

Insurance for the Poor?

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Abstract

Uninsured risk has substantial welfare costs, not just in the short run, but also in terms of perpetuating poverty. This paper discusses the scope for extending insurance to the poor in Latin American and Caribbean countries. It is argued that insurance provision to the poor could play an important role in a comprehensive system of protection against risk, including other ex-ante measures such as promoting credit and savings as insurance, as well as a credible overall ex-post safety net. Insurance provision is best promoted via a partner-agent model, in which a local finance institution with close links to relatively poor communities teams up with an established insurer to deliver low-cost, tailored products, such as life, health, property and weather insurance. An essential role of the government would be to promote insurance provision to the poor by a relevant regulatory framework favouring MFIs within a partner-agent setup, and to provide overall credibility to the overall system of social protection. The paper also argues for the involvement of local indigenous risk-sharing and finance institutions as intermediaries to maximize the ability to reach the poor and the overall welfare benefits.

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Introduction

Households in developing countries are exposed to high risks, with important consequences on their welfare. They range from individual-specific (illness, theft or unemployment), to economy-wide risks (drought, recession, etc.). It has long been acknowledged that these shocks have important implications, not least for the poor, including short-term effects on consumption and nutrition, resulting in calls for and the establishment of safety nets or other social security mechanisms. This paper goes beyond this view by arguing, first, that the costs related to these risks are much higher than a simple consideration of short-term costs, and secondly, that expanding insurance provision for the poor could be an important instrument with substantial long-term welfare benefits. Most importantly, this paper discusses the scope and problems related to the expansion of insurance mechanisms and products, with a focus on Latin America, starting from a consideration of how risk affects the poor and the ways in which they respond to it. The paper discusses the most promising products, institutional setup and the required regulatory framework to successfully expand insurance for the poor.

In addressing the case for extending insurance to the poor, a number of key questions need to be answered. First, is risk prevalent – and what are these risks? Thinking about the design and promotion of specific insurance products requires a careful understanding of the risks the poor face and their consequences. Recent surveys have highlighted the variety of risks the poor face (Morduch, 1995; Townsend, 1995; World Bank, 2000; Dercon, 2002; Fafchamps, 2003). Some of these risks are relatively straightforward to insure—such as funerals, serious health problems, unemployment—while in the case of others—a country-wide recession or crime—several factors come into play. Any discussion about insurance for the poor will need to acknowledge the shortcomings of an insurance-related approach and the need for alternative mechanisms to deal with the implications of particular shocks. This paper argues that there is a need to think in terms of complementarities with other mechanisms to reduce and to cope with risk, including e.g. safety nets in the form of employment schemes or social funds. A related issue, and crucial for Latin America, is that much of the existing literature related to the risks facing the poor tends to focus largely on rural settings, mainly in Africa and Asia. Part of the reason is that worldwide, most of the poor live in rural areas and drought or flooding risks are the most commonly studied when considering the impact of risk on the poor. The relatively higher urbanization rate of Latin America implies that urban risks are crucial for our discussion. Section 1 will take up these issues in more detail.

The poor do not just undergo the high risk in their environment, rather they actively try to manage it and cope with its consequences. A study of the strategies to manage and to cope with risk helps understand the implications of risk for welfare as well as for the design of policy responses, including insurance. Much research was conducted in recent years on these strategies and their implications, even though more work is definitely needed. These strategies typically involve households trying to shape the risk they face by changing their activity and asset portfolios so there is less risk involved. A typical example is diversification of activities, whereby imperfect correlation between the return to activities is exploited to reduce overall exposure to risk. A key implication is typically that mean return is forgone when moving to a less risky portfolio, which effectively increases or perpetuates poverty in the long run. Other strategies involve risk-coping mechanisms, such as trying to overcome missing or imperfect

credit and insurance markets by entering into ‘self-insurance’ via savings, in which assets are accumulated in good years to be depleted in bad years, or entering into informal mutual assistance arrangements within families or neighbourhoods. Most evidence suggests, nevertheless, that risk management and coping is rather imperfect, and shocks result in substantial fluctuations in welfare outcomes, undermining also the asset base of households for future wealth creation, not just in terms of physical and financial assets, but also nutrition and human capital (Morduch, 1995; Dercon, 2002; Dercon and Hoddinott, 2004).

The evidence that risk strategies result in lower long-term income and that shocks significantly undermine the ability to grow out of poverty has important implications for the welfare costs involved in risk. The overall result is not only fluctuations in welfare levels, but also a loss of *efficiency* in that the poor are induced to use their assets less efficiently than the rich. Theoretical models such as the one by Banerjee and Newman (1993) build on this feature to show that risk may well result in poverty traps, a situation in which those who cannot escape poverty by their own means end up living in permanent poverty, even if other sectors of the economy are growing. The implication is also that there is no trade-off between equity and efficiency when measures are taken to avoid those poverty traps. In other words, there is a case for providing insurance at subsidized rates so that some do not slip into poverty. Section 2 further expands on this point.

