External Shocks, Financial Crises, and Poverty in Developing Countries

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

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

The chapter reaches the following conclusions:

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

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

- The crisis demonstrated the flexibility of labor markets in developing countries. These markets help absorb the effects of shocks through reduced wages and labor mobility within and between urban and rural areas. Thus the decline in total employment in Thailand and Malaysia was limited, and employment actually rose in Indonesia. Labor was reallocated from the formal (urban) sector to other activities, particularly the informal sector and agriculture, where exchange rate depreciations improved incentives.

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

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

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

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

**External shocks and poverty in developing countries**

Discussions of the link between growth and poverty reduction in developing countries implicitly take the view that long-term growth (and therefore poverty reduction) is a stable process. But as the financial crisis of 1997–99 shows, the process of growth is neither smooth nor linear and is often subject to sharp changes (especially major slowdowns and recessions) from a variety of external or internal shocks (World Bank 1999a). The asymmetric effects of income growth on poverty during expansions and downturns, however, imply that these changes often have profound, long-lasting effects on the poor. A decline in per capita income tends to have a negative effect on poverty that is much greater than the improvement generated by an equivalent increase.
While economic crises hurt both poor and rich, the poor have less leeway to respond to the crises. If domestic capital markets were perfect and the economic downturn temporary, all economic agents could borrow to smooth consumption and maintain welfare. But capital markets are imperfect and segmented. Credit or insurance is typically not available to the poor. With few savings and low or subsistence incomes, the poor become even more vulnerable to shocks. Crises and recessions can result in irreversible negative effects on the poor through their impacts on health, schooling, and nutrition. Volatility in growth also tends to create more uncertainty and risk for investors. That fact alone tends to reduce the rate of economic growth, further dimming prospects for poverty reduction. Thus the volatility of the growth process in developing countries matters a great deal for both immediate and long-term poverty reduction and income distribution.

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

Figure 2.1 Terms of trade and GDP growth volatility, 1961–97

Standard deviations (percent)

<table>
<thead>
<tr>
<th>Terms of trade</th>
<th>Real GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-income</td>
<td>3.9</td>
</tr>
<tr>
<td>Low- and middle-income</td>
<td>7.4</td>
</tr>
<tr>
<td>East Asia and Pacific</td>
<td>8.1</td>
</tr>
<tr>
<td>South Asia</td>
<td>9.7</td>
</tr>
<tr>
<td>Middle East and North Africa</td>
<td>11.3</td>
</tr>
<tr>
<td>Low- and middle-income</td>
<td>11.4</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>13.1</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td></td>
</tr>
</tbody>
</table>

Note: Unweighted average of countries’ standard deviations of relative distance from Hodrick-Prescott filter trend.
Source: World Bank staff calculations.
External shocks, long-term growth, and poverty

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

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

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

External volatility and fluctuations in poverty

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

Fluctuations in commodity prices may induce short- to medium-term changes in both growth and poverty. During the boom years growth is faster and poverty declines, but during busts, which are usually more sudden, poverty increases. Fluctuations in commodity prices have a significant, direct impact on personal incomes and an indirect impact on government social expenditures and GDP. Earlier studies argued that commodity price booms do not significantly affect real GDP (Cuddington 1988; Gelb and Associates 1988). But more recent empirical work has shown that changes in terms of trade have significant effects on real output growth. Declining trends in real commodity prices have a negative effect on real income growth in the long term in developing countries (see chapter 4). In addition, a slowdown in growth in the bust years may become more severe as investments made during the boom years are often less productive (Collier and Gunning 1996).
Empirical findings also support the notion that economic cycles have an asymmetric effect on poverty. They show that a contraction will have a greater impact on the poverty rate than an expansion of the same size (Morley 1994; Londoño and Székely 1997a; De Janvry and Sadoulet 1998). It has been estimated that a 1 percent decline in per capita income during recessionary episodes in Latin America in the 1980s reduced earlier gains by 3.4 percent of per capita income growth in urban areas and 2.2 percent in rural areas (De Janvry and Sadoulet 1998). One explanation for this phenomenon is that during recessions the unskilled are the first to lose their jobs, because firms tend to hoard their skilled employees. As a result, income distribution becomes more inequitable, amplifying the effect of declining incomes on poverty (Agénor 1998).

