CHAPTER 3

Designing Social Policy When People Face Risk: A Conceptual Framework

As already discussed, during the 1990s there were economic reforms in Latin America and the Caribbean which resulted in its rapid integration into world markets. There appears to be growing concern, however, that the social insurance and social protection mechanisms existing in most LAC economies are inadequate to deal with heightened economic insecurity.[1] In the popular press and opinion polls, there are sentiments voiced in favor of expanding the role of government in countering growing economic insecurity through, for example, introduction or expansion of formal unemployment insurance programs, government-sponsored health insurance, and safety nets for those not covered by labor market-related programs. Governments appear to be puzzled about how best to help people manage the risks they face.

In examining these claims more systematically, Chapter 2 found that, in many LAC countries, aggregate risk actually appeared to have *declined* in the 1990s relative to the 1980s, and even relative to the 1970s. Microeconomic risk also shows no clear trend; some indicators of volatility, such as real wage fluctuations, have indeed registered sharp declines. In most countries economic growth has picked up over the last decade.

These developments—falling economic risk and increased wealth, combined with a clamor for greater social insurance—may appear to be contradictory. More careful study using a structured analytical framework, however, shows that this is not so. The economics of insurance indicate that, other things being equal, the demand for all types of insurance will rise as incomes rise. The overall demand will also rise as the potential loss faced by individuals becomes greater, and the demand for certain types of insurance may rise even when the world becomes less risky. This chapter provides an overview of this approach and illustrates its usefulness in formulating effective but minimalistic social policy strategies to deal with socioeconomic risks.

The Need for Sound Analysis

The main danger of approaching the problem of risk without sound analysis is that it results in serious confusion about the role of government policy.[2] There is considerable analytical work on the economics of insurance, which studies how individuals and families react when faced with risk. This report relies on the work of Ehrlich and Becker (1972), which provides an elegant treatment of an *individual's* optimal insurance decisions when faced with the options of market insurance, self-insurance, and self protection. This report attempts to systematically derive from solid economic foundations the public policy implications of the potential inability of individuals to insure or protect themselves effectively (see Gill and Ilahi 2000).

The framework used here allows us to address problems that preoccupy policymakers around the world; that is, changes in the demand for insurance due to globalization, economic growth, or increased uncertainty, and the likely effects of social safety nets created in response to these changes. The approach is versatile enough to distinguish between the policy implications of economywide (aggregate) and idiosyncratic (microeconomic) shocks, between *catastrophic* (large and rare) and *noncatastrophic* (small and

frequent) losses, and between *good* and *bad* instruments for insurance and protection against these shocks. The approach yields insights that can—with some additional work—lead to rigorous strategy formulation at the country level.[3]

In this chapter, we illustrate how a theory of individual insurance and self-protection can be extended to identify "market-augmenting" roles of government (Olson 2000). Under one rather strict interpretation, the public policy analogs of the individual's insurance and self-protection problem are *social insurance* (government actions to augment market insurance and self-insurance) and *social protection* (government actions to augment self-protection).

Approach and Implications

A systematic approach to social policy formulation should begin by understanding how *individuals* or families behave when confronted with risk. Fundamentally, there are two actions that an individual or family can take: *insure*, that is, transfer incomes from good to bad states; and *self-protect*, that is, lower the likelihood that the bad state occurs. Neither is without cost. A comprehensive framework would allow for all types of insurance and self-protection decisions. Any constraints on individuals taking these actions effectively would be of social policy interest, and the problem then becomes one of deciding whether and how governments can help remove these constraints.

In addition to clarifying basic concepts, a good analytical framework for risk management should have three attributes. First, it should cover all the major instruments for managing risk and be sensitive to the relationships between these instruments. Second, it should afford guidance on how individual efforts to insure and protect against risk can be improved; that is, the circumstances that provide cause for governments to intervene. Third, working through the structured framework should formalize existing thinking about the subject of risk but—even more important—yield insights additional to those that we began with.

The "comprehensive insurance" approach is especially well suited for these goals. As formalized by Ehrlich and Becker (1972), the insurance problem of the individual is characterized as one of determining the levels of expenditure on market insurance, self-insurance, and self-protection (see Box 3.1). The premise is that individuals can either insure against loss or lower the probability of the loss. Both involve expenditures. Market and self-insurance serve to transfer income from the good to the bad state of the world, but do not reduce the *likelihood* that these transfers will be required. Self-protection, on the other hand, only reduces the *probability* of the bad state of the world, doing nothing to the size of the loss in the event it occurs anyway. The critical difference between market insurance and self-insurance is that the former uses pooling to spread risk across individuals.

