable.
a. Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.
b. In local currency, aggregated using 1988–90 GDP weights.
c. Unit value index of manufactures exports from G-5 to developing countries, expressed in U.S. dollars.
d. Positive figure is appreciation of local currency versus dollar.
Note: The Republic of Korea has been reclassified as an upper-middle income country.
Source: World Bank, *Global Development Finance 1999*; World Bank Development Prospects Group, November 1999.

Positive as these revisions are, they mask the considerable fragility of developing countries, which have yet to recover fully from the financial crises of 1997–99. Nor do the aggregates reflect the very uneven patterns of growth and recovery among regions. Save for East Asia and South Asia (regions bolstered by growth in China and India), aggregate real per capita incomes in 1999 are expected to decline or stagnate in several developing regions.[2] Further, the news since March has not been all good. The tightening of oil supply has meant higher import bills for many developing countries and increased import prices in some industrial economies, where growth has been outstripping estimated potential. And the favorable financial conditions have not made international investors less risk averse, as evidenced in interest rate spreads at high levels. International capital flows to developing countries have fallen much more sharply than anticipated.

Long-term projections for growth in developing countries (presented at the end of the chapter) have been downgraded by 0.3 percentage points from forecasts of one year ago, suggesting that growth in developing countries as a group in 2002–2008 is likely to be lower than in the precrisis 1990s. This estimate reflects several factors, including a somewhat less favorable external environment; and, importantly, prospects for a protracted work-out of structural weaknesses in developing countries—particularly in financial systems and fiscal positions—that have become more apparent in the wake of the crisis. One implication of lower long-term projections is that progress on poverty reduction will be slower. And for some regions, including Sub-Saharan Africa and Latin America and the Caribbean, reductions in poverty are likely to remain below the targets recently adopted by the international community.

The external environment for developing countries is improving

The external environment for developing countries is expected to improve further in 2000 and 2001. Growth among the three industrial-country centers is expected to be more balanced. Policies geared toward achieving a soft landing in the United States, stemming deflationary tendencies and shifting the impetus for growth from the public to the private sector in Japan, and fostering business activity in the European Union (EU) will support this shift. One result of these transitions—should they occur smoothly—would be a broadening of the locus of 'locomotive power' for the world economy from the United States to include Europe. A modest increase in international interest rates is likely to accompany efforts to slow the momentum of the U.S. economy. But for developing countries, the benefits of a smooth transition to more sustainable growth in the United States clearly outweigh the potential cost of a hard landing, and would likely be reflected in reduced risk perceptions.

Exchange rate developments that occurred in 1998–99 will exert some influence on the global distribution of demand in 2000 and 2001. In particular the initial weakening of the euro against the dollar and the yen should provide a boost to European exports, support manufacturing in Germany and Italy, and stimulate growth more broadly in the Euro Area. On the other hand, the strengthening of the yen poses some risk to the nascent recovery in Japan.

Stronger growth in the EU and stabilization in Japan will help firm up export markets for many developing countries. In particular, Central and Eastern Europe, the Maghreb countries, and Sub-Saharan Africa will benefit from an upturn in European import demand. Resumed growth in Japanese imports will further boost expanding intraregional trade in East Asia. Although growth in U.S. imports is likely to slow from its recent highs, it should remain strong enough to provide Latin American and Asian exporters with opportunities for continued market expansion.

Developments in global commodity markets are likely to have strongly differentiated

effects across developing countries. Non-oil commodity prices, which bottomed out during 1999, should undergo a moderate firming that will help bolster export revenues for many countries in Sub-Saharan Africa, Latin America, and East Asia. In addition, the likelihood of only modest near-term changes in dollar-based G-7 manufactures prices will tend to improve the terms of trade for all low- and middle-income countries. But if the sharp rise in petroleum prices is sustained, it will partially or completely offset these developments in many oil-importing countries. Oil exporters, many of which are in crisis, are the clearest beneficiaries of recent trends.

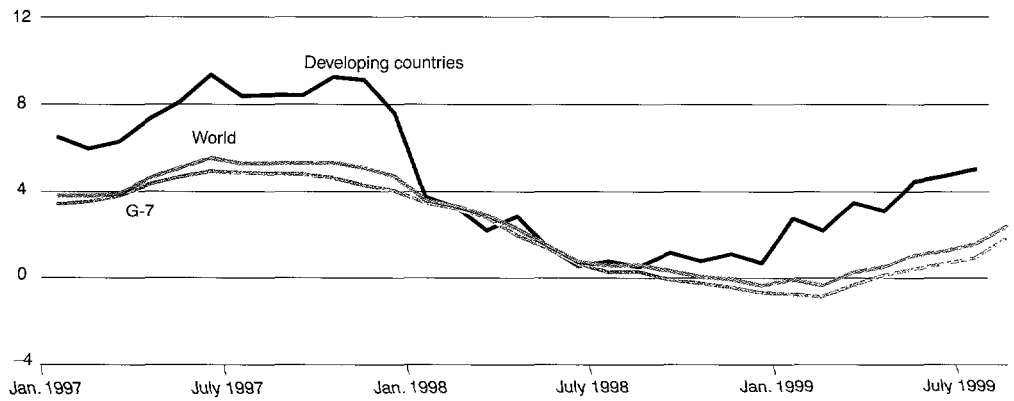
Growth in the industrial countries has been faster than expected

Growth for the G-7 countries this year is likely to register 2.6 percent, 0.9 percentage points higher than the forecast made six months ago (table 1.2). Continued strong growth in the United States is the principal factor in the revision, but Japan's performance in the first half of 1999 (3.2 percent annualized GDP growth), which was much better than anticipated, also contributes to the change. Europe, which had been hampered by inventory overhang, is now showing signs of a strong revival. Reflecting these developments, world industrial production appears to be on an accelerating path, reaching 2.5 percent year-on-year advances in August, from declines at the start of 1999 (figure 1.1).

United States. The remarkable growth performance of the United States played a major role in preventing a world recession following the outbreak of the East Asian financial crisis. GDP increased an average of 4 percent during 1997–98, driven by private consumption and investment spending. Coupled with a strong dollar this growth supported a 25 percent cumulative increase in U.S. import volumes over the same period and provided a foundation for world exports as the Asian markets sank. The U.S. expansion was bolstered by three factors:

- the restraining influence on inflation of falling prices for commodity and manufactures imports;
- lower long-term interest rates, which reflect a return of private capital from emerging markets; and
- the 75 basis-point reduction in policy interest rates in late 1998.

Figure 1.1 World industrial production



Note: Figures are three-month moving averages. Figure based on sample of countries comprising 85 percent of world GDP.
Source: Datastream; World Bank staff estimates.

(percent)

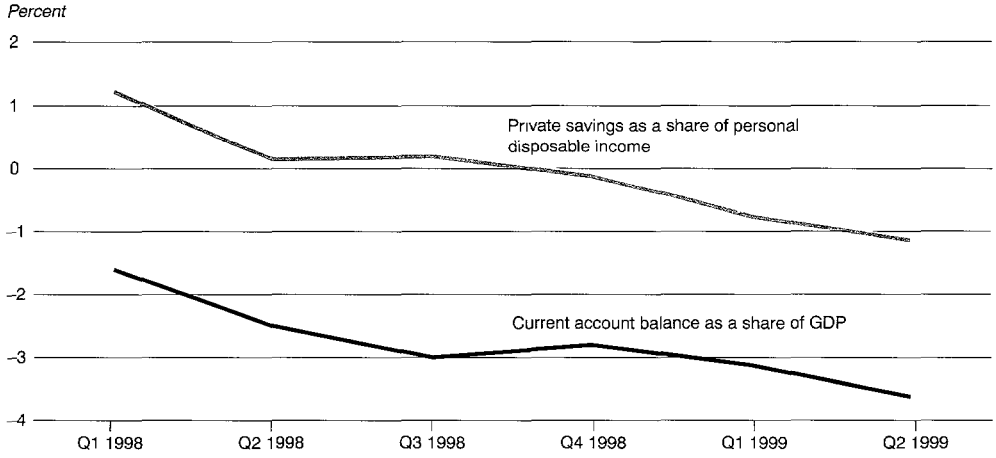
	Current				*Global Development Finance 1999*		
	Estimate	Forecasts			Forecasts		
	1998	1999	2000	2001	1999	2000	2001
World total	1.9	2.6	2.9	2.8	1.8	2.4	2.8
High-income countries	2.0	2.6	2.5	2.3	1.8	2.0	2.2
OECD high-income	2.0	2.6	2.5	2.3	1.8	2.0	2.2
G-7	1.8	2.6	2.4	2.1	1.7	1.9	2.1
G-4 Europe	2.2	1.6	2.7	2.8	1.6	2.6	2.4
Other industrial	3.7	2.9	3.1	3.1	2.7	2.7	2.9
Euro Area	2.7	2.0	2.9	2.9	2.2	2.7	2.7
Non-OECD high-income	1.2	3.0	4.0	4.6	1.3	3.6	4.7
Asian NIEs	1.8	3.6	4.9	5.2	2.0	4.3	5.2
Low- and middle-income countries[a]	1.6	2.7	4.2	4.5	1.5	3.7	4.6
Excluding Central and Eastern Europe and CIS	2.1	3.0	4.5	4.8	2.1	4.0	4.8
Sub-Saharan Africa	2.4	2.3	3.1	3.4	2.5	4.0	4.0
Excluding South Africa and Nigeria	3.6	3.2	3.6	3.9	3.6	4.5	4.4
Asia and Pacific	1.6	5.4	6.0	5.9	3.8	5.1	5.8
East Asia and Pacific[b]	0.1	5.5	6.2	6.2	3.6	5.2	6.0
Excluding China	−7.6	4.3	5.3	5.1	0.3	3.4	4.5
South Asia	5.1	5.4	5.5	5.3	4.4	4.8	5.2
Europe and Central Asia	−0.2	0.3	2.5	3.3	−1.5	2.3	3.6
Central and Eastern Europe	2.3	1.0	3.2	4.3	2.3	3.8	4.6
CIS	−2.7	0.7	1.3	2.3	−5.5	0.6	2.4
Middle East and North Africa	3.2	2.0	3.2	3.5	0.6	2.5	3.3
Maghreb	4.8	2.6	4.0	4.1	2.8	3.9	3.9
Mashreq	3.1	3.2	4.6	4.2	3.2	3.6	4.1
Developing GCC[c]	1.0	−0.3	1.7	2.1	−2.4	0.6	2.0
Latin America and the Caribbean	2.1	−0.6	2.7	3.5	−0.8	2.5	3.9
Memo items							
East Asia Crisis-5[d]	−7.9	4.4	5.3	5.1	0.3	3.5	4.5
Low- and middle-income, excluding East Asia Crisis-5[d]	3.3	2.4	4.0	4.4	1.7	3.8	4.7

a. Including Central and Eastern European countries and states of the CIS.
b. Including the Republic of Korea.
c. Gulf Cooperation Council (Bahrain, Oman, and Saudi Arabia).
d. Indonesia, Malaysia, the Philippines, the Republic of Korea, and Thailand.
Source: World Bank, *Global Development Finance 1999*; World Bank Development Prospects Group, November 1999.

During 1999 the U.S. expansion has continued to show resilience, with a recent strong pickup in exports complementing robust consumer and investment spending. But the economy also shows the widening imbalances that have resulted from the sustained period of rapid expansion, including a negative household savings rate (−1.5 percent)[3], a current account deficit approaching 4 percent of GDP, potentially overvalued equity markets, and modest signs of incipient inflationary pressures (figure 1.2).

Fears that higher oil prices and improving conditions in foreign markets would reinforce incipient inflationary pressures in the domestic market may have contributed to a recent rise in long-term interest rates. Partly offsetting these fears was evidence of accelerating growth in productivity, which could enable—if sustained—a higher path of output

Figure 1.2 U.S. private savings rate and current account balance



Source: International Monetary Fund; U.S. Survey of Current Business; Datastream.

growth with restrained inflation in the context of tight labor markets.

Against the background of three modest interest rate increases in 1999, GDP growth is expected to slow from 3.8 percent in 1999 to 2.8 percent in 2000. As the pace of domestic demand growth eases in response to further interest rates increases, GDP could slow to 2.2 percent by 2001. Inflation is expected to rise only modestly. The current account deficit will widen further, rising from $315 billion to $350 billion as import demand slows gradually, exports respond with some lag to overseas recovery, and higher oil prices inflate the import bill. The risk of a sharper slowdown remains substantial, however. The potential for more dramatic corrections of current imbalances—through a sharp adjustment of the dollar or a fall in equity markets, for example—are elements of concern in the near term, which would also have significant effects on developing countries most dependent on U.S. markets and international capital flows (see the section *Risks to the forecast*).

Japan. Starting in the last months of 1997, Japan's economy registered five consecutive quarters of negative growth. Uncertainties in the country's financial system, rising unemployment, and falling wages placed a damper on consumer spending. Business investment outlays continued to decline in the face of falling domestic demand and massive over-capacity. Japan's largely domestic-based recession and the resulting decline in imports of some 7.7 percent in 1998 significantly aggravated the regional crisis (see box 1.5).

During the first quarter of 1999 the effects of large-scale public investment spending bore fruit, however. GDP growth of 8.1 percent (annualized) was driven by a 10 percent quarter-to-quarter surge in public investment outlays. But private consumption, residential investment, and fixed business investment also increased at rates that were much stronger than had been anticipated. Surprising second-quarter growth of 0.4 percent (annualized) was clearly led by households, as both public and private investment spending declined sharply. More recently Japan, like the United States, has been benefiting from the strong recovery in growth in East Asia. A pronounced increase in export shipments has supported gains in Japanese production.

Although recent developments could mark the end of Japan's second-longest postwar recession, recovery in private demand is not yet

self-sustaining. The risk of relapse remains, for several reasons:

- Retail spending continues to display volatility, and consumer sentiment may falter in the face of declining incomes and further weakness in labor markets.
- Public loan guarantees have propped up investment in housing and business markets, helping increase liquidity in these sectors.
- Investment remains concentrated among small- and medium-sized enterprises while larger corporations are saddled with substantial excess production capacity.
- The sharp appreciation of the yen may restrain prospective export performance.
- Deflation has emerged across all segments of the Japanese economy, adding to debt burdens.

These factors suggest not only that further recovery will likely be of modest proportions but also that it is contingent on continued public sector support—which is becoming increasingly difficult to sustain. Against this background, it appears likely that Japan will register positive growth on the order of 1.3 percent this year—a marked improvement over the March assessment. But growth may fade to 0.9 in 2000 if fiscal stimulus is largely withdrawn from the economy. The private sector recovery will need to become self-sustaining soon since the consolidated public deficit will approach or exceed 10 percent of GDP in 2000.

Europe. Although consumer sentiment and spending have been buoyant in Europe, weakness in the industrial sector (particularly in Germany and Italy) checked earlier expectations for stronger growth during 1999. In part, this weakness is a further manifestation of the East Asian and Russian crises. Sharp deterioration in the performance of German and Italian exports in emerging markets dampened business sentiment, increasing inventory overhang, depressing industrial production, and ultimately restraining trade within the EU. Uncertainty in the business sector may have contributed to the 10 percent fall in the value of the euro against the dollar through June 1999, and this prompted the European Central Bank (ECB) to implement a 50 basis-point easing of policy interest rates. Despite a rate reversal in the autumn, the euro continued to decline against the dollar, to near parity by early December. GDP in the Euro Area slowed from 2.7 percent in 1998 to 1.8 percent annualized during the first half of 1999.

Business surveys that were conducted in the first half of 1999 reported widespread improvements in current and prospective conditions. Figures for industrial production in France (1.5 percent month-to-month in July) and Germany (1.2 percent in August) are now confirming these expectations. The potential for a rebound in production in the second half of the year is now much stronger, as evidenced by rising export orders and shipments, continued firm consumer demand, and diminishing inventory overhang. The growth slowdown in the United Kingdom in late 1998 and early 1999 appears to have passed, with consumer spending rising at an impressive 4 percent annual rate in recent months, production up by 1.7 percent, and unemployment at record low levels. On the external front, German and U.K. exports to countries outside the EU are now rising fairly rapidly. The United Kingdom's 15 percent annualized export volume growth rate during the summer months of 1999 reflects not only continued strength in the United States but also an upswing in emerging market demand. These factors augur well for a rebound in EU growth that could reach 2.9 percent in 2000–2001. An acceleration of import demand from recent lows of 2.5 percent to 6.5 percent over the period will help pick up some slack from slowing U.S. demand and support the advance of world trade at rates near the 20-year average.

Inflation and interest rates to remain moderate

Inflation slowed significantly in the industrial countries in 1998 and 1999, falling from a G-7 average of 2.1 percent in 1996 to 1.4 per-

cent in 1998. More recently, inflation trends across the major countries have displayed different dynamics, the result of developments in the global environment as well as in the domestic arena (figure 1.3). Continued moderate inflation in Europe coupled with deflationary trends in Japan is likely to keep any increase in international prices in 2000–2001 to modest proportions.

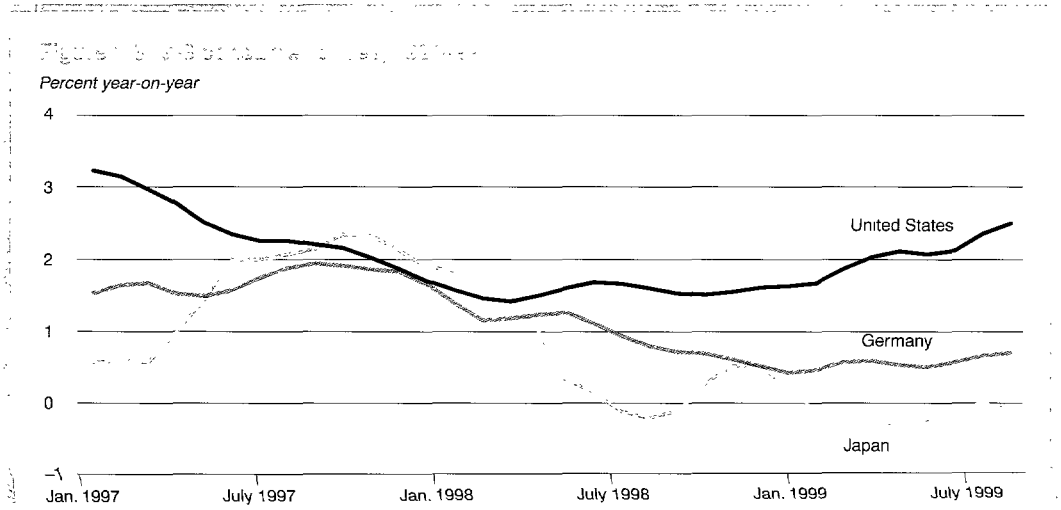
In the United States several elements converged to slow and eventually stabilize inflation over 1997–98. These included:

- the onset of the Asian crisis, which interacted with the strong dollar to cause substantial declines in the prices of imported goods;
- the resulting increase in competition from imported products, which restrained the ability of domestic producers to raise prices; and
- underlying improvements in productivity growth (as well as large additions to manufacturing capacity), which kept unit labor costs under control.

As some of the favorable international influences waned and signs of moderately increasing wage pressures emerged, U.S. consumer price inflation accelerated. Inflation climbed above the 2 percent mark in mid-1999 and may increase toward 2.5 percent in the next years.

In Germany, and more broadly across Europe, similar international influences have been at work. But continued modest inflation (less than 1 percent in Germany during 1999) owes more to the sluggishness of economic activity and large output gaps within the Euro Area. Imminent recovery in activity, together with the euro's near-term weakness, should place some modest upward pressure on European inflation moving in 2000–2001. At the same time, Japan has been beset with a bout of deflation that may require some time to dissipate. Falling consumer demand, excess capacity in industry, and the strength of the yen all contribute to this phenomenon.

Shifts in interest rates in the industrial countries are likely to be moderate over the next 12 months, reflecting expected developments in economic activity and inflation. The cumulative 75 basis-point tightening by the Federal Reserve over the second half of 1999 may be followed by further modest incremental increases in rates beyond the current 5.5



Note: Figures are three-month moving averages.
Source: IMF, *International Financial Statistics.*

percent level for Fed Funds (figure 1.4). Following its recent increase in policy rates the ECB may wait for stronger confirmation of the rebound in Euro Area activity before implementing further rate increases, designed to shift the stance of monetary policy from loose to neutral. Japan will likely maintain effective zero levels of the uncollateralized overnight call rate until private demand stabilizes and begins to grow sustainably.

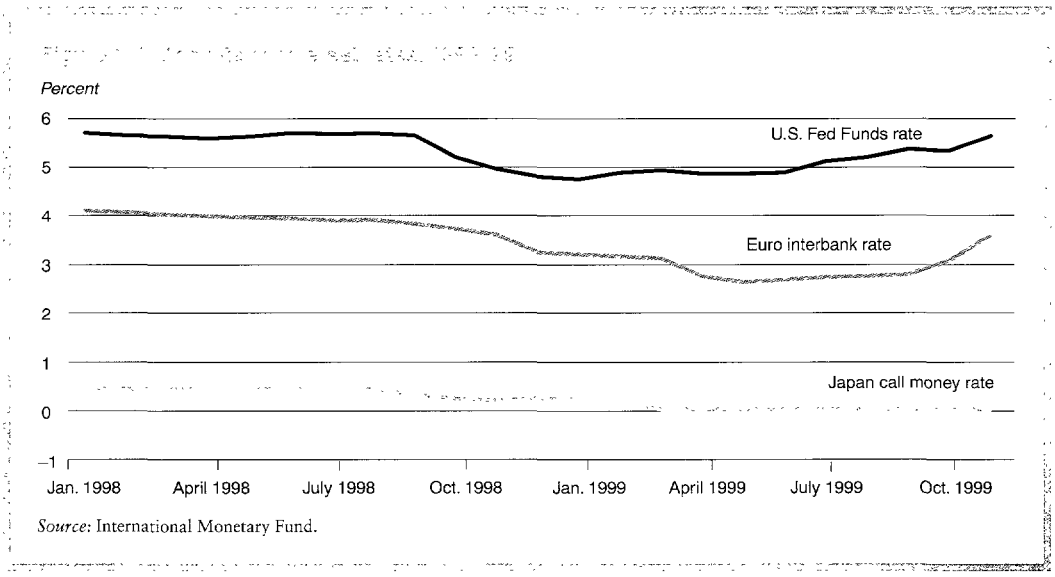
World trade is likely to continue to accelerate

World trade growth has accelerated from about 4 percent in 1998 to 5 percent in 1999 and is projected to average nearly 6.5 percent in 2000–2001. But these apparently modest changes in average growth rates mask both the sharp intrayear downturns of the last two years, and significant shifts in the geographic distribution of demand.

Throughout 1998 world trade slowed sharply as the combined effects of the East Asian, Russian, and Brazilian crises contributed to a steep downturn in import demand in Asia, Latin America, and the economies of the Commonwealth of Independent States (CIS) (figure 1.5). During the second half of 1998 world import growth averaged 2 percent at annual rates. Increases of 8–10 percent in North American and EU imports were offset by a 5 percent drop in demand in developing countries.

Both the pace and pattern of growth have shifted dramatically during 1999. Recent momentum indicators suggest a movement toward 6 percent growth, amid further changes in the geographic mix of demand in late 1999. Decline in Latin America is being offset by firming trends in Western Europe, the newly industrializing economies (NIEs) in Asia, and the oil exporting countries, whose foreign currency receipts have surged in recent months.

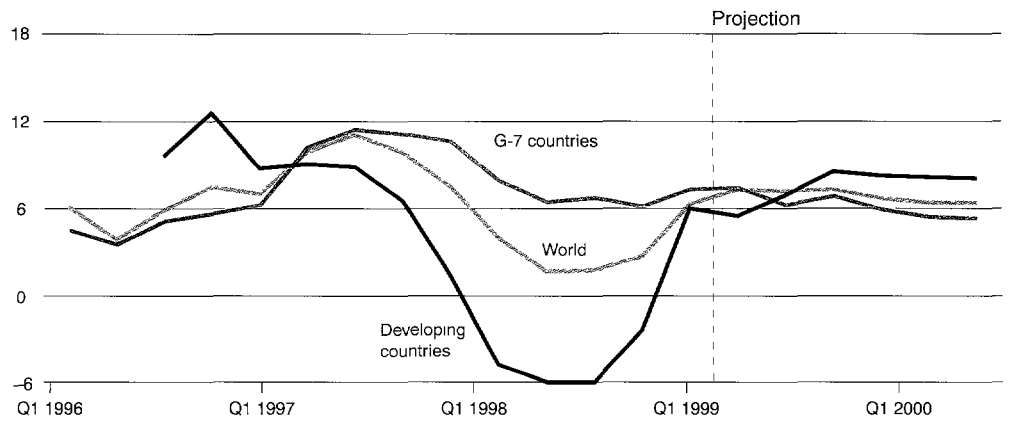
The rapid recovery in East Asia has been the most important factor in the acceleration of world trade. The shift from a large decline in import volumes in Asia (including Japan and the NIEs) in 1998 to moderate growth projected in 1999 will add about 4.6 percentage points to world imports this year (table 1.3). The Asian import recovery has helped stimulate activity around the world, especially in those economies in Western Europe and within Asia itself that are highly dependent



Source: International Monetary Fund.

Figure 1.5 World import volume growth

Percentage change, year-on-year



Note: Estimate for developing countries is based on U.S. dollar data deflated by world import price index.
Source: World Bank staff estimates.

on exports. Growth in world import volume is expected to rise toward 6.5 percent over the next two years. This rate is near the 20-year trend but is still below what might be expected in a cyclical recovery period following a sharp slowdown.

Table 1.3 Contributions to world import growth

(percent year-on-year)

World [illegible]	[illegible]	[illegible]	[illegible]
Contri[illegible]			
G-7 co[illegible]	[illegible]	[illegible]	[illegible]
N[illegible]	[illegible]	[illegible]	[illegible]
Jap[illegible]	[illegible]	[illegible]	[illegible]
G-4 [illegible]	[illegible]	[illegible]	[illegible]
Other [illegible]	[illegible]	[illegible]	[illegible]
Asian [illegible]	[illegible]	[illegible]	[illegible]
Develo[illegible]	[illegible]	[illegible]	[illegible]
East A[illegible]	[illegible]	[illegible]	[illegible]
Latin [illegible]	[illegible]	[illegible]	[illegible]
Easter[illegible]	[illegible]	[illegible]	[illegible]
Ch[illegible]	[illegible]	[illegible]	[illegible]

a. Share of world trade times import growth.
Source: World Bank staff estimates.

As world trade volumes increase in 1999, the steep decline in dollar-based trade prices of 1998 is likely to slow, partly reflecting the decline of the U.S. currency vis-à-vis the yen. The sharp fall in prices of both manufactures exports and commodities in 1998 caused a decline in the dollar-based global trade deflator of some 7 percent. But the large upswing in oil prices and improvement in prices of manufactures exports could boost the world deflator to gains of 2 percent in 1999. If the U.S. dollar softens moderately in the last months of 1999 (as suggested by futures markets), prices for manufactured goods may flatten out. Table 1.4 shows the performance of these prices in the first three quarters of 1999. A flattening out of import prices would allow global trade flows expressed in dollars to rise for the first time since the onset of the Asian crisis. This possibility is good news for many of the heavily indebted developing countries, whose debts are denominated primarily in dollars. However, primary commodity exporters will no longer benefit from declines in the prices of imported manufactures—declines that have helped support their terms

Table 1.4 U.S. import prices of manufactured goods, 1999
(percentage change, year-on-year)

Imports from:	Percentage of total U.S. imports	[illegible]	[illegible]	[illegible]	[illegible]
Japan	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Canada	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
European Union	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Asian NIEs	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Latin America	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
World	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Memo items					
U.S. import price		[illegible]	[illegible]	[illegible]	[illegible]
World import price		[illegible]	[illegible]	[illegible]	

.. Not available.
Source: U.S. Bureau of Labor Statistics; World Bank staff estimates.

of trade during the recent prolonged weakness in commodity prices.

As noted in the introduction, the East Asian crisis had important adverse effects on global trade volumes and commodity prices, which are now unwinding. Box 1.1 offers an analysis of the price, sectoral, and regional effects of the crisis.

Commodity prices are unlikely to rebound sharply

The decline in commodity prices during the past three years has been one of the sharpest on record, with nonenergy commodity prices falling 29 percent from their peak and petroleum prices falling 56 percent in the two years that ended in December 1998 (see chapter 4). Since the lows of late 1998 and early 1999, some commodity prices have begun to recover, but mostly because supplies have been reduced. To date, there has not been a substantial recovery in demand. Faced with collapsing petroleum prices, OPEC agreed to sharp cuts in production in March and has shown its resolve to adhere to these cuts. This development has caused petroleum prices to recover fully from their decline. Metals prices have recovered about one-fourth of their decline since early 1999 as high-cost mines and smelters either closed or began operating at reduced capacities. Demand for primary commodities has begun to rise somewhat, spurred by the unexpectedly positive economic outcomes for the East Asian countries, sustained rapid growth in the United States, and signs of reviving economic activity in Europe. Stockpiles of metals have now begun to decline, and demand for metals has shown signs of increasing in Asia.

Agricultural prices have yet to show clear signs of recovery. Supplies continue to increase, adding to already large stocks. Unlike metals or petroleum, supplies of agricultural commodities depend on the weather, and in 1999 the weather has helped generate large output gains. Sugar production is expected to exceed consumption for the fourth consecutive year, and soybean and total oilseed production are expected to reach a record levels. Grain production has fallen in response to low prices, but not enough to tighten markets and raise prices.

The near-term outlook for commodity prices is somewhat mixed, with energy prices expected to remain strong because of OPEC's determination to limit supplies while other commodity prices are expected to remain weak (table 1.5). Real nonenergy commodity prices are expected to fall 10.5 percent in 1999 and then begin to recover moderately in 2000. Agricultural prices are likely to recover more slowly than prices for other commodities because of the abundant stocks that have accumulated and a continued weak supply response

Box 1.1 Sectoral and regional effects of the East Asian crisis

A global general equilibrium model[1] was employed to trace the real impacts of the crisis in East Asia, with a focus on regional and sectoral effects. The exercise was designed to isolate the impacts of the observed output declines in the five East Asian crisis economies (EA-5) and Japan, including the current account reversals, which on aggregate were over $100 billion. These reversals were allocated to the industrial economies, with the United States accounting for the largest share of the increased current account deficit—on the assumption that credit to developing countries was constrained at the precrisis level. Thus the financial shock for developing countries—in the form of changes in capital flows—was confined to the EA-5 countries, with an explicit assumption that the other developing countries were able to maintain precrisis current account balances. The results of the crisis simulation are compared to a baseline simulation that calibrates growth rates in the crisis economies and Japan to precrisis growth forecasts and fixed current account balances at their precrisis levels.[2]

The analysis suggests the following conclusions:

- The main transmission channel of the demand shock in East Asia and Japan on developing countries—isolated from other observed shocks—is through a large fall in export prices,[3] reflecting the devaluation of currencies and the decline in domestic demand, with the strongest negative effects on commodity prices. The analysis in some sense provides an upper bound on price effects owing to the assumption of freely flexible prices embedded in the model. The demand shock could have been a catalyst for new crises in other countries, particularly commodity-dependent economies and those with fragile finances.
- Export volumes from developing countries to East Asia decline unambiguously, though this effect is largely offset by growth in import demand in the industrial countries.
- The developing country export sectors most adversely affected by the crisis include commodities (other crops, mining, and crude oil), commodity-dependent downstream sectors (processed foods, refined oil, and iron and steel), and manufacturing sectors characterized by fierce price competitive pressures (textiles and apparel, machinery) and some services.

Trade effects. The crisis simulation has its strongest impacts on investment and import demand in the EA-5 countries, with only a modest increase in exports. The drop in investment affects mostly demand for capital goods, including machinery and transportation equipment, and construction, with multiplier effects in the nonmetallic minerals sector. Income-sensitive sectors, such as motor vehicles, are also hit hard, with the least affected sectors being food and clothing and, to a lesser extent, energy—that is, basic necessities.[4] When translated into changes in import demand the largest reductions fall on capital goods and motor vehicles. Other developing countries suffer an unambiguous drop in the volume of exports to the EA-5 countries and Japan, on the order of magnitude of $30 billion and $13 billion, respectively.

In the simulation, aggregate import volume into the industrial countries increases by over 2 percent, more than the increase in industrial country aggregate demand (0.5 percent). Changes in relative prices play a large role in fostering demand for imports. In percentage terms, some of the largest increases in import demand in the industrial countries are in rice, sugar, oil, textiles and apparel, light manufacturing, motor vehicles, other transportation equipment, and electronics. Export volumes to industrial countries from the non-crisis developing countries rise some $40 billion, largely counterbalancing the drop in export volume toward the EA-5 and Japan.

Price effects. The loss in net exports is small in volume terms ($1.5 billion) for noncrisis develop-

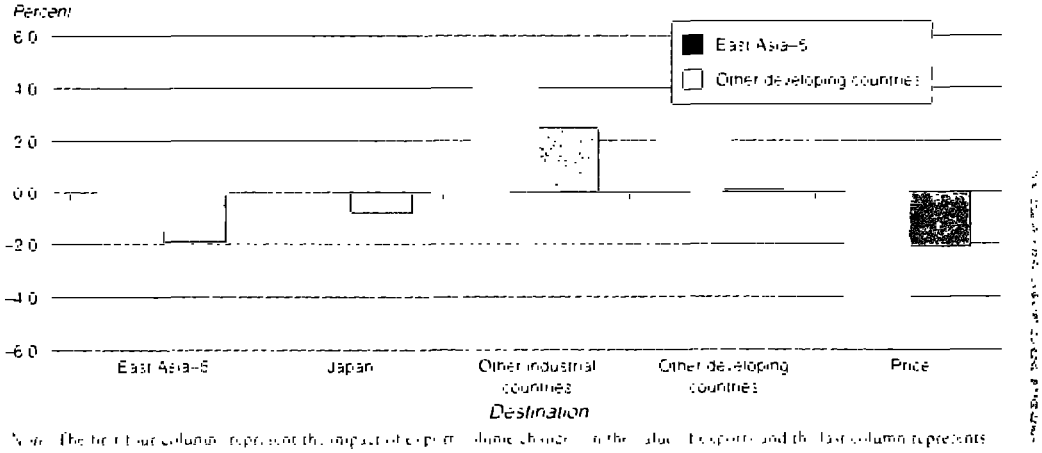
Box 1.1 (continued)

ing countries. However, in value terms, the reduction is much larger ($34 billion), making the effect of the Asian crisis equivalent to a capital account reversal of $34 billion. While the decline in export prices is much higher for the EA-5 countries than for the other developing countries, the latter nonetheless suffer from an average decline in export prices of 2.1 percent. The largest declines occur in those sectors where commodities are most substitutable (for example, crude and refined oil), or sectors where the two regions are significant competitors (such as textile and apparel, iron and steel, and machinery).

Net impact on exports The figure in this box depicts the decomposition of net trade effects for the two developing regions into four volume effects—one for each region of destination—and one price effect, capturing the essential story. The volume effects clearly show the negative impact of import demand in the EA-5 and Japan and the positive effect in industrial countries. (The figure also shows the increased market share of the EA-5 in other developing countries and the lack of change in intraregional trade.) The balance of the volume effects are positive for the EA-5 countries (+5.7 percent) and mildly negative for the other developing countries (–0.1 percent). However, the negative price effects lead to an increase in export value of only 0.8 percent for the EA-5 countries and a decline of –2.1 percent for the other developing countries. On balance the primary transmission channel for noncrisis developing countries is a drop in export prices, so that the negative import volume effect in the crisis countries is largely offset by positive import volume effects in the industrial countries.

The simulation is useful in illustrating the price effects on sectoral and regional demand under the assumption of flexible prices and instantaneous adjustment of both prices and volumes. In reality, in 1998 export volumes of developing countries (excluding the EA-5), slowed sharply, as the rise in imports of the industrial countries was not nearly sufficient to offset the demand collapse in Asia.

Decomposition of change in export values



Note: The first four columns represent the impact of export volume changes in the value of exports and the last column represents the aggregate price effect.
Source: World Bank.

Table 1.5 Annual percentage change in oil and non-oil commodity prices
(World Bank commodity price indexes, nominal U.S. dollars)

	Trends				Forecasts		

Source: World Bank Development Prospects Group.

to falling prices. Real energy prices are anticipated to increase 38 percent in 1999 and to stabilize in these terms in 2000. The forecast assumes that OPEC will raise production officially or unofficially during the winter and prevent prices from being sustained much above $20/bbl. But until such time as OPEC does raise production, speculative demand on futures markets could take prices well above $20/bbl.

Private capital flows to developing countries are likely to recover only modestly in the short term

The environment for private capital flows to emerging markets is worse than was expected six months ago. Gross private flows for January–August 1999 were almost a third lower than they were a year earlier (table 1.6). Flows generated by bond issues were 25 percent lower. Issues from Europe and Central Asia (ECA) and Latin America plunged 56 percent and 17 percent respectively. Bank lending commitments dropped 25 percent during the period, with ECA and Latin America again registering large drops (more than 50 percent). International equity placements did increase over this period, largely reflecting privatization receipts in Korea and Thailand. East Asian equity and other markets have risen sharply from their lows in late-1998.

Table 1.6 Average monthly gross capital market flows to developing countries
(billions of U.S. dollars)

	1997	1998			1999		
All developing countries	24.2			12.5			
East Asia and Pacific							
Europe and Central Asia							
Latin America and the Caribbean							
Middle East and North Africa							
South Asia							
Sub-Saharan Africa							

Note: Gross capital market flows include bond issues, syndicated loan commitments, and equity issuses, based on reports from the international capital markets.
Source: Euromoney; World Bank staff estimates.

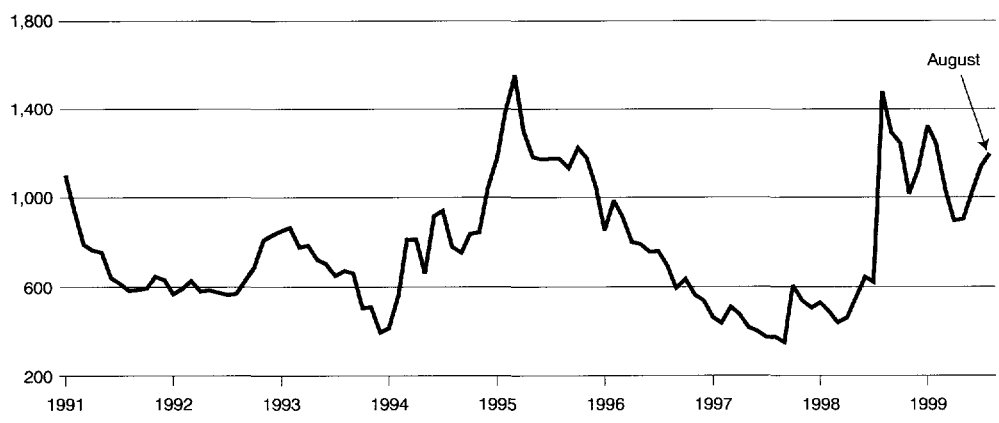
But the primary reason for their recovery appears to be the response of domestic investors to rising liquidity and falling interest rates, and to some degree a stemming of capital flight. So far there is little evidence of large inflows from abroad.

While the recovery in East Asia helped revive confidence in emerging markets to a modest extent, offsetting events occurred. Following the Brazilian devaluation in January 1999, secondary market bond spreads increased for most of the major developing country borrowers. However, contagion from Brazil was restricted and relatively short-lived. The average spread on Brady bonds—an index that is heavily weighted toward Latin America—dropped to 890 basis points in April from over 1,300 basis points at the end of January (figure 1.6). With some signs of stabilizing market conditions in the second quarter, gross capital flows increased significantly, bolstered by a 33 percent increase in bond issuance and a near doubling of bank lending commitments compared with the first quarter. The East Asian crisis economies showed increasing strength in the bond markets, and Latin American borrowers secured significant amounts of commercial bank credit. Still, market access remained restricted to the most creditworthy borrowers.

During the third quarter, tightening U.S. monetary policy, the Daewoo restructuring, and Ecuador's difficulties again deterred investors. Gross capital flows fell sharply, and secondary bond markets became illiquid as the volume of transactions dropped sharply. Ecuadorian Brady bond spreads soared to around 4,000 basis points, but Latin American spreads were not affected significantly. By the end of August average secondary market spreads on international bonds stood at lower levels than their 1998 averages but remained well above 1997 levels. Investor concern manifested itself both in limited access and high interest rate spreads.

Despite falling volumes of private market flows, foreign direct investment (FDI) has remained resilient and is likely to be the primary source of finance for developing countries for the foreseeable future. The global crisis has contributed to reduced growth prospects even for FDI, however. Preliminary data indicate some reduction in FDI flows in 1999. In East Asia new FDI projects approved in 1999 have

Figure 1.6 Spreads on Brady bonds



Source: Bloomberg; World Bank.

fallen sharply in Indonesia, China, and Thailand.[10] Although the downturn may be partially offset by an increase in Korea, overall flows in East Asia may continue to decline moderately in the medium term. FDI to Latin America may increase somewhat in 1999 owing to Brazil's privatization projects, but these levels may be difficult to maintain in 2000–2001. Flows to ECA should remain stable in the near term and are likely to grow in the medium term as major recipients proceed with privatization programs and investors are attracted by the prospect of EU accession. On balance these trends suggest that total FDI flows to developing countries may remain below the peak levels of 1997 over the next few years.

On the back of the economic recovery in Asia and an expected bottoming-out of the recession in Latin America, flows from international capital markets (bonds, equity, and bank loans) are expected to stage a modest rebound during 2000–2001 but to remain well below precrisis levels. Several factors suggest that these flows to emerging markets will increase only slowly. Financing requirements in Asia have been cut drastically as countries have moved to large current account surplus. Investors are likely to continue to shy away from the perceived risks of emerging markets in the near term, and this tendency will improve only gradually in the medium term. Since the East Asian crisis, pegged currencies have given way to flexible exchange rates in many cases, increasing the risk of borrowing in foreign currency. The restructuring of corporations and banks has not progressed as expected in many Asian countries, and other problems (such as the situation with Daewoo) have resurfaced to dampen investor enthusiasm. Other emerging economies also have structural problems that have proven to be politically intractable, leading to difficulties with—or defaults on—international payments (as in Ecuador, Pakistan, and Russia). Policymakers are encouraging greater supervision of financial markets and banks and actively debating the notion of burden-sharing by private investors.

The outlook for official flows improves

Net official flows received by developing countries rose from $39 billion in 1997 to $48 billion in 1998, largely because of nonconcessional disbursements under rescue packages for countries most affected by the financial crisis. Preliminary data reported by donor countries from the Development Assistance Committee of the Organisation for Economic Co-operation and Development (OECD) show some welcome relief from the declining trend in net official development assistance (ODA) flows. Net ODA flows to developing countries and multilateral development agencies registered an increase of 8.9 percent in real terms in 1998, compared with a 21 percent cumulative decline from 1992 to 1997. The rise in net development assistance is the result in part of increased concessional flows to countries affected by the financial crises. But it also reflects increased awareness on the part of several donor countries of the need to sustain aid levels in order to achieve long-term development objectives.

Significant enhancements were made to the Debt Initiative for Heavily Indebted Poor Countries (HIPC) following a broad consultative review by the World Bank, International Monetary Fund (IMF), and the Cologne Summit. The enhanced initiative calls for deepening debt relief by targeting it to bring the net present value of debt down to 1.5 times export earnings (as of the decision point). This target is much more accommodative than the target in the original initiative (2.5 times exports, as of the completion point). The enhanced HIPC also lowers the thresholds for the fiscal burden of debt and offers faster debt relief.[11] Debt relief will now be initiated as soon as a country qualifies at the decision point as well as when it reaches the completion point. The number of eligible countries will also rise from 29 to 36 or more.

The new framework is expected to provide $27 billion in relief (in net present value terms)—more than double the $12.5 billion of the original framework. More than $5 billion will be provided on debts owed to the

World Bank. Relief on debt owed to the IMF is estimated at around $3 billion, which will be funded by a revaluation of a portion of the IMF's gold reserves. Donor countries have indicated that they will be stepping up their contributions to help fund debt relief under the enhanced initiative. In addition G-7 leaders agreed at the Cologne Summit to cancel their official development assistance debt, and some countries have announced that they could go beyond this to include some nonconcessional loans for qualifying HIPCs.

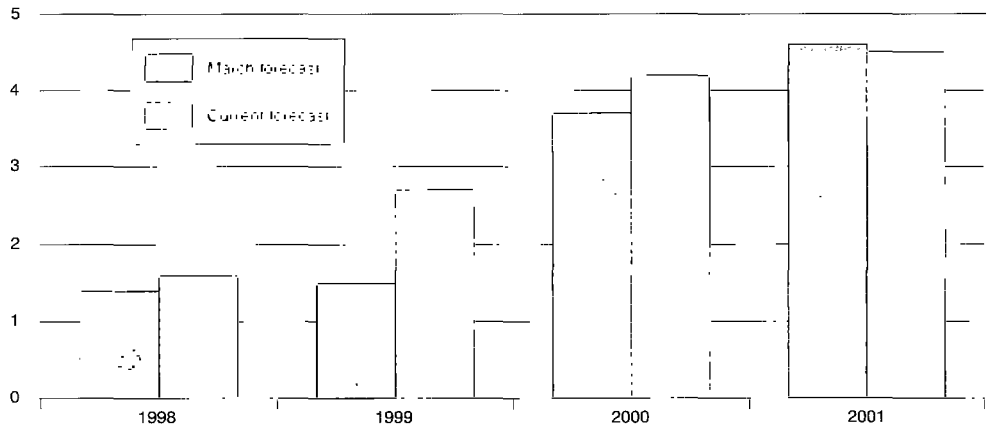
The outlook for developing countries in 1999–2001 suggests significant acceleration

Improvements in the external environment, favorable policy trends in emerging markets, and increasing confidence among both domestic and foreign investors should help spur growth in developing countries over the next two years. However, growth will vary markedly across regions (table 1.2 above). Growth of 2.7 percent for developing countries as a group is projected in 1999, accelerating to 4.2 percent in 2000, and further to 4.5 percent by 2001—still below the precrisis level in the non-transition developing countries (figure 1.7).

Capital flows to developing countries have remained very low compared with the levels that prevailed in the mid-1990s. But many emerging markets have seen a substantial loosening of liquidity conditions since the turn of the year, including lower domestic interest rates, rising equity prices, and in some instances, upward pressure on currencies. These improvements are highlighted in figure 1.8, which displays changes in an index of financial conditions—a simple average of the percentage change in interest rates, equity prices, and exchange rates—for a sample of emerging markets.[12]

Improvements in domestic investors' confidence reflect in part the more favorable global outlook (in contrast to the near-panic in world markets following the collapse of Russia and the hedge fund Long Term Capital Management last fall). As well, in many countries appropriate adjustment policies are being adopted, including measures aimed at recapitalizing banking systems.

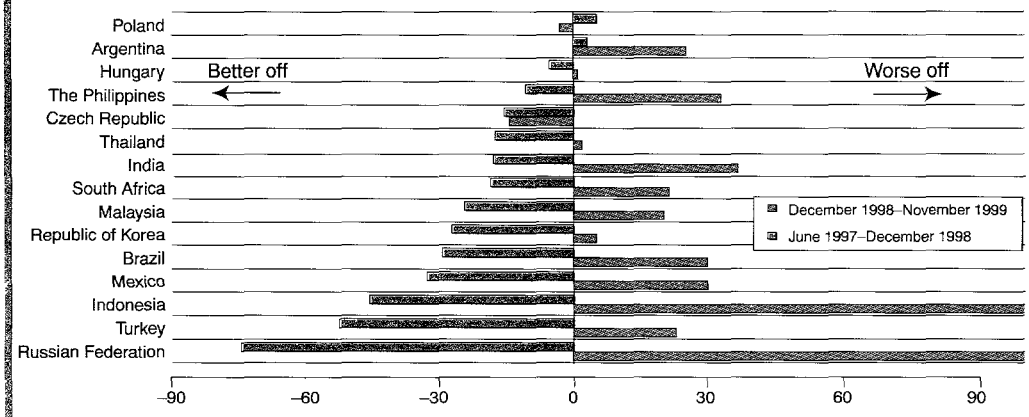
Figure 1.7 Real GDP growth for developing countries



Source: World Bank, *Global Development Finance 1999*; World Bank baseline forecast.

Figure 1.8 Index of financial conditions since June 1997

Mean of percentage changes in currency, stock market, interest rates



Source: World Bank staff estimates.

Important policy assumptions are built into the projections for each developing region:

- In East Asia declining interest rates and other measures to support domestic demand, including fiscal stimulus and steps to recapitalize banks, have helped restore investor confidence. These policy measures are expected to combine with improved export performance (based on the 20–25 percent real depreciation in currencies since the onset of the crisis and the incipient revival of world trade) to consolidate the recovery in the near term. However, a sustainable growth path requires further and more determined bank and corporate restructuring (see chapter 3).
- Fiscal consolidation will be essential in a number of Latin American countries in order to reassure investors, encourage a resumption of capital flows to the private and public sectors, facilitate exchange rate stability, and bring interest rates down further.
- Russia is expected to enhance its stabilization by making further progress on both the fiscal and inflation front in the near term. This scenario would improve prospects for several countries in the ECA region, particularly neighboring states of the CIS. Several Central and East European countries are working to meet EU accession criteria and are expected to adopt policies that will raise standards and institutions to EU norms, which will have positive spillover effects on the region.
- In the Middle East and North Africa, recent events—including the 1998 drop in oil prices (now reversed)—and the need to progress on implementation of Euro-Mediterranean Agreements—have created a sense of urgency with respect to growth and efficiency-enhancing strategies. As a result many countries are expected to intensify their efforts to promote both trade and financial integration. These efforts include more extensive privatization programs, the liberalization of capital markets, and various measures designed to strengthen the productivity of domestic industry in order to enhance export performance.

- In Sub-Saharan Africa structural reforms have become more widespread since the mid-1980s, including tax and public expenditure reforms, the restructuring and privatization of parastatals, trade liberalization, and deregulation of internal markets. Such reforms have worked to promote exports and investment in many countries. The result has been faster output growth already, especially when policy reform has been supported by debt relief.
- In South Asia the resolution of political uncertainties in many countries may help to sustain growth in the near term. Domestic business confidence in India is strong, and both major political parties are committed to a broad range of economic reforms. But the fiscal deficit remains a serious concern. The projections assume progress in macroeconomic stabilization and conflict resolution throughout the region

Near-term growth is expected to improve

East Asia. Although most East Asian economies experienced virtually no growth in 1998, GDP is projected to increase by 5.5 percent in 1999. This increase includes a dramatic turnaround for the five crisis economies, which should see growth rise from –7.9 percent to around 4.5 percent. Currency depreciation and the continued strength of the yen have contributed to strong export activity for the group. Stronger growth in Japan and intraregional trade are reinforcing this recovery. A supportive policy environment is beginning to generate gains in private consumption. Expectations for capital spending are less optimistic because of significant excess capacity, the widespread uncertainties associated with bad loans in the banking system, and the need for faster progress on corporate restructuring.

The economic problems in China have become more apparent. Consumer prices have been in a steady decline for some time. Consumer demand is weak (in part because of uncertain employment conditions), and inventories of unwanted goods are rising. The banking sector's weakness, which has grown more evident, is related to the continued poor performance of state-owned enterprises (SOEs). Extensive public investment projects have supported growth thus far, but the government's resources are relatively limited, and the fiscal expansion cannot be sustained indefinitely. After lagging through the first half of 1999, however, a combination of factors are now buttressing Chinese exports, including renewed growth in East Asia and continued import growth in the United States.

The outlook for 2000 and 2001 for East Asia is positive—6.2 percent GDP growth—with more balanced advances across final demand components and countries. With inflation in check, monetary policy will remain relatively loose, supporting consumer demand. Looser monetary conditions, the narrowing of the output gap, an emerging recovery of cash flow and improving banking balance sheets should lead to a modest recovery of investment activity, though the region is unlikely to see a return to precrisis investment rates in the foreseeable future. A pickup in world economic activity and strong intraregional linkages should support continued export growth. Imports will rise further, leading to a narrowing of presently large current account surpluses. Failure to pursue financial and corporate restructuring, however, could dampen investors' enthusiasm, possibly generating another bout of financial and exchange rate difficulties (see chapter 3). But East Asian economies are in a much better position for the near term than they were a year ago, with strong current account balances, much lower short-term external liabilities, and improved reserve positions.

Latin America. Output for the Latin America and Caribbean region has declined an estimated 0.6 percent in 1999, falling from a 2.1 percent advance in 1998, despite favorable growth performance in Mexico. Economic downturns deepened in many countries in the wake of the Russian crisis of August 1998. In broader terms, adverse terms of trade and a reduction in capital flows to the region (the

result of concerns about the fundamentals in several large countries) contributed to a recession in the last quarter of 1998. For some countries, particularly Brazil and Ecuador, the recession was the reflection of home-grown imbalances, though the global crisis affected timing and severity. But for other countries (Argentina, Chile, Colombia) the causal factors were tied more closely to the ongoing deterioration in the external environment. Although the financial contagion was much less than feared, the Brazilian devaluation at the beginning of 1999 was a further shock to the region. Prices of key commodity exports tumbled (especially for countries in Central America and the Caribbean), intraregional trade slowed sharply, and private capital flows declined further from their 1997 and 1998 levels.

Brazil has emerged from its January 1999 fiscal crisis and devaluation showing greater resilience than was envisioned six months ago. But growth in a number of other countries worsened as the deteriorating global environment finally took its toll, yielding on net only a marginal change in the region's previous growth forecast of –0.8 percent for 1999. Investor uncertainty has increased recently with the shift in monetary stance in the United States and changes in the political administrations in several countries in the region, especially Venezuela (in 1998) and Argentina and Chile in late 1999. The beginning of a modest recovery of growth in the region can be expected around the turn of the year and should reflect the improvement in the global outlook, a moderation of political uncertainties, and a modest recovery in anticipated capital flows for 2000. However, the small island states in the eastern Caribbean will face a difficult transition period from their potential loss of preferential access to the EU for banana exports.

Europe and Central Asia. The region has experienced widespread repercussions from Russia's August 1998 devaluation and debt default. Russia's sharp import compression has affected neighboring CIS countries and Turkey, and to a lesser degree Poland and other Central European countries. Russian output declines have been limited by gains in domestic production for import substitution, though not yet by a recovery of non-oil exports. However, export and government revenues have been greatly enhanced by the recent hike in oil prices. There has also been progress in debt restructuring, and improvement on the policy front has also paved the way for gaining an additional round of funding from the IMF. GDP is expected to register positive growth of 0.7 percent in the CIS countries for 1999, an improvement over the projected 5.5 percent fall anticipated in March. In addition to developments in Russia, the increase is further supported by the beneficial effects of higher petroleum prices on hydrocarbon exporters in the Caucasus and Central Asia. In contrast, growth in Central and Eastern Europe has slowed more than expected (to 1 percent), reflecting the earlier sluggishness of the EU economy and weakened import demand facing countries such as Poland, Hungary, the Czech Republic, and Turkey. Growth in Turkey has been particularly affected. Trade with Russia has collapsed, and the country's prospects have been dimmed temporarily by the effects of the earthquake in August 1999.

The war in Kosovo had substantial effects on the wider Balkan region. Refugees streamed into Albania and Macedonia. Both direct and transit trade in the area were disrupted, impacting not only those countries engaged in the conflict but also neighboring Romania and Bulgaria. Tourism receipts also dropped sharply, especially in Croatia. Growth in 2000 and 2001 is expected to recover markedly in Central and Eastern Europe, rising to 3.2 percent in 2000 and 4.3 percent in 2001, spurred largely by stronger growth in the EU. Among the states of the CIS the turnaround is expected to be more gradual, as political uncertainty in Russia before the December 1999 parliamentary and June 2000 presidential elections constrains the country's ability to address further debt restructuring and budgetary issues. Consequently, GDP for the region as a whole is anticipated to recover only gradually to 2.5 percent in 2000 and 3.3 percent in 2001.

Middle East and North Africa. The region has been positively affected by recent developments in oil markets. But it has also been negatively affected by slow growth in the EU—the major export market for the region's diversified economies. Some deceleration of growth from the 1998 rate of 3.2 percent is expected, and 1999 growth is projected to reach only 2 percent. Earlier declines in oil prices had a significant negative impact on oil-exporting countries, forcing governments to tighten fiscal policies, adjust or defend exchange rates, and fund higher external imbalances with foreign reserves and new borrowing (see chapter 4). The tightening of OPEC quotas in April 1999 led to higher oil prices, but restricted production (and export volumes), and this, combined with tighter fiscal constraints, has contributed to lower 1999 growth rates for oil exporters.

In the short term the sharp rise in oil prices in 1999 should continue to contribute to a recovery and begin to ease the financial shortfall. However, oil exporters still face a fiscal constraint and will need to exercise tight control on spending, especially on subsidies. Improved growth in oil exporters favors the non-oil exporting countries of the region that receive significant transfers in the form of worker remittances. (These transfers have declined as GDP growth falls in oil-exporting countries.) A notable positive trend, particularly among the Maghreb countries, is acceleration of privatization and restructuring programs that contributed to higher inflows of foreign capital, particularly in the form of direct investment. These reforms and a resurgence of growth in Europe in late 1999 and early 2000 should lead to solid growth in exports and stronger gains in private investment. Growth in the broader region is anticipated to rise to 3.2 and 3.5 percent in 2000 and 2001 respectively.

Sub-Saharan Africa. Despite continued improvements in political and economic fundamentals, GDP growth for 1999 has been revised downward modestly to 2.3 percent from the 2.5 percent anticipated in March. While stronger oil prices are benefiting a small number of countries, they adversely affect the terms of trade for most. Meanwhile low prices for non-oil commodities, poor weather, civil strife and turbulence related to the East Asian crisis (particularly affecting South Africa) have worsened near-term prospects for the majority of countries in the region. Recent performance falls well short of what is needed to make inroads against poverty, and per capita incomes will decline for a second successive year (–0.2 percent) in 1999.

At the same time, however, developments in 1999 augur well for near-term prospects, and growth is expected to rise to 3.1 percent in 2000. A pick-up in exports in 2000 and 2001 should set the stage for a modest recovery. This expectation is based on several factors, including higher prices for oil and other commodities, the recovery in East Asia, and reviving demand in the EU. Following a decline of 0.3 percent in 1998, merchandise export volumes are expected to rise by 3.8 percent in 1999 and 6.3 percent in 2000. Excluding South Africa and Nigeria, export growth for the region is projected to average 4.8 percent in 1999 and 2000.

More critical to medium- and long-term prospects, however, is the ongoing structural adjustment throughout the region, which has opened markets and had a major impact on productivity, exports, and investment. Many Sub-Saharan countries are likely to benefit from debt relief, allowing money to be spent on imports rather than on debt servicing. Of the 36 countries eligible for debt relief under the enhanced HIPC Initiative, 30 are in Sub-Saharan Africa.