Although public policy and interventions can reduce risk (even if it is by means of subsidies), this does not necessarily settle the issue about the appropriate form of such interventions. Indeed, it still would need to be shown that insurance is the right solution. In section 3 the case for strengthening insurance and insurance substitutes is made, but it is also acknowledged that insurance products can be costly and, more importantly, they cannot solve all problems facing the poor. Alternative (complementary) measures are discussed as well, not least in response to the realization that some economic shocks or social and political risks usually cannot be insured by insurance markets or at least that alternative measures may be more cost-effective. Still, the scope for insurance products for the poor remains strong.

Section 4 discusses general issues related to the design of insurance for the poor. A key issue to be considered is that one must ensure that the poor are effectively reached, which suggests the need to involve local and grass-root organizations with established links with the poor. Equally important is that the system should be able to provide a cost-effective service and be sustainable. Insurance provision is a specialized service, and should involve private and possibly public sector institutions with the experience and financial capacity to operate such schemes. A ‘partner-agent’ model is most likely the most effective institutional arrangement. Section 5 then discusses possible products, addressing the risks that are most suitable for insurance-based protection, focusing on life, health, property and weather insurance. Examples from Latin American countries such as Colombia, Guatemala and Mexico are used to illustrate key problems and solutions related to the design and delivery of these products. Section 6 centers on the role that different institutions should play, and focuses on the required regulatory framework. Section 7 analyzes the potential role of local social institutions already providing informal insurance.

Risk and the Poor

There are a number of ways of classifying risks faced by the poor. Two issues are relevant for our purposes: the extent to which the poor are affected by these sources of risk and the extent to which developing more insurance is an appropriate response. To discuss the first point, the covariance of risks across a population and the frequency of risks over time are relevant here. Insurance contracts are most easily offered if risks within the relevant population are not covariate – so that only some put in a claim at the same time. Furthermore, insurance for rare and infrequent events is also typically more difficult to offer. Taken together, if these rare events are also covariate, i.e. typically occurring to large population at the same time (such as a flood, hurricane or an economic recession), then insurance contracts are most difficult to offer. These considerations are important for the rest of this discussion.

It is important to bear in mind that, when looking at how the poor are affected by risk, our observations on which risks affect living standards most are largely based on evidence that takes into account the mechanisms people use to manage and cope with risk. For example, it may be the case that the lack of old age security is not quoted as a serious risk in a particular poor community since the community is still using intergenerational transfers as an effective mechanism to support the elderly. Furthermore, it may be that the development of market-based pension funds may crowd out these community-based mechanisms. It has been shown that this may even lead to some being more exposed to risk than before (Attanasio and Rios-Rull, 2000). This has two important implications: first, we need to carefully study the way individuals, households and communities cope with risk and secondly, problems of crowding-out and their possible welfare implications should be discussed in more detail. The third and fourth sections analyze these points further.

Turning to the typology of risks, in recent years a number of studies have highlighted the risks facing the poor. Nevertheless, the focus has largely been on data from South Asia and, more recently, from Africa (Morduch, 1995; Dercon, 2002). One key difference between these regions and Latin America and the Caribbean is the degree of urbanization, more specifically, the substantial urban nature of poverty. Whereas poverty is mainly a rural phenomenon in Africa and Asia, the urban share of population in Latin America and the Caribbean is large enough to ensure that urban areas account for most of the poor.² Table 1 reports figures for a sample of countries with available data. Chile and Brazil are extreme cases where 84 percent and 70 percent, respectively, of the poor belong to the urban sector.

² While the *incidence* of poverty in rural areas reaches 64 percent, it falls to 48 percent in urban settings (ECLAC, 2002). Ravallion (2001) dwells on the link between urban shares in total and poor populations.

