1

# Prospects for Developing Countries After the East Asian Crisis

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

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

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

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

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

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

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

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

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

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

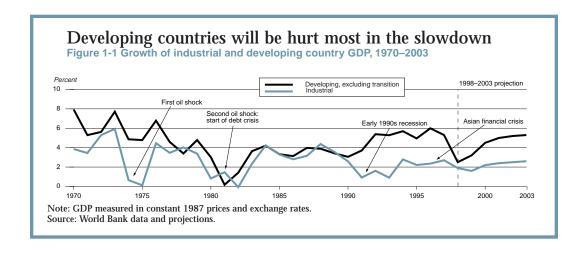
For developing countries, opening the capital account and integrating with global financial markets requires adequate domestic institutions.

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

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

The main elements of the global prospects are as follows:

Near-term outlook, 1998-2000. Recent policy changes toward monetary easing in industrial countries, financial reform and additional stimulative fiscal measures in Japan, and other developments are likely to prove important in supporting world economic growth in the medium term—but short-term prospects remain weak. Global output growth is expected to be cut nearly in half, from 3.2 percent in 1997 to 1.8 percent in 1998, and to revive only modestly to 1.9 percent in 1999 (figure 1-1). This base case still looks for the world economy to scrape by with weak growth rather than outright recession, though the likelihood of a low-case scenario is much higher than usual. Tempered but still fairly strong growth in continental Europe is one part of this outlook. Growth in the United States is expected to slow significantly, but with room for additional cuts in interest rates to make a soft rather than a hard landing. More uncertain, but supported by recent developments, East Asian crisis countries and Japan are expected to shift from sharp recession in 1998 to stagnation in 1999, exerting less of a drag on world output growth. Even in the base case, though, developing country growth is expected to be more than halved to 2 percent in 1998 from 4.8 percent in 1997—the second-worst slowdown in the past three decades (the worst was in 1981)—and commencing only a modest recovery in 1999. Affected most will be countries or regions characterized by primary commodity dependence, large current account deficits financed by private capital flows, or reliance for export



- markets on crisis-affected regions such as East Asia and Japan (table 1-1). Thirty-six of 100 developing countries are likely to have their per capita income fall in 1998.
- Longer term outlook, 2001-07. Despite the current gloom, the world economy could still grow at just over 3 percent in the long term (2001–07), with developing country growth at more than 5 percent. High-income OECD growth in the 1990s was weighed down by financial problems in Japan and by a slow, erratic recovery in Europe, in part as fiscal deficits were squeezed to prepare for monetary union. Industrial country growth in the long term should strengthen, however, as Japan gradually resolves its financial difficulties, and as the European Monetary Union (EMU) improves efficiency.

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

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

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

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

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

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

b. Average of merchandise export and import volumes.

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

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

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

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

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

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

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

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

Table 1-2 World output growth, 1981–2007

(annual percentage change in real GDP)

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

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

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

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

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

## Recent developments in the world economy

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

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

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

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

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

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



social protection in the East Asian crisis countries.

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

## Crisis in East Asia much deeper than anticipated

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

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

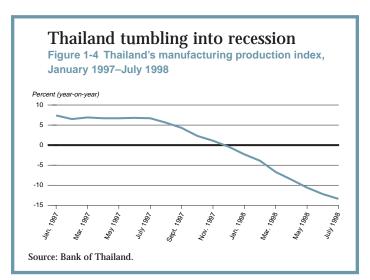
The Asian crisis already ranks with the Latin American debt crisis of the 1980s in terms of the severity of first-year impacts on the countries worst affected. For example, the

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

Percent
Billions of U.S. dollars
60
Current account balance (right axis)
40
2
20
0
2
4
40
6
80
Note: East Asia-5 is Indonesia, Malaysia, Rep. of Korea, Philippines, and Thailand.
Source: Consensus Forecasts, Inc.

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

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



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

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

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

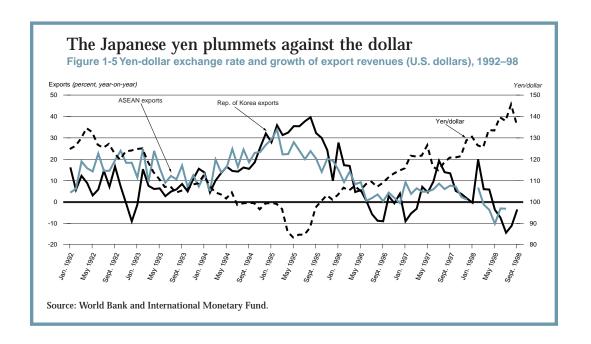
Since then, further declines in consumer and investment spending and confidence, declining output, rising unemployment, falling asset prices, rising bad debts, and tightening bank credit (despite nearzero policy interest rates) have created a vicious circle that is expected to generate a 2.5 percent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

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

## Russian crisis and general loss of confidence in emerging markets

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

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



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

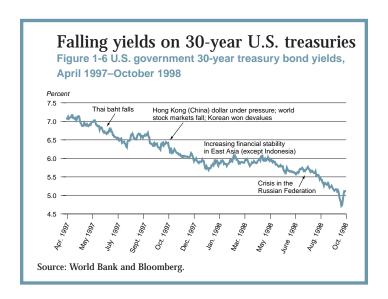
In recent months, the pressure on emerging markets has abated somewhat. Stock markets and currencies have strengthened in East Asia and interest rates have fallen, while smaller positive effects are also noted for other emerging markets, notably in Latin America. But private-source net capital flows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

## Short-term outlook, 1998–2000

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

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

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



#### Emerging equity markets and currencies collapse after the Russian crisis

Table 1-3 Changes in financial variables for selected emerging markets (as of August 28, 1998)

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

a. [-] implies depreciation.

