NORA LUSTIG

Presidential Address

Crises and the Poor: Socially Responsible Macroeconomics

Between 1980 and 1998, Latin America and the Caribbean experienced more than forty episodes in which gross domestic product (GDP) fell by 4 percent or more. Poverty increased sharply during these episodes. Despite this, most countries in the region do not have appropriate instruments to shield poor people (and the near-poor) from the brunt of macroeconomic shocks. Improvising to protect the poor in the heat of a crisis is a recurrent phenomenon. Furthermore, evidence shows that spending targeted to the poor is procyclical—even more so than the rest of the budget.

That economic crises cause poverty to rise should not come as a surprise. What has received less emphasis, however, is that crises can lock poor people—and their children—in long-term poverty traps. During crises, poor people can face an irreversible reduction of their assets, including their human capital. Because economic crises are a classic case of an aggregate shock, poor people cannot resort to self-insurance, informal insurance, or the credit market to smooth consumption effectively. In addition, poor people are not likely to be part of the formal social insurance system because a large portion of them are self-employed or they work as wage earners either for microenterprises and small firms that cannot afford to participate in contributory systems or for ruthless employers

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who refuse to contribute their share. Hysteresis caused by the impact of crises on poor people's assets and their imperfect ability to protect themselves from aggregate shocks are two reasons why publicly funded safety nets should be part of the socially responsible policy response to a crisis. The potential distributive implications of macroeconomic measures should be assessed to determine where these safety nets will be most needed, and spending which targets the poor should be protected from budget cuts to the largest possible extent.

Macroeconomic Crises: A Common Feature of Latin America

Macroeconomic crises have been a recurrent phenomenon in Latin America and the Caribbean for the last twenty years.[1] The 1980s were marked by the debt crisis. The impact on economic and social development was so great that the 1980s came to be known as the lost decade. Although the 1990s have been better in comparison, twenty-four countries have experienced at least one year in which income per head fell. Altogether the period 1980–98 saw over forty episodes in which per capita GDP fell by 4 percent or more.

With the exception of wars, macroeconomic crises are the single most important cause of large increases in income (or consumption) poverty. They are frequently accompanied by rising income inequality, as well. Social indicators such as infant mortality rates and average years of schooling continue to improve but at a much slower pace. Fiscal austerity measures in response to macroeconomic crises have tended to ignore the impact on poverty. Even when governments try to limit the impact on the poor, their efforts are frustrated by the lack of institutional capacity to implement specific programs in the heat of a crisis and by severe information problems. Although macroeconomic crises have been a recurring hazard in the region, few countries have institutionalized income-smoothing safety nets.

From the perspective of social risk management, one important characteristic of macroeconomic crises is that as with most covariate shocks, self-insurance, informal insurance, and market-based smoothing mechanisms such as credit are likely to be less effective, particularly for poor

1. Macroeconomic crises here include the array of crises that affect the entire economy, such as financial crises, liquidity crises, currency crises, debt crises, and terms-of-trade shocks.

people. With covariate shocks, both the value of assets held by the poor and the incomes of their associates in informal insurance arrangements fall, precluding the use of either as a safety net. Based on a numerical simulation, one study shows how the covariance between asset value and income when people are liquidity constrained reduces the effectiveness of assets as a buffer for consumption.[2] With a correlation of 0.5, the risk premium that is recovered by savings equals only 16 percent.[3] Furthermore, formal credit is not likely to be available to the poor, particularly when times are bleak.

Poverty, Inequality, and Social Indicators

Macroeconomic downturns and rising poverty are strongly linked. It has been estimated that for every percentage point decline in growth, poverty rises on average by close to 2 percent.[4] Had Latin America reached the levels of macroeconomic stability achieved by industrial economies, roughly 25 percent of poor people in the region would have been lifted out of poverty.[5] Because crises in Latin America and the Caribbean tend to be accompanied by increases in inequality, economic contraction tends to disproportionately reverse previous gains in poverty reduction. Each one percent decline in per capita income during a recession episode in the 1980s reversed the reduction in poverty that had been achieved in the 1970s via an increase of 3.7 percent in income per head for urban areas and 2 percent for rural areas.[6] Crises also ratchet up inequality, since subsequent growth does not tend to eliminate the higher level of inequality generated during a severe economic downturn.

Table 1 shows the evolution of poverty (measured by the head-count ratio) during periods of crises in a number of Latin American countries.[7]

2. Based on a study using data for Ethiopia, Dercon (1999) finds some evidence that poor people resist using assets to smooth consumption during aggregate shocks. The poor cut consumption to dangerously low levels rather than sell their assets when prices have collapsed.

3. The benchmark is given by the income risk only (no assets).

4. Fields (1991). Morley (1994) finds a similar result.

5. IDB (1995).

6. De Janvry and Sadoulet (forthcoming).

7. Data for Argentina refer to the Greater Buenos Aires area. No data are available for other urban centers or rural areas.