Table 1. Percentage of the Poor Living in Urban Areas

Africa		Asia		Latin America and the Caribbean	
	%		%		%
Algeria (1995)	32.1	Bangladesh (2000)	14.7	Bolivia (1999)	50.5
Cameroon (1984)	70.3	Cambodia (1999)	19.4	Brazil (1999)	69.7
Chad (1996)	73.8	Fiji Islands (1990)	64.5	Chile (2000)	84.4
Egypt (1996)	49.1	India (1999)	25.8	Colombia (1999)	56.8
Ghana (1992)	32.4	Indonesia (2002)	35.0	Costa Rica (1999)	42.5
Guinea Bissau (1991)	16.2	Kazakhstan (2002)	39.4	Dominican Rep (1997)	55.4
Kenya (1992)	18.0	Kyrgyz Rep (2000)	29.7	El Salvador (1999)	45.0
Lesotho (1993)	10.2	Lao PDR (1997)	11.9	Guatemala (1998)	30.1
Madagascar (1994)	15.7	Malaysia (1999)	25.5	Honduras (1999)	40.7
Morocco (1999)	34.1	Maldives (1998)	10.9	Mexico (2000)	47.7
Niger (1993)	17.7	Mongolia (1998)	48.8	Nicaragua (1998)	57.9
Nigeria (1993)	34.2	Myanmar (1997)	34.8	Panama (1999)	61.5
Senegal (1991)	14.3	Nepal (1996)	5.2	Paraguay (1999)	43.2
Sierra Leone (1989)	27.1	Pakistan (1998)	20.5	Peru (1999)]	48.8
Tunisia (1990)	37.3	Papua New Guinea (1996)	5.1	Venezuela (1994)	78.5
Zambia (1993)	2.5	Philippines (2000)	29.2		
Zimbabwe (1991)	10.3	Sri Lanka (1995)	8.5		
		Thailand (2000)	35.3		
		Vietnam (1998)	5.0		
<i>Sample average</i>	<i>31.4</i>	<i>Sample average</i>	<i>23.4</i>	<i>Sample average</i>	<i>58.4</i>

Own calculations. Urban population shares are those implicit in urban, rural, and national poverty rates. Sample averages are weighted by 2001 total (poor) population figures. Note that the African sample is arguably more urban.

Sources: African Development Bank (2003), Asian Development Bank (2003), and ECLAC (2002).

Urban poverty is different from rural poverty. For instance, there are risks that are specific to the urban poor but not to the rural poor, and *vice versa*, or at least risks that have a different intensity than in a rural setting.³ Examples are sanitation and public health risks related to overcrowding, or risks related to crime. Thus, an analysis of risk and insurance for the poor in Latin America and the Caribbean will necessarily diverge in some way from most previous studies based on African or Asian experiences and focused, almost exclusively, on risks in rural areas. The focus here will not be on urban risks only, but an attempt is made in this discussion to give at least equal weight to both types of settings.

Few studies have systematically tried to record the sources of risk faced by the poor. As part of a more extensive World Bank study on poverty in Guatemala, the analysis by Tesliuc and Lindert (2002) provides a unique insight into those sources and their consequences in this country, based on a specifically designed household survey combined with focus group interviews, conducted in 2000. It should be noted that Guatemala is one of the most rural economies in

³ It should be pointed out here that the urban poor face *different* risks, not *more* (or less) risks. For example, in an LSMS in Peru in 2001, 30.1 percent of urban households reported to have suffered a shock. In the rural sample, this percentage was 29.6 percent (Chacaltana, 2002).

Latin America, presenting the lowest percentage of urban poor (table 1), so their findings need to be supplemented by other sources for a more complete picture. Although no serious economic crises or natural disasters occurred in 2000, Tesliuc and Lindert found that about 53 percent of the households interviewed reported one or more shocks: 23 percent mentioned a ‘natural’ shock (from pests to forest fires and floods), 17 percent reported an economic or other man-made shock, and 13 percent reported both. The commonly reported shocks were agricultural related but many different types of shocks were identified (Table 2). Some of these shocks were largely ‘rural’—pests, lost harvest and drought are the obvious ones—, while others are common in urban areas—including crime and job losses, which had more than double the incidence in urban areas. Accidents and floods have similar incidence in rural and urban settings, with no apparent differences in the overall reported incidence of shocks across both areas. Other studies in the same period confirm the high incidence of shocks. For example, Gaviria and Pages (1999) report that in the first semester of 2000 36 percent of urban Guatemalans reported a shock causing loss of income. A study on Peru (Chacaltana, 2002) reported about 30 percent of households facing a significant shock to income or wealth in 2001. In short, all available evidence suggests that shocks are prevalent in both rural and urban households in Latin America and the Caribbean.

Table 2. Incidence of Reported Shocks in 2000 in Guatemala

Frequency Reported	Type of Shocks
15 or more	Pests, lost harvest
6-14 percent	Income drop, accident of breadwinner, job losses, drought
2-5 percent	Loss of terms of trade, crime, floods
0-2 percent	Hurricane, bankruptcy, land slide, death of breadwinner, enterprise closure, land dispute, fire, earthquake

Source: Tesliuc and Lindert (2002).