Source: Bloomberg.

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

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

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

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

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

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

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

<sup>..</sup> implies data is not available.

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

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

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

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

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

Source: World Bank estimates.

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

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

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

#### Industrial country growth

The recovery that began in continental Europe in 1997 and gathered pace in the first half of 1998 is perhaps the most important source of strength in world demand growth going into 1999. The balance of the recovery moved from export-led growth in 1997 toward stronger growth in private consumption and fixed investment. This occurred along with a long-standing accommodative stance in monetary policy and the shift of fiscal policy from contrac-

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

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

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

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

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

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

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

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

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

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

#### Box 1-1 The EMU and its international impact

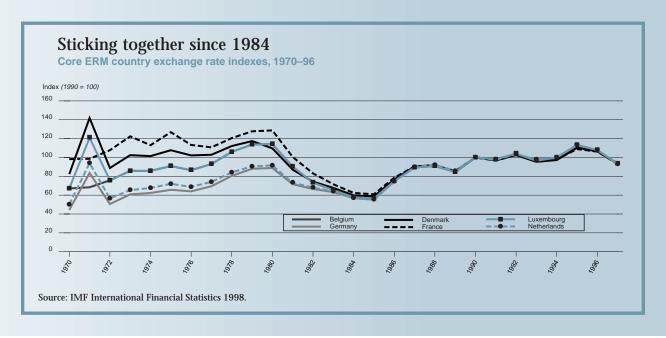
n January 1, 1999, the euro will be launched, and the European Monetary Union (EMU) will be formally created. The single currency is expected to bring substantial productivity and growth benefits through decreased transaction costs, increased allocative efficiency, elimination of exchange risk premia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

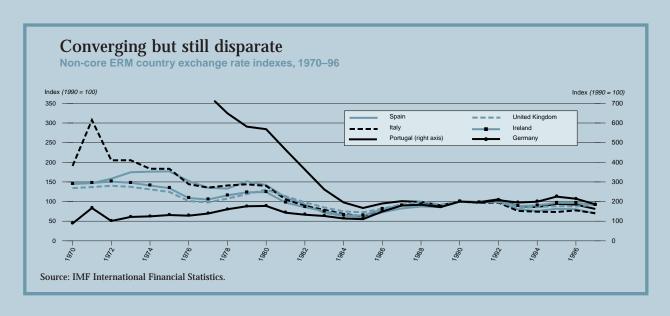
Exchange rate stability. Will the euro be a strong and stable currency? This will require low inflation, sustained budget balances, and an independent European Central Bank, as well as a balanced net EU current-account position. Over the medium term, it is generally expected that the euro will appreciate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

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

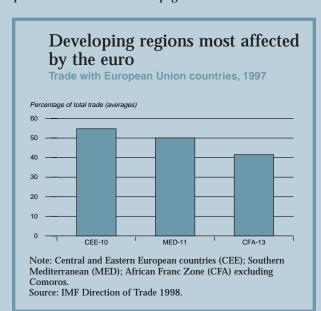
Use of the euro as reserve currency. The consensus is that the euro will slowly become a major international reserve currency, but the inertia of existing reserve portfolios may be strong (for example, postwar sterling holdings). For private reserves, it is widely accepted that a shift to the euro will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

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





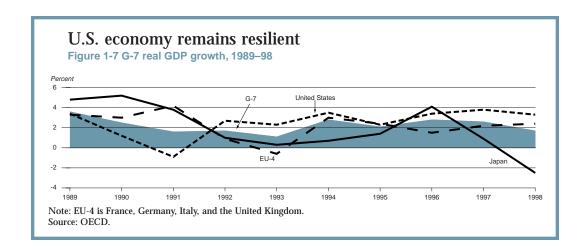
currency to also appreciate, reducing the country's competitiveness. Countries that peg their currencies to a bas-



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

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

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

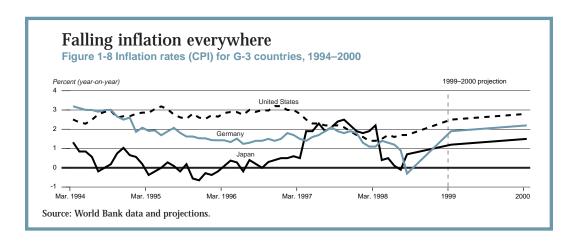


#### Inflation and interest rates

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

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

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



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

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

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

#### World trade

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

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

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

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

Table 1-5 World merchandise trade, 1991-2007

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

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

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

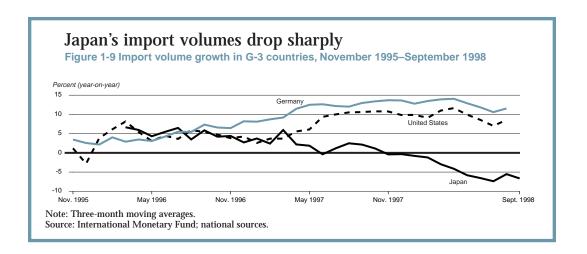
account deficits expanded substantially in the past two years, and large increases in lending spreads and reduced access to external private capital flows will likely force a substantial external sector adjustment in 1999.

a. Estimate.