TABLE 1. Poverty and Crisis
Poverty/head count ratio[a]

	Pre-crisis		Crisis			Post-crisis			Post-crisis per capita GDP[b]	
Country	Year	Ratio	Year	Ratio	Change[b]	Year	Ratio	Change[b]	vs. year of crisis	vs. pre-crisis
Argentina (Greater Buenos Aires)	1980	10.1	1985	20.6	+	1987	25.2	+	+	–
Argentina (Greater Buenos Aires)	1987	25.2	1989	34.6	+	1990	35.0	+	+	–
Argentina (Greater Buenos Aires)	1993	16.9	1995	24.8	+	1997	26.3	+	+	+
Brazil (All metropolitan areas)	1989	27.9	1990	28.9	+	n.a.	n.a.	n.a.	n.a.	n.a.
Chile (Metropolitan areas)[c]	1980	40.3	1982	n.a.	n.a.	1987	48.60	+	+	–
Costa Rica[d]	1981	29.6	1982	32.3	+	1983	29.7	+	+	–
Dominican Republic[d]	1984	37.3	1985	n.a.	n.a.	1986	38.2	+	+	+
Dominican Republic[d]	1989	35.7	1990	n.a.	n.a.	1992	39.5	+	+	–
Guatemala[c]	1980	65.0	1982	n.a.	n.a.	1986	68.0	+	–	–
Mexico	1984	28.5	1986	n.a.	n.a.	1989	32.6	+	+	+
Mexico[c]	1994	36.0	1995	n.a.	n.a.	1996	43.0	+	+	–
Panama[d]	1980	40.6	1983	n.a.	n.a.	1986	44.0	+	–	–
Panama[d]	1986	44.0	1988	n.a.	n.a.	1989	50.0	+	–	–
Peru[c]	1979	46.0	1983	n.a.	n.a.	1986	52.0	+	+	–
Peru (Urban)[d]	1985	32.2	1988	n.a.	n.a.	1991	50.0	+	–	–
Uruguay[c]	1981	11.0	1982	n.a.	n.a.	1986	15.0	+	–	–
Venezuela[c]	1982	25.7	1983	32.7	+	1985	34.8	+	–	–
Venezuela[c]	1988	40.0	1989	44.4	+	1990	41.5	+	+	–
Venezuela[c]	1993	41.4	1994	53.6	+	1996	48.2	+	–	–

Sources: For Argentina: data from Instituto Nacional de Estadística y Censos (National Institute of Statistics and Censuses); for Brazil: Barros, Mendonça, and Rocha (1995); for Chile: Lustig (1995, table 1.1); for Costa Rica, Dominican Republic, and Panama: Londoño and Székely (1997); for Guatemala and Uruguay: ECLAC (1996); for Mexico 1986: Lustig and Székely (1998); for Mexico 1995: ECLAC (1999); for Peru 1983: ECLAC (1986; 1989); for Peru 1988: Escobal, Saavedra, and Torero (1998); for Venezuela: Ruprah and Marcano (1998). Per capita real GDP data from World Bank, *World Development Indicators* (Washington, 2000).

a. Head count based on individual per capita household income unless otherwise noted.
b. + means an increase; – means a decline; n.a. not available.
c. Based on household.
d. Based on consumption.

In all cases, the incidence of poverty increased at the onset of the crisis, and poverty was higher several years later than it had been before the recession (between one and five years, depending on the country). In Costa Rica, the Dominican Republic, Guatemala, Mexico, Panama, and Venezuela, poverty and inequality increased during the 1980s, as it did in the urban areas of Argentina, Chile, and Peru. Urban poverty in Argentina and national levels of poverty in Mexico rose sharply during the 1995 crisis.

TABLE 2. Inequality and Crisis
Gini coefficient [a]

Country	Pre-crisis		Crisis			Post-crisis			Post-crisis per capita GDP [b]	
	Year	Gini	Year	Gini	Change [b]	Year	Gini	Change [b]	vs. year of crisis	vs. pre-crisis
Argentina (Greater Buenos Aires)	1983	0.40	1985	0.40	=	1988	0.45	+	+	−
Argentina (Greater Buenos Aires)	1986	0.44	1989	0.53	+	1992	0.45	+	+	+
Argentina (Greater Buenos Aires)[c]	1994	0.36	1995	n.a.	n.a.	1996	0.38	+	+	−
Brazil	1989	0.61	1990	0.61	=	1992	0.59	−	+	−
Chile (Santiago)	1980	0.53	1982	0.54	+	1984	0.55	+	−	−
Costa Rica	1980	0.40	1982	0.42	+	1984	0.38	−	+	−
Dominican Republic[c]	1984	0.42	1985	n.a.	n.a.	1986	0.51	+	+	+
Dominican Republic	1989	0.51	1990	n.a.	n.a.	1992	0.52	+	+	−
Guatemala[c]	1981	0.48	1982	n.a.	n.a.	1986	0.53	+	−	−
Mexico	1977[c]	0.50	1982	n.a.	n.a.	1984	0.51	+	−	−
Mexico	1984	0.47	1986	n.a.	n.a.	1989	0.53	+	+	+
Mexico	1994	0.48	1995	n.a.	n.a.	1996	0.46	−	+	−
Panama[d]	1980	0.48	1983	n.a.	n.a.	1986	0.52	+	−	−
Panama[d]	1986	0.52	1988	n.a.	n.a.	1989	0.57	+	−	−
Peru (Lima)	1981	0.34	1983	n.a.	n.a.	1984	0.39	+	+	−
Peru (Lima)	1987	0.39	1988	n.a.	n.a.	1989	0.41	+	−	−
Uruguay (Urban)	1981	0.43	1982	n.a.	n.a.	1983	0.40	−	−	−
Venezuela	1981	0.44	1983	0.45	+	1985	0.48	+	−	−
Venezuela	1987	0.47	1989	0.46	−	1991	0.46	−	+	+
Venezuela	1992	0.45	1994	0.50	+	1995	0.47	+	+	−