The study by Tesliuc and Lindert (2002) has other striking findings. First, in 2000, all these shocks were typically idiosyncratic, i.e. only a sub-section of a local population was affected. It should nevertheless be recalled that this is largely a year without serious ‘large’ and covariant shocks. In fact, during the last five years, some shocks had a much higher incidence, including hurricanes (Hurricane Mitch was included in this period), with 44 percent reportedly being affected, while forest fires hit 17 percent at least once over a five-year period. These types of risks are largely covariant, affecting typically whole communities or neighbourhoods. Secondly, there was a rather high incidence of households being affected by more multiple shocks – a phenomenon they call ‘bunching’ of risk, which may exacerbate the consequences of shocks. Agricultural shocks, such as drought and pests, tend to come together, as are economic shocks, such as job losses and accidents or death of a breadwinner. They also find that the poorest are more affected by shocks. In terms of asset or welfare loss, the poor are typically hit the harder. This is especially the case for shocks related to agricultural risks.

In Tesliuc and Lindert (2002), health shocks were not analyzed in their survey, which does not mean that they are irrelevant. For example, in a rural sample in Mexico (World Bank, 1995, reported in Ibarra, 2003), it was found that about 48 percent of households reported a shock in wealth or welfare related to a drop in yields (largely due to weather-related events), while the second main cause was illness of the farmer or a member of its family (reported by about 15

percent of households). This is consistent with surveys from across the world where illness is typically the second most frequent risk in rural settings after crop failures (see Dercon, 2002), and before many other risks (such as loss of livestock, crime or fire).

In sum, a discussion of the risks faced by the poor in Latin American and Caribbean countries will need to consider those risks with high incidence and with serious consequences. *Natural risks* are clearly at top of the list, but not only for rural settings. Some are obviously rural, such as those related to harvest losses due to drought or pests, but floods or hurricane risks, and other large-scale natural disasters, are also relevant to urban settings. Data on the impact of large-scale natural disasters over a 30-year period (table 3) suggest that their impact on households – ranging from death, injury, homelessness and physical damage – is substantial.

Table 3 Effects of natural disasters in Latin American and Caribbean countries, 1970-2001

	Caribbean	Central America	South America	Total
Affected (000's)	19,774	20,146	104,980	144,900
Killed	5	85	156	247
Injured	8	202	276	486
Homeless	971	2,664	4,240	7,875
Damage (US\$ 000's)	10,187,949	23,121,364	35,192,517	68,501,830
Annual damage	318,373	722,543	1,099,766	2,140,682

From Chacaltana (2002), based on CRED data.

Other risks, not least *health, disability and mortality risks*, should be given center stage as well. Health care costs cause significant stress among the poor. In fact, in one of the most careful studies on risks faced by the poor in an urban setting, illnesses are the most common shocks in the SEWA data from India (Chen and Snodgrass, 2001). In Peru, the LSMS of 2000 shows that health expenditure adds up to 8.9 percent of total monthly expenditure of the poor when a household member is ill.

Illness is a more pervasive risk in areas where public health services are inadequate. Careful qualitative work for the World Development Report 2000/01 for a number of Latin American and Caribbean countries suggests that both the urban and the rural poor feel they have little access to good quality health services, although the issue is mentioned more frequently by the latter (World Bank, 1999). According to the LSMS from Peru, 46.8 percent of the urban poor has access to a doctor, while this percentage falls to 39.6 percent among the rural poor.

In the case of disability, illness creates additional health care costs, but also a permanent effect via the loss of income-earning capacity. Even a temporary disability may result in job loss, the low-income period may last until the household member finds a new job. This is especially harmful to the urban poor, as unemployment is a greater threat to them. The death of a family member brings about grief and significant economic costs. Some of them are one-off outflows (burial costs) while, more importantly, others are permanent (loss of a source of income).

Risk of illness is often closely related to particular environmental risks, linked to inadequate waste disposal, water supplies, and sanitation. In a study of urban vulnerability and risk, Moser (1998) calls these risks *environmental hazards*, and considers them as one of the “three characteristics of urban life often identified as differentiating urban from rural areas,” along with “*commoditization*, and *social fragmentation*.” For example, in qualitative studies in Bolivia related to the World Development Report 2000/01, lack of access to public services (e.g. water, sewage) was ranked among the urban poor as their greatest problem, while poor environmental conditions were also important in urban areas in Ecuador: “*Children fall into the mud. The river is full of garbage. (...) People have no bath. All the garbage goes into the river. It is dangerous because of the tides. The water flows inside*” (World Bank, 1999). When trying to determine possible interventions to address health risks, it is impossible not to take into account these issues or consider insurance and other forms of protection.