### Box 2.1 Volatility, growth, and poverty

When growth proceeds smoothly over time and income inequality improves (or at least does not worsen dramatically), poverty declines as per capita income and real wages rise. The elasticity of poverty, as measured by the headcount index—for example, with respect to the growth of per capita income—is estimated to be between −1.5 and −3.5. The size of the effect is greater in countries where income is more evenly distributed (Ravallion 1997). To the extent that volatility creates uncertainty, it has negative effects on growth and therefore on poverty. Recent empirical evidence supports this view and contradicts the early literature. Using balanced panel data for a sample of 92 countries for 1960–85, Ramey and Ramey (1995) find that a unit increase in the standard deviation of innovation in GDP (innovation to GDP growth is used as a measure of uncertainty) implies a lower GDP per capita growth of 0.2. Similarly, from a growth regression of 130 countries for 1960–95, Easterly and Kraay (1999) find that the standard deviation of growth has a strong negative effect (-0.18) on average per capita growth (after controlling for other variables).

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

Terms-of-trade volatility has been found to have a negative effect on long-term growth in developing countries. Commodity price uncertainty, as measured by the standard deviation of forecast errors from some statistical models, reduces growth rates (Dehn and Gilbert 1999). Most empirical studies have used direct volatility of terms of trade as a proxy for uncertainty and have found negative effects on long-term growth (Mendoza 1994; Hausmann and Gavin 1995; Guillamont, Jeanneney, and Brun 1999; Easterly and Kraay 1999). The overall evidence also indicates that over the long run the dependence of many developing countries on commodities with volatile prices has a negative impact on long-term growth and therefore on poverty. Dehn and Gilbert (1999) find a significantly negative effect of commodity price uncertainty on poverty, as measured by infant mortality.

Income poverty and inequality during the East Asian crisis

The recent crisis in East Asia has underlined the risks for developing countries of reversals in private capital flows and the dramatic social impact of the resulting financial crises. The East Asian crisis had a substantial impact on output and poverty in 1998, although these effects began to lessen in 1999.
Box 2.2 External shocks and fluctuations in poverty in Mexico

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

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

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

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

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

The impact of the crisis on poverty

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

Poverty also increased during the first year of the crisis in the most affected East Asian countries (table 2.1). Evidence from Korea illustrates the asymmetric impact of crises on poverty. During stable growth in 1990–97, the estimated elasticity of the percentage of poor with respect to per capita GDP was −3.5 (Kakwani and Prescott 1999). But during the crisis in 1998 the incidence of poverty increased by 123 percent. Real per capita GDP declined by 6.7 percent, and consumption per capita declined by 10.4 percent. In Indonesia as well, the rate of increase in poverty was about 10 times the rate of the decline in con-
poverty. Real GDP growth declined to a negative 6.2 percent in 1995 and averaged 2.6 percent from 1995 to 1998. Total poverty increased dramatically, rising to 45 percent in 1996, or 41.7 million (Szekely 1999a). Mexico has adjusted to the crises primarily through downward flexibility in real wages rather than through increases in unemployment.

### Box 2.2 (continued)

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

<table>
<thead>
<tr>
<th>Percent</th>
<th>Change in total poverty</th>
<th>Average per capita GDP growth</th>
<th>Change in Gini coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>1968-77</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1977-84</td>
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<td></td>
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<tr>
<td>1984-89</td>
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<tr>
<td>1989-92</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1992-94</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1994-96</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 2.1 Growth, poverty rates, and Gini coefficients in East Asia, 1996–98

<table>
<thead>
<tr>
<th>Real per capita GDP growth (percent)</th>
<th>Indonesia</th>
<th>Malaysia</th>
<th>Rep. of Korea</th>
<th>Thailand</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>2.9</td>
<td>5.4</td>
<td>4.5</td>
<td>-1.4</td>
</tr>
<tr>
<td>1998</td>
<td>-15.1</td>
<td>-9.2</td>
<td>-6.7</td>
<td>-10.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Real per capita consumption growth (percent)</th>
<th>Indonesia</th>
<th>Malaysia</th>
<th>Rep. of Korea</th>
<th>Thailand</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>-5.3</td>
<td>-12.4</td>
<td>-10.4</td>
<td>-11.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Headcount poverty index*</th>
<th>Indonesia</th>
<th>Malaysia</th>
<th>Rep. of Korea</th>
<th>Thailand</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996 National</td>
<td>11.3</td>
<td>-</td>
<td>9.6</td>
<td>11.4</td>
</tr>
<tr>
<td>1997 National</td>
<td>11.0</td>
<td>8.2</td>
<td>8.6</td>
<td>9.8</td>
</tr>
<tr>
<td>1998 National</td>
<td>16.7</td>
<td>-</td>
<td>19.2</td>
<td>12.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gini index</th>
<th>Indonesia</th>
<th>Malaysia</th>
<th>Rep. of Korea</th>
<th>Thailand</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>0.380</td>
<td>-</td>
<td>0.290</td>
<td>0.477</td>
</tr>
<tr>
<td>1997</td>
<td>-</td>
<td>0.496</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1998</td>
<td>0.370</td>
<td>-</td>
<td>0.294</td>
<td>0.481</td>
</tr>
</tbody>
</table>