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

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

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

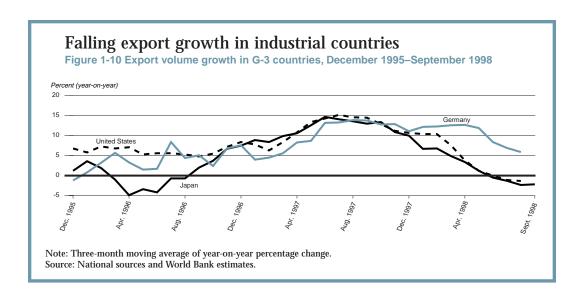


Europe and the United States are, however, expected to be the main sources of growth in world imports in 1998, partly offsetting the depressing influences from Asia and much of the rest of the developing world, and producing an overall 5-5.5 percent expansion in world trade. Import volume growth in both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

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

#### Commodity prices

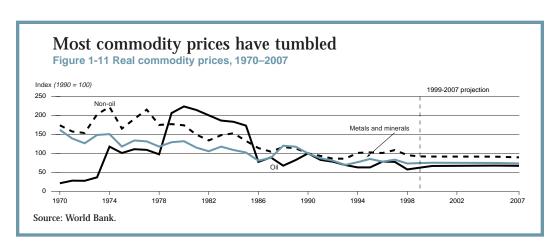
Commodity prices were already in cyclical decline from a miniboom in 1994–96, when demand cutbacks because of the Asian financial crisis pushed prices sharply lower.



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

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

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

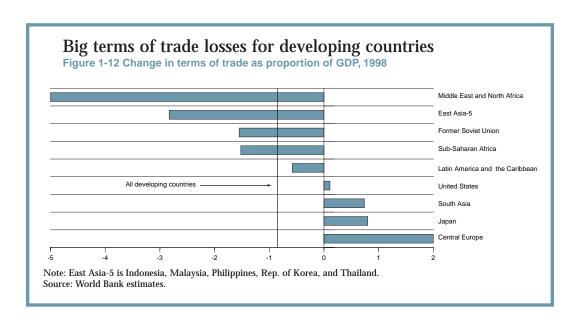


6–8 percent of aluminum and copper consumption. But the larger East Asian region, including Japan, accounts for nearly one-third of world consumption; much of the growth in global consumption was in this region. Large supplies of metals, minerals, and crude oil were also major factors contributing to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

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

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

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



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

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

## Private and official capital flows to developing countries

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

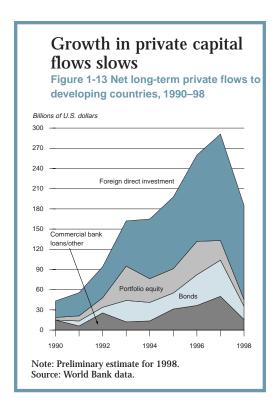
Reflecting the onset of the Thai crisis in July, the growth in net private capital flows to developing countries had already slowed in 1997, rising by \$32 billion to about \$290 billion (figure 1-13). Foreign direct investment remained at about \$120 billion, while portfolio equity flows declined from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

#### Nominal commodity prices will remain weak

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

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

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



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

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

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

Flows to East Asia collapsed in the first half of 1998

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

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

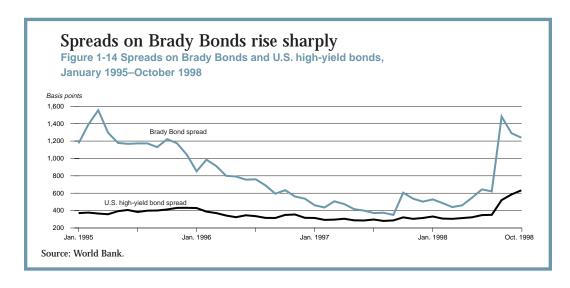
Source: Euromoney and the World Bank.

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

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

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

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



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

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

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

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

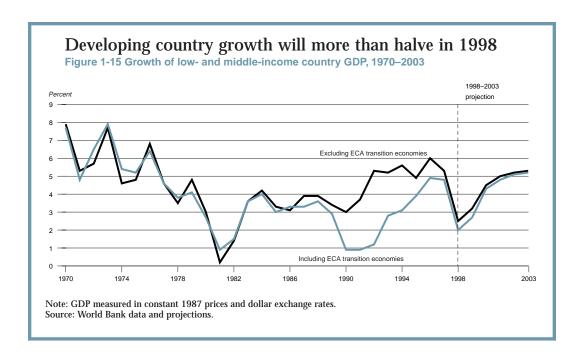
## Implications for developing regions

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

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

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

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



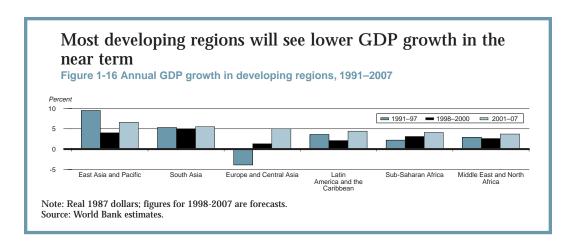
#### Recovery in output growth will be slow in East Asian crisis countries