Sources: For Argentina 1985; Fiszbein et al. (1993); for Argentina 1989: World Bank (1995); for Argentina 1995: Altimir and Becaria (1997); for Brazil, Dominican Republic 1990, Panama, and Venezuela: Londoño and Székely (1997); for Chile, Costa Rica, Guatemala, and Peru: Morley (1994); for Dominican Republic 1985: Aristy and Dauhajre (1998); for Mexico 1982 and Uruguay: Deininger and Squire (1996); for Mexico 1986: Lustig and Székely (1998); for Mexico 1995: INEGI (1992; 1994; 1996). Per capita real GDP data from World Bank, *World Development Indicators* (Washington, 2000).

a. Head count based on individual per capita household income unless otherwise noted.
b. + means an increase; − means a decline; = means no change; n.a. not available.
c. Based on household.
d. Based on consumption.

Table 2 shows that inequality (measured by the Gini coefficient) rose at the onset of the crisis in five out of eight episodes, and in fifteen out of twenty it was higher after the crisis than before.[8] The poorest quintile of the population was not always hurt disproportionately. In general, the share of the middle ranges fell the most. In contrast, in the majority of countries, the income share of the top 10 percent increased, sometimes substantially.[9]

8. Some of the Gini coefficients refer to urban areas only, however.
9. See Lustig (1995, pp. 4–5).

Although social indicators such as infant mortality rates continued to improve in Latin America during the 1980s, they did so at a slower pace than in the previous decade. Health indicators that are more sensitive to consumption or income downturns worsened, however. In Chile, the data on low birth weight infants and undernourished children follow the trends in economic conditions, after a systematic improvement in both indicators in the 1970s. In Mexico, infant and preschool mortality caused by nutritional deficiency rose in the 1980s, reversing the trend from the previous decade. In Argentina, daily per capita intake of protein declined by 3.8 percent in 1995, and in Venezuela it decreased by 2.9 percent in 1994.[10]

School attendance and literacy also took a hit. In Mexico, the proportion of each graduating class who entered the subsequent educational level declined after 1982, particularly for junior high and high school. The percentage of children entering primary school as a ratio of the total number of children in the relevant age cohort declined. Although dropout rates from primary school continued to decline, further disaggregation shows that dropout rates improved for urban children only; in rural areas the dropout rate rose by 40 percent. In Venezuela, the literacy rate for people aged 15 to 19 fell in the 1980s. Gross primary enrollment slowed down in Argentina and Mexico in 1995.

In Mexico, the labor force participation of twelve- to fourteen-year-olds in households in the bottom quintile increased by 4.2 percentage points, reaching 19.8 percent between 1994 and 1996, whereas the participation rate of children in nonpoor households remained constant, at around 6 percent.[11] These trends also imply that investment in human capital probably became more skewed, making the observed increase in inequality more entrenched.

Transient and Persistent Poverty

Fluctuations in income result in relatively high levels of transient poverty. However, a high degree of income risk can also be a cause of persistent

10. Lustig (1995).

11. INEGI, "Encuesta nacional de ingresos y gastos de los hogares" (National Survey of Household Income and Expenses) (1994; 1996).

or chronic poverty because of the irreversible impact that income downturns may have on the human capital owned by the poor.[12]

Recent research has found a link between macroeconomic downturns and investments in education. For example, the average increase in years of schooling for eighteen Latin American countries slowed from 1.9 years in the 1950s through the 1970s to 1.2 years in the 1970s and 1980s.[13] More specifically, improvements in schooling attainment start to decline for cohorts who entered the high school system between 1975 and 1986; this period roughly coincides with the debt crisis in the region. Worsening macroeconomic conditions (namely, short-term GDP shocks, volatility, and adverse trade shocks) explain 80 percent of the decline in the rate of improvement of schooling attainment. Evidence from Mexico shows the pervasive effects of volatility and macroeconomic downturns on schooling attainment. The negative income effect of falling income tends to outweigh the positive price effect of lower opportunity cost, resulting in worsening schooling indicators in times of economic downturns.[14] Simulation results indicate that (gross) secondary enrollment in Mexico would have been 11 percentage points higher in 1991 if the economy had grown during the 1980s at half the rate of the 1970s, instead of stagnating.[15]