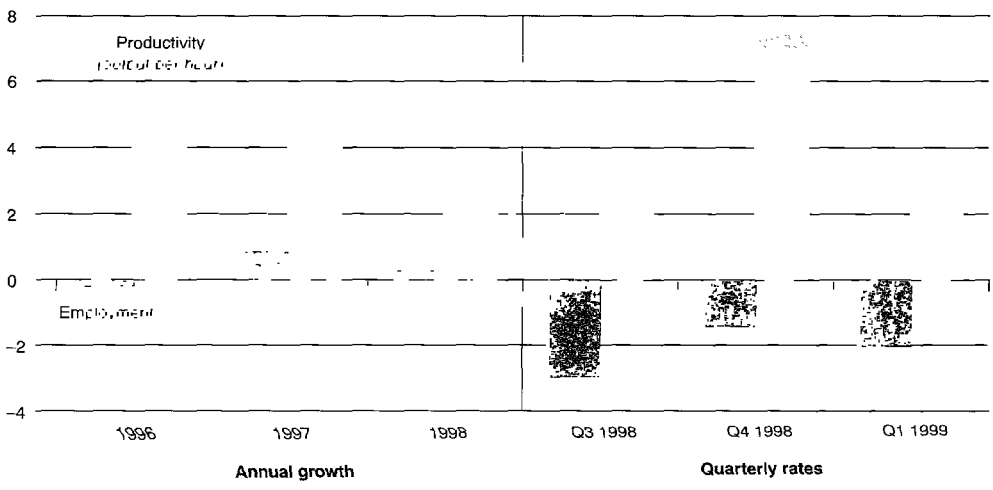
South Asia. Output gains in India have been better than anticipated in 1999, both in manufacturing and in agriculture. These gains, plus the fact that the region's largest country suffered few effects from the East Asian crisis, make it possible to upgrade projections by 1 percentage point in 1999 and 0.7 percent in 2000. Growth in the region is expected to accelerate to 5.4 percent in 1999 (from 5.1 percent) and to consolidate further in 2000,

largely because of developments in India. The direct effects of the East Asian crisis were limited to the region's smaller, more open economies. Bangladesh, Pakistan, and Sri Lanka shared in the global crisis during 1998–99, partly reflecting the weakness in world trade and commodity prices. However, in these countries, too, the economic outcome owed more to domestic than international factors. Fiscal and broader financial sector difficulties, sanctions, and the outbreak of hostilities in Kashmir affected Pakistan, while severe flooding and political uncertainty took a toll on output growth in Bangladesh. In the near term, all countries of the region will be adversely affected by the surge in oil prices, but they should benefit from a jump in external demand, especially in Europe and, more generally, in Asia.

Projections for growth in developing countries in the long term are lower

The disruptions to global economic activity, trade, commodity, and financial markets caused by the East Asian crisis are likely to have diminished by 2001, with world output growth trending toward 2.8 percent from 1.9 percent in 1998. But two issues that affect growth in developing countries remain. First, the external environment is projected to be somewhat less favorable than in the precrisis period and also more fragile—that is, it could deteriorate again. Second, the crisis has accentuated structural weaknesses in developing countries, especially with respect to the financial sector and the government balance sheet (or at least has led to a more realistic appreciation of the problems). Principally for these reasons, the long-term (2002–2008) forecast for growth in developing countries has been reduced to 4.9 percent from 5.2 percent (see table 1.7 for the last long-term projection, which was completed a year ago).[13] Even with this downward revision, the projected figures represent a significant increase from 1991–98 levels for developing countries as a group. However, this growth is fueled mainly by increased growth in the transition economies. Excluding the transition countries, developing countries' growth rates are projected

Figure 1.9 Growth of U.S. employment and productivity in manufacturing



Note: Quarterly growth rates are seasonally adjusted at annualized rates.

Table 1.7 World growth, 1981–2008
(annual percentage change in real GDP)

	Global Economic Prospects 2000							*Global Economic Prospects 1998/99*
			Estimate	Forecasts				
Region	1981–90	1991–98	1999	2000	2001	2002–2008	2001–2007	
World total	3.1	2.5	1.9	2.9	2.8	3.2	3.2	
High-income countries	3.0	2.3	2.0	2.6	2.5	2.5	2.6	
OECD countries	3.0	2.2	2.0	2.6	2.5	2.3	2.5	
Non-OECD countries	5.2	5.7	1.2	3.0	4.0	4.6	5.2	5.1
Developing countries	3.3	3.2	1.6	3.7	4.2	4.8	4.9	5.2
East Asia and Pacific[a]	5.1	5.8	0.1	5.5	6.2	6.2	6.1	6.3
Europe and Central Asia	2.7	−4.0	−0.2	0.3	2.5	3.3	4.0	5.0
Latin America and the Caribbean	1.6	3.0	2.1	−0.6	2.7	3.5	4.2	4.4
Middle East and North Africa	0.7	2.9	3.2	2.0	3.2	3.5	3.7	3.7
South Asia	5.7	5.8	7.1	5.4	5.5	6.3	5.1	5.5
Sub-Saharan Africa	1.8	2.5	2.4	2.5	3.1	3.4	3.6	4.1
Memo items								
East Asian crisis-5[b]	6.9	6.0	−7.4	4.4	5.2	5.1	5.1	5.2
Transition countries of Europe and Central Asia	2.5	−5.1	−0.5	0.8	2.1	3.1	3.7	4.8
Developing countries, excluding the transition countries	5.0	5.4	2.1	3.0	4.5	4.8	5.0	5.2

a. East Asia and Pacific includes the Republic of Korea.
b. Indonesia, Malaysia, the Philippines, the Republic of Korea, and Thailand.
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
Source: World Bank staff estimates, November 1999.

to decline from 5.3 percent in 1991–98 to 5 percent in 2002–2008.

The external environment

Long-term projections assume slightly stronger growth for the industrial countries—2.5 percent G-7 growth contrasted with 2.4 percent gains in earlier forecasts. Growth prospects for the United States and the Euro Area have been upgraded, but a more substantial downgrading of potential GDP growth in Japan will offset these increases.

United States. Productivity growth has picked up from 1 percent annually during the 1980s to 1.5 percent over the last five years, rising to 2.2 percent in 1998. In the manufacturing sector productivity gains have averaged 4.3 percent over the last three years—nearly double the 2.3 percent rate of the 1980s. Output per hour in the manufacturing sector rose by an annual rate of 7.5 percent in the fourth quarter of 1998 (figure 1.9). While the evidence on the sustainability of these advances remains open to question, it appears to justify a modest upgrading of long-term growth rates to 2.7 percent from the 2.5 percent rate estimated in *Global Economic Prospects 1998/99*.

Europe. Several factors suggest that growth may be considerably more robust than the 1.8 percent pace experienced during the 1990s, and the 2.7 percent long-term growth rate forecast for the Euro Area in last year's *Global Economic Prospects* has been revised

upward 0.2 percentage points. The volatility of European growth during the early 1990s, which was tied to the imbalances caused by unification of Europe's largest economy, has gradually faded. There has been considerable progress in inflation reduction and fiscal consolidation. Efficiency gains associated with the advent of the euro (reduced transactions costs, deeper financial markets, and industry consolidation to serve the larger market) are likely to emerge with time. Labor market and other regulatory reforms, in tandem with stronger investment in high technology—that will allow Europe over time to catch up to the United States in this area—could support further productivity growth. And despite substantial transition costs, the accession to the EU of five to ten Central and Eastern European countries will bolster reforms in the new entrants and increase the EU consumer market by some 100 million people.

Japan. The prospects for a resumption of rapid long-term growth in Japan appear dim. The ongoing efforts to overcome the economy's deeper-seated structural problems are unlikely to bear fruit for a number of years. Successive government stimulus packages during the 1990s have added to the debt burden but failed to spur growth: GDP has grown by an average of only 1.3 percent over the 1990s to date, compared with 4 percent in the 1980s. The fiscal balance has ballooned from a surplus of 2.9 percent of GDP in 1990 to an estimated deficit of 9 percent in 1999, increasing gross government liabilities relative to output by 40 percentage points to over 100 percent. In the medium term fiscal consolidation is unavoidable, especially in light of the increasing demands being made on the public pension system by an aging population. Recent progress in stabilizing the private financial sector and the large-scale corporate restructuring that will alleviate excess capacity and restore financial viability will need to continue. These adjustments are likely to result in a period of sluggish output growth in both the public and private sectors, and projections for trend growth have been revised downward by 0.6 percentage points to 1.9 percent.

Inflation in the G-7 countries is likely to remain low. Economy-wide efficiency gains in the United States and Europe, expectations for moderation in fiscal balances (in the latter, owing to constraints imposed by Maastricht criteria and the Stability Pact), and moderate activity in Japan should keep inflation below 2.5 percent in the medium to long term. In tandem with low inflation and diminishing pressure on capital markets from the public sector, real long-term interest rates are expected to decline gradually from their current high levels of 4–4.5 percent to near a secular average of 3–3.5 percent.

World trade growth. Despite stronger output gains in the United States and Europe, projections for world trade growth have not been revised markedly (an upgrade of 0.1 percentage point to 6.4 percent). The projections reflect a low growth profile in East Asia relative to precrisis trends and tighter external financing constraints on many emerging markets. These constraints may limit emerging markets' ability to import at rapid rates over an extended period.

Long-term trends in trade will also be shaped by the eventual outcomes of the prospective Millennium Round of the World Trade Organization (WTO), for which framework discussions commenced in late 1999 (box 1.2). Developing countries have substantially reformed their trade regimes in the last two decades and now have a much greater stake in advancing trade reforms than they have had in any previous round. Though the Asian crisis and its aftermath have had a profound effect on global trade and investment, it has not led to major reversals in trade policy. There is, however, little reason to be complacent. Significant trade imbalances still exist that could generate much deeper trade tensions if they are left unresolved. Moreover, accelerating the integration of the least-developed countries into the global economy will significantly enhance their prospects for long-term growth.

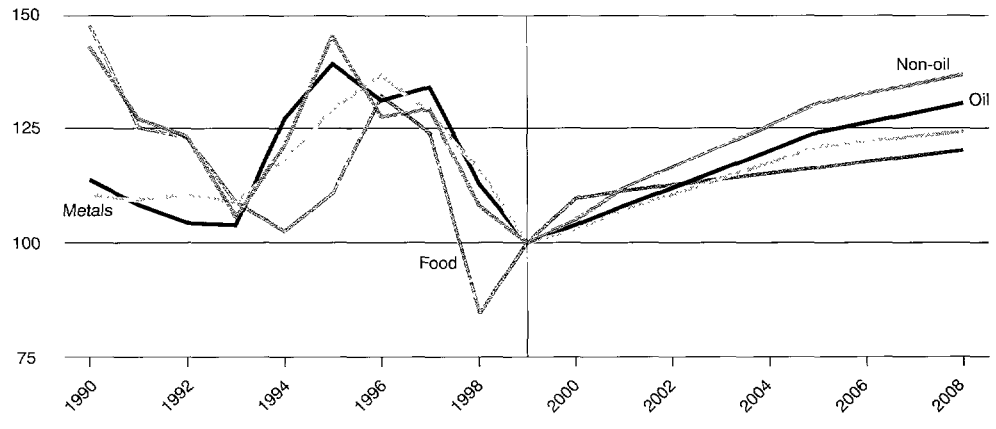
Commodity prices. The prospects for a sharp recovery in commodity prices are not bright. Non-oil commodity prices will increase only an average of 3 percent in nominal terms (0.5 percent in real terms) and are not likely to reach and maintain their 1995–96 peaks over the 10-year forecast period (figure 1.10). Increased demand in industrial countries will provide some support for higher prices, but supplies will continue to outpace demand. Technological improvements have reduced the production costs of many commodities, and currency devaluation in many important commodity-exporting countries will contribute to increased global supplies.

Even if OPEC continues to withhold output in the medium term to keep prices near $20/bbl, oil prices will be under almost constant downward pressure because of limited growth in the demand for OPEC's crude oil and increasing competition from both oil and non-oil energy producers. Production costs are expected to continue to decline because of further advances in technology (oil sands development, for instance), including those for competing fuels such as liquefied natural gas. This development effectively puts a ceiling on oil prices of around $20 per barrel for the foreseeable future.

Private capital flows. Through 2008 net private capital flows as a share of GDP are unlikely to exceed their precrisis highs of around 6 percent for middle-income developing countries ("emerging markets"). But there are a number of reasons private capital flows should recover from current levels. Technological improvements in communications and information processing, financial innovation, and deeper financial intermediation should continue to be propitious for international capital flows. A resumption of faster growth in developing countries will generate increased opportunities for investment and hence demand for capital. Prospects for medium-term improvement in the U.S. current account balance, sustained current account surpluses in developed Europe, and a decline in real interest rates should increase the supply of funds available for overseas investment, while Asian current account surpluses are very likely to decline. In the long term the global supply of savings should increase with the aging of industrial country populations.

Figure 1.10 Long-term trends in commodity prices, 1990–2008

Current U.S. dollar indices; 1999=100



Source: World Bank.

Box 1.2 Prospects for a new round of multilateral trade negotiations

The World Trade Organization (WTO) is on the verge of initiating a new round of multilateral trade negotiations. The last round—known as the Uruguay Round—was completed five years ago. While the resulting agreement marked some significant achievements, a wide range of trade-related issues remain to be discussed in a new round.

Past achievements and the role of developing countries

The Uruguay Round Agreement led to four broad achievements:

1. further reforms of traditional trade barriers, notably in textile and apparel, services, and agriculture;
2. the establishment of frameworks for dealing with less traditional trade barriers such as intellectual property rights and technical and sanitary standards;
3. creation of the WTO, with its strong dispute resolution mechanism and strict discipline; and
4. increasing influence of developing countries.[1]

The Uruguay Round Agreement was perhaps more important for improving the general framework for dealing with trade-related issues than it was for the quantitative reductions it made in trade barriers. And there has been some concern regarding backsliding—for example, "dirty tariffication" and back-loading of the Multi-Fibre Agreement (MFA) reforms. Moreover, developing countries, particularly the poorest, have been slow to implement many elements of the agreement owing in part to a lack of either human or financial resources. Replacing lost fiscal revenues, new reporting requirements, and required modifications of domestic regulations and procedures have proven to be a significant—and often overlooked—burden. However, progress has been made in some of the sectoral negotiations since the end of the Uruguay Round, with agreements in telecommunications, financial services, and information technology. An extension of the Information Technology Agreement has been postponed, along with the talks on liberalizing maritime services (in which developing countries have a considerable stake).

A built-in agenda for future negotiations. A potential agenda for the next round could easily include two dozen topics but will necessarily be pared down to a shorter, more manageable list. The so-called built-in agenda was essentially determined by the Uruguay Round Agreement. Specifi-

The rise in flows from international capital markets is likely to be gradual, however. The experience of the financial crisis and the shift from fixed to floating exchange rate regimes may encourage both borrowers and lenders to take a more cautious approach. Some developing countries are likely to move slowly toward capital account liberalization, and those with full convertibility are likely to implement prudential controls and regulations. Greater burden sharing with private investors reduces moral hazard and increases investor's risk perceptions with respect to investing in emerging markets. Stricter regulations for banks in the BIS-area after the losses of recent years, and diminished prospects of further deregulation of institutional investment in developing countries are also likely to dampen flows to emerging markets. Significant volatility in capital market flows can be expected, with the major risks arising from uncertainties in the world economic environment, particularly the performance of the U.S. economy and developments in Japan.

Policies are likely to be more encouraging for foreign direct investment as countries continue to vie for foreign capital and skills. Efforts are being made to promote long-term investments rather than short-term flows. Some countries, including Indonesia and Ko-

Box 1.2 (continued)

cally, it calls for a renewal of negotiations in the agricultural and service sectors. There is widespread agreement—though with some dissenting voices—that industrial tariffs will be included, both because they are still at significant levels in many sectors and regions and because including them offers greater potential for trade-offs that will lead to broader, deeper reforms. A future round will most likely concentrate on reducing trade barriers rather than on reforming the institutional framework set up in the previous round.

Reaching consensus on other agenda items may prove more difficult. Developing countries are particularly wary of entering into new agreements where the burden of implementation is likely to be heavy—for example, on customs valuation. They are also disinclined to open negotiations in areas that are perceived to introduce new barriers to subjects where obtaining agreement will be difficult to achieve for assorted reasons, for example, government procurement and state trading rules, trade-related investment measures (TRIMs), and trade-related intellectual property (TRIPS).

Developing country interests. The interests of developing countries generally lie in a few areas. Among these are:

- broad-based reduction in tariff and nontariff barriers, though with a more specific concern to limit the scope of escalating and peak tariffs;
- opposition to any backtracking on the MFA phase-out;
- obtaining credit for past unilateral liberalization; and
- ensuring commitments to greater movement of persons (so called "mode 4" liberalization allowing, for example, easier movement of construction-related labor services).

Of greater relative importance for the least-developed countries will be technical assistance, capacity building, implementation of existing agreements, erosion of preferences, and special and differential treatment. Differences are likely to appear at the sectoral level, most particularly in agriculture. Agricultural exporters, notably those belonging to the Cairns Group, will want to see further progress on agricultural trade reform. Food importers, however, will be concerned about the impact of reduced agricultural export subsidies on the terms of trade.[1]

rea, have improved existing frameworks or established new ones to promote direct investment and increase incentives for mergers, acquisitions, and corporate restructuring. Further progress can be expected in privatization programs. Easing ownership restrictions and opening up protected core sectors such as telecommunications and finance to foreign investors will further encourage foreign investment. In addition developing real financial and regulatory infrastructure should encourage long-term strategic investments. For these reasons, foreign direct investment is likely to increase in line with GDP growth.

Structural weaknesses

The financial crisis has unveiled profound weaknesses not only in the financial systems of developing countries but also in their ability to intermediate domestic savings and large foreign capital inflows. The crisis has contributed directly to the rise in bad loans, weakened thousands of individual firms, and created many direct and contingent government liabilities. The size of these liabilities is likely to increase before it starts declining. The fundamentals that support growth in some larger developing countries thus offer more cause for concern today than they did before the crisis.

Developing countries face more than near-term adjustment measures in their efforts to establish sound financial markets and a stronger underpinning for sustainable growth. Domestic saving and investment need to be encouraged. The fiscal costs of the crisis will need to be recovered, while at the same time resources will be required to boost the quality of human capital and physical infrastructure necessary to sustain growth, and institutions capable of implementing reforms will need to be strengthened. A review of these factors for several large developing countries has led to some downgrading (0.3 percentage points) of assessments for long-term growth from the projections prepared a year ago. These revisions range from a full percentage point in ECA, 0.5 points in Sub-Saharan Africa, and 0.4 points in South Asia to 0.2 points in Latin America. Compared with actual growth in the precrisis period, the largest reduction in growth prospects is in East Asia, while most other developing regions are expected to see faster growth (table 1.7 above).

Although Russia achieved stabilization more quickly than anticipated in 1999, recent dynamics in the fundamentals required to support long-term growth have deteriorated. Revisions for Sub-Saharan Africa take into account the likelihood of a more protracted path to achieving long-term growth potential in South Africa. The revised forecasts for Latin America are based on increasing evidence of "reform fatigue" in a number of countries and the need for longer-term fiscal adjustment in Brazil. More detailed information on the long-term forecasts for each region can be found in appendix 1.

Recent trends and prospects for poverty in developing countries

Recent trends. The picture that emerges at the turn of the century is one of stalled progress for the poor and of rising numbers of poor people in most developing regions. According to recent World Bank estimates (World Bank 1999), the number of people in the world living on less than $1 per day in 1998—1.2 billion—was virtually the same as in 1987. However, some changes did take place during this period. The number of poor rose to 1.3 billion in the early 1990s, but then declined to about 1.2 billion in 1996. The poor as a share of population and the number of people living on less than $1 per day had both declined substantially in the mid-1990s.[16] The global financial crisis halted this decline, and preliminary estimates for 1998 indicate that no further decrease has taken place since 1996 (tables 1.8 and 1.9).[17]

The largest change in trend occurred in East Asia and Pacific, the region at the center of the crisis. The number of people in poverty in the region had fallen sharply before the financial crisis, from 432 million in 1993 to 265 million in 1996. The crisis put an end to a long period of rapid growth and led to significant increases in poverty in the most affected countries (see chapter 2). While the crisis countries are now showing clear signs of recovery, it is too soon to assess the implications for poverty.

China—which accounted for 82 percent of East Asia's poorest in 1996—continued to grow through 1998. The number of rural poor fell from an estimated 358 million in 1990 to 208 million in 1997, an impressive achievement. However, survey data for 1998 show a slight increase—from 211 to 213 million—in the total number of poor in China between 1996 and 1998.

In South Asia, the incidence of poverty (the share of the population living in poverty) declined moderately through the 1990s, but not sufficiently to reduce the absolute number of poor. The actual number of poor people in the region has been rising fairly steadily since 1987. In India, home to almost half of the world's poor, the rate of poverty reduction appears to have slowed in the 1990s, particularly in rural areas. In addition, the gap between some of India's largest and poorest states and the richer states is growing. India's poorest states exhibit slow progress in human de-

Table 1.8a Population living below $1 per day in developing and transition economies, 1987–98

Region	Population covered by at least one survey (percent)	Number of people living on less than $1 a day (millions)					Headcount index (percent)				
		1987	1990	1993	1996	1998 Estimate	1987	1990	1993	1996	1998 Estimate
East Asia and Pacific	90.8	417.5	452.4	431.9	265.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Excluding China		114.1	92.0	83.5	55.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Eastern Europe and Central Asia	81.7	1.1	7.1	18.3	23.8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Latin America and the Caribbean	88.0	63.7	73.8	70.8	76.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Middle East and North Africa	[illegible]	[illegible]	[illegible]	4.9	5.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
South Asia	[illegible]	[illegible]	[illegible]	505.1	531.7	[illegible]	[illegible]	[illegible]	42.4	42.3	[illegible]
Sub-Saharan Africa	[illegible]	[illegible]	[illegible]	273.3	289.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total	[illegible]	[illegible]	[illegible]	1,304.3	1,190.6	[illegible]	[illegible]	[illegible]	28.1	24.5	24.0
Excluding China		[illegible]	[illegible]	955.9	980.5	[illegible]	[illegible]	[illegible]	28.1	27.0	26.2

Table 1.8b Population living below $2 per day in developing and transition economies, 1987–98

Region	Population covered by at least one survey (percent)	Number of people living on less than $2 a day (millions)					Headcount index (percent)				
		1987	1990	1993	1996	1998 Estimate	1987	1990	1993	1996	1998 Estimate
East Asia and Pacific	90.8	1,052	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Excluding China		294	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	42.8	45.0
Eastern Europe and Central Asia	81.7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Latin America and the Caribbean	88.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Middle East and North Africa	52.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
South Asia	97.9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sub-Saharan Africa	72.9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total	88.1	2,54[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Excluding China		1,79[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Note: The numbers are estimated from those countries in each region for which at least one household survey was available during the period 1985–98 (for many countries more than one survey was available). The proportion of the population covered by such surveys is given in the first column. Survey dates often do not coincide with the dates in the above table. To line up with the above dates, the survey estimates were adjusted using the closest available surveys for each country and applying the consumption growth rate from the national accounts. Using the assumption that the sample of countries covered by surveys is representative of the region as a whole, the numbers of poor are then estimated by region. This assumption is obviously less reliable in the regions with the lower survey coverage. The headcount index is the percentage of the population below the poverty line. Further details on data and methodology can be found in World Bank (forthcoming-a) and Chen and Ravallion (forthcoming).

velopment indicators, including health and education indicators; low growth rates, particularly in the agriculture sector; inadequate infrastructure; and weak and fragmented institutions. Based on experience, these states will not see much impact on poverty even with higher growth rates. If present trends continue, the bulk of the poor in these states will be unable to participate in future growth (Ravallion and Datt 1999).

The new World Bank estimates indicate that Africa is now the region with the largest

Table 1.9 Projected growth rates in real per capita private consumption and changes in Gini coefficients for 1999–2008

Region	Scenario A: Slow growth and rising inequality		Scenario B: Income growth	
	Growth rate (percent per annum)	Change in inequality (percent)	Growth rate (percent per annum)	Change in inequality (percent)
East Asia and Pacific	4.0	+10	4.5	0
Eastern Europe and Central Asia	2.7	+20	3.2	0
Latin America and the Caribbean	0.6	+10	1.7	0
Middle East and North Africa	0.4	+10	1.5	0
South Asia	2.4	+20	4.0	0
Sub-Saharan Africa	−0.1	+10	1.0	0

Source: World Bank.

share of people living on less than $1 per day, and prospects for improvement remain dim. While average growth rates rose during the 1990s in many African countries, they remain below levels sufficient to reduce the number of poor people. In other African countries economic growth remained low because of the proliferation of conflict, political instability, and, in some cases, adverse weather.

In Latin America and the Caribbean the poverty rate has remained roughly constant in the 1990s, despite the acceleration in economic growth in many countries in the mid-1990s, and the number of poor increased. However, while the incidence of income poverty (material deprivation as measured by per capita consumption) has not declined, social indicators have improved: adult literacy, life expectancy, access to safe water, and infant mortality are now at levels consistent with what would be expected given the region's level of economic development.

In Brazil poverty fell by about 30 percent in the two years following economic stabilization in 1994. Poverty indicators then rose in the aftermath of the Asian crisis. This negative trend continued after the Russian crisis, and will almost certainly have worsened during 1999. The most recent poverty measurements available from the monthly employment survey show that the headcount rate in metropolitan areas in February 1999 was 10 percent higher than before the onset of the Asian crisis. One-third of the gains in poverty reduction achieved after the *Real* Plan have been undone. Brazil has a significant number of social protection programs that provide some compensation for many of those affected by the crisis, but many of the most vulnerable, especially those in the informal sector, are not protected. The unemployment rate showed a worrisome increase, reaching, and now leveling off at, historically high levels of 7 to 8 percent since 1998, compared with 3 to 4 percent in 1993–96. Real wages, however, did not decline significantly until the first quarter of 1999.

In Central and Eastern Europe and Central Asia the indications are that the upward trend in the incidence of poverty has leveled off in line with the leveling off of the downward trend in GDP, although the estimates for 1998 are tentative. In the countries of the former Soviet bloc poverty rose markedly from 1990 to 1996. Chronic poverty is emerging as a vital concern in the region, because even in countries with a robust recent growth record the group of chronically poor appears to be growing.

Real GDP per capita in Russia collapsed in the 1990s, declining by 41 percent from 1990 to 1999. Furthermore, inequality—as measured by the Gini index—increased sharply from 0.24 to 0.39 from the late 1980s to the

mid-1990s (Rutkowski 1999). The number of people living in poverty rose dramatically as a result of these two forces. The profile of poverty also changed during the transition period, with large numbers of working and unemployed adults and their children joining the ranks of the "old poor" from before the transition (Klugman and Braithwaite 1998; Milanovic 1999).

Prospects for poverty reduction. What are the prospects for reducing poverty in the medium term? This section explores what might occur under different assumptions with respect to income poverty. The share of people who will be living on less than $1 or $2 per day in the future depends on how much per capita consumption levels will change and whether changes will affect people with different levels of consumption equally or will affect some groups more than others. For example, if average per capita consumption levels increase equally for all—the poor as well as the rich—then the share of those consuming less than the threshold will decline. However, if consumption levels increase for the rich only, then the share of the poor will remain unchanged. The processes that affect how changes in aggregate consumption levels are distributed across the population are not well understood, so forming a judgment on how many people will be living in poverty in the future is difficult.

The *World Development Report 1990* on poverty *(WDR 1990)* (World Bank 1990) made projections for 2000 of the proportions of the population that would be living on less than $1 per day in 1985 Purchasing Power Parity terms under the assumption that "the strategy recommended in the report gained wider acceptance" (World Bank 1990, 138). Under this assumption, the report forecast that the global poverty rate would fall from 32.7 percent in 1985 to 18.0 percent in 2000, representing a compound rate of decline of 3.9 percent per year. The Bank's latest estimates indicate a fall in the poverty rate from 28.3 percent in 1987 to 24.0 percent in 1998, implying a compound rate of reduction in poverty of only 1.5 percent per year. So the *WDR 1990* projections overestimated the subsequent rate of poverty reduction, although the report did state that "it would be possible to do somewhat better—or much worse" (p. 138).

Where were the *WDR 1990* projections wrong? In terms of the aggregate numbers, China and India have the greatest weight, and both experienced a slower pace of poverty reduction than anticipated, even though growth was actually higher than predicted. The main reasons were rising inequality in China and a discrepancy between growth rates in consumption as measured by the national accounts and by household surveys in India, with survey consumption growing much less than national accounts consumption, and consequently far less poverty reduction than expected.[18] In the rest of the world Central and Eastern Europe and the former Soviet Union experienced negative growth and rising inequality, while Latin America and the Caribbean, the Middle East and North Africa, and Sub-Saharan Africa experienced unexpectedly low growth.

The case of India is worth highlighting. During the 1990s the growth rates of consumption expenditure per person from the Indian National Sample Survey have been appreciably lower than implied by the consumption component of the national accounts. Possibly this captures actual developments (reflecting the underlying differences in the consumption concepts used by surveys versus national accounts). More likely it stems from data problems in one or both sources. For example, if survey data fail to capture growth in expenditures at the high end of the distribution, they underestimate growth in both average expenditure and inequality.

The scenarios for poverty in 2008 contained in this report follow a methodology similar to that employed in the *WDR 1990*, but the underlying assumptions incorporate the lessons learned from that experience. These scenarios are also based on survey information for many more countries: 96 compared with 22 at the time of the 1990 projections.

However, the projections should not be treated as forecasts, but rather as representing a plausible range of possible outcomes for poverty based on alternative assumptions about growth and inequality. Our understanding of the quantitative dynamics of changes in poverty and inequality remains incomplete (see the end of this chapter for a discussion of the uncertainties inherent in projecting growth). There are also large uncertainties about the relationship between growth and inequality and about changes in inequality because of the complexity of the forces at work. While most countries have experienced little change in aggregate inequality over time, this is generally the result of powerful countervailing forces. To take one area of interaction, most growing countries experience both a rise in the relative demand for skills and a rise in the relative supply of skills as education expands that can lead to small or negligible changes in inequality as these effects balance out.[19]

We develop two scenarios for the next decade. Scenario A—slow growth and rising inequality—entails little progress in reducing the total number of poor in keeping with the experience of the last decade. Scenario B—inclusive growth—tries to capture what is achievable if the right combination of policies and interventions leads to sustained growth without increases in inequality.

In scenario A all regions experience relatively low growth rates because of cyclical boom and bust episodes, and inequality increases. The recent experience of large volatility in growth rates in developing countries (see chapter 2), together with substantial near-term risks to the outlook, centered in the industrial countries, suggest that longer-term growth rates could be lower than projected in the base case discussed earlier, especially among the developing countries. This growth scenario combines elements of the near-term risk scenario—a "hard landing" for the U.S. economy and attendant spillover effects—with a pattern of medium-term recovery and subsequent relapse of global growth (table 1.10). The developing regions most adversely affected are those with a high dependence on commodity exports (the Middle East and North Africa and Sub-Saharan Africa) or a reliance on foreign capital flows (Latin America and the Caribbean). Moreover, although less exposed to external developments, fiscal and financial difficulties in China and India are heightened, spurring remedial policy responses that dampen growth further during the downturns.

Scenario A also assumes that inequality increases from current levels (current levels are based on the distribution of consumption from the latest available surveys for each country). While inequality has shown a marked recent tendency to increase in the transition economies, this has not been true of all developing countries: inequality has increased in some, but has fallen in others. However, scenario A captures the widespread concern about upward pressure on inequality across the developing world by building in rising inequality in varying amounts by region. The Gini coefficient is assumed to increase by 10 percent in all regions except Central and Eastern Europe and the former Soviet Union and South Asia, where it increases by 20 percent. In Central and Eastern Europe and the former Soviet Union this is consistent with recent experience (although the increase in inequality appears to be leveling off).[20] In South Asia the 20 percent increase is in keeping with the rising inequality observed in some countries in the region, such as Bangladesh. For India we assume that the weaker effects of growth on poverty observed in the 1990s also stem from rising inequality that the survey data do not fully capture. Under this scenario, inequality in South Asia reaches the levels found in regions of medium inequality, such as East Asia and the Middle East and North Africa. Latin America and the Caribbean and Sub-Saharan Africa remain the two regions with the highest average inequality. Note that this scenario implies increasing inequality also in regions with very low or negative growth rates (Latin America, the Middle East and North Africa, and Sub-Saharan Africa). As the recent example of Russia indicates, the social implica-

Table 1.10a Population living below $1 per day in developing and transition economies for 1998–2008 under scenarios of slow growth and rising inequality (Scenario A) and inclusive growth (Scenario B)

	Number of poor (millions)			Headcount index (percent)		
	1998	2008		1998	2008	
Region	Estimate	Scenario A	Scenario B	Estimate	Scenario A	Scenario B
East Asia and Pacific	278.3	[illegible]	[illegible]	15.3	[illegible]	[illegible]
Excluding China	[illegible]	[illegible]	[illegible]	11.3	[illegible]	[illegible]
Eastern Europe and Central Asia	24.0	[illegible]	[illegible]	5.1	[illegible]	[illegible]
Latin America and the Caribbean	[illegible]	[illegible]	[illegible]	15.6	[illegible]	[illegible]
Middle East and North Africa	[illegible]	11.4	[illegible]	1.9	[illegible]	[illegible]
South Asia	[illegible]	[illegible]	[illegible]	40.0	[illegible]	[illegible]
Sub-Saharan Africa	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total	[illegible]	[illegible]	[illegible]	24.0	[illegible]	[illegible]
Excluding China	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Table 1.10b Population living below $2 per day in developing and transition economies for 1998–2008 under scenarios of slow growth and rising inequality (Scenario A) and inclusive growth (Scenario B)

	Number of poor (millions)			Headcount index (percent)		
	1998	2008		1998	2008	
Region	Estimate	Scenario A	Scenario B	Estimate	Scenario A	Scenario B
East Asia and Pacific	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Excluding China	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Eastern Europe and Central Asia	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Latin America and the Caribbean	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Middle East and North Africa	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
South Asia	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sub-Saharan Africa	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Excluding China	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Note: Scenario A—*slow growth and rising inequality*—entails little progress in reducing the total number of poor, in keeping with the experience of the last decade. Scenario B—*inclusive growth*—tries to capture what is achievable if the right combination of policies and interventions leads to sustained growth without increases in inequality.
Source: World Bank.

tions of rising inequality in the context of worsening standards of living are much more worrisome than if they are accompanied by a general increase in living standards.

Scenario B uses the growth forecasts in the base case discussed earlier. The base case posits a fairly smooth growth path for both industrial and developing countries, beyond near-term recovery from the recent episode of financial crises, toward potential growth rates by the end of the 10-year forecast horizon. Contrary to current concerns, scenario B assumes that inequality remains unchanged, as has been the case in many countries over long periods, and even in the countries of the former Soviet Union recent evidence suggests that

inequality is stabilizing. Thus the scenario describes what could be achieved if countries adopted policies and interventions that fostered inclusion, so that all benefited equally from growth. (See box 1.3 for more detail on the assumptions underlying the two scenarios.)

The assumptions underlying the two scenarios are reported in table 1.10. Tables 1.8 and 1.10 show the resulting poverty projections for $1 and $2 per day. For ease of reference, table 1.11 reports population figures.

The results of the two scenarios are very different. Under scenario A the number of people living in poverty would remain virtually unchanged, as in the experience of the past decade. In 2008, 1.2 billion people would still be living on less than $1 per day. The regional composition, however, would change considerably. The number of poor in Sub-Saharan Africa would increase dramatically from 291 to 406 million people—almost 52 percent of the region's population—and numbers would also increase elsewhere except in East and South Asia. Similarly, more than 2.7 billion people would still be living on less than $2 per day, more than a billion of whom would be living in South Asia alone, with about 600 million more in Sub-Saharan Africa and 400 million in China. In Latin America, Central and Eastern Europe, and Central Asia, both the incidence of poverty and the numbers of poor would increase, while in the Middle East and North Africa a minor reduction in incidence would be inadequate to reduce the numbers of poor.

Scenario B yields a brighter picture. The difference is large: the number of people living on less than $1 per day declines to about 700 million by 2008, and the number of those living on less than $2 per day to about 2.3

Box 1.3 Technical discussion of assumptions

This box provides comments on the assumptions underlying the poverty projections. First, the projections do not allow for any correlation between growth rates and changes in inequality, for example, higher inequality accompanying higher growth. Experience does not suggest that a statistically significant correlation exists across developing countries as a whole (Ravallion and Chen 1997). In reality, most countries have grown without experiencing any long-term increase in inequality. The *World Development Report 2000/01* (World Bank forthcoming-b) will explore in more depth the linkages between inequality and growth.

Second, the projections are based on an assumption about the precise way inequality changes, namely, that the distribution of per capita expenditures (the Lorenz curve) shifts by an equal proportion at all points. This is only one way in which inequality may change. For example, an increase in inequality may affect only the nonpoor, in which case the poor would maintain their share of income, and poverty would decline just as it would with no change in inequality. Poverty projections can be sensitive to the way inequality changes.[1] This can be a serious problem when the poverty rate is low, because estimates at the tails of the distribution can naturally be quite sensitive. For the bulk of the developing countries, however, the poverty rates are a safe distance from the tails.

Third, the impact of changes in growth and inequality on the incidence of poverty is projected using a model of the distribution of consumption fitted to the data for each country at each base date, rather than using fixed growth and inequality elasticities of poverty.[2] Researchers have found that these elasticities can change substantially over time, and they vary from country to country; thus, the model used lets the elasticities vary over time and between countries consistently with the data. For example, the elasticity of poverty to growth tends to be lower (in absolute value) in high-inequality countries (Ravallion 1997). The rate of poverty reduction at any given rate of growth will thus be lower in countries with initially more unequal distributions, and it will tend to fall when inequality increases.

Table 1.11 Population estimates and projections, 1998 and 2015

Region	Population (millions)	
East Asia and Pacific	[illegible]	[illegible]
Excluding China	[illegible]	[illegible]
Eastern Europe and [illegible]	[illegible]	[illegible]
Latin America and [illegible]	[illegible]	[illegible]
Middle East and N[illegible]	[illegible]	[illegible]
South Asia	[illegible]	[illegible]
Sub-Saharan Africa	[illegible]	[illegible]
Total	[illegible]	[illegible]
Excluding China	[illegible]	[illegible]

billion (a smaller decline than in the number of those living on less than $1 per day). However, even under the more optimistic assumptions underlying this scenario, progress in Latin America and the Caribbean, and especially in Sub-Saharan Africa, is inadequate to make significant inroads into the numbers of the poor, with a continued increase in numbers in Sub-Saharan Africa in particular.

A comparison of the two scenarios illustrates the high degree of uncertainty about whether the future pattern of development will be accompanied by serious progress in reducing poverty and the significant risk that the international development target for reducing income poverty will not be achieved (see box 1.4). In addition, the range of what might reasonably occur is even larger than portrayed. One could argue that if structural and social problems are not effectively tackled in South Asia and East Asia the relatively robust growth now forecast under the more pessimistic scenario would be reduced further. However, based on experience from across the developing world, more rapid growth and reductions in inequality are, in principle, achievable in Latin America and the Caribbean and Sub-Saharan Africa, as well as elsewhere.

The fundamental message of the scenarios is the centrality of effective public action at the international and country levels to develop the institutions and policies that will bring about inclusive growth. The downside risks are devastating for the prospects of millions of people in the developing world, those now living in desperately poor conditions; those who would be born into a life of poverty; and those at risk of falling into poverty because of the national, local, and personal risks that will certainly persist.

What policies and interventions could lead to a pattern of rapid and equitable growth? This is one of the central topics of the forthcoming *World Development Report 2000/01* (World Bank forthcoming-b) on poverty and development and the issues can only be touched on here. While significant uncertainty surrounds the quantitative dimensions of future changes in poverty, we know a great deal about the kinds of public action that are effective in achieving inclusive development. At the international level measures to ensure steady growth in demand for products produced by the developing world are crucial. This can be fostered through sustained growth in the industrial countries; opening of trade, especially in agriculture, but also in other labor-intensive activities; actions that reduce volatility; and, of great importance for low-income, aid-dependent countries, the effective implementation of an enhanced HIPC Initiative within the framework of an overall poverty-oriented program of international assistance.

At the national level, rapid inclusive growth requires institutions and policies that both encourage high levels of private and public investment to create jobs, services, and the infrastructure necessary to expand opportunities for the poor and leads to gains in their human and physical assets. Examples are policies that reduce disparities in growth rates between urban and rural areas by fostering the development of the rural nonfarm sector, policies that ensure access to good quality education for all and an equitable distribution of productive assets such as land, measures that tackle the economic and physical insecurity that the poor face, and policies that

foster mechanisms that give a voice to the poor at the local level and ensure that formal institutions respond effectively to their demands.

Many observers would judge that India, for example, which is central to the global picture of poverty, is vulnerable to pressures for rising inequality even, or perhaps especially, if it undergoes rapid overall growth. For structural and institutional reasons the poor may be particularly ill-equipped to participate in such growth, notably because of low levels of education and health, and because many are living in states with weak institutions, a heritage of distorted policies, and complex and deep social divisions. To include the poor in the growth process, the government would have to confront the large differences between rapidly growing and laggard states and the dismal state of the education system and other public services, especially in the poorer states, and ensure that local elites did not capture decentralization processes. In China the government would have to confront poverty in the more backward regions and among minority groups. If equitable growth were achieved, the number of poor people in South Asia would be cut by more than half and in China to a fourth of current levels.

As noted earlier, in Sub-Saharan Africa and Latin America even the combination of a smooth transition to potential growth and no increase in inequality in scenario B would not lead to a reduction in the number of the poor. Faster growth rates and a reduction in inequality would be needed. In Latin America a reduction in inequality of the order of 10 percent could reduce the number of people living on less than $2 per day from 184 to 142 million. In Sub-Saharan Africa that would not be sufficient: a decline in inequality of 10 percent or more and an increase in growth rates of 20 percent or more above the assumptions of scenario B would be needed just to keep the number of poor people constant.

If East Asia and South Asia achieve the rates of growth and changes in inequality explored above, the regional composition of poverty would change markedly, with a large rise in Sub-Saharan Africa's share of the world's poor.

Note that we have only examined the implications of the expected growth rates for the total number and share of the income poor. This hides many issues. Even when the aggregate poverty rate is falling, there will typically be both losers and gainers among the poor, reflecting heterogeneity in the circumstances of poor people. Even when the incomes of poor families are rising rapidly, they may not be able to get adequate health care or schooling for their children, because not enough of the economy's growth is being used to improve key public services, with further implications for the sustainability of the income poverty reduction. Conversely, even with slow growth in income poverty, effective public action can result in gains in other dimensions of well-being. The results presented here give us a broad picture, but more detailed microeconomic analysis is needed to understand such diverse impacts and complete the overall picture of how the living conditions of the poor are evolving.

Risks to the forecast and a low-case scenario

In light of the volatility of the international environment, the macroeconomic forecasts discussed above are subject to various risks. An analysis of the forecasting errors that occurred in relation to the onset and eventual depth of the crisis in East Asia illustrates the significance of these risks in an environment of deeper financial integration (box 1.3). A low-case scenario is developed to highlight the principal risks attached to the baseline forecast. The potential for economic disruptions due to the "millennium bug" is discussed in box 1.4.

Recent signs of recovery from the global economic crises of 1997–98 are encouraging but obvious vulnerabilities remain. Asia is beginning to recover, but its structural weakness persists. Latin America is still in recession, and several crisis countries remain exposed

Box 1.4 Can the international development target for reducing income poverty be achieved?

The international development target for income poverty, one of the targets of the International Development Goals, is to reduce the proportion of people in absolute poverty by half between 1990 and 2015.[1] At a global level, this is interpreted as reducing the share of people living below $1 per day (at the national level using national poverty lines would be appropriate). The projection exercise undertaken for this report does not explicitly assess the achievability of this target (see Demery and Walton 1998). However, the implications of the scenario exercise are illustrative. Under a scenario with a plausible, but pessimistic, range of assumptions on growth and inequality changes (scenario A), the world would not be on track to achieve the target. Only East Asia and Pacific (under the assumptions of relative fast growth in that region) would extend its great gains for the 1990s and clearly reach the goal. By contrast, if the scenario of more rapid and inclusive growth were to occur (scenario B), the target could be also be achieved in South Asia and in the world as a whole (driven by the potential gains in Asia), but neither Latin America nor Sub-Saharan Africa would be on track to reach the target. As noted, these findings are not predictions, but are intended to underline the centrality of achieving inclusive development in all countries and the magnitude of the challenge in regions with weaker prospects, especially Sub-Saharan Africa.

to a sudden change in sentiment. The most likely global scenario involves an upturn in growth for both industrial and developing countries over the next few years. But the underpinnings of growth, especially in the developing countries, remain fragile. Capital flows to emerging markets continue to be scarce and expensive. In such an environment, the prospective unwinding of large imbalances in the industrial countries present the clearest potential risks for these projections. Chief among these risks are the consumption boom (which is being driven by the stock market) and widening external deficit in the United States, and the continuing uncertain outlook for Japan.

Table 1.12 World, industrial, and developing countries in the low-case scenario
(annual percentage change)

	Estimate	Low-case scenario			Base-case scenario		
Indicator	1999	2000	2001	2002	2000	2001	2002
Real output (following adjustment)							
World	2.0	1.2	1.2	2.4	2.8	2.8	3.0
G-7 countries	2.6	1.1	0.4	2.2	2.4	2.1	2.4
Developing countries	2.7	-1.1	2.4	4.1	4.2	4.3	4.8
Sub-Saharan Africa	2.3	2.0	2.4	3.1	3.1	3.4	3.4
East Asia	5.3	4.1	4	6.4	6.2	6.2	6.2
ASEAN-4[a]	1.6	2.4	2.3	3.6	4.4	4.8	5.2
South Asia	5.4	3.4	3.4	4.6	5.3	5.3	5.3
Europe and Central Asia	0.3	1.0	2.3	3.0	2.5	2.7	3.6
Latin America and the Caribbean	-0.6	-0.1	0.3	4.1	2.7	3.3	4.4
Middle East and North Africa	2.0	1.4	2.1	3.3	3.2	3.3	3.6

a. Indonesia, Malaysia, the Philippines, and Thailand.
Source: World Bank staff estimates, November 1999.

Box 1.5 Failing to forecast the severity of the East Asian crisis [24]

Much has been written about the failure to predict the outbreak of the East Asian crisis, but the virtually universal failure to anticipate the severity of the crisis once it had erupted may have been an even greater shortcoming. This section attempts to identify the main sources of error in World Bank forecasts completed at the end of 1997, when the crisis had already spread throughout Southeast Asia and Korea. These forecasts mesh together views developed by regional economic specialists with a more systematic large-scale global macroeconomic model. A significant portion of the failure is assigned to the inadequate representation of financial markets in macroeconomic models, whether explicitly formulated or representing the way economists interpreted events.

A January 1998 analysis of the likely macroeconomic consequences of the financial crisis captured the direction of change in most countries and was able to anticipate some of the main features of the subsequent world crisis. But it badly missed the magnitude of change across a number of important macroeconomic dimensions (see table below). Chief among these were:

- the extent of the decline in domestic demand, especially the massive drop in investment;
- the unexpectedly severe 18 percent decline in import volumes;
- weaker growth in export volumes and the sharp decline in dollar export prices, which led to overestimation of export values expressed in dollars; and
- the large shift to current account surplus (the expectation that they would come to near balance in 1998 turned out to be widely off the mark).

Several of the crisis countries had enjoyed a virtually uninterrupted period of growth (in the 6–8 percent range) for nearly 30 years. Thus, a forecast that GDP would decline, albeit modestly, rep-

Analysis of forecast errors for 1998, East Asia-5

	Forecast	Actual	Difference
GDP growth (percent)	–0.5	–7.5	–7.0
Domestic demand	–6.0	–15.0	–9.0
Total investment	–13.5	–31.3	–17.8
Exports GNFS volume[a]	18.0	10.6	–7.4
Imports GNFS volume[a]	–0.8	–18.0	–17.2
Current account balance *(billions of U.S. dollars)*	7.3	66.2	58.9
Percentage of GDP	0.8	10.8	10.0
Merchandise exports *(billions of U.S. dollars)*	392.5	329.6	–62.9
Merchandise imports *(billions of U.S. dollars)*	362.8	268.8	–94.0
Balance of trade *(billions of U.S. dollars)*	29.7	60.8	31.1
Export price in U.S. dollars *(percent)*	–5.9	–15.8	–9.9
Import price in U.S. dollars *(percent)*	1.2	–8.2	–9.4
Terms of trade *(percent)*	–7.0	–8.3	–1.3

a. GNFS — goods and nonfactor services.
Source: World Bank staff estimates.

Box 1.5 (continued)

resented a serious deviation from the trend growth rate. It is clear in hindsight that the assessments failed to incorporate some important features of the Asian economies and of the channels for transmitting the crisis to countries both within and outside the region. The forecast errors may be traced to three interrelated factors:

The interactions of foreign credit and the domestic financial system. The extent of the reversal of capital flows and the financial panic induced by fears of a currency devaluation were not adequately anticipated. Even if they had been, the implications of these large changes in the corporate and household balance sheets on investment and consumption would not have been easy to quantify. Thus the profound effects of the credit squeeze were not predicted. Curtailment of working capital and export credit—which were not reflected in the model—appear to have contributed to the muting of the export supply response.

Spillover effects. The extent and rapidity of spillover effects from Thailand to neighboring countries and Korea contributed to underestimates of the depth of the recession in general and the weaker than expected performance of exports in particular. The mechanisms through which some of these spillover effects affect international financial markets are not clearly understood, and they are not modeled beyond the standard linkages through international trade, prices, and interest rates. Even where bilateral trade linkages were small, the Thai devaluation was seen as a warning that countries in similar position could be hit.

The regional downturn. First, in a region in which 50 percent of trade is conducted among regional partners (including Japan), the simultaneous downturn in important export markets and currency devaluation offset some of the anticipated boost to competitiveness and export growth. Second, the extent of the decline in dollar-based export prices from the region placed additional constraints on dollar revenues, pushing more adjustment of the current account to the import side. Third, despite renewed uncertainties, Japan was anticipated to grow at more or less 1 percent in 1998, when in fact GDP contracted by almost 3 percent. The recession in Japan is estimated to have resulted in a swing to the negative of about 5 percentage points in export growth for the five East Asian crisis countries.

A heuristic decomposition of GDP growth forecast errors, 1998

(percent)

	Thailand	Malaysia	Rep. of Korea	Indonesia	Philippines
GDP growth forecast error	–4.5	–10.4	–6.0	–12.3	–3.6
Effects of Japan recession	–0.8	–1.5	–0.5	–0.8	–1.0
Effects of regional downturn	–1.0	–2.8	–0.5	–0.8	–2.2
Terms of trade *(percentage of GDP)*	–0.7	–0.5	–1.0	–0.5	–0.1
Residual effects	–2.0	–5.6	–4.0	–10.2	–0.3
Memo items					
Proportion explained by Japan, regional downturn, and terms of trade	55	45	33	17	90
Proportion attributable to balance sheet and further contagion effects	45	55	66	83	10

Source: Dadush, Dasgupta, and Wolf forthcoming.

Box 1.6 The possible impact of the Y2K bug on developing countries

One risk to the short-term forecast is the potential impact of the Y2K bug, a computer malfunction that may affect date-sensitive computer programs. For two decades computer programmers used only two digits to refer to calendar years. This practice saved precious memory and increased processing speed but made many programs susceptible to failure in the year 2000, since computers might interpret the digits "00" as 1900 rather than 2000. This problem could have a drastic impact on operations supported by computers, causing anything from the transmission of incorrect data to the complete collapse of essential systems. The actual provision of critical services such as power, water, and telecommunications is not very dependent on dates, and these services were the first targets of remediation efforts. Severe interruptions in these areas are not likely. Problems are more likely to occur in support operations (such as billing and repair systems) that could require time-consuming repairs and degrade services over time.[1]

Governments and private sector firms in the industrial countries have made extensive efforts to correct affected software programs and imbedded chips, and several recent papers report a low probability of major disruptions in economic activity in the new year.[2] The United States may have resolved nearly all Y2K problems in financial institutions, electric utilities, aviation, telecommunications, and the federal government. However, problems remain in local government, health care, education and small businesses.[3] Similarly, most of the industrial countries report that by December 1999 Y2K related problems will be fixed in most sectors, particularly the key sectors of finance, energy and air transport.[4] However, the International Y2K Cooperation Center reports that errors in business operations (such as in billing) may cause backlogs and delays in operations and increased business costs. Forecasts of the impact of the Y2K bug are subject to considerable uncertainty, given the immense numbers of systems affected, the difficulties in finding all potential problems and in testing systems that have been fixed, and the inevitable reliance on self-reporting rather than independent verification.

Many alternative scenarios for global growth and financial flows are possible. An extreme yet plausible "downside" case illustrates potential changes in the financing requirements of developing countries within a global environment of crisis—triggered in this case by developments in the industrial countries.

One potential scenario envisages continued rapid growth in U.S. domestic demand over the remainder of 1999 and early 2000, fuelled in large part by equity market gains. In the context of tight labor markets, global recovery, and firming commodity prices, this growth clearly signals that inflation will accelerate. In the early months of 2000, the Federal Reserve responds assertively to the potential upturn in inflation by increasing the Fed Funds rate by 100 basis points. Market participants overreact in their reassessment of equity valuation levels in light of changes in the prospective growth environment, and equity prices fall by some 30 percent. In a second and ensuing response, the Federal Reserve lowers rates by some 200 basis points to restore market confidence, and the dollar falls by 15 percent against major partner currencies. In consequence:

- These developments are transmitted rapidly to equity markets, and the effect on economic activity in Europe and Japan is immediate. Wealth effects in all three blocs dampen consumption growth, especially

Box 1.6 (continued)

Already there are indications that the millennium bug is having some impact on financial markets, and developing countries' access to external capital has been adversely affected as the year end approaches. The markets are pricing in a liquidity shortage in the new year, since forward curves anticipate a rise of 50 basis points in the U.S. dollar LIBOR in January 2000. This situation may reflect the potential for Y2K disruptions or concern that public anxiety over the millennium bug could increase the demand for cash.

Remedial measures in developing countries appear to be less complete. Awareness of the risks posed by the millennium bug has come later than in industrial countries. In the last two years governments in a few of the larger countries and the World Bank (through the *infoDev* program) have had some success in increasing awareness of the Y2K problem in the developing world. Developing countries are less reliant on computer systems than industrial countries, but they have devoted fewer resources to fixing their systems, in part because workers with the required expertise are scarce, and many have been attracted by booming demand for their skills in industrial countries.

In August 1999 most of the 72 developing countries responding to questions on Y2K readiness reported only limited vulnerability.[1] All of these countries reported that Y2K-related problems would be resolved by December 1999. The U.S. State Department has carried out an evaluation of potential Y2K problems in 106 developing countries (which represent 87 percent of total GDP in the developing world), focusing on the prospects for key sectors. Countries accounting for 32 percent of the sample GDP had a low risk of economic disruptions, countries with 57 percent of sample GDP moderate risk, and countries with 10 percent of sample GDP high risk.[2] The regions with the most countries with high risk were ECA and Sub-Saharan Africa. By contrast several of the Latin American countries had low risk, and only a few moderate risk. It is impossible to translate these subjective impressions of the risk of economic disruptions into plausible forecasts of the impact of Y2K on developing countries' growth. The risks of Y2K causing an economic downturn in developing countries as a group appear to be remote, but nevertheless it is prudent to anticipate significant problems with the new year.

in the United States, and investment slows sharply.[27] The incipient European recovery is muted, while Japan's lack of fiscal headroom leads to a relapse into recessionary conditions. Growth in the G-7 falls 1.8 and 1.7 percentage points below the baseline in 2000 and 2001 respectively, while G-7 import demand drops 4 and 3.5 percentage points below base in the same years.

- For developing countries, effects are transmitted through a further slowing in export market growth, declines in oil and non-oil commodity prices because of deteriorating demand conditions, and increased risk aversion in financial markets. Risk aversion reduces emerging markets' access to financing from sources other than direct investment. For low- and middle-income countries, these developments open an ex ante financing gap—that is, an increased need for additional financing to maintain domestic demand in the face of adverse external shocks. That need peaks at some $100 billion in 2001.[28] Additionally, a simulation of the supply side of international capital markets, using the assumptions of the low-case scenario, suggests a *reduction* in flows of $75 billion versus baseline levels.[29] In effect, the imbalance between supply and demand in external financing for developing countries widens to $175 billion against the baseline.

Although policy responses to these external circumstances would vary widely across developing countries depending on current conditions, most countries would be obliged to adjust through a compression of domestic demand and imports. An assumed closure of the financing gap on the demand side (almost $100 billion) results in a loss of 2 percentage points of growth for developing countries as a group in both 2000 and 2001, implying a loss of nominal GDP of some $260 billion. Latin America and the Caribbean is hardest hit, and continues in recession with growth rates 3 percentage points lower, while the nascent recovery in the East Asian crisis countries slows considerably (table 1.12).

World GDP growth at 1.2 percent in 2000 (in technical terms, nearly a global recession) under such a scenario would mark the weakest performance since the crisis years of 1982–83, when high interest rates and debt stalled the world economy. And recovery of world trade and activity would likely be protracted through 2002, as policy responses in the industrial countries take effect with some lag. During this interval, and despite macroeconomic adjustment efforts among developing countries to stem widening current account deficits, a $75 billion shortfall in external financing persists (the reduction of private flows from the supply side). This gap would need be filled by some combination of reserve drawdowns among developing countries, substantial increases in counter-cyclical funding from official sources, both multilateral and bilateral, as well as additional ex post macroeconomic adjustment efforts by developing countries.

Notes

1. *Global Development Finance.* April 1999. Development Prospects Group, World Bank, Washington, D.C.

2. Aggregate real per capita incomes in 1999 are expected to decline or stagnate particularly in Latin America, Sub-Saharan Africa, and the former Soviet Union, as well as in selected oil exporting countries.

3. Though recent data and definitional revisions have brought the household saving rate to positive territory.

4. Calibrated to the 1995 Global Trade Analysis Project (GTAP) database.

5. See McKibbin and Martin (1999) for a similar analysis that also includes the effects of financial transmission.

6. The demand shock in EA-5 and Japan was simulated by shocking factor productivity.

7. Relative price changes are with respect to the price of industrial countries' manufacturing exports.

8. Evidence suggests that there was more adjustment in so-called necessities than this analysis indicates. In particular, it appears that households adjusted consumption patterns to preserve educational expenditures, which unfortunately are not identified separately in the household consumption basket.

9. Chapter 4 contains a broader discussion of the impact of the crisis on commodity markets.

10. FDI approvals declined 80 percent from their 1998 levels in Indonesia in the first quarter of 1999, 21 percent in China during January–July 1999, and 17 percent in Thailand during January–May 1999.

11. For more information, see the website for the initiative at (www.worldbank.org/hipc).

12. In this index of financial conditions in emerging markets, a currency appreciation is taken as indicative of looser financial conditions, reflecting reduced capital outflows or increased inflows.

13. World Bank 1998, Chapter 1.

14. Membership, as of November 15, 1999, stands at 135 countries—over three-quarters of them developing economies. Forty-five have joined since the start of the Uruguay Round negotiations in the mid-1980s. With the recent landmark trade agreement between China and the United States, the former is expected to join the WTO by early 2000.

15. The World Bank is actively assisting developing countries in their preparations for the next trade negotiation round. For further information on these activities and the World Bank's broader research agenda on trade, see (www.worldbank.org/trade).

16. When shifting from 1985 to 1993 Purchasing Power Parity terms, the poverty lines had to be recalculated. As in the past, the lower line was set at the level of the lowest poverty lines in low-income countries. The lines used for the new estimates are equal to $1.08 per day and $2.15 per day in 1993 PPP terms (referred to synthetically as $1 and $2 per day in the text), corresponding to the median of the 10 lowest poverty lines in low-income countries, and double that level. See Chen and Ravallion (forthcoming) and the September 1999 global poverty figures (World Bank 1999).

17. The figures for 1998 are preliminary estimates based on surveys for that year for a handful of countries and on older survey data, updated using estimated growth rates in real private consumption per capita, for the majority of countries.

18. Note that urban survey data for China do not include migrants from rural areas to the cities. This probably leads to an underestimation of the rate of poverty reduction. Measurement methods in the official tabulations from the survey data for rural China are also believed to overestimate the rate of increase in inequality (Ravallion and Chen 1999).

19. Moreover, the relationship between inequalities in the return to skills and inequalities in overall income or consumption is also highly complex, and depends on patterns of labor force participation, household composition, and transfers, among other factors.

20. Not all countries in the region have experienced significant increases in inequality. Countries such as Hungary and Poland have not, but others such as Russia have experienced significant increases.