Table 1-8 Growth of real output in selected country groups, 1991–2007 (average annual percentage change)

|  |            |            |            |            | Forecasts  |            |            |
|--|------------|------------|------------|------------|------------|------------|------------|
| Region                                   | 1991-97    | 1997       | 1998       | 1999       | 2000       | 2001-07    | 1998-2007  |
| Sub-Saharan Africa                       | 2.2        | 3.5        | 2.4        | 3.2        | 3.8        | 4.1        | 3.8        |
| Excluding South Africa and Nigeria       | 2.6        | 4.4        | 3.5        | 4.1        | 4.7        | 4.6        | 4.4        |
| Developing East Asia                     | 9.5        | 7.1        | 1.3        | 4.8        | 5.9        | 6.6        | 5.8        |
| East Asia-4 <sup>a</sup>                 | 6.8        | 3.8        | -9.2       | -0.5       | 3.0        | 5.1        | 2.8        |
| East Asian crisis countries <sup>b</sup> | 7.0        | 4.5        | -8.0       | 0.1        | 3.2        | 5.2        | 3.1        |
| South Asia                               | 5.3        | 5.0        | 4.6        | 4.9        | 5.6        | 5.5        | 5.4        |
| Excluding India                          | 4.6        | 4.8        | 3.6        | 4.3        | 4.5        | 5.6        | 5.1        |
| Europe and Central Asia                  | -4.0       | 2.6        | 0.5        | 0.1        | 3.4        | 5.0        | 3.9        |
| Central and Eastern Europe               | -0.4       | 2.3        | 4.0        | 4.0        | 4.5        | 4.9        | 4.7        |
| Countries of the former Soviet Union     | -7.8       | 1.3        | -3.7       | -4.3       | 1.7        | 4.7        | 2.6        |
| Latin America and the Caribbean          | 3.6        | 5.1        | 2.5        | 0.6        | 3.3        | 4.4        | 3.7        |
| Excluding Brazil                         | 4.0        | 6.3        | 3.6        | 2.1        | 3.7        | 4.6        | 4.1        |
| Middle East and North Africa             | 2.9        | 3.1        | 2.0        | 2.8        | 3.1        | 3.7        | 3.4        |
| Oil exporters                            | 3.0        | 2.7        | 0.5        | 2.0        | 2.5        | 3.2        | 2.7        |
| All low- and middle-income countries     | 0.1        | 4.0        | 9.0        | 0.7        | 4.9        | F 9        | 4.5        |
| Excluding East Asia-4                    | 3.1<br>2.7 | 4.8<br>4.9 | 2.0<br>3.2 | 2.7<br>3.0 | 4.3<br>4.5 | 5.2<br>5.2 | 4.5<br>4.7 |

Note: GDP in constant 1987 prices and exchange rates; growth rates over intervals are compound annual averages. a. Indonesia, Malaysia, Philippines, and Thailand. b. The East Asia-4 and the Republic of Korea.

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



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

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

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

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

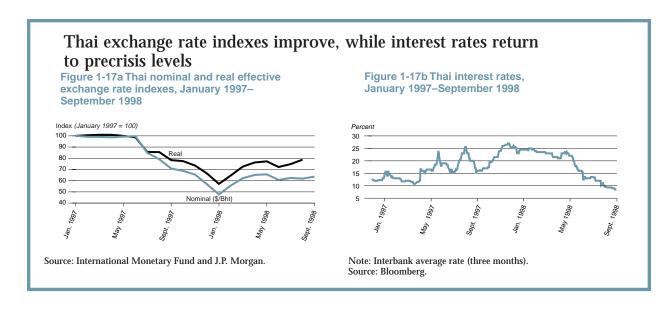
 Renewed capital inflows from abroad are beginning selectively—through the purchase of equity stakes in banks (allowing the rebuilding of capital) and the acquisition of distressed firms by multinational companies, followed by restructuring. Restrictions on foreign investment are being removed and large bid-offer spreads (the "denial syndrome") are narrowing. In August–September 1998, East Asia saw gross private capital inflows increase compared to the same period in 1997, counter to the trend in all the other emerging regions.

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

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

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

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



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

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

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

#### Recovery will be protracted

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

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

Note: GDP in constant 1987 prices and exchange rates.

a. Estimate.

Source: World Bank staff estimates.

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

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

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

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

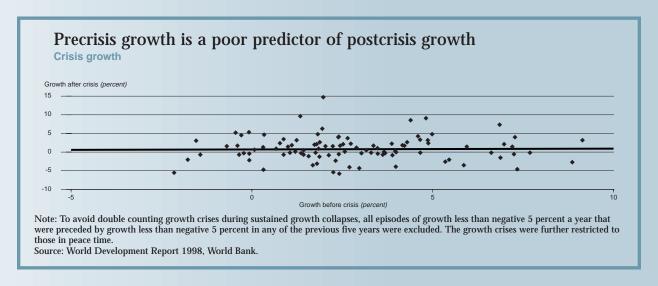
#### Box 1-2 In the aftermath of crises

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

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

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

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



it was more than 100 percent in many of the East Asian countries that had experienced credit booms. Third, corporate external exposures are generally of manageable proportions, reflecting lower average ratios than on Asia and a history of weak currencies. Some improvement in the terms of trade, along with a pickup in world trade growth, should provide stronger support for growth in 2000.