That shocks have adverse effects on poor households' investments in health and nutrition has been documented in several studies using microdata. A study conducted in rural India, for example, finds that negative rainfall shocks are associated with higher child mortality rates in households that do not own land, but not in landowning households. In Bangladesh, body size is notably lower in households that are unable to borrow or insure against income fluctuations. And in South India, the health of children, especially girls, suffers during the time leading up to a major harvest because of the inability of households to smooth consumption.[16]

Because shocks to household income affect investment in schooling, nutrition, and health, they can potentially reduce the human capital of the

12. See, for example, the studies by Jalan and Ravallion (1998) and Gaiha and Deolalikar (1993) for India.

13. Behrman, Duryea, and Székely (1999).

14. Binder (1996).

15. Author's calculations based on table 11 of Behrman, Duryea, and Székely (1999). The economy's average growth rate for the 1982–88 period was around zero.

16. Jacoby and Skoufias (1997); Rose (1994); Foster (1995); Behrman (1988). Jacoby and Skoufias (1997) find that in South India, children are often taken out of school in response to adverse shocks. See also Morduch (1995).

poor, which hinders the ability of the poor to grow out of poverty. Furthermore, an irreversible impact on the human capital of the poor is not just bad for the poor, but it can affect the overall performance of the economy in the medium run. This is particularly the case when nutrition and educational attainments suffer during recessions. This is an important part of the economic rationale for publicly funded safety nets.

The evidence presented above should suffice to establish that crisis avoidance and adequate crisis response should be high priorities in social risk management. How to avoid crisis is a topic that has received plenty of attention in the last few years, and little could be added here to the ongoing debate. The focus here is how to implement a pro-poor crisis response.

Pro-poor Crisis Response

When macroeconomic crises do occur, responses can be more (or less) sensitive to the plight of the poor. A poverty-sensitive response should help poor people maintain adequate consumption levels, ensure that the poor continue to have access to basic social services, prevent irreversible impacts on human capital, and prevent dysfunctional behavioral effects such as engaging in criminal activities, prostitution, or abusive child labor practices. The next sections show that policies can make a difference, focusing on three areas: macroeconomic policy mix, the composition of fiscal adjustment, and safety nets.

Macroeconomic Policy Mix

The most important aspect of macroeconomic policy during periods of crisis, both for the poor and the nonpoor, is to avoid situations of both underkill and overkill.[17] Underkills occur when policymakers, often driven by political considerations, postpone adjustment and stabilization measures because they are painful—but by doing so, they end up in a situation that is far worse. Peru in the 1980s is an extreme case. The Peruvian government refused to implement an adjustment program and instead announced a cap on external debt payments (a de facto unilateral moratorium) in July 1985 equal to 10 percent of exports. Peru did well for a while, but the

17. See discussion in World Bank (2000b, chapter 9). For a discussion of when stabilization policies are contractionary or expansionary in the short run, see Calvo and Végh (1994).

disequilibria continued to mount and in 1988 the economy crashed, with per capita gross national product (GNP) falling by 13.4 percent and real wages by 40.6 percent. Altogether, real wages fell by 67 percent between 1988 and 1990.[18] Failure to make timely corrections is costly to the economy. It is particularly costly to poor people, who in the end are hurt more by the subsequent crisis or hyperinflation than they would have been by timely adjustment or stabilization policies.

Not all problems arise from a failure to adjust to an adverse shock or from unsound macroeconomic policies. In some cases, the policy response errs in the direction of too much fiscal and monetary adjustment, with fiscal and monetary policy becoming more restrictive than necessary to restore equilibrium in the current account or the capital account. Such an overreaction, or overkill, can cause more pain than necessary and even be self-defeating under certain circumstances. An initial overreaction on the fiscal front can lead to a higher fiscal deficit down the road if a larger-than-expected recession results in lower government revenues, defeating the purpose of the initial austerity measures. Overshooting occurs because cautious policymakers often prefer to err on the side of excessive adjustment, given that the converse can be far more devastating.

Although it is often hard to tell whether a policy package is excessively restrictive, the policies implemented in East Asia during the recent crisis appear to have been too restrictive. In Thailand, for example, the tax increase in September 1997 made the ensuing recession worse. In Korea, fiscal policy was initially aimed at making room for the expected costs of bank restructuring. The fiscal target was subsequently relaxed, however, as both the authorities and the international financial institutions recognized that it was unrealistic in light of the larger-than-expected slowdown in growth; seeking to achieve it in the face of worsening economic conditions would have been self-defeating. An overkill can be transitory, but if the recession is protracted, if investment in human and physical capital contracts, and if investment in new technologies is put off, the result can be a lower steady-state level of output when the economy recovers.