A number of largely *economic risks*, such as job loss and lower income—, requires attention as well. Qualitative surveys on perceived risks stress the central importance of the wage labor market, not least in urban areas (e.g., Zaffarino, 1999; World Bank, 1999). A related risk is caused by relative price changes and general inflation. Urban households are typically much more exposed to these risks, since they rely more on the market, a fact Moser (1998) calls ‘commoditization.’ For example, it is easier for the rural poor to withdraw from the market during inflation spells. In Peru, 13.8 percent of the urban households considered the economic crisis as a shock in 2001, while only 2.8 percent of rural households did so (Chacaltana, 2002).

Finally, a discussion of risks faced by the poor needs to address some crucial ‘*social*’ risks, including crime and lack of protection and rule of law. One of the key findings of the qualitative studies as part of the World Development Report 2000/01 was that crime especially affects the poor, which is, for the most part, linked to a poorer protection by the police and judiciary system.

Brazilian *favelas* are an evident and extreme example of the threats crime imposes on the urban poor. In urban areas in Argentina, “insecurity is constant and daily. (...) There is more insecurity (...) in the slums, because they do not have material resources to face insecurity nor support from the government (...) ‘*The police does nothing*’” (World Bank, 1999). In rural villages, “security is not mentioned [as an issue]. (...) Their perception of security is influenced by the news received from big urban centres: ‘*They have everything but they are worse because of crimes and drugs; we sleep with open doors here in the inland*’” (World Bank, 1999). Table 4 shows victimization rates in a number of Latin American and Caribbean countries. Although there are always objections to this type of statistics, they show higher rates in larger cities.

Table 4. Victimization Rates in Some Latin American and Caribbean Cities, 1996-1998

	City size		
	Small	Medium	Large
Argentina	19.4	30.8	40.3
Bolivia	-	33.9	35.5
Brazil	42.2	43.7	40.2
Colombia	-	35.5	44.4
Costa Rica	35.4	45.5	-
Chile	11.6	28.6	33.2
Ecuador	40.1	45.3	62.3
El Salvador	42.8	52.2	-
Guatemala	50.3	51.5	-
Honduras	38.5	53.5	-
Mexico	29.0	43.6	53.4
Nicaragua	35.5	45.3	-
Panama	26.1	38.9	-
Paraguay	29.4	36.9	36.6
Peru	25.6	32.8	41.9
Uruguay	20.0	30.1	36.9
Venezuela	38.1	47.0	54.7

Source: Gaviria and Pages (1999), based on Latinobarometer data.

The perceptions of these risks on the part of the poor are often closely linked to the absence of property rights and the rule of law because of poor enforcement or even abuse by police or the judiciary system. In particular, lack of legal ownership exposes the poor to sudden losses as the authorities force them to leave their homes, or to plain abuses from corrupt officers. In Argentina, the urban poor complain that *'not only they [policemen] do not protect us, but they also chase us and treat us badly'* (World Bank, 1999). Similarly, theft is reportedly as a constant threat to the assets of the poor, whose neighborhoods have usually no police protection.

Market Failures and Household Responses to Risk

If these risks are substantial and the consequences are as serious as suggested above, the question is why insurance markets are not offering insurance contracts to the poor. There are a number of reasons why this may not occur. First, the usual information asymmetries apply. Insurance contracts are exposed to adverse selection (hidden information) and moral hazard (hidden action). In particular, they have been pointed out as the cause for the failure of crop insurance systems (e.g., Braverman and Guasch, 1986; Binswanger, 1986). Similarly, health risks are often hard to insure in a comprehensive manner, as are substantially covariate risks, such as natural disasters or economic recession. However, it remains to be explained why these asymmetries could be more perverse when policyholders are poor. In fact, they also plague contracts in more developed markets.

Insurance providers mitigate information asymmetry by promoting group insurance (against adverse selection) and by requiring co-payments and deductibles (against moral hazard). Although insuring large groups is a feasible strategy, co-payments and deductibles may well discourage the poor from buying the product. In any case, these payments and deductibles will probably need to be lower than the values needed to separate ‘good risks’ from ‘bad risks’ (the so-called second-best separating-equilibrium values). As contracts will still allow for significant moral hazard, insurers will require high premiums and discourage the poor.

A related issue is that as the poor do not usually participate in the formal economy, formal insurers also face enforcement problems and/or the poor confront extra costs. For example, claiming for home insurance when there are no formal titles to land or homes imposes extra verification costs, which discourages firms from offering contracts to the poor or makes them less attractive. Similarly, the assets of the poor may be of relative low value, so the transactions costs involved in valuation would be relatively high relative to the size of the contract. Costs related to birth and death certificates may make insurance contracts less attractive to the poor as well.