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

Table 1-10 East Asia and Pacific forecast summary

(percent per year)

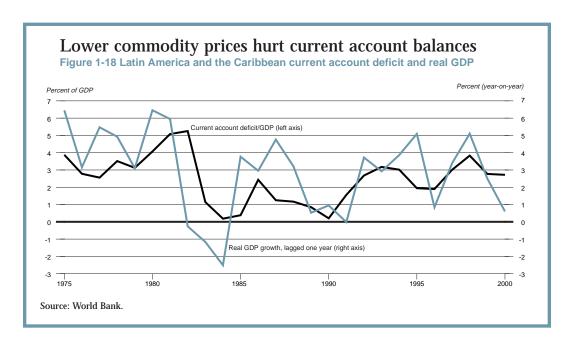
| C                                     | 1000.07 | 1000 | 1007 | 1000 | 1000 | 0000 | 1000 0007 |
|---------------------------------------|---------|------|------|------|------|------|-----------|
| Growth rates/ratios                   | 1988-97 | 1996 | 1997 | 1998 | 1999 | 2000 | 1998-2007 |
| Real GDP growth                       | 8.8     | 8.8  | 7.1  | 1.3  | 4.8  | 5.9  | 5.8       |
| Consumption per capita                | 6.1     | 7.4  | 2.0  | -4.2 | 2.8  | 4.3  | 4.2       |
| GDP per capita                        | 7.4     | 7.5  | 5.9  | 0.2  | 3.7  | 4.8  | 4.8       |
| Population 16-65 years                | 1.5     | 1.5  | 1.4  | 1.4  | 1.4  | 1.3  | 1.3       |
| Median inflationa                     | 8.0     | 6.0  | 7.4  | 9.8  | 3.5  | 3.1  | 4.4       |
| Gross domestic investment/GDP         | 35.3    | 38.5 | 38.2 | 36.5 | 36.2 | 36.1 | 36.9      |
| Budget balance/GDP                    | -0.7    | -0.3 | -2.2 | -2.6 | -2.6 | -2.7 | -2.2      |
| Export volume <sup>b</sup>            | 12.8    | 7.6  | 14.3 | 9.5  | 8.5  | 9.0  | 8.5       |
| Current account/GDP                   | -1.2    | -1.6 | 0.1  | 3.5  | 4.1  | 4.3  | 2.6       |
| Debt to export ratio <sup>c</sup>     | 88.0    | 70.0 | 65.0 | 70.0 | 75.0 | 70.0 | 70.0      |
| -                                     |         |      |      |      |      |      |           |
| Memorandum items                      |         |      |      |      |      |      |           |
| GDP of region excluding China         | 7.3     | 7.2  | 3.9  | -8.6 | -0.4 | 3.1  | 2.9       |
| GDP of ASEAN-4 countries <sup>d</sup> | 7.5     | 7.3  | 3.8  | -9.2 | -0.5 | 3.0  | 2.8       |

a. GDP deflator.

Source: World Bank baseline forecast, November 1998.

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

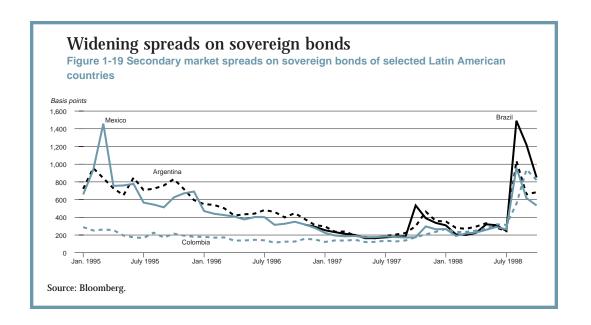
omy began—current estimates suggest that output will rise in 21 of 25 countries in 1998. The critical exceptions are Russia and Ukraine. Strong opposing factors



b. Goods and nonfactor services.

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

d. Indonesia, Malaysia, Thailand, and Philippines.



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

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

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

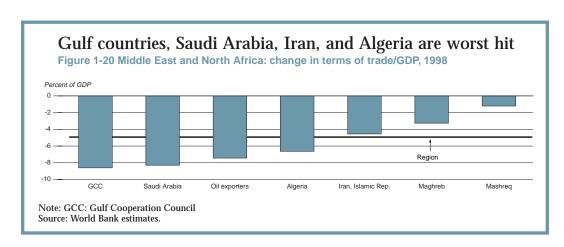
The picture is quite different for the five countries of Central and Eastern Europe that

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

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

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

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



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

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

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

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

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

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

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

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

Financial trends stemming from East Asia have had smaller effects on the region for various structural reasons. Current account deficits have been small (other than in Pakistan); large domestic credit booms have been absent. Retention of tight controls on foreign borrowing prevented buildup of large external exposures in the private sector, including banks, and offshore forward markets for currencies, including the Indian rupee, remain thin. The slowing of output growth in 1998 and anticipated moderate gains of 5-5.5 percent over the period to 2000 are tied instead to domestic policy considerations, whose effects the sluggish world trade environment will likely augment. In India, the slowdown from GDP gains averaging 7.5 percent in 1994-97 may be attributed to persisting large public sector deficits (crowding out private investment), a sharp decline in exports, and a cutback in investment growth due to concerns about the pace of reforms. The short-term outlook for Pakistan is uncertain. Given recent developments, the government has announced austerity measures, with onshore foreign exchange accounts frozen and wide-ranging capital controls introduced. Aimed at preserving scarce reserves in the immediate term, these measures may discourage worker remittances and inhibit investment, possibly hurting medium-term growth.