The best combination of policies achieves the necessary balance-of-payments adjustment with the smallest decline in output. This best combination depends on the initial conditions in the economy.[19] Would macro-

18. Dornbush and Edwards (1991).
19. See, for example, the discussion by Perry and Lederman (1999).

economic responses to crises that are best for the economy as a whole differ from macroeconomic policies that are best for the poor? Perhaps. Several studies have focused on the impact of alternative stabilization programs on income distribution using computable general equilibrium models; they find that in some cases the poor are hurt the most, while in other cases they are not.[20] All these studies conclude that the impact of adjustment largely depends on the country's initial conditions, on the nature of the shock, and on the characteristics of the adjustment program. A second finding is that the "no policy" adjustment option is worse than any of the alternatives. Finally, different types of poor persons (rural vs. urban) could fare quite differently during the adjustment process.[21]

Conflicts can also emerge between the interests of the poor and the nonpoor, as well as among types of poor persons, when different policy combinations result in different intertemporal outcomes.[22] Even if everybody's income falls in the same proportion, the poor may still have a different ranking from that of the overall economy. Consider the hypothetical example presented in figure 1. A country must choose between several adjustment policies, the main trade-off being that policy package A would result in a smaller decline in output in the short run which would recover to a lower level of output in the medium term, whereas policy package B would produce a sharper decline in the short run with a higher level in the medium run (with everybody's income changing in the same proportion). If we assume a utility function of the form $U = f(c), f'(c) > 0, f''(c) < 0$, the ranking for the poor (defined by low consumption levels) and that for the economy as a whole can be different. In the example in figure 1, the poor prefer the more gradual adjustment, that is, policy package A over policy package B, even though package B is the preferred one for the economy as a whole (and for the nonpoor).

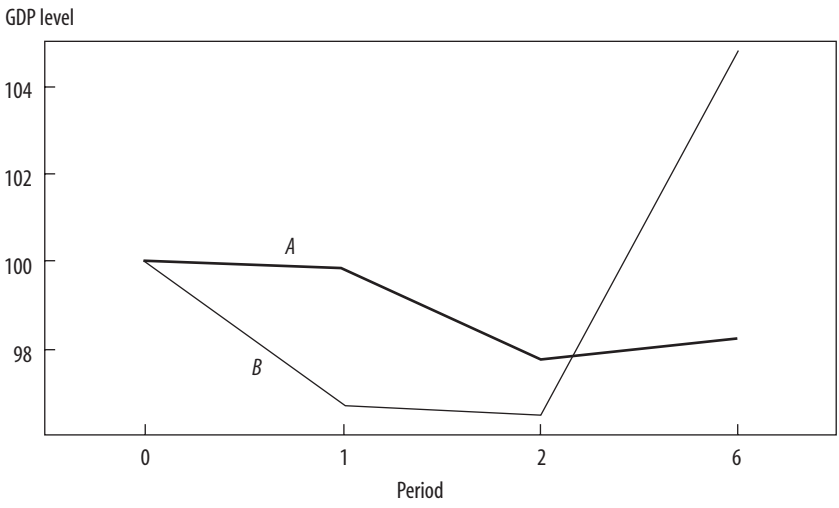
The poor may also have different rankings if one abandons some of the standard assumptions such as homogeneous discount rates and the absence

20. See, for example, Bourguignon and Morrisson (1992); World Bank (1991); Thorbecke (1994); de Janvry, Fargeix, and Sadoulet (1991); Bruno, Ravallion, and Squire (1999).

21. No optimal tool is available to assess the distributive implications of adjustment policies. However, analysts have mainly followed three approaches: the partial-equilibrium approach (Kanbur, 1986); the Social Accounting Matrix/Computable General Equilibrium Approach (Dervis, de Melo, and Robinson, 1982; Thorbecke, 1985; Taylor, 1990; Bourguignon and Morrisson, 1992); and the macro-dynamic models (Rios-Rull, 1994). See IDB (2000) for a synthesis.

22. Throughout this discussion, I am assuming that the poor are credit constrained.

FIGURE 1. Adjustment Rankings without Changes in Income Distribution[a]



	Rankings	
Program	Nonpoor's welfare	Poor's welfare
A	2	1
B	1	2

Source: Author's calculations based on data from de Janvry, Fargeix, and Sadoulet (1991).

a. Welfare is measured in utility terms, and the following utility function (for both rich and poor) was used:

$$U = \sum_i \delta^i [\log(c_i - \bar{c})]$$

The rankings are obtained by maximizing the utility of the corresponding group. There is no consumption smoothing for poor people. Because the nonpoor are able to smooth consumption, their ranking is equivalent to the rankings of the net present value (NPV) for the economy as a whole.

of nonconvexities. This would be the case, for example, if the poor cannot afford to fall below a minimum consumption level without jeopardizing their survival. Finally, the rankings could also be different if one assumes that the poor follow a maximin rule (that is, they choose to maximize their minimum income during adjustment) or the safety principle (that is, they minimize the probability that income falls below a certain level).

The purpose of these examples is not to extract specific policy recommendations, but rather to show how different combinations of macroeconomic policy can result in paths that may be preferable for the economy (and the nonpoor) but not for the poor (or at least not for all of the poor).

