Financial Crises, Poverty, and Income Distribution

Emanuele Baldacci, Luiz de Mello, and Gabriela Inchauste

How do financial crises affect income distribution and the poor? A recent IMF study shows that poverty rises and, in some cases, so does inequality—underscoring the need for adequate and flexible safety nets, ideally in place before crises strike.

Much of the debate surrounding globalization and the poor centers on what happens to the poor when average income rises during periods of economic growth. The consensus view is that the poor become better off. But what happens to the poor during economic downturns triggered by financial crises? The conventional wisdom is that they not only become worse off but that they suffer disproportionately to the nonpoor. Is this actually the case?

This issue is important because we know that developing and transition economies are especially prone to financial crises. Crises are expected to deepen poverty and worsen income inequality in a number of ways:

**Weaker economic activity.** A financial crisis can cause workers' earnings to fall as jobs are lost in the formal sector, demand for services provided by the informal sector declines, and working hours and real wages are cut. When formal sector workers who have lost their jobs enter the informal sector, they put additional pressure on informal labor markets.

**Relative price changes.** A financial crisis typically involves a large currency depreciation, which changes relative prices. For example, the price of tradables rises relative to nontradables, causing earnings of those employed in the nontraded goods sector to fall. At the same time, increased export demand boosts employment and earnings in the sectors producing the exports. The currency depreciation may also affect consumer prices, and the higher cost of imported food hurts poor individuals and households that spend much of their income on food.

**Fiscal retrenchment.** Governments often respond to crises by tightening the monetary and fiscal stances, often leading to cuts in public outlays on social programs, transfers to households, and wages and salaries.

How exactly do these channels work? What is the magnitude of the impact of financial crises on the poor and income distribution? And what are the characteristics of poverty and inequality that policymakers should take into account when they formulate responses to crises? To explore these questions, we looked at the relationship between financial crises and poverty across countries and then checked these results against what actually happened in Mexico after the financial...
crisis that followed the peso's crash in December 1994. This article examines our findings and the implications for policymakers.

The toll of financial crises

The first part of our study looked at what happened to a wide variety of countries—mostly developing countries—during financial crises that struck between 1960 and 1998. We defined financial crises in terms of currency crashes, using Jeffrey Frankel and Andrew Rose's definition of currency crashes "as a nominal depreciation of the currency of at least 25 percent that is also a 10 percent increase in the rate of depreciation." Here, we were most interested in precrisis and postcrisis average changes in indicators of poverty and income distribution indicators. The results were then compared with those of a control group comprising major industrial countries that had not experienced a crisis during this period. Despite the differences between industrial and developing countries, this is a suitable control group because the main channels through which crises affect poverty (such as income losses and inflation) are equivalent in both groups. Altogether, our sample included 65 crisis episodes.

Our findings show that financial crises go hand in hand with sizable changes in a number of macroeconomic variables. For example, inflation increases in the crisis year by nearly 62 percent relative to the precrisis year. The rate of formal unemployment rises by 1.1 percent in crisis years relative to precrisis years. GDP per capita rises by nearly 1 percent relative to precrisis years. The growth in per capita GDP can be explained by the fact that a currency depreciation may be expansionary, particularly if the economy had been in a recession because of, for example, high interest rates put in place to defend a currency peg. Also, the economy may recover from the exchange rate depreciation during the year in which the crisis episode takes place, therefore leading to no average income losses in the crisis year relative to the precrisis year. Government spending on education and health care also declines slightly in relation to GDP.

Not surprisingly, we also find that financial crises deepen poverty and income inequality. A fall in GDP per capita in the wake of a financial crisis is associated with a deterioration in income distribution and an increase in poverty. As a crisis causes a country's average income to decline, growing income inequality results from a more-than-proportional fall in the income share of the lowest income quintiles of the population and an increase in the income share of the richest one-fifth. Households in the lowest and second lowest quintiles are most likely to have incomes below the poverty line; thus, a fall in their incomes is more closely associated with an increase in poverty than is a decline in the incomes of higher-income quintile households.

But the main losers are not the poorest (lowest income quintile), who might be finding income in informal sector activities, but those in the second income quintile. Rising inflation is associated with an increase in the income share of middle-income groups and with a fall in the income share of the highest quintile. This can be attributed to the indexation of interest-bearing assets held by the middle class.