21. To explain this assumption in more detail, we need to consider the Lorenz curve, giving (on the vertical axis) the share of total income, $L(p)$, held by the poorest p fraction of people (on the horizontal axis). The projections assume that the Lorenz curve shifts in or out by the same proportion at all points, relative to the line of equality (in which everyone has the same income, that is, $L(p) = p$). So the new Lorenz curve is given by $L(p) - g.(p - L(p))$ where $L(p)$ is the old Lorenz curve and g is the proportionate increase in the Gini index (Kakwani 1993). This assumption, which is computationally convenient, is commonly made in distributional analysis, but represents only one of the possible ways in which inequality may change. Poverty projections can be sensitive to seemingly subtle differences in how the Lorenz curve shifts over time (Ravallion 1999). As mentioned in the text, this can be a serious problem when the poverty rate is low because estimates at the tails of the distribution can naturally be quite sensitive, but for the bulk of the developing countries the poverty rates are a safe distance from the tails. How much of a difference this would make for aggregate poverty numbers is unclear. Errors in one direction in one country could be offset to some extent by errors in the other direction elsewhere.

22. The model uses flexible functional forms for the Lorenz curve, and the models pass through a series of tests to assure that they fit well and satisfy the properties required of valid Lorenz curves.

23. For information on the International Development Goals and the other targets for improving well-being, see (http://www.oecd.org/dac/Indicators).

24. This box is based on "Some Lessons from Forecasting Errors in the Recent Crisis." Dadush, Riordan, and Wolfe forthcoming.

25. *Global Economic Prospects and the Developing Countries Short-Term Update 1998*, internal document.

26. Export performance is biased upward by Korea's strong gain during the year. Export volume growth for the affected ASEAN countries averaged about 5 percent.

27. There is evidence that the wealth effects of stock market changes can be small. Some studies (Brayton and Tinsely 1996) have shown that for the United States the marginal propensity to consume that is generated by a change in corporate equity wealth is only 0.3, with a mean response lag of 2 years. Yet the rise in the share of households owning equity (40 percent in 1995—and higher in 1999—contrasted with 32 percent in 1989) clearly amplifies these effects. Moreover, the effects on *confidence* of a stock market correction of the magnitude assumed in the scenario (within the global context) could be especially adverse. Concerns about the state of Japan's economy and the possibility of significant difficulties among financial institutions attach more systemic risk to the unfolding of the scenario.

28. The ex ante financing gap is the measured change in aggregate current account balance for the developing countries (from the baseline projections) before any offsetting policy response at the country level.

29. The simulation of the behavior of private capital flows in this low-case scenario is based on a model of the past behavior of financial net flows (other than foreign direct investment) to developing countries between 1979 and 1998. They are also based on assumptions from the global economic model about expected growth in world trade, world GDP, developing country GDP, world interest rates, and an index of risk aversion, relative to the baseline scenario.

30. McConnell 1999.

31. This is by no means a unanimous view. Every shade of opinion on Y2K can be found on the internet; compendiums of links on Y2K include (http://home.att.net/~year2k), and (www.y2klinks.net/Y2Kgen.htm).

32. Third Quarterly report on US Readiness for Year 2000 issued by the President's Council on Y2K Conversion is located on (www.y2k.gov).

33. The International Y2K Cooperation Center (at www.iy2kcc.org) and Gartner Group survey.

34. The survey was carried out by the International Y2K Cooperation Center.

35. The grouping of countries was carried out by the World Bank, based on the wording of the country evaluations from the U.S. State Department. The sectors covered were transportation, energy, telecommunications, health, finance, local government, and water and wastewater. The individual country information can be found at the U.S. State Department's Bureau of Consular Affairs internet site (http://travel.state.gov/y2kca.html).

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External Shocks, Financial Crises, and Poverty in Developing Countries

DEVELOPING COUNTRIES HAVE BECOME increasingly integrated into global goods and financial markets over the last decade. Their export volume increased by 9 percent per year during the 1990s, up from 2 percent during the 1980s. Net long-term capital flows, even after declining in 1998, remained almost three times the 1990 level. As discussed in previous issues of *Global Economic Prospects* (World Bank 1993, 1997, 1999a), globalization provides developing countries with significant benefits and spurs economic progress. GDP growth in developing countries (excluding the transition economies) averaged 5 percent during the 1990s, compared with 3 percent during the 1980s. Poverty—the number of people living on less than $1 a day—fell from 29 percent in 1990 to an estimated 24 percent in 1996. But the financial crisis of 1997–99 has also shown how globalization, and in particular greater openness to external capital flows, can expose developing countries to increased volatility from international financial and goods markets. The poor are especially vulnerable to this volatility.

This chapter reviews the evidence about the impact on poverty of the external shocks and volatility to which developing countries are exposed. It then presents and assesses evidence of the impact of the 1997–98 financial crisis on poverty in the most affected East Asian countries. Finally, it discusses lessons and policy conclusions.

The chapter reaches the following conclusions:

- The financial crisis has underlined how globalization, especially financial integration, exposes developing countries to external shocks. These shocks often reduce the gains in poverty reduction from openness and increase poverty significantly in the short to medium term. This fact underscores the importance of addressing the issue of volatility in order to maximize the positive effects of growth on poverty reduction.
- The countries most affected by the East Asian crisis illustrate the asymmetric impact of changes in per capita income on poverty and the negative effects of volatility on growth. Though less dramatic than early predictions suggested and very heterogeneous, the negative social impact of the East Asian crisis and consequent crises in Russia and Brazil has been enormous. The increase in consumption poverty has been significant. In addition, the crisis has resulted in large and costly reallocations of people and sharp declines in middle-class standards of living. Unlike the situation in Latin America where income inequality increased significantly during crises, in East Asia the effects on income distribution have been small and highly differentiated. The extent of these effects depends on the country's income

level and the impact of the crisis on different economic sectors.

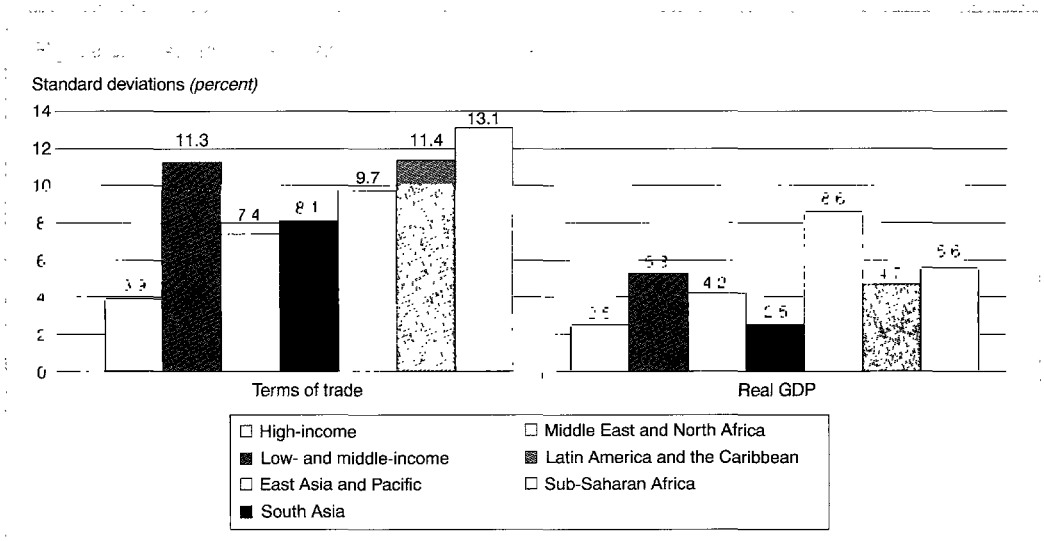
- Urban poverty increased in all countries, particularly the Republic of Korea, where total employment declined and open unemployment grew more than in other countries in the region. Falling real wages in the urban formal sector affected mostly high-income groups. In Thailand the impact was felt mostly in rural areas because of the large inflows of workers from urban areas and the relatively small increases in agricultural prices.
- The crisis demonstrated the flexibility of labor markets in developing countries. These markets help absorb the effects of shocks through reduced wages and labor mobility within and between urban and rural areas. Thus the decline in total employment in Thailand and Malaysia was limited, and employment actually rose in Indonesia. Labor was reallocated from the formal (urban) sector to other activities, particularly the informal sector and agriculture, where exchange rate depreciations improved incentives.
- Even where public spending on safety nets increased significantly, the impact on poverty was limited for several reasons. These included the absence of safety nets before the crisis, response lags, institutional problems, and low levels of spending relative to the scale of poverty. In some cases evidence suggests that well-functioning programs were underfunded relative to the potential impact of shocks on poverty.
- The severity of the crisis in Indonesia is reflected in the strong responses of households to increase consumption as a share of income, adjust their asset holdings, and increase the share of staple foods in their consumption baskets to cope with the shock. In the Republic of Korea and Malaysia the response of households was to increase the savings rate. The composition of consumption expenditures changed significantly. Households spent more, primarily on essential items such as food, fuel, housing, health, and education.
- Real public expenditures on education and health fell in most countries. The extent to which households were able to adjust their spending to offset this decline varied across countries as well as income groups. In Thailand families and government programs acted to cushion the impact of the crisis in order to avoid declines in school enrollment rates or in access to health services. In Indonesia, however, the severity of the crisis led to significant declines in poor households' access to both education and health services, particularly in urban areas. Such setbacks can have irreversible effects on human development.
- Any development strategy for stable and sustainable growth must include both adequate safety nets and appropriate policies and institutions designed to prevent financial crises and respond when crises do occur. Prospects for poverty reduction depend not only on future growth but also on countries' capacity to manage volatility and reduce growth fluctuations.

External shocks and poverty in developing countries

Discussions of the link between growth and poverty reduction in developing countries implicitly take the view that long-term growth (and therefore poverty reduction) is a stable process. But as the financial crisis of 1997–99 shows, the process of growth is neither smooth nor linear and is often subject to sharp changes (especially major slowdowns and recessions) from a variety of external or internal shocks (World Bank 1999a). The asymmetric effects of income growth on poverty during expansions and downturns, however, imply that these changes often have profound, long-lasting effects on the poor. A decline in per capita income tends to have a negative effect on poverty that is much greater than the improvement generated by an equivalent increase.

While economic crises hurt both poor and rich, the poor have less leeway to respond to the crises. If domestic capital markets were perfect and the economic downturn temporary, all economic agents could borrow to smooth consumption and maintain welfare. But capital markets are imperfect and segmented. Credit or insurance is typically not available to the poor. With few savings and low or subsistence incomes, the poor become even more vulnerable to shocks. Crises and recessions can result in irreversible negative effects on the poor through their impacts on health, schooling, and nutrition. Volatility in growth also tends to create more uncertainty and risk for investors. That fact alone tends to reduce the rate of economic growth, further dimming prospects for poverty reduction. Thus the volatility of the growth process in developing countries matters a great deal for both immediate and long-term poverty reduction and income distribution.

In general, the growth process is much more volatile in developing countries than in industrial countries. Sudden reversals and other changes in international financial flows are only one source (albeit an important one) of external shocks that can lead to crises and recessions in developing countries. Fluctuations in the terms of trade are another important and long-standing source, reflecting developing countries' reliance on primary commodity exports and price variability in international markets. Volatility in the terms of trade was almost three times greater in developing countries than in industrial countries during 1961–97 (Pritchett 1998; Easterly, Islam, and Stiglitz 1999) (figure 2.1). Volatility is particularly significant for the Middle East and North Africa, Latin America, and Sub-Saharan Africa. Using simulation models that replicate the range of observed economic fluctuations, Mendoza (1995) finds that disturbances in the terms of trade account for about one-half of the observed variability in GDP and real exchange rates, and that the share is greater for developing countries than for industrial countries. Policies to mitigate and cope with volatility in growth and the consequent effects on the poor are therefore essential in all developing countries.



Note: Unweighted average of countries' standard deviations of relative distance from Hodrick-Prescott filter trend.
Source: World Bank staff calculations.

External shocks, long-term growth, and poverty

External shocks, such as variations in the terms of trade, volume of trade, and external finance, are highly correlated with variations in GDP growth. They account for a significant share of the volatility in developing countries (Easterly, Islam, and Stiglitz 1999). According to Hausmann and Gavin (1995) external shocks explain 30 percent of cross-country variation in GDP volatility in Latin America. When terms of trade, export volumes, external finance, and interest rate shocks are taken into account, developing countries experience more and larger external shocks than industrial economies. The incidence of small and medium-size shocks is about the same for both (World Bank 1993). During the 1970s and 1980s it was not unusual for developing countries to suffer unfavorable shocks equivalent to 4 percent of GDP or more.

Volatility of growth and other macroeconomic variables is also much larger in developing countries than in industrial countries (Pritchett 1998; Easterly, Islam, and Stiglitz 1999). Figure 2.1 shows that volatility in GDP growth is more than twice as high in developing countries as it is in high-income countries of the Organisation for Economic Co-operation and Development (OECD). The volatility of GDP growth is higher for all developing regions, except for South Asia, and it is more than three times higher for the Middle East and North Africa. GDP growth in developing countries is highly unstable, with large shifts over time and low correlation of per capita growth rates across decades (Easterly and others 1993; Pritchett 1998).

Volatility has a negative impact on poverty in part because it reduces long-term growth (box 2.1). For instance, a large degree of volatility makes "stop and go" policies more likely, slowing growth and leading to low-quality policies such as those in Sub-Saharan Africa, especially during the 1970s and 1980s. (Guillaumont, Jeanneney, and Brun 1999). External negative shocks can also interact with social conflicts and weak domestic institutions for conflict management to produce growth collapses (Rodrik 1998). After controlling for other factors, Hausmann and Gavin (1995) find that a higher standard deviation of real GDP is associated with higher rates of poverty. They estimate that if Latin American countries had the same GDP volatility as industrial countries, poverty would decrease by 7 percentage points.

External volatility and fluctuations in poverty

Volatility does more than simply increase poverty. Short-term fluctuations in income growth also cause sharp variances in the incidence of poverty, even in the short to medium term. For example, in Venezuela poverty decreased by 10 percentage points between 1989 and 1991, rose by 20 percentage points between 1991 and 1994, then fell again in 1995 and rose in 1996 (Lustig and Deutsch 1998). Mexico is another striking example of this effect, as box 2.2 describes.

Fluctuations in commodity prices may induce short- to medium-term changes in both growth and poverty. During the boom years growth is faster and poverty declines, but during busts, which are usually more sudden, poverty increases. Fluctuations in commodity prices have a significant, direct impact on personal incomes and an indirect impact on government social expenditures and GDP. Earlier studies argued that commodity price booms do not significantly affect real GDP (Cuddington 1988; Gelb and Associates 1988). But more recent empirical work has shown that changes in terms of trade have significant effects on real output growth.[1] Declining trends in real commodity prices have a negative effect on real income growth in the long term in developing countries (see chapter 4).[2] In addition, a slowdown in growth in the bust years may become more severe as investments made during the boom years are often less productive (Collier and Gunning 1996).

Box 2.1 Volatility, growth, and poverty

When growth proceeds smoothly over time and income inequality improves (or at least does not worsen dramatically), poverty declines as per capita income and real wages rise. The elasticity of poverty, as measured by the headcount index—for example, with respect to the growth of per capita income —is estimated to be between −1.5 and −3.5.[4] The size of the effect is greater in countries where income is more evenly distributed (Ravallion 1997).

To the extent that volatility creates uncertainty, it has negative effects on growth and therefore on poverty. Recent empirical evidence supports this view and contradicts the early literature. Using balanced panel data for a sample of 92 countries for 1960–85, Ramey and Ramey (1995) find that a unit increase in the standard deviation of innovation in GDP (innovation to GDP growth is used as a measure of uncertainty) implies a lower GDP per capita growth of 0.2. Similarly, from a growth regression of 130 countries for 1960–95, Easterly and Kraay (1999) find that the standard deviation of growth has a strong negative effect (−0.18) on average per capita growth (after controlling for other variables).

There are three likely explanations for the negative link between volatility and growth. First, irreversibilities or asymmetric adjustment costs in investments increase uncertainty and lower investment (Pindyck 1991; Aizenman and Marion 1999).[5] Second, costs increase because productive factors move among sectors in response to more frequent shifts in price signals. And third, the risk of inappropriate monetary, fiscal, trade, and financial policies increases.

Terms-of-trade volatility has been found to have a negative effect on long-term growth in developing countries. Commodity price uncertainty, as measured by the standard deviation of forecast errors from some statistical models, reduces growth rates (Dehn and Gilbert 1999). Most empirical studies have used direct volatility of terms of trade as a proxy for uncertainty and have found negative effects on long-term growth (Mendoza 1994; Hausmann and Gavin 1995; Guillaumont, Jeanneney, and Brun 1999; Easterly and Kraay 1999).

The overall evidence also indicates that over the long run the dependence of many developing countries on commodities with volatile prices has a negative impact on long-term growth and therefore on poverty. Dehn and Gilbert (1999) find a significantly negative effect of commodity price uncertainty on poverty, as measured by infant mortality.

Empirical findings also support the notion that economic cycles have an asymmetric effect on poverty. They show that a contraction will have a greater impact on the poverty rate than an expansion of the same size (Morley 1994; Londoño and Székely 1997a; De Janvry and Sadoulet 1998).[10] It has been estimated that a 1 percent decline in per capita income during recessionary episodes in Latin America in the 1980s reduced earlier gains by 3.4 percent of per capita income growth in urban areas and 2.2 percent in rural areas (De Janvry and Sadoulet 1998). One explanation for this phenomenon is that during recessions the unskilled are the first to lose their jobs, because firms tend to hoard their skilled employees. As a result, income distribution becomes more inequitable, amplifying the effect of declining incomes on poverty (Agénor 1998).

Income poverty and inequality during the East Asian crisis

The recent crisis in East Asia has underlined the risks for developing countries of reversals in private capital flows and the dramatic social impact of the resulting financial crises. The East Asian crisis had a substantial impact on output and poverty in 1998, although these effects began to lessen in 1999.

Box 2.2 External shocks and fluctuations in poverty in Mexico

Mexico's experience since the 1970s shows how poverty declines during periods of economic growth and increases during periods of crisis and adjustment. External shocks contribute to these variations.

During the 1970s Mexico experienced relatively high and sustained growth. The increase in real GDP per capita averaged 3.8 percent per year, despite the short-lived financial crisis of 1976 (see box figure). Income inequality declined: the Gini index dropped from 0.58 in 1970 to 0.51 in 1977 (Londoño and Szekely 1997b). Total poverty fell significantly, dropping from 49 percent in 1968 to 34 percent in 1977, or from 23.3 to 21.3 million. Further gains were realized during the second half of the decade (reflected in the numbers for 1977–84), spurred partly by favorable terms-of-trade shocks and rising oil production.

In the early 1980s the international environment became unfavorable for Mexico. The country's terms of trade declined, and real international interest rates increased. The resulting debt crisis, the adjustment of the 1980s, and the collapse of oil prices in 1986 resulted in a sharp decline in incomes. Between 1982 and 1988 real GDP per capita growth averaged a negative 1.9 percent per year, and real wages fell by 36–46 percent from 1983–88. This decline in incomes contributed to a dramatic increase in poverty (Lustig 1998). Inequality increased sharply in the late 1980s, reaching a Gini index of 0.54 in 1989 that remained unchanged until 1996 (Székely 1998). Total poverty rose from its lowest point of 28 percent in 1984 to 36 percent in 1989, or from 20.7 to 29.6 million poor. Infant and preschool mortality caused by nutritional deficiencies increased from 1982 onward, and educational indicators for the poor deteriorated (Lustig 1998).

From 1989 to 1994 growth resumed, largely due to economic and financial liberalization, real per capita GDP growth averaged 2 percent. Although the total poverty headcount index had declined slightly to 34 percent by 1994, the number of poor had increased to 30.7 million (Lustig and Szekely 1998; Szekely 1999a). According to Szekely (1999b) 86 percent of the rise in poverty trends in Mexico from 1984 to 1994 resulted from the increase in inequality, while the rest was the result of the drop in GDP per capita.

From 1989–94 poverty rose among rural workers in the primary sector and in the southern and southeastern regions. This increase was the result of the appreciation of the peso and the decline in institutional support for agriculture, including the loss of subsidies, the collapse of guaranteed prices for major crops, and high interest rates (Lustig and Szekely 1998). The financial crisis that hit Mexico at the end of 1994 had considerable repercussions for growth and total

The impact of the crisis on poverty

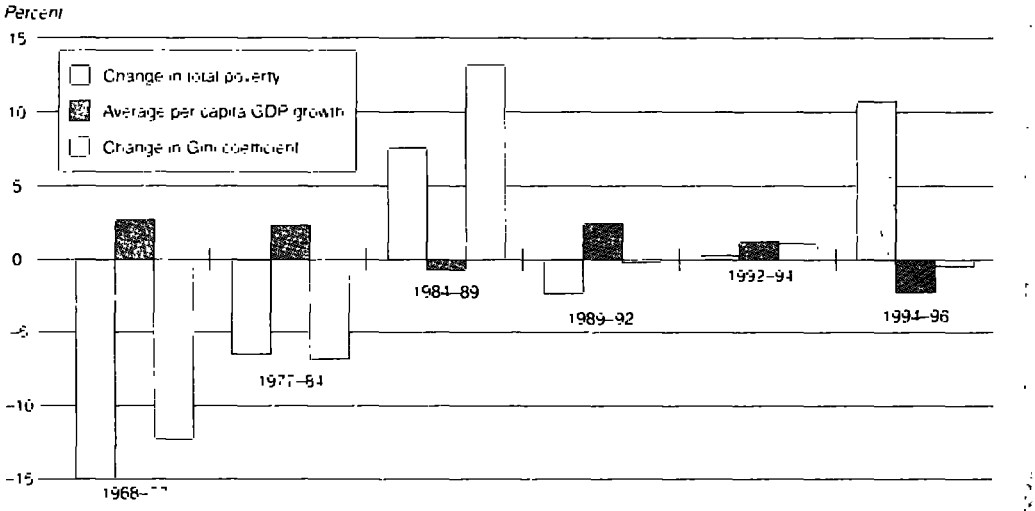
Income poverty almost invariably increases during a crisis. Household surveys conducted in Latin America during recessionary periods in the 1980s and 1990s provide evidence of this effect. They show that the incidence of poverty increased during the first year of the recession in 9 out of 11 cases, and remained higher for one or more years after the recession in 19 out of 21 episodes (Lustig 1999).

Poverty also increased during the first year of the crisis in the most affected East Asian countries (table 2.1). Evidence from Korea illustrates the asymmetric impact of crises on poverty. During stable growth in 1990–97, the estimated elasticity of the percentage of poor with respect to per capita GDP was –3.5 (Kakwani and Prescott 1999). But during the crisis in 1998 the incidence of poverty increased by 123 percent. Real per capita GDP declined by 6.7 percent, and consumption per capita declined by 10.4 percent. In Indonesia as well, the rate of increase in poverty was about 10 times the rate of the decline in con-

Box 2.2 (continued)

poverty. Real GDP growth declined to a negative 6.2 percent in 1995 and averaged 2.6 percent from 1995 to 1998. Total poverty increased dramatically, rising to 45 percent in 1996, or 41.7 million (Szekely 1999a). Mexico has adjusted to the crises primarily through downward flexibility in real wages rather than through increases in unemployment.

Changes in poverty, inequality, and per capita GDP in Mexico



[illegible]

	Indonesia	Malaysia	Rep. of Korea	Thailand
Real per capita GDP growth (percent)				
1997	2.9	5.4	4.5	-1.4
1998	-15.1	-9.2	-6.7	-10.3
Real per capita consumption growth (percent)				
1998	-5.5	-12.4	-10.4	-11.6
Headcount poverty index[a]	National	National	Urban	National
1996	11.3	—	9.6	11.4
1997[b]	11.0	8.2	8.6	9.8
1998	16.7	—	19.2	12.9
Gini index				
1996	0.380	—	—	0.477
1997	—	0.496	0.290	—
1998	0.370	—	0.294	0.481

— Not available.
a. Figures for Indonesia are based on consumption expenditures, with a national poverty line equivalent to about $1 a day in 1985 international purchasing parity (IPP) dollars; data are from February 1996 and December 1998. Figures for the Republic of Korea are based on consumption expenditures, with a national poverty line equivalent to about $4 a day in 1985 IPP dollars. Figures for Thailand reflect national income poverty, measured at around $2 a day. Figures for Malaysia reflect income poverty.
b. The 1997 figures for Indonesia and Thailand are estimates based on precrisis trends in declines in poverty.
Source: Kakwani 1999; Kakwani and Prescott 1999; World Bank staff calculations.

sumption per capita—much higher than the usual elasticity during expansions. While these losses have been reversed somewhat since 1999, the extent and sustainability of the recovery remains to be seen (see chapter 3). Even returning to the precrisis level of poverty, however, is likely to require more time and income growth.

The severity of the impact of the East Asian crisis varied across countries. Differences in national poverty levels and the distribution of the income of the poor around these levels may explain some of the variances. For instance, in Korea the poverty line is around $4 per day, while in Indonesia it is around $1 per day. If the individuals whose incomes dropped significantly are clustered above the poverty line in Korea and below the poverty line in Indonesia, the impact of the crisis on poverty may well appear lower in Indonesia. But other factors are also responsible for these differences.

Korea's experience was strikingly different from the others. Korea had the largest increase in open unemployment, a decline in the economically active population, and a large drop in real wages that was second only to Indonesia's. Labor mobility from the informal sector was also more limited than in other countries. Korea is also the most urbanized East Asian country, and the negative impact of recessions has been found to be most devastating for poor urban dwellers (Morley 1994; Lustig and Deutsch 1998; De Janvry and Sadoulet 1998). The increase in urban poverty in 1998 was huge in Korea: the headcount index, based on consumption expenditures, reached 19.2 percent, an increase of more than 10 percentage points.[11] The increase was even greater (15 percentage points) between the first quarter of 1997 and the third quarter of 1998—the lowest (7.5 percent) and highest points (23 percent), respectively (Kakwani and Prescott 1999). The incidence of poverty declined to 15.8 percent in the last quarter of 1998.

In other countries the increases were smaller than had been anticipated, given the magnitude of the crisis (table 2.1). In Indonesia the impact of the crisis on poverty was still significant. Estimates for Malaysia are not available, but welfare declines were widespread, presumably leading to increases in poverty in both urban areas and traditionally poor rural states.

Urban and rural poverty. Urban poverty increases during crises owing to a combination of lower real wages, higher unemployment, and increases in the relative price of foods. The impact of a crisis on poverty will be smaller if workers can move easily from the formal sector to other activities, particularly agriculture, and if exchange rate depreciations lead to improved incentives for agriculture. Even under those conditions, however, it is still likely that urban poverty will increase.

The relative impact on urban and rural areas was different in Indonesia and Thailand. In Indonesia the crisis had a strong urban bias, even though the percentage changes in poverty rates were similar in urban and rural areas. Poverty in urban areas rose from 9.7 percent in 1996 to 15.4 percent in 1998, and in rural areas climbed from 12.3 percent to 17.6 percent. Average per capita spending in urban areas fell 34 percent in real terms, whereas rural expenditures fell only 13 percent. A survey of expert respondent views suggests that urban areas were, on average, much harder hit than rural areas (Poppele, Sumarto, and Pritchett 1999). Of the 20 hardest-hit areas, 14 were urban, while of the 20 that suffered the least impact, 13 were rural. In nearly every province, region, and island, the negative impact of the crisis was consistently higher for urban than for rural areas. In Thailand, however, the impact on poverty was more severe in rural areas than in urban. Poverty rates rose from 11.8 to 17.2 percent in rural areas, but only from 1.2 to 1.5 percent in urban settings.[12] One possible explanation for the difference in the impact of the crisis on the two countries is the higher price incentives for agricultural production in Indonesia, which stimulated production.

Regional effects. The impact of the crisis varied considerably across subnational regions. In the northern region of Thailand, for example, the poverty ratio actually dropped from 10.2 percent in 1997 to 9.2 percent in 1998. In the northeastern and southern regions it rose dramatically, climbing from around 15 percent to 23.2 percent and from 8.6 to 14.8 percent, respectively. In Indonesia per capita real expenditures declined by 42 percent in West Java and by 30 percent in Jakarta, regions that were better off before the crisis. But real expenditures declined between 10 and 20 percent in other regions. These differences are most likely linked to the behavior of producer prices. In Indonesia, areas that produced export crops benefited from the sharp exchange rate depreciation. This fact combined with several reforms (such as clove marketing) to put more benefits in the hands of farmers.[13] Similarly, in Thailand the poor performance of the southern region may be linked to the fall in rubber prices during the crisis period. An important aspect of the crisis in Indonesia is that it does not appear to have affected poor areas disproportionately. Rather, the impact varied in both well-off and poor areas.

The impact on income distribution

Given the significant drop in GDP normally associated with economic crises, poverty rates will increase unless there is a massive reduction in inequality. But income distribution tends to worsen during crises. Inequality in household incomes or consumption increased in most of the countries in Latin America during crises and recessions in the 1980s (World Bank 1999a). For 10 recession episodes for which data are available in Latin America, inequality rose in 6 cases during the recession year (Lustig 1999). In Argentina the Gini coefficient for the greater Buenos Aires area increased from 0.44 to 0.53 during the recession of 1989. Inequality was higher after the recession than it had been before in 15 out of 22 episodes. In Chile the Gini coefficient on total household incomes is estimated to have increased from 0.52 in 1979 to 0.55 in 1984 because of the impact of high open unemployment and (by some measures) deep real wage cuts. However, the Gini coefficient in Chile had declined to 0.53 by 1988 (Riveros 1994).

In Brazil income inequality increased, despite a successful defense of real wages in the formal sector and little increase in open unemployment, in part because of inflation and declining incomes in the informal and agricultural sectors (Fox, Amadeo, and Camargo 1994). In Argentina average real wages oscillated wildly with episodes of inflation during the 1980s, though unemployment was not high. However, the gap in earnings between the top and bottom deciles of income earners in Buenos Aires widened steadily from 1980 through 1988 as younger adults increasingly entered the informal sector (Riveros and Sanchez 1994).

Analyses of the effects of crises on income distribution suggested that the impact differed in middle- and low-income countries (Bourguignon, de Melo, and Suwa 1991). During most economic crises and subsequent structural adjustments in middle-income countries, income distribution worsens because wage cuts and layoffs in the formal sector tend to be biased toward unskilled workers. The impact of crises on inequality in low-income countries is more difficult to predict. Wage and employment losses in the urban formal sector affect workers with relatively high incomes, and the rise in food prices hurts the urban poor. But the rural areas where most of the poor live tend to gain because of currency depreciation and higher prices for agricultural goods. Bourguignon, de Melo, and Suwa (1991, 359) find, from simulations, that "in the standard adjustment package, inequality increased significantly for the Latin American archetype but decreased significantly for the African archetype." A major reason for this difference is that there are few formal sector wage earners in the bottom half of the income distribution ladder in very poor countries—for instance, those in much of Sub-Saharan Africa. Because crises hit the formal sector hardest, the poor are less affected. In Latin

America, however, where formal sector workers come from all income brackets, poor people are hit more directly in a crisis.

Compared with Latin America in the 1980s, the distributional impact of the East Asian crisis was limited for high-income countries (Korea), upper-middle-income countries (Malaysia), and lower-middle-income countries (Indonesia and Thailand). Changes in overall inequality, as measured by the Gini coefficient, were minor between 1996 and 1998 (table 2.1).[14] In Thailand there may have been weak redistribution from middle- to high-income groups (Kakwani 1999). But early studies for Korea and Thailand suggest that those at the bottom of the income distribution ladder—the "ultrapoor"—were hit harder than others with incomes below the poverty line (Kakwani 1999; Kakwani and Prescott 1999). The evidence is more mixed for Indonesia (Poppele, Sumarto, and Pritchett 1999).

Labor incomes

To a large extent the impact of the crisis on consumption poverty reflects changes in the real incomes of households. The channels through which the impact of a crisis reaches households can be traced to the sources of household income—that is, wages, returns on assets, profits from self-employment, and transfers (Ferreira, Prennushi, and Ravallion 1999). These sources tend to vary with household income level—for example, poor households tend to depend on self-employment incomes and transfers, whereas the rich receive much of their income from assets. For this reason, changes in the overall composition of national income can move households up or down the distribution ladder.

Labor markets have the most profound effects on poverty, however. Labor demand shocks hurt households by lowering real wages, increasing unemployment, and reducing self-employment earnings. While reduced labor demand almost always raises the incidence of poverty, different kinds of labor demand–shocks have different effects on income inequality. In a recession, real wages fall. Households at the low end of the distribution ladder in developing countries are affected the least, because they receive little or no wage income. But labor demand shocks have a strong impact on those formal sector workers with the lowest skills, who are more likely to lose their jobs than their more skilled counterparts.[15] They then either become unemployed or move to the informal sector, where their earnings are likely to be lower. As a result households at the middle to lower-middle range of the income distribution ladder are pushed further down, swelling the numbers of households with low incomes.

The crises in East Asia followed a pattern similar to those seen earlier in other countries faced with sharp reversals of external capital flows. A comparative analysis of the impact of similar crises on labor markets offers the following conclusions (Fallon and Lucas 1999):

- Wages fall sharply during the crisis or in ensuing years, usually by more than the GDP. In 22 recessionary episodes in Latin America during the 1980s and 1990s, real wages fell in 16 cases during the year of recession, and in 18 cases remained lower than precrisis levels after two years (Lustig 1999). This wage drop was also a striking feature of the East Asian crisis.
- Total employment growth drops in the crisis year, but usually by less than the decline in GDP growth.
- Employment in manufacturing is always adversely affected, though less spectacularly than are wages.
- The effects on agricultural employment are more muted. In some cases (for example, Indonesia in 1998 and Turkey in 1994), employment increased despite an absolute decline in GDP.
- Rising unemployment is an important feature of many crises. In Latin America unemployment increased during the year of recession in 24 of 31 episodes and remained higher in 24 cases two years into the recession (Lustig 1999). The most sig-

nificant increases were in Argentina in 1995 (6 percentage points) and Chile in 1982 (11 percentage points).

Experience thus far in East Asia broadly supports these conclusions. Real wage growth dropped sharply in 1998 and became negative in all affected countries (table 2.2). Indonesia saw particularly spectacular wage declines that were broadly similar across sectors. Although wage cuts can moderate the impact of a recession on employment, during the East Asian crisis nonagricultural employment fell in all countries. Only in Indonesia, where agricultural employment increased considerably, did overall employment rise. The construction sector was the most affected, with a dramatic drop in employment of 15 to 35 percent, but manufacturing employment also fell significantly. With the exception of Korea, however, falls in employment in 1998 were not large despite substantial decreases in GDP. (Korea saw a large decline in employment as well as in real wages.) The inactive population increased by 9 percent between the second quarter of 1997 and the fourth quarter of 1998, with women representing three-fourths of the increase. In Thailand 18.5 percent of the overall decline in per capita income was the result of wage cuts, whereas only 2.7 percent was attributable to higher unemployment (Kakwani 1998).

Labor force mobility. To some degree, the impact of the crisis on employment was lessened by the mobility available to individual workers within and between the urban and rural sectors. In the first year of a crisis significant real exchange rate depreciation usually results that can raise the price of tradable goods relative to those of nontradables, with important implications for real household incomes and poverty. Crises hit the urban formal sector first and, as noted above, can lead to a reallocation of labor from the urban to the rural sector. But in the absence of any incentive to increase agricultural production, this reallocation of human resources may do little more than raise rural poverty instead of urban poverty. In principle exchange rate depreciation can supply the needed incentive. In the absence of intervention in domestic markets, it raises the price of export crops relative to

Table 2.2 Employment and real wages in East Asia during the crisis
(percentage change)

	Indonesia		Malaysia		Rep. of Korea		Thailand	
	1997	1998	1997	1998	1997	1998	1997	1998
Employment, total[a]	1.8	2.0	4.6	-2.7	1.4	-6.8	1.8	-3.0
Agricultural	-4.7	13.5	-10.6	-5.7	-3.4	0.0	1.3	-1.8
Nonagricultural	6.8	-4.7	8.6	-2.2	2.4	-8.6	2.2	-2.9
Manufacturing	4.1	-9.8	7.6	-2.9	-4.3	-13.1	-0.1	-1.4
Construction	10.6	-15.4	1.9	-13.4	1.7	-25.4	-5.6	-35.6
Real consumption wage, total[b]	5.6	-41.0	—	—	—	—	8.7	-1.8
Agricultural	4.1	-38.0	—	—	—	—	10.0	-5.4
Nonagricultural	6.4	-42.0	—	—	2.6	-10.0	8.0	-10.8
Manufacturing	11.1	-44.0	6.0	-2.4	0.7	-10.6	7.1	-4.8
Construction	3.8	-42.0	—	—	3.3	-14.7	5.6	-2.2

— Not available.
a. Figures for the Republic of Korea are from Q4 to Q4. Figures for Thailand are calculations by World Bank staff based on the Labor Force Survey, National Statistical Office, and surveys of national employment for February and August.
b. Figures for Indonesia are for August 1998 and average 1997. Figures for the Republic of Korea are seasonally adjusted. Figures for Thailand are calculations by World Bank staff based on the Labor Force Survey, National Statistical Office, and average wages (excluding fringe benefits) of February and August surveys.
c. Urban areas.
Source: Employment – Islam and others 1999; Mansor and others 1999; Shin 1999; World Bank staff calculations. Real wages – *Datastream;* Islam and others 1999.

the prices of other commodities. In rural areas higher food prices spur agricultural production, and the impact on poverty will depend on the strength of the link between agricultural production and the poor. Insofar as small farmers benefit, the link to poverty may be strong. But insofar as export crop production is concentrated among large farmers, the impact depends on whether the demand for agricultural workers increases sufficiently to offset the growing supply of rural labor.

In Indonesia around 2.5 million workers, or 3 percent of the total work force, were displaced by the crisis in the first year. Job losses occurred in all sectors of the economy except agriculture and the small transportation and communication sectors. The manufacturing sector accounted for nearly half of all job losses, followed by construction. Losses were somewhat smaller in the mining, trade, and service sectors. About three-quarters of the jobs lost in these sectors were in rural areas. In urban areas many workers displaced from the manufacturing and construction sectors entered the trade and other service sectors. Urban employment actually grew from 29.4 to 30.3 million persons (Islam and others 1999). In contrast, displaced workers in rural areas had fewer opportunities, and many were forced to take up agricultural employment.[16] Agricultural employment rose in Indonesia in 1998 despite severe drought conditions in some areas. While labor reallocation was greater in rural than in urban areas, the increase in poverty was greater in urban areas due to the incidence (although limited) of unemployment, the greater decline in wages in manufacturing and construction, and the fall in informal sector incomes as more crowding occurred.

In Thailand the crisis greatly affected the flow of labor between urban and rural areas. The principal reason for the increase in poverty in the rural areas, particularly in the northeast, was the integration of the rural and Bangkok labor markets through migration. The crisis dramatically curtailed the regular flow of workers to Bangkok, particularly from the northeast, increasing the rural labor supply beyond what it would otherwise have been. The number of recent migrants to Bangkok (those arriving in the past year) had dropped 50 percent by February 1998 from the levels of a year earlier, and the share coming from the northeast fell from 68 percent to 38 percent. The types of workers who moved to Bangkok also changed dramatically. In February 1997, 25 percent of all migrants to Bangkok had less than an elementary education and only 28 percent had a secondary or higher education. One year later these numbers were 13.5 percent and over 41 percent respectively. These results indicate that unskilled workers stopped going to Bangkok, whereas those with higher skills continued to migrate. In Indonesia there is evidence of significant return urban-rural migration. Around 1 million urban workers entered the agricultural sector, although their families stayed in urban areas.

Other labor market developments. Labor force mobility and fewer work opportunities were accompanied by other labor market developments. First, hours worked per week fell as workers crowded into the urban informal and rural sectors. In Indonesia, the share of employees working fewer than 35 hours per week increased from 30.6 percent in 1997 to 34.3 percent in 1998, with the trend toward shorter hours greater in urban areas. In Korea, average hours dropped from 46.6 hours per week to 46.0, with the shorter working week most prevalent in manufacturing. Second, the composition of employment changed, shifting away from wage employment. In Indonesia, the proportion of workers outside wage employment rose from 55.1 percent in 1997 to 58.9 percent in 1998. Third, in Korea at least, the number of highly skilled workers rose as a share of employment. For instance, the share of managers and professionals had increased from 17.1 percent at the end of 1997 to 21.1 percent by the end of March 1999.

With the exception of Korea, where the agricultural sector is much smaller than in the

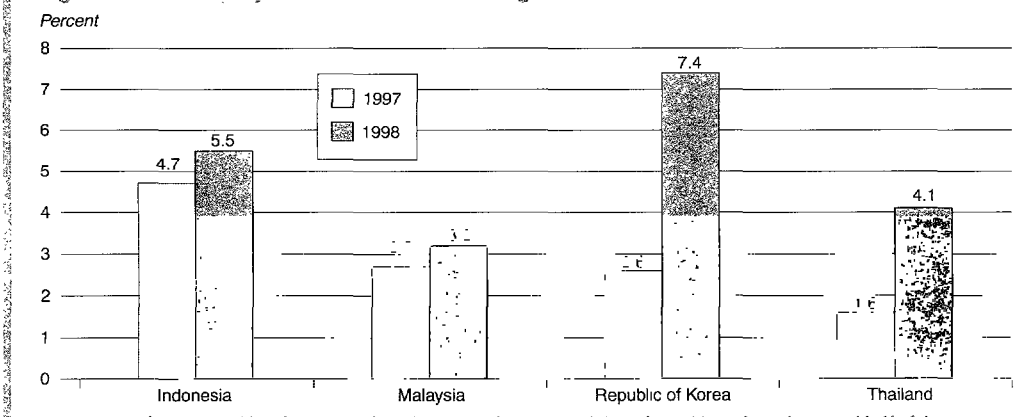
other East Asian economies and total employment decreased substantially, the increase in unemployment in 1998 was not particularly large (figure 2.2). In Korea, the unemployment rate peaked at 8.7 percent in February 1999, an increase of 6.4 percentage points over the low of 2.3 percent in June 1997.[17] But the rate had fallen to 6.2 percent by June of the same year. Underutilization of labor was greater than the data on unemployment indicated, as formal sector working hours fell in all countries during the recession. In Thailand total unemployment increased by 2.5 percentage points during the crisis and remained high during the first half of 1999. In Malaysia open unemployment increased by much less than expected, rising from 2.7 to 3.2 percent. It peaked at 4.5 percent in March 1999, both because productivity-based wages allowed real wage cuts and because migrant workers employed in construction, the hardest-hit sector, left the country.

It is still too early to assess how the crisis affected the incidence of unemployment in different groups. In Korea unemployment seems to have risen more among men than among women, possibly because the female participation rate dropped as the crisis intensified. The number of regular female employees fell by around 20 percent between October 1997 and October 1998. Layoffs in the formal sector initially raised unemployment among older age groups, but unemployment among the young is undoubtedly rising in the absence of job creation. The less educated and less skilled were the hardest hit. For those with no high school diploma, unemployment increased from 1.2 percent in June 1997 to 5.8 percent in June 1998, and for those with high school diplomas it climbed from 2.8 percent to 8.4 percent (Na and Moon 1999).

Government safety nets and poverty alleviation

Raising transfers can offset increases in income poverty caused by declines in labor demand. For this reason some governments have tried to strengthen safety nets, or income transfer programs. The success of these efforts depends on several factors: the existence of well-functioning programs, the institutional and delivery capacity of central and local agencies, the size of budget allocations and the severity of fiscal constraints, and the political economy

Figure 2.2 Unemployment in East Asia during the crisis



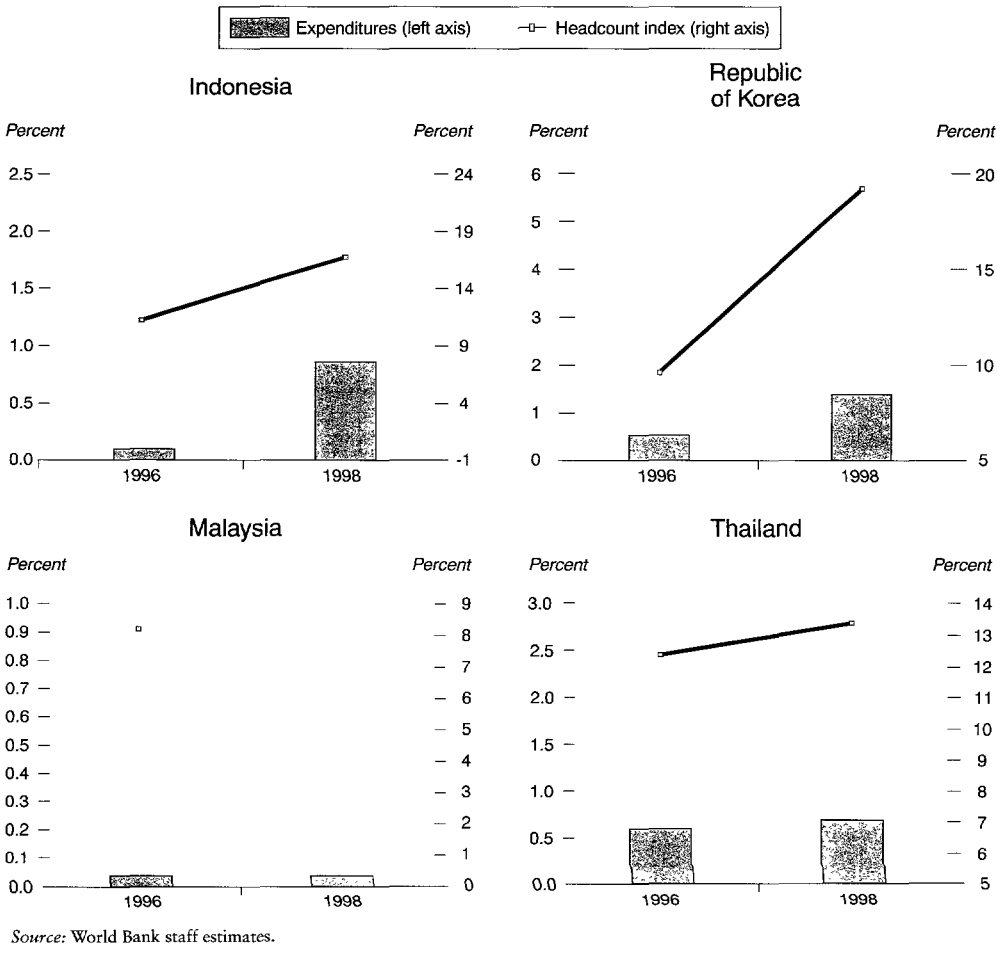
Note: Figures for the Republic of Korea are for urban unemployment, and those for 1998 are from the second half of the year. Figures for Indonesia are from August of each year. Figures for Thailand reflect unemployment as a percentage of the current labor force and are an average of February and August figures for each year.
Source: Shin 1999; Islam and others 1999; Malaysian Labor Force Survey; World Bank 1999d.

affecting redistributive and poverty alleviation efforts.

It is still too early to assess fully the impact of efforts to provide safety nets during the crisis. However, the available evidence suggests that even though levels of public spending on safety nets increased significantly, the impact on poverty was limited. An analysis of country experiences suggests that this limited effect can be traced to a range of factors, including response lags, institutional problems, and low levels of spending relative to the scale of poverty.

The governments of East Asia generally did increase the budgetary share of income transfers significantly in response to the crisis. However, spending as a share of national income remains low by international standards and has increased in only two countries (Klugman 1999) (figure 2.3). Korea had the largest proportionate increase, with spending on safety nets rising from zero to 5 percent of the budget, followed by Indonesia, where the budgetary share rose from zero to 3.6 percent. In Malaysia the safety net as a share of government expenditure held steady at a low 0.16

Figure 2.3 Poverty and spending on social safety nets in East Asia, 1996–98



Source: World Bank staff estimates.

percent during the period. Spending on safety nets as a share of national income rose quite steeply in Korea and Indonesia, though expenditures were low to begin with. These trends contrast with those observed in Europe and Central Asia, where expenditures on safety nets declined significantly across all countries (Milanovic 1998).

Korea. The central response of the Korean government was to introduce a public works scheme that grew enormously during the crisis period, rising to 200,000 participants in January 1999 and 410,000 in mid-1999. The scheme paid wages lower than the prevailing wage for unskilled workers in order to attract only those truly in need of employment. The scheme also was supposed to guarantee a job for all who wanted one, although there was significant excess demand for the number of places available by late 1998. (There were 700,000 applicants in January 1999.)

The budgetary share of safety nets in Korea did increase during the crisis, but recent analyses have shown that the incremental budget and program coverage in 1998 were inadequate to meet the country's needs. Safety net programs covered only 7 percent of the "new" poor in 1998. Overall coverage of the poor (old and new) dropped from almost one-third prior to the crisis to about 17 percent in 1998, and it is expected to fall further (to 16 percent) during 1999 (Subbarao 1999).[18] There is evidence that women have been excluded from public works, and there are accusations of mismanagement and a lack of useful output. Still, what has been done reflects two important lessons: keeping the wage share high—around 70 percent—creates more jobs per won spent; and diversifying the jobs menu to include more than engineering works (for instance, work in libraries) increases job opportunities. Some other East Asian governments are just beginning to learn these lessons.

Thailand. In Thailand government safety nets did not fill much of the gap left by informal transfers at least until 1998. Overall safety net expenditures increased during the crisis, especially during 1999, though some income transfers appear to have been procyclical—that is, contracting with the economy rather than expanding. This situation was the result of conflicting pressures and the government's reluctance to undermine the informal safety net. For example, social pensions and family allowances in rural Thailand appear to be well targeted, but they are underfunded (Prescott 1999). The benefit value is less than one-third of subsistence requirements and reaches only one-third of the target group. Further, the real value of the benefit transfers in Thailand has been falling over time because of the government's failure to adjust them for inflation. One program that expanded in response to the crisis in Thailand was the Ministry of Health's program providing low-income groups with access to public health services. Under the stimulus package, job creation for the poor unemployed was a priority.

Indonesia. The major new safety net programs introduced in Indonesia as a result of the crisis were a rice distribution scheme (known as OPK) and a public works scheme (Padat Karya). Early evidence suggests that their coverage of the poor and their impact on poverty have been limited. The OPK makes 10 kilograms of medium-grade rice available to selected households every month at subsidized prices. On average, this amount represents less than 30 percent of the income of a single individual living at the poverty line and less than 6 percent of the income of a household of five. OPK uses an indicator-based targeting system with minimum standards for food intake, housing, clothing, and medical expenditures.

Evaluations of these programs suggest that just over one-third of all poor households have participated in the Indonesian public works program. The leakage of benefits to the nonpoor has been significant, however. In Jakarta, 9 percent of the poor households worked once on the scheme, compared with 30 percent of the middle income households. In Medan only 5 out of over 400 poor households participated in Padat Karya, because the contractor used his own workers.

Other experiences. Declines in public spending and a failure to reach the poor have undermined safety net programs in Russia and Central Asia. Russia provides a striking example of the failure of safety net programs to alleviate poverty. Spending on social assistance declined throughout the transition, amounting to only 4 percent of the poverty gap in 1997, while the incidence of poverty more than tripled. This shortfall can be attributed in part to the concurrent collapse of the tax revenue system (UNICEF 1998), but it is also the result of an apparent failure to identify and implement programs that reach the poor and that have sufficient political and electoral support.

In addition, the safety net in Russia is not well targeted. Most Russian households receive some type of government transfer, but a significant proportion of the very poor (almost 3 out of 10) and of the poor (1 out of 5) receive no benefits. At the same time almost four out of five households that are not poor do receive public transfers (Foley and Klugman 1997). Even so, the decline in budget allocations for public transfers, coupled with widespread delays in payments, has meant a clear weakening in the impact of transfers on poverty over time. The reduction in the poverty headcount attributable to public transfers fell from 29 to 24 percentage points between 1994 and 1996 (Klugman and Kolev 1999).

Beyond current income effects of the East Asian crisis

Standard poverty measures based on incomes and household expenditures capture only some aspects of the social impact and distress crises cause. Households use various mechanisms to cope with shocks from crises. These responses may help mitigate the immediate impact, but they may also have important implications for future poverty and vulnerability to shocks. Crises also create pressures on governments for fiscal austerity which may exacerbate the negative social impacts, but appropriate fiscal policy may also help alleviate some of these effects.

Behavioral responses and asset accumulation during crises

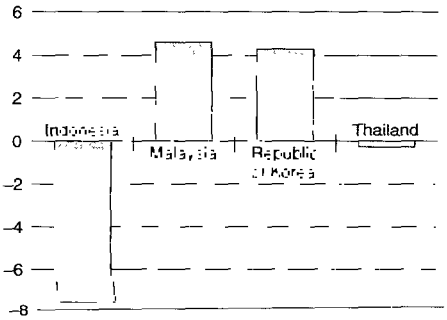
Financial crises affect not only current incomes but also the value of household assets. Inflation, for instance, has been found to be one of the most significant determining factors of poverty (Datt and Ravallion 1997; Agénor 1998; Easterly and Fischer 1999). It erodes the value of fixed-denomination assets such as money, which is the primary asset of the poor and near-poor. These groups have little scope for hedging.

As they do to labor market shocks, households respond in variety of ways to the income, wealth, and relative price effects of a crisis. These responses include consumption smoothing, changing the composition of the consumption basket, selling existing physical assets, and acquiring fewer new ones.

Savings behavior during the East Asian crisis. Changes in household savings patterns during the crisis varied significantly across countries. The savings rate changed little in Thailand. In Indonesia the savings rate declined sharply, falling about 8 percentage points of GDP (figure 2.4). The savings response helped reduce the impact of the crisis

Figure 2.4 Change in gross domestic savings, 1997–98

Percentage of GDP



Source: World Bank staff calculations.

on consumption among poor households, but the reductions in capital accumulation reflect the severity of the crisis.

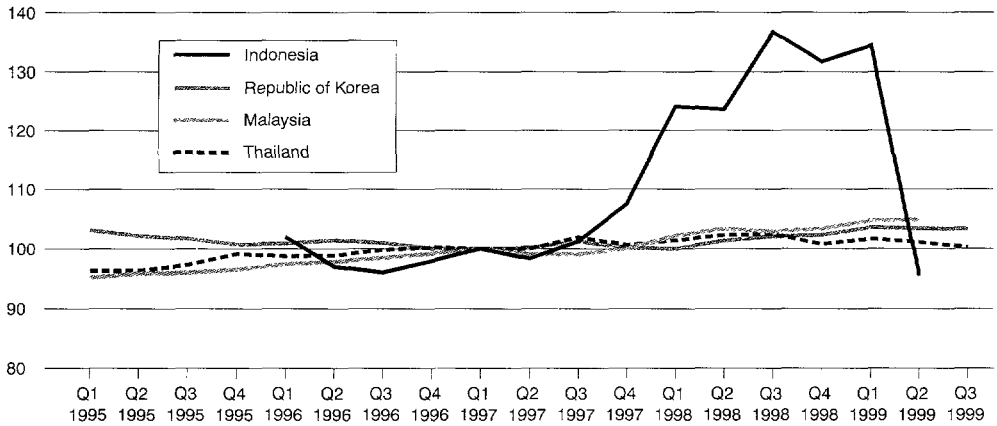
In Korea and Malaysia the decline in per capita consumption was much greater than the decline in per capita GDP between 1997 and 1998 (table 2.1). In Korea the savings rate rose, but the increase reflects primarily the behavior of high-income groups.[19] Total gross domestic savings increased by more than 4 percentage points of GDP. Private savings increased at an even greater rate, especially in light of the increase in the government deficit. Savings declined from 16.3 percent to 11.6 percent among the 20 percent of households with the lowest incomes, however (Kakwani and Prescott 1999). Because of the decline in the consumption ratio and the varied effects on income distribution in Korea, the incidence of income poverty increased much less than poverty based on consumption (discussed above, table 2.1), rising from 2.6 percent in 1997 to 7.3 percent in 1998.

Changes in asset holdings and the composition of the consumption basket. Information about changes in asset holdings in the crisis countries is limited. Some evidence is available for Indonesia showing that people in the most affected regions, such as Java, sold some of their assets (Poppele, Sumarto, and Pritchett 1999). But more complete evidence is available on changes in the consumption basket. Rising food prices are especially important in determining changes in the composition of consumption, because higher prices reduce the real incomes of households with relatively high food expenditures—mainly the urban poor. Food prices rose relative to other commodities in all countries after the crisis (figure 2.5). However, the effect was small except in Indonesia, where relative food prices rose by 40 percent between mid-1997 and mid-1998. The effect is reflected in the dramatic changes in the composition of expenditures: the share of staple foods increased from 23.1 to 31.7 percent, while that of meats and nonfood items (including health and education) declined (Poppele, Sumarto, and Pritchett 1999).

Between 1996 and 1998 households in Thailand, particularly those with low incomes, increased essential real expenditures such as food, fuel, medical supplies, shelter, and education but reduced other expenditures (World

Figure 2.5 Relative price of foods during the crisis

Index of food prices relative to total consumer price index *(1997=100)*



Source: Datastream.

Bank 1999d). Korean households had a different response. The shares of food, clothing, and furniture in total expenditures actually declined, but spending for education and health increased (Kakwani and Prescott 1999).

Fiscal austerity and household demand for health and education

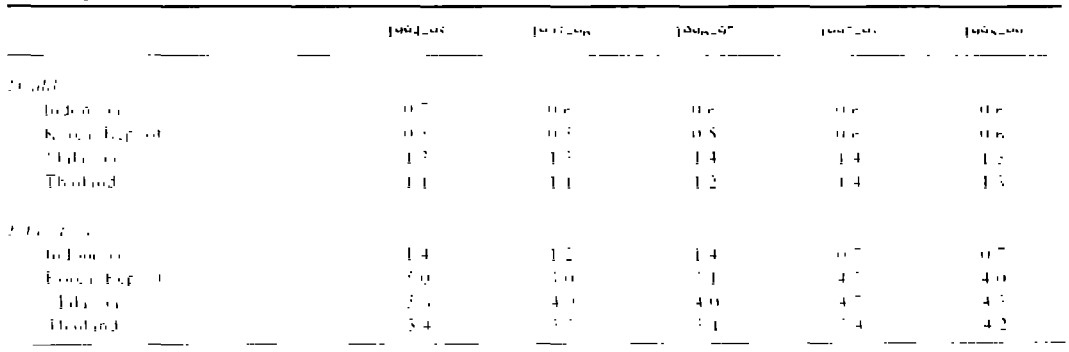
The East Asian economies eventually widened their fiscal deficit targets to counter the recessionary effects of the crisis. Yet real government consumption expenditures fell in all countries except Thailand in 1998. In Indonesia the decline outpaced the fall in GDP. As a proportion of GDP, health expenditures remained relatively unchanged during the last half of the 1990s, including the first year of the recession (table 2.3). Education expenditures fell relative to GDP when the crisis struck in Malaysia and Korea, but rose in Thailand.

Changes in public spending on education and health affects both the availability of these services and, because the services may become more expensive, households' decisions to use them. The full impact of the crisis on public services remains unclear because of the differences in fiscal policy responses and the limited information available on changes in the composition of public expenditures. Some data are available for Korea, Thailand, and Indonesia, however.

Korea. In 1998 households spent less on items such as clothing and recreation but maintained spending levels on education and health. The rates of decline for education (9 percent) and health (14 percent) expenditures were lower than the decline in total expenditures (18 percent) (Kakwani and Prescott 1999).

Thailand. Families and government programs acted to cushion the impact of the crisis on education and health (World Bank 1999c). So far the crisis has not had a negative effect on education. In the year following the onset of the crisis, total gross enrollments in primary and general upper secondary schools increased from 74.8 percent to 75.5 percent. The dropout ratio—children of school age not attending school—continued to decline between 1996 and 1998. Families employed a variety of strategies to keep their children in school. First, households spent less on nonessential consumables such as alcohol, tobacco, clothing, footwear, household goods, transportation, and communications. Second, families used savings or borrowed from informal sources to finance education, so that real spending on education rose for both the poor and nonpoor. Third, for nontertiary education families shifted their children from private to public schools as the relative cost of attending private schools increased. Finally, families

Table 2.3 Public spending on health and education
(percentage of GDP)



Note: Public expenditures include national and local government.
Source: Baptist 1999.

made greater use of government scholarship and loan programs.