Individuals or families attempt to smooth consumption over the good and bad states of the world. If both market insurance and self-insurance opportunities are present, the individual sees them as substitutes (see Box 3.2). The provision of market insurance likely will reduce *self-insurance;* thus, for example, the availability of unemployment insurance will reduce precautionary saving. The problem of "moral hazard" results if the purchase of market insurance reduces self-*protection;* thus, for example, if unemployment insurance is available, people may become more likely to shirk.[4] The most common outcome if moral hazard is acute is that private insurance markets may not exist, or may involve prohibitively high premiums.

The key features of and insights obtained from this framework are:

- Levels of risk, incomes, and prices or costs of risk-management instruments all are important in determining how much individuals spend on insurance and protection.
- Market insurance and self-insurance are substitutes, in that greater availability or lower prices of one lead to reduced expenditures on the other. Self-insurance and self-protection are also substitutes.
- Market insurance and self-protection may be substitutes or complements; a lower price of self-protection increases self-protection and lowers risks, hence reducing demand for both insurance and self-insurance. In overall equilibrium, however, lower risks may also reduce the price of market insurance and, thus, lead to an increase in the demand for market insurance.
- An increase in the difference between crisis and non-crisis income levels (the "income at risk") could lead to an increase in demand for insurance. Thus, individuals may be richer (in that their expected incomes are higher) but may still demand more insurance.

BOX 3.1

Market Insurance, Self-Insurance, and Self-Protection: Distinguishing Features and Examples

Market insurance transfers income or resources from a good state to bad but does not change probabilities of good and bad states, it is available at an observable (market) price, and always involves pooling of risks.

Self-insurance, like market insurance, also transfers resources from a good state to bad, and does not change probabilities of good and bad states. It differs from market insurance in two ways: it has an imputed, not actual, price (called a "shadow price" by economists), and it does not involve risk-pooling.

Self-protection is different from both market and self-insurance in that it does not transfer resources from a good state to bad, but lowers the probability of the bad state.

It is often difficult to determine whether a decision should be classified as self-insurance or self-protection, since many instruments do both. It can sometimes be difficult even to classify informal insurance measures as market insurance or self-insurance. In such cases, the key distinguishing feature should be the absence or existence of pooling.

Two examples may help clarify these concepts. An individual, faced with the likelihood of damage to his car in an accident, may purchase automobile insurance (market insurance); he may buy a stronger—hence more expensive but otherwise identical—car (self-insurance); or he may drive more cautiously, even though this increases travel time (self-protection). Again, faced with a higher probability of being unemployed, a person may try to purchase market insurance, may self-insure by increasing savings over and above what she saves for relatively certain needs such as education of children and retirement, or engage in self-protection by studying to qualify for a profession in which unemployment rates are lower.

Note, however, that all three types of actions involve costs: market insurance requires a premium to be paid; self-insurance implies costs (because, for example, a stronger car costs more whether or not the accident occurs); and self-protection involves monetary or other costs (for example, schooling involves tuition fees, and driving slowly or attending classes implies less time for other activities).

- Relatively rare (and large) losses may be better insured through market insurance, and relatively frequent (and moderate) losses through self-insurance. Thus, for example, as individuals face lower probabilities of becoming unemployed, they may demand less insurance overall, but may also choose to have relatively more market insurance and less self-insurance. At the level of the aggregate economy, as countries improve their economic management and regulations and reduce the likelihood of crises, there will be a shift away from self-insurance (for example, fiscal stabilization funds) toward market insurance (contingent credit arrangements with world financial markets or the international financial institutions).
- Individuals enjoy higher welfare when all three instruments (market insurance, self-insurance, and self-protection) are available than when one is missing. This can be best explained by two examples. First, consider the case where market insurance and self-protection are available but no self-insurance is possible. The individual would be worse off in this case than where all three are available. The reason is that for losses that are not rare, the individual would still have to use market insurance. However, we know from the framework that market insurance is a less-preferred instrument than self-insurance for losses that occur frequently. Second, suppose that market insurance and self-insurance are available, but it is not possible to invest in self-protection. Individuals who are relatively efficient at self-protection would be worse off because they cannot reduce the premium paid for market insurance by reducing the risk they face through expenditures on self-protection. (See Box 3.3 for a fuller discussion of these issues.)