Supplying the poor with insurance implies further high transaction costs. For instance, micro-credit experiences suggest that the poor find it easier to deal with frequent repayment in small instalments.⁴ This suggests that payments of premiums may also ideally occur in small instalments, adding transaction costs to insurance provision.

Furthermore, it has been suggested that the poor sometimes have difficulty in properly understanding their rights in insurance contracts. McCord et al. (2001) report several cases where the poor did not file their claims after being affected by an event covered by their policies. In other cases, some policyholders expected coverage beyond the scope of their contract.

Finally, many of the most serious risks faced by the poor may well be covariant, and therefore not easily insured by an emerging insurance market. The fact that a sizeable part of the

⁴ In fact, Armendariz and Morduch (2000) argue that theoretical literature on microcredit has exaggerated the focus on joint liability and dynamic incentives, and neglected the importance of the repayment schedule. This comment is bound to be relevant for insurance provision as well.

population is dependent on agriculture, and that macroeconomic instability is substantially higher in developing rather than in richer countries (resulting in serious covariate shocks in the economy) is bound to limit the emergence of private insurance focused on poorer segments of the population.

The lack of market-based insurance could in principle have been compensated for by ‘social insurance’ – or public sector-based insurance provision as part of broader social security programs. In practice, the coverage of these programs for the poor is minimal in most Latin American and Caribbean countries. For example, a recent review of Guatemala’s social insurance system concluded that the “system provided minimal coverage of the population, risks financial crisis, faces allegations of corruption and is regressive” (World Bank, 2003). The Instituto Guatemalteco de Seguridad Social (IGSS) covers workers in the formal private and public sectors only, and runs a number of programs. Programs analyzed, such as the accident-maternity-sickness (IVS) program, were shown not only to be in deficit but also regressive in terms of the incidence of benefits.

The lack of formal insurance or social insurance systems does not mean that the poor are passive toward the risks they face. Much of their livelihood is centered around ways to reduce, mitigate and cope with risks. The poor use risk management and risk coping strategies to alleviate risks. Table 5 describes these strategies and their shortcomings. By risk management we mean that they try to reduce the exposure to risk or mitigate the risk of some income sources by combining them with others. Diversification of crops and other sources of income is one typical example. Other common strategies involve migration and relative specialization in low-risk activities, even at the cost of lower returns. Risk-coping strategies effectively try to smooth consumption given income fluctuations linked to risk. These strategies include self-insurance, i.e. building up suitable liquid assets in good years that can be depleted during a bad year. An alternative strategy is to enter into informal ‘risk-sharing arrangements,’ i.e. informal insurance arrangements based on reciprocal gifts or contingent credit.

Risk management and coping strategies are always present in the life of the household. However, if a serious crisis occurs, households resort to more extreme actions, survival strategies, i.e. ‘emergency’ actions to be taken when a reduction in income is unavoidable. See table 6 for a summary of such strategies. More information can be found in Dercon (2002), while the Social Risk Management Approach is discussed in Holzmann and Jorgensen (2000) and in World Bank (2000).

Table 5. Risk Management and Coping Strategies

Strategy	Examples	Shortcomings
Managing and reducing risk resulting from changes in sources of income	Crop diversification Specialization in low-risk activities Migration of some members of the household	Sacrifice of expected income
Asset management	Savings as self-insurance	Lack of suitable saving assets (risky or bulky assets, insecurity) Focus on liquid, less productive assets Long building-up time Covariance in asset price and income
Informal insurance	Reciprocal gifts/loans from friends/relatives	Incomplete protection Vulnerability to covariant risks
Market-based	Insurance	Typically not available

Table 6. Survival Strategies

Strategy	Examples	Shortcomings
Changes in sources of income	Child labour	Sacrifice of human capital
Asset management	Selling/pawning of real/productive assets	Long time to replace them
Informal insurance	Charity	Incomplete protection Vulnerability to covariant risks
Market-based	Bank loans for consumption credit	Usually not available

Much of this literature was developed using data from Asia and Africa, but many of these responses can also be found in sources for Latin American and Caribbean countries. A few striking conclusions emerge, which are common to the empirical literature on this issue. First, households cope with risk by using income-based strategies – such as diversification of income sources – and assets for buffering consumption. Informal insurance and credit is also used, but only in a relatively limited number of cases.

For example, as reported in table 7, Chacaltana (2002) suggests that most Peruvian households (72 percent) dealt with shocks *on their own*, either through changes in their portfolio of income sources (an additional household member entered the labour market), or through asset management (their savings were used, or they sold off or pawned their assets). Informal insurance is not widespread in Peru. Only 23 percent of households resorted to it through loans or gifts from relatives or friends. Interestingly, although we should expect rural villages to develop stronger social networks, this type of insurance is more common in urban areas.