### Long-term prospects

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

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

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

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

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

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

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

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

A regression model of average real per capita GDP growth of about 70 developing and industrial countries-estimated for the 1960s, 1970s, and 1980s, using standard explanatory variables covering economic structure, macroeconomic policies, and institutional quality-provides a useful framework for evaluating potential changes in long-run growth trends in East Asia (table 1-11).9 Per capita income at the beginning of the decade enter as a broad control for the initial conditions of each economy. The estimates suggest that, once other relevant factors are controlled for, the higher a country's initial income, the lower its expected growth-reflecting, for example, less scope for technological catchup by achieving faster growth through assimilating new technologies from more advanced countries. In general, growth increases with the schooling of the population and the rate of investment. Greater financial depth is also associated with stronger long-run growth. A higher black market premium, interpreted as a broad measure of economic distortions, reduces growth, as does a higher fiscal deficit. Taking account of institutional conditions, greater corruption<sup>11</sup> and more political instability (political murders or assassinations) are associated with lower growth.

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

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

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

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

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

Note: R-squared: 0.6204; adjusted R-squared: 0.5471; S.E. of regression: 0.01586; Durbin-Watson statistic: 1.5335. Model estimated for the 1980s.

Source: Data are from Easterly et al 1994.

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

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

Long-term slowing in real per capita growth

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

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

Source: World Bank estimates.

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

### Private capital flows

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

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

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

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

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

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

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

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

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

effects of the crisis on longer term capital flows:

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

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

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

# Risks to the forecast and a low-case scenario

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

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

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

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

A slight shift away from capital goods Change in composition of value added in East Asia, 2010 Heavy manufactures Transport and machinery Light manufactures Wearing appare Thailand Philippines Natural resources Malavsia Processed foods Primary agriculture Cumulative differences (percent Source: Ianchovichina, Hertel, and McDougall 1998.

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

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

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

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

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

Source: Ianchovichina, Hertel, and McDougall 1998.

important assumptions underlying the baseline.

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

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

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

#### And if worse comes to worst?

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

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

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

### Shutdown in private capital flows to Latin America

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

## Stock market corrections in the United States and Europe

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

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

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

On past experience, therefore, the wealth effects on consumption would likely be small. But there are grounds for a stronger wealth effect now than in 1987: the rise over the past decade in the share of households owning equity (40 percent in 1995 compared to 32 percent in 1989), the rising share of equities in household assets, and the much higher value of equity holdings relative to GDP (1998 market capitalization of more than \$13 trillion or 140 percent of GDP). The private consumption effects of a stock market decline in Japan or Europe would be smaller than in the United States, because of a lower market capitalization and a smaller share of household wealth in equities. The larger risk thus lies not in the direct wealth effects but in a sharp worsening in consumer confidence—because "periods of euphoria or distress tend to feed on themselves" (Greenspan 1998).

# Results: a severe slowdown in global activity

Under the low-case scenario, world economic growth would suffer its most serious decline since the 1982 recession, falling to zero in 1999, about 2 percentage points lower than in the baseline, and expanding by 1 percentage point less than in the baseline case in 2000 (table 1-13). Among principal industrial countries (other than Japan, where output falls 4 percent), the United States is the most seriously affected, experiencing a recession in 1999. Here the impact of the large decline in equity prices reinforces an existing momentum toward slower growth in the baseline scenario. Compared with Europe's, U.S. growth is also affected by the greater exposure of its exports to recession-hit areas, such as Latin America, Japan, and East Asia. U.S. banks also have a greater exposure to Latin America (table 1-14). Their exposure to the five largest economies (Argentina, Brazil, Chile, Mexico, and Venezuela) amounted to 15 percent of their capital in 1997, compared with 11 percent for all G-7 countries. <sup>17</sup> The U.S. federal funds rate is assumed to be cut to 3 percent in 1999, buoying the economy and fostering a modest recovery in 2000. Growth in Europe is affected more moderately, dipping only to below 2 percent in 1999, since many continental countries are still in cyclical upswing and a high proportion of trade is conducted within the region.

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

The United States is more exposed to Latin America

| <b>Table 1-14</b> | Share of | total exports | and debt or | utstanding |
|-------------------|----------|---------------|-------------|------------|

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

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

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

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

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

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

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

Source: Kaminsky and Schmukler 1998.

#### Financial markets are becoming more integrated

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

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

Source: Kaminsky and Schmukler 1998.

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

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

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

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

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

(annual percentage change)

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

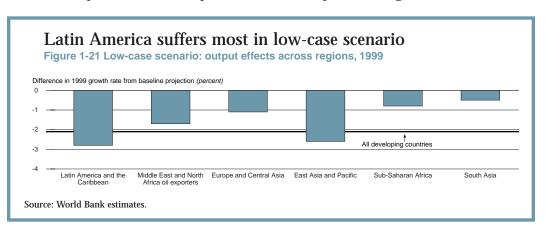
a. Estimated.

b. Indonesia, Malaysia, Philippines, and Thailand. Source: World Bank projections, November 1998.