Government policies and programs also supported continued investment in education. Real expenditures on education remained constant between 1997 and 1998, and the share of education increased in total expenditures. A number of programs and measures were introduced to protect educational opportunities for the vulnerable. These included allowing parents to pay tuition fees in installments, permitting schools to waive tuition fees on a case-by-case basis, introducing scholarships, expanding the education loan program, encouraging private schools to extend payment deadlines, and providing vouchers to private school children (in the Bangkok metropolitan area). These achievements are remarkable but may be difficult to sustain, as the recovery remains weak and the effects of the crisis continue to be severe. Households, particularly the poor, may be less able to shift more resources to education and sustain higher debts.

There is also no evidence of a negative effect on national health outcomes. For instance, the number of reported cases of malnutrition continued on a downward trend in 1998. Households' real expenditures on both private and public health services declined significantly. Out-of-pocket real expenditures on medical and institutional care were 36 percent lower in 1998 than in 1996, whereas spending on self-medication increased by 12 percent. The decline in expenditures was lower for the poor, who undoubtedly tried to sustain essential health expenditures and who also benefited from public health services. The government maintained its level of investment in health, with real expenditures on health down by 5 percent in 1998 from 1997 levels but still 11 percent higher than they were in 1996. The decline mainly affected investment expenditures. The government enlarged its health safety net by increasing the coverage of public health insurance. Use of public health services increased between 1996 and 1998, with the number of outpatient visits rising by 22 percent.

Indonesia. The severity of the shock and falling living standards led to a decline in school enrollment rates (Frankenberg, Thomas, and Beegle 1999). This decline was much larger at the secondary level—some 4 to 5 percentage points of enrollment rates[20]—than at the primary level. Consistent with the urban bias in the effects of the crisis on incomes, the decline in school enrollment was largest in urban areas, particularly Jakarta. The population with the lowest per capita expenditures had the highest rates of decline in school enrollment: more than 5 percentage points for the 13–19 age group for the lowest two quartiles, and more than 6 percentage points for the 7–12 age group for the lowest quartile. Because they had to increase food expenditures during the crisis, families had a difficult time maintaining expenditures on education, and its share in total expenditures declined from 3.5 percent in 1997 to 2.9 percent in 1998.

The effects of the crisis on health were complex and heterogeneous but clearly negative. The share of household expenditures on health declined from 1.4 percent in 1997 to 1 percent in 1998. The use of public health services following the crisis declined by 1.8 percentage points (from 7.2 to 5.4 percent) for adults and by more than 7.1 percentage points for children. The proportion of visits made to traditional practitioners nearly doubled. In 1997 nearly one-half (46.7 percent) of all children under the age of five had visited a community health post in the month before the survey, but this rate declined to about one-quarter (27.7 percent) in 1998.

Fostering sustained growth and reducing the social costs of volatility and crises

Financial crises have large social costs and tend to retard or even reverse gains in poverty reduction for significant periods of time, even in the most successful countries. Policies and institutions that reduce these risks, help prevent financial crises, and minimize their ef-

fects when they do occur can help smooth the growth process and maximize the positive effects of growth on poverty alleviation (World Bank 1999a; Ferreira, Prennushi, and Ravallion 1999; Lustig 1999). Realizing the long-term benefits of openness, reducing poverty over the long run and avoiding temporary setbacks in poverty reduction requires appropriate national and international policies. These policies must minimize the risks of external volatility and improve the capacity to manage it at both levels. Safety nets are part of any broad-based strategy for limiting the impact of crises and negative shocks on poverty.

Preventing crises. Avoiding crises is clearly the most effective way to achieve stable and sustainable growth. Macroeconomic and financial policies that avoid profligate fiscal and monetary policies, seriously overvalued exchange rates, and unsustainable current account deficits are necessary to prevent crises (World Bank 1999a; Lustig 1999). More flexible exchange rates, greater reliance on fiscal policy, and better and tighter domestic financial regulation are often needed to reduce excessive capital inflows and domestic lending booms (World Bank 1999a). Financial sector liberalization must proceed carefully and in step with the capacity of countries to enforce tighter regulation and supervision. Efforts to improve prudential safeguards and banking operations need to be accelerated in most developing countries. The opening of the capital account, particularly to the more volatile capital flows, needs to be carefully orchestrated to match the capacity of countries to manage risk (World Bank 1999a; Stiglitz and Bhattacharya 1999). Other important policies must focus on improving corporate governance, increasing transparency, and building supportive institutions.

Socially sensitive crisis management. Macroeconomic policy responses to crises need to be designed to minimize the social costs and avoid large declines in aggregate demand and employment (World Bank 1999a; Lustig 1999). Monetary policy should always avoid high inflation as well as excessive increases in interest rates, both of which worsen any contraction in aggregate demand. Policy responses aimed at reducing the social impact of crises should make fiscal policy countercyclical in order to reduce the extent of contraction. However, developing countries typically have procyclical fiscal policies that tend to aggravate the impact of downturns (Easterly, Islam, and Stiglitz 1999). This phenomenon is the result of the high sensitivity of tax receipts to changes in incomes, underdeveloped domestic financial markets, limited access to foreign capital markets, and the risk of losing investor confidence. These factors make pursuing countercyclical fiscal policies difficult. Establishing effective countercyclical fiscal policies requires that public finances be managed well during good times, so that there is room for expansionary policies during negative shocks. The adequate well-institutionalized use of stabilization funds may also be helpful (Lustig 1999). But even East Asian countries that had responsible fiscal policies before the crisis have found it difficult to achieve the looser fiscal objectives.

Fiscal adjustments should also protect the expenditures that are most important for the poor, such as employment and human development programs and targeted subsidies. Where crises result in high unemployment, the fiscal stimulus needs to be directed to labor-intensive activities.

Managing volatility. In the long run developing countries stand to make gains in growth and to reduce poverty through open trade policies and integration into the world economy. But external shocks, such as capital flow reversals and collapses in commodity prices, may cause temporary increases in poverty that are difficult to reverse. Developing countries must develop the capacity to manage increased external and internal volatility through better economic management, more robust institutions for managing risks (such as banks), and improved safety nets.

Safety nets. Before a crisis, safety nets can spur productivity and growth by providing the

insurance necessary for households to make risky choices with higher potential returns. Safety nets also help ensure that crises do not halt development. They help maintain essential household investments in education and health and eliminate the need for the poor to divest themselves of physical capital. Setting up safety nets during times of economic growth may be the only effective way to protect the poor during crises (Ferreira, Prennushi, and Ravallion 1999). The need for redistribution inevitably increases during crises, even if most people's incomes fall. Although the newly poor generate most of the increase in need, policies need not distinguish between the old and new poor.

As a response to a temporary shock, increases in spending on social safety nets are ideally financed over time, both past and future. Despite this logic (or indeed, because of it) countries usually have to adopt policies with the lowest budgetary costs. Targeting benefits is one desirable means of keeping costs low. Self-selection mechanisms such as public works are an important means of reducing the budgetary costs of redistributive policies and of establishing institutions to deliver transfers. Establishing well-functioning institutions may be one of the largest setup costs countries incur in response to deep crises. Ideally, of course, such investments precede a crisis. Recent international experience confirms that open and transparent institutions operating in a noncorrupt way are as important to the establishment of safety nets as they are to other areas of public action.

The possibility of making a guarantee of low-wage work on community-initiated projects the central element of a safety net may be limited. If there is an institutional basis for significantly expanding workfare programs, with central and local agencies operating in a transparent and noncorrupt fashion, then these schemes could play a significant role in alleviating poverty. The contribution of public works to poverty reduction tends to be larger in countries such as Korea, where the social costs of crises have primarily taken the form of high unemployment. Public works are more effective at reducing poverty in these countries because the opportunity costs of participating in public works projects are lower for the jobless than for the working poor. Public works are an important and useful option for reducing poverty during crises, especially in developing countries in need of infrastructure investments. However, they are best implemented alongside other programs for both the able-bodied population and those unable to work.

Notes

1. Easterly and others (1993); Lutz (1994); Mendoza (1994); Hausmann and Gavin (1995); Spatafora and Warner (1995); Deaton and Miller (1995); Collier and Gunning (1996); Guillaumont, Jeanneney, and Brun (1999); Lundberg and Squire (1999). The evidence concerns GDP and output growth and does not account for the direct real income growth that results from increased purchasing power on international markets.

2. Deaton and Miller (1995) suggest that in countries that are marginal producers of commodities, where labor accounts for a significant share of costs, poverty itself may explain why real commodity prices do not increase in the long run. These prices cannot rise as long as there are unlimited supplies of labor at the subsistence wage. Long-term marginal costs are set by poverty in tropical countries, and commodity trade cannot contribute to reducing it. Incentives for technical progress are weak, and even when progress occurs it tends to make prices fall while real wages remain at the subsistence level.

3. The headcount index is the proportion of individuals in the population whose income or consumption expenditures fall below the poverty line.

4. The elasticity for other measures of poverty, such as the poverty gap, are usually higher. See Lipton and Ravallion (1995).

5. For a lower-end Gini index of 0.25, the elasticity would be –3.3. It is –1.82 for a higher index of 0.59 (Ravallion 1997).

6. Aizenman and Marion (1999) find similar results.

7. This result holds under risk neutrality, but it also requires some degree of imperfect competition (Caballero 1991).

8. The authors also find that foreign aid and good policies can offset this vulnerability.

9. This finding is contrary to earlier findings by McBean (1966) that export instability has no effect on growth.

10. The asymmetry notion is also supported by findings about the relationship between the headcount poverty index and mean country income (Ravallion 1997). More generally the poverty headcount will, for a given absolute decrease in income, increase more for a poor than for a wealthy country (Milanovic 1998).

11. Poverty figures for the rural areas are not available for Korea.

12. The figures used for 1997 are estimates based on the declining poverty trends before the crisis.

13. Rural areas gained if they were not primarily rice producing and were not affected by drought (prices remained low in these areas until August 1998). Some areas also had natural disasters during the crisis. The drought of 1997–98 was not as bad on Java as had been feared, but it did hit hard in the Eastern Islands, on the west coast of Sumatra, and in parts of Sulawesi. East Kalimantan suffered an ecological disaster when the drought interacted with wildfires.

14. The measured Gini coefficients are either based on consumption expenditures or incomes. In the latter case they also may be biased, as they do not reflect adequately all incomes and changes of asset values.

15. This result holds true even in industrial countries. See Farber (1993), and Layard, Nickell, and Jackman (1994).

16. There was a shift from rural nonagricultural to agricultural jobs. Rural employment increased from 56.05 to 57.37 million, while agricultural employment increased from 34.8 to 39. 4 million.

17. Among the crisis-hit countries, Korea is the only one that had an unemployment insurance scheme, and had extended its potential coverage.

18. Budgetary allocations to support the unemployed in Korea were to double in April 1999 to increase the program's coverage of the poor.

19. The savings response in Korea and Malaysia, which have higher incomes than the other crisis-affected countries, may reflect greater wealth effects from the crisis.

20. The average enrollment rate for the 13–19 age group was around 60 percent in 1997.

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Asian Restructuring: From Cyclical Recovery to Sustainable Growth

SINCE THE ONSET OF THE EAST ASIAN CRISIS more than two years ago, the corporate sectors and financial systems in the crisis economies have remained in severe distress. Nonperforming loans (loans made by the financial system that are not being fully repaid) have skyrocketed to unprecedented levels: 19 percent of all loans and 27 percent of gross domestic product (GDP) in the Republic of Korea, 20 percent of all loans and 30 percent of GDP in Malaysia, 45 percent of all loans and 60 percent of GDP in Thailand, and over 50 percent of all loans and 25 percent of GDP in Indonesia. In contrast, nonperforming loans in other major emerging market crises (Chile in the early 1980s and Mexico in 1995) were less than 20 percent of GDP. In the Scandinavian banking crises during the early 1990s, nonperforming loans amounted to approximately 5 percent of GDP. East Asia's heavy reliance on bank-based financial systems and the high debt-equity ratios of corporations have made the economic distress especially acute.

Nonetheless, recovery has begun. This recovery, along with the major policy measures used to resolve the distress, raises the possibility that the process may now work in reverse: a rising tide may lift all boats. That welcome possibility, however, cannot be presumed. While a strong cyclical recovery may continue, the aftereffects of the financial shock will persist, and continued restructuring is essential both to reinforce that recovery and to reduce future vulnerabilities.

This chapter reviews the evidence on the extent of corporate and financial distress in East Asia's crisis countries and the significant progress made to resolve that distress. It discusses the relative roles of positive macroeconomic trends and financial restructuring for continued recovery and sustainable growth. It also draws policy lessons for managing corporate and financial distress.

The chapter reaches the following conclusions:

- The ongoing recovery is still fragile and uneven. The externally triggered liquidity crisis during the second half of 1997 indiscriminately submerged both strong and weak producers and financiers. The rising tide is lifting the strong, especially those benefiting from trade growth in electronics products, but the financially weak continue to struggle on account of both crisis-induced and long standing vulnerabilities.
- Without vigorous corporate and financial restructuring, the return to sustainable growth will likely take longer, the fiscal costs of the crisis could rise, and the economies will remain vulnerable to new external and internal shocks. Weak firms in East Asia operated on thin margins in the years leading up to the crisis, and their inability to pay interest following the onset of the crisis has added to their debt burden. Such firms constitute a significant

portion of the corporate sector in each of the crisis economies, and the appetite to invest in them is extremely limited. They will continue to act as a drag on investment and growth until the financial claims on these firms are resolved, and either their operations return to adequate profitability or their assets are redeployed.

- Recognizing the urgency, East Asian governments were quick to create an institutional structure for corporate and financial restructuring; they also earmarked funds for bank recapitalization. The political momentum for reform has, however, slowed down, in part because the deeper structural problems now need to be addressed. Experience from other economies, including Japan, shows that a slackening of the reform effort can undo progress.
- Government restructuring initiatives—though required on many fronts—need to be guided by two policy considerations: limiting the likelihood of systemic disruption; and clarifying financial claims while also facilitating asset reallocation. To contain fiscal outlays, these initiatives should be directed principally to honor the social contract to protect bank depositors and, where necessary, to preserve the payments system and the orderly flow of credit. Government funds should not normally be required for corporate restructuring.
- Bank restructuring is important because it contributes to both policy objectives. Expeditiously restoring the health of the banking system is required because a poorly capitalized banking sector creates continued systemic risks and growing fiscal liabilities for governments. Healthy banks are also best positioned to enforce claims and to pursue corporate restructuring.
- The process of restructuring can itself be disruptive if it is not carefully managed. Restructuring should be undertaken in a manner that ensures the integrity and the organizational capital of the financial system so that prudent lending to businesses and households may continue. Achieving this objective requires difficult choices. Having provided implicit or explicit guarantees, governments can either move ahead rapidly by taking fiscal responsibility for the costs of the crisis, or they can encourage private resolution of the distress while applying regulatory forbearance. Waiting to resolve problems is likely to make them worse. However, expeditious and transparent action should be accompanied by market-based measures to recoup fiscal costs and to signal credibly a commitment to severely restrict guarantees and bailouts in the future.
- Corporate restructuring needs to deal first with the delineation and allocation of losses. Improvements in accounting standards and bankruptcy regimes can help support this process. However, in the absence of effective bankruptcy procedures, out-of-court procedures offer a mechanism for resolution. Once financial claims are resolved, corporate restructuring can be expected to occur through natural market forces, except where major impediments prevent such forces from working. Governments can facilitate asset mobility by creating a framework for effective domestic and cross-border mergers and acquisitions. The Japanese experience cautions that, without an adequate framework for resolving claims and for fostering asset mobility, fundamental corporate restructuring can be indefinitely deferred at a high economic cost even in a sophisticated economy.

The uneven recovery

A strong cyclical recovery is taking place in the crisis economies of East Asia, raising the possibility that growth may alleviate or even eliminate the corporate and financial distress. Although the sharp recovery from the depression-like conditions is expected to con-

tinue over the short to medium term (see chapter 1), its transformation into high and sustainable growth will require more than the present temporary stimuli: the buildup in inventories, low interest rates, and gains from currency depreciation. The recovery has been uneven thus far, with rapid growth in the high technology sectors but more modest growth, and even continued decline, in important segments of the Asian economies. Banking systems, therefore, remain severely distressed. The corporate and financial distress can persist, absent vigorous restructuring, because the incentives to accept and allocate losses are weak. That delay, in turn, can hamper growth by restraining investment and raising the fiscal costs of resolution.

The sources of unevenness

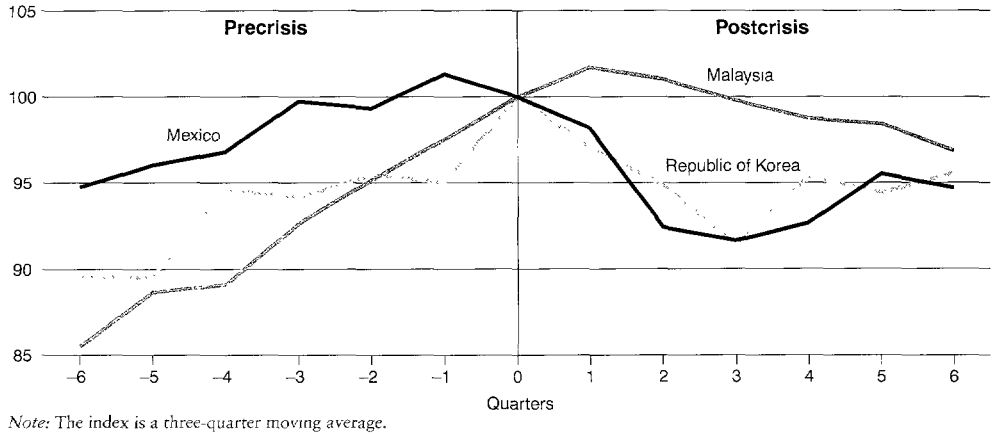
The observed unevenness in recovery is not surprising. "Creative destruction" permits the atrophy of the weak and the shift of resources to higher productivity sectors (Harberger 1998). For instance, with currencies still below precrisis levels, a period of slow growth in the nontradable sectors can be expected. The crisis has also emphasized weaknesses in the competitive ability of traditional manufacturing and has had disproportionate effects on small- and medium-size firms.[1] Though the unevenness is not surprising, it is important, since weak production performance contributes to the already massive financial sector distress and, in turn, hampers growth.

Nontradable sectors. The aftermath of the crisis has seen a sharp decline in the nontraded sectors, where production remains below precrisis levels (figure 3.1). This is to be expected because currency depreciations, which favor traded goods, reduce the incentive to invest in the nontraded goods sectors. The poor performance of nontraded sectors was also a feature of Mexico's revival from its crisis (Krueger and Tornell 1999). Mexican nontraded production took almost three years to reach precrisis levels.

As discussed below, the share of firms unable to pay their debts is significantly higher in the nontradable sectors than in the tradable sectors. In Malaysia about three-quarters of the nonperforming loans are to enterprises in the nontradable sectors. The high distress reflects endemic characteristics. Even prior to

Figure 3.1 Nontradable production before and after crises

Index=100 at the start of the crisis



Note: The index is a three-quarter moving average.
Source: Datastream.

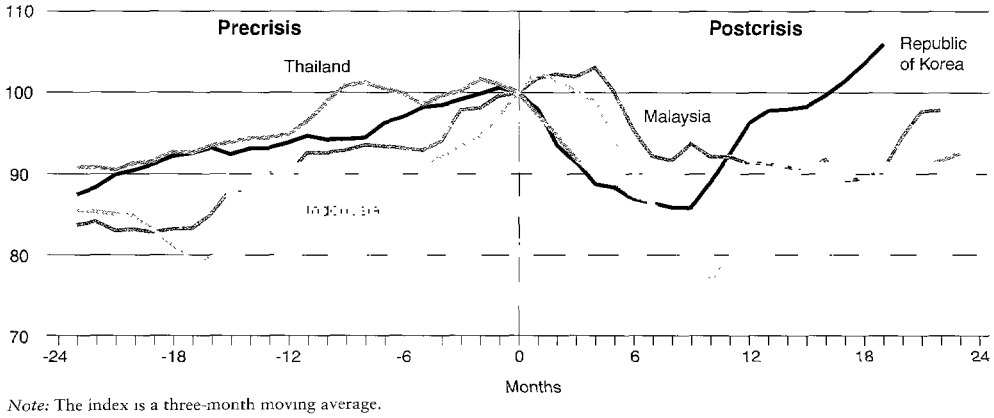
the crisis, the nontradable sectors had been characterized by overcapacity and low productivity (Crafts 1999), reflecting local monopolies in sectors such as retail trade and distribution. The Japanese experience shows that deregulation of domestic trade is important to spur competition and to increase productivity (Alexander 1999). Low productivity also reflects excess capacity in the real estate sector.

Weaknesses in traditional manufacturing. Of all the crisis countries, Korea's industrial production has recovered the fastest, rising above precrisis levels (figure 3.2). The more rapid recovery in Korea reflects in part its greater strengths in sectors such as electronics, computers, and telecommunications (figure 3.3). Korean firms have also done well in the transport equipment sector, whereas Malaysian and Thai firms in this sector have suffered. Traditional manufacturing sectors would have been expected to lead the way to recovery in the lower wage crisis countries. In Thailand the textiles sector grew rapidly following the depreciation, but output has fallen back to precrisis levels as the currency has appreciated. Thai products are having a hard time competing in export markets (EIU 1999b). Traditional manufacturing in Korea rebounded only slightly after the crisis, reinforcing a secular decline that significantly predates the crisis (figure 3.3).

Effects on small and medium-size firms. Small and medium-size firms are suffering disproportionately. While aggregate Korean industrial production bottomed out in late 1998, production by small firms continued to fall in absolute terms until July 1999, resulting in a decline of about one-third from precrisis production levels. In other countries, where small and medium-size firms have a greater industrial presence, their financial inability to withstand crisis has proved more of an economy-wide setback (see Domac and Ferri 1998 for Korea; Domac 1999 and EIU 1999a for Malaysia; Mako 1999 for Thailand). For example, more than 50,000 small firms and 400,000 households throughout Thailand account for about 50 percent of the country's nonperforming loans (Mako 1999).The inability to restructure these debts effectively contributes to financial sector problems, which feed back into continued financial difficulties for small firms.[2]

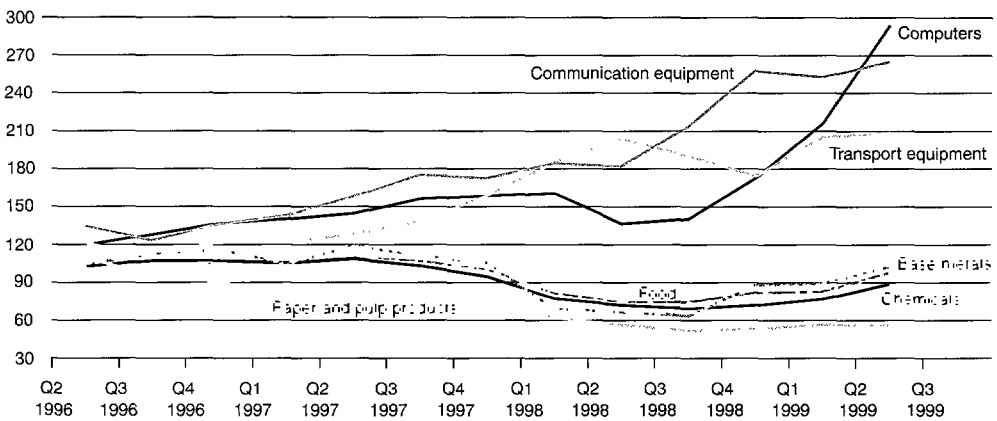
Figure 3.2 Industrial production before and after crises

Index=100 at the start of the crisis



Note: The index is a three-month moving average.
Source: Datastream.

Figure 3.3 Production index in Korea by industry
(1995=100, seasonally adjusted)



Source: Datastream.

Even though large firms have been the drivers of recovery, they—especially the large conglomerates—also pose systemic risks. In Korea the onset of the crisis was, in part, associated with the collapse of two conglomerates, Hanbo Steel and Kia. In Thailand the financial troubles of Thai Petrochemicals symbolized overinvestment in capacity and excessive reliance on external debt. Throughout the region diversified conglomerates were initially regarded as too big to fail, as demonstrated in the Korean and Malaysian governments' early efforts to support the survival of their largest business groups. However, that perception may be changing, especially in Korea, as troubles have mounted at the *chaebol* Daewoo, where a creditor-led restructuring is ongoing.

Continued high levels of corporate and financial distress

The uneven recovery is reflected in continued corporate and financial distress. Two measures

Table 3.1 Corporate distress, past and projected, 1995–2002
(percentage of firms unable to meet current debt repayments)

Country	1995 Total	1996 Total	1997 Total	1998 Total	1999 (Q2) Total	1999 (Q2) Manufacturing	1999 (Q2) Services	1999 (Q2) Real estate	2000–2002 Total	2000–2002[c] Total
Indonesia	12.6	17.9	40.3	[illegible]	63.8	41.5	66.8	86.4	32.4	60.8
Korea, Rep. of	8.3	11.2	24.3	[illegible]	26.7	19.6	28.1	43.9	17.2	22.6
Malaysia	3.4	5.6	17.1	[illegible]	26.3	39.3	33.3	52.8	[illegible]	17.4
Thailand	6.7	10.4	32.6	30.4	28.3	21.8	29.4	46.9	22.3	27.1

a. Estimate, based on the assumption that interest rates stay at their current level throughout the period.
b. Estimate, based on the assumption that interest rates regain their 1990–95 averages.
c. Malaysian firms in agriculture and utilities bring down the average for all firms in 1999.
Note: Growth rates assumed through 2002 are based on IMF projections (IMF 1998).
Source: Claessens, Djankov, and Klingebiel 1999; sectoral estimates provided by Claessens, Djankov, and Klingebiel for this publication.

of distress are firms' inability to meet their debt obligations and the mirror image of that inability in nonperforming loans on the balance sheet of banks. These measures rank the level of country distress similarly. Indonesia has the highest level of financial distress, whereas Korea and Malaysia have the lowest.[3] The distress in all four countries is, however, historically severe when compared with other countries that have experienced financial crises, because of the high levels of bank credit-to-GDP ratios and high corporate debt-to-equity ratios (World Bank 1999). While the sharply lower interest rates should provide relief, several factors, which are likely to persist, have kept the distress at high levels.

Interest rates and fiscal distress. Lower interest rates are unlikely to suffice in eliminating distress. Based on financial statements of firms listed on stock exchanges, the ability of firms to meet their current interest payment obligations can be estimated (table 3.1). These estimates need to be interpreted carefully because they are typically based on a small sample of listed firms for which the most complete information is available.

In all countries, the level of distress had been building since 1995. In 1996, even when growth was still booming, more than 10 percent of firms (except in Malaysia) were already unable to service their debt. The estimates show that in the second quarter of 1999 more than a quarter of listed firms in Korea and Malaysia were unable to service their current debt repayments. In Indonesia almost two-thirds of all firms were under severe liquidity stress (table 3.1). In all countries, distress was especially high in the nontraded sectors (services and real estate), as could be expected from the trends in nontraded production described in the previous section.

The crisis of 1997 moved many marginal firms into illiquidity. Moreover, such firms have accumulated debt since the crisis because they have been unable to make interest payments. This suggests that many firms that have recently emerged from the worst effects of the crisis are still in a precarious situation and are vulnerable to further shocks. Projections for 2000–2002 show that, on current assumptions of growth rates in the respective countries, a significant portion of the firms will remain in distress. If interest rates rise from their present low levels to their 1990–95 averages, the distress will be even greater.

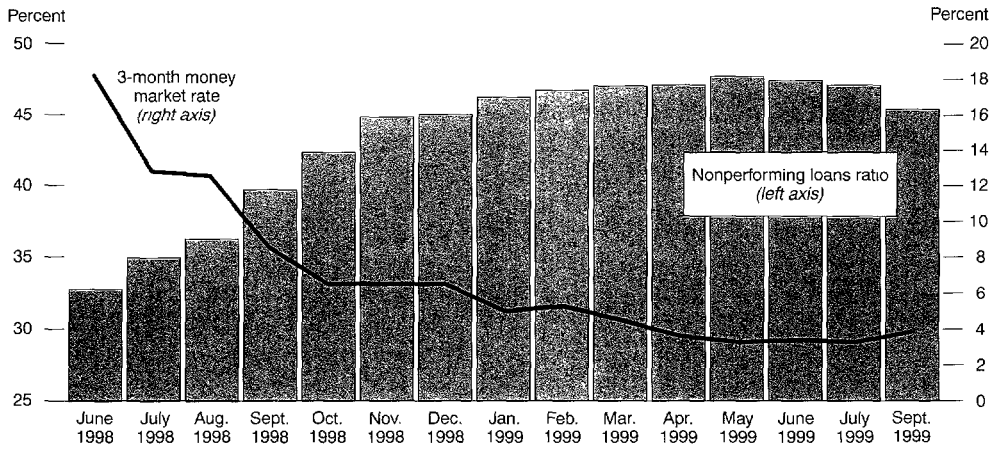
Interest rates and nonperforming loans. Nonperforming loans increased in the first half of 1999 despite declining interest rates, and are stubbornly high—at historically unprecedented levels (table 3.2).[4] In Thailand the problems now center around the commercial banks because, following their closure after the crisis, the assets in nonbank finance companies have shrunk to a small fraction of financial system assets. However, in Korea and Malaysia, the noncommercial bank sector (in-

Table 3.2 Ratio of nonperforming loans to total loans, December 1998–September 1999
(percent)

	Malaysia		Rep. of Korea		Thailand	
	Dec. 1998	June 1999	Dec. 1998	June 1999	Dec. 1998	Sept. 1999
Commercial banks	13.0	12.8	7.4	8.7	42.9	44.6
Merchant banks	30.6	31.6	20.0	11.9	—	—
Other financial institutions	26.8	23.9	13.1	14.5	70.2	62.3
Asset management companies	100.0	100.0	100.0	100.0	—	—
Total financial system	19.7	21.2	16.8	19.2	45.0	45.3

— Not applicable.
Note: Nonperforming loans are measured on a gross, three-month basis and include assets carved out for sale by the asset management companies, which by definition have 100 percent of their loans nonperforming. The steps toward sales of nonperforming loans are discussed later in this chapter.
Source: Financial Supervisory Services (Republic of Korea), Bank Negara (Malaysia), and Bank of Thailand.

Figure 3.4 Thai nonperforming loans and interest rates, June 1998–September 1999



Source: Bank of Thailand.

surance companies and investment and trust companies in Korea, and finance companies and merchant banks in Malaysia) continues to account for about a quarter of the nonperforming loans. Projections of continued growth in nonperforming loans stem largely from the likely increase of such loans in the nonbank financial institutions (see, for example, Xie 1999).

The decline in interest rates has not been sufficient to provide immediate relief. On the contrary, especially in Thailand, but also in Indonesia and Korea, nonperforming loans rose even as interest rates fell (figure 3.4).[5] Fragile firms, operating on thin margins, experienced a severe decline in their net worth when interest rates rose sharply. The sharp fall in output further aggravated the problem. Recovery for the distressed firms will likely be slow. Experience shows that economic downturns associated with financial crises have more enduring consequences than downturns caused, for example, by inventory-driven business cycles (Furman and Stiglitz 1998).

Risks of a low-level equilibrium

Given enough time, financial institutions and corporations can overcome their distress as stakeholders resolve their claims on assets, even in the absence of formal bankruptcy procedures, and as restructuring is induced by market pressures. Without additional shocks, the economies would then return to their new long-term sustainable growth path, which could be lower than the precrisis level (World Bank 1999). The important issue is: how much time? That is, can better management of the restructuring process reduce the costs of the crisis and the length of the period in a "low level equilibrium"?

A slowdown or mismanagement of the restructuring process raises two concerns. First, continued distress lowers investment, which lowers growth, and in turn further contributes to nonperforming loans and reduced investment and growth prospects. While rapid recovery may counteract this negative dynamic, the evidence cautions against such a presumption. Nonperforming loans are likely to remain high, and investment rates have fallen sharply, lowering growth prospects in the short run. Second, strong incentives exist for all parties to wait rather than to resolve their problems (box 3.1). Failure to assess and allocate the losses could lead to their socialization and rising fiscal costs.

Box 3.1 Why distress can persist

The combination of high corporate financial distress, unabated banking sector problems, low levels of investment, and reduced growth rates can cause distress to persist. In a good equilibrium, several factors go together, including high growth, high demand, rising property values, and an appropriate level of credit from the financial system. In a bad equilibrium, poor corporate performance contributes to banks' nonperforming loans, reducing both their capacity and willingness to lend. When property represents a large proportion of the corporate balance sheet or important collateral for loans, as in many parts of East Asia, a decline in property prices further weighs down recovery.

The private incentives to wait hamper the resolution of the losses. For debtors who have experienced large losses in their equity holdings, there is little downside to waiting. They cannot lose much more. For creditors, acknowledging the losses requires raising new capital, which is not easily forthcoming. The problem is aggravated because those in distress have an incentive to undertake further risky investments. Their risks are no greater than when they were merely waiting for the resolution of past problems. For both creditors and debtors, there is the hope that the problems will just go away when growth resumes or if the government bails them out.

As firms and banks wait for their fortunes to improve, debt continues to accumulate. The longer that interest payments are deferred and capitalized, the higher future growth must be for a company to emerge from negative to positive cash flows. The problem becomes systemic as corporate distress reduces demand by lowering the purchases of inputs and by reducing consumer confidence, further increasing the strain on corporate cash flow and balance sheets. Continued restructuring is required to counteract such a negative feedback loop.

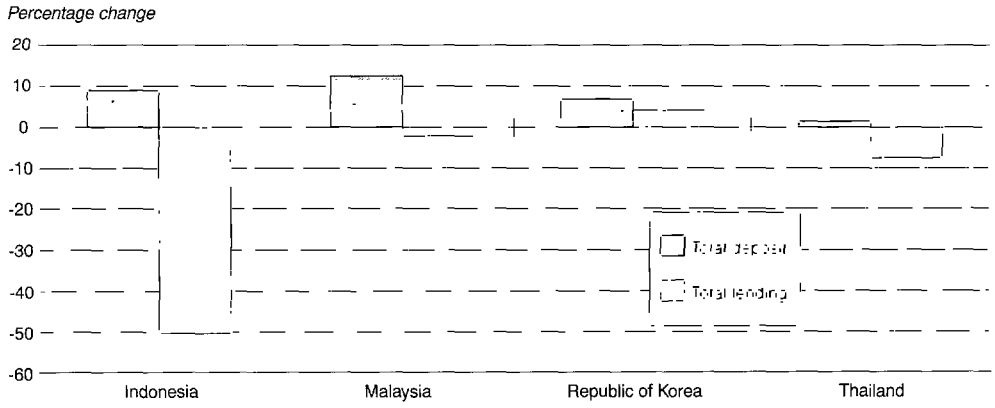
Nonperforming loans in East Asia. In Thailand nonperforming loans have declined modestly from their peak levels. In other countries, however, data up to June 1999 show continued growth in nonperforming loans. A number of factors contribute to the high level of nonperforming loans and the possibility that they may actually grow in the short and medium term. First, the accounting methods in place have not revealed the full extent of nonperforming loans, especially in Korea and Malaysia, where nonbank financial companies are especially important. Poor accounting and faulty credit analysis masked borrowers who were often connected to the lending institutions and who could not pay but were nevertheless able to borrow repeatedly to meet their debt obligations. While many of these nonperforming borrowers have been revealed, some observers believe, for example, that Korean nonperforming loans could grow by over a third from their present levels before they start falling (Warburg Dillon Read 1999).

Second, many firms with thin operating margins and high debt levels are endemically weak, and thus have been unable to service their debt despite the recovery. Because of the capitalization of interest, their debt levels have grown and will remain above precrisis levels for a number of years, even under optimistic growth scenarios.

Third, announcements of restructuring agreements led to the expectation that nonperforming loans would fall as a share of total bank loans. However, most agreements are just that—agreements in principle—and will take time to become effective. More important, and as discussed below, restructuring agreements have mainly taken the form of deferred debt payments, and there is little evidence to suggest that assets have been fundamentally repositioned. As such, some agreements have proved unsustainable.

Fourth, except in Korea, there has been virtually no new lending, implying that banks are not likely to grow out of their bad debt

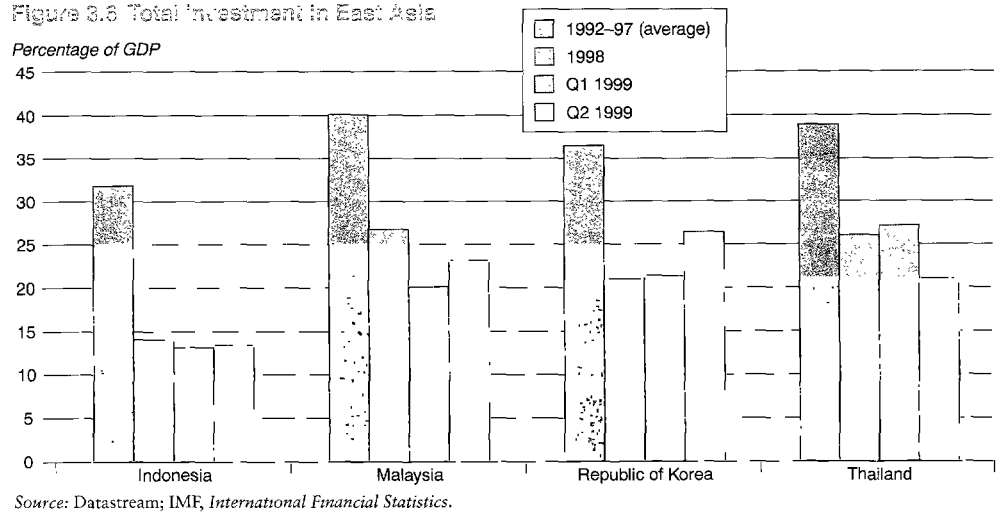
Figure 3.5 Change in bank deposits and lending to the private sector, December 1998–July 1999



Note: June 1999 is used for the Republic of Korea.
Source: IMF, *International Financial Statistics*.

problem soon. In Indonesia and Malaysia, deposits have grown significantly in 1999 (figure 3.5), reflecting a confidence in the banking systems, or at least in the governments' ability to meet their obligations to insured depositors. Increased deposits, in turn, have improved banks' liquidity, but that has not led to increased lending to the private sector. Korea, the only crisis country to experience a credit expansion, has also had the strongest recovery. Such credit expansion will continue to be necessary as Korean firms stop destocking and start rebuilding their inventories. However, with most of the banking system now owned and controlled by the government, the quality of the lending remains

Figure 3.6 Total investment in East Asia



Source: Datastream; IMF, *International Financial Statistics*.

a concern. Korean banks hold significant deposits in the financially fragile investment and trust companies and have been under some pressure to retain these deposits.

Estimates also suggest that income generated from the difference between lending and deposit interest rates will not to be enough to deal with the nonperforming loans and the recapitalization of banks in Indonesia and Thailand (Claessens, Djankov, and Klingebiel 1999). In Korea and Malaysia, the better banks are positioned to grow out of their problems. However, even in those countries, significant distressed segments will require continued restructuring and infusion of capital. Korean banks, for example, are expected to lose 4 trillion won in 1999 to provision against stringent asset classification standards and because of increased exposure to nonperforming loans.

Fifth, some fraction of nonperforming loans are strategic—that is, borrowers can repay, but choose not to because they cannot easily be pursued by their creditors. According to informal estimates, the share of strategic defaulters in Thailand is between a fifth and a third of all defaulters. This adds to the burden on banks.

Distress, investment, and growth. A high level of distress lowers investment and growth prospects. Investment rates have fallen sharply since the onset of the crisis (figure 3.6). Relative to the average of 1992–97, the investment rate in the second quarter of 1999 was down by about 57 percent in Indonesia, 40 percent in Thailand, and 30 percent in Korea. The extent of the fall in investment is greater where the ratio of nonperforming loans is higher. Thus, distressed firms, unable to meet their debt service obligations, have been unable to obtain credit and to undertake new investment. Healthy firms have continued to invest, including in restructuring to reposition and insulate themselves from future crises. The extent of the decline in investment in Malaysia is greater than may have been anticipated by the relatively low level of nonperforming loans and by the low exposure of Malaysian banks and companies to foreign currency debt.

Where investment was initially excessive and misdirected, the fall in investment is desirable. However, a prolonged drought in investment could continue to depress growth in the short run and erode competitive ability in the long run. Moreover, the evidence shows that a decline in investment spending is associated with reduced consumer confidence and reduced consumer spending, the cumulative effect of which is to reduce growth significantly.

The fall in interest rates from the high postcrisis levels should help stimulate investment, though short-term prospects are dampened by a recent rise in the costs of capital. During the second quarter of 1999 the investment rate actually increased in Korea and Malaysia (figure 3.6). However, low levels of investment can be expected to continue in the short term, because significant capacity lies unused, corporate distress is still widespread, and continued uncertainties remain. In addition, the large fluctuations in stock market indices since the peaks reached earlier in the year (see chapter 1) and the continuing upward pressure on government bond yields imply a rising cost of capital and a higher discounting of future growth prospects.

A negative feedback loop potentially operates: distressed firms weigh down growth prospects, but it is growth that helps the firm emerge from its financial troubles. For example, a firm that is just able to service its debt before a shock and then, following the shock, misses a year's debt service finds itself in deeper trouble at the end of the year as the interest is capitalized. To meet its higher debt service obligation, the firm must grow significantly faster than the rate of interest. For a firm with high dependence on debt, a growth rate double the interest rate, continuously for two or three years, may be required to achieve positive cash flows net of interest payments.

International experience with restructuring. International experience suggests that delaying restructuring is costly. Studies of financial crises show that the average recovery

time back to trend growth rates is 2.8 years for banking crises and 1.5 years for currency crises (IMF 1998). The time required to resolve banking crises in Latin America has been longer, approximately four to five years (Rojas-Suarez and Weisrod 1996).

The Mexican experience in 1995 and the Chilean experience in 1982 offer useful lessons for East Asia. The Mexican recovery benefited from the country's participation in the North American Free Trade Agreement and from a favorable international economy. Mexico also took steps early on to resolve its banking crisis. The government carved out a substantial fraction of bad loans in the system and placed them in a special agency, the Fund for the Protection of Bank Savings (FOBAPROA), to be managed and sold.

However, despite its early and impressive recovery from the crisis, Mexico's growth performance since that time has been modest, especially in 1999. Growth has been weighed down especially by the sluggishness in the domestic economy, including the nontradable sector, and by the unwillingness and inability of the banks to lend. FOBAPROA was unable to sell virtually any of the assets it had acquired. More important, the banking sector's problems were not fully resolved and nonperforming loans continued to increase. Krueger and Tornell (1999, 33–34) find that "nonperforming loans are unlikely to disappear on their own, even under a high GDP growth scenario." The continued presence of nonperforming loans has hurt the ability of the bank sector to perform its functions adequately, with credit especially constrained to producers selling in the domestic market. The authors draw three lessons from their findings. First, the Mexican authorities could have been more ambitious in extracting problem loans from the banking system. Second, the government did not take sufficient steps to subsequently discipline the banking sector, leaving open the prospect of further bailouts. Finally, Mexico's bankruptcy procedures are still ineffective, rendering restructuring problematic.

In comparison with Mexico's recovery, Chile's recovery was much slower. Yet, despite the slow recovery, Chile has enjoyed robust and sustained growth. What explains the difference? First, although initially slow to recognize the full extent of the problem, Chilean authorities persisted in their efforts to resolve the problems of the banking sector, including undertaking measures to discipline it. Second, Chile undertook far-reaching reforms to foster capital market development and to encourage greater competition in the economy, especially in nontradable sectors such as infrastructure.

Mounting fiscal costs

The fiscal costs of the crisis are large (table 3.3). These estimated costs are illustrative and depend upon a number of assumptions, including the extent of nonperforming loans at their peak, the degree to which the nonperforming loans will have some future value, and the interest rate that the governments will need to pay for the recapitalization funds (as described in more detail in the next section, table 3.7). Keeping in view these limitations, in all countries plausible scenarios indicate that the bank recapitalization costs are significantly large in relation to existing public debt. Once again, the extent of Korea's problem is large but still modest in relation to that of others, while Indonesia's problem is the most severe. Korea has had low public debt and, while recapitalization costs are significant and may even grow, the interest burden is modest. The reported Malaysian recapitalization costs are relatively small because it is assumed that significant repayments can be collected from existing nonperforming loans. Without the ability to collect on nonperforming loans, however, Malaysian debt levels will actually be higher.

These higher debt levels can reduce growth prospects through different channels. By increasing the government demand for funds, they raise interest rates and, hence, crowd out private investment. Government flexibility to act in a countercyclical manner

Table 3.3 Public debt and recapitalization costs as shares of GDP, 1998
(percent)

	Indonesia	Malaysia	Rep. of Korea	Thailand
Public debt, 1996	23.9	35.3	8.0	3.7
Public debt, 1998[a]	72.5	33.3	10.5	14.6
Estimated recapitalization costs[a,b]	58.3	10.0	16.0	31.9
Funds disbursed	10.6	4.2	12.5	23.9
Expected additional costs	47.7	5.8	3.6	8.0
Estimated debt after recapitalization	106.6	43.3	26.5	46.6
Total interest payment	16.7	3.1	1.9	5.0
Portion for recapitalization	9.2	0.7	1.2	3.4
Fiscal surplus/deficit, 1998[a]	1.4	–1.6	–2.9	–2.8
Government bond yield (percent)[c]	15.7	7.3	7.2	10.8

a. 1997 data is used for Indonesia.
b. For details on recapitalization costs, see table 3.6. For Thailand, the fiscal costs in this table include the net costs incurred for the finance companies (B600 billion) less private resources raised (B250 billion).
c. The bank lending rate is used for Malaysia.
Source: IMF, *International Financial Statistics.*

is reduced. Higher income and corporate tax rates reduce incentives to invest while higher trade taxes can lead to misallocation of resources. Note also that recent analysis has called into question the reported budget deficit estimates in the crisis countries (Kharas and Mishra 1999). The analysis indicates that the true budget deficits have been larger than reported because activities with significant financial implications have been undertaken off budget. In such a context, the rise in the debt levels could have a more serious impact on interest rates, government flexibility, and tax rates.

The focal point of restructuring: the financial sector

In contrast to corporate restructuring, which should be led by the private sector, financial sector restructuring is more the government's responsibility. Major system-wide concerns (safeguarding the payments system and restoring credit availability) and the potentially large fiscal costs are centered around banks and other distressed segments of the financial systems. Moreover, through restructuring the financial system, governments can facilitate corporate restructuring: healthy and soundly managed financial intermediaries are better positioned to negotiate with borrowers and to encourage corporate restructuring than are governments. Governments can also assist corporate restructuring by implementing policies that clarify and enforce financial claims, as discussed in the next section.

Governments in East Asia took early steps to contain the crisis by extending insurance to depositors and creditors. As the crisis spread and deepened, this was followed by the establishment of an institutional structure for managing the restructuring process and by closing, merging, and nationalizing several banks and nonbank financial companies. Significant recapitalization funds were committed, some of which have since been disbursed.

The lesson of this crisis, as well as of past crises, is that the momentum of government action needs to be maintained, while ensuring, whenever possible, that the informational and organizational capital of the financial system is preserved. Forbearance has been used to permit the graduated attainment of prudential standards, and this can have some important benefits. Judging by experience, however, continued generalized forbearance runs the risk of increasing the scale of future problems. Because governments have provided extensive guarantees to bank depositors and creditors,

Table 3.4 Institutional arrangements for [illegible]

	Voluntary corporate workout	Asset resolution company	Agency for bank recapitalization
Indonesia	Jakarta Initiative Task Force	Indonesian Bank Restructuring Authority	Indonesian Bank Restructuring Authority
Korea, Rep. of	Corporate Restructuring Coordination Committee	Korea Asset Management Corporation	Korea Deposit Insurance Corporation
Malaysia	Corporate Debt Restructuring Committee	Danaharta	Danamodal
Thailand	Corporate Debt Restructuring Advisory Committee	Financial Sector Restructuring Authority and Asset Management Corporation (for nonbank finance companies)	Financial Restructuring Advisory Committee (funded by the Financial Institutions Development Fund)

Source: IMF 1999; World Bank staff.

on balance, it is desirable for governments to assume early responsibility for recapitalization. At the same time, measures to contain the fiscal burden should be used to signal a commitment that the government is serious about limiting further exposure through explicit or implicit guarantees. These measures include sharing in the upside of nonperforming assets that are sold, making it worthwhile for banks to recoup from defaulting debtors when nonperforming loans are left with banks, and privatizing acquired banks.

Early and strong government involvement

The East Asian economies were quick to begin dealing with the banking sector crisis by creating new institutions, reorganizing the financial sector, and creating mechanisms for asset resolution and the recapitalization of banks.

Institutions for restructuring. An impressive array of institutions has been put in place to deal with corporate and financial restructuring (table 3.4). The agencies for voluntary

Table 3.5 Structural changes in the [illegible]

	Closures	State takeovers	Mergers
Indonesia	64 banks (18 percent)	12 commercial banks (20 percent)	4 of 7 state banks to be merged into a single bank (54 percent)
Korea, Rep. of	5 commercial banks, 17 merchant banks, and more than [illegible] (13 percent)	4 commercial banks (23 percent)	9 banks and 2 merchant banks to create 4 new commercial banks (15 percent)
Malaysia	None	1 commercial bank, 1 merchant bank, and 3 finance companies under central bank control (12 percent)	6 mergers of finance companies and commercial banks (12 percent)
Thailand	57 finance companies (11 percent) and 1 commercial bank (2 percent)	7 commercial banks (13–17 percent) and 12 finance companies (12 percent)	5 commercial banks and 17 finance companies into 3 banks (20 percent)

Note: Figures in parentheses refer to percentage of assets in the financial sector.
Source: IMF 1999; World Bank country reports.

corporate workouts and asset resolution have all been established since the crisis. In Malaysia the agency for bank recapitalization, Danamodal, is also new. Recapitalization agencies in the other countries have been adapted to deal with the crisis. The contrast with Japan is especially striking. In Japan, recognizing the problem took much longer, but in the crisis countries of East Asia, the problems were too severe to wait.

Reorganization of the financial sector. Even though the institutional structures for dealing with the crisis are similar, the different countries have chosen quite different restructuring options. These options range from closing nonviable financial institutions early on and disposing of their assets, to retaining the institutions but fostering strength through mergers.

The early closure option has been employed in several countries. In Thailand virtually the entire segment of finance companies was closed; in Korea select finance companies and commercial banks, and many small banks were closed; and in Indonesia several weak banks were closed (table 3.5). However, in Indonesia more than 170 banks remain even after the closures. Malaysia has not closed any of the financial institutions and is relying instead on extensive mergers of financial institutions; the government expects mergers with good banks to help resolve the problems of the poorly performing banks. The Malaysian plan to mandate the reconstitution of the entire financial sector into six groups has given way to a more flexible, but as yet evolving approach.

While Thailand has largely dismantled its nonbank financial institutions and Malaysia has decided to merge them into more viable, often parent, banks, Korea has yet to develop a strategy for this segment of the financial sector. The close ties between the nonbank financial institutions and the Korean *chaebols* has complicated and aggravated the restructuring task. For example, the absence of early restructuring at the second largest *chaebol*, Daewoo, led to a significant deterioration in the financial status of nonbank financial companies. These institutions, moreover, were not subjected to the necessary discipline and continued to lend to Daewoo, even while its viability was in question. The revelation of that debt's unsustainability casts the main shadow on Korea's recovery.

Since governments have become substantial owners of the banking systems through their direct takeovers and recapitalization initiatives, the reprivatization of these institutions poses a major challenge that will influence the long-term structure and performance of the financial sectors. So far, efforts at privatization have encountered problems, partly as a result of the continued growth of nonperforming loans, which new acquirers have difficulty valuing. The recent experience suggests that differences in perceptions of value can be large. The protracted negotiations for the sale of Korea First Bank centered around the valuation of nonperforming loans that had not been carved out or revealed and on the extent of continued government obligations to assume nonperforming loans following the privatization. With Daewoo as a principal client of Korea First Bank, the uncertainties in valuation were not altogether surprising. The sale of Seoul Bank has, for the present, been deferred. In Indonesia and also in Thailand, sales of banks have stalled for similar reasons. While several possibilities exist in Thailand, so far in 1999 two small nationalized banks have been sold, with substantial government injection of funds or commitment to assume responsibility for further growth in nonperforming loans.

Asset resolution mechanisms. The two extreme choices for asset management strategies include setting up a government agency with the full responsibility of acquiring, restructuring, and selling the assets or letting banks manage their own nonperforming assets. A specialized agency may be required when the task of dealing with nonperforming loans is fundamentally different from that of making new loans and banks possess limited management capacity with a comparative advantage in new lending. However, justification

for that agency to be government-owned and -operated arises either when extrajudicial powers are required to deal with the nonperforming loans problem, or when there exist significant economies of scale in asset management that cannot be realized by private contracting. Intermediate approaches include those employed in Thailand with the government principally acting as an intermediary for the market-based sales of nonperforming assets or facilitating private asset management through tax incentives.

Governments removed a significant share of nonperforming loans from the financial system and transferred them to government agencies: 26 percent ($37 billion) in Korea, 66 percent ($28 billion) in Indonesia, and 50 percent ($11 billion) in Malaysia (Claessens, Djankov, and Klingebiel 1999).[6] In Thailand, the entire assets of 57 nonbank finance companies (over $20 billion) were transferred to the Financial Sector Restructuring Authority, followed by the only significant subsequent resale of nonperforming assets. However, the Thai government has not acquired the nonperforming assets of commercial banks.

Government ownership or management of a specialized asset management company may be justified if it is given administrative powers that overcome the higher transaction costs of the regular bankruptcy and judicial system. In Indonesia and Malaysia, the Indonesian Bank Restructuring Authority and Danaharta, respectively, have extrajudicial powers to receive compensation from debtors. Malaysia's Danaharta also plans to take a more active role in restructuring assets before selling them. Through restructuring of the assets prior to their sale, the expectation is that value will be enhanced. The evidence on successful restructuring by a government-run asset management company for loans other than for real estate is, however, weak (Klingebiel 1999). The realization rate by Mexico's FOBAPROA is expected to be in the low single digits. The resources and skills required for success restructuring of assets are demanding. In fact, government agencies can reduce the effectiveness of market-based solutions. The terms offered by Danaharta to banks—for example, special provisioning requirements and generous share of recovered amounts—has implied that private buyers of distressed debt have essentially been priced out, thus reducing the space for market-oriented restructuring.

In Korea, and especially in Thailand, alternative market-based approaches are being attempted. The speed at which the Financial Sector Restructuring Authority in Thailand operated was noteworthy. The realization rate of 25 percent was low, but there is no evidence that waiting would have increased it. In Korea, the Korea Asset Management Company, which acquires the nonperforming loans, expects to delegate the task of managing and

Table 3.6 Estimated recapitalization costs for commercial banks, mid-October 1999

	Estimated costs	Amount disbursed			Remaining fiscal costs as percentage of GDP
		Local currency	US$ billion	Percentage of GDP	
Indonesia	593 trillion rupiah	[illegible] trillion	[illegible] billion	11	45
Korea, Rep. of	72 trillion won	[illegible] trillion	47 billion	11	4
Malaysia[a]	31 billion ringgit	[illegible] billion	4 billion	4	6
Thailand[b]	1,121 billion baht	[illegible] billion	11 billion	16	5

a. Estimated costs include those to be incurred by Danaharta for purchasing nonperforming loans (15 billion ringgit) and recapitalization funds injected by Danamodal (16 billion ringgit).
b. Amount disbursed includes significant private sector funding of recapitalization, as discussed in the text.
Note: These are illustrative numbers based on varying assumptions of recovery of nonperforming loans, as discussed in the text.
Source: Central bank data.

selling these loans to private contractors. For commercial banks in Thailand the government is providing special tax incentives to privately run asset management companies.

Recapitalization of commercial banks. All the crisis countries have taken significant initiatives toward injecting new funds into their banking systems (table 3.6). Except in Thailand, governments have been the dominant source of funds. In all countries, however, much remains to be done.

Reported estimates of recapitalization costs vary significantly, in part because the strategies are complex, but also because important judgments are required to arrive at a final number. First, a judgment is required on whether nonperforming loans will continue to increase. Some estimates suggest that they will in both Korea and Malaysia, but have reached their peak in Indonesia and Thailand (Warburg Dillon Read 1999). Second, a judgment is required on what fraction of the nonperforming loans will eventually be recovered. This judgment is perhaps more difficult to make than the first. The estimates of recapitalization costs in table 3.6, which are based on official country sources, assume that the recovery rate on nonperforming loans will be around 50 percent in Korea and Thailand, about 70 percent in Malaysia, and less than 25 percent in Indonesia. The range reflects assumptions about economic growth and interest rates and also about the intrinsic worth of those assets. Auctions of distressed assets conducted in Korea and Thailand caution that the realization rates may be lower than currently anticipated. In both countries real estate loans have sold for about 50 percent of the original value of the loan. Loans based on automobile hire-purchase contracts have been similarly discounted. Commercial or business loans have fared substantially worse, with realization levels typically in the 20 percent range. When all loans sold are added up, the realization rate in Thailand has been approximately 25 percent.

The pressure on Thai fiscal resources has been mitigated through private efforts to raise capital, which has amounted to about B250 billion, or about one-third the amount so far disbursed. The Thai government has set aside B300 billion in a scheme to provide matching funds for privately raised capital. However, only B32.5 billion have been used by private banks because the government funding was tied to management changes, which has led to private solutions. Privately funded recapitalization through equity issues and innovative debt instruments has, therefore, been more extensive in Thailand than elsewhere. While such private solutions are desirable, thus far they have resulted in high costs of funding, which is unlikely to heal the cash flows of the already distressed banks.

Government funds for augmenting the balance sheets of banks have been the smallest in Malaysia, where about RM13 billion (4 percent of GDP) were disbursed by July 1999 through Danaharta's purchase of nonperforming loans and through capital injections via Danamodal. Malaysia's smaller costs in relation to GDP reflect both the smaller shock Malaysia's financial system faces relative to other countries and the precrisis levels of capitalization, which were, on average, higher than in the other crisis countries. However, costs will be greater if the nonperforming loans continue to rise, as some observers expect, and also if the realization rates on these loans are lower than those currently assumed. For funding the recapitalization, Malaysia has relied on zero-coupon bonds—that is, on bonds that pay no interest on an ongoing basis. While this alleviates short-term fiscal costs, the repayments will be bunched and, therefore, presume either significant economic growth or the continued ability to roll over the debt.

Complex tradeoffs for policymakers

While the achievements thus far have been significant, major challenges remain. Large segments of the banking systems remain undercapitalized and, except in Korea, banks have been reluctant or unable to increase their stock of loans. The institutional structure created to deal with the crisis has few "sticks" to

force the pace and has, consequently, not counteracted creditors' and debtors' natural tendency to wait (box 3.1). With fiscal costs rising and some of the more difficult problems still ahead, governments face the complex task of managing their fiscal costs while also ensuring the continued integrity of, and in some cases the strengthening of, their countries' financial systems. Yet experience has shown that a loss of political momentum in dealing with the problems is only likely to aggravate them.