That is not to say that whenever a discrepancy arises, pro-poor policymakers should adopt the path that is best for the poor (although circumstances may sometimes warrant that decision). The most important implication here is that if policymakers are worried about the welfare of the poor, they should introduce safety nets to compensate the poor for the costs imposed on them by choosing the optimal path for the economy. In fact, this is precisely the use to which resources from multilateral institutions and donors can be put during an adjustment program. The multilateral organizations could help government finance the compensatory policies. Safety nets should not be an afterthought.

In fact, the 1990s have witnessed progress in incorporating social protection in adjustment programs, especially by multilateral institutions. The explicit protection of pro-poor programs was first introduced in the fiscal adjustments in Argentina and Mexico in 1995 and more recently in Argentina, Bolivia, Brazil, and Venezuela. For example, in Venezuela in 1998, the government agreed to reverse a budget cut to programs that targeted the poor as a result of the recommendation of a multilateral institution. Efforts to address the social dimensions of crises intensified in the wake of the Asian crisis. Intentions to protect pro-poor spending were not always put into practice, however, and some of the spending targeted to poor people was disproportionately procyclical.

The Composition of Fiscal Adjustment: Protecting Pro-poor Spending

How governments raise revenues and cut public (nondebt) spending has important policy implications in terms of who bears the burden of the adjustment process and whether the poor are protected. One particular concern is that spending on primary education and health care and spending on programs that target the poor tend to be cut back along with other government expenditures. This happens because the fiscal adjustment has to be undertaken quickly. Governments face great pressure from a variety of political interest groups at such times. Proportional cuts are easier to implement quickly both in technical terms and in terms of raw politics. However, since poor people do not usually form organized groups, and so lack a political voice, spending cuts on social protection and other programs that benefit the poor often tend to be larger in relative terms.

To design a pro-poor fiscal adjustment, policymakers need to assess the distributional effects of spending programs. A useful tool for this is the

public expenditure review, which analyzes and projects public resources among and within sectors.[23] Programs that are particularly important for poor people—such as basic education, preventive health care, water and sanitation provision, rural infrastructure, slum upgrading, targeted transfers, and safety nets—should be relatively protected from budget cuts. For example, spending on basic education and health care is progressive: the ratio of the benefits of the lowest quintile to those of the highest quintile is, on average, 3.2 for education and 1.7 for health.[24] It is equally important to identify the kind of government spending programs that can be cut without leading to big increases in poverty and inequality, so that spending on programs that primarily benefit the nonpoor can either be slimmed down or postponed during times of fiscal austerity. The major obstacles here are political rather than economic. Cutting middle-class programs and perks to the rich to protect spending on the poor is no easy task. Governments need to win public support for the maintenance and even the expansion of antipoverty programs following macroeconomic shocks.

It may seem obvious that during economic crises governments should protect the spending that benefits the poor and expand the programs that provide safety nets for the poor. Nevertheless, this may not happen in practice. Recent research has found that in Argentina and Mexico, for example, which have experienced recurring macroeconomic shocks since the 1980s, a one percent decline in per capita GDP leads to an estimated three percent decline in targeted public spending per poor person.[25] Another study focusing on the Argentine employment program known as Trabajar found that the program's performance in reaching the poor deteriorated sharply with cuts to its aggregated budget during fiscal austerity programs.[26]

There may be several reasons behind such "antipoor" patterns in fiscal adjustment. In the absence of budgetary guidelines to direct fiscal austerity, governments may opt for proportional cuts to minimize bureaucratic infighting and to ease acceptance by the legislature. Another reason may be that governments lack the instruments to target resources to the poor, and it is difficult to put such instruments in place in the heat of a crisis. Even if the instruments exist, political forces may be such that the resources going to

23. World Bank (1999).
24. Yaqub (1999).
25. Wodon and Hicks (1999).
26. Ravallion (1999).

the poor are cut more than proportionately. In some countries information can be the major constraint: governments may lack reliable records of either their budget or their programs. What can be done to counter these factors?

One way to protect government spending that benefits poor households is for the government and legislature to agree on a ranking of current programs during the budget approval process. As part of the budget appropriations process, government programs could be placed in categories indicating their relative importance. When spending cuts are needed, the order in which they are made would be determined by the priority assigned to each program. Government agencies could be required to provide evaluation reports on social programs to help policymakers identify those with high rates of return that should be protected during a crisis.

If benefits that target the poor are cut for reasons of political economy, a third party, such as the multilateral lending organizations, could play the role of advocate for the poor. They could help governments that are implementing austerity measures design a feasible way to protect programs and spending items that benefit the poor. To some degree, this happened in several countries in the 1990s as mentioned above.