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a. Figures for Indonesia are based on consumption expenditures, with a national poverty line equivalent to about $1 a day in 1985 international purchasing parity (IPP) dollars; data are from February 1996 and December 1998. Figures for the Republic of Korea are based on consumption expenditures, with a national poverty line equivalent to about $4 a day in 1985 IPP dollars. Figures for Thailand reflect national income poverty, measured at around $2 a day. Figures for Malaysia reflect income poverty.

b. The 1997 figures for Indonesia and Thailand are estimates based on precrisis trends in declines in poverty.

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

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

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

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

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

The relative impact on urban and rural areas was different in Indonesia and Thailand. In Indonesia the crisis had a strong urban bias, even though the percentage changes in poverty rates were similar in urban and rural areas. Poverty in urban areas rose from 9.7 percent in 1996 to 15.4 percent in 1998, and in rural areas climbed from 12.3 percent to 17.6 percent. Average per capita spending in urban areas fell 34 percent in real terms, whereas rural expenditures fell only 13 percent. A survey of expert respondent views suggests that urban areas were, on average, much harder hit than rural areas (Poppele, Sumarto, and Pritchett 1999). Of the 20 hardest-hit areas, 14 were urban, while of the 20 that suffered the least impact, 13 were rural. In nearly every province, region, and island, the negative impact of the crisis was consistently higher for urban than for rural areas. In Thailand, however, the impact on poverty was more severe in rural areas than in urban. Poverty rates rose from 11.8 to 17.2 percent in rural areas, but only from 1.2 to 1.5 percent in urban settings. One possible explanation for the difference in the impact of the crisis on the two countries is the higher price incentives for agricultural production in Indonesia, which stimulated production.
Regional effects. The impact of the crisis varied considerably across subnational regions. In the northern region of Thailand, for example, the poverty ratio actually dropped from 10.2 percent in 1997 to 9.2 percent in 1998. In the northeastern and southern regions it rose dramatically, climbing from around 15 percent to 23.2 percent and from 8.6 to 14.8 percent, respectively. In Indonesia per capita real expenditures declined by 42 percent in West Java and by 30 percent in Jakarta, regions that were better off before the crisis. But real expenditures declined between 10 and 20 percent in other regions. These differences are most likely linked to the behavior of producer prices. In Indonesia, areas that produced export crops benefited from the sharp exchange rate depreciation. This fact combined with several reforms (such as clove marketing) to put more benefits in the hands of farmers. Similarly, in Thailand the poor performance of the southern region may be linked to the fall in rubber prices during the crisis period.

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

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

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

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

**Labor incomes**

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

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

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

- Wages fall sharply during the crisis or in ensuing years, usually by more than the GDP. In 22 recessionary episodes in Latin America during the 1980s and 1990s, real wages fell in 16 cases during the year of recession, and in 18 cases remained lower than precrisis levels after two years (Lustig 1999). This wage drop was also a striking feature of the East Asian crisis.
- Total employment growth drops in the crisis year, but usually by less than the decline in GDP growth.
- Employment in manufacturing is always adversely affected, though less spectacularly than are wages.
- The effects on agricultural employment are more muted. In some cases (for example, Indonesia in 1998 and Turkey in 1994), employment increased despite an absolute decline in GDP.
- Rising unemployment is an important feature of many crises. In Latin America unemployment increased during the year of recession in 24 of 31 episodes and remained higher in 24 cases two years into the recession (Lustig 1999). The most sig-
significant increases were in Argentina in 1995 (6 percentage points) and Chile in 1982 (11 percentage points).