Advantages of a Disciplined Approach

There are three advantages of a disciplined, organized, comprehensive approach to the problem of risk. First, it

BOX 3.2

A Theory of Comprehensive Insurance

In the Ehrlich and Becker (1972) characterization, there are two states of the world: bad (state 0) and good (state 1). The bad state occurs with probability p, and the good state with probability $1-p$. The endowed incomes (and hence the consumption) of the individual in the two states are, respectively, I_o^e and I_1^e. Thus, the expected utility of the individual is

$$U = (1-p)U(I_1^e) + pU(I_0^e) \tag{1}$$

However, faced with risk, the individual may purchase market insurance that involves paying a premium of π for every peso of coverage, and being paid s pesos if the bad state occurs. The individual also spends resources on self-insurance (c), and self-protection (r) to smooth income over states. Each peso spent on self-insurance reduces the loss in the bad state according to a "loss function" $L(L^e,c)$, where L^e is the difference between endowed incomes in the two states. Each peso allocated to self-protection lowers the probability of the bad state according to the function $p(r)$. Just as a lower π allows the individual to buy more market insurance with a given budget, increased marginal productivity of self-insurance and self-protection allows the individual to get more at a given cost.

The individual chooses s, c, and r to maximize the expected utility function before the state of the world is revealed (that is, the framework is ex ante):

$$U = \left[1-p(p^e,r)\right]U\left[I_1^e - c - \pi s - r\right] + p(p^e,r)U\left[I_1^e - c + s - L(L^e,c) - r\right] \tag{2}$$

In the absence of market insurance, s is constrained to zero, and the individual's choice is restricted to c and r. Analogously, the model can accommodate situations where self-insurance or self-protection are not possible, that is, where $c=0$ or $r=0$, respectively.

The individual chooses the levels of market insurance (s^*) and self-insurance (c^*) where the price of market insurance equals the shadow price of self-insurance, and they both equal the probability-weighted marginal rate of substitution:

$$\pi = \frac{-1}{L'(c^*)+1} = \frac{pU_o'(c^*,s^*,r^*)}{(1-p)U_1'(c^*,s^*,r^*)} \tag{3}$$

Expenditures on self-protection reduce the probability of the bad state. These expenditures are optimized at level r^* where the marginal gain from reducing the probability of loss equals the marginal loss in utility from having to pay r^* for it in each period:

$$\begin{aligned} &-p'(r^*)\left[U_1(c^*,s^*,r^*) - U_0(c^*,s^*,r^*)\right] \\ &= \left[1-p(r^*)\right]U_1'(c^*,s^*,r^*) + p(r^*)U_0(c^*,s^*,r^*) \end{aligned} \tag{4}$$

There are three main results of this characterization of the individual's risk management decisions within a comprehensive insurance model, which would be absent in treatments that either take a piecemeal approach (for example, examine only market insurance) or neglect to include prices. First, market insurance and self-insurance are substitutes; for example, an increase in the price of market insurance lowers the demand for it and increases the demand for self-insurance. Second, the individual is likely to prefer market insurance over self-insurance for insuring relatively rare losses because the "shadow price" of self-insurance does not fall as the probability of loss decreases, while the price of market insurance does. Third, market insurance does not inevitably cause "moral hazard," that is, reduce self-protection, because of two countervailing effects. On the one hand, market insurance reduces the *prospective loss*, and therefore, creates a tendency toward lower self-protection. On the other hand, by reducing the *probability of the bad state*, self-protection makes market insurance cheaper and, hence, increases the tendency to use the market for insurance.