Forbearance versus recapitalization. In the wake of a crisis, the objective of bank restructuring should be to maintain the flow of credit while ensuring that the new lending is prudent (Stiglitz 1999). Achieving this objective presents different options. Lending could be encouraged by exercising regulatory forbearance. However, the evidence does not suggest that simply encouraging voluntary workouts while engaging in regulatory forbearance leads to a resumption of lending. In fact, the experience from past systemic crises warns that forbearance without tight oversight could make matters worse. At the same time, the alternative strategy of government-financed recapitalization could stimulate new lending, but may entail large fiscal costs and may reduce incentives for prudent lending. Both forbearance and government bailouts may undermine the regulatory challenge of building a sound and competitive financial system.

While all countries have updated their financial sector regulatory systems to be more in line with international reporting standards and prudential norms, varying degrees of regulatory forbearance are in place to permit a graduated achievement of these norms. These apply, for example, to the following:

- Less stringent recognition of nonperforming loans (as in Malaysia, where loans are considered nonperforming if they have not been serviced for six months rather than three months elsewhere)[7]
- Relaxed provisioning against the nonperforming loans (as in Korea, where loans considered restructured have very low provisioning when, in fact, they remain extremely risky)
- Breathing room to achieve capital adequacy standards (especially in Indonesia and Thailand).

There are important reasons for exercising forbearance. First, bank restructuring and corporate restructuring through a workout program are inextricably tied to each other with respect to incentives. The banks need to have incentives to take the debtors through the workout process, which is often difficult, protracted, and costly. Also, workouts often take place while the bank itself is undergoing restructuring and is under severe pressure to meet capital adequacy ratio requirements. Banks need to be encouraged to reach a restructuring agreement with the debtor that is realistic and that matches the debtor's ability to repay. Reassurances from regulatory authorities of capital adequacy forbearance can help. Otherwise, banks will be tempted to paper over their agreements with their debtors and not to recognize the true extent of potential portfolio losses. As such, initial forbearance may have been the most realistic response to systemic crisis and simultaneous distress among hundreds of large corporations and thousands of smaller ones. Second, in the absence of forbearance, the alternative may be to close down an institution, which creates a bankruptcy cost—that is, the constituent elements of a closed institution may sell for less than the institution's value as an ongoing entity.

However, the evidence suggests that, while selective forbearance of relatively sound banks and securitized transactions may be appropriate, continued generalized forbearance could ultimately prove costly. The timely adoption of more stringent accounting standards for restructured debt is needed. Forbearance does not create stronger balance sheets, which are required to meet the new working capital needs of firms in distress. Rather, it dilutes the banks' incentives to negotiate more forcefully with

the controlling shareholders of distressed corporations and leads to an unrealistic assessment of recapitalization needs. The overwhelming international experience is that forbearance, on balance, works to delay, but not to heal (Kane 1989; Brinkmann, Horvitz, and Huang 1996; and Sheng 1996).

Government financed recapitalization also presents difficult tradeoffs. Early recapitalization can release capacity for new lending that permits a broad-based recovery. "An essential element of banking reform is recapitalization of the banks with enough income earning assets to leave a prudential capital base in place after provisioning for bad loans" (van Wijnbergen 1998, 11). However, recapitalization of the financial system generates not only immediate fiscal costs, but also creates a moral hazard for the future. Early resolution of the problems is favored, because the dilemma can typically be expected to worsen. Firms with heavy debt burdens, unable to obtain new financing and hence unable to grow, find their debt burden increasing over time, thereby increasing the extent and severity of nonperforming loans at banks (Stiglitz 1999). Delays may also contribute to a culture of debt default, further aggravating both the size of the problem and the uncertainties in the timing of government outlays.

Under the circumstances, an early recognition of the governments' fiscal obligations is needed not just to honor their commitments to depositors, but also to create the basis for market-led restructuring. To protect depositors, banks can, for example, be "paid" with government bonds, the interest on which can be combined with a portion of the net earnings to service the interest claims of depositors. Bonds should also be tradable to permit repayment where depositors decide to take their savings elsewhere. At the same time, as safe assets, the bonds on the balance sheet of the banks would greatly improve the capital of the banks. This should improve the incentives of banks to recognize losses without fear of depleting capital to an unsustainable level. Such recognition should, in turn, improve the efficiency of the corporate restructuring process. In addition, if governments can credibly commit to refrain from further bailouts, incentives for further risky lending would decline.

Recovering recapitalization cost. The cost of recapitalization can be lowered through incentives to encourage increased reflows from the nonperforming assets. Government support could be conditional on contractual provisions that share in the success if asset values recover. For example, when Chrysler Corporation was bailed out in the United States, the government obtained warrants as a quid pro quo that could be exercised at favorable value in the event of a recovery. Similarly, when a bank retains a nonperforming loan to benefit from government recapitalization, the proceeds from any recovery could be shared with the bank managing the loan. Such a provision was used in Chile. Finally, the privatization of government-acquired banking institutions remains a priority, both to recover fiscal outlays and to lay the foundation for private risk bearing. Especially in Malaysia, which envisages an extensive merger program, but also in other countries the objective of containing fiscal costs and restructuring the banking sector may be combined. In place of administratively mandated mergers, governments could use the sale of their ownership stakes to promote market-based mergers.

The role of deposit insurance role in crisis situations.[8] An explicit system of deposit insurance put in place when the banking system is in sound health should, in the event of a crisis, deal with its obligations early to contain the crisis. However, extending the system of deposit insurance after the onset of a crisis creates bad incentives (Garcia 1999). In Indonesia unconditional and comprehensive guarantees were extended to all parts of the system, which was soon revealed to have deep-seated problems. Guarantees were even extended to some depositors of the 16 banks that had been closed down before the guarantee scheme was announced. In Thailand a July 1997 cabinet decision partially guaranteed depositors and creditors of the 57 finance companies that were

subsequently closed down; this was followed by a blanket guarantee covering all depositors and creditors of the remaining finance companies and commercial banks (IMF 1999). Evidence from other postcrisis situations suggests that imposing losses on depositors and creditors need not lead to panics and bank runs.[9]

Corporate restructuring: some progress, but a long way to go

Government funds are not required for corporate restructuring, and their supply may even hinder private resolution as stakeholders are induced to seek these subsidies. The proper role for governments is to facilitate resolution of financial claims and foster the reallocation and mobility of assets. In the absence of efficiently functioning systems to resolve financial claims, governments in all the crisis countries have instituted out-of-court mechanisms to encourage financial settlements. Beyond these immediate measures, but also aiding in the short term, are ongoing efforts to achieve effective bankruptcy regimes and improved accounting standards. Once financial property rights have been clarified, the market system and the private sector should be in a position to undertake the required reallocations of productive assets, but governments can play an important role in permitting greater asset mobility. The Japanese experience shows that without fundamental reforms to foster asset mobility through bankruptcy processes and mergers and acquisitions policies, corporations may be slow to undertake significant restructuring (box 3.2). That experience, though, also shows that success requires continuing procedural innovation and adaptation to meet the evolving needs of the corporate sector.

Slow resolution of financial claims

Immediately following the crisis, governments in the crisis countries helped establish out-of-court mechanisms (see table 3.4) that could speed up the settlement of financial claims in the absence of bankruptcy regimes able to handle the large-scale distress. These mechanisms have been slow to produce results, in part because they depend on moral suasion. However, progress has been achieved in Korea and Malaysia. At the same time, account-

Table 3.7 Restructuring: out-of-court and in-court progress, August 1999

	Indonesia	Malaysia	Rep. of Korea	Thailand
Out-of-court procedures				
All or the majority of financial institutions signed on to accord	No	[illegible]	Yes	[illegible]
Formal process of arbitration exists, with deadlines	No	[illegible]	No	[illegible]
Provision of penalties for noncompliance	No	[illegible]	Yes	[illegible]
Out-of-court restructurings				
Number of registered cases	234	[illegible]	92	[illegible]
Number of cases started	137	[illegible]	[illegible]	[illegible]
Number of restructured cases	22	10	46	[illegible]
Percentage of restructured debt in total debt	13	[illegible]	40	[illegible]
In-court restructurings				
Number of registered cases	[illegible]	[illegible]	48	[illegible]
Number of cases started	[illegible]	4	[illegible]	[illegible]
Number of restructured cases	[illegible]	[illegible]	[illegible]	[illegible]
Percentage of restructured debt in total debt	4		[illegible]	[illegible]

.. Not available.
a. In Thailand, penalties for noncompliance were introduced in August 1999 for creditors who had signed intercreditor agreements.
Source: Claessens, Djankov, and Klingebiel 1999.

Box 3.2 Redeployment of assets: lessons from Japan

Restructuring in Japan is finally beginning under the immense pressures of a long recession, but it is being helped by improved regulations governing bankruptcy and mergers and acquisitions. Japanese businesses are restructuring at a faster pace than during past economic downturns. Mergers and acquisitions are occurring in numbers unprecedented for Japan, while the debt associated with bankruptcies has also hit new highs. The unemployment rate is at a postwar peak, with more than 1 million jobs lost in the last 18 months alone. This contrasts with the 1990–91 recession, when Japanese firms were much more reluctant to reduce their work force. Companies are also shedding cross-held shares and major corporations are shutting down subsidiaries, closing operations, and selling off unprofitable businesses.

The Japanese experience offers several lessons. Delays in restructuring weak banks and corporations can contribute to long periods of low growth. Absent active governmental effort, an inadequate institutional infrastructure for resolving financial claims can persist even in an industrial country. Moreover, effective redeployment of assets through bankruptcy processes and mergers and acquisitions requires an ongoing adaptation of regulations, and changes in business practices, as constraints are revealed.

Bankruptcy. Until the early 1990s, approximately 15 percent of broadly defined business failures involved formal bankruptcy proceedings. The proportion has risen in recent years to 30 percent, as larger firms are now failing. These firms are more likely to prefer the protections and safeguards of courts over the cheaper and faster proceedings of private negotiations. For small firms, private procedures typically implied a freezing of credit and the cessation of operations, which is the worst possible social outcome.

Gatekeeping procedures in Japanese law and regulations act as a barrier to court actions. Advance deposits for court costs are especially onerous for small firms. Japanese courts can take a few months to determine if a bankruptcy petition meets certain conditions, and they do not issue an automatic stay, rendering firms vulnerable to raiding by creditors.

Several changes are being proposed to make bankruptcy procedures more efficient. In April 1998 the Justice Ministry proposed revisions to integrate the five laws governing corporate bankruptcy into a single law. Many of the changes are aimed at making formal bankruptcy more accessible to small firms. Officials have sought to enhance the prospects of reorganization rather than liquidation. The current law permits applications for reorganization only after a firm is virtually insolvent, favors change in

ing standards and bankruptcy systems, where needed, have been reformed, which may also help resolution of financial claims in the short run and may provide a sounder basis for improved corporate governance in the long run.

Voluntary workout mechanisms. Voluntary mechanisms rely on the so-called London Approach and provide a framework within which claims can be settled.[10] While the details vary across countries, their main features include: binding agreements on the part of banks to participate in and honor the agreements, with some possibility of penalties if agreements are not adhered to; timetables to achieve resolution; and standardized agreements between debtors and creditors and, equally important, between creditors themselves. The main characteristics of such mechanisms across countries and their achievements are described in table 3.7.

Korea and Malaysia appear to have benefited the most from these out-of-court mechanisms, in part because they have more binding agreements among banks. In Korea, penalties exist for noncompliance, while Malaysia has well-defined implementation schedules. Thai procedures, though similar to those of Malaysia, have achieved less, reflecting the deeper

Box 3.2 (continued)

management, and requires a reorganization plan at about the same time as the bankruptcy petition. Under the proposed approach, companies could apply to the courts for protection with more of their assets intact, keep their management in place, and receive more time to draw up a turnaround plan. Also included in the proposal is the shortening of the period of asset assessment from the current three to seven months to one month. Other changes call for greater information disclosure and removal of barriers to selling parts of a company.

Mergers and acquisitions. Mergers and acquisitions are on the rise in Japan, though their importance to the economy is still a small fraction of that in the United Kingdom or the United States. The value of foreign takeovers in Japan rose from $1.1 billion in 1997 to $6.9 billion in 1998, and then shot up to $7.1 billion in just the first quarter of 1999. Similarly, domestic mergers and acquisitions have also risen briskly.

For years, mergers and acquisitions were a mark of failure associated with companies on the verge of bankruptcy, but there were also real economic barriers. The lack of transparency in the books of potential targets was a serious problem. For example, a department store with a strong franchise and substantial real estate assets found no buyers because the scale of off-balance sheet guarantees provided by the store was large and uncertain. Another problem was the widespread system of cross-shareholding. The practice of mutual shareholding, initiated in the 1950s, was designed explicitly to ward off undesired acquisitions.

However, economic forces are eroding barriers to mergers and acquisitions, aided by the decline in cross-shareholdings and facilitated by regulatory changes. Many Japanese companies, especially family-owned businesses established in the early postwar period, are seeking injections of capital, as operating losses and write-offs of bad assets have been a drain. Cross-shareholdings are being eliminated, as the returns on these equity holdings have been persistently low or negative. At the same time, many regulatory constraints on business activities are being removed, and specific measures to facilitate mergers and acquisitions are being instituted. For instance, a 1997 amendment of the Commercial Code by the Japanese Diet reduces the number of shareholder meetings to approve mergers. The Holding Company Law of 1997 removes constraints on carving out subsidiaries for sale and allows buyers more freedom in structuring their acquisitions. The securities transaction tax formerly required when an acquisition involved share purchases was discarded in April 1999. In addition, the moves to international accounting principles and, in particular, consolidated reporting, are bringing more transparency to the operation of subsidiaries.

Source: Alexander 1999.

problems of Thai restructuring and the relative weakness of the bankruptcy regime in that country. Stronger procedures recently included in Thailand—penalties for noncompliance by creditors who have signed intercreditor agreements—should help force the pace.

While the progress achieved is significant, it is premature to judge the quality of these restructurings and the impact that they will have on the debt resolution problems. A waiting strategy is reflected in the use of instruments that postpone the repayment of debt and has been especially evident in, though not confined to, Malaysia. The Malaysian Corporate Debt Restructuring Committee, which oversees the voluntary debt workout program, had, by June 1999, helped reschedule approximately RM11 billion of debt (EIU 1999a). Of that amount, RM8.5 involved the issuance of a seven-year zero-coupon bond to purchase the existing debt of Renong Corporation and its subsidiary, United Engineers Malaysia. The Ratings Agency of Malaysia has assessed that Renong and United Engineers Malaysia will be unable to pay the debt and would, consequently, need to refinance 60 percent of the debt outstanding at the time the bond matures. According to Claessens, Djankov, and

Klingebiel (1999), two-thirds of the restructuring agreements in Korea involve a combination of interest rate reduction, capitalization of the interest rate, and longer grace periods.[11] In Thailand the quality of the restructuring agreements has been such that 13 percent of the restructured debts have already reverted to nonperforming status. Note also that reported nonperforming loans do not yet register the impact of agreements. This may partly reflect a statistical reporting lag, because nonperforming loan data may not yet have been updated to reflect the agreements, or because weaknesses exist in the agreements themselves.

Bankruptcy reform. By creating a legal basis and orderly mechanisms for the resolution of debt defaults, bankruptcy procedures can provide the stick that complements voluntary restructuring initiatives in the crisis countries. Effective bankruptcy systems should resolve the conflicting claims of stakeholders on the assets of insolvent corporations. They should help preserve and quickly restructure viable firms as ongoing entities and should result in the expeditious liquidation of nonviable firms.

Indonesia and Thailand have implemented significant legislative changes since the onset of the crisis. Korea and Malaysia, in contrast, have relatively sophisticated bankruptcy codes. In Korea, the law, though well established, is also thought to be complex in its implementation and to favor debtors excessively (see *The Economist* 1999). Thus, except in Malaysia, the bankruptcy process is unlikely to play a significant role in resolving the present debt overhang.

To a greater extent than in other countries, procedural capacity in Indonesia remains a bottleneck to the effective enforcement of insolvency laws. In August 1998 Indonesia amended its bankruptcy legislation, creating, in particular, a specialized commercial court with jurisdiction over all bankruptcy-related matters and subject to review only by the Supreme Court (Mojdehi and Ito 1998). The amendment also created expedited timetables and introduced a stay provision similar to that under the U.S. Bankruptcy Code. At the same time, the voluntary workout mechanism under the Jakarta Initiative Task Force (see table 3.4) is helping to develop precedents for dealing with complex debt renegotiations. In practice, however, the amended bankruptcy law has not succeeded in alleviating the widespread corporate and financial distress. Realistically, the bankruptcy court can help only modestly in the present crisis by pronouncing in a consistent manner on a select number of cases. The vast majority of the 15,000 nonperforming loans will be settled out of court.

The early workings of a new bankruptcy regime is expected to be frustrating. In adopting a comprehensive bankruptcy law, Hungary experienced a crush in the tumult of the early postcommunist years. Due to an automatic trigger that required all firms with arrears of more than 90 days to file for either reorganization or liquidation, Hungarian courts were overwhelmed by some 22,000 bankruptcy cases soon after the law's enactment (Gray, Schlorke, and Szanyi 1996, 425). While the experience "indisputably spurred institution building in the courts, the trustee profession, and the banks," during a crisis, the formal judicial process will clearly be overwhelmed in most developing and transition countries.

The Thai experience, however, shows that, despite the many constraints, pushing ahead with improvements in bankruptcy code procedures can bring benefits. In Thailand a controversial piece of legislation has sought to enforce the rights of creditors more forcefully, including enforcing rights to personal guarantees that served as collateral. A study examined the relationship between the progress of Thai bankruptcy legislation and the equity valuation of financial and nonfinancial companies (Foley 1999). Announcements indicating a potential strengthening of bankruptcy laws enhanced the equity values for both debtors and creditors. In other words, market participants do not view a stronger bankruptcy law as a zero-sum outcome where creditors gain and equity holders lose. Rather, both can

gain, though creditors are likely to benefit more. The positive gain for all parties implies that inefficient and protracted bankruptcy proceedings have a real economic cost.

A short-term agenda for bankruptcy reform requires further development of informal, extrajudiciary processes to resolve problems, in parallel with and as a complement to, the formal insolvency process. In addition to the government-sponsored workout mechanisms, prepackaged bankruptcy procedures can speed things up. Under prepackaging, the parties involved agree to the terms of the workout, and the court then uses an expedited procedure to bind a dissenting minority and to formalize the agreement. Perhaps more so than in industrial countries, out-of-court settlements may also include methods for auctioning the rights to the firm (see Bebchuk 1996; Hauch and Ramachandran 1999). Auction procedures can help both to maintain seniority among creditors and to reveal the value of the firm.

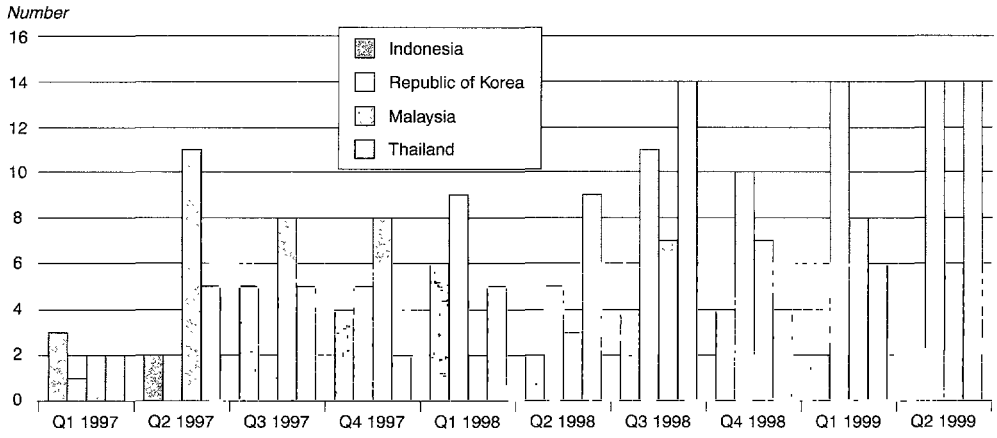
The bankruptcy process is especially prone to fraud, and the absence of adequate accounting standards makes the difficult problem of asset valuation even more complex. This underscores the urgent need for accounting and corporate governance reforms. A more immediate task may be to create greater transparency in the appointment of judges and to require the publication of decisions along with detailed rationales for those decisions.

Enhanced asset mobility

Once the financial claims on a company are resolved, market-driven mechanisms will probably reallocate the resources to their best uses. Additional government interventions may, however, be justified by the existence of institutional and market failures, such as monopolies and weak competition, cross-holdings and connected lending, or labor market rigidities. These imperfections, which were often the source of resource misallocations prior to the crisis, also now hinder the required process of reallocation.[12]

Of special importance are policies facilitating mergers and acquisitions and encouraging foreign direct investment. East Asian governments have taken several steps to encourage mergers, both international and domestic. Also, foreign investment has been liberalized in all the countries, though to vary-

Figure 3.7 Cross-border mergers and acquisitions, Q1 1997–Q2 1999



Note: Cross-border transactions involve majority foreign ownership.
Source: Securities Data Company.

Table 3.5 Illustrative policies to [illegible]

	Corporate governance	Loss allocation and transfer	Factor mobility
Indonesia	Presence of a corporate secretary to improve disclosure Bankruptcy Law updated (August 1998) Code of best practice for corporate governance (in progress)	Tax exemptions for loan-loss reserves held by banks (March 1998)	Relaxation of foreign ownership restrictions (September 1997) Tax exemptions of up to 8 years for new investments in 22 industries (January 1999)
Korea, Rep. of	Restrictions on cross-debt guarantees (April 1998) Enhancing institutional voter rights (June 1998) Introduction of international accounting standards (August 1999) Lowering the minimum equity holding requirement to exercise shareholder's rights (1999)	Revaluation and adjustment of capital and foreign exchange losses (August 1999)	Introduction of Foreign Investment Promotion Act (November 1998)
Malaysia	Creation of High-Level Finance Committee on Corporate Governance Code on takeovers and mergers with stricter disclosure standards (January 1999)	Reduction of corporate tax rate from 30 percent to 28 percent (October 1997) Tax exemption on interest from NPLs (effective for 1999 and 2000)	Reduction of real property gains tax rate from 30 percent to 5 percent for nonresidents on the sale of a property held for a minimum of five years (October 1997) Exemption of real property gains tax on mergers of financial institutions (October 1998)
Thailand	Financial statements of public companies and financial institutions to be in accord with international best practices (1999) Requirement of board audit committees (1999) Bankruptcy and foreclosure laws amended (March 1999)	Elimination/deferral of income tax and taxes on asset transfer and unpaid interest (January 1999) Introduction of new asset depreciation method (March 1999)	Alien Business Law (August 1998, revised in October 1999) Tax-free mergers and acquisitions in cases of 100 percent mergers (January 1999) Introduction of Equity Fund, Thailand Recovery Fund for large- and medium-scale companies, and Venture Capital Fund for small and medium-size enterprises (March 1999) Reduction of real estate transfer fee from 2 to 0.01 percent of the appraised value (March 1999)

ing degrees. As with bankruptcy, success of mergers and acquisitions depends heavily on procedural simplicity and clarity (see box 3.2 on the Japanese evolution in this respect). Reforms following the crisis also included short-term tax measures to facilitate asset transactions and, more importantly from a long-term perspective, better accounting standards, which should contribute to improved corporate governance through better evaluation of financial assets and liabilities (table 3.8).

Mergers and acquisitions. Since their crises in 1997, Korea and Thailand have introduced various measures to encourage business consolidation, leading to a rapid rise in cross-border mergers and acquisitions in these two countries (figure 3.7). The Korean government

released a new legislative framework in July 1999 to reduce transaction-related taxes incurred in corporate mergers, acquisitions, and restructurings. For domestic transactions, the government has provided tax exemptions and deferrals on capital gains from so-called "big deals"—that is, exchange of businesses through the transfer of shares. Thailand approved a set of new measures in January 1999, including temporary measures (expiring on December 31, 1999) to lower taxes on gains to debtors from the write-off of debts and on asset transfers from debtors to creditors. Permanent measures in Thailand are designed to facilitate mergers and business reorganization.

Unlike in Korea and Thailand where cross-border mergers have shot up, in Malaysia cross-border mergers and acquisitions have been low compared to just prior to the crisis. Malaysia has, however, had high levels of domestic mergers and acquisitions.[13] Malaysia's Promotion of Investment Act of 1986 and other measures provide various tax incentives, including investment tax allowances in the services sector. The high level of domestic merger and acquisitions activity in Malaysia suggests that the policy regime is basically a friendly one. Cross-border activity has been relatively low, possibly on account of restrictions on the repatriation of earnings (though the long-term effects of these restrictions await further empirical examination).[14]

In contrast, the Indonesian system appears not to favor mergers and acquisitions. Gains from transfers of assets in corporate reorganizations are taxable, and companies cannot transfer tax losses in a liquidation process, merger, or acquisition (Asia Law 1998). Certain exceptions apply only to banks, financial institutions, and companies going public. Merger and acquisitions activity has remained at extremely low levels.

Foreign direct investment. Foreign direct investment (FDI) inflows to Korea and Thailand increased in 1998 by 82 percent and 26 percent, respectively, and flows to these countries continued at high levels in 1999 (table 3.9). Both countries have taken effective measures to deregulate and liberalize their foreign investment policies since late 1997. Note, however, FDI includes mergers and acquisitions involving existing enterprises as well as new, or greenfield, investments. The FDI trends, therefore, reflect in part the trends in cross-border mergers and acquisitions described in the previous section (figure 3.6).

Korea has opened several sectors to foreign investors since April 1998, including various property businesses, securities dealings, and other financing businesses. The ceiling on foreign stock investment was abolished as of May 1998, granting foreign investors the right to purchase all the shares of a domestic firm. Meanwhile, the Foreign Investment Promotion Act of November 1998 affords protection for foreign direct investment through national treatment, the reduction and exemption of certain corporate taxes, the provision of financial support for local governments to attract foreign direct investment, and the establishment of foreign investment zones.

In Thailand the Board of Investment has eased its regulations to promote foreign par-

Table 3.9 FDI flows in East Asia, 1992–99
(billions of U.S. dollars)

	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Q1 [illegible]	Q2 [illegible]
Indonesia	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	—
Korea, Rep. of	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Malaysia	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	—	—
Thailand	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

— Not available.
Source: World Bank Debtor Reporting System; IMF, *International Financial Statistics.*

ticipation in the economy. The 20-year-old Alien Business Law was replaced in August 1998 (and has since been revised again in October 1999) to incorporate sectoral liberalization measures. Under the August 1998 provisions, foreign firms are allowed to hold up to 100 percent equity in banks and in finance companies for up to 10 years, and 39 sectors have been opened for increased foreign participation, including transportation and pharmaceuticals production. Policy liberalization includes a temporary measure introduced in November 1998 (expiring in December 1999) allowing foreign firms to own a majority stake in joint ventures that received favorable policy treatment, and authorizing them to distribute their products domestically. In the meantime, the proposed cutback of import tariffs is expected to help reduce production costs for both domestic and foreign firms dependent on imported raw materials and intermediate products.

Mirroring the trends on cross-border mergers and acquisitions, foreign direct investment inflows into Malaysia, though traditionally high, have not responded as they have in Korea or Thailand, and flows have fallen sharply in Indonesia. In Malaysia new efforts to attract foreign investments have been undertaken; for example, restrictions on foreign holdings in new export-oriented manufacturing projects have been suspended until 2000 and foreign ownership limits have been relaxed. However, the value of approved projects during January–May 1999 at RM6.4 billion remained at the same annualized rate as in 1998; the value of new FDI applications fell over the six month period to RM3 billion, compared with RM12.6 billion for calendar 1998. In Indonesia the value of approved and realized foreign direct investment declined by 80 percent in the first quarter of 1999. Indonesia has recently started to implement new incentives to attract foreign investors. Foreign ownership of up to 99 percent of banks has formally been effective since May 1999. In June 1999 a new decree was announced to allow shareholdings up to 100 percent in existing establishments and to provide a clearer legal framework for the conversion of bonds issued locally into equity.

Notes

1. Although East Asian firms, including those in the crisis countries, have been adept at adopting new manufacturing techniques, they have faced continuing challenges both from low-wage producers and from Japan (see Mody, Suri, and Sanders 1992).

2. Such a financial accelerator has been documented, for example, by Bernanke, Gertler, and Gilchrist (1996, 2) who conclude: "A fall in the borrower's net worth, by raising the premium on external finance and increasing the amount of external finance required, reduces the borrower's spending and production. This last result is the heart of the financial accelerator: To the extent that negative shocks to the economy reduce the net worth of borrowers (or positive shocks increase the net worth), the spending and production effects of the initial shock will be amplified." Small firms are especially prone to the downward spiral of the financial accelerator, but large, credit-constrained firms operating on thin margins may be equally vulnerable.

3. While Thailand's relative position on the two scales is the same, the share of Thai firms unable to pay debt, 28.3 percent, is much lower than the 45 percent of nonperforming loans in Thailand, unlike countries where the ratios are quite similar. This may reflect, in part, the phenomenon of Thai strategic defaulters—that is, those able to, but not paying, their debts. In addition, small, unlisted firms contribute heavily to Thai nonperforming loans. However, Mako (1999) reports that even among listed firms, about half were unable to pay their debt, a ratio more consistent with nonperforming loans.

4. In the Scandinavian banking crises of the late 1980s and early 1990s, the share of nonperforming loans ranged from 5 to 7 percent, and these loans mainly represented failed real estate lending. Even in Chile, at the onset of the early 1980s crisis, nonperforming loans were about 5 percent of all loans.

5. Official numbers on nonperforming loans are less readily available for Indonesia. However, the percentage is generally regarded as in the range of 50 percent and is expected to rise to more than 60 percent before falling.

6. In Malaysia, unlike in the other countries, Danaharta has not only purchased some of the nonperforming assets, but also is a management agent for the restructuring of nonperforming assets.

7. The more stringent definition of nonperforming loans is, however, still used for supervision.

8. The principles for creating a competitive but sound financial system center around the appropriate role of deposit insurance, bank capital, and diversity and competition in the financial sector (see, for example, Greenspan 1998; Hellmann, Murdock, and Stiglitz 1998).

9. See Dziobek and Pazarbasioglu (1998) for experience in Côte d'Ivoire, Latvia, and Spain; Drees and Pazarbasioglu (1998) for the Norwegian experience; Baer and Klingebiel (1995) for a variety of historical episodes.

10. The London Approach operates under the auspices of the Bank of England and has been used for corporate workouts in recessionary periods when normal bankruptcy procedures have proved insufficient (see Kent 1997).

11. As of early November 1999 discussions of Daewoo's debt restructuring also included a significant component of deferred debt payments (*the Wall Street Journal*, Novemer 2, 1999).

12. For a review of the postcrisis industrial policy agenda, see Mody (1999).

13. The total number of domestic mergers and acquisitions has been about 50 to 70 per quarter in Malaysia in 1997–99, while it remained low (in the range of 4 to 10) in the other countries (see Securities Data Company 1999).

14. Survey results of Japanese investors in the early 1990s show them to be sensitive in their investment decisions to restrictions on profit repatriation (see Mody, Dasgupta, and Sinha 1999).

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Managing the Recent Commodity Price Cycle

THE PAST FEW YEARS HAVE SEEN SHARP VARIATIONS in primary commodity prices. Energy prices were especially volatile. Crude oil prices rose 74 percent from early 1994 through the end of 1996, then fell 56 percent by the end of 1998, and in 1999 recovered nearly the entire decline of the previous two years. Average non-oil commodity prices rose by 46 percent from the monthly low in mid-1993 to mid-1997, and then dropped 30 percent by late 1999. The variation of individual commodity prices was sharper still. Such volatility poses real challenges for developing countries that depend on primary commodities for a substantial share of their export revenues. Countries where consumption rises with real incomes during commodity price booms will face a difficult adjustment when prices fall. The ability to sustain consumption by borrowing or running down assets may be limited. Cutting back on investment will depress long-term growth, and sharp reductions in consumption can be extremely painful for the individuals most affected, often the poorest members of society, and may require costly reallocations of labor and capital.[1] Thus, efforts to smooth consumption over the commodity price cycle can be critical to welfare, efficiency, and growth over the long term.

Two groups of developing countries were most affected by the commodity price cycle: the major oil exporting countries (countries where oil accounts for more than 50 percent of merchandise exports) and the non-oil exporting countries of Sub-Saharan Africa, where non-oil primary commodities, on average, make up 80 percent of exports. These countries are among the most dependent on commodity prices. This chapter will discuss how these commodity-dependent economies have adjusted to the swings in real incomes generated by recent commodity price volatility, focusing on their success in smoothing consumption over the price cycle and the implications for growth prospects.

The main message is that countries' savings and investment behavior differed markedly over the commodity price cycle and that these differences primarily reflected the quality of policies rather than shifts in the terms of trade. The policy environment was improving in the non-oil exporting countries of Sub-Saharan Africa, and they achieved increases in savings and investment over the commodity price cycle. In the oil exporting countries, weak policy environments led to mixed savings performance and to lower investment over the oil price cycle.

This chapter reaches the following conclusions:

- The pronounced cycle in primary commodity prices since the mid-1990s was driven by changes in global demand, weather-related supply shocks, supply responses to the high prices of the early 1990s, technological innovations that

have reduced production costs, and exchange rate depreciations among large commodity exporters linked to the Asian crisis. Primary commodity prices have been more volatile than the prices of manufactures in the last two decades, and both oil prices and non-oil commodity prices have fallen relative to the prices of manufactures.

- The major oil exporting countries had mixed success in smoothing consumption over the recent oil price cycle. On average, countries allocated to increased consumption about half of the average 5 percent of gross domestic product (GDP) improvement in real incomes during the upswing in oil prices (1996–97). During the 1998 drop in oil prices, however, consumption did not decline, implying that savings fell by the full amount of the decline in real incomes. Countries' performances varied greatly, depending on their specific political and economic circumstances.
- Oil exporting countries' investment fell relative to output over the commodity price cycle. The decline in investment was actually greater than the decline in domestic savings, so the current account deficit fell. The major oil exporting countries have generally failed to reduce their dependence on oil revenues, and the fall in investment will further impede progress. At the same time, several of these countries face high levels of unemployment, continued slow growth, and rapidly expanding populations. They need to strengthen their policies to encourage greater private sector (and non-oil) activities and to improve the institutional environment.
- The commodity price cycle of the 1990s does not appear to have adversely affected the prospects for growth in the non-oil exporting countries of Sub-Saharan Africa. Changes in real incomes were generally smaller than in the oil exporting countries because the price of their commodity exports changed by less than the price of oil, and the losses from declining export prices were partially offset by gains from lower import prices, particularly energy prices. More important, however, improved policies in several countries enabled them to increase their savings and investment rates both during commodity price booms and busts. Many countries cut their fiscal deficits in an effort to rein in the growth of debt and to reduce inflation, while private savings rose in response to improved policies that increased the return to investment, particularly in export sectors. Countries with better policies, as measured by the World Bank, achieved larger increases in savings and higher growth of GDP than countries with worse policies, despite smaller increases in real incomes in the former group.

Key issues confronting primary commodity exporters

The heavy dependence of many developing countries on primary commodities for the bulk of their export receipts can create substantial problems for economic management. Primary commodity prices tend to be volatile, and are subject to long-term cycles as well as to short-term booms and busts. Commodity prices have also declined relative to manufactures' prices during the past two decades.

Dependence on primary commodities

Primary commodities accounted for 42 percent of developing countries' total merchandise exports in 1997, compared with 19 percent for high-income countries. In Sub-Saharan Africa, primary commodities accounted for about 75 percent of total exports, and the share of commodities in the exports of individual countries often exceeded 90 percent. The high volatility of commodity prices thus often leads to high volatility of export earnings. However, many of these countries also import signifi-

cant amounts of primary commodities, and commodity prices tend to be highly correlated. Deflated by the manufactures unit value index, the correlation coefficients of the price indexes of agriculture, energy, and metals from 1960 to 1998 are all 0.79 or higher. Thus primary commodity exporters' terms of trade tend to be less volatile than the price of their commodity exports.

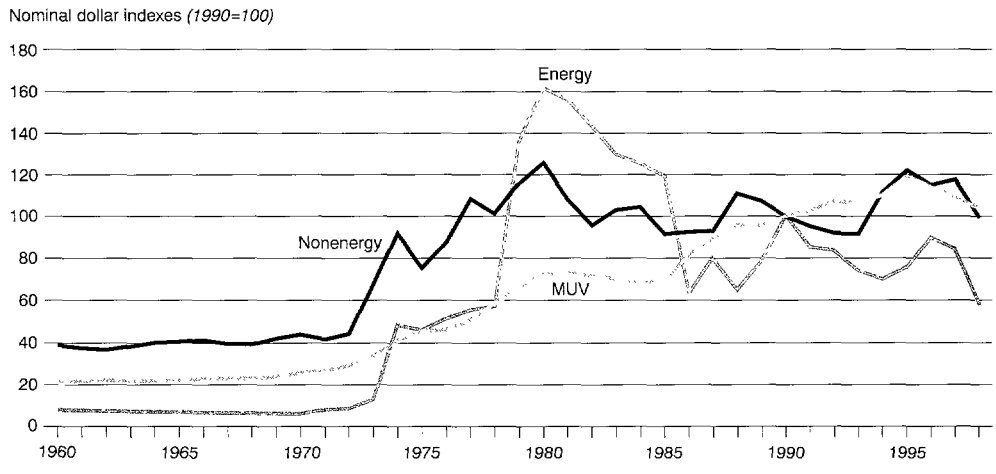
The volatility of primary commodity prices

The volatility of primary commodity prices increased sharply following the collapse of the Bretton Woods system in the early 1970s (figure 4.1) and has remained high (Maizels 1994; Reinhart and Wickham 1994). The standard deviation of the absolute value of the year-on-year changes in the nonenergy commodity price index during 1970–98 was 11.5, compared with 5.7 for the manufactures unit value index during the same period.[2] Energy prices have been particularly volatile. Measured in U.S. dollars, the coefficient of variation of energy prices was at least twice that of manufactures in each decade.

These measures of volatility may exaggerate the extent of uncertainty caused by commodity price changes because many series exhibit trends and some of the variation is predictable. Results by Dehn and Gilbert (1999) show that oil exporting countries face the greatest uncertainty.[3] Exporters of the other three commodity groups (agricultural foodstuffs, agricultural nonfoods, and metals and minerals) face only slightly smaller levels of uncertainty.

Primary commodity prices are volatile for a number of reasons. Supplies of agricultural commodities are dependent on the weather, as is the demand for oil. The demand for most commodities is less price-elastic than for manufactures, and this causes supply variability to lead to greater price variability. Supply is also often very inelastic in the short term (especially when the commodity is perishable, the costs of inventory are high, or the production takes considerable time, for example, tree crops) so that shifts in demand have a large impact on prices. In addition, producers' organizations, such as the Organization of Petroleum Exporting Countries (OPEC), have at

Figure 4.1 Primary commodity prices versus manufactures unit value index (MUV), 1960–98



Source: World Bank staff calculations.

times contributed to volatility through large shifts in supply.

The secular decline in commodity prices

Commodity prices have declined relative to manufactures' prices during the past two decades. The real price indexes (nominal price indexes divided by the manufactures unit value index) of both agriculture and metals and minerals fell by about 45 percent during 1980-98. Energy prices have fallen by 76 percent in real terms since 1980 and in 1998 were less than half the level reached after the first oil price rise in 1973–74. Even with the recovery in 1999, the real energy price index likely will remain at only 55 percent of the 1974 level. Researchers have concluded that the decline in the ratio of the price of primary products to manufactures is statistically significant (Bleaney and Greenaway 1993; Sapsford and Balasubramanyam 1994).

The view that the terms of trade of primary commodity exporters show a secular deterioration dates at least from the 1950s (Prebisch 1950; Singer 1950).[4] The initial analysis of this issue raised a host of methodological and data questions (Spraos 1980), and later researchers focused on compiling better and longer time series (Grilli and Yang 1988) and on bringing more sophisticated statistical techniques to bear.[5] Most of these writers found that commodity prices followed close to a random walk (where the best predictor of tomorrow's value is today's value), but with large, predominantly negative shocks that tended to persist. Thus, the decline in commodity prices has been due to a series of random shocks that were more negative than positive, rather than a consistent, and therefore predictable, trend.

The decline in commodity prices relative to manufactures depends on the index used for manufactures as well as for commodities. Lipsey (1994) argues that the increase in manufactures prices has been overestimated by roughly one percentage point per year because of the failure to adjust for changes in the quality and mix of manufactures over time. Since 1980 real commodity prices have declined by about 45 percent. Adjusting for quality changes in the index of manufactures, the decline in real commodity prices would fall to 27 percent.

The recent boom and bust in commodity prices

Commodity prices appear to exhibit long cycles driven by technological improvements, as well as short-run booms or busts, which have occurred every ten years or so during the last five decades (Varangis, Akiyama, and Mitchell 1995). The most recent boom was from 1994 to 1997, followed by a bust from 1997 through early 1999. Energy and nonenergy prices followed similar paths, with minor differences. Nonenergy commodity prices rose by 46 percent from the monthly low in mid-1993 to mid-1997, before falling 30 percent by late 1999. Energy prices rose 74 percent from early 1994 to the end of 1996 and then fell 56 percent by early 1999. Individual commodities were even more volatile. For example, the price of robusta coffee (exported primarily from Africa and Asia) rose by 390 percent from 1992 to 1994, fell 66 percent from 1995 to 1996, and then rose again by 48 percent in 1997.

The decline in primary commodity prices since 1997 was in part a response to an unusually large increase in supply. The rate of growth of world production of agricultural commodities rose from 1 percent per year in 1990–94 to 2.6 percent in 1994–98, whereas world production of metals and minerals was flat in 1990–94, but increased by 3.5 percent per year in 1994–98.[6] The acceleration of consumption of primary commodities between the two periods was much less. Increased production was in part a response to the high prices that prevailed during 1993–95. In the case of agriculture, favorable weather conditions also led to higher yields, and global agricultural production surged in 1996 and 1997. For example, world grain production increased 5 percent per year and world soybean produc-

tion by 6.4 percent per year from 1995 to 1997, compared with average annual production growth rates of 1.4 percent and 3.3 percent, respectively, for 1980 through 1994.

The supply increases were widespread and were not confined to a few commodities or a few countries.[7] The increases were most rapid in developing countries. The Food and Agriculture Organization of the United Nation's (FAO's) index of the volume of agricultural production rose by 3.8 percent per year for all developing countries from 1990 to 1997. The global supplies of metals and minerals also increased rapidly following the sharp price increases of the mid-1990s and the investments made in the late 1980s and early 1990s. Aluminum production increased by 5 percent per year during 1995–97, while consumption grew by only 3 percent per year. Copper production grew by 6 percent from 1995 to 1997, while consumption grew by 4 percent. Nickel production increased by more than 5 percent from 1995 to 1997, while consumption fell slightly.

The surge in commodity supplies was due in part to improved technology. Technological advances have taken many forms, including increased computerization in many areas, expanded use of and refinements to leaching and solvent extraction techniques in mining, horizontal drilling, three-dimensional computer seismology, progress in deepwater technology in oil, and improved seeds in agriculture.

Policy reforms and increased privatization have also boosted production in some developing countries. For example, in Argentina deregulation of the ports and the maritime sector in 1992 led to heavy investment and reduced the cost of loading grain from $10/ton to $2/ton, according to the International Grains Council. This made Argentina a more competitive exporter, and maize exports tripled in volume terms from 1993–94 to 1997–98. Sri Lanka privatized the management of tea estates in 1992, and the private sector was allowed to take long-term leases in 1995, thereby contributing to higher investment and better management. Tea yields increased 46 percent from 1990–92 to 1996–98, and production increased 25 percent, despite a 15 percent decline in growing area as unprofitable fields were taken out of tea. As a result, exports increased by 25 percent. Many African countries have also undertaken important liberalization efforts in the last decade, especially in commodities that earn foreign exchange, such as coffee, cocoa, and cotton. For example, Uganda reformed its coffee sector following the political turmoil of the 1970s and 1980s, and average annual export volumes in 1994–97 were 50 percent higher than in 1980–93.

The Asian crisis contributed to the fall in commodity prices. Declines in incomes and the steep currency devaluations significantly reduced demand for commodities, with a significant impact on the prices of commodities where East Asia had a large share of world consumption. For example, East Asia, including Japan, accounted for 21 percent of world crude oil consumption in 1997, and East Asian imports of oil dropped by 4 percent in 1998. Production continued to rise, stocks soared, and prices fell by 56 percent from November 1997 to a low point in the first quarter of 1999. Furthermore, the East Asian economies had accounted for a significant share of the increase in world consumption of some commodities in recent years. Investments in production, which generally take a few years to come onstream, are typically based on demand forecasts, which prior to the crisis would have included healthy increases in consumption in East Asia. Thus, the crisis substantially reduced demand below the levels that could be produced given recent investments, further exacerbating price declines. For example, the five crisis countries and Japan accounted for about one-fifth of the increase in world copper consumption from 1994 to 1996. When these countries' copper consumption fell in 1998, copper consumption was some 500,000 tons below expected levels, or about 4 percent of world demand. Because supply is highly inelastic in the short term, production levels did

not fall as prices declined. The fall in demand from Asia thus contributed to the 44 percent drop in copper prices from June 1997 to December 1998. Other commodities hit by the decline in East Asian demand included aluminum, maize, sugar, and cotton.

The crisis also had important effects on the supply side. Currency devaluations increased the competitiveness of the crisis countries, thereby contributing to increases in supply in several commodities. For example, Indonesia, Malaysia, and Thailand account for 70 percent of the global exports of natural rubber, and prices for this commodity fell by nearly one-third in the two years following the start of the Asian crisis in July 1997 (although natural rubber prices had already nearly halved in the two years prior to July 1997). The prices of logs from Malaysia (40 percent of world exports) and rice from Thailand (23 percent of world exports) also dropped sharply after July 1997.

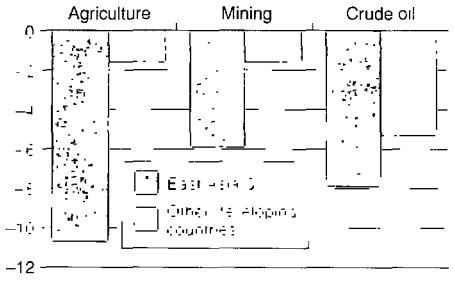
The results of simulations using a computable general equilibrium model indicate that the crisis-induced fall in demand from East Asia and the increased supply from the East Asian exchange rate devaluations had a substantial role in reducing commodity prices (see chapter 1 for an explanation of the methodology used). The commodities exported by East Asian countries were the hardest hit. Selected agricultural prices fell by 10 percent, mineral prices fell by 6 percent, and oil prices fell by 8 percent (figure 4.2). The decline in average non-oil commodity export prices for other developing countries was just under 2 percent.

Note, however, that the cyclical decline in commodity prices had already begun when the crisis hit. The World Bank's food price index peaked in April 1996 and had declined 12.7 percent by June 1997. The index of metals and mineral prices peaked in August 1995 and had declined 11 percent by June 1997. Petroleum prices had declined 24.1 percent by June 1997 from their peak in December 1996. Beverage prices (coffee, cocoa, and tea) fell more than 40 percent since their peak in May 1997, due to large supply increases from South America.

The decline in nonenergy commodity prices since May 1996 has now exceeded previous declines and has lasted slightly longer. Following the 1980 and 1988 price peaks, commodity prices declined for an average of 35 months and by an average of 25 percent before prices either stabilized or increased (figure 4.3). Currently, nonenergy commodity prices have declined by 30 percent over 37 months and have since rebounded slightly.

Figure 4.2 The decline in commodity prices due to the East Asian crisis

Percentage change due to crisis

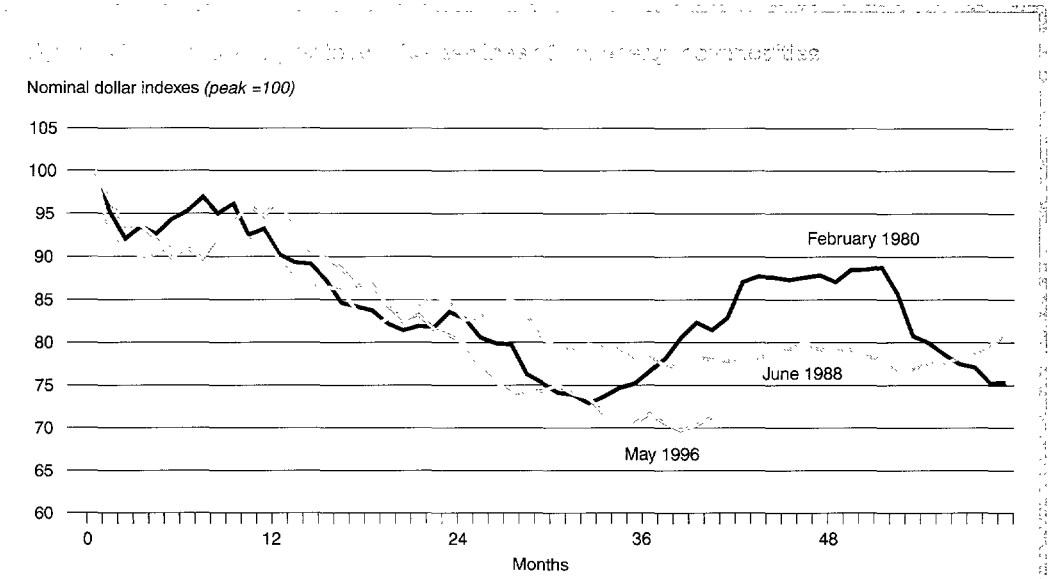


Note: East Asia-5 includes Indonesia, Malaysia, the Philippines, the Republic of Korea, and Thailand.
Source: Datastream.

The savings response to commodity price cycles

Heavy dependence on highly volatile commodity prices can impose significant costs on an economy (World Bank 1994). The potential for massive changes in relative prices, in real incomes, and in the level of economic activity can increase uncertainty and can have a negative impact on performance and poverty. (The evidence is discussed further in chapter 2.)

Economists have long known that households tend to smooth the impact of volatile prices on consumption (Harberger 1950). The relationship between terms of trade and sav-



Source: World Bank staff calculations.

ings depends on the expected duration of the terms of trade shock. If the rise in price is viewed as permanent, consumption increases to the higher level of income, but if prices rise only temporarily, savings rise to cushion the fall in income when the price declines (Sachs 1981; Svensson and Razin 1983; Ostry and Reinhart 1992). Both case study and econometric evidence indicate that private agents will tend to save substantial portions of temporary commodity price windfalls.[8]

The rise in consumption expenditures from a temporary commodity price rise should be extremely small if consumption is based on permanent income. With a real rate of interest of 5 percent, the warranted increase in consumption of a temporary boom is only 5 percent of the present value of the windfall gain, assuming an infinite planning horizon (Cuddington 1988). For example, if oil prices were expected to double in real terms (the largest percentage increase that occurred in a single year from 1960 to 1998) and then to return to their former level after one year, a country whose oil exports equal about 40 percent of GDP—for example, Saudi Arabia—should increase consumption by only 2 percent of GDP, or one-twentieth of the initial increase in export earnings.

Savings behavior should take into account the possibility that what may look like a temporary decline in prices actually represents a medium-term trend. If prices are on a declining trend, then the rise in savings during booms should be higher (and the decline in savings during busts lower) than if prices are expected to return to a long-term average. This asymmetric approach to managing commodity price volatility would minimize the cost over time of adjusting to a secular decline in primary commodity prices.

Savings decisions in countries that export nonrenewable resources, such as oil or minerals, should also take into account the potential decline in these resources over time. The export of a nonrenewable resource is counted as an addition to GDP (and thus to savings) in national income accounts. However, this export actually represents the liquidation of an asset rather than an increase in savings. Calculations of "genuine savings" reduce recorded savings by the extent of natural re-

source depletion, among other factors. The reduction in savings in 1997 in the major oil exporting countries required to reflect the depletion of energy resources ranged from 2 percent of GDP to 44 percent (World Bank 1999). Calculations of genuine savings in the Middle East and North Africa are strongly negative from 1980 to 1993 (Hamilton and Clemens 1999), while savings recorded in the national accounts averaged 23 percent during this period.[9] Countries where proven oil reserves are low or production is declining may need to achieve relatively high savings to sustain permanent income in the medium term.

Economies may not generate adequate levels of savings to smooth consumption in the face of volatile real incomes for several reasons. Most important, distinguishing between temporary and permanent shocks to commodity prices can be extraordinarily difficult. The swings in commodity prices can be too large and uncertain to ascertain their causes and nature (Deaton and Miller 1995). The degree of uncertainty about the duration of a price shock varies. For example, market participants could see that the sharp jump in coffee prices caused by the Brazilian frost of 1994 was likely to be reversed, assuming a return to more normal weather. By contrast, most analysts assumed that the high oil prices during the mid-1970s and early 1980s would last indefinitely.[10]

Second, revenues from some primary commodity exports (particularly oil and metals and minerals) are channeled through the public sector, and the public sector often captures these gains through taxation. Political and social pressures often lead governments to increase expenditures during commodity booms. For example, the commodity boom in the 1970s resulted in increased public expenditures in many Sub-Saharan African countries (Bevan, Collier, and Gunning 1990; Wetzel 1992; Alpine and Pickett 1993; and Little and others 1993).[11] In some cases, boom revenues invested in external assets by responsible governments have been dissipated later by less responsible ones. An alternative is to transfer public sector revenues to the private sector, although this can be difficult to achieve in a transparent and efficient way (Stauffer 1999).

Even responsible governments that attempt to capture the gains from commodity booms and to channel this income to the private sector may create difficulties. Public sector interventions may obscure the source of the rise in income. This makes it more difficult for the private sector to determine whether the increase in their real incomes is temporary or permanent. Collier, Gunning, and Associates (1999) found that savings rates out of positive shocks tended to be higher when economic agents were the direct beneficiaries of increased prices than when the rise in incomes was intermediated by the government, for example, by taxing exporters and reallocating funds to other groups in the economy. One important role for government is to ensure that adequate information on the causes (and, if possible, the likely duration) of price booms and busts is disseminated widely so that private agents can make appropriate decisions about savings behavior and resource allocation.

Finally, a country may be unable to smooth consumption because of limited access to international financial markets (see below).

The savings response by oil exporting countries to the recent swing in oil prices

The major oil exporting countries, which are among the most commodity-dependent economies in the developing world, faced substantial difficulties in smoothing consumption over the commodity price cycle.[12] Two-thirds of these countries receive more than 80 percent of export revenues from fuels. The availability of large oil reserves in a few countries and the huge difference between the average production cost and the selling price have encouraged specialization in oil. According to the United Nations Conference on Trade and Development, half of the countries reporting

(including developing and high-income countries) that had export concentration ratios of more than 50 percent were oil exporters.[13]

Implications of the 1990s swing in energy prices

The sharp swings in the price of fuels from 1996 to 1998 had an enormous impact on export revenues, economic activity, and real income in the major oil exporting countries.[14]

During the 1996–97 price boom, export revenues for 11 major oil exporters rose by 45 percent of 1993–95 imports, and during the 1998 collapse in oil prices, export revenues fell by 14 percent of base-year imports. On average, changes in the terms of trade increased real income in the oil exporting countries by 4.6 percent of GDP per year in 1996–97 compared with 1993–95, and reduced real income by 5.4 percent in 1998 (relative to 1993–95) (table 4.1).[15] The average data, however, mask considerable differences among countries. Countries where oil accounted for the largest share of export revenues, and where the exports were large relative to imports and GDP, experienced the sharpest swings in real incomes. For example, in Angola and Nigeria fuels account for more than 90 percent of export revenues, and the 1996–97 real income gains were 14 and 8 percent of GDP, respectively. In Oman, exports were 40 percent larger than imports and almost half the size of GDP, and the 1996–97 real income gain was 8.5 percent of GDP. The composition of imports also had an important impact on the size of real income gains. Trinidad and Tobago's import price index increased 10.5 percent in 1996 because of the jump in raw materials prices, and real income rose by only 0.2 percent in 1996–97.

If a substantial portion of the change in oil prices represented temporary deviations from trend, basing consumption on permanent income would have implied that savings should have increased significantly during the boom in 1996–97 and then fallen during the 1998 price decline.[16] During the boom the average savings rate did increase by slightly more than half the rise in real income, measured as a percentage of base-year GDP, and a few countries actually increased their savings rates by more than the increase in real income. The group's average was reduced by the decline in savings rates in Angola, the Islamic Republic of Iran, and Trinidad and Tobago because of economic or political difficulties. However, during the bust savings rates fell by the full amount of the decline in real incomes. Of the 11 countries, 6 reduced their savings rates by more than the fall in real incomes, and 3 others reduced their savings rates by more than 70 percent of the decline in real incomes. In other words, most of the major oil exporters acted as if the loss was almost entirely temporary. This experience has disturbing implications for the future if oil prices continue to fall, as countries would fail to adjust over the course of the cycle to the permanently lower

Table 4.1 Savings, investment, and real income changes, selected country groups, 1996–98
(percentage of GDP)

	Savings		Investment		Foreign savings		Real income	
	1996–97	1998	1996–97	1998	1996–97	1998	1996–97	1998
All oil exporters	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Middle income	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Low income	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Note: Savings and *investment* refer to the average ratio to GDP during the period shown, minus the average ratio in 1993–95. *Real income* refers to the change in real income from 1993 to 1995 caused by changes in the terms of trade, as a share of 1993–95 GDP. All group averages are weighted by base-period GDP.
Source: World Bank staff calculations.

level of oil prices. An analysis of a longer period (1980–96) that takes other determinants of savings behavior into account also indicates that oil exporting countries have tended to treat changes in the terms of trade as temporary (see below).

Using historical data on savings and real income to analyze the extent of adjustment to commodity price cycles has limitations. The windfall gains and losses are measured by changes in oil prices relative to trend, and determining the trend depends on arbitrary judgments, such as the period over which the trend is estimated. Thus, the windfall elements of changes in the terms of trade may not be accurately measured. Box 4.1 describes counterfactual scenarios of savings behavior, which provide an additional estimate of the extent of savings out of windfall income. These scenarios generally confirm the conclusions reached earlier.

Investment and foreign savings during the swing in fuel prices

Oil exporting countries' investment fell relative to output over the commodity price cycle. The decline in investment was actually greater than the decline in domestic savings, so the current account deficit fell. During the boom in oil prices, the average ratio of investment to GDP in the oil exporting countries was 2.5 percentage points lower than during the 1993–95 base period, and during the bust investment was 3.4 percentage points lower than in the base period (table 4.1). Of the 11 countries, 7 experienced a decline in investment

Box 4.1 Counterfactual scenarios

Simple counterfactual scenarios generally confirm the conclusion that the savings of oil exporting countries declined relative to permanent income over the oil price cycle. The scenarios show a hypothetical measurement of the windfall gain (or loss) from oil based on the deviation of the oil price from trend.[illegible] If economic agents consider the windfall as temporary, then savings should rise by the full amount of the windfall gain during the boom, and fall by the amount of the loss during the bust.[illegible] The table shows the change in the actual and hypothetical savings rates from the base year in six of the oil exporters during the oil price cycle of the late 1990s.[illegible]

The scenario results provide one measurement of the deviation of actual savings behavior from desired savings behavior. When oil prices were high (in 1996–97), oil exporting countries on average saved only a portion of the windfall gain. In the Islamic Republic of Iran and Trinidad and Tobago actual savings rates fell relative to the base year despite the windfall gain. By contrast, in Algeria, Nigeria, and Venezuela savings rates rose by more than the hypothetical increase. In 1998 all of the countries (except Algeria) dissaved by significantly more than the windfall loss.

Change in ratio of savings to GDP from base years, selected countries, 1996–98

(percentage points)

	1996–97		1998	
	Actual	Hypothetical	Actual	Hypothetical
Algeria	[illegible]	4.0	[illegible]	[illegible]
Iran, Islamic Rep. of	[illegible]	[illegible]	[illegible]	[illegible]
Nigeria	[illegible]	[illegible]	[illegible]	[illegible]
Saudi Arabia	2.4	[illegible]	[illegible]	[illegible]
Trinidad and Tobago	[illegible]	[illegible]	[illegible]	[illegible]
Venezuela	[illegible]	[illegible]	[illegible]	[illegible]

Source: World Bank staff calculations.

rates during both base and boom periods. The decline in investment over the commodity price cycle is likely to impede efforts to improve oil exporting countries' disappointing growth performance.