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

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

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

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>Employment, totala</td>
<td>1.8</td>
<td>2.6</td>
<td>4.6</td>
<td>−2.7</td>
<td>1.4</td>
<td>−5.8</td>
<td>1.8</td>
<td>−3.0</td>
</tr>
<tr>
<td>Agricultural</td>
<td>−4.7</td>
<td>13.3</td>
<td>−0.6</td>
<td>−5.3</td>
<td>−3.4</td>
<td>0.0</td>
<td>1.3</td>
<td>−1.8</td>
</tr>
<tr>
<td>Nonagricultural</td>
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<td>−4.7</td>
<td>5.8</td>
<td>−2.2</td>
<td>2.4</td>
<td>−6.5</td>
<td>2.2</td>
<td>−3.9</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>4.1</td>
<td>−9.8</td>
<td>7.6</td>
<td>−2.9</td>
<td>−4.3</td>
<td>−13.1</td>
<td>−0.1</td>
<td>−1.9</td>
</tr>
<tr>
<td>Construction</td>
<td>10.6</td>
<td>−15.9</td>
<td>8.9</td>
<td>−13.4</td>
<td>1.7</td>
<td>−26.4</td>
<td>−5.6</td>
<td>−33.6</td>
</tr>
<tr>
<td>Real consumption wage, totalb</td>
<td>8.6</td>
<td>−41.0</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>5.7</td>
<td>−1.5</td>
</tr>
<tr>
<td>Agricultural</td>
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<td>−35.0</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>10.0</td>
<td>−8.9</td>
</tr>
<tr>
<td>Nonagricultural</td>
<td>9.9c</td>
<td>−42.0c</td>
<td>—</td>
<td>—</td>
<td>2.6</td>
<td>−10.0</td>
<td>5.0</td>
<td>−0.5</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>11.1</td>
<td>−44.0</td>
<td>6.0</td>
<td>−2.4</td>
<td>0.7</td>
<td>−10.6</td>
<td>7.1</td>
<td>−4.5</td>
</tr>
<tr>
<td>Construction</td>
<td>8.5</td>
<td>−42.0</td>
<td>—</td>
<td>—</td>
<td>3.3</td>
<td>−14.7</td>
<td>3.8</td>
<td>−2.2</td>
</tr>
</tbody>
</table>

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a. Figures for the Republic of Korea are from Q4 to Q4. Figures for Thailand are calculations by World Bank staff based on the Labor Force Survey, National Statistical Office, and surveys of national employment for February and August.
b. Figures for Indonesia are for August 1998 and average 1997. Figures for the Republic of Korea are seasonally adjusted. Figures for Thailand are calculations by World Bank staff based on the Labor Force Survey, National Statistical Office, and average wages (excluding fringe benefits) of February and August surveys.
c. Urban areas.

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

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

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

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

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

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

**Government safety nets and poverty alleviation**

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

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**Figure 2.2 Unemployment in East Asia during the crisis**

<table>
<thead>
<tr>
<th>Country</th>
<th>1997</th>
<th>1998</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>4.7</td>
<td>5.5</td>
</tr>
<tr>
<td>Malaysia</td>
<td>2.7</td>
<td>3.2</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>2.6</td>
<td>7.4</td>
</tr>
<tr>
<td>Thailand</td>
<td>1.5</td>
<td>4.1</td>
</tr>
</tbody>
</table>

*Note: Figures for the Republic of Korea are for urban unemployment, and those for 1998 are from the second half of the year. Figures for Indonesia are from August of each year. Figures for Thailand reflect unemployment as a percentage of the current labor force and are an average of February and August figures for each year.*

affecting redistributive and poverty alleviation efforts.

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

The governments of East Asia generally did increase the budgetary share of income transfers significantly in response to the crisis. However, spending as a share of national income remains low by international standards and has increased in only two countries (Klugman 1999) (figure 2.3). Korea had the largest proportionate increase, with spending on safety nets rising from zero to 5 percent of the budget, followed by Indonesia, where the budgetary share rose from zero to 3.6 percent. In Malaysia the safety net as a share of government expenditure held steady at a low 0.16
percent during the period. Spending on safety nets as a share of national income rose quite steeply in Korea and Indonesia, though expenditures were low to begin with. These trends contrast with those observed in Europe and Central Asia, where expenditures on safety nets declined significantly across all countries (Milanovic 1998).

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

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

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

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

Evaluations of these programs suggest that just over one-third of all poor households have participated in the Indonesian public works program. The leakage of benefits to the non-poor has been significant, however. In Jakarta, 9 percent of the poor households worked once on the scheme, compared with 30 percent of the middle income households. In Medan only 5 out of over 400 poor households participated in Padat Karya, because the contractor used his own workers.
Other experiences. Declines in public spending and a failure to reach the poor have undermined safety net programs in Russia and Central Asia. Russia provides a striking example of the failure of safety net programs to alleviate poverty. Spending on social assistance declined throughout the transition, amounting to only 4 percent of the poverty gap in 1997, while the incidence of poverty more than tripled. This shortfall can be attributed in part to the concurrent collapse of the tax revenue system (UNICEF 1998), but it is also the result of an apparent failure to identify and implement programs that reach the poor and that have sufficient political and electoral support.