Since the 1970s the literature on insurance has concentrated mostly on the problem of moral hazard. For social policy, however, the *comprehensive insurance* aspects of the theory—which have been largely neglected—may be as or even more relevant.

places individuals, households, and firms—not government—at the center and provides rationales for government action that are not ad hoc but are based on the absence of well-functioning markets (for example, prohibitively high prices) or the inability of some to use these instruments even at relatively low prices (for example,

BOX 3.3

The Framework in "Real Life" Situations

Increased Risk: Heightened Economic Insecurity

Consider the case where only the probability of the individual being in the bad state (p) goes up. This may characterize the concerns in Latin America and East Asia, where it is believed that there is now greater economic insecurity. The effect would be to increase the demand for overall insurance in absolute terms, but also to change the mix between market insurance, self-insurance, and self-protection. Following our framework, an increase in p results in a relative decline in market insurance, no relative change in self-protection, and an increase in self-insurance. This exercise shows the importance of prices: what happens to the demand for market insurance and self-insurance depends on whether the market price of insurance adjusts to the increase in probability. If it does, then the optimal level of market insurance would be lower and self-insurance higher. But if the price does not increase to reflect increases in p, an "excess demand" for market insurance results, and demand for self-insurance does not increase as much.

Increased Expected Income During Crises: Provision of Safety Nets

Suppose that the expected income in the bad state increases because of, for example, a guarantee by the government that everyone will get a minimum income in the bad state which is higher than I_o^e. This reduces the demand for market insurance because the prospective loss decreases, expenditures on self-protection fall for the same reason, but its effect on self-insurance is uncertain because the fall in self-insurance due to the reduced tendency to insure may be offset by an increase in self-insurance because it is preferred over market insurance as losses become less "catastrophic." This example illustrates that individuals will not necessarily reduce self-*insurance* when such a "safety net" is available, but it is more likely that they will reduce self-*protection*. Thus, the provision of a public works program will not necessarily reduce precautionary saving by individuals, but would lower the effort to reduce the probability of being in the bad state by, for example, reducing investments in health and work skills.

Proportional Increases in Incomes in all States: Economic Growth

Economic growth can be simplistically characterized by a proportionate increase in I_1^e and I_o^e; hence, the prospective loss rises in the same proportion. Under quite general conditions, the demand for market insurance and self-protection will increase. This example illustrates that—somewhat counterintuitively—an improvement in wealth where incomes in both states go up proportionally will result in an increase in the demand for insurance. Better income prospects in the good state will have the same effect. The environment not becoming riskier and economic growth taking place—an unmistakably positive combination—should result in an increased demand for insurance, often associated with matters becoming worse.

Increases in Noncrisis Income Levels and Likelihood of Crises: Globalization

Finally, consider the case of "globalization" as it is commonly stereotyped—when prospective income in the good state increases (viewed somewhat pessimistically, losses become more catastrophic), but so does the probability of the bad state (losses become more frequent)—that is, both I_1^e and p increase. Assuming that the price of insurance adjusts to changes in prospective probabilities, the outcome for market insurance would be ambiguous because increases in probabilities of crises weakens the tendency toward market insurance, but increases in income in good times strengthens it. The effect on self-protection would be ambiguous, but probably positive. This example illustrates the difficulty of predicting how complex phenomena such as globalization affect the demand for insurance. Note also that it is more likely—given the findings of Chapter 2—that globalization imples that p is no higher than before (or even lower), but losses are larger when crises in fact do occur. Viewed this way, globalization is essentially the opposite of the "safety nets" example given above.

poverty or low budgets). The analysis also yields not just a menu of policies, but also some rules for establishing priorities that are necessary for strategy formulation. Second, the relationships between instruments to deal with risk are not arbitrary, but are derived from structured analysis, yielding clearer insights into how changes in the economic environment affect the demand for insurance. Third, the approach provides a logical framework for organizing the tools of social risk management and their likely effects.

Clearer Rationale for Government Action

With an approach that is individual-centered, the need for government arises only where markets fail and social policy formulation is based on minimalistic and not ad hoc principles. The role of government here—driven by efficiency concerns in an environment of risk—is to augment markets; that is, to facilitate insurance and self-protection by providing instruments if markets for them do not exist (for example, in the case of unemployment insurance), or through interventions to improve the quality of instruments if individuals are using inferior modes of insurance (for example, savings in the form of one or two assets instead of a diversified portfolio). Following this line of reasoning:

- "Social insurance" can be viewed as a policy to augment market insurance. Failure of markets to efficiently insure because some risks are uninsurable or cannot be diversified, for example, or because moral hazard problems are insurmountable for private insurers, creates the rationale for social insurance policies. Government actions that help individuals and families deal better with risk by facilitating transfers from good states to bad through risk-pooling would be classified as social insurance. This would include income-support programs for the unemployed (such as unemployment insurance) and disability insurance.
- Mandated savings schemes are policies to augment self-insurance. The failure of markets to provide "good" instruments for self-insurance is one rationale for governments to intervene. Moral hazard problems, such as the failure to save enough for retirement in anticipation of a government bailout of the old-age poor, provide another justification for compulsory saving. Again, the feature that distinguishes these policies from "social insurance" of the type described above is the lack of pooling. This category would include mandatory saving schemes such as employee provident funds in Singapore and Malaysia, and individual severance funds in countries such as Brazil and Colombia.
- "Social protection" can be viewed as policies to augment self-protection. The failure of markets to facilitate self-protection by individuals or families that is optimal provides the rationale for government to intervene. The feature that distinguishes these interventions from the above two sets of policies is that the aim of social protection policies would be to reduce the probability of occurrence of the loss, and not simply insure against it. Policies to facilitate the acquisition of human capital (better health, education, and training) may constitute the core of social protection.

Useful Insights

The framework yields useful insights into questions central to determining the scope and design of government policy. Three sets of implications are especially important.

Welfare is higher when more and better options for insurance are available to individuals. As discussed above, the availability of all three "insurance" instruments (market insurance, self-insurance, and self-protection) will improve welfare over a situation where one or more instruments are not available. For example, making available income support programs for the unemployed is likely to be welfare-improving even when there are efficiency losses (though the magnitude of such losses can be reduced using adequate instruments—see below). Making market insurance available would lower self-insurance, but would still result in welfare improvements.

Moral hazard may not be an insurmountable problem if social insurance mimics the market as much as possible. The introduction of market insurance is usually thought to lower self-protection and raise the probability of occurrence of the bad state ("moral hazard"), but our framework and common sense indicate that much can be done to limit this adverse side effect. For example, unemployment insurance that successfully discriminates among workers by their risk factors (for example, using information on employment history, skill, or sector of occupation to set insurance premiums) can lower this negative relationship between market insurance and self-protection,

and even reverse it under certain circumstances. Therefore, the appropriate policy question may not be whether to provide unemployment insurance—especially as governments implement reforms that make these risks less frequent—but how to best design it and to determine how governments can most effectively develop the capacity to implement it.

Financial market strengthening should be a central component of social policy, because it can augment self-insurance, market insurance, and self-protection. Financial sector strengthening is one of the most important—but relatively underemphasized—policies for balanced, market-augmenting social risk management. There are four reasons.

First, financial markets facilitate risk-sharing. In well-developed financial markets, individuals and firms can buy and sell assets with different risk profiles, diversifying their sources of income, and thus reducing their exposure to adverse shocks affecting their particular industry or firm. Financial markets also provide the most efficient channel to promptly redirect resources toward those firms and sectors temporarily hit by adverse disturbances, easing their impact on income, employment, and welfare.

Second, self-insurance involves precautionary saving. Without a strong financial sector, the poor may end up saving through "bad" instruments such as cattle and land, which are highly illiquid and the prices of which may fall sharply if the bad state of the world ("crisis") occurs.[5] Financial sector strengthening can encourage the use of "good" instruments by savers; this is especially crucial where social insurance mechanisms such as unemployment benefits are difficult to establish.

Third, financial sector strengthening can result in lowering the probability of a crisis occurring, thus augmenting self-protection efforts by individuals and families. In the countries of East Asia where the financial sector weaknesses were a primary cause of the crises in the 1990s, this self-protection augmenting role of financial sector strengthening is especially important.[6]

Fourth, financial sector strengthening will help create (more efficient) markets for insurance against catastrophic losses such as those due to poor health or natural disasters. Thus, private financial markets can provide life insurance, disability insurance instruments, and insurance against natural disasters, and can even contribute to insuring against macroeconomic crises.

A Powerful Tool for Organization

The framework described above also helps in obtaining a structured view of government policies and programs. The policies and programs discussed in Chapters 4 to 7 should be viewed as government-sponsored actions to assist individuals and families attain insurance that is as comprehensive as possible under the circumstances that exist in LAC countries. Table 3.1 shows how some of these policies can be classified according to whether they help individuals attain more efficient insurance (through pooling), self-insurance, or self-protection.