The decline in investment in the major oil exporting countries appears to be concentrated in the private sector, as the average ratio of private investment to GDP fell by 2 percentage points during the boom, while the ratio of public investment to GDP declined by only 0.5 percentage points.[20] However, the data on private investment include state enterprises. Therefore, the allocation of public and private investment may reflect decisions concerning the transfer of resources between state enterprises and the central government, rather than different investment behavior by the public and private sectors. Also, in countries with a substantial influence over price, investment in the state enterprise responsible for oil exploration may decline during booms if the authorities anticipate that output reductions will be required to establish more profitable price levels. Given the commanding role of the public sector in many of the oil exporting countries, even declines in private investment rates may largely reflect public sector decisions.

Increasing public investment substantially during a commodity price boom may not be advisable, because the return on public investment can decline during booms (see box 4.2). Also, central government investment expenditures tend to fall more heavily on nontradable capital goods, such as buildings, than private investment, and the rise in demand for nontradable capital goods during a boom will tend to increase their price. By contrast, the prices of tradable capital goods are set in global markets and, therefore, will be relatively unaffected by demand conditions in an individual country. In 12 of 14 case studies reported in Collier, Gunning, and Associates (1999), the relative price of nontradable capital goods rose during the commodity price boom and fell thereafter. Thus, it may make sense for the central government to delay a portion of the investment of real income gains until after the boom is over and the price of nontradable capital goods has declined.

The decline in investment was large enough to cause countries to reduce their reliance on foreign savings, which fell by a cumulative 12 percent of GDP during the two-year boom in oil prices. Thus, a significant portion of the 1996–97 boom in export receipts was allocated to reserves.[21] Foreign savings also increased somewhat during the 1998 fall in oil prices.

Most of the oil exporting countries rely heavily on sales of external assets to adjust to declines in real income because external finance has often not been available to help smooth consumption in the face of declining commodity prices. Developing countries are subject to credit constraints that generally become more binding in the face of adverse shocks, and capital flows are often procyclical for marginally creditworthy borrowers (Dadush and Dasgupta 1999). Most of the middle-income debtors among the oil exporting countries either have speculative grade credit ratings (Bahrain, the Islamic Republic of Iran, Trinidad and Tobago, and Venezuela) or are not rated. Of the oil exporting developing countries, only Oman and Saudi Arabia have investment-grade ratings. Increases in oil prices can help make the marginally creditworthy countries eligible for loans from the international capital markets (thus facilitating spending the windfall or even more than the windfall), but sharp declines in oil prices can mean that access is reduced or even shut off.

Although many considerations influence the level of flows from private capital markets, some evidence indicates that private lending to the oil exporters has been positively related to changes in the oil price. In periods where the price of oil (relative to the average price of manufactures exports from industrial countries) was falling, long-term gross disbursements from private creditors have generally declined, while gross disbursements have risen when real oil prices were on the

upswing (table 4.2). The real oil price was significantly and positively related to disbursements to the oil exporting countries during 1972–97, although the oil price explains only 22 percent of the variation in disbursements.[22] However, the procyclical effect of capital flows had only a limited impact during the most recent commodity price cycle. Gross disbursements to the net debtors increased by $3 billion during the most recent oil price boom (table 4.2), which is consistent with some improvement in access. Nevertheless, net disbursements averaged negative $1 billion per year during this period (compared with an average of $700 million per year in 1990–95) because of the large repayments due on existing debt. Thus, reliance on foreign savings fell during the rise in oil prices, as indicated in table 4.1.

Mexico's experience prior to the 1982 debt crisis, when oil accounted for three-quarters of export revenues, provides a more dramatic illustration of the procyclical nature of international capital flows (figure 4.4). Mexico's current account deficit to GDP ratio more than doubled following the oil price rise of 1973–74 and remained high through 1976. The ratio fell in 1977 as oil prices remained flat and then more than doubled again following the 1979–80 price rise, despite the sharp increases in export revenues along with the price of oil. Clearly the major factor driving the deficit was increased borrowing in response to the improved access to international capital markets. Mexico's debt-to-GDP ratio rose from 14 percent in 1973 to 53 percent in 1982, when the country could no longer service its commercial bank debt.

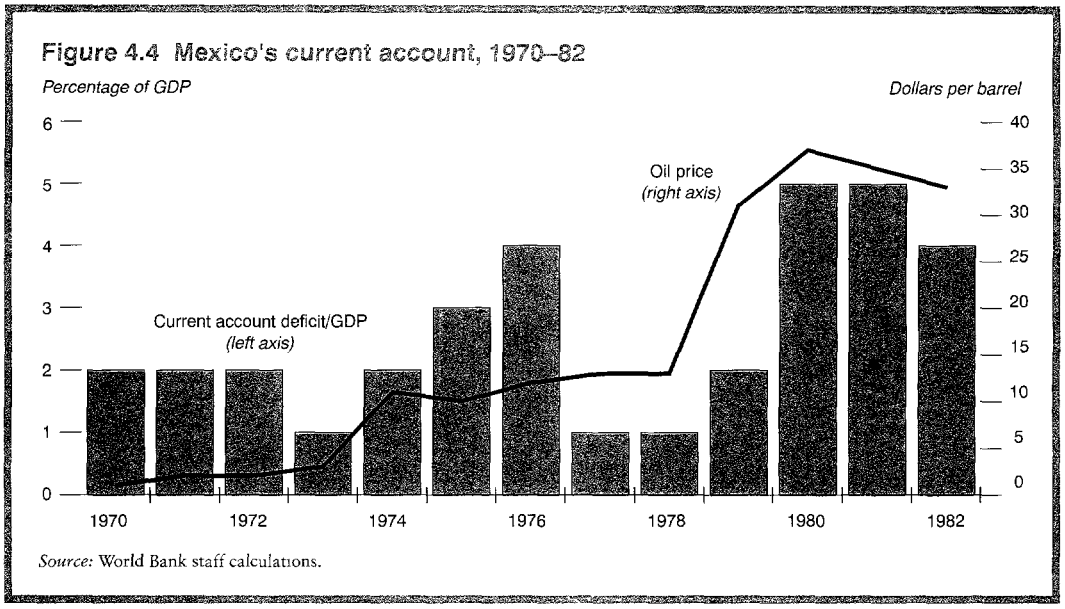
Fiscal policy and adjustment to the oil price swings. Oil revenues are usually channeled through the public sector so that public sector policies have an important influence on the patterns of adjustment observed during the oil price cycle. In the past, many oil exporting countries have greatly increased fiscal expenditures in response to increases in fuel prices. Some governments have used their new-found access to capital markets to borrow, in effect spending their anticipated future wealth today. The spending of what turned out to be temporary increases in fuel revenues resulted in a need for sharp reductions in expenditures once fuel prices declined. In several countries, the efficiency of these large increases in expenditures was questionable (see box 4.2).

The fiscal positions of governments in oil exporting countries deteriorated somewhat over the commodity price cycle. The average ratio of the current budget balance to GDP improved by 3.6 percentage points during the 1996–97 boom (compared with 1993–95), slightly less than the real income gain (table 4.3).[23] By contrast, private savings declined.[24] Subsequently, public savings dropped by almost 6 percent of GDP during the bust in 1998. Furthermore, several countries had high fiscal deficits during the base period. For example, in Angola the current budget balance in 1993–95 averaged 17 percent of GDP,

Table 4.2 Capital flows to oil exporters and energy prices, 1970–97

	1970–80	1980–86	1986–90	1990–95	1995–97
Change in gross disbursements *(millions of U.S. dollars)*[a]	9,658	–2,897	410	–3,249	2,956
Percentage change in real oil price[b]	962	–65	29	–37	23

a. Change in gross disbursements of long-term flows from international capital markets from beginning to end of period.
b. Percentage change in oil price relative to manufactures unit value index.
Note: The countries included are Algeria, Gabon, the Islamic Republic of Iran, Nigeria, Oman, Republic of the Congo, Trinidad and Tobago, and Venezuela.
Source: World Bank staff calculations.



and Venezuela experienced a foreign exchange crisis in 1995–96 as a result of the high government deficit and triple-digit inflation (see box 4.3). Also, the rise in public savings in 1996–97 in seven of the ten countries reflected a sharp improvement in 1996, followed by some deterioration in the fiscal balance in 1997, largely due to a significant rise in expenditures.[25] The deterioration in the fiscal position in 1998 (relative to high deficits in 1993–95), therefore, is a matter for serious concern in some of the oil exporting countries.

Table 4.3 Ratios of public and private savings to GDP, 1996–98
(change from 1993–95 average)

	1996–97		1998	
	Public	Private	Public	Private
All c[illegible]	[illegible]	−1.1	[illegible]	[illegible]
Midd[illegible]	[illegible]	−1.4	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Low-[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Source: World Bank staff calculations.

Long-term economic performance

The rise in consumption and the fall in private investment during the oil price cycle of the 1990s has complicated efforts to reverse the weak economic performance of many oil exporting countries since the quadrupling of oil prices in 1974. Although output growth was rapid in the 1970s, growth slowed during 1980–97 to 2.1 percent per year, below the 2.8 percent annual growth in developing countries as a group.[26] Output and investment performance in the oil exporting countries was substantially poorer compared with other countries in the same region in Latin America and the Middle East and North Africa, while performance was slightly better among the oil exporters in Sub-Saharan Africa (table 4.4).

Poor economic performance since 1980 has been attributed to the sharp decline and high level of volatility of oil prices, as well as to a mixed record of policy reform. Some countries have made substantial efforts to improve incentives for private sector activities. Nevertheless, policy regimes in some oil exporting countries have been characterized by inadequate macroeconomic environments; poor

Box 4.2 Public sector expenditures during the oil price boom

The low efficiency of public sector expenditures in several oil exporting countries has impaired economic performance. In all these countries, the public sector is the main owner of fuels resources and accounts for a significant share of economic activity. In 1996 public sector expenditures averaged about 30 percent of GDP in the major oil exporters, compared with less than 20 percent, on average, for the developing countries.

Particular problems have been evident in the efficiency of public investment undertaken during booms. During the past three decades many oil exporting countries have squandered a large portion of the income from oil revenue increases on low-return public investment projects (Gelb and Associates 1988). Huge investments in state-owned enterprises and human skills unsuited to today's global marketplace resulted in relatively low productive uses of oil revenues in several countries of the Middle East and North Africa (Page 1999). Investments during the oil price boom also frequently generated disappointing results because of transport bottlenecks resulting from a flood of investments and the inability to fund, when prices retreated, the recurrent costs required for project success. Particularly unsuccessful examples of investment include the establishment of state enterprises in the manufacturing sector. For example, in Nigeria and Trinidad and Tobago, such enterprises took up substantial portions of the boom revenues and left a legacy of debt and losses in post-boom years that contributed to fiscal deficits (McMahon 1997). Capital output ratios in oil exporting developing countries increased during the 1970s, in part reflecting heavy investments in long gestation projects in infrastructure and human capital formation, as well as capital-intensive hydrocarbons investments. However, the reduction in efficiency also stemmed from ill-conceived investments, planned too hastily and subject to enormous constraints on implementation (Ahamed 1984).

One popular use of oil windfalls involved efforts to diversify into resource-based industries, for example mineral processing (iron ore into steel, bauxite into aluminum, and hydrocarbons into petrochemicals). Ultimately these efforts had disappointing results, largely because the projects were implemented inefficiently. With few financial constraints and a strong impetus toward diversification, feasibility studies greatly overestimated future demand. By the mid-1980s prices were between two-thirds and half the levels projected, and potential rents were minimal, even for effectively implemented resource-based industrial projects. Low capacity utilization combined with high levels of debt and rising interest rates to greatly reduce the profitability of resource-based industrial projects (Auty 1988).

investment decisions; and the frequent use of producer and consumer subsidies, price controls, and trade restrictions (Gelb and Associates 1988; McMahon 1997). The World Bank's country performance ratings for oil exporting countries are 0.5 points below the average for developing countries (on a scale of 1 to 5). Ratings done by private services also indicate that some oil exporting countries are perceived as worse than the average of developing economies in terms of corruption, trade policy, and the environment for foreign direct investment.[27]

Inappropriate policy regimes may have impeded the diversification of production toward non-oil activities that could support faster growth in the wake of the secular decline in oil prices. For the most part, the major oil exporting countries have been slower to diversify their exports (to either other primary commodities or manufactures) than other developing countries. Of the 12 countries where oil accounted for more than 80 percent of exports in 1980, only 2 had reduced their share of fuel exports below 80 percent by 1997 (table 4.5), despite a 65 percent de-

Box 4.3 Fiscal adjustment in Venezuela and Saudi Arabia

Venezuela's experience illustrates the dangers of increasing expenditures as a result of a commodity boom. The government had adopted a stabilization program in 1996 in response to inflation of 103 percent and a deficit of 7 percent of GDP. Higher international oil prices, increased tax revenues, increased fuel production because of the investment drive initiated earlier in the decade, and a cutback in civil service wages in real terms achieved a massive shift of the fiscal balance to a surplus of 7.25 percent of GDP in 1996.

However, the government's balance deteriorated to 1.5 percent of GDP in 1997 because of wage increases that averaged about 90 percent, transfers to local governments and decentralized public sector agencies totaling 2.75 percent of GDP, and a real appreciation that reduced the contribution of dollar-denominated oil receipts to the budget. Despite efforts to restrain expenditures in the first half of 1998, the deficit of the nonfinancial public sector is estimated at 6 percent of GDP. Almost the entire deficit was financed by the liquidation of assets, including through privatization, liquidation of external assets, and a sharp decline in government cash balances. The Tesorería Nacional began in 1998 with a balance of Bs1.2 billion ($2.35 billion) but ended the year with only Bs362 billion, about $600 million. Thus, by the end of 1998, the government had spent all of the extraordinary revenue from the rise in the price of petroleum, and was left with a higher public sector wage bill and high external amortization payments.

By contrast, Saudi Arabia devoted a significant portion of the rise in oil revenues in the mid-1990s to retiring debt, which helped to ease its adjustment to the oil price fall in 1998. In 1996 the government paid SR22 billion ($5.9 billion) to domestic creditors, largely to cover arrears from unpaid bills, such as the issuance of agricultural certificates to farmers in lieu of cash for the 1993–94 harvest. These payments increased total expenditures to 35 percent over budget. Essentially, the government spent a portion of the unanticipated rise in revenues from higher oil prices on clearing arrears, leaving government finances in a stronger position to accommodate the 1998 fall in revenues. While expenditures were cut and government payments to contractors and suppliers were stretched to the 180-day limit, most public agencies maintained current payments, and the government also continued to redeem past arrears (Kemp 1998).

Table 4.4 Economic performance of major oil exporters and the rest, 1980–97
(percent per year)

	GDP growth	Investment growth
Middle East and North Africa		
Oil exporters	2.2	1.3
Other countries	4.1	1.9
Sub-Saharan Africa		
Oil exporters	2.1	0.2
Other countries	1.8	−0.9
Latin America and the Caribbean		
Oil exporters	1.5	−1.1
Other countries	2.2	0.7

Source: World Bank staff calculations.

cline in the price of oil relative to manufactures from 1980 to 1997. By contrast, of the 27 countries where the share of nonfuel commodities exceeded 80 percent in 1980, 8 countries managed to reduce their nonfuel commodity share below 80 percent. The greater success in diversification of nonfuel commodities exporters is not comparable for less extreme export concentrations. Almost all the countries where fuels accounted for more than 50 percent, but below 80 percent, of exports in 1980 had reduced this share below 50 percent by the late 1990s.

The failure to diversify is likely to hamper growth over the medium term. Oil-dependent economies remain subject to the depressed

Table 4.5 Share of oil and non-oil commodities in merchandise exports, 1980 and most recent year
(number of countries)

	Between 50 percent and 80 percent of merchandise exports		More than 80 percent of merchandise exports	
	1980	Most recent year	1980	Most recent year
Non-oil exporters	[illegible]	[illegible]	[illegible]	[illegible]
Oil exporters	[illegible]	1	[illegible]	[illegible]

a. Only covers those countries included in the column to the left. Figures for oil exporters are from 1997; figures for non-oil exporters vary from 1993 to 1997.
b. Of the eight countries that reduced their share of non-oil exports below 80 percent from 1980, all remained with shares above 50 percent in the most recent year.
c. The two countries that reduced their share of oil exports below 80 percent from 1980 remained with export shares above 50 percent in the most recent year.
Note: Excludes countries where data were not available in either 1980 or the mid-1990s.
Source: World Bank 1999; World Bank staff calculations.

level of oil prices relative to manufactures and to slow growth in demand. These economies will continue to suffer from the adverse impact of commodity price volatility on investment and welfare (discussed in chapter 2). Also, the existence of large government-controlled rents in economies dependent on oil exports encourages rent seeking behavior that tends to lead to inefficient expenditures (see Lane and Tornell 1995). The lack of diversification also means that economies fail to capture the benefits of manufactures production. Manufacturing is characterized by positive externalities, that is, benefits to the economy that are not captured by the firm. For example, skills training provided either formally or through learning by doing to suppliers and employees is readily transferable to other activities (Matsuyama 1992; Mayer 1996). Also, increasing returns to scale may exist in manufacturing or in the education and job training that is appropriate for manufactures (Sachs and Warner 1999). Thus, increasing the production of manufactures may raise the total productivity of the economy.

Slow output growth coupled with high population growth poses enormous challenges for many oil exporters. Projections indicate that the labor force in oil exporting countries will increase by 54 percent by 2010, compared with 23 percent for developing countries as a group. In addition, unemployment is already high in several countries. For example, approximately 40 percent of the Saudi Arabian population is younger than 14 years of age, and it is therefore anticipated that new entrants to the labor force will total almost 4 million people over the next decade, or two-thirds of the current labor force. Given the high rate of labor force growth, even employment growth of 5 percent per year from 2000 to 2015 would make only limited progress in reducing unemployment by the end of the period. The unemployment problem in oil exporting countries is exacerbated because the bulk of the labor force is employed in the nontraded sector. The oil sector is an enclave that generates few jobs directly. Large parts of the nontraded sector are exposed to limited competition, often implying limitations on the growth of output and labor demand.

Improvements in policy regimes to strengthen incentives for non-oil production and to remove constraints on competition are essential in several countries to avoid growing unemployment and deteriorating living standards. In particular, some governments need to consider lowering taxes and removing barriers to employment that restrict the flexibility of using labor. For example, in Algeria firms pay 24 percent of the wage bill in taxes and face significant severance and administrative costs when laying off employees (Ruppert 1996). It should be noted that in some countries attitudes are shifting toward more market-oriented policies, which provides hope for an acceleration of growth.

The savings response by non-oil commodity exporting countries of Sub-Saharan Africa

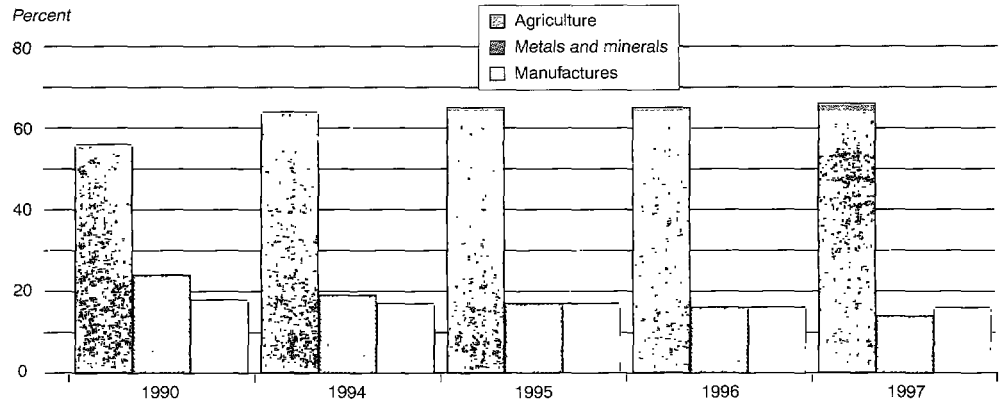
Non-oil primary commodity prices underwent a pronounced cycle, similar to oil prices, during the 1990s. However, the commodity price cycle does not appear to have adversely affected the prospects for growth in the non-oil exporting countries of Sub-Saharan Africa for two reasons. First, changes in the terms of trade and real incomes were generally smaller than in the oil exporting countries. Second, improvements in policies enabled countries to achieve increases in savings and investment rates during both booms and busts in commodity prices.

Next to the oil exporters, the non-oil exporters of Sub-Saharan Africa are the most dependent on primary commodities.[27] Non-oil primary commodities accounted for 80 percent of merchandise exports from these countries in 1997, which is about the same as in 1990 (figure 4.5). By contrast, non-oil primary commodities accounted for 15 percent of merchandise exports from East Asia and Pacific, 35 percent from Latin America and the Caribbean, and 21 percent from South Asia.

The commodity price cycle and the terms of trade

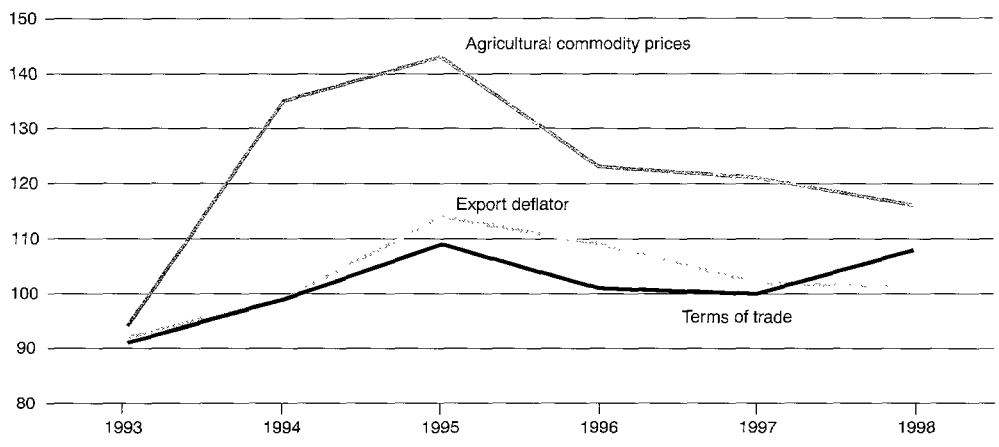
The global market prices of non-oil primary commodities have undergone sharp changes since 1993. Agricultural prices, weighted by the share of exports from Sub-Saharan Africa during 1987–89, increased by 52 percent in 1994–95 before falling by 19 percent during the next three years (figure 4.6). However, the 1994–95 increase in these countries' export deflators was significantly less than the rise in the global market prices of agricultural products, and the average export deflator remained below the commodity price index through 1998. In part, this reflected the 23 percent share of manufactures in these countries' exports (manufactures export prices rose by only 4 percent in 1994).[28] There is a considerable lag between changes in market prices and changes in the prices actually received by exporters, owing to the existence of fixed price contracts. Also, the global commodity price indexes are based on average prices quoted in international markets throughout the year, while export deflators reflect prices at the dates of sale, which are limited to certain times of the year for agricultural commodities. For

Figure 4.5 Shares of merchandise exports of Sub-Saharan Africa non-oil commodity exporters, 1990–97



Note: The list of countries included in the data for this figure is given in footnote 28. Coverage of trade shares excluded because of the lack of data.
Source: Comtrade.

Figure 4.6 Agricultural exporters' trade prices, 1993–98



Source: World Bank staff calculations.

example, one reason that the average export price deflator rose much less than the international market price in 1994 was that coffee prices jumped in July when frost damaged the Brazilian crop, but coffee sales are usually made from November to March, and by then prices had dropped significantly. Therefore, the average international market price for coffee in 1994 was much higher than the price that was actually received by most developing countries.[29]

The average rise in the terms of trade during 1994–95 was even less than the increase in export prices, because these countries also import substantial amounts of primary commodities (about one-fifth of total imports, equal to one-third the size of primary commodity exports). Higher prices for these countries' agricultural and fuel imports thus partially offset their higher export prices. Conversely, in 1998 export prices fell by less than the price of imported products, particularly fuels, and the terms of trade rose by 8 percent. The gain in real income during booms averaged 1.5 percent of base period GDP for the agricultural exporters, while real income was roughly equal to the base period during busts. Boom and bust periods were chosen for each country based on when agricultural prices and export revenues were rising.[30]

While the terms of trade and real incomes rose only modestly during the commodity price boom, export revenues soared, increasing by an average of 12 percent per year. A portion of the rise in export revenues may stem from increased reporting rather than actual increases in exports, as the liberalization of trade and foreign exchange regimes reduced incentives to evade tariffs. This strong export performance reflected somewhat higher prices and sharp increases in volumes as world trade increased. Several countries improved incentives for agricultural production by removing price controls, by dismantling government-run boards that monopolized the purchase of key export crops, and by establishing market-based exchange rates.

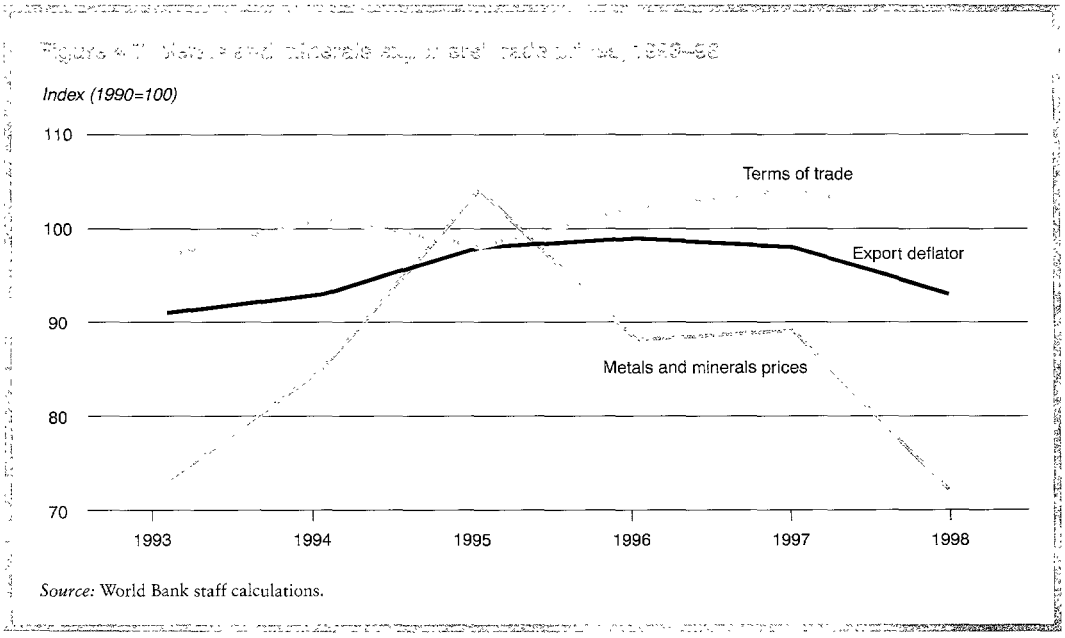
The metals and minerals exporters also experienced sharp changes in the market prices of the commodities they exported, but relatively small movement in the terms of trade. Global metals and minerals prices rose by 43

percent during 1994–95, only somewhat less than the prices of agricultural goods (figure 4.7). However, these countries' export price deflator increased by only 2 percent in 1994 and by 6 percent in 1995.[31] By 1998 the export price deflator and the terms of trade were not significantly different from their 1994 levels. During boom periods, the change in real income caused by changes in traded goods prices averaged 0.5 percent of base year GDP, and during bust periods, real incomes fell by 0.6 percent.[32] These countries' export volumes increased by an average of 3.4 percent per year during boom periods, compared with 7.7 percent for the agricultural exporters.

Policies and country performance

Improved policy performance enabled many of the non-oil exporting countries of Sub-Saharan Africa to increase their savings and investment rates over the commodity price cycle. Several countries in Sub-Saharan Africa adopted more prudent macroeconomic policies, established market-determined exchange rates, reduced quantitative restrictions on imports, reduced tariff rates, introduced greater private sector participation in the economy through privatization and the dismantling of marketing boards, removed price controls and some other restrictions on private sector economic activity, and took steps to improve the efficiency and soundness of their financial sectors.

These policy reforms usually increased savings through a number of channels. First, one goal of several programs was to raise public savings directly through increases in revenues and through improved control over current expenditures, in part to strengthen macroeconomic management and in part to make necessary increases in public investment. Second, reduced inflation and the establishment of more efficient financial systems increased the return on holding savings domestically, which may have had some impact on private savings behavior. Finally, policy reforms increased the expected return on investment, particularly for exporters, because a key element of reform programs involved reducing biases against exports. Real investment increased strongly in many of these countries. Since they lack access to private capital



Source: World Bank staff calculations.

markets and official flows have declined during the 1990s, the rise in investment had to be financed by increased domestic savings.

The link between policies and performance can best be seen by grouping the sample of non-oil commodity exporters in terms of ratings of their policies (table 4.6).[33] Countries with ratings of more than 3.5 (1 is worst, and 5 is best) increased their GDP by 5 percent per year during the boom, while countries with ratings of 3.5 or less increased their GDP by only 3 percent per year. Policy performance was by far a better predictor of savings behavior than changes in real income. The countries with better policies increased savings rates by more than those with relatively poorer policies (almost 7 percent of GDP over the base period versus 3 percent of GDP). However, the average rise in real income in the countries with better policies was less than in the countries with poorer policies (1 percent of GDP versus 2 percent).[34]

Note that this is a biased sample of Sub-Saharan non-oil commodity exporters. To analyze macroeconomic adjustment over the commodity price cycle, countries with severe civil conflicts and countries with inadequate data were excluded. Both these groups of countries tend to have lower performance ratings than countries with civil peace and more developed statistical services. The average performance rating of the countries in the sample is 3.4, while the average performance rating of the non-oil commodity exporting countries in Sub-Saharan Africa excluded from the sample is only 2.7. Thus the improvements in savings, output growth, and investment for the sample are probably larger than for the Sub-Saharan African non-oil commodity exporters as a whole.

Table 4.6 Policy performance and GDP, savings, and real income during boom periods
(average annual percentage change from base period)

Average policy performance rating[a]	GDP	Savings	Real income
Above 3.5	5.7	6.7	1.2
3.5 or below	3.2	0.1	1.4

a. Based on a survey of World Bank country economists.
Note: Only boom periods are shown because none of the good performers had bust periods.
Source: World Bank staff calculations.

Savings, real income changes, and the commodity price cycle

Policy performance was the primary reason for differences in savings performance. By contrast, changes in real income caused by changes in traded goods prices had a more limited impact on savings during the commodity price cycle. To analyze adjustment to real income changes during the commodity price cycle, a useful approach is to group the sample of the non-oil exporting countries by the percentage change in export revenues and the terms of trade in the boom relative to the base period for each country (table 4.7).

The two groups with more than one country experienced substantial increases in savings rates during both booms and busts, despite the different magnitudes of changes in real income (table 4.8). The group with flat terms of trade and relatively small changes in real incomes actually increased its savings rates by more than the group with large terms of trade and real income gains. Savings rates remained above base period levels during the decline in commodity prices. Both groups' savings performance was much greater than that achieved by the oil exporting countries during the boom and bust of oil prices and was larger than the average savings out of windfall incomes (about one-half) recorded in other studies of savings from commodity price windfalls (Collier, Gunning, and Associates 1999). An analysis of savings behavior in Sub-Saharan African countries over a longer period, from 1980 to 1996, that takes other determinants of savings into account also finds that savings were not closely tied to changes in real incomes (box 4.4).

The sharp increase in savings rates during boom periods enabled the Sub-Saharan African non-oil commodity exporters to increase investment rates compared with the base period by 1.1 percentage points in the group with

Table 4.7 Exports and terms-of-trade changes, boom compared to base period

	Large increase in terms of trade	Little change in terms of trade	Large decrease in terms of trade
Large increase in export revenues	Benin	Central African Republic	Togo
	Botswana	Côte d'Ivoire	
	Chad	Ghana	
	Ethiopia	Guinea	
	Ghana	Madagascar	
	Kenya	Mali	
	Malawi	Senegal	
	Tanzania	Zimbabwe	
	Uganda		
Little change in export revenues	Mauritania	Niger	Zambia

Note: The cutoff for *large increases* is plus or minus 5 percent for export revenues and 3 percent for the terms of trade (per year). The boom and bust periods were chosen for each country based on movements in export prices, the terms of trade, and export revenues during 1994–98, with the three years prior to the beginning of the boom as the base period. Most of the boom periods are 1995–97, 1994–97, or 1994–98.
Source: World Bank staff calculations.

large terms-of-trade gains and by 3.8 percentage points in the group with only small improvements in the terms of trade. Savings and investment increased by much less during busts, but still rose by more than the negligible change in real income. This experience contrasts sharply with that of the oil exporting countries, where investment rates fell over the commodity price cycle. The non-oil exporters of Sub-Saharan Africa also allocated a portion of the rise in domestic savings to reduce their reliance on foreign savings, which fell by more than 2 percent of GDP in both groups during booms and by 1 percent of GDP during busts.

The difference in savings performance between the groups is partially related to changes in aid flows. Most of these countries experienced a decline in net concessional flows during boom periods (data are not yet available on net flows during busts, which took place in 1998 for most countries), reflecting the general decline in aid since the early 1990s. However, the countries in the first group (with the smallest rise in savings rates despite the largest rise in real income) saw a decline in the ratio of aid to GDP of 5 percentage points in the boom compared with the base period. By contrast, the group of countries with the

Table 4.8 Changes in savings and real income relative to base periods
(percentage of GDP)

Country group	Savings	Investment	Foreign savings	Real income
During boom				
Large increases in exports and in terms of trade	[illegible]	[illegible]	-2.4	[illegible]
Large increases in exports, flat terms of trade	[illegible]	[illegible]	-2.7	[illegible]
During bust[a]	[illegible]	0.4	-1.0	[illegible]

a. This includes only four countries, because several countries did not experience a decline in export revenues or real income, so that the boom continues through 1998.
Note: Savings indicates an average change in the ratio of savings to GDP in boom or bust periods relative to the base period. *Real income* indicates average change in real income (as a percentage of the base period GDP) caused by changes in export and import prices. Base, boom, and bust periods differ by country depending on the evolution of export prices, revenues, and terms of trade. Group averages reflect the weight of GDP in the base period.
Source: World Bank staff calculations.

Box 4.4 Savings and real incomes during the commodity price cycle

The main text shows that changes in real incomes because of shifts in the terms of trade have not played a major role in determining savings behavior in the non-oil exporters in Sub-Saharan Africa. This box attempts to control for other determinants of savings when measuring the impact of changes in real incomes. The economics literature cites several determinants of savings: (a) higher GDP growth is associated with higher savings, (b) countries with higher per capita incomes normally have higher savings rates, (c) high levels of inflation discourage savings by reducing the real value of some financial assets, (d) countries with a higher age dependency ratio (share of population either very young or very old) generally save less, and (e) increases in foreign savings and official aid are associated with reduced savings (Ghura and Hadjimichael 1995; Ogaki, Ostry, and Reinhart 1995; Daval-Gulati and Thiman 1997; Loayza, Serven, and Schmidt-Hebbel 1999). The table shows the estimated impact on savings of upswings and downswings in the terms of trade during 1980–96 after controlling for these other determinants of savings.

The regression results are roughly consistent with two of the major findings presented in this chapter, even though the regressions account more fully for other determinants of savings and cover a longer period. First, the relationship between savings and the terms of trade varies considerably among country groups. This relationship is positive and significant for oil exporters in both upswings and downswings and for metals and minerals producers during upswings (but not downswings), but is not significant for agricultural producers. Note that the relationship between savings and the terms of trade is the same in the upswing as it is in the downswing during 1980–96. In the most recent cycle, however, oil exporting countries tended to save less than the rise in real income during the upswing and dissaved the full amount of the fall in real income during the downswing (see main text). It is unclear whether this difference stems from the longer time period and different country coverage of the regressions, or if it reflects a more accurate measurement of the impact of terms-of-trade changes after accounting for other determinants of savings. Second, while changes in the terms of trade are not significantly related to savings by the Sub-Saharan African agricultural producers, a time trend is positive and significant. This result is at least consistent with the view that policy improvements undertaken in several countries since the 1980s have had a more important impact on savings than changes in the terms of trade.

Terms-of-trade shocks and savings

Impact on savings rate: number of observations	Terms-of-trade upswing	Terms-of-trade downswing	Time
Oil exporting countries (120)	0.14*	0.14*	
Metals and minerals producers:			
in Sub-Saharan Africa[b] (75)	0.14*	0.14*	
Agricultural producers in Sub-Saharan Africa[c] (207)	0.05	0.02	0.004*

a. Algeria, Equatorial Guinea, Gabon, the Islamic Republic of Iran, Nigeria, Republic of the Congo, Russian Federation, Trinidad and Tobago, Venezuela, and the Republic of Yemen.
b. Botswana, Guinea, Mauritania, Niger, Togo, and Zambia.
c. Central African Republic, Chad, Cote d'Ivoire, Ethiopia, Ghana, Kenya, Madagascar, Malawi, Mali, Senegal, Uganda, and Zimbabwe.
* & ** Asterisks indicate significance at 1 percent (*) or 10 percent (**) level. Estimation is based on panel data with country fixed effects and instrumental variable estimation.
Source: World Bank staff calculations.

largest increase in savings rates experienced a decline in the ratio of aid to GDP of only 1 percentage point. The relationship between savings, real incomes, and aid flows on a country basis is represented in figure 4.8, which shows data on changes in real income and savings (as a share of GDP) during boom periods compared with base periods. All the countries with real income gains that were larger than average (1 percent of GDP), but which had increases in savings that were smaller than average (5 percent of GDP), had large declines in aid flows.

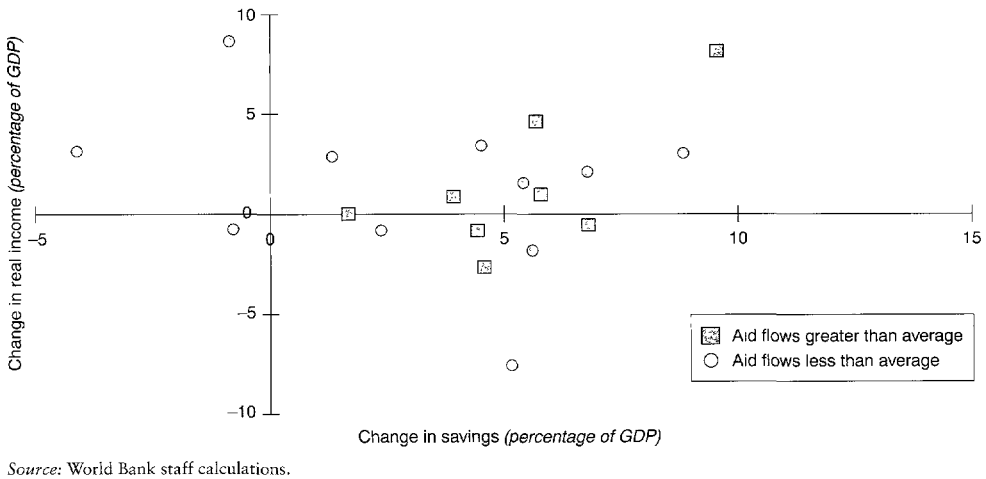
Both the private and public sectors contributed to the rise in savings rates during the boom.[36] Stronger macroeconomic policies were reflected in improvements in government current balances for both groups. National account data show that private savings also increased significantly during the boom, by 2.8 percent of GDP in those countries with flat terms of trade and by 1.7 percent of GDP in the other group (figure 4.9).

Improved policy performance led to an acceleration of GDP growth, which rose sharply during booms, averaging 3.8 and 4.6 percent per year in the two groups (table 4.9). The terms-of-trade effects account for only a small fraction of the increase in GDP growth. Based on estimates by Deaton and Miller (1995), the income gains would have increased GDP growth on average by 1.2 and 0.3 percentage points during the boom periods for the two groups.[37] These results do not imply that the changes in real incomes did not have an impact on growth rates. Countries experiencing a bust did see slower rates of GDP growth (by 2 to 3 percent per year) than countries experiencing a boom in commodity prices.[38]

The commodity price cycle and the internal distribution of income

The commodity price cycle had a significant impact on the internal distribution of income in many of the non-oil commodity exporters, including some countries that did not experience a sharp change in aggregate real income. Table 4.10 decomposes the change in real income between changes that resulted from movements in export prices and from movements of import prices. The countries with little change in the terms of trade experienced an internal shift in real income when commod-

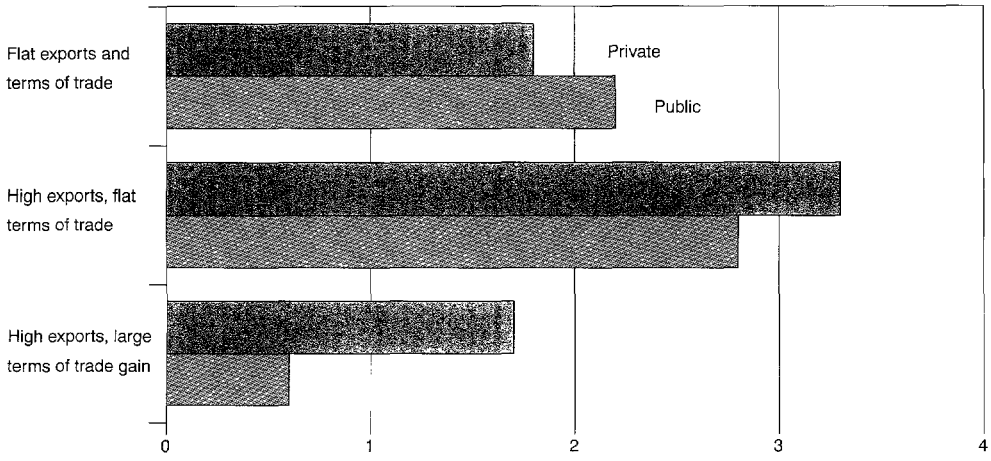
Figure 4.8 Real income, savings, and aid during booms



Source: World Bank staff calculations.

Figure 4.9 Change in savings rates during boom compared with base periods

Percentage of GDP



Source: World Bank staff calculations.

ity prices were high. Two factors lay behind this shift. Firms and households that earn their income from exports saw a gain of up to 2 percent of GDP because of higher prices, while firms and households that depend largely on imported goods lost as much as 1.4 percent of GDP.[39] In many of these countries, higher export prices increased incomes in rural areas, where export crops are produced and where people tend to consume locally produced food, but higher import prices reduced incomes in the urban areas that are dependent on imported food. Benin provides an interesting example of the internal distribution of real income changes (box 4.5).

Conclusion. The recent swing in commodity prices posed a significant challenge to economic management in those developing countries that are dependent on commodity exports, and the quality of economic policies played an important role in determining countries' responses. Policies have been weak in several oil exporting countries, and many of the countries experienced a deterioration of

Table 4.9 Economic performance

(average annual percentage change from base period)

Country group	GDP	Investment	Export volumes
During boom			
Large increases in exports and in terms of trade	4.6	5.3	6.4
Large increases in exports, flat terms of trade	3.8	7.1	7.4
During bust[a]	1.7	1.7	5.2

a. Country coverage differs substantially between boom and bust periods.
Note: Data show change in real income caused by export and import prices. A negative sign indicates a fall in real income, either from lower export prices or higher import prices. See notes to table 4.8.
Source: World Bank staff calculations.

(percentage of base year GDP)

Country group	Real income change caused by: Export prices	Import prices
During boom		
Large increases in exports and in terms of trade	2.7	–0.4
Large increases in exports, flat terms of trade	2.0	–1.4
During bust[a]	–0.3	0.2

a. Country coverage differs substantially between boom and bust periods.
Note: Data show change in real income caused by export and import prices. A negative sign indicates a fall in real income, either from lower export prices or higher import prices. See notes to table 4.8.
Source: World Bank staff calculations.

savings and investment performance during the commodity price cycle. By contrast, the past few years have seen substantial improvements in policies in many of the non-oil exporting countries of Sub-Saharan Africa, and these countries' savings and investment rates increased.

Notes

1. The impact of volatility on the poor is discussed in chapter 2.

2. Some measures of commodity price volatility declined after the mid-1980s, but remained higher than in the 1970s (Dehn and Gilbert 1999).

3. Dehn and Gilbert (1999) used a recursive forecast model to evaluate the degree of uncertainty or

Box 4.5 Real incomes in Benin during the commodity price cycle

Benin experienced sharp changes in the distribution of income as a result of the commodity price cycle and the CFA franc devaluation during the mid-1990s. During 1994–96 the U.S. dollar price of cotton, which accounts for 80 percent of Benin's merchandise exports, rose by 48 percent from its 1992–93 level. Also in 1994, the 50 percent devaluation of the CFA franc greatly increased the prices of exports and imports in local currency. By 1996 the cotton producer price had risen to twice its 1992–93 level in CFA franc terms, and the boost to real income during 1994–96 from the rise in export prices was 7 percent of 1992–93 GDP. Import prices also increased sharply, however, because of the devaluation and the rise in the dollar price of primary commodity imports. Import prices in CFA franc terms doubled during 1994–96 compared with 1992–93, equivalent to a loss of 20 percent of GDP. Imports were almost three times the size of exports (excluding re-exports) during 1992–93, so the loss from the rise in import prices was much greater than the gain from exports. The net loss to the economy was about 13 percent of GDP during 1994–96 compared with 1992–93.

Rural areas saw an increase in incomes and labor demand as the price rise encouraged greater cotton production (the area under cotton cultivation almost doubled from 1993–94 to 1996–97).[40] Urban workers, however, experienced a decline in living standards following the devaluation as the cost of living increase exceeded the rise in wages. A 46 percent rise in the *salaire minimum interprofessionel garanti* was granted in May 1994, compared with a 54 percent increase in the consumer price index. Moreover, actual earnings did not fully reflect the increase in wage rates as the government was substantially in arrears paying wage increases. Finally, many workers, particularly the more vulnerable, lower-income ones, were employed in the informal sector where incomes probably did not keep pace with the rise in living costs.

unpredictability in commodity prices, where uncertainty was measured by the standard deviation of the forecast error.

4. Selected commodity prices (coffee, cotton, gold, and copper) have remained roughly flat relative to U.S. inflation since 1900. At a minimum, owners of a constant flow of one of these commodities would not have seen much growth in real income during the twentieth century (Deaton 1999).

5. Statistical analyses of commodity price series can be found in Cuddington and Urzúa 1989; Cuddington 1992; Deaton and Laroque 1992; Reinhart and Wickham 1994; Léon and Soto 1997; and Cashin, Liang, and McDermott 1999.

6. These data are based on a limited sample of commodities. The agricultural products included are cocoa, coffee, tea, fats and oils, cotton, sugar, rubber, soybeans, maize, rice, and wheat. The metals and minerals are aluminum, copper, gold, and steel.

7. However, these increases did not occur in the countries of the former Soviet Union, where production continued to fall. According to the Food and Agriculture Organization of the United Nations, agricultural production in transition economies fell by 35 percent from 1990 to 1998. This partially offset gains in other countries.

8. Case studies are given in Collier, Gunning, and Associates (1999), Ingham (1973), and Paxson (1992). Econometric studies include Dayal-Gulati and Thimann (1997) and Loayza, Serven, and Schmidt-Hebbel (1999). Studies have also found that consumption behavior in some developing countries is closely related to permanent income (Ostry and Reinhart 1992; Ghosh and Ostry 1993; Borensztein and others 1994).

9. The Middle East and North Africa region has many oil exporters. Note that these estimates of the size of resource depletion are probably overstated. Estimates of depletion should reflect the price of the resource minus the marginal cost of extraction. In practice, data on marginal extraction costs are generally not available, so that average production costs are used. This practice overstates depletion, and hence understates levels of genuine savings.

10. See, for example, the U.S. Department of Energy's *Annual Energy Outlook*, various issues. The World Bank's forecasts also envisioned continued high energy prices in the early 1980s.

11. However, many Sub-Saharan African countries have liberalized marketing arrangements and reduced export taxes since the 1970s, which has reduced the government's role in allocating commodity price windfalls.

12. This section covers 11 developing countries where oil exceeded 50 percent of exports in 1997, namely: Algeria, Gabon, the Islamic Republic of Iran, Oman, Trinidad and Tobago, and Venezuela (middle-income debtors); Bahrain and Saudi Arabia (middle-income creditors); and Angola, Republic of Congo, and Nigeria (low income). These countries account for 93 percent of the total oil exports of the major oil exporting developing countries. Equatorial Guinea, Iraq, Libya, the Republic of Yemen, and some of the transition economies are excluded due to lack of sufficient data.

13. The concentration index ranges from zero to one, with one representing the most extreme concentration (UNCTAD 1994).

14. For the purpose of this analysis, the fuels price boom is dated as 1996–97 (when prices were above trend) and the bust as 1998 (when prices fell below trend). The trend is calculated beginning in 1986 to exclude the last major collapse of oil prices.

15. The methodology used in the IMF (1998) was used to measure the loss in real incomes due to terms of trade changes. The formula is $[(PXt+1 - PXt)*Xt - (PMt+1 - PMt)Mt)]/GDPt$, where PX and PM are price indexes for exports and imports, X and M are export and import volumes, and GDP is at current prices. This calculation ignores changes in the volume of exports and imports. To the extent that changes in volumes are in response to changes in prices, the formula fails to reflect the full impact of price changes on real incomes.

16. The flexibility of consumption levels in response to terms-of-trade changes is limited in some countries because of the unstable security environment (military expenditures are typically counted as consumption in the national accounts).

17. Permanent income from oil was calculated assuming that production was constant (the extent of depletion of oil reserves was not viewed as an important consideration over a short time period) and that the real oil price was equal to the trend. Permanent income in the non-oil sector was set equal to the actual level during the period.

18. This is an extreme assumption, as typically producers will view a portion of the rise in price as permanent.

19. The number of countries is limited based on the availability of data for 1998 and on estimates for non-oil GDP.

20. This calculation is based on a sample of seven countries, determined by data availability. The data refer to fixed investment, while the data on total investment include changes in stocks.

21. There were substantial differences between the magnitude of changes in foreign savings as shown

in national income accounts and in the current account of the balance of payments, partly because of data discrepancies between the two sources and partly because of movements in factor income and other current account items.

22. The regression equation is disbursements = 6.6 + .66*oil price, where all variables are expressed in natural logarithms. The coefficient of the oil price is significant at the 1 percent level.

23. The measurement of the change in real income refers to the economy as a whole, not to the government. Determining the government's share of the real income gain is difficult. Typically, the government, or the public sector as a whole, directly captures the bulk of the rise in oil prices, but data to measure the impact of changes in import prices on government incomes are not available.

24. Private sector savings are calculated by subtracting the government's current balance from the economy's total savings. Thus, public enterprises are classified under the private sector, which for some countries reduces the accuracy of these data as indictors of private sector behavior. Also, discrepancies in national income accounts could distort the data on private sector savings.

25. Data on public savings in 1998 are not available for the Republic of the Congo. Therefore, table 4.3 covers only 10 countries (compared with 11 countries for table 4.1).

26. Output growth is not a reliable indicator of economic performance for some of the major oil exporting countries because it reflects, in part, changes in the volume of oil production in line with efforts to support prices. Also, the huge shifts in oil prices since the 1970s make interpreting long-term changes in constant price data difficult. Growth in non-oil output is a better indicator of performance, but sufficient historical data are available for only a limited number of countries.

27. *International Country Risk Guide 1999.*

28. The countries discussed in this section include the agricultural exporters Benin, Central African Republic, Chad, Côte d'Ivoire, Ethiopia, The Gambia, Ghana, Kenya, Madagascar, Malawi, Mali, Senegal, Tanzania, Uganda, and Zimbabwe. Minerals exporters are Botswana, Guinea, Mauritania, Niger, Togo, and Zambia. Burundi, Democratic Republic of the Congo, Liberia, Mozambique, Rwanda, Sierra Leone, Somalia, and Sudan are excluded because of civil strife. Burkina Faso, Cape Verde, Comoros, Djibouti, Eritrea, Guinea Bissau, Lesotho, Namibia, São Tomé and Principe, Seychelles, and Swaziland are excluded because of the lack of data. The sample countries account for approximately 75 percent of the total GDP of the non-oil commodity exporters of Sub-Saharan Africa.

29. However, a substantial portion of these countries' manufactured exports represents agricultural goods with limited processing, whose prices probably move closely with primary commodities. The export price deflator roughly followed the average deflator of the largest two commodities from each country.

30. The commodity price index also may differ from export price deflators because the fixed weights used in the former may not reflect the export composition of the countries in our sample during the 1990s. For example, coffee and cocoa prices, which account for almost half of the Sub-Saharan Africa agriculture price index using 1987–89 weights, increased more rapidly than total agricultural prices during 1990–97, but exports of coffee and cocoa from the principal producers increased more slowly than the group's total exports. Therefore, in this case the weight of the more rapidly growing commodities among the export price deflators would have declined relative to the fixed weight index.

31. The sample of countries with bust periods is smaller than the sample with boom periods because in some countries export revenues and prices never fell significantly.

32. The price index for metals and minerals does not cover all the relevant goods exported by these countries. For example, the average commodity price for metals and minerals does not include diamonds, which is an important export of Botswana, because of the lack of data.

33. The country composition during boom and bust periods differs, because some countries never experienced a bust.

34. The ratings are prepared by World Bank country economists, based on their evaluation of macroeconomic policies, structural policies, reduction of inequality, and public sector management.

35. We discuss later how differences in savings performance depended in part on aid flows. Note that changes in aid flows do not explain the differences in performance of the two groups, as they experienced almost the same decline in aid flows during boom periods.

36. The dependent variable is savings divided by GDP. The terms of trade variables are constructed in three steps. First, an index of the terms of trade is multiplied by the ratio of exports to GDP and the growth rate is calculated. Second, dummy variables are constructed to represent upswings and downswings in the terms of trade. A value of 1 or 0 is assigned to each year and country, based on an analysis of the evolution of prices and revenue of each country's commodity exports.

Finally, the dummy variables are multiplied by the growth rate of the terms of trade variable.

37. Data are not yet available to distinguish between public and private savings during bust periods, which occurred in 1998 for most countries.

38. Deaton and Miller (1995) estimate that a 1 percent gain in GDP from terms of trade would add about one half of 1 percent in GDP growth during the boom, in addition to the real income effects.

39. The country composition is substantially different between boom and bust periods. Thus the conclusion cannot be drawn that output in individual countries necessarily grew more slowly during the bust.

40. Exporters may depend on imported inputs, and firms in the traded goods sector that depend on imported inputs may have benefited from increased output prices. Thus, neither group experienced the full amount of gain or loss represented by the change in export and import prices.

41. However, producers' prices rose by considerably less than what would be implied by the increase in international prices and the CFA franc devaluation. Therefore, the marketing board or the government reaped a large portion of the gain.

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Appendix 1
Regional Economic Prospects

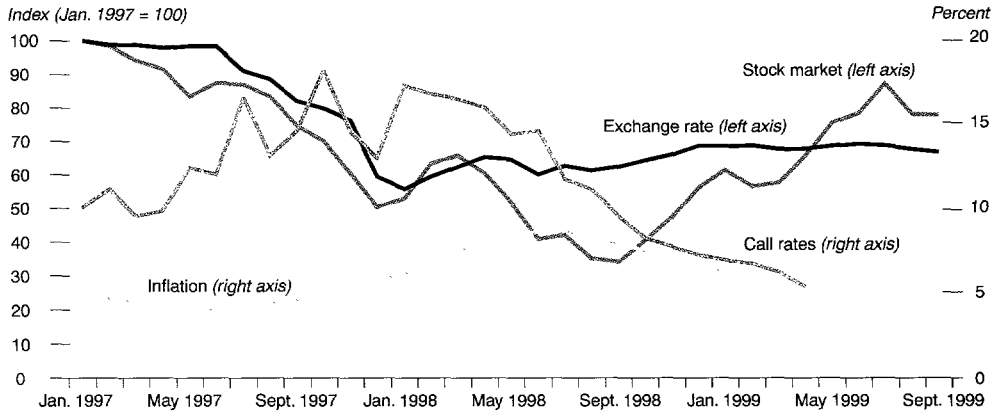
East Asia and Pacific

Recent developments

GROWTH FOR MOST OF THE EAST ASIA AND Pacific region in 1999, as anticipated earlier this year, will revive from the deep crisis-induced recessions of 1998. The turnaround has been much stronger than initially anticipated. Whereas the earlier forecast for the five crisis economies[1] saw growth rebounding to 0.2 percent in 1999, compared with a 7.9 percent decline in 1998, this year's performance now looks to be in the vicinity of 4.5 percent (table A1.1). Growth has been uneven across the five economies, with the Republic of Korea noticeably leading the group. Under current projections, Korea and the Philippines will return to their precrisis GDP levels this year, followed by Malaysia in 2000, and Thailand, just barely, in 2001. In contrast, Indonesia's output in 2001 could still be some 7 percent lower than precrisis levels.

Financial markets have improved markedly over the past year (figure A1.1). Currencies have appreciated between 10 and 20 percent since the low point of late 1998,

Figure A1.1 Stock index, exchange rate, inflation, and interest rate for East Asia-4



Note: East Asia-4 includes Malaysia, the Philippines, the Republic of Korea, and Thailand. Averages are calculated as simple arithmetic means for the four countries. *Inflation* is the three-month moving average of the year-on-year inflation.
Source: Datastream.

with the exception of Indonesia where the appreciation has been over 100 percent.[2] Stronger currencies have been abetted by increasing reserve levels and declining levels of short-term debt. Prices have been subdued throughout 1999, providing scope for reduced interest rates and a related fall in public and private debt servicing.

China is confronting several economic problems. The uncertainties surrounding restructuring of state-owned enterprises (SOEs) and of employment prospects, coupled with almost two years of monthly deflation, have dampened consumer demand. This has led to a significant increase in unsold goods and has exacerbated the costs of corporate restructuring. Government efforts to spur demand through public investment programs were partially successful as temporary measures, and will be pursued to maintain growth. The government has taken a variety of measures to spur demand, but early evidence indicates that these measures have led to increased liquidity in equity markets, without markedly affecting personal consumption. Thus, growth in China is expected to slow compared with 1998, from 7.8 percent to 6.5 percent.

After lagging through the first half of 1999 a combination of factors are buttressing Chinese exports, including renewed growth in East Asia and continued import growth in the United States. China's improving international competitiveness, spurred by strengthening East Asian currencies, domestic deflation, and export-linked tax rebates, has also been a factor. Recorded imports have risen substantially this year, though this is mainly attributable to a crackdown on smuggling. The trade balance is likely to narrow, but will remain positive on aggregate.

Among the newly industrializing economies (NIEs), both Singapore and Taiwan (China) have benefited from the improving regional economy and the global electronics boom. Because of its stronger integration with the crisis economies, Singapore was more deeply affected than Taiwan (China) by the regional downturn. Hong Kong's (SAR, China) adjustment to the crisis has been more painful. The currency peg has forced down asset prices and real wages as Hong Kong attempts to remain competitive, and has depressed investment through high interest rates. But retail sales are finally picking up, tourist arrivals

Table A1.1 East Asia and Pacific [illegible]
(percent per year)

				Baseline forecast			
Growth rates/ratios	1989–98	1997	1998	1999	2000	2001	1999–2008
Real GDP growth	7.5	6.6	0.1	5.5	6.2	6.2	6.2
Consumption per capita	5.2	3.0	–4.0	4.2	4.3	4.7	5.1
GDP per capita	6.1	5.4	–1.1	4.3	5.1	5.1	5.2
Population	1.3	1.2	1.1	1.1	1.0	1.0	0.9
Median inflation[a]	6.3	3.8	8.7	4.5	3.7	3.1	4.5
Gross domestic investment/GDP	35.0	36.2	31.0	32.6	33.9	34.6	35.3
Central government budget deficit/GDP	–0.6	–0.3	–2.2	–2.6	–3.0	–2.8	–2.4
Export volume[b]	11.9	17.6	7.0	7.9	8.1	7.8	8.0
Current account/GDP	–0.5	0.2	5.6	3.5	2.8	2.1	1.1
Memo items							
GDP of region, excluding China	5.7	4.4	–7.6	4.3	5.3	5.1	5.2
GDP of East Asia Crisis-5 countries[c]	5.7	4.5	–7.9	4.4	5.3	5.1	5.2

a. GDP deflator.
b. Goods and nonfactor services.
c. Indonesia, Malaysia, the Philippines, the Republic of Korea, and Thailand.
Source: World Bank Development Prospects Group, November 1999.

are increasing, and renewed Chinese exports will revive trade-related activities.