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

Beyond current income effects of the East Asian crisis

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

Behavioral responses and asset accumulation during crises

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

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

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

![Figure 2.4 Change in gross domestic savings, 1997–98](Source: World Bank staff calculations.)
on consumption among poor households, but the reductions in capital accumulation reflect the severity of the crisis.

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

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

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

![Figure 2.5 Relative price of foods during the crisis](image)

Source: Datastream.
Koreans' spending patterns in the face of the crisis. The shares of food, clothing, and furniture in total expenditures actually declined, but spending for education and health increased (Kakwani and Prescott 1999).

**Fiscal austerity and household demand for health and education**

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

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

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

<table>
<thead>
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</tr>
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<td>1.3</td>
<td>1.3</td>
<td>1.4</td>
<td>1.4</td>
<td>1.3</td>
</tr>
<tr>
<td>Thailand</td>
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<td>1.1</td>
<td>1.2</td>
<td>1.4</td>
<td>1.3</td>
</tr>
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<td><strong>Education</strong></td>
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<td></td>
<td></td>
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</tr>
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<td>4.0</td>
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<tr>
<td>Thailand</td>
<td>3.4</td>
<td>3.3</td>
<td>3.1</td>
<td>3.4</td>
<td>4.2</td>
</tr>
</tbody>
</table>

**Note:** Public expenditures include national and local government.

**Source:** Baptist 1999.
made greater use of government scholarship and loan programs.

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

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

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

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

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

Financial crises have large social costs and tend to retard or even reverse gains in poverty reduction for significant periods of time, even in the most successful countries. Policies and institutions that reduce these risks, help prevent financial crises, and minimize their ef-
ffects when they do occur can help smooth the
growth process and maximize the positive ef-
cfects of growth on poverty alleviation (World
Bank 1999a; Ferreira, Prennushi, and
Ravallion 1999; Lustig 1999). Realizing the
long-term benefits of openness, reducing pov-
erty over the long run and avoiding tempo-
rary setbacks in poverty reduction requires
appropriate national and international poli-
cies. These policies must minimize the risks
of external volatility and improve the capac-
ity to manage it at both levels. Safety nets are
part of any broad-based strategy for limiting
the impact of crises and negative shocks on
poverty.

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

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

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

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

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

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

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

Notes
1. Easterly and others (1993); Lutz (1994); Mendoza (1994); Hausmann and Gavin (1995); Spatafora and Warner (1995); Deaton and Miller (1995); Collier and Gunning (1996); Guillaumont, Jeanneney, and Brun (1999); Lundberg and Squire (1999). The evidence concerns GDP and output growth and does not account for the direct real income growth that results from increased purchasing power on international markets.
2. Deaton and Miller (1995) suggest that in countries that are marginal producers of commodities, where labor accounts for a significant share of costs, poverty itself may explain why real commodity prices do not increase in the long run. These prices cannot rise as long as there are unlimited supplies of labor at the subsistence wage. Long-term marginal costs are set by poverty in tropical countries, and commodity trade cannot contribute to reducing it. Incentives for technical progress are weak, and even when progress occurs it tends to make prices fall while real wages remain at the subsistence level.
3. The headcount index is the proportion of individuals in the population whose income or consumption expenditures fall below the poverty line.
4. The elasticity for other measures of poverty, such as the poverty gap, are usually higher. See Lipton and Ravallion (1995).
5. For a lower-end Gini index of 0.25, the elasticity would be −3.3. It is −1.82 for a higher index of 0.59 (Ravallion 1997).
6. Aizenman and Marion (1999) find similar results.
7. This result holds under risk neutrality, but it also requires some degree of imperfect competition (Caballero 1991).
8. The authors also find that foreign aid and good policies can offset this vulnerability.
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9. This finding is contrary to earlier findings by McBean (1966) that export instability has no effect on growth.

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

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

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

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

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

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

16. There was a shift from rural nonagricultural to agricultural jobs. Rural employment increased from 56.05 to 57.37 million, while agricultural employment increased from 34.8 to 39.4 million.

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

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

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

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

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