Changes in the incentive system embedded in targeted programs could also facilitate cuts affecting nonpoor beneficiaries during periods of austerity. The argument is as follows. It is often said that for reasons of political economy, some of the benefits of targeted programs have to go to the nonpoor to ensure program sustainability. The same circumstances will presumably act to limit the welfare losses to the nonpoor when cuts are made. One way to avoid this constraint is to design programs with low marginal benefits or high marginal costs to the nonpoor.[27]

Evaluating different types of spending can be difficult when data are poor, which is the case in most developing countries. Efficiency indicators are almost nonexistent, and data on actual spending, as opposed to budgeted amounts, are available only after long lags. An evaluation should use the available intermediate information and try to complement it by finding out whether public resources reach the intended beneficiaries effectively. A social monitoring early response unit, such as the one set up in Indonesia during its recent crisis, can help ensure quick and reliable

27. Ravallion (1999, pp. 13–14).

information for evaluating spending in specific social programs.[28] Where field surveys are infeasible because of budget or time restrictions, recent household surveys should be used in conjunction with survey data to try to determine an efficient, rational allocation of government resources among social programs and safety nets.

Safety Nets

As discussed above, safety nets are important for several reasons. First and foremost, safety nets can play a crucial role in reducing the impact of crises on the poor. Safety nets can help avoid irreversible damage to poor households' human capital. Safety nets can compensate the poor so that their preferred adjustment path coincides with the one that is the most efficient for the overall economy. Safety nets can facilitate the implementation of stabilization and reforms from a political point of view. Distributive conflicts can provoke stalemates, deepen economic crises, or even cause political collapses. Recent work has shown that the combination of weak institutions, including a lack of adequate safety nets, lies at the heart of many growth collapses experienced in the last 25 years.[29] Programs put in place and operating before crises hit (albeit on a smaller scale) are better equipped to protect the target population than ad hoc emergency measures.

At present, most Latin American and Caribbean countries still need to introduce or substantially improve their mechanisms to protect poor people from the brunt of economic crises. While there is a widespread perception that social funds were put in place for precisely that purpose, a closer examination reveals that most social investment funds were more effective at building small-scale social infrastructure than they were at creating employment opportunities for those hurt by the emergency.[30] In fact, most countries in the region lack effective consumption-smoothing safety nets that could serve to protect the poor from output, employment, and price risks associated with systemic adverse shocks.

A recurring problem is that because the institutional mechanisms to protect the poor from the brunt of shocks are not in place beforehand, responses frequently have to rely on improvisation or on programs that

28. See www.smeru.or.id/about.htm.

29. Rodrik (1997).

30. Newman, Jorgensen, and Pradham (1991); also see Lustig (1997); World Bank (2000b, chapter 8).

were designed for purposes and beneficiaries other than those affected by the crisis. Emergency responses to emergency situations often lack the time for the adequate technical analysis necessary both to clarify the socioeconomic profile of groups most vulnerable to the adverse shocks and to evaluate the cost-effectiveness of different social protection options.

Examples of safety nets that work well can be found both inside and outside Latin America.[31] To be effective, safety nets should include a wide range of programs, such as targeted human development programs (THDPs), workfare or public works programs, scholarships for poor children, cash transfers, food-related transfers, food subsidies, social funds, and fee waivers for essential services. Social programs that focus on long-term development, such as THDPs, can also perform a safety net function during economic downturns. Which mix of safety net programs is appropriate will depend on the characteristics of the poor and the vulnerable, the type of crisis, and the government's institutional and administrative capacity.

One set of safety net programs provides a consumption floor and, at the same time, protects the human capital accumulation of the poor or contributes to expanding the social and physical infrastructure for the poor. For example, THDPs that transfer income in cash or in kind to poor households with children can condition the transfers on the household's investment in the human capital of their children (namely, school attendance and health care visits). The income-support component reduces current poverty; ensuring the nutritional and health status of children, as well as their educational attainment, augments their future earning capacity.

In the late 1990s, THDPs were introduced in Brazil, Honduras, and Mexico, and similar programs are currently being implemented or considered in Argentina, Ecuador, and Nicaragua. Of these new programs, Mexico's *Progresa* is the most comprehensive in terms of the targeting and evaluation mechanisms it uses and the range of education, health, and nutrition interventions it provides.[32]

Progresa is currently being thoroughly evaluated, but preliminary results of targeting effectiveness and the impact of the program on school enrollment are encouraging. As of 1998, three-quarters of the 1.9 million poor rural households reached by *Progresa* were in the bottom quintile of

31. See IDB (2000, chapter 5).

32. *Progresa* is an acronym for *Programa de Educación, Salud y Alimentación* (Education, Health, and Feeding Program).

the income distribution. As for education, analysis based on group comparisons of enrollment rates finds that the poor in *Progresa* communities are more likely to enroll their children in school than are the poor in nonbeneficiary communities. This is especially true for children in grades seven through nine, where enrollment rates were 4.9 percentage points higher in communities with the program.[33] For grades three through six, enrollment rates were 2.2 percentage points higher with the program. The continuation rate from primary to secondary school also increased significantly under the program, from an enrollment rate of 43 percent for children who had completed the sixth grade in nonbeneficiary communities to a rate of 55 percent in beneficiary communities. The increase remains significant even after the difference is adjusted for past variations in enrollment rates. *Progresa* has also had an important impact on educational inequality in beneficiary communities. After only one year of program grants, children from poor families attended school more frequently than children from relatively better off families in grades one through eight in all but one grade level, reversing the pattern that existed before the program was implemented.