However, it is unclear that the same pattern should be expected in other countries. Similarly, in Guatemala, Tesliuc and Lindert (2002) found that self-help accounted for more than half the responses about how they coped with a shock, and informal insurance via transfers only accounted for about 13 percent of the responses. Government transfers and support was minimal in both countries; the most significant support came for the rural poor in Peru— but then ‘relying on State support’ still accounted for only about 4 percent of the responses reported.⁵

Table 7. Exogenous Shocks and Household Responses in Peru, 2001 (%)

	Urban	Rural	Total
Did something to solve the crisis	87.5	71.0	81.7
Self-help	76.1	65.3	72.3
Informal insurance	28.6	13.0	23.1
Public sector	1.0	4.3	2.2
Market-based	0.5	0.1	0.3
Other	8.8	5.7	7.7
Did nothing to solve the crisis	12.5	29.0	18.3

From Chacaltana (2002), based on ENAHO 2001-IV.

These strategies are not without cost. As has been widely documented, both income- and asset-based strategies imply efficiency losses in the generation of income, and thus may lead to poverty traps (e.g., Rosenzweig and Binswanger, 1993; Rosenzweig and Wolpin, 1993; Dercon, 2002).⁶ Lack of formal or informal insurance forces households to choose a safe portfolio of activities and assets, which typically implies a lower mean return. The poor have no access to insurance, and lack of insurance precludes the poor from taking risks and increasing their income, thus perpetuating their poverty. The process is exacerbated since, asset holdings are difficult to rebuild after they are depleted. In emergency cases, households are also forced to sacrifice human capital, as is the case when children drop out from school and start working (Pizarro, 2001). In Peru, Jacoby (1994) finds that “children from households with lower income (...) and greater childcare responsibilities begin withdrawing from school earlier.” In urban areas, issues of privacy in the household arise, as families rent out rooms, or children come back to the parental house in order to rent out their own house (Zaffaroni, 1999). In fact, after analyzing data on Guatemala, Tesliuc and Lindert (2002) concluded that “the poor have lower resilience than the rich to the effects of shocks. The probability of restoring household income to the level that prevailed before the occurrence of the shock rises with income.”

In short, risk strategies tend to result in efficiency losses, and since the poor have to resort to them more than the rich, such losses are especially borne by the poor (Rosenzweig and Binswanger, 1993). It also means that the welfare losses caused by lack of insurance are well

⁵ Note that these are the responses obtained after a shock did occur. Households that successfully avoided shocks by directing their efforts toward those activities that offered more stability would not have faced as many shocks as those that did not, implying that the percentage relying on income-based strategies is actually higher than data would suggest.

⁶ It is worth noting that most studies focus on poverty traps in the rural sector. Hence, the effect of risk exposure on urban investment decisions remains to be explored. This research is especially relevant for Latin America.

beyond those in terms of fluctuations and other transient effects in consumption and other welfare indicators. They involve permanent or chronic effects on poverty, implying substantially higher welfare costs and lower efficiency. These efficiency losses also mean that specific interventions could be implemented if there is no trade-off between efficiency and equity, and if, by increasing equity (spending focused on the poor), efficiency is increased.⁷ (It implies that schemes to promote insurance for the poor may well have a subsidy element that could enhance efficiency. If providing insurance would mean that the poor can take on more risky, but higher return activities, then in principle, these schemes may be able to pay for themselves in efficiency terms. This makes the case for interventions to encourage insurance with public (and aid) money for reasons that go beyond the promotion of equity (see Dercon, 2004).

⁷ For a more detailed discussion, see Dercon (2004). For a theoretical discussion on poverty traps induced by risk, see Banerjee (2004).

Scope for Insurance Provision to the Poor

The previous section analyzed the benefits of facilitating and enabling efforts to ensure that risk and its consequences are reduced for the poor. It also identified a number of risks that especially affect the poor (natural, health-related, economic and social risks). Indeed, there may be an *efficiency* case for government action in the form of providing financing and subsidising these efforts, beyond obvious *equity* arguments for supporting the poor. Still, this does not address the question about the form these efforts should take. More specifically, is it ‘insurance’ that provides the answer, or should other mechanisms be considered? The lack of an insurance market is the underlying cause for risk-induced hardship, so efforts could focus on establishing or fostering such a market. Still, this is not the typical policy answer observed. The more traditional method for dealing with ‘risks’ has been to provide safety nets, systems of targeted interventions focused on particular groups affected by hardship, including those produced by shocks. In fact, this is typically the *only* option considered.