Near-term outlook

For the crisis countries improving macroeconomic conditions abetted by fiscal measures should set the stage for a further consolidation of growth, averaging 5 percent or more in 2000 and 2001. Inflation, which had been averaging 4.5–6 percent before the crisis, peaked in most of the crisis countries at less than 11 percent (except for Indonesia). The average year-on-year inflation rate is running at less than 2 percent in the East Asia-4 (Malaysia, the Philippines, Korea, and Thailand) and is in single digits in Indonesia after peaking at 80 percent at the end of 1998. Interest rates have fallen continuously since reaching highs in 1998. Overnight call rates in Korea, Malaysia, and Thailand are now well below precrisis levels.

The initial catalyst for growth was a revival in exports—led by electronics—driven by better than anticipated import growth in the United States and Japan, and intraregional multipliers. Low interest rates, rising asset prices, the end of the inventory cycle, and an improving near-term employment outlook, especially in Korea, have helped to broaden growth. Current account balances are likely to remain comfortably positive, though narrowing, as imports grow in tandem with consumption, production, and the end of the inventory cycle. Growth in the near term will be buttressed by strengthening consumer demand and inventory replenishment, with investment kicking in further down the road as capacity utilization improves.

On the downside, there could be a slowdown in the electronics sector in the second half of 1999 and perhaps into 2000. Equity prices have slumped more recently and they will have to rely on renewed growth in corporate profits rather than on liquidity. Interest rates have most likely reached a floor, and investment could continue to lag if banks' balance sheets fail to improve. Progress in the latter area has been uneven to date, and nonperforming loan (NPL) levels remain near their peaks. In Indonesia NPLs are estimated to range from 60 to 80 percent of outstanding loans and are close to 50 percent in Thailand. In Korea and Malaysia, they are a much more manageable 10–15 percent. Failure to achieve more substantial progress on restructuring could lead to renewed financial instability and could dampen near-term growth prospects (see chapter 3).

Expansionary fiscal policies are expected to fade out, though the remaining off-budget deficit will take longer to eliminate, and could accumulate further. The rapidly growing public debt in East Asia could pose a threat to recovery down the road, but historically low debt levels allow for a degree of flexibility. Nonetheless, Indonesia (with a history of high debt levels, political instability, and corruption), and to a lesser extent Thailand (with a persistently high level of NPLs), are in significantly more precarious positions.

Long-term prospects

Despite the current rapid rate of growth in the crisis countries long-term prospects for East Asia have not been revised since forecasts of one year ago. Lack of upward revision reflects the ongoing difficulties in Indonesia and, importantly, prospective industrial restructuring in China. In particular, the cost of restructuring the Indonesian bank balance sheets has risen dramatically, and troubles with Chinese commercial banks and their links with ailing SOEs have emerged more sharply this year. Inward investment in China has also been negatively influenced by the well-publicized collapse of several financial institutions. Despite the weak performance of the domestic economy, China seems determined to pursue its domestic reforms and to join the World Trade Organization (WTO). WTO membership is expected to benefit China, notwithstanding intensified competitive pressures on protected sectors. Beyond the one-time efficiency gains from reducing trade barriers, China could anticipate a boost in foreign direct investment and improved

access to foreign markets. For the region as a whole, long-term growth is expected to average 6.3 percent between 2002 and 2008, with the five crisis countries growing at 5.3 percent.

Success with regard to human capital growth will bolster longer term productivity gains in East Asia. Educational achievements over the last decades have been impressive, with primary school enrollment nearly universal and secondary school enrollment at high rates (for example, 50–60 percent in Thailand and Indonesia, and over 70 percent in China). Evidence from the hardest hit crisis countries suggests that these achievements were not reversed during the crisis. Governments made efforts to maintain expenditures on education (relative to GDP and total expenditures), and households adjusted consumption patterns to ensure continued school enrollment (see chapter 2). With the exception of Korea, which was a high-income country before the crisis, countries in East Asia—with per capita incomes ranging from $800 to $4,500, and an average close to $1,000—still have significant potential for moving toward NIE or industrial country income levels.

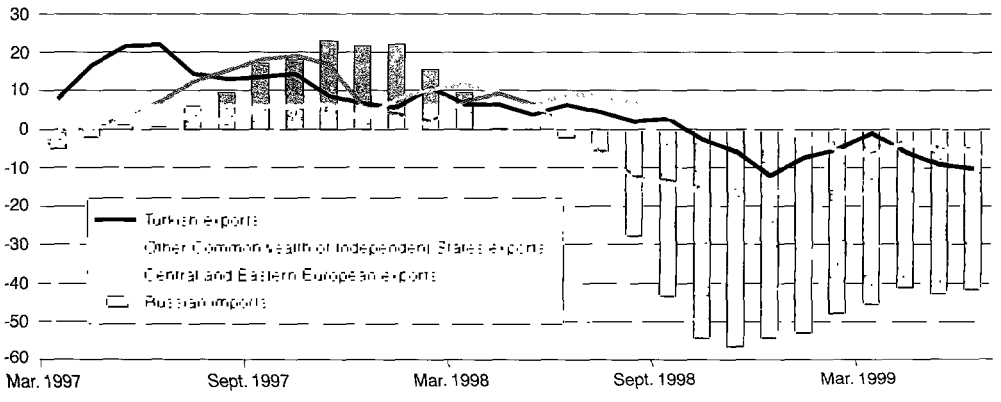
Europe and Central Asia

Recent developments

Economic output contracted by 0.2 percent in 1998 for the Europe and Central Asia (ECA) region as a whole, largely reflecting Russia's liquidity crisis in August 1998 and subsequent regional contagion. The ensuing economic downward spiral in Russia reverberated throughout the Commonwealth of Independent States (CIS), as these economies in particular retain strong trade links with the Russian market. Trade-finance and payments systems arrangements were interrupted and trade declined sharply as Russian demand collapsed (figure A1.2a) Central and Eastern European countries (CEECs) exports and balance of payments deteriorated as well, as sluggish growth in Western Europe translated into weak external demand for the more diversified regional exporters, dampening the internal dynamics of the region (figure A1.2b).

The region's weak growth performance is likely to improve during 1999. The firming of oil prices is improving prospects for the petroleum exporting countries of Russia and the Caspian Sea basin. While oil importers,

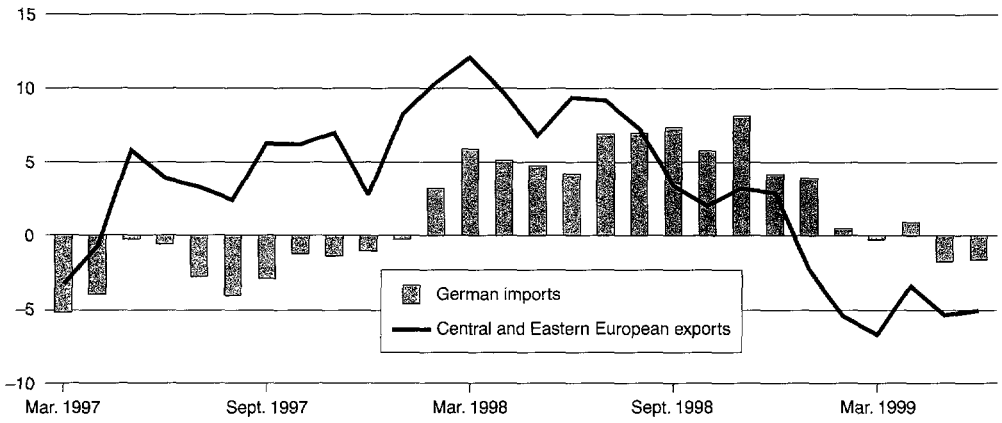
Figure A1.2a Russian imports and partner exports



Note: Figures are three-month moving averages in U.S. dollars.
Source: Datastream.

Figure A1.2b German imports and Central and Eastern European exports

Percentage change year-on-year



Note: Figures are three-month moving averages in U.S. dollars.
Source: Datastream.

such as Turkey and the Central European countries, are experiencing some terms of trade losses, many of these countries are benefiting from the incipient strengthening of demand in Western Europe. The end of the war in the Federal Republic of Yugoslavia (Serbia/Montenegro) has allowed reconstruction efforts to begin and cross-border trade to resume, albeit constrained by the need to rebuild the transportation infrastructure. Russia has made some progress on debt restructuring and on gaining another round of funding from the International Monetary Fund (IMF). Inflationary pressures have been reduced significantly, such that monthly inflation has slowed to 1.4 percent in September from 11 percent in December 1998. Bond spreads throughout the region in secondary markets have generally narrowed, which is a reflection of improving international financial market sentiment. For example, Poland's spread returned to early 1998 precrisis levels. The most striking exception to this trend is Ukraine, where the economy remains vulnerable and Eurobond spreads are still elevated at close to 8,300 basis points in mid-November 1999, up from about 3,000 points in June 1999. Spreads for Russia remained above 2,300 basis points in November 1999, down from 5,200 basis points in April 1999.

Estimates for growth in the ECA region for 1999 have been revised upward, from the 1.5 percent decline expected in *Global Development Finance (GDF) 1999* to plus 0.3 percent. Russian GDP is now forecast to increase by close to 1.0 percent (compared with the 5 percent contraction anticipated in *GDF 1999*), due largely to higher than expected oil prices and increased production for import substitution. While GDP and industrial production contracted in the first quarter of 1999, both posted gains in the second and third quarters. With positive spillover effects anticipated in neighboring countries, the forecast for growth in the Commonwealth of Independent States (CIS) has been revised from minus 5.5 percent to a 0.7 percent advance. The most notable exception to the region's generally lackluster output is Turkmenistan, where double-digit growth is expected as a large natural gas project comes onstream. In contrast to the CIS, expectations for growth in 1999 in the Central Eastern European coun-

tries have been revised downward, from 2.3 percent to 1 percent, reflecting weaker than anticipated growth in Europe and higher prices for these countries' energy imports. Also, the war in Kosovo has greatly reduced economic prospects in the Balkans. Not only must the region bear the direct consequences of the destruction and disruption in the theater of conflict, but it must also absorb the impact of the movement of refugees into neighboring countries, the disruption of regional and transit trade, and a sharp fall in tourism revenues.

Near-term outlook

Accelerating world trade and stabilizing commodity prices should contribute to a stronger recovery in the ECA region in 2000, and real GDP is expected to increase by 2.5 percent. A recent history of high real investment growth (in double digits for some countries since the mid-1990s), boosted by strong FDI inflows (albeit tied in part to one-off privatization sales), should provide additional impetus for future growth in the CEECs and the Baltic countries. Greater integration with the European Union, as the CEECs progress at varying stages toward EU membership, will also improve growth prospects. Average national production growth for the CEECs is forecast at 3.2 percent in 2000. Output in most CIS countries is projected to recover more gradually, owing to expected slow growth in Russia, where the aggressive implementation of structural reforms is likely to await the results of the June 2000 presidential elections. Nevertheless, the depreciation of the ruble and of other CIS countries' currencies is expected to boost their exports to a degree which, combined with more positive external demand and sustained higher oil prices, should contribute to more positive growth of 1.3 percent in 2000 (table A1.2).

Long-term prospects

The long-term growth forecast (2002–2008) for the ECA region has been reduced from 5 percent per annum to 4 percent. This change is due largely to a downward revision to the projections for Russia, which continues to underperform relative to its underlying potential. Despite stabilizing more quickly than anticipated in 1999 after the August 1998 financial collapse, the fundamentals required

Table A1.2 Europe and Central Asia forecast summary
(percent per year)

				Baseline forecast			
Growth rates/ratios	1989–98	1997	1998	1999	2000	2001	1999–2008
Real GDP growth	–3.5	2.7	–0.2	0.3	2.5	3.3	3.4
Consumption per capita	–2.1	3.4	1.0	1.4	3.0	3.1	3.3
GDP per capita	–3.8	2.6	–0.4	1.0	3.2	3.1	3.4
Population	0.3	0.1	0.1	–0.7	–0.7	0.2	0.1
Median inflation[a]	37.0	50.0	12.3	8.4	7.4	7.5	8.5
Gross domestic investment/GDP	27.2	24.4	23.0	22.4	22.5	22.9	23.5
Central government budget deficit/GDP	–7.3	–5.5	–5.3	–5.2	–4.3	–4.0	–4.2
Export volume[b]	0.5	11.5	6.1	–0.3	4.9	6.6	5.6
Current account/GDP	0.7	–0.5	–1.1	–1.0	–1.5	–1.7	–1.5
Memo items							
GDP of middle-income Western Europe	4.2	7.5	2.9	–2.2	4.6	4.3	4.3
GDP of Central and Eastern Europe	–0.8	2.6	2.1	1.0	3.2	4.3	4.1
GDP of CIS states	–6.3	1.4	–2.7	0.7	1.3	2.3	2.6

a. GDP deflator.
b. Goods and nonfactor services.
Source: World Bank Development Prospects Group, November 1999.

to support longer term growth have deteriorated. Savings and investment rates have fallen; the financial sector and state enterprises are in need of significant restructuring; the level of FDI remains constrained; and capital outflows continue. Population growth is projected to continue to fall by 0.3 percent per year, with the labor force contracting by 0.5 percent. While fiscal and monetary policies are likely to improve in the coming years, the degree of support for implementing far-reaching reforms to address the many imbalances in the economy is uncertain.

Risks to the forecast are mainly on the downside and are primarily linked, within the region, to achieving a sustainable recovery in Russia, where the situation remains fragile. A further downturn in Russia would have significant negative repercussions in the rest of the CIS and in Turkey, in particular, as occurred in the aftermath of the 1998 crisis. The economic situation in both Ukraine and Romania is tenuous, reflecting high debt-servicing payments. Turkey also faces significant economic challenges, as its economy is suffering from a sharp slowdown in growth, a growing budget deficit, and high short-term debt turnover requirements. The disruption of the August earthquake (estimated to cost between 2.5 percent and 5 percent of GDP) has compounded the situation. Throughout the region, slippage in reforms and failure to address significant financial and enterprise sector problems represent an ongoing risk. ECA's relationships with the EU pose both opportunities and challenges. A slowdown in Europe could weaken growth in ECA, especially in the CEECs. In the longer term, however, favorable prospects for several countries are tied to EU enlargement.

Latin America and the Caribbean

Recent developments

The initial impact of the East Asian crisis on Latin American countries was not large. Most economies were at the peak of their business cycles. Nonetheless, the adverse impact of the East Asian crisis on the global environment—through falling world export prices and volumes, and reduced capital flows to developing countries—eventually took its toll on Latin American countries. In 1998 the region's terms of trade fell by about 4 percent (a loss equivalent to 0.6 percent of GDP) and export volume growth slowed from 11.5 percent in 1997 to 5.6 percent, widening the region's current account deficit by $22 billion.

Mexico, which benefited from strong U.S. import-demand growth and which had a flexible exchange rate, was the least affected by the slowdown in world trade. Excluding Mexico, the region's export volume growth slowed from 9.5 percent in 1997 to 3.3 percent in 1998, due to worsening competitiveness. The countries with targeted exchange rates saw their real effective exchange rates rise by an average 17 percent above their 1990–96 levels (before the East Asian crisis), compared with a decline of 25 percent in the East Asian crisis countries. Capital flows from international markets dried up in the wake of the Russian default of August 1998, causing gross new flows to fall 25 percent in 1998 compared to 1997 levels. This precipitated a massive credit squeeze and a sharp reduction in current account deficits in several countries. The contagion effect from the Russian crisis made it impossible for countries to finance the part of the trade shock that could be treated as temporary. Even Chile, a country with solid credit ratings, experienced speculative attacks and was eventually forced to float its currency.

The combination of a deterioration in the external environment, high initial debt levels, a large dependence on foreign savings, and tight monetary policies—aimed at preserving existing exchange rate regimes during an election year for many large countries—caused regional GDP growth to slow from 5.4 percent in 1997 to 2.1 percent in 1998. By the fourth quarter of 1998 Argentina, Brazil, Chile, Colombia, Ecuador, Peru, and Venezuela were all experiencing recessions. In Brazil, Colombia, Ecuador, and Venezuela high do-

mestic interest rates in the second half of 1998 added to government debt service and, alongside lower tax revenues in the wake of the economic slowdown, widened fiscal deficits and put pressure on exchange rates. With the exception of Venezuela, these countries were eventually forced to abandon targeting their exchange rate, with the Brazilian and Ecuadorian devaluations being the most acute, after massive losses of reserves. In the case of Colombia (and Chile), the decision to float currencies was not accompanied by large devaluation because reserves were still at reasonable levels. As in other cases (Russia and Turkey), the East Asian crisis may not have been the fundamental cause of the downturn that ensued, but it was a contributing factor and triggered a reaction to more deep-seated problems. By and large, countries where policies are sounder (Chile and perhaps Mexico) avoided the worst.

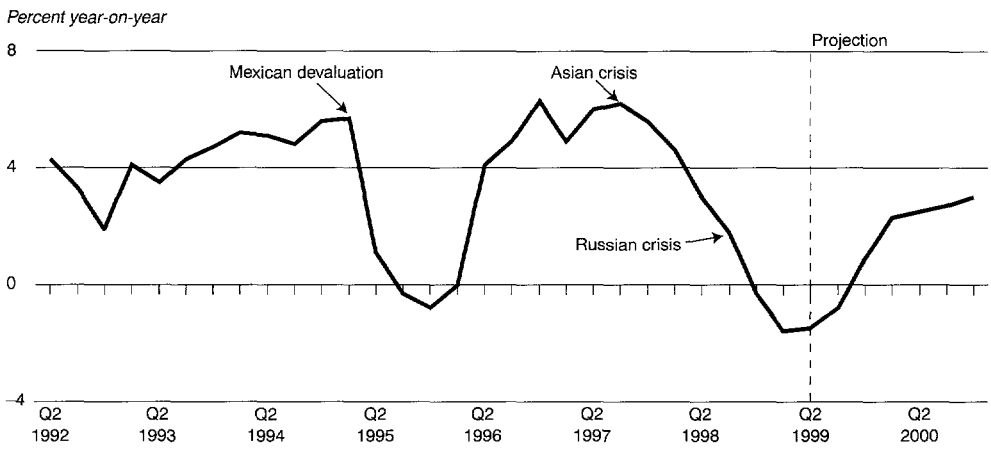
Brazil's devaluation, uncertainties in the run-up to elections, and tighter U.S. monetary policy helped spread the economic downturn in the region in 1999. The Brazilian devaluation worsened the external environment for many countries in the region, though to a much lesser extent than the Russian crisis. Prices of key commodities exported by Brazil (coffee, soybeans, and sugar) fell sharply in the first half of the year at the same time that Brazilian import demand collapsed, significantly reducing export revenues in a number of countries. Forthcoming elections in Argentina and Chile, coupled with increasing civil resistance to further fiscal tightening in some countries (Colombia, Ecuador, and Venezuela), led to greater uncertainty on the part of domestic investors. The tightening of U.S. monetary policy in mid-year, in conjunction with the debate over increasing the burden-sharing of international bond holders, contributed to a reduction in the supply of private capital available to the region from international markets. Ecuador's prospective default on its Brady bonds and calls for debt restructuring in Venezuela added to the uncertainty that private investors faced. The net result was the spread of the economic downturn within the region, with GDP in 1999 falling in nine countries, compared with only four countries in 1998. However, the expected economic outcome for Brazil will likely be much better than envisioned six months ago (no growth now versus –3.9 percent then) and should keep the decline in the region's GDP to about –0.6 percent. The region's current account deficit narrowed by about $33 billion in 1999, due to a contraction in imports of 2.6 percent.

Growth in per capita income of the Caribbean countries averaged 2.2 percent in 1999 but economic performance varied widely, and growth prospects are expected to remain diverse. Per capita GDP growth in 1999 averaged 3–4 percent in Barbados, Dominican Republic, and Trinidad & Tobago; 2–3 percent in the Leeward and Windward islands; 0–1 percent in Guyana and Haiti; but was negative in Jamaica for the third consecutive year. Movements in the terms of trade explain part of this diversity in growth performance—the faster growing economies rely more on tourism and oil for export revenues while most of the others depend heavily on exports of bananas and sugar, whose prices on world markets fell 12 and 30 percent, respectively.

Near-term outlook

Economic recovery in 2000–2001 is likely to be gradual, as further fiscal tightening is necessary in many countries and reform fatigue is becoming widespread. Recovery should begin by the fourth quarter and into 2000 for many of the countries experiencing recession in 1999 (figure A1.3). External factors behind the rebound include: an acceleration of world trade; the stabilization of commodity prices and the rise in some (for example, oil and metals); a slow recovery of capital flows; greater exchange rate flexibility in many countries; and less external debt amortization in 2000. Domestically, the ending of destocking facilitated by improved financial conditions (lower domestic interest rates, higher stock market valuations) should support a stabilization and consequent upturn in production.

Figure A1.3 Latin America and the Caribbean quarterly GDP



Source: World Bank staff estimates.

However, there are a number of reasons why the economic recovery in 2000 is expected to be modest compared with 1996 (post-Mexico crisis). First, fiscal tightening is required in a number of countries to sustain investor confidence and help exchange rate stability (Argentina, Colombia, Ecuador, Venezuela, and possibly Brazil). Implementation of further fiscal tightening could encounter resistance, especially since unemployment rates are high. Second, political uncertainties are likely to persist into 2000 as Mexico and Peru elect new presidents and many new administrations lack clear majorities in their respective congresses (Brazil, Colombia, and Ecuador). This uncertainty is likely to result in investor wariness. In addition, the expected slowdown in the United States in 2000–2001 could restrain Latin America's export growth. The combination of these factors is likely to lead to a moderate economic recovery, with the region's GDP growing by 2.7 percent in 2000 before accelerating toward 3.5 percent in 2001. The current account deficit during the next two years is expected to rise to a range of $60 to $70 billion from the 1999 level of $56 billion.

Near-term uncertainties. If private capital inflows remain weak into 2000, or capital outflows increase sharply in response to political developments, pressures on some currencies could increase. Although the baseline scenario assumes that Argentina will implement fiscal adjustment and obtain sufficient external support for financing its fiscal deficit and external payment obligations, risks remain that the process will not be smooth. Tighter monetary conditions in the industrial countries are likely to keep Argentina's cost of capital relatively high and the volume of capital inflows modest. Venezuela has persisted in maintaining a crawling exchange rate band, even though the country's real effective exchange rate is now 50 percent higher than its 1990–96 average. Although Venezuela has been able to fend off speculative exchange rate attacks in the past, and the rise in oil prices will help with potential future episodes, uncertainty on the policy front could lead to capital flight on a scale beyond the administration's ability to counteract. Both Chile and Colombia, with a history of much better macroeconomic management were forced to move toward an exchange rate float in 1999.

Table A1.3 Latin America and the Caribbean forecast summary
(percent per year)

Growth rates/ratios	1989–98	1997	1998	Baseline forecast 1999	2000	2001	1999–2008
Real GDP growth	2.9	5.4	2.1	–0.6	2.7	3.5	3.5
Consumption per capita	1.6	4.0	1.5	–3.6	0.2	1.4	1.3
GDP per capita	1.1	3.7	0.5	–2.2	1.1	2.0	2.0
Population	1.8	1.7	1.6	1.6	1.6	1.5	1.4
Median inflation[a]	17.0	8.5	7.9	8.3	7.9	6.8	6.3
Gross domestic investment/GDP	22.1	24.2	24.0	22.8	23.5	24.1	24.6
Central government budget deficit/GDP	–2.5	–1.5	–3.7	–2.8	–1.6	–1.4	–1.3
Export volume[b]	5.0	7.4	7.6	7.8	6.4	6.0	6.3
Current account/GDP	–2.4	–3.5	–4.1	–3.1	–3.3	–3.5	–3.4

a. GDP deflator.
b. Goods and nonfactor services.
Source: World Bank Development Prospects Group, November 1999.

Long-term prospects

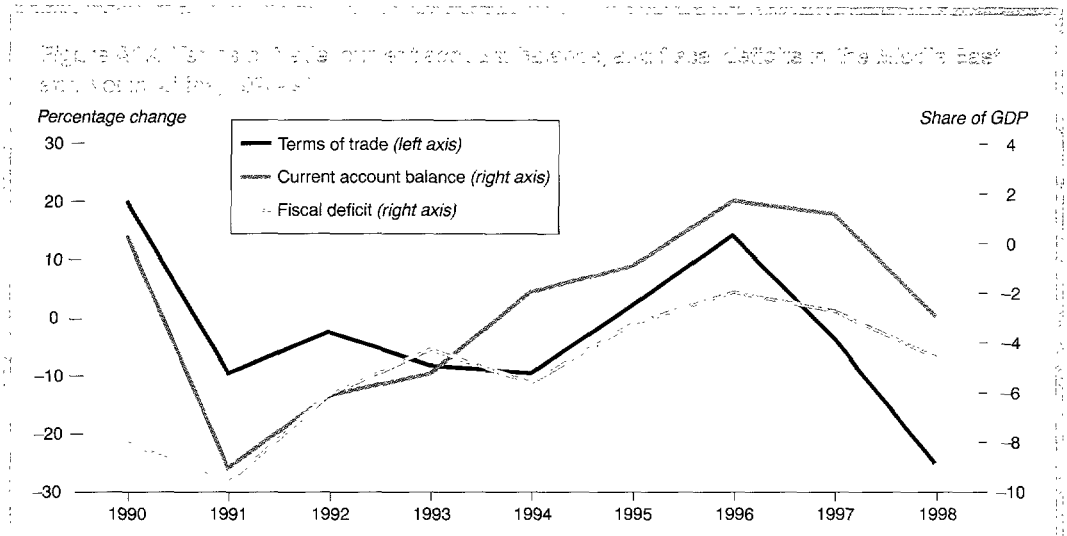
Output growth for the region in the long term (2002-2008) is now projected to average 4.2 percent (2.8 percent in per capita terms), which is a reduction of 0.2 percentage points compared to *Global Economic Prospects 1998/99* (table A1.3). The lower forecast is based on several factors which, although characteristic of the region for many years, have become more evident during 1999. National saving rates in several large countries have not risen in the 1990s and most continue to rely on foreign savings to accommodate increases in investment. High external indebtedness has increased reliance on international capital markets to finance debt repayments, and there is increasing evidence of reform fatigue in a number of countries. In Brazil the large increase in domestic debt over 1997–99 and a continued low saving rate will require a strong and sustained fiscal adjustment, which has been encountering public resistance. A similar situation exists in Argentina, where savings remain insufficient for sustainable growth. GDP per capita growth for the Caribbean countries is likely to average 2.5 percent a year reflecting the difficult structural transition that these countries will have to undergo in the face of increasing global competition of commodity exports to traditional markets.

Despite these uncertainties, longer term growth prospects—contrasted with the 1980s and 1990s—are favorable, as efficiency gains from past reforms are realized. Growth in total factor productivity, regionwide, is likely to continue its upward trend as Brazil, the last of the large economies in the region to embark on liberalization, overcomes current difficulties. The privatization of large state enterprises in the water, electricity, transportation, and telecommunications sectors should begin to bear fruit into the first decade of the 2000s. Privatization, combined with the increasing market power of the Southern Cone countries through Mercosur, should encourage FDI inflows, and the nature of FDI should shift from acquiring existing capital stock through privatization to investment in new capacity in the services and manufacturing sectors.

Middle East and North Africa

Recent developments

The historically low oil prices of 1998 depressed growth in the Middle East and North Africa (MENA) region (see chapter 4). Current account imbalances grew and government revenues came under severe pressure (figure A1.4). The low absorption oil exporters (Bahrain, Oman, and Saudi Arabia) utilized



Source: World Bank.

foreign reserves and external portfolios to finance the deterioration of fiscal deficits and trade balances in the short term. Other oil exporters, such as Algeria, the Islamic Republic of Iran, and the Republic of Yemen had similar pressures but faced tighter financing constraints. This led to a different adjustment path, including deeper expenditure cuts, exchange rate devaluation, rescheduling of external debt, and, in the case of the Islamic Republic of Iran, import compression and liquidity stress as foreign reserves declined and import cover fell. The net oil importers benefited from lower oil prices, although some countries experienced a fall in workers' remittance receipts from the oil exporting countries. The low level of regional integration into global capital markets ensured some protection against the worst effects of the East Asian crisis.

GDP growth in the region averaged 2 percent in 1999, 1.4 percentage points higher than anticipated earlier in the year, due to stronger than expected oil prices and higher domestic investment in the diversified exporters. The terms of trade of oil exporters rose by 35 percent (equivalent to nearly 9 percent of GDP), boosting government revenues and contributing to an easing of fiscal constraints. Nevertheless, the restriction of export volumes in order to support oil prices (OPEC cut production by 2 million barrels a day in April 1999) limited the real output recovery in the oil exporting countries.

GDP growth in the more diversified exporters (the Arab Republic of Egypt, Jordan, Morocco, the Syrian Arab Republic, and Tunisia) slowed to 3 percent in 1999, from 3.5 percent in 1998. The decline in activity in oil-exporting countries, as well as slower growth in Europe, put downward pressure on receipts from worker remittances. Those countries with exchange rates pegged to the dollar experienced slower export growth, in part as the value of the dollar increased and as the competitiveness of East Asian exporters in textiles, clothing, and machinery improved. Drought conditions in several countries (Jordan, Morocco, and Syria) led to a decline in agricultural incomes, as well as to further pressures in urban labor markets and higher food import bills.

Near-term outlook

GDP growth in the region should accelerate to 3.2 percent in 2000. The recovery in oil prices

Table A1.4 Middle East and North Africa forecast summary
(percent per year)

Growth rates/ratios	1989–98	1997	1998	Estimated Forecast 1999	2000	2001	1999–2008
Real GDP growth	3.0	3.7	3.2	2.0	3.2	3.5	3.4
Consumption per capita	-0.1	0.7	1.5	0.8	1.3	1.5	1.4
GDP per capita	0.6	1.5	1.2	-0.1	1.1	1.5	1.4
Population	2.4	2.1	2.1	2.1	2.1	2.1	2.0
Median inflation[a]	8.7	4.9	3.3	5.3	4.9	4.9	4.5
Gross domestic investment/GDP	22.8	23.9	21.7	23.5	23.9	24.1	24.7
Central government budget deficit/GDP	-5.2	-2.6	-4.5	-3.6	-2.3	-2.9	-2.2
Export volume[b]	4.5	5.0	2.6	1.4	3.4	4.0	3.9
Current account/GDP	-2.2	3.8	-1.3	4.2	4.5	3.6	2.2
Memo items							
GDP of oil dominant economies	3.6	2.9	1.6	1.1	2.2	3.0	2.9
GDP of diversified exporters	3.7	3.1	3.5	3.0	4.7	4.4	4.4

a. GDP deflator.
b. Goods and nonfactor services.
Source: World Bank Development Prospects Group, November 1999.

in mid-1999, following the implementation of the OPEC oil quotas and the high level of compliance thus far, points to a stabilization of economic activity in oil exporting countries, and GDP growth for this group is expected to range between 2.5–3 percent in 2000–2001. Output growth will continue to be constrained by quotas on oil production and the need to contain fiscal deficits and public debt levels. Recent increases in sales tax and utility charges and cuts in subsidies in the oil exporting countries are expected to have modest inflationary impact. But central banks in the low absorption oil exporters are likely to maintain tight monetary policies to help keep inflation low and maintain exchange rate stability. Inflation is likely to be more of a problem in the Republic of Yemen and the Islamic Republic of Iran. The diversified exporters are likely to grow by 4.7 percent in 2000, as growth in partner imports improves, the renewed drive for reform in several countries encourages domestic investment, the effects of drought conditions fade, and tourism receipts rise (table A1.4).

Long-term prospects

Despite an anticipated near-term revival of activity, forecasts for long-term output growth (2002–2008) have not been revised from earlier projections at 3.7 percent. Oil prices are likely to remain under downward pressure in the longer term (see chapter 1), which will constrain oil exporting countries' fiscal and foreign exchange revenues. But the diversified exporters are expected to maintain a growth rate of 4.6 percent, supported by continued structural reforms and the linkages that are developing as a result of the Euro-Mediterranean agreements. Several North African countries are implementing restructuring programs in line with their association agreements to boost efficiency in preparation for open competition from European firms. Privatization programs in Egypt, Jordan, Morocco, and Tunisia, in conjunction with a deepening of capital markets, are attracting foreign investment. Programs are in place to transfer public enterprises to the private sector, and new projects in minerals and infrastructure are being implemented under private contracts or on a build-own-operate-transfer basis. Large public enterprises such as utilities and telecommunications are being sold or corporatized prior to sale. A beneficial by-product of divestment of public enterprises will be the lowering of fiscal deficits and public debt.

Additionally, the peace process in the Middle East, which appears to be bearing fruit, may contribute to a lowering of risk perceptions, particularly in the Mashreq countries, and may provide an opportunity for increased dynamism in trade and capital flows.

South Asia

Recent developments

In 1999, for a second consecutive year, South Asia was the fastest growing developing region, averaging 5.4 percent GDP growth. Negative external factors that slowed growth elsewhere had a smaller effect on the region. Among domestic factors, the most positive was a favorable Indian monsoon, which led to impressive agricultural sector performance, while among the smaller economies domestic factors led to lower-than-trend growth. The aftereffects of 1998 floods in Bangladesh and Pakistan's stabilization program dampened growth in those two countries.

Relative independence from external influences is a constant structural feature of the Indian economy, and India experienced only moderate spill-over effects from the series of crises in 1997–99. The country's main export markets are in Europe and the United States, so the crisis did not greatly reduce demand for India's exports. As well, financial liberalization in India has been limited, and the country was not subject to capital account reversals. However, several other countries of the region were adversely affected. Bangladesh, Pakistan, and Sri Lanka were hit by weak external markets and falling commodity prices, particularly for tea, rubber, and cotton.

Pakistan's economy decelerated sharply in 1998 and 1999 due to a wide range of causes. Many of these causes were related to deeper seated structural imbalances, especially tied to fiscal performance and shortfalls in private savings. The result was an emerging balance of payments crisis, compounded by the sanctions that followed nuclear testing in 1998. Bangladesh suffered an economic downturn in 1998, due to extensive flooding which destroyed food crops, cut export volume, increased imports of food, and damaged infrastructure. Expenditure throughout the economy was affected as rural incomes were cut. The East Asian crisis may have weakened demand for ready-to-wear garments manufactured in Bangladesh. GDP growth dropped from 5.7 percent in 1998 to 3.5 percent in 1999. Sri Lanka, the most open of the South Asian economies, exports 37 percent of its GDP. It depends on exports to provide a market for its manufactures and on strong world demand to sustain prices for tea, rubber, and

Table A1.5 South Asia forecast summary
(percent per year)

				Baseline forecast			
Growth [illegible]	1989–98	1997	1998	1999	2000	2001	1999–2005
Real GDP growth	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Consumption per capita	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
GDP per capita	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Population	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Median inflation	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Gross domestic investment GDP	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Central government budget deficit GDP	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Export volume	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Current account GDP	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

a. GDP deflator.
b. Goods and nonfactor services.
Source: World Bank Development Prospects Group, November 1999.

other materials. The slowdown in world demand was important in keeping tea and rubber prices low and reducing export receipts (table A1.5).

Near-term outlook

Looking ahead, several positive factors will help India sustain growth in 2000 and 2001. These include a high level of private sector business confidence and a commitment in principle by both major political parties to a broad range of economic reforms. But there are also forces that could restrain growth, including twin fiscal and balance of payments deficits, the deteriorating state of infrastructure, and a large public sector deficit. Substantially faster growth would require increased fixed capital formation and saving, and foreign direct investment would be a crucial element of financing. Absent policy changes, prospects for Bangladesh and Pakistan are not particularly encouraging. An improvement in external conditions, including an acceleration of world trade growth and the stabilization of commodity prices, would be helpful in the near term, but the recent surge in petroleum prices will exact a toll on fragile import bills for both countries. The implications for economic growth of the recent coup in Pakistan are not yet clear. For Bangladesh, most of the flood damage has been repaired, the water level has fallen, and crops were replanted for the 2000 harvest. Conditions should allow the economy to revive toward 5 percent growth in 2000. Sri Lanka is well situated to benefit from an acceleration in world trade growth in 2000 and an increase in commodity prices over the same period.

Long-term prospects

Despite cautious optimism concerning a near-term increase in economic activity in the region, prospects covering 2002–2008 have been downgraded from previous projections. The main requirement for a strong long-term outlook is economic reform: in Pakistan, the implementation of key reforms in banking, power, taxation, and public spending; and in Bangladesh, the improvement of macroeconomic management, governance, and infrastructure. But critically, India's long-term potential output growth is linked to policy actions, which must redress the current fiscal deficit (over 6 percent of GDP), continued high (and increasing) tariff barriers, and increases in nonperforming loans and other structural problems in the banking system.

Sub-Saharan Africa

Recent developments

Sub-Saharan Africa's economic growth slowed progressively from 4.7 percent in 1996 to less than 2.5 percent in 1998–99. Several factors were responsible. A steep fall in oil prices in 1997–98 hurt countries that export significant amounts of oil and other hydrocarbons.[3] Numerous conflicts—many of which had appeared to be moving toward resolution—flared up, including in Angola, Democratic Republic of Congo, Ethiopia and Eritrea, Guinea-Bissau, Lesotho, and Sierra Leone. Poor weather disrupted agriculture and tourism throughout eastern and southern Africa and heavy rains damaged infrastructure. Finally, South Africa, the region's largest and most open economy, was caught in the turbulence of the East Asian crisis as a reversal of capital inflows in mid-1998 sent interest rates sharply higher and dampened interest-sensitive sectors through the first half of 1999.

Despite these adverse developments, pro-market reforms, trade liberalization, and better governance sustained growth elsewhere in the region—in Mozambique, Uganda, and generally throughout the CFA zone, where the devaluation of the CFA franc in 1994 triggered a sustained boom in investment and exports. Moreover, developments in 1999 augur well for near-term prospects. Especially encouraging have been the smooth political transition in Nigeria; renewed prospects for peace in Sierra Leone, Liberia, and the Democratic Republic of Congo, and a swift return of international investors to South Africa.

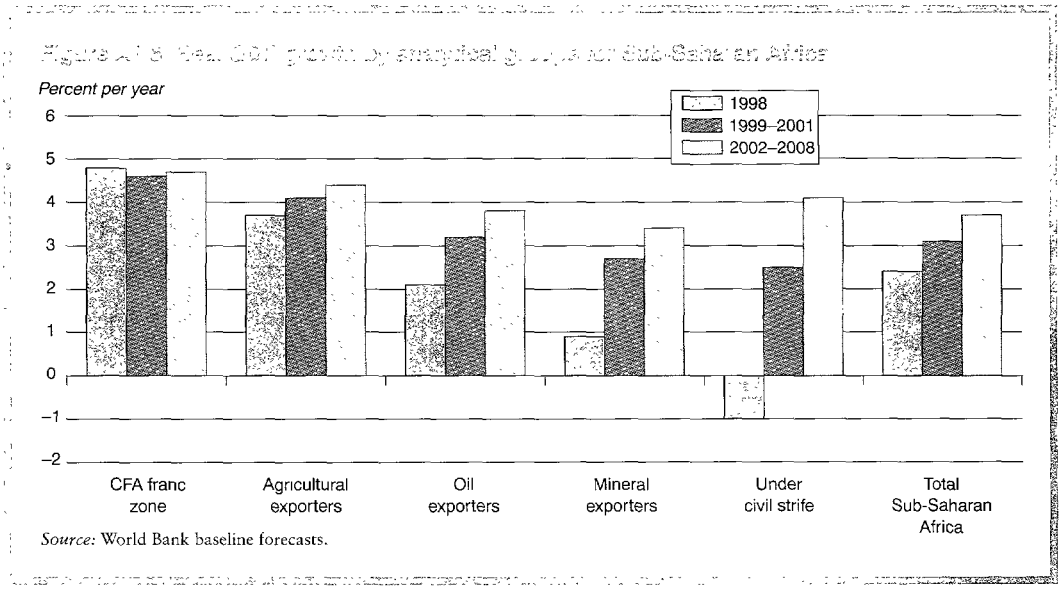
Near-term outlook

Growth in 1999 will be near the pace achieved in 1998—around 2.3 percent, or 3.2 percent excluding South Africa and Nigeria. This falls short of what is needed to recover the ground lost in recent years, and per capita incomes will decline modestly for a second successive year. Nevertheless, a gradual recovery from the slowdown appears to be underway. Growth is anticipated to rise to 3.3 percent over 2000–2001. Underpinning the stronger performance will be a pick-up in exports over the next 12–24 months, based on sharp gains in oil prices, the unexpected strength of the recovery in East Asia, and the euro's weakness against the U.S. dollar, which will further boost the competitiveness of CFA zone countries. Following a decline of 0.3 percent in 1998, merchandise exports are expected to grow by 3.8 percent in 1999, 6.3 percent in 2000, and 4.7 percent in 2001. On top of the broader recovery, export performance in 2000 will reflect the revival of Nigeria's hydrocarbon sector, and especially the commencement of liquid natural gas shipments from the new Bonny Island facility. Excluding South Africa and Nigeria, Sub-Saharan export growth is predicted to reach 4.3 percent in 1999 and 4.6 percent in 2000–2001.

Import growth will not keep pace with exports, allowing the current account deficit to shrink from an unsustainable $14.2 billion (4.6 percent of GDP) in 1998. For the region as a whole, the current account deficit is projected to narrow to 2.8 percent of GDP in 1999 and 2.6 percent in 2000. While falling short of the level of performance in 1997–98, import growth will remain adequate to support purchases of capital and intermediate goods for production and investment needs. Meanwhile, the forecast anticipates a continuation of policy reforms and a move away from the inward-looking trade regimes that contributed to Sub-Saharan Africa's relative isolation over the past 25 years. Overall, trade will continue to outpace GDP growth, resulting in higher trade shares and increasing openness (figure A1.5).

Long-term prospects

Output for the region is expected to achieve growth of 3.6 percent from 2002–2008 (figure A1.5). That represents a 0.5 percentage point downward revision from last year's *Glo-*



Source: World Bank baseline forecasts.

Table A1.6 Sub-Saharan Africa forecast summary
(percent per year)

Growth rates/ratios	[illegible]	[illegible]	[illegible]	Baseline forecast [illegible]	[illegible]	[illegible]	[illegible]
Real GDP growth	2.4	[illegible]	2.4	2.5	3.1	3.4	3.4
Consumption per capita	-0.4	2.1	1.0	-0.5	-0.1	0.5	0.4
GDP per capita	-0.3	0.6	-0.2	-0.2	0.0	0.6	1.0
Population	2.8	2.8	2.6	2.6	2.5	2.5	2.4
Median inflation[a]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Gross domestic investment/GDP	18.5	17.0	17.4	17.5	17.7	17.9	18.4
Central government budget deficit/GDP	-2.5	-2.1	-2.6	-3.1	-3.0	-3.1	-3.1
Export volume[b]	4.3	[illegible]	-0.1	4.1	6.1	4.5	4.9
Current account/GDP	-2.0	-2.5	-3.0	-2.5	-2.6	-2.6	-2.0
Memo items							
GDP of major oil exporters[c]	2.9	4.2	1.5	1.5	3.4	3.9	[illegible]
GDP of region, excluding South Africa and oil exporters	3.1	4.0	4.0	[illegible]	[illegible]	[illegible]	[illegible]

a. GDP deflator.
b. Goods and nonfactor services.
c. Angola, Gabon, and Nigeria.
Source: World Bank Development Prospects Group, November 1999

bal Economic Prospects and reflects greater pessimism about prospects in commodity and financial markets, as well as an assessment that South Africa will require a more extended period to reach its long-run potential output growth. A sustained 3.6 percent expansion of GDP, together with a gradual slowing of the region's population growth (from current rates of 2.6 toward 2.4 percent), will permit a moderate rise in per capita incomes of 1.3 percent per year over the long-term forecast period. The ability to encourage private investment will be the key to stronger performance, and those countries with better policy environments, effective export strategies, and more diversified economies will tend to do better (table A1.6).

Despite the downward revision, the outlook remains for a substantial improvement over the 2 percent average growth achieved during the past two decades. Many of the region's intractable conflicts are likely to be resolved, and there has been a broad-based transition to democratic rule and more responsible governance. An accumulation of evidence indicates that these developments are producing results—for instance, they have contributed to the rise in investment and exports during the 1994–97 growth cycle (see chapter 4). However, these factors will be offset by other less favorable trends: commodity prices of critical importance to the region are expected to show only weak advances, putting a damper on investment and exports; a poor outlook for foreign aid and negative foreign investor sentiment will squeeze current account balances and compress imports; falling budget support is likely to cut into social spending, reducing the growth rate of human capital. Finally, the extent of the AIDS epidemic is becoming clearer, and with it the inevitability of a sustained, negative impact on economic performance. Medium-term projected population growth in the worst affected countries has been lowered by as much as 1–2 percent annually compared to what would have been expected without AIDS. Moreover, since the disease preponderantly affects better educated and more productive urban workers, output growth in these countries will slow by a substantially higher amount. For the region as a whole, a reduction in per capita growth of 0.3 percent tied to this development seems likely.

Especially given the lackluster expectations for commodity prices and the poor climate for foreign aid, countries will need to continue diversifying and opening their economies to sustain adequate growth. Ongoing structural adjustment over the forecast period should raise domestic savings and investment, as well as make Sub-Saharan Africa more attractive to potential foreign investors. FDI is increasingly being attracted not only to extractive and resource-based sectors, but also to telecommunications, transportation, and utilities sectors as they are privatized and deregulated. Meanwhile, though prospects for foreign aid are not promising, many Sub-Saharan countries stand to benefit from debt relief under enhanced terms of the Heavily Indebted Poor Countries Initiative (HIPC), improving the sustainability of current account positions. Of the 36 countries eligible under the enhanced framework, 30 are in Sub-Saharan Africa, and the region stands to receive over 80 percent of the relief worth $27 billion in net present value terms. Not only will there be a transfer of real resources for poverty reduction and other purposes, but stronger balance sheets and improved creditworthiness will facilitate the integration of recipient countries into the world economy.

Notes

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

2. Since July the currencies have been drifting somewhat downward for a number of reasons—restructuring problems in Korea; corruption and conflict in East Timor in Indonesia; and tensions between Taiwan (China) and China have affected the former.

3. Angola, Cameroon, Congo (Brazzaville), Equatorial Guinea, Gabon, and Nigeria.

Global Economic Indicators

Table A2.1 Growth of real GDP, 1966–2008

(GDP in 1987 prices and exchange rates—average annual percentage growth)

	1998 GDP (current billions of U.S. dollars)	1966–73	1974–90	1991–98	1998	Estimate 1999	Forecast 1999–2008
World	**28,445**	**5.2**	**3.0**	**2.5**	**1.9**	**2.6**	**3.1**
High-income economies	**22,200**	**5.0**	**2.8**	**2.3**	**2.0**	**2.6**	**2.6**
Industrial	21,505	5.0	2.7	2.2	2.0	2.6	2.6
G–7	18,425	5.0	2.8	2.2	1.8	2.6	2.5
United States	8,510	3.2	2.7	3.0	3.9	3.8	2.8
Japan	3,790	10.0	3.8	1.5	–2.9	1.3	1.7
G–4 Europe	6,130	4.4	2.3	1.7	2.2	1.6	2.6
Germany[a]	2,130	4.3	2.0	1.8	2.0	1.3	2.6
Euro Area	6,465	5.0	2.3	1.7	2.7	2.0	2.8
Other industrial	3,080	5.0	2.3	2.3	3.7	2.9	3.1
Other high-income	695	8.5	5.5	5.7	1.2	3.0	4.8
Asian NIEs	515	9.6	8.1	6.0	1.8	3.6	5.4
Low- and middle-income economies	**6,245**	**6.2**	**3.8**	**3.2**	**1.6**	**2.7**	**4.5**
Excluding Eastern Europe and CIS	5,390	6.0	3.7	5.3	2.1	3.0	4.7
Asia	2,360	5.8	6.5	7.6	1.6	5.4	5.9
East Asia and Pacific	1,800	7.8	7.5	8.5	0.1	5.5	6.2
China	960	8.4	8.7	11.4	7.8	6.5	...
Korea, Rep. of	320	11.2	8.5	6.3	–5.8	8.0	...
Indonesia	95	6.4	6.7	5.8	–13.2	0.0	...
South Asia	560	3.6	5.0	5.9	5.2	5.4	5.2
India	430	3.8	4.9	6.1	5.1	6.0	...
Latin America and the Caribbean	2,000	6.2	2.6	3.6	2.1	–0.6	3.5
Brazil	775	9.5	3.6	3.1	0.2	–0.4	...
Mexico	425	6.3	3.2	2.6	4.8	3.2	...
Argentina	340	4.3	0.4	5.2	3.9	–3.5	...
Europe and Central Asia	1,040	6.2	4.2	–4.0	–0.2	0.3	3.4
Russian Federation[b]	337	6.6	5.2	–7.8	–4.6	1.0	...
Turkey	190	1.9	4.2	4.2	2.9	–2.2	...
Poland	145	7.3	0.3	4.2	4.8	3.5	...
Middle East and North Africa	535	7.8	1.4	2.9	3.2	2.0	3.4
Saudi Arabia	130	8.5	0.9	1.6	1.6	–0.4	...
Iran, Islamic Rep.	120	10.2	–0.3	3.6	2.1	1.2	...
Egypt, Arab Rep.	83	3.7	7.1	4.1	4.9	4.9	...
Sub-Saharan Africa	310	4.5	2.1	2.8	2.4	2.3	3.4
Republic of South Africa	115	4.9	2.1	1.5	0.1	1.0	...
Nigeria	35	6.5	1.1	2.5	2.3	1.0	...

Note: Growth rates over intervals are computed using least squares method.
a. Data prior to 1991 covers West Germany.
b. Data prior to 1992 covers the former Soviet Union.
Source: World Bank data and staff estimates.

Figure A2.1 Real GDP growth, 1989–2008

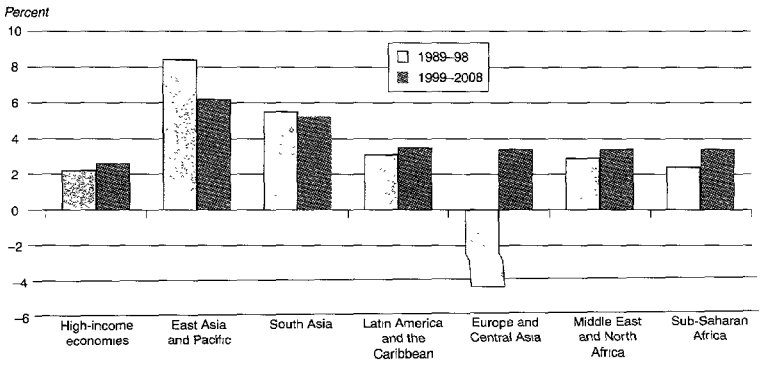


Table A2.2 Growth of real per capita GDP, 1963–2008

(GDP in 1987 prices and exchange rates—average annual percentage growth)

	1998 GDP per capita (current U.S. dollars)	1966–73	1974–90	1991–98	1998	Estimate 1999	Forecast 1999–2008
World	5,020	3.1	1.2	1.0	0.6	1.4	1.9
High-income economies	25,245	4.1	2.1	1.6	1.5	2.3	2.3
Industrial	25,720	4.1	2.1	1.6	1.6	2.2	2.2
G–7	26,929	4.0	2.2	1.5	1.3	2.2	2.2
United States	31,320	2.1	1.7	1.4	3.0	3.2	2.1
Japan	29,445	8.7	3.0	1.2	-3.1	1.2	1.6
G–4 Europe	25,797	[illegible]	2.1	1.3	2.0	1.3	2.6
Germany	25,460	[illegible]	2.0	1.7	1.9	1.2	2.7
Euro Area	22,210	4.3	2.0	1.4	2.5	1.9	2.8
Other industrial	20,700	4.1	1.7	1.8	3.2	2.7	2.4
Other high-income	16,055	[illegible]	[illegible]	4.0	-0.5	1.6	3.7
Asian NIE	16,165	7.2	[illegible]	4.7	0.4	2.7	4.7
Low- and middle-income economies	1,300	3.7	1.5	1.6	0.1	1.2	3.2
Excluding Eastern Europe and CIS	1,220	[illegible]	1.3	[illegible]	0.4	1.3	3.3
Asia	790	[illegible]	4.5	6.0	0.2	4.0	4.6
East Asia and Pacific	1,060	5.1	[illegible]	7.1	-1.1	4.2	5.2
China	775	5.6	7.1	10.2	6.8	5.5	
Korea, Rep. of	6,910	8.8	7.0	3.2	-6.7	7.2	
Indonesia	460	[illegible]	4.6	4.1	-14.6	-1.6	
South Asia	435	1.2	2.6	[illegible]	3.3	3.3	3.7
India	440	1.4	2.6	4.7	3.3	4.0	
Latin America and the Caribbean	4,115	3.3	0.4	1.8	0.3	-2.2	2.0
Brazil	4,680	[illegible]	1.4	1.6	-1.1	-1.7	
Mexico	4,410	2.9	[illegible]	[illegible]	[illegible]	1.6	
Argentina	8,230	2.7	-1.0	3.8	2.6	-4.7	
Europe and Central Asia	2,260	3.1	3.2	-4.2	-0.4	1.0	3.4
Russian Federation	2,300	3.6	4.1	-7.9	-4.1	0.8	
Turkey	3,030	-0.7	1.8	2.7	1.3	-3.6	
Poland	3,773	[illegible]	-0.7	4.0	4.5	3.4	
Middle East and North Africa	1,970	4.9	-1.7	0.6	1.1	-0.1	1.4
Saudi Arabia	6,213	4.3	-4.1	-1.9	-1.7	-4.0	
Iran, Islamic Rep.	1,930	7.0	-3.6	1.9	0.5	-0.5	
Egypt, Arab Rep.	1,330	1.3	4.0	2.1	3.1	3.2	.
Sub-Saharan Africa	510	1.8	-0.8	0.1	-0.2	-0.2	1.0
Republic of South Africa	2,825	2.7	-0.3	-0.3	-1.6	-0.6	
Nigeria	305	3.6	-1.9	-0.4	-0.3	-1.7	.

Note: Growth rates over intervals are computed using least squares method.
a. Data prior to 1991 covers West 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, 1989–2008

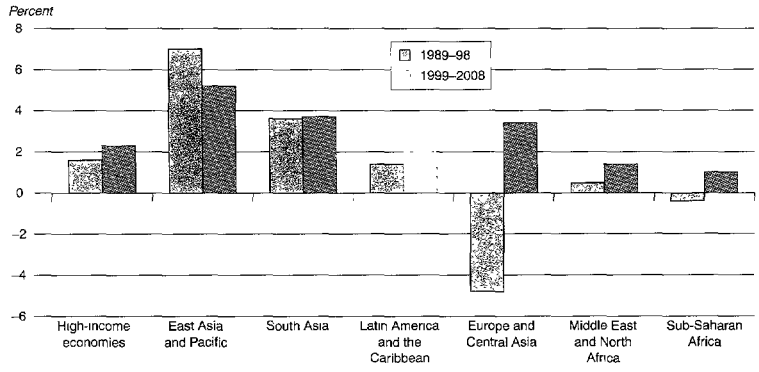


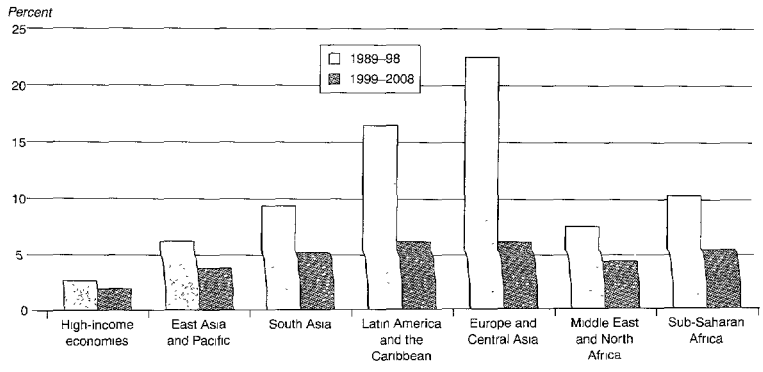
Table A2.3 Inflation, GDP deflators [illegible]

(percentage change [a])

	1966–73	1974–90	1991–98	1998	Estimate 1999	Forecast 1999–2008
World	**5.4**	**7.8**	**4.2**	**2.5**	**2.5**	**2.7**
High-income economies	**5.5**	**7.0**	**2.3**	**1.1**	**1.2**	**1.9**
Industrial	5.5	6.8	2.2	1.1	1.2	1.9
G–7	5.3	6.5	2.1	1.0	0.9	1.7
United States	4.8	6.3	2.2	1.0	1.3	1.9
Japan	5.8	3.6	0.3	0.4	–0.4	1.2
G–4 Europe	5.4	8.3	3.3	1.6	1.3	1.8
Germany[b]	4.9	3.5	3.1	0.9	1.2	1.7
Euro Area	5.6	7.9	3.2	1.6	1.4	1.9
Other industrial	6.4	8.4	2.9	1.6	3.0	2.7
Other high-income	5.5	22.2	4.3	1.5	1.2	3.5
Asian NIEs	5.6	6.9	3.7	1.6	0.4	3.4
Low- and middle-income economies	**4.7**	**11.1**	**11.3**	**7.6**	**7.3**	**5.4**
Excluding Eastern Europe and CIS	4.8	11.4	10.1	6.5	7.2	5.3
Asia	6.7	9.2	7.2	8.2	5.6	4.4
East Asia and Pacific	6.7	8.2	6.1	8.7	4.5	3.8
China	–2.0	3.8	9.6	–1.3	–0.9	...
Korea, Rep. of	14.3	12.1	5.6	13.4	4.5	...
Indonesia	65.0	13.3	12.3	73.1	38.1	...
South Asia	6.9	10.6	9.4	7.6	7.2	5.3
India	7.6	8.1	8.7	7.6	9.8	...
Latin America and the Caribbean	6.1	10.0	14.4	7.9	8.3	6.3
Brazil	23.2	145.0	348.0	3.8	11.0	...
Mexico	6.4	48.0	19.5	15.9	16.8	...
Argentina	24.0	203.0	9.8	–2.0	3.2	...
Europe and Central Asia	2.0	6.5	41.4	12.3	8.9	6.3
Russian Federation[c]	0.9	1.2	250.0	11.6	56.0	...
Turkey	7.3	44.5	79.3	69.2	60.0	...
Middle East and North Africa	3.6	11.0	6.2	3.1	4.7	4.4
Saudi Arabia	11.4	4.0	1.4	–13.4	4.0	...
Iran, Islamic Rep.	5.6	17.0	28.3	15.7	11.1	...
Egypt, Arab Rep.	2.3	12.4	9.8	4.2	4.0	...
Sub-Saharan Africa	4.2	10.6	10.5	6.5	7.9	5.6
Republic of South Africa	6.2	14.5	9.8	8.4	7.5	...
Nigeria	10.7	14.5	38.8	10.0	13.1	...

Note: Deflators are in local currency units; 1987 = 100. 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 groups are medians. World is GDP-weighted average of the two groups.
b. Data prior to 1991 covers West Germany.
c. Data prior to 1992 covers former Soviet Union.
Source: World Bank data and staff estimates.