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

The downturn in Latin America may not be as severe as that in East Asia in 1998 for several reasons, however. Financial intermediation in Latin America is generally smaller (measured, for example, by credit to the private sector as a percent of GDP) than in East Asia. Banks are less likely to have accumulated vast portfolios of bad debts. Corporations are much less heavily leveraged than in East Asia.

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



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

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

#### **Notes**

- 1. The U.K. economy is following a cyclical path distinct from much of the rest of Europe, having entered its recovery much earlier and being likely to slow sharply in 1999.
- 2. The effects of changes in wealth on consumption can, however, take some time to play out. National Institute of Economic and Social Research (NIESR) (July 1998) estimates that a 10 percent

- decline in real wealth is associated with 1.8 percent lower consumption, with the full effect taking some time to emerge.
- 3. The decline in the economy's nonaccelerating inflation rate of unemployment (NAIRU) is discussed in Global Economics Prospects and the Developing Countries 1997.
- 4. Disbursements under the rescue package for Korea are not included, as Korea was not considered a developing country in the data set for Global Development Finance and the Developing Countries 1998.
- 5. The level of recorded ODA in 1997 was depressed by changes in the list of ODA recipients—most importantly the removal of Israel. Perhaps one-tenth of a percentage point of the decline in the ODA/GDP ratio is due to these changes.
- 6. J.P. Morgan, "Asian Financial Markets," July 17, 1998.
- 7. In 1995, Mexico, whose financial problems were not nearly as severe, saw export volumes soar 35 percent and dollar prices hold. However, the initial export share in GDP in the East Asian crisis countries was 50 percent to 100 percent higher than in Mexico.
- 8. Prospects in regions other than in East Asia and Pacific are described in more detail in Appendix 1.
- 9. The data set employed was developed in Easterly et al (1994). Although cross-country regression models have some technical drawbacks, the results of these models are generally consistent with new growth theories, and are useful in evaluating quantitatively the direction of expected changes in longer run growth.
- 10. The latter result reflects the harmful effects on growth of large and chronic fiscal deficits, a prime source of macroeconomic instability. It is not inconsistent with temporary increases in fiscal deficits as a countercyclical policy measure at a time of sharply falling private aggregate demand, such as are being undertaken in the East Asian crisis countries at present. See chapter 2.
- 11. As measured, an increase in the relevant index represents a reduction in corruption. The coefficient on the variable is therefore positive.
- 12. Harvey (1993) reported that the tradeoff between risk and return in an internationally diversified asset portfolio could be greatly improved by investing up to 20 percent in developing country securities. Cosset and Suret (1995) found that the inclusion of countries with significant political risk in portfolios

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

- 13. Lewis reports outstanding U.S. loans to foreign countries. The figure for emerging markets refers to all countries outside of Western Europe.
- 14. The dynamic GTAP (Ianchovichina and McDougall 1997) is a multiperiod extension of the standard multiregion and sector model of the world economy (Hertel and Tsigas 1996), incorporating capital mobility, adaptive expectations, and income flows from foreign investments.
- 15. The logarithmic aggregate consumption equation in the United States was estimated (Federal Reserve 1996) as:
  - c\*=1.0v +.62strans -.15sprop +.52sstock
  - +1.28s0 + .013x

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

- 16. A 20 percent fall would be equivalent to a drop in total market capitalization of about \$1.7 trillion, and household share of this would be about one-half (\$850 billion); a 3 percent share of this would represent a 0.45 percent decline in estimated 1997 aggregate private consumption.
- 17. The exposure to these five countries for all Bank for International Settlements (BIS) reporting commercial banks stands at 16 percent, much lower than 58 percent in 1982, at the start of the debt crisis of the 1980s. It would nevertheless add to the erosion of industrial country bank loan portfolios and capital already resulting from the East Asian and Russian crises.

### References

- Aitken, Brian. 1996. "Have Institutional Investors Destabilized Emerging Markets?" Working Paper 96/34. Washington, DC: International Monetary Fund.
- Bayoumi, Tamim. 1992. "The Effect of the ERM on Participating Economies." Staff Papers, 39(2)

- Washington, DC: International Monetary Fund (June ).
- Brayton, F. and P. Tinsley. 1996. "A Guide to FRB/US: A Macroeconomic Model of the United States (Version 1)." Washington, DC: Federal Reserve Board (October).
- Brooks-Senftleben, A. 1994. "International Portfolio Diversification: the Role of Latin America's Emerging Markets," Discussion Paper 65, Goettingen, Germany: Ibero-American Institute for Economic Research (November).
- Bruno, Michael. 1996. Comment on Michael Gavin, Ricardo Hausmann, and Leonardo Liederman, "The Macroeconomics of Capital Flows to Latin America: Experience and Policy Issues." In Ricardo Hausmann and Liliana Rojas-Suárez, eds. Volatile Capital Flows: Taming their Impact on Latin America. Washington, DC: Inter-American Development Bank.
- Buckberg, Elaine. 1996. "Institutional Investors and Asset Pricing in Emerging Markets." Working Paper 96/2. Washington, DC: International Monetary Fund.
- Buiter, Willem H., Giancarlo Corsetti, and Paolo A. Pesenti. 1996. "Interpreting the ERM Crisis: Country Specific and Systemic Issues." Discussion Paper 1466. London: Centre for Economic Policy Research (October).
- Calderon, Cesar, Norman Loayza, and Humberto Lopez. 1998. "Common Cycles and Transmission of Shocks: Recent Stylized Facts in Latin America." (Manuscript) Washington, DC: World Bank.
- Calvo, Sara, and Carmen Reinhart. 1995. "Capital Flows to Latin America: Is There Evidence of Contagion Effects?" In Guillermo A. Calvo, Morris Goldstein, and Eduard Hochreiter, eds. Private Capital Flows to Emerging Markets After the Mexican Crisis. Washington, DC: Institute for International Economics.
- Chuhan, Punam. 1994. "Are Institutional Investors an Important Source of Portfolio Investment in Emerging Markets?" Policy Research Working Paper 1160. Washington, DC: World Bank.
- Cossett, Jean-Claude, and Jan-Marc Suret. 1995. "Political Risk and the Benefits of International Portfolio Diversification." Journal of International Business Studies 26(22).
- Dadush, Uri, Ashok Dhareshwar, and Ronald Johannes. 1994. "Are Private Capital Flows to Emerging Mar-