Conclusion

This chapter proposes a relatively simple approach to the problem of risk, both in terms of individual decisionmaking and the possible role of government. The approach is quite general in that it includes the three major options available to individuals for dealing with risk: purchasing market insurance, self-insuring, and taking steps to lower the probability of incurring losses (self-protecting). The role of government policy arises when some markets are missing and individuals cannot reach optimal levels of insurance and self-protection. The government can augment individual or household efforts by providing market-type insurance where markets fail (for example, unemployment insurance), by facilitating individual insurance efforts through more efficient forms of self-insurance (for example, financial sector development and regulation), or by assisting or subsidizing self-protection (for example, public education and health services).

Using this approach, the chapter traced the implications of changes in the environment, such as increased risk or increased wealth, on the demand for market insurance, self-insurance, and self-protection. Combined with the possibility that markets are missing or do not operate efficiently, these findings suggest how the demand for social insurance and social protection may arise when such changes take place as countries grow or face more or less risky external environments. Some of the findings were expected. Others run counter to widely held views. Three of these findings deserve mention.

First, the demand for social insurance can increase even when the environment becomes *less* risky and countries become *more* prosperous. This finding is surprising when market- or government-provided insurance is analyzed in isolation, but is a natural outcome of analysis using a more

TABLE 3.1

Government Policies and Their Effect on Individual Comprehensive Insurance

	MARKET INSURANCE	SELF-INSURANCE	SELF-PROTECTION	
			REDUCING MICRO RISK	REDUCING AGGREGATE RISK
Economywide Risks				
Stable macro policies				√
Fiscal stabilization funds[a]				√
Foreign reserve holdings[a]				√
Financial sector reform	√	√		√
Deposit insurance		√		
Risk of Becoming Unemployed				
Unemployment insurance	√			
Mandated severance	√			
Individual severance funds		√		
Public works programs	√			
Training programs[b]	√		√	
Risk of Becoming Poor				
Cash transfers	√			
Conditional cash transfers[c]	√		√	
Education reform			√	
Health insurance	√		√	
Financial sector reform		√		

a. Policies that augment self-protection for individuals may be self-insurance or market insurance at the *country* level. For example, fiscal stabilization funds are self-insurance (because they transfer resources from good states to bad) for countries, though they qualify as self-protection augmentation here (because they reduce aggregate risk for individuals). Access to International Monetary Fund credit during bad times is market insurance for countries (international risk-pooling), but is again self-protection augmentation at the individual level.
b. Although in theory training programs for the unemployed involve an element of self-protection, this element appears modest according to the available evidence, so that these programs operate mainly as insurance mechanisms.
c. Examples include *Bolsa Escola* in Brazil and *Progresa* in Mexico.

comprehensive (and more realistic) framework where individuals self-insure and self-protect.

Second, ideally social policy should aim to facilitate all three types of actions that individuals take when confronted with risk. This finding should help reassess the pros and cons of policies such as income support programs for the unemployed (and among them, unemployment insurance) in developing countries, focusing the debate on their likely efficiency cost and the capacity of governments to contain it.

Third, the role of policies in facilitating precautionary saving in financial assets (such as financial sector strengthening) has been underemphasized as a *social* policy instrument. This finding is a natural outcome of an approach that begins with the individual and derives the problem of government as a residual, but can easily be missed by analyses where this order is reversed.

Notes

1. This chapter is based on Gill and Ilahi (2000), a background paper commissioned for this report.

2. See Holzmann and Jorgensen (1999) for an excellent effort to reduce this confusion.

3. The framework also lends itself to analysis of risk reduction policies at the multilateral level, and the possible role of international agencies such as the World Bank and International Monetary Fund.

4. The presence of moral hazard can prevent private insurance markets from emerging for some risks, such as business failures or loss of employment. Ehrlich and Becker (1972) reason that moral hazard is not inevitable, because in one aspect market insurance and self-protection are complements—increased self-protection increases the marginal product of market insurance. That is, if self-protection or a lowered probability of the bad state is rewarded by market insurance (in the form of lower premiums), market insurance and self-protection can indeed become complements, and moral hazard could be eliminated.

5. It also follows that illiquidity of savers' assets hampers the reallocation of financial resources toward sound firms in distress in times of crisis, which augments the disruptive effects of shocks.

6. The combination of weak interlinkages with international capital markets and lack of depth in Latin America's domestic capital markets represent a source of adverse shocks to the region (in our framework, a higher probability of the bad state, p), and an amplification mechanism for other shocks.