Figure A2.3 [illegible]



(percentage of GDP)

	1998 current account *(billions of U.S. dollars)*	1970–80	1981–90	[illegible]	[illegible]	[illegible]	[illegible]
World	−33.3	0.1	−0.4	−0.1	−0.1	−0.5	−0.5
High-income economies	−0.8	0.1	−0.2	0.2	0.0	−0.4	−0.4
Industrial	−24.7	0.0	−0.5	−0.1	−0.1	−0.6	−0.5
G–7	−50.8	0.2	−0.4	0.0	−0.3	−0.5	−0.7
United States	−232.5	0.0	−2.0	−1.3	−2.7	−3.3	−3.5
Japan	118.8	0.7	2.4	2.1	1.1	2.7	2.3
G–4 Europe	62.9	0.2	0.3	0.1	1.0	0.7	0.6
Germany[a]	−4.9	0.5	2.6	−0.7	−0.2	−0.2	0.1
Euro Area	88.1	0.0	0.4	0.7	1.4	1.0	0.4
Other industrial	26.1	−0.9	−0.9	0.1	0.1	0.7	0.6
Other high-income	23.9	7.2	9.8	7.1	5.4	5.0	2.5
Asian NIEs	21.8	0.1	6.8	4.4	4.3	2.2	2.1
Low- and middle-income economies	−32.5	0.0	−0.8	−1.3	−0.5	0.2	−1.0
Excluding Eastern Europe and CIS	−19.3	−0.6	−2.1	−1.1	−0.4	0.4	−0.7
Asia	90.5	−1.1	−1.4	−0.5	0.1	2.2	0.3
East Asia and Pacific	100.7	−1.4	−1.1	−0.7	0.1	3.1	1.1
China	29.6	−0.4	0.1	1.4	0.1	1.6	
Korea, Rep. of	40.6	−6.1	0.7	−0.1	12.6	3.2	.
Indonesia	4.0	−1.4	−3.1	−1.6	4.2	3.8	...
South Asia	−10.2	−0.5	−2.0	−1.7	−1.8	−2.0	−2.5
India	−6.9	0.3	−1.7	−1.2	−1.6	−2.0	...
Latin America and the Caribbean	−89.4	−2.6	−1.8	−2.9	−4.5	−3.1	−3.4
Brazil	−34.6	−4.1	−1.6	−1.7	−4.5	−4.3	...
Mexico	−16.3	−3.1	−0.7	−3.9	−3.9	−2.8	...
Argentina	−14.6	−0.3	−2.1	−2.7	−4.3	−3.5	...
Europe and Central Asia	−11.3	0.5	2.2	0.4	−1.1	−1.0	−1.5
Russian Federation[b]	1.7	2.0	3.6	2.1	0.5	4.3	...
Turkey	1.9	−2.0	−1.3	−0.6	1.0	1.0	...
Poland	−7.5	−0.9	−1.4	−2.9	−5.1	−7.2	...
Middle East and North Africa	−8.1	6.6	−3.5	−2.3	−1.5	4.2	2.2
Saudi Arabia	−6.7	19.8	−7.2	−7.7	−5.2	6.0	...
Iran, Islamic Rep.	−1.7	2.4	−0.4	−1.4	−1.4	2.2	...
Egypt, Arab Rep.	−2.6	−4.9	−3.4	2.2	−3.1	−2.7	...
Sub-Saharan Africa	−14.2	−1.9	−2.8	−2.3	−4.6	−2.8	−2.0
Republic of South Africa	−2.3	−1.7	0.6	−0.3	−1.9	−2.0	...
Nigeria	−5.8	0.8	−0.7	−1.9	−15.7	−3.0	...

Note: Current account after official transfers. Shares over intervals are period averages.
a. Data prior to 1991 covers West Germany.
b. Data prior to 1992 covers former Soviet Union.
Source: World Bank data and staff estimates.

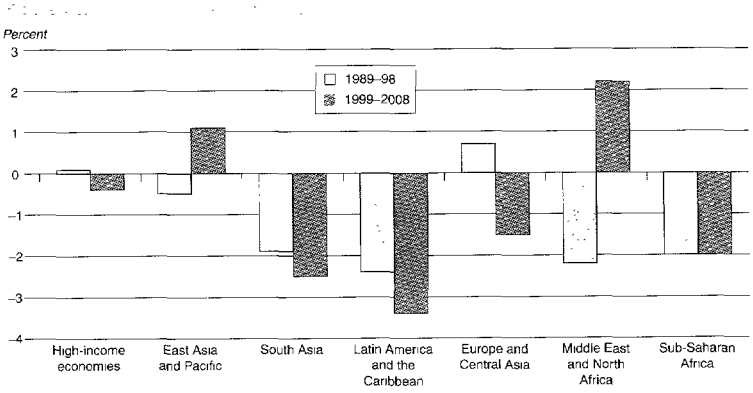


Table A2.5 Exports of goods, 1997

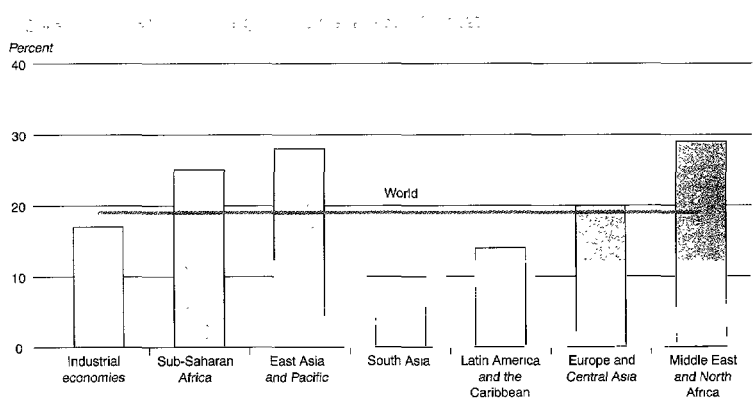
(percent)

	Merchandise exports (US$ million)	Average annual growth 1987–97	Effective market growth 1987–97		Merchandise exports (US$ million)	Average annual growth 1987–97	Effective market growth 1987–97		Merchandise exports (US$ million)	Average annual growth 1987–97	Effective market growth 1987–97
World	5,537,915	6.6	6.6	Latin America and the Caribbean (continued)				Middle East and North Africa (continued)			
All developing economies	1,369,615	7.7	6.9	Ecuador	2,732e	2.5	4.0	Saudi Arabia	62,761	5.3	7.7
				Guatemala	2,124	7.1	6.7	Syrian Arab Rep.	3,910	10.4	4.6
Asia	590,225	12.9	8.2	Europe and Central Asia	255,721	2.2	4.8	Tunisia	5,759	9.1	5.2
								Yemen, Rep.	2,264	12.0	12.6
East Asia and Pacific	546,173	13.2	8.4	Armenia	232		4.0				
China	182,857	13.2	8.4	Azerbaijan	781		5.0	Sub-Saharan Africa	55,595	2.8	6.2
Fiji	590	9.3	7.0	Belarus	7,801		5.0	Angola	4,150	4.7	5.3
Indonesia	53,443	14.1	8.3	Bulgaria	4,960	-14.7	5.1	Botswana	2,542	-0.7	5.4
Korea, Rep.	136,164	10.3	7.7	Czech Republic	22,746		8.3	Cameroon	1,960	2.4	5.4
Malaysia	78,740	16.6	9.3	Estonia	2,924		5.0	Chad	1,296	1.7	5.8
Myanmar	866	12.0	11.4	Georgia	372		5.0	Côte d'Ivoire			
Papua New Guinea	2,149	6.4	7.5	Hungary	18,374	1.7	7.5	Ethiopia	587	-4.6	4.5
Philippines	25,088	12.6	7.5	Kazakhstan	6,437		4.7	Gabon	2,941	6.5	6.5
Thailand	57,388	14.4	7.7	Kyrgyz Republic	551		4.0	Ghana	1,637	7.5	5.6
Vietnam	7,337	..		Latvia	1,672		5.0	Kenya	2,074	7.5	4.5
				Lithuania	3,860		5.0	Madagascar	223	-0.5	6.7
South Asia	43,052	10.0	6.8	Poland	30,503		4.0	Nigeria	15,213	4	6.6
Bangladesh	3,778	11.9	6.4	Romania	25,751	7.1	5.4	Senegal	935	-1.9	5.9
India	33,105	12.0	6.7	Russian Federation	74,431	-0.2	5.9	South Africa	31,027	2.1	6.1
Nepal	402	9.3	5.7	Slovak Republic	10,326		5.1	Sudan	594	-0.3	5.1
Pakistan	8,918	1.7	7.1	Tajikistan				Zambia	913	0.4	7.7
Sri Lanka	4,816	11.1	6.2	Ukraine	8,264		5.5	Zimbabwe	2,424	4	7.4
				Uzbekistan							
Latin America and the Caribbean	276,068	6.4	7.1	Yugoslavia, FR (Serb./Mont.)	770		5.0	High-income economies	4,105,303	6.3	6.6
Argentina	26,370	7.5	8.2	FYR Macedonia	1,147		1.7				
Bolivia	1,167	10.3	10.6	Trinidad and Tobago	1,625		5.0	Industrial	3,651,823	5.7	6.5
Brazil	52,990	4.8	7.4	Turkey	26,247	7.5	7.2				
Chile	16,003	8.4	7.9	Uruguay	14,232		4.8	U.S.	2,659,715	5.2	6.7
Colombia	11,522	12.6	6.4	Venezuela, RB	17,751		4.0	France	290,131	4.6	5.9
Costa Rica	4,268	14.1	6.1					Germany	512,427	4.7	5.7
Dominican Republic	552	-6.0	5.4	Middle East and North Africa	153,005	2.6	7.2	Italy	252,000	6.1	6.0
Ecuador	5,264	6.8	6.4	Algeria	14,855	1.4	6.1	Japan	420,957	2.4	5.1
El Salvador	1,359	10.4	6.7	Egypt, Arab Rep.	4,954	4.6	5.5	United Kingdom	241,061	4.6	6.3
Guatemala	2,344	4.9	6.4	Iran, Islamic Rep.	19,421	-1.0	5.5	Canada	256,697	7.1	5.2
Jamaica	1,383	4.4	5.7	Iraq							
Mexico	110,431	12.7	6.5	Israel	19,381	2.0	7.4	Other industrial	992,108	7.1	6.1
Panama	723	9.8	6.9	Jordan				Australia	62,910	7.1	5.5
Paraguay	1,089	9.5	6.5	Kuwait	8,174	-14.1	6.1	Austria	58,340	7.5	5.4
Peru	6,841	9.0	7.2	Lebanon	1,836	4.5	6.2	Belgium	175,550	7.4	7.1
Trinidad and Tobago	2,542	2.8	5.6	Libya	7,032	-1.9	6.5				
				Oman	7,630	9.6	9.8	Denmark	47,715	5.4	5.9

(percent)

	Merchandise exports *(US$ millions)*	Average annual growth 1987–97	Effective market growth 1987–97		Merchandise exports *(US$ millions)*	Average annual growth 1987–97	Effective market growth 1987–97		Merchandise exports *(US$ millions)*	Average annual growth 1987–97	Effective market growth 1987–97
Other industrial (continued)				**Other industrial (continued)**				**Other high-income (continued)**			
Finland	39,316	7.7	[illegible]	Sweden	52,502	7.3	[illegible]	Kuwait	14,224	12.6	7.6
Greece	8,626	5.3	[illegible]	Switzerland	72,495	6.4	[illegible]	Qatar	4,377	2.7	7.4
Iceland	1,852	0.7	[illegible]					Singapore	124,985	14.5	9.0
Ireland	53,512	11.6	[illegible]	**Other high-income**	516,480	10.1	7.9	Taiwan, China	121,081	6.5	8.3
Netherlands	194,905	6.3	[illegible]	Brunei	2,329	2.2		United Arab Emirates	23,194	2.1	8.5
New Zealand	14,207	4.8	[illegible]	Hong Kong, China	188,059	12.[illegible]	8.1				
Norway	48,542	6.0	[illegible]	Israel	22,507	[illegible]	[illegible]				
Spain	104,359	11.0	[illegible]								

.. Not available.
a. Effective market growth is a weighted average of import volume growth in the country's export markets.
b. Includes Luxembourg
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.
Source: see Technical Notes.



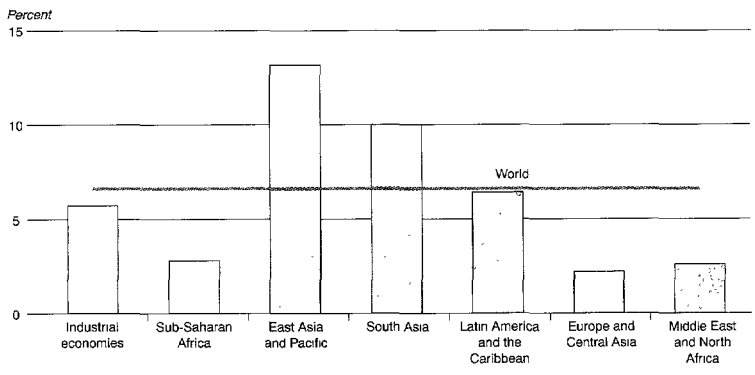


Table A2.3 Imports of goods, 1987

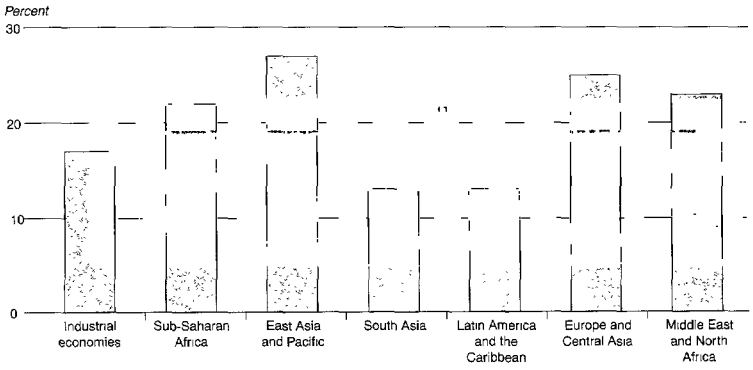
(percent)

	Merchandise imports *(US$ millions)*	Annual average growth 1987–96	Merchandise imports/ GDP
World	**5,541,179**	**6.4**	**19.2**
All developing economies	**1,385,216**	**9.6**	**20.9**
Asia	**600,510**	**12.0**	**24.2**
East Asia and Pacific	**536,592**	**12.8**	**27.2**
China	142,189	11.1	15.5
Fiji	965	6.1	46.8
Indonesia	41,694	12.3	20.0
Korea, Rep.	144,616	12.3	31.6
Malaysia	79,030	18.1	80.1
Myanmar	2,037	21.7	10.9
Papua New Guinea	1,697	2.1	37.5
Philippines	38,662	16.0	41.5
Thailand	62,854	14.4	49.2
Vietnam	10,481	..	39.8
South Asia	**63,918**	**7.3**	**12.6**
Bangladesh	6,898	9.3	15.6
India	37,375	6.1	9.8
Nepal	1,720	8.4	29.3
Pakistan	11,863	7.2	19.8
Sri Lanka	5,851	10.1	36.1
Latin America and the Caribbean	**270,280**	**12.3**	**13.4**
Bolivia	1,851	9.3	20.5
Brazil	65,007	13.7	6.9
Chile	19,662	10.9	23.1
Colombia	15,378	8.7	14.3
Costa Rica	4,924	10.9	45.2
Dominican Republic	4,821	7.7	27.4
Ecuador	4,955	7.7	19.9
El Salvador	2,973	9.8	23.7
Guatemala	3,852	12.5	17.7
Jamaica	3,132	6.9	71.7
Mexico	114,846	16.3	23.2
Panama	3,000	12.2	31.7
Paraguay	3,403	22.4	33.5
Peru	10,264	9.6	14.8
Trinidad and Tobago	2,990	4.8	36.4
Uruguay	3,716	12.0	16.6
Venezuela	14,606	2.4	11.3
Europe and Central Asia	**316,545**	**9.0**	**25.0**
Armenia	892	..	52.6
Azerbaijan	794	..	26.3
Belarus	8,689	..	30.7
Bulgaria	4,559	–15.1	46.6
Czech Republic	28,540	..	58.5
Estonia	4,429	..	68.9
Georgia	686	..	14.0
Hungary	20,668	4.4	34.7
Kazakhstan	4,301	..	19.1
Kyrgyz Republic	894	..	50.7
Latvia	2,721	..	42.0
Lithuania	5,644	..	47.6
Moldova	1,079	..	57.6
Poland	42,308	15.4	27.4
Romania	11,280	1.4	32.8
Russian Federation	73,613	..	15.4
Slovak Republic	10,774	..	58.7
Tajikistan	808	..	73.5
TFYR Macedonia	1,464	..	66.5
Turkmenistan	1,173	..	29.3
Turkey	48,585	9.9	23.0
Ukraine	17,114	..	37.5
Uzbekistan	4,712	..	19.3
Middle East and North Africa	**121,628**	**2.6**	**23.2**
Algeria	9,280	–0.3	19.3
Bahrain	4,026	1.1	77.6
Egypt, Arab Rep.	13,321	4.1	17.2
Iran, Islamic Rep.	14,165	2.4	14.5
Iraq	790	–27.6	1.3
Jordan	4,102	1.6	61.2
Morocco	9,525	10.6	29.0
Oman	5,026	8.6	29.2
Saudi Arabia	28,742	1.0	19.8
Syrian Arab Rep.	4,028	10.6	30.1
Tunisia	7,914	7.0	40.7
Yemen, Rep.	2,407	1.0	40.6
Sub-Saharan Africa	**76,253**	**4.8**	**22.3**
Angola	2,477	9.2	27.1
Botswana	2,258	3.6	34.1
Côte d'Ivoire	2,741	–0.2	28.3
Cameroon	1,359	–3.6	13.5
Ethiopia	1,019	–0.8	15.7
Gabon	1,034	3.5	18.8
Ghana	2,326	9.2	30.6
Kenya	3,279	0.3	27.9
Madagascar	470	3.0	14.3
Nigeria	10,330	8.0	17.4
Senegal	1,196	0.1	28.0
South Africa	32,998	6.2	20.4
Sudan	1,422	1.2	13.3
Zambia	819	1.3	21.2
Zimbabwe	2,654	2.8	26.2
High-income economies	**4,155,963**	**5.6**	**18.7**
Industrial	**3,630,228**	**5.0**	**16.9**
G-7	**2,669,104**	**5.0**	**14.4**
Canada	200,873	5.5	28.8
France	269,892	3.7	20.2
Germany	445,616	5.0	22.0
Italy	208,364	2.9	18.1
Japan	338,754	6.8	8.3
United Kingdom	306,585	3.3	22.4
United States	899,020	6.1	10.5

Table A2.8 Imports of goods, 1997 (continued)
(percent)

	Merchandise imports (US$ million)	Annual average growth 1987–96	Merchandise imports GDP		Merchandise imports (US$ million)	Annual average growth 1987–96	Merchandise imports GDP		Merchandise imports (US$ million)	Annual average growth 1987–96	Merchandise imports GDP
Other industrial	961,124	5.1	32.7	Other industrial (continued)				Other high-income (continued)			
				[illegible]	14,718	[illegible]	22.[illegible]	Hong Kong (China)	205,614	12.6	114.4
Australia	63,392	[illegible]	16.1	Iceland							
Austria	64,766	[illegible]	22.7	[illegible]	[illegible]	[illegible]	23.2	Israel	30,781	7.9	32.2
Belgium[a]	166,639	4	66.9	Portugal	[illegible]	[illegible]	33.7	Kuwait	8,246	0.4	27.6
Denmark	44,039	4.3	26.1	Spain	122,711	5.2	22.4	Qatar	3,322	10.1	30.8
Finland	24,754	2.6	24.4	Sweden	63,020	6.2	29.4	Singapore	132,437	12.1	138.0
Greece	27,799	[illegible]	22.8	Switzerland	71,064	-0.1	29.[illegible]	Taiwan (China)	112,924	10.2	35.8
Iceland	1,992	-1.3	27.5	Other high-income	525,735	10.8	71.4				
Ireland	39,238	[illegible]	46.3					United Arab Emirates	29,952	17.1	45.9
Netherlands	178,130	[illegible]	49.7	Brunei	2,000	10.6	37.0				

.. Not available.
a. Includes Luxembourg
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.
Source: see Technical Notes.



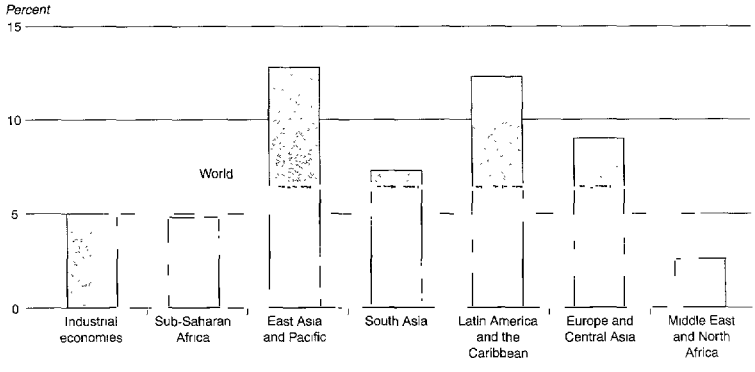


Table A2.7 Direction of merchandise trade, 1997[a]

(percentage of world trade)

	High-income importers							Low- and middle-income importers							
Source of exports	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	World
High-income economies	5.4	30.1	5.5	5.2	52.3	7.3	59.7	0.9	2.2	0.7	2.7	1.9	2.7	16.1	75.8
Industrial	4.6	28.5	5.0	4.7	46.9	5.3	52.0	0.8	2.0	0.5	2.5	1.4	2.6	15.0	67.0
United States	.	2.8	2.1	2.5	9.4	2.2	10.7	0.2	1.4	0.2	0.2	0.2	0.8	4.5	15.3
EU-15	2.5	20.5	1.2	1.4	27.9	1.5	29.4	0.5	0.1	0.1	2.1	0.8	0.7	5.4	34.8
Japan	1.2	0.7	.	0.5	2.4	1.1	3.5	0.0	0.2	0.0	0.1	0.4	0.2	2.0	5.5
Other industrial	0.1	0.1	0.3	0.4	0.9	0.4	1.4	0.1	0.3	0.0	0.2	0.1	0.2	0.7	2.1
Other high-income[b]	0.8	1.7	0.5	0.5	3.7	2.0	5.7	0.1	0.2	0.1	0.2	0.4	0.1	1.2	10.9
Low- and middle-income economies	3.9	7.1	2.0	0.9	13.9	4.0	17.9	0.4	1.4	0.2	2.1	0.8	1.4	6.3	24.2
Sub-Saharan Africa	0.1	0.5	0.1	0.0	0.8	0.2	0.9	0.2	0.1	0.0	0.0	0.1	0.0	0.4	1.3
East Asia and Pacific	0.5	1.0	1.3	0.5	3.4	2.7	6.2	0.1	0.5	0.1	0.1	0.2	0.1	1.1	5.7
South Asia	0.1	0.2	0.1	0.1	0.5	0.3	0.8	0.0	0.1	0.0	0.0	0.1	0.0	0.2	1.1
Europe and Central Asia	0.2	3.2	0.1	0.2	3.8	0.3	4.0	0.0	0.1	0.0	1.8	0.1	0.1	2.2	6.2
Middle East and North Africa	0.3	1.0	0.1	0.1	1.6	0.2	1.8	0.0	0.2	0.0	0.1	0.2	0.1	0.5	2.2
Latin America and Caribbean	2.4	1.0	0.4	0.2	3.9	0.4	4.2	0.0	0.1	0.0	0.1	0.1	1.1	1.4	5.6
World	12.3	37.3	7.5	6.2	66.3	11.3	77.6	1.3	3.6	0.9	4.8	2.6	5.1	22.4	100.0

a. Expressed as a share (percent) of total world exports. World merchandise exports in 1997 amounted to some $5,500 billion.
b. *Other high-income* group includes the Asian newly industrializing 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, by direction, 1987-97

(average annual percentage growth)

	High-income importers							Low- and middle-income importers							
Source / Export	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	World
High-income economies	9.5	6.8	5.3	10.4	7.5	9.8	7.7	5.2	15.5	11.6	10.1	6.1	11.5	11.2	8.4
Industrial	9.0	6.5	5.6	10.2	7.1	9.0	7.2	4.1	15.6	10.7	9.7	4.4	11.3	10.6	7.8
United States		8.9	2.4	4.2	6.3	6.6	6.4	7.2	18.5	15.0	12.0	4.2	12.9	13.5	8.1
EU-15	9.4	5.5	4.5	12.7	6.6	10.0	6.7	4.5	16.5	11.0	9.6	2.6	9.5	8.7	7.0
Japan	8.5	9.1	.	8.5	8.1	8.5	8.2	1.6	12.7	3.9	5.4	8.4	7.0	10.1	8.9
Other industrial	9.5	11.1	2.2	12.1	9.1	9.0	9.5	2.5	16.4	9.4	12.6	10.5	12.5	12.5	10.0
Other high income	12.2	12.2	9.6	12.2	11.5	17.3	12.5	16.5	16.1	16.2	16.5	11.7	13.7	15.4	13.3
Low- and middle-income economies	13.1	9.6	9.3	8.0	10.3	17.5	11.5	12.1	15.2	9.6	7.4	7.5	13.6	10.4	11.2
Sub-Saharan Africa	7.0	2.6	1.9	9.5	2.8	9.7	3.7	12.4	10.6	13.2	1.6	19.2	7.6	11.6	5.6
East Asia and Pacific	16.4	13.4	14.3	11.5	14.2	20.5	16.5	13.7	21.5	20.6	9.5	27.0	17.1	18.7	16.9
South Asia	7.7	4.7	0.3	9.1	4.5	12.5	7.0	2.9	4.6	12.4	1.0	10.6	9.4	8.1	7.3
Europe and Central Asia	9.9	13.4	1.7	6.9	12.3	19.5	12.6	8.2	7.2	10.2	8.6	1.2	3.4	7.4	10.4
Middle East and North Africa	6.6	4.7	0.9	4.3	4.6	7.0	4.9	13.0	7.5	6.9	10.0	5.7	7.3	4.2	4.7
Latin America and Caribbean	14.4	9.7	9.3	6.3	12.0	18.2	12.4	10.1	26.4	25.0	11.7	11.4	15.8	14.5	12.9
World	10.5	7.2	6.2	10.1	8.0	11.9	8.5	6.8	15.7	11.1	8.9	6.5	12.1	11.0	9.0

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, 1997
(percentage of long-term PPG debt)

	Concessional	Non-concessional Variable	Non-concessional Fixed
All developing economies	28.0	33.8	38.1
Asia	35.4	26.4	38.2
East Asia and Pacific	25.8	29.9	44.3
China	16.5	7.4	46.1
Indonesia	43.2	[illegible]	[illegible]
Korea, Rep.	[illegible]	30.1	[illegible]
Malaysia	12.1	[illegible]	[illegible]
Myanmar	88.1	0.0	[illegible]
Papua New Guinea	37.1	[illegible]	[illegible]
Philippines	38.3	[illegible]	[illegible]
Thailand	[illegible]	[illegible]	[illegible]
Vietnam	17.0	[illegible]	[illegible]
South Asia	58.0	18.4	23.6
Bangladesh	[illegible]	[illegible]	[illegible]
India	48.4	19.4	[illegible]
Nepal	97.8	0.0	[illegible]
Pakistan	62.4	[illegible]	10.0
Sri Lanka	90.6	[illegible]	[illegible]
Latin America and the Caribbean	14.0	40.5	45.4
Argentina	[illegible]	[illegible]	[illegible]
Bolivia	70.3	[illegible]	[illegible]
Brazil	[illegible]	[illegible]	[illegible]
Chile	8.0	[illegible]	[illegible]
Colombia	5.9	[illegible]	[illegible]
Costa Rica	[illegible]	[illegible]	[illegible]
Dominican Republic	44.9	[illegible]	[illegible]
Ecuador	[illegible]	[illegible]	[illegible]
El Salvador	[illegible]	[illegible]	[illegible]
Guatemala	44.8	[illegible]	[illegible]
Jamaica	[illegible]	[illegible]	[illegible]
Mexico	[illegible]	[illegible]	[illegible]
Panama	[illegible]	[illegible]	[illegible]
Paraguay	60.3	[illegible]	[illegible]
Peru	[illegible]	[illegible]	[illegible]
Trinidad and Tobago	0.9	52.6	46.5
Uruguay	5.1	48.5	46.4
Venezuela	0.3	58.1	41.6
Europe and Central Asia	16.8	48.9	34.3
Armenia	50.6	35.0	14.4
Azerbaijan	81.2	18.8	0.0
Belarus	13.2	66.8	20.1
Europe and Central Asia (continued)			
Bulgaria	2.2	81.5	16.3
Czech Republic	0.7	32.7	66.6
Estonia	16.8	49.4	33.8
Georgia	53.6	11.1	35.3
Hungary	3.0	21.7	75.3
Kazakhstan	6.0	60.9	33.1
Kyrgyz Republic	63.5	31.8	4.7
Latvia	24.1	58.8	17.1
Lithuania	11.0	44.7	44.3
Moldova	24.8	41.9	33.3
Poland	22.5	61.0	16.5
Romania	6.3	30.1	63.6
Russian Federation	26.2	56.6	17.1
Slovak Republic	5.7	30.3	63.9
Tajikistan	83.4	13.9	2.7
Turkmenistan	3.2	75.3	21.5
Turkey	12.2	23.6	64.2
Ukraine	3.0	71.7	25.2
Uzbekistan	10.1	64.2	25.7
Middle East and North Africa	39.1	32.7	28.2
Algeria	10.9	53.4	35.7
Egypt, Arab Rep.	84.4	4.5	11.1
Jordan	50.2	23.4	26.4
Morocco	31.5	38.0	30.5
Oman	21.9	45.0	33.1
Syrian Arab Rep.	92.2	0.0	7.8
Tunisia	27.9	23.3	48.8
Yemen, Rep.	89.7	2.3	8.0
Sub-Saharan Africa	51.1	13.1	35.8
Angola	21.1	14.1	64.8
Botswana	55.7	12.2	32.1
Côte d'Ivoire	43.3	41.8	14.9
Cameroon	54.2	11.5	34.3
Ethiopia	91.6	0.3	8.1
Gabon	24.4	12.5	63.2
Ghana	79.1	0.6	20.4
Kenya	70.7	5.9	23.4
Madagascar	67.8	6.4	25.8
Nigeria	5.9	20.2	73.9
Senegal	76.4	6.0	17.5
Sudan	50.9	14.4	34.7
Zambia	65.7	12.3	22.0
Zimbabwe	44.4	15.7	39.9

Note: Nonconcessional debt data are available only for countries which report to the World Bank's Debtor Reporting System. For aggregate figures, missing values are assumed to have the same average value as the available data.
Source: World Bank data.

Figure A2.3a Structure of long-term PPG debt, by group, 1997

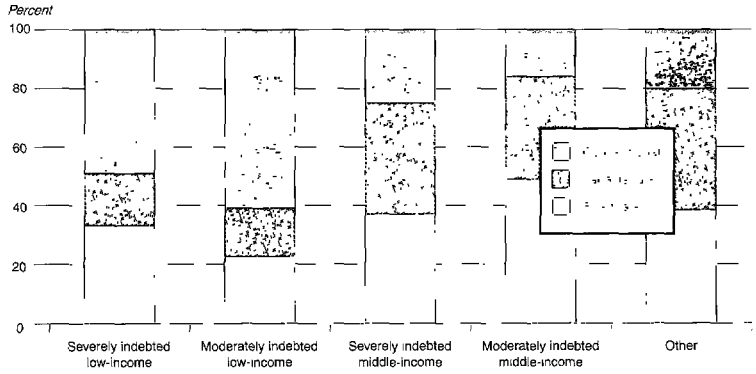


Figure A2.3b Structure of long-term PPG debt, by region, 1997

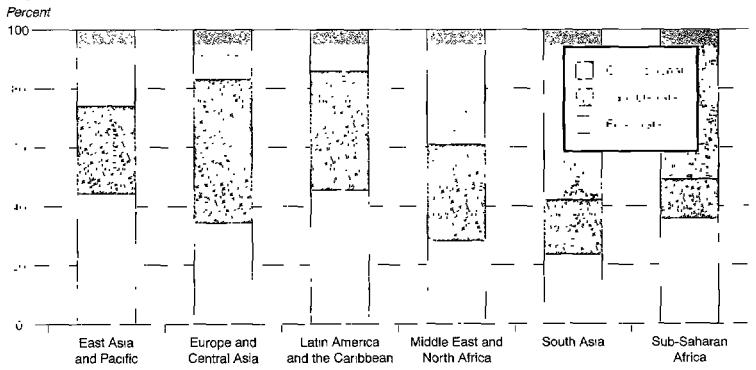


Figure A2.3c Top ten ratios of nonconcessional debt to GDP, 1997

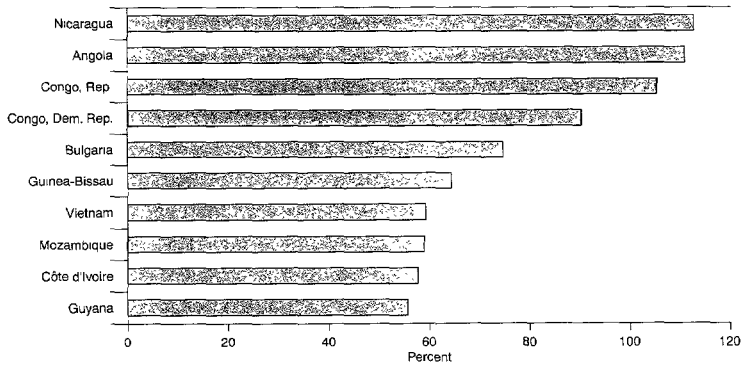


Table A2.10 Long-term net resource flows to developing countries, 1997
(millions of U.S. dollars)

			Private				Official		
	Total	Percentage of GDP	Total	Net debt flows	FDI	Portfolio	Total	Official development assistance	Other
All developing countries	338,047	5.49	298,953	105,340	163,423	30,191	39,094	33,139	5,955
Asia	137,295	6.86	115,367	34,751	68,946	11,670	21,928	7,623	14,306
East Asia and Pacific	122,594	8.20	104,257	30,780	64,284	9,193	18,337	4,851	13,486
China	65,370	7.28	60,828	5,154	44,236	11,437	4,542	771	3,771
Indonesia	11,581	5.39	10,863	5,883	4,677	298	718	624	94
Korea, Rep.	17,465	3.67	13,069	5,965	2,844	1,259	4,396	–254	4,650
Malaysia	9,151	9.35	9,312	4,695	5,109	–493	–161	–256	95
Myanmar	242	1.94	180	102	80	–2	62	63	–1
Papua New Guinea	325	7.01	142	–57	200	0	183	215	–32
Philippines	4,459	5.43	4,164	2,869	1,222	73	295	855	–560
Thailand	9,452	6.34	3,444	0	3,745	–308	6,008	449	5,559
Vietnam	2,621	9.94	1,994	287	1,800	–94	627	733	–105
South Asia	14,702	2.90	11,110	3,971	4,662	2,477	3,592	2,772	820
Bangladesh	1,004	2.37	118	–28	138	11	886	892	–6
India	8,506	2.23	8,307	2,836	3,331	2,140	199	–25	224
Nepal	323	6.56	12	–11	23	0	311	311	0
Pakistan	3,058	4.88	2,097	1,132	713	252	961	353	608
Sri Lanka	984	6.52	574	42	459	73	410	400	10
Latin America and the Caribbean	115,987	5.74	118,918	47,399	61,573	9,947	–2,931	3,000	–5,931
Argentina	19,751	6.08	19,835	10,954	6,045	2,836	–84	–52	–32
Bolivia	1,320	16.54	812	210	601	0	508	511	–3
Brazil	41,620	5.07	43,377	19,840	19,652	3,885	–1,757	–229	–1,528
Chile	9,296	12.06	9,636	3,784	5,417	436	–340	64	–405
Colombia	9,780	10.21	10,151	4,025	5,852	274	–371	79	–449
Costa Rica	85	0.89	104	47	57	0	–19	–40	21
Dominican Republic	357	2.37	401	–4	404	0	–45	2	–47
Ecuador	888	4.49	829	232	577	0	58	48	11
El Salvador	330	2.93	61	50	11	0	269	118	151
Guatemala	373	2.10	166	–70	301	0	207	197	10
Jamaica	166	4.02	377	240	137	0	–211	–64	–147
Mexico	15,998	3.97	20,535	8,003	12,477	2,052	–4,534	–21	–4,513
Panama	1,572	17.90	1,443	411	1,030	2	129	11	118
Paraguay	480	5.02	273	23	250	0	207	139	68
Peru	4,279	6.70	3,094	573	2,051	470	1,184	353	831
Trinidad and Tobago	53	0.89	96	–244	340	0	–44	4	–48
Uruguay	828	4.15	632	471	160	2	196	0	196
Venezuela	6,039	6.90	6,282	763	5,083	429	–243	1	–244
Europe and Central Asia	59,052	4.66	49,874	22,753	22,314	4,808	9,178	5,713	3,465
Armenia	185	11.33	51	0	51	0	134	114	20
Azerbaijan	713	19.52	658	8	650	0	55	86	–31
Belarus	238	1.05	168	–31	200	0	70	26	43
Bulgaria	621	6.16	569	–59	429	130	52	123	–71
Czech Republic	1,804	3.47	1,818	516	1,286	16	–14	89	–103
Estonia	404	8.63	347	58	288	1	58	45	13
Georgia	183	3.73	50	0	50	0	133	128	5
Hungary	2,567	5.61	2,606	–1,284	2,670	1,220	–39	87	–125
Kazakhstan	2,636	11.89	2,158	758	1,321	80	478	90	389
Kyrgyz Republic	236	13.40	50	0	50	0	186	168	18
Latvia	670	12.12	659	12	521	126	111	58	53
Lithuania	765	7.98	637	293	344	0	128	69	59
Moldova	311	16.59	257	196	60	0	54	42	12
Poland	7,077	5.22	6,786	934	4,908	944	291	352	–61
Romania	2,980	8.55	2,274	1,059	1,215	0	706	167	539
Russian Federation	15,149	3.39	12,453	5,008	6,241	1,204	2,696	278	2,418
Slovak Republic	1,343	6.90	1,074	582	1,035	457	269	195	74
Tajikistan	101	9.16	20	0	20	0	81	70	11
Turkmenistan	878	21.95	747	662	85	0	31	22	9
Turkey	12,211	6.43	12,224	10,840	805	577	–10	–176	166
Ukraine	1,496	3.01	1,419	796	623	0	77	81	–4
Uzbekistan	476	1.95	435	150	285	0	41	128	–87

Table A2.10 Long-term net resource flows to developing countries, 1997 (continued)
(millions of U.S. dollars)

			Private				Official		
	Total	Percentage to DF	Total	Net debt flows	FDI	Portfolio	Total	Official development assistance	Other
Middle East and North Africa	**6,921**	**1.32**	**8,120**	**493**	**5,368**	**2,259**	**-1,199**	**3,669**	**-4,868**
Algeria	-391	-0.83	-543	-557	7	8	152	54	98
Egypt, Arab Rep.	3,721	4.66	2,595	-109	891	1,812	926	1,067	-141
Iran, Islamic Rep.	-4,297	-3.32	-305	-353	50	0	-3,935	243	-4,226
Jordan	620	8.34	61	-21	22	70	559	478	81
Morocco	818	2.44	1,503	-141	1,200	243	-434	268	-752
Oman	102	0.67	113	-9	90	38	-16	-10	-6
Syrian Arab Rep.	-108	2.12	69	-11	80	0	-176	104	-281
Tunisia	1,141	6.03	903	587	316	0	239	92	146
Yemen, Rep.	83	1.47	-138	0	-138	0	221	214	7
Sub-Saharan Africa	**18,792**	**3.49**	**6,674**	**-56**	**5,222**	**1,507**	**12,118**	**13,133**	**-1,018**
Angola	247	3.28	-24	-374	350	0	271	318	-47
Botswana	87	1.73	93	-5	100	0	-6	27	-31
Côte d'Ivoire	64	0.62	-91	-436	327	18	154	382	-227
Cameroon	171	1.87	16	-29	45	0	155	307	-153
Ethiopia	530	8.30	25	23	8	0	501	466	35
Gabon	-63	-1.26	-105	-5	-100	0	40	115	-75
Ghana	671	9.74	203	27	130	46	468	457	-19
Kenya	73	0.69	-87	-119	20	12	160	300	-140
Madagascar	792	22.33	13	-1	14	0	779	721	58
Nigeria	1,052	2.59	1,285	-258	1,539	4	-233	59	-293
Senegal	406	8.96	44	14	30	0	362	398	-36
Sudan	140	1.39	0	0	0	0	140	135	5
Zambia	393	10.03	79	9	70	0	316	389	-73
Zimbabwe	285	7.32	32	-45	70	10	253	207	46

Source: World Bank data.

Figure A2.10a Distribution of long-term net resource flows, 1997

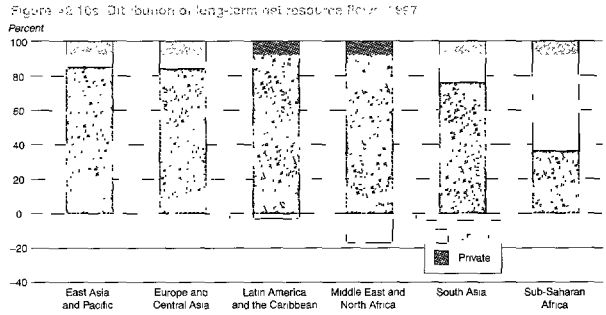


Figure A2.10b Change in share of private flows, 1996–97

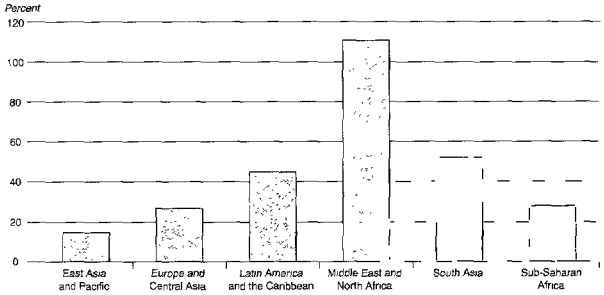


Table A2.11 Manufactures unit values, LIBOR, and commodity prices, selected years, 1965–99

		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	88	108	101	116	126	108	95	103
Agriculture	69.1	42	46	81	99	127	116	129	138	118	103	112
Food	29.4	42	47	101	87	90	99	113	139	123	97	105
Beverages	16.9	46	57	81	156	267	198	207	181	145	147	156
Raw materials	22.8	37	36	55	72	72	76	93	105	90	80	88
Metals and minerals	28.1	38	41	53	61	66	68	85	95	83	75	82
Fertilizers	2.7	39	30	158	76	75	73	100	129	122	105	98
Commodity prices, current dollars	*Units*											
Agriculture												
Cocoa	cents/kg	37	67	125	204	379	340	329	260	208	174	212
Coffee	cents/kg	100	115	144	315	517	359	382	347	287	309	291
Tea	cents/kg	100	83	114	119	195	141	151	166	147	154	210
Sugar	cents/kg	5	8	45	26	18	17	21	63	37	19	19
Banana	$/mt	159	165	247	257	275	287	326	379	401	374	429
Beef	(cents/kg)	88	130	133	158	151	214	288	276	247	239	244
Wheat	$/mt	59	55	149	133	103	128	160	173	175	160	157
Rice	$/mt	119	126	341	235	252	346	313	411	459	272	257
Maize	$/mt	55	58	120	112	95	101	116	125	131	109	136
Coconut oil	$/mt	348	397	394	418	578	683	985	674	570	464	730
Palm oil	$/mt	273	260	434	407	530	600	654	584	[illegible]	[illegible]	[illegible]
Soybean oil	$/mt	270	286	563	438	580	607	662	598	[illegible]	[illegible]	[illegible]
Soybeans	$/mt	117	117	220	231	280	268	298	296	[illegible]	[illegible]	[illegible]
Cotton	cents/kg	63	63	116	169	155	157	169	205	[illegible]	[illegible]	[illegible]
Rubber	cents/kg	50	41	56	77	81	99	126	142	[illegible]	[illegible]	[illegible]
Other												
Logs	$/cm	35	43	68	92	93	97	170	196	155	146	138
Sawnwood	$/cm	157	175	223	264	265	272	366	396	349	339	328
Urea	$/mt	..	48	198	112	127	145	173	222	216	159	135
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	1,592
Aluminum	$/mt	474	556	797	896	1,050	1,088	1,230	1,456	1,263	992	1,439
Nickel	$/mt	1,735	2,846	4,570	4,974	5,203	4,610	5,986	6,519	5,953	4,838	4,673
Gold	($/toz)	35	36	161	125	148	193	307	608	460	376	423
Phosphate rock	$/mt	13	11	67	36	31	29	33	47	50	42	37
Steel products index	1990=100	25	31	52	54	53	68	76	79	82	71	67
Energy												
Crude petroleum	$/bbl	1.4	1.2	10.4	11.6	12.6	12.9	31.0	36.9	35.5	32.7	29.7
Coal	$/mt	..	..	..	..	33.4	39.6	35.4	43.1	56.5	52.2	44.5

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 United States) weighted by the country's exports to developing countries.

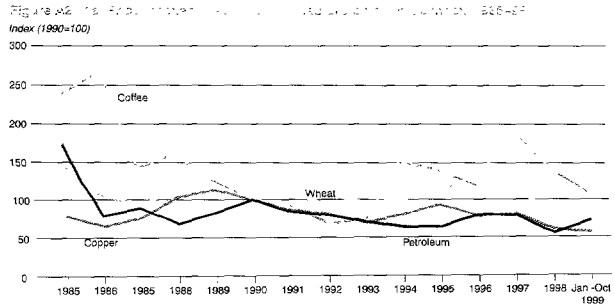
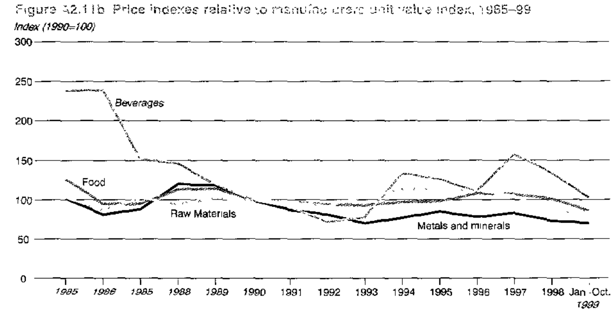


Table A2.11 Manufactures unit value, LIBOR, and commodity prices, selected years, 1965–99 (continued)

1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Jan–Oct 1999
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100.0	102.2	[illegible]	[illegible]	110.2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11.3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8.4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
123	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100	[illegible]	[illegible]	74	[illegible]	[illegible]	[illegible]	84	[illegible]	[illegible]
104	91	[illegible]	[illegible]	111	[illegible]	100	[illegible]	[illegible]	91	112	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
117	100	[illegible]	[illegible]	110	[illegible]	100	[illegible]	[illegible]	[illegible]	123	121	123	[illegible]	[illegible]	[illegible]
107	[illegible]	[illegible]	[illegible]	107	[illegible]	100	[illegible]	100	[illegible]	107	117	124	[illegible]	[illegible]	[illegible]
[illegible]	164	[illegible]	[illegible]	140	114	100	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	171	141	107
[illegible]	71	70	[illegible]	91	[illegible]	100	[illegible]	[illegible]	110	[illegible]	[illegible]	[illegible]	114	[illegible]	[illegible]
74	70	[illegible]	[illegible]	114	111	100	[illegible]	[illegible]	74	[illegible]	102	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100	102	[illegible]	84	[illegible]	104	120	120	[illegible]	[illegible]
240	[illegible]	207	[illegible]	[illegible]	124	127	120	110	112	140	[illegible]	146	[illegible]	[illegible]	[illegible]
319	[illegible]	[illegible]	[illegible]	303	279	197	187	141	[illegible]	351	[illegible]	[illegible]	417	[illegible]	222
274	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	206	167	160	161	149	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	13	22	[illegible]	28	20	20	22	17	[illegible]	26	[illegible]	20	14
370	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	443	[illegible]	[illegible]	[illegible]	[illegible]
227	213	[illegible]	[illegible]	272	257	[illegible]	[illegible]	[illegible]	[illegible]	233	191	[illegible]	[illegible]	[illegible]	182
[illegible]	[illegible]	[illegible]	117	147	[illegible]	[illegible]	129	131	140	130	177	[illegible]	[illegible]	[illegible]	117
232	[illegible]	[illegible]	213	277	[illegible]	271	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	232
[illegible]	112	[illegible]	[illegible]	107	112	[illegible]	107	104	102	108	[illegible]	[illegible]	117	102	[illegible]
[illegible]	[illegible]	[illegible]	442	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	744
729	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	471
724	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	447	434	[illegible]	480	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
282	224	[illegible]	[illegible]	[illegible]	[illegible]	247	240	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	24	202
179	[illegible]	[illegible]	[illegible]	140	[illegible]	182	[illegible]	128	[illegible]	[illegible]	[illegible]	177	[illegible]	144	121
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	102	72	[illegible]
157	[illegible]	[illegible]	202	[illegible]	[illegible]	177	191	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	401	402	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	740	741	[illegible]	[illegible]	[illegible]
171	127	[illegible]	[illegible]	132	[illegible]	171	151	123	94	131	144	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	1,417	1,574	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2,251	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1,251	1,041	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1,234	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5,293	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	544	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
38	[illegible]	[illegible]	[illegible]	[illegible]	41	41	43	42	[illegible]	[illegible]	[illegible]	[illegible]	41	[illegible]	44
[illegible]	[illegible]	[illegible]	[illegible]	94	[illegible]	100	[illegible]	[illegible]	91	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	19.4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

b. London interbank offer rate on six-month U.S. dollar deposits. For detailed descriptions of the price series, see the website http://www.worldbank.org/prospects/pinksheets.

Figure A2.11b Price indexes relative to manufactures unit value index, 1965–99



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 1999*). 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 1999*.

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 1999*.

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, 2001

Income group	Sub-group	Sub-Saharan Africa: East and Southern Africa	Sub-Saharan Africa: West Africa	Asia: East Asia and Pacific	Asia: South Asia	Europe and Central Asia: Eastern Europe and Central Asia	Europe and Central Asia: Rest of Europe	Middle East and North Africa: Middle East	Middle East and North Africa: North Africa	Americas
Low-income		Angola Burundi Comoros Congo, Dem. Rep. 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 Principe Senegal Sierra Leone Togo	Cambodia China Indonesia Korea, Dem. Rep. Lao PDR Mongolia Myanmar Vietnam	Afghanistan Bangladesh Bhutan India Nepal Pakistan	Armenia Azerbaijan Kyrgyz Republic Moldova Tajikistan Turkmenistan		Yemen, Rep.		Haiti Honduras Nicaragua
Middle-income	*Lower*	Djibouti Namibia South Africa Swaziland	Cape Verde Equatorial Guinea	Fiji Kiribati Marshall Islands Micronesia, Fed. Sts. Papua New Guinea Philippines Samoa Thailand Tonga Vanuatu	Maldives Sri Lanka	Albania Belarus Bosnia and Herzegovina Bulgaria Georgia Kazakhstan Latvia Lithuania Macedonia, FYR[a] Romania Russian Federation Ukraine Uzbekistan Yugoslavia, Fed. Rep.[b]		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 Guatemala Guyana Jamaica Paraguay Peru St. Vincent and the Grenadines Suriname
	Upper	Botswana Mauritius Mayotte Seychelles	Gabon	American Samoa Guam Nauru Northern Mariana Islands Palau		Croatia Czech Republic Estonia Hungary Poland Slovak Republic	Isle of Man Turkey	Bahrain Lebanon Oman Saudi Arabia	Libya	Antigua and Barbuda Argentina Barbados Brazil Chile Grenada Guadeloupe Mexico Panama

Table 1 Classification of economies by income and region, July 1999 (continued)

Income group	Sub-Saharan Africa			Asia		Europe and Central Asia		Middle East and North Africa		The Americas
	Sub-Saharan Africa	East and Southern Africa	West Africa	East Asia and Pacific	South Asia	Eastern Europe and Central Asia	Rest of Europe	Middle East	North Africa	The Americas
High-income				Australia Japan New Zealand			Austria Belgium Denmark Finland France Germany Greece Iceland Ireland Italy Luxembourg Netherland Norway Portugal Spain Sweden Switzerland United Kingdom			Canada United State
		Reunion		Brunei French Polynesia Guam Hong Kong, China Macao New Caledonia Northern Mariana Islands Singapore Taiwan, China		Slovenia	Andorra Channel Islands Cyprus Faeroe Islands Greenland Liechtenstein Monaco	Israel Kuwait Qatar United Arab Emirates	Malta	Aruba Bahamas, The Bermuda Cayman Islands French Guiana Martinique Netherlands Antilles Virgin Islands (U.S.)
Total	211	27	20	27	9	27	27	14	6	44

a. Former Yugoslav Republic of Macedonia.
b. Federal Republic of Yugoslavia (Serbia/Montenegro).
c. On 1 July 1997 China resumed its sovereignty over Hong Kong.
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.

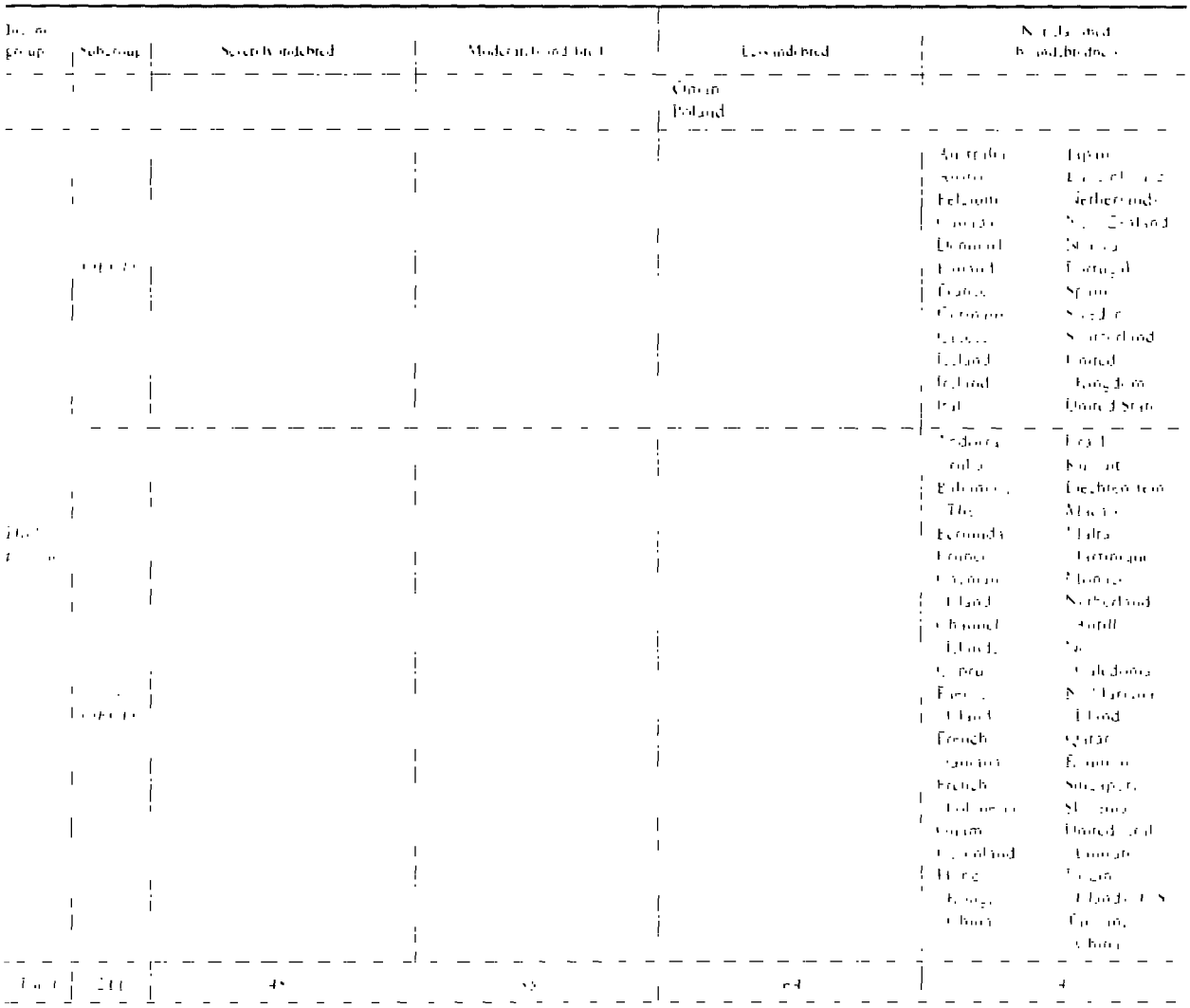
Low-income and middle-income economies are sometimes referred to as developing economies. The use of the term is convenient; it is not intended to imply that all economies in the group are experiencing similar development or that other economies have reached a preferred or final stage of development. Classification by income does not necessarily reflect development status.

This table classifies all World Bank member economies with populations of more than 30,000. Economies are divided among income groups according to 1998 GNP per capita, calculated using the World Bank Atlas method. The groups are: low-income, $760 or less; lower-middle-income, $761–3,030; upper-middle-income, $3,031–9,360; and high-income, $9,361 or more.

Table 2 Classification of economies by income and indebtedness, July 1999

Income group	Subgroup	Severely indebted	Moderately indebted	Less indebted	Not classified by indebtedness
Low income		Afghanistan Angola Burkina Faso Burundi Cameroon Central African Republic Congo, Dem. Rep. Congo, Rep. Côte d'Ivoire Ethiopia Ghana Guinea Guinea-Bissau Haiti Honduras Indonesia Madagascar Malawi Mali Mauritania Mozambique Myanmar Nicaragua Niger Nigeria Rwanda São Tomé and Príncipe Sierra Leone Somalia Sudan Tanzania Uganda Vietnam Zambia	Bangladesh Benin Cambodia Chad Comoros Gambia, The India Kenya Lao PDR Pakistan Senegal Togo Yemen, Rep. Zimbabwe	Armenia Azerbaijan Bhutan China Eritrea Korea, Dem. Rep. Kyrgyz Republic Lesotho Moldova Mongolia Nepal Solomon Islands Tajikistan Turkmenistan	Liberia
Middle income		Bolivia Bosnia and Herzegovina Bulgaria Cuba Ecuador Guyana Iraq Jamaica Jordan Peru Syrian Arab Republic	Algeria Belize Colombia Dominica Equatorial Guinea Georgia Macedonia, FYR[a] Morocco Philippines St. Vincent and the Grenadines Thailand Tunisia	Albania Belarus Cape Verde Costa Rica Djibouti Dominican Republic Egypt, Arab Rep. El Salvador Fiji Guatemala Iran, Islamic Rep. Kazakhstan Kiribati Latvia Lithuania Maldives Namibia Papua New Guinea Romania Russian Federation Samoa South Africa Sri Lanka Suriname Swaziland Tonga Ukraine Uzbekistan Vanuatu Yugoslavia, Fed. Rep.[a]	Marshall Islands Micronesia, Fed. Sts. West Bank and Gaza
Upper middle income		Argentina Brazil Gabon	Chile Hungary Malaysia Mauritius Panama Slovak Republic Turkey Uruguay Venezuela	Antigua and Barbuda Bahrain Barbados Botswana Croatia Czech Republic Estonia Grenada Korea, Rep. Lebanon Libya Mexico Saudi Arabia Seychelles 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, July 1999 (continued)



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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 1995-97) 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*.

"In order to maximize the positive effects of growth that can come with openness, the international community must find ways to reduce the frequency and severity of economic crises."

—Joseph E. Stiglitz, Senior Vice President and Chief Economist

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