- kets Sustainable?" Policy Research Working Paper 1397. Washington, DC: World Bank.
- De Santis, Giorgio. 1993. "Asset Pricing and Portfolio Diversification: Evidence from Emerging Financial Markets." In Stijn Claessens and Sudarshan Gooptu, eds. Portfolio Investment in Developing Countries, Discussion Paper 228. Washington, DC: World Bank.
- Easterly, William, and Ross Levine. 1997. "Africa's Growth Tragedy: Policies and Ethnic Divisions." Quarterly Journal of Economics 112(4):1203–50.
- Easterly, William, Michael Kremer, Lant Pritchett, and Lawrence Summers. 1994. "Good Policy or Good Luck? Country Performance and Temporary Shocks." Journal of Monetary Economics 32:459-83.
- Eichengreen, Barry, Andrew Rose, and Charles Wyplosz. 1996. "Contagious Currency Crisis."Working Paper No. 5681. Cambridge, MA: National Bureau of Economic Research.
- Feldman, Robert A., Karim Nashibishi, Roger Nord, Peter Allum, Dominique Desruelle, Robert Kahn, and Heliodoro Temprano-Arroyo. 1998. Impact of EMU on Selected Non-European Union Countries. Washington, DC: International Monetary Fund.
- Greenspan, Alan. 1998. Washington Post, Washington, DC, October.
- Hadjimichael, Michael T., and Michel Galy. 1997.
  "The CFA Franc Zone and the EMU" Working Paper 97/156. Washington, DC: International Monetary Fund (November).
- Harvey, Campbell. 1993. "Portfolio Enhancement Using Emerging Markets and Conditioning Information." In Stijn Claessens and Sudarshan Gooptu, eds. Portfolio Investment in Developing Countries. Discussion Paper 228. Washington, DC: World Bank.
- Hertel, Thomas W., and Marinos E. Tsigas. 1996. "Structure of GTAP." In Thomas W. Hertel, ed. Global Trade Analysis: Modeling and Applications (Chapter 2). Cambridge, UK: Cambridge University Press.
- Ianchovichina, Elena, and Robert A. McDougall. 1997. "Incorporating Dynamics and International Capital Mobility into the GTAP Model." (Manuscript) West Lafayette, IN: Center for Global Trade Analysis, Purdue University.

- Ianchovichina, Elena, Thomas W. Hertel, and Robert A. McDougall. 1998. "Global Implications of the East Asian Meltdown." Background paper for Global Economic Prospects 1998/99. Washington, DC: World Bank, Purdue University.
- IMF (International Monetary Fund). 1997. International Capital Markets: Developments, Prospects and Key Policy Issues. Washington, DC.
- Kaminsky, Graciela L., and Sergio L. Schmukler. 1998.
  "On Booms and Crashes: Are Financial Markets Becoming More Volatile?" (Manuscript) Washington, DC: World Bank.
- Kindleberger, Charles P. 1978. Manias, Panics and Crashes: A History of Financial Crises. New York: Basic Books, Inc.
- Lakonishok, Josef, Andrei Shleifer, and Robert W. Vishny. 1992. "The Impact of Institutional Trading on Stock Prices." Journal of Financial Economies 32:[23]-43.
- Lewis, Cleona. 1938. America's Stake in International Investments. Washington, DC: Brookings Institution.
- Masson, Paul R., Thomas H. Krueger, and Bart G. Turtelboom. 1997. EMU and the International Monetary System. Washington, DC: International Monetary Fund.
- Minikin, Robert. 1993. The ERM Explained. London: Kogan Page Limited.
- Pelkmans, Jacques. 1997. European Integration: Methods and Economic Analysis. New York: Longman Publishing.
- Rodrik, Dani. 1998. "Where Did All the Growth Go? External Shocks, Social Conflict and Growth Collapses." (Manuscript) Cambridge, MA: Harvard University.
- Scholl, Russell B. 1997. "The International Investment Position of the United States in 1996." Survey of Current Business. Washington, DC: U.S. Department of Commerce (July).
- Smith, R. C., and I. Walter. 1998. "Rethinking Emerging Market Equities." In Richard M. Levich, ed. Emerging Market Capital Flows. Boston: Kluwer Academic Publishers.
- Wolf, Holger C. 1997. "Regional Contagion Effects In Emerging Stock Markets." Working Papers in International Economics. G-97-03:1-18. Princeton, Department of Economics, International Finance Section, NJ: Princeton University (October).