Cutbacks in government spending on education, health care, and social security programs—the main ways tighter fiscal policy affects the poor—are associated with falling incomes for the poorest groups. Poverty seems to be particularly sensitive to a decrease in government spending on health care after a financial crisis.

Table 1: Hard hit
Following the Mexican financial crisis of 1994-95, the authorities tightened fiscal policy, which included some cuts in education and health spending.
Mexico's 1994-95 crisis

How do these findings correlate with the actual experience of a country that underwent a financial crisis? A good case study is Mexico, which was hit particularly hard by the financial crisis of 1994-95. Following the nearly 47 percent nominal depreciation of the peso in the year to December 1995, consumer prices soared 52 percent over the course of that year, real GDP fell by more than 6 percent, and open unemployment doubled to 7.4 percent (Table 1). At the same time, the authorities tightened fiscal policy, which included some cuts in health and education spending. Mexico is a good candidate for our study because it had a

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Real GDP growth</td>
<td>4.4</td>
<td>-6.2</td>
<td>5.2</td>
<td>7.0</td>
</tr>
<tr>
<td>Consumer prices (end of period)</td>
<td>7.0</td>
<td>52.0</td>
<td>27.7</td>
<td>15.7</td>
</tr>
<tr>
<td>Consumer prices (average)</td>
<td>7.1</td>
<td>35.0</td>
<td>34.4</td>
<td>20.6</td>
</tr>
<tr>
<td>Real effective exchange rate (average, depreciation-</td>
<td>-3.8</td>
<td>-33.2</td>
<td>13.0</td>
<td>17.3</td>
</tr>
<tr>
<td>Nominal exchange rate (average, depreciation-</td>
<td>-7.7</td>
<td>-47.4</td>
<td>15.6</td>
<td>4.0</td>
</tr>
<tr>
<td>Total expenditures and net lending</td>
<td>23.3</td>
<td>23.0</td>
<td>22.8</td>
<td>23.7</td>
</tr>
<tr>
<td>Education</td>
<td>3.9</td>
<td>3.7</td>
<td>3.7</td>
<td>3.7</td>
</tr>
<tr>
<td>Health</td>
<td>3.6</td>
<td>3.5</td>
<td>3.3</td>
<td>3.7</td>
</tr>
</tbody>
</table>

Table 2: Beyond the poverty rate

More people became poorer as a result of the Mexican crisis, but inequality declined slightly.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Poverty</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poverty rate</td>
<td>12.7</td>
<td>10.6</td>
<td>16.9</td>
<td>59.9</td>
</tr>
<tr>
<td>Poverty gap</td>
<td>30.3</td>
<td>25.8</td>
<td>28.8</td>
<td>11.7</td>
</tr>
<tr>
<td>Shares in total expenditures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poorest 20 percent</td>
<td>2.8</td>
<td>3.0</td>
<td>3.3</td>
<td>10.0</td>
</tr>
<tr>
<td>Richest 20 percent</td>
<td>62.8</td>
<td>61.9</td>
<td>60.5</td>
<td>-2.2</td>
</tr>
<tr>
<td>Gini coefficient</td>
<td>52.7</td>
<td>51.6</td>
<td>50.2</td>
<td>-2.7</td>
</tr>
</tbody>
</table>


1Poverty is measured as consumption relative to a basic basket as defined by the Instituto Nacional de Estadística, Geografía e Informática (INEGI) in 1992.

2The Gini coefficient is a measure of inequality, 100 being perfect inequality and 0 being perfect equality.

Mexico's 1994-95 crisis

How do these findings correlate with the actual experience of a country that underwent a financial crisis? A good case study is Mexico, which was hit particularly hard by the financial crisis of 1994-95. Following the nearly 47 percent nominal depreciation of the peso in the year to December 1995, consumer prices soared 52 percent over the course of that year, real GDP fell by more than 6 percent, and open unemployment doubled to 7.4 percent (Table 1). At the same time, the authorities tightened fiscal policy, which included some cuts in health and education spending. Mexico is a good candidate for our study because it had a
severe financial crisis and high-quality household data are available both before and after the crisis. We included the micro-level analysis to complement the cross-country study, which does not allow for a more in-depth analysis of the impact of crises on different population groups.