The safety net contribution of programs such as *Progresa* can be exemplified by the findings of one study. Had *Progresa* existed when the 1995 crisis hit Mexico, the rural poverty gap and the square poverty gap (which gives greater weight to the poverty of the poorest) would have declined by 17 percent and 25 percent, respectively, in the year after the crisis.[34]

Workfare programs can also function as effective safety nets.[35] Open unemployment is highest in the groups with lowest education, implying that unemployment is a cause of poverty. Workfare programs, which offer wages in exchange for work, aim to transfer resources to unemployed and usually unskilled workers, while at the same time minimizing the perverse incentives to work. An important feature of these programs is that if the wage rate offered is low compared to market wages for unskilled workers, they will be self-targeted because the program will appeal only to those workers who have few alternative employment opportunities. Because the reservation wage and the opportunity cost are positively related to skills and living standards, workfare programs are a good way to target unskilled workers. These

33. Schultz (1999).
34. Davis, Handa, and Soto (1999).
35. Lipton and Ravallion (1995).

programs can provide unemployment protection for poor workers in response to aggregate, regional, sectoral, and idiosyncratic shocks. These programs can be even more valuable if they are designed to provide training for unskilled and poor workers and contribute to the social and physical infrastructure of poor areas.[36]

Chile was the first country in Latin America to successfully use workfare programs to target poor unemployed workers and generate employment. The programs were implemented in response to the soaring levels of unemployment following the 1982 recession. At its peak in the 1980s, the various public work programs employed 13 percent of the Chilean labor force. More recently, Argentina introduced intensive workfare programs in response to the 1995 crisis. *Trabajar* and similar programs are funded through payroll taxes that are directed into the *Fondo Nacional de Empleo* (National Employment Fund). The resources are used to build small-scale, labor-intensive public works, including social infrastructure, roads, and small sanitation works. The programs are funded and supervised at the federal level, but the public works schemes are managed by a variety of agencies, including local and state governments and nongovernmental organizations (NGOs). In Mexico, public works projects are financed by allocations from general revenues in the federal government budget and are managed by state and local governments. These programs tend to focus on building rural roads and social infrastructure. In Peru, the social investment fund *Fondo Nacional de Compensación y Desarrollo Social* (National Social Compensation and Development Fund) is used to generate employment that can be quickly adjusted to the situation of local labor markets.

It is often argued that in times of austerity, governments will not be able to maintain, let alone expand, spending on safety nets. The costs of safety nets need not be large, however, even if they reach a large number of beneficiaries. *Progresa* costs about 0.2 percent of Mexican GDP and 1 percent of the total federal budget, and it benefits almost 2 million households. *Trabajar*, the Argentine workfare program, costs about a quarter of one percent of GDP, reaches 350,000 unskilled unemployed workers, and transfers an average of 26 percent of family income—in some cases as much as 74 percent—in households in the bottom 5 percent of the income distribution.[37] Assuming that the average benefits remain constant, the cost

36. Márquez (1999); Verdera (1998).

37. These estimates are author's calculations; they refer to *Trabajar II.*

of expanding the program to reach all unemployed workers in the first quintile of income distribution is around 0.7 percent of GDP.

Conclusion

Macroeconomic crises not only affect the current living standards of the poor, but also limit their ability to grow out of poverty. During crises the children of the poor face malnutrition, and they frequently drop out of school. Poor households often are forced to sell their meager assets at depressed prices. Both circumstances help perpetuate chronic poverty and are bad for overall growth. Hence, crisis prevention has to be a top priority of any antipoverty strategy. Likewise, a pro-poor response to crises should be an integral part of a country's strategy for reducing poverty. A pro-poor crisis response should avoid underkills and overkills, and it should try to provide the poor with a minimum consumption floor. A pro-poor response should protect relevant programs from budget cuts and include consumption-smoothing safety net programs targeted to the poor. Safety nets that provide current transfers and at the same time encourage investment in assets of the poor in the future are an attractive option. Examples are stay-in-school scholarship programs and public workfare programs that build up community assets. Effective pro-poor crisis response requires that the institutional structures to make spending for the poor countercyclical be in place beforehand. Experience shows that improvising in the heat of a crisis results in a response that provides too little, too late.

Establishing efficient, properly funded safety nets to protect the poor from sharp, short-term income falls not only enhances equity, but also can promote economic growth. As shown above, macroeconomic crises reduce the limited human capital of the poor. This frustrates the attempts of poor people, and their children, to work their way out of chronic poverty over time. Permanent reduction in the stock of human capital of the poor, due to malnutrition and dropping out of school, might also lead to lower economic growth. Socially responsible macroeconomic policy in crisis response can contribute simultaneously to lowering chronic poverty and raising longer-term growth.