Our study was essentially aimed at estimating the probability of being poor before and in the wake of the 1994-95 crisis. To do this, we drew on data from the 1992, 1994, and 1996 national income and expenditure surveys (ENIGH) (see Table 2). Our study goes one step further than earlier studies on the impact of the Mexican crisis on poverty and income distribution by using a survey that is representative of households in both urban and rural areas, where poverty is concentrated. Moreover, expenditure data are a better proxy for permanent income than income data in calculating poverty lines.

Our findings show that average monthly household income measured in 1994 prices fell by 31 percent between 1994 and 1996, while household consumption dropped 25 percent. The poverty rate spiked to nearly 17 percent of the population in 1996, from nearly 11 percent in 1994, reversing the gains made in 1992-94.

Despite the general trend toward higher poverty rates, households that were already poor before the crisis were not necessarily hit hardest. In 1992, 1994, and 1996, the probability of being poor was higher for larger households, households headed by less educated individuals, the self-employed, farmers, and those living in rural areas, the southern states, and the Yucatán peninsula, which is relatively more rural and less integrated into the formal economy than the central and northern regions of Mexico. The poverty rate rose most rapidly after the 1994-95 financial crisis for households headed by single parents, individuals with middle-school or high-school educations, pensioners, the self-employed, and wage earners. There is some evidence that homeowners were protected against poverty once the crisis hit, because they did not need to spend any income on rent. In contrast, other sources of income, including labor income, fell during the financial crises.

The risk of becoming poor after the crisis increased disproportionately for households in urban areas and the Yucatán peninsula, as well as for households headed by either very young or very old individuals. The crisis hit urban households harder than rural households, despite higher poverty rates in rural areas—possibly because higher unemployment and soaring inflation had a stronger impact on the urban poor's living conditions. The rural poor were less affected partly because they are largely outside the formal sector and depend on their own food production, while those living in urban areas are more dependent on the formal economy. In particular, the probability of being poor increased for households headed by wage earners because of the fall in real wages and benefits. The higher poverty rates among the very young and old could be pointing to the particular vulnerability of those groups.

Moreover, the poverty gap—the difference between household spending and the poverty line as a percentage of the poverty line—rose in 1994-96, although the increase was not enough to reverse the gains made in 1992-94. The gap increased relatively more for single-parent and single-person households, and households headed by individuals with no schooling, those older than 75 years, and those living in the Yucatán peninsula.

Transfers kept only a slightly larger share of the population out of poverty in 1996 than in 1994. The large increase in the number of poor would not have been very different in the absence of transfers. Moreover, transfers did not target vulnerable groups more effectively after the crisis. Existing public sector programs did not prevent declining consumption for certain population groups that were already among the most vulnerable in the precrisis period.

Our findings show that average monthly household income measured in 1994 prices fell by 31 percent between 1994 and 1996, while household consumption dropped 25 percent. The poverty rate spiked to nearly 17 percent of the population in 1996, from nearly 11 percent in 1994, reversing the gains made in 1992-94.

Despite the general trend toward higher poverty rates, households that were already poor before the crisis were not necessarily hit hardest. In 1992, 1994, and 1996, the probability of being poor was higher for larger households, households headed by less educated individuals, the self-employed, farmers, and those living in rural areas, the southern states, and the Yucatán peninsula, which is relatively more rural and less integrated into the formal economy than the central and northern regions of Mexico. The poverty rate rose most rapidly after the 1994-95 financial crisis for households headed by single parents, individuals with middle-school or high-school educations, pensioners, the self-employed, and wage earners. There is some evidence that homeowners were protected against poverty once the crisis hit, because they did not need to spend any income on rent. In contrast, other sources of income, including labor income, fell during the financial crises.

The risk of becoming poor after the crisis increased disproportionately for households in urban areas and the Yucatán peninsula, as well as for households headed by either very young or very old individuals. The crisis hit urban households harder than rural households, despite higher poverty rates in rural areas—possibly because higher unemployment and soaring inflation had a stronger impact on the urban poor's living conditions. The rural poor were less affected partly because they are largely outside the formal sector and depend on their own food production, while those living in urban areas are more dependent on the formal economy. In particular, the probability of being poor increased for households headed by wage earners because of the fall in real wages and benefits. The higher poverty rates among the very young and old could be pointing to the particular vulnerability of those groups.

Moreover, the poverty gap—the difference between household spending and the poverty line as a percentage of the poverty line—rose in 1994-96, although the increase was not enough to reverse the gains made in 1992-94. The gap increased relatively more for single-parent and single-person households, and households headed by individuals with no schooling, those older than 75 years, and those living in the Yucatán peninsula.

Transfers kept only a slightly larger share of the population out of poverty in 1996 than in 1994. The large increase in the number of poor would not have been very different in the absence of transfers. Moreover, transfers did not target vulnerable groups more effectively after the crisis. Existing public sector programs did not prevent declining consumption for certain population groups that were already among the most vulnerable in the precrisis period.
How about income distribution? Unlike the cross-country results, we found a significant reduction in differences between the upper and lower quintiles. The income and expenditure shares of the poorest one-fifth of the Mexican population rose by 10 percent between 1994 and 1996. At the same time, the income and expenditure shares of the richest one-fifth fell by 2 percent (Table 2), partly because of a disproportionate fall in the income of the richest one-tenth of the population compared with the precrisis period. Average wages for this group fell by nearly 41 percent, compared with an average drop in wages of 34 percent. Despite the growing share in total income of the poorest one-fifth of the population, it should be noted that their monthly expenditures fell in absolute terms between 1994 and 1996.

Adequate social safety nets

Given that both our cross-country and Mexico studies confirm that poverty increases in the wake of financial crises, where should policymakers concentrate their efforts? First, they should focus on containing inflation while keeping unemployment low. Inflation is especially bad for the poor because it cuts into their real disposable income. And the poor are less able to keep up their consumption levels by dipping into their savings because they have few financial assets. Policies that aim for balanced economic growth and low inflation reduce the risk of crisis and, if a crisis does strike, allow for a faster return to macroeconomic stability. Crisis prevention tends to be pro-poor. The main challenge once a crisis hits is to choose a policy mix that restores macroeconomic equilibrium while minimizing the impact on the most vulnerable social groups. For example, labor policies and workfare programs can be used to counter the effects of unemployment on the poor while providing adequate incentives for labor force participation (for example, by introducing employment vouchers that reduce the cost of labor or by providing professional training to the unemployed).

Second, policymakers should focus on erecting adequate social safety nets and protecting the poor from cuts in special social programs.

Pro-poor spending should be protected in the wake of a financial crisis.

Protecting social spending from cuts ensures the continuity of development policies but often does not ensure short-term social protection through social safety nets that could prevent people from falling into poverty. This may be the case particularly when social spending is poorly targeted.

Social safety nets should be put in place before a crisis and set up as permanent institutions that can be deployed as needed. Medium-term planning is crucial here, because setting up safety nets takes time and requires that the government be able to react on short notice. Nevertheless, social safety nets should be flexible so that they can adjust to changes in the number and characteristics of the poor when the economy is hit by a shock, such as a financial crisis. The lack of safety nets for the urban poor was particularly clear during the Mexican crisis.

Safety nets should take into account the poverty risks of different population groups, effectively targeting those most vulnerable. Because the poor often work in the informal sector, policies targeting this group should be designed differently from programs that aim to help vulnerable groups employed in the formal sector.

As Mexico's experience has shown, geographical targeting is a useful feature in designing safety nets and was a key feature of the government's Progresa antipoverty program, introduced after the crisis. And, because postcrisis poverty levels rise more rapidly in households headed by the youngest and oldest individuals, there is a need for policies that promote employment of young people—for example, through self-selecting public works schemes—and provide adequate protection for the elderly, guarding social benefits against price increases.
This article is based on IMF Working Paper 02/4, "Financial Crises, Poverty, and Income Distribution," by the same authors (Washington, 2002).

Emanuele Baldacci and Gabriele Inchauste are both Economists, and Luiz de Mello is a Senior Economist, in the IMF's Fiscal Affairs Department.