This focus has some justification: insurance market failures are not easily addressed. For example, if asymmetric information is the root cause for the lack of private insurance markets, there is little reason, *in general*, for the public sector to resolve problems related to information. Similarly, even if those problems can be partly resolved, transaction costs resulting from providing insurance to the poor are, as already discussed, likely to be high. The administrative cost of insurance provision may become excessively expensive, with efficiency losses that may offset any gains that may be obtained as a result of better protection against risk. Also, large covariate and catastrophic risks are unlikely to be easily insured, unless the development of international reinsurance markets for catastrophic risks in developing countries is fostered. Until then, public safety net systems, financed by taxes and aid are likely to be more reliable and sustainable. Furthermore, the advantage of simple safety nets in the form of targeted and redistributive transfers is that they may be able to address many of the causes that trigger poverty and hardship within one system. For example, hardship could be linked to low assets or to a bad shock. Also, risk has a more substantial impact on the poor due to their lack of assets and resources to cope with shocks, which excludes them from credit markets. A safety net or other redistributive effort focusing on those with currently low income would not need to distinguish between hardship caused by a particular shock, low assets or any other form of exclusion from markets.

A singular focus on ‘safety nets’ has serious problems as well. First, they may not be the most cost-effective means for addressing the problem of risk. Typically, they would only offer support once an uninsured risk has already caused serious hardship. Secondly, they are characterized by serious problems resulting from their functioning and inclusiveness, which is also the case in Latin America (Lustig, 2000). Indeed, the discussion in section 2 suggests serious shortcomings in the protection offered at present. From the point of view of the poor, current safety nets are at best a source of uncertainty, and at worst, the poor are excluded or support comes too late. If insurance against risk is supposed to allow the poor to engage in risky activities that may, at the same time, increase efficiency and have a high return, then this would not be properly achieved by safety nets.

The problems related to safety nets and broader insurance provision suggest that a complementary balanced approach that incorporates both elements would be desirable. A more detailed analysis would be needed to understand the optimal balance of insurance-related activities and safety nets. In fact, a number of alternative policies should also be considered in the design of a comprehensive system of protection against risk-induced poverty. Broadly speaking, the system should consider ex-ante instruments and ex-post measures.

Ex-ante measures would provide incentives and means for the poor to protect themselves against hardship: better insurance products for the poor are the obvious instruments, but they should also support self-insurance via savings, and provide access to credit in order to facilitate asset building and properly manage those risks that might affect income. Ex-ante measures should also focus on reducing risk itself. *Ex-post* measures would provide a genuine safety net, appropriately targeted to the poor but large enough in scale and coverage to provide broad social protection to assure a minimal and sustainable standard of living. Such measures could be part of a more general welfare support system, or be specifically targeted to respond to risk-related hardship.

The potential role of these complementary ex-ante measures should be stressed here. A first set of measures involves directly reducing the risks faced by the poor, for example, policies for basic health prevention and sanitation. Better information systems on prices and weather conditions, , could have substantial benefits, while investments in technology could reduce certain types of risk, with irrigation systems and drought-resistant crops being very good examples. Indeed, this type of measures could make certain risks, that are presently too large or covariate to offer viable insurance for, more easily insurable in a cost-effective way. They clearly highlight the need for multisectoral approaches to deal with risk and insurance.

Other financial products can also play a role in coping with risk. Savings instruments, for example, have been largely undervalued as an effective instrument for protection against hardship (Dercon, 2002; Morduch, 2004). While credit provision to the poor has received much attention, relatively little was directed to savings, even when they do present many advantages as an area for subsidized intervention and regulation. For example, they are not affected by the information or reinsurance problems affecting credit and insurance, and transactions costs involved in these operations, while not negligible, are likely to be largely restricted to the administrative handling of the savings. One of the key issues is that insurance via financial assets may be risky, specially given the endemic risks of inflation in Latin America. Typically, financial savings are not tailored to the poor, offer low or negative returns, and involve extremely high transactions costs imposed on the saver. Savings should not be considered as just a means to build a credit-worthy reputation or mobilize capital aside from the normal economic activity of the household. The typical products are tailored to long-term deposits, with highly punitive returns for those looking for flexible instruments to respond to unexpected hardship.

Credit products could also help to provide better protection against risk. Credit can act as an insurance substitute, and products for this purpose should be part of the standard portfolio of financial instruments offered to the poor. Furthermore, credit can help to diversify the source of income and build up assets. It can also increase income, reduce risk in income and enhance the

ability to cope with shocks that might affect income. Financial products for the poor should be flexible and take into account the fact that they face substantial risks. Linked credit and insurance contracts are one option – for example, linking credit and health insurance. This form of insurance is not the focus of the present report, but there is definitely a need for more research on such products.

As part of a general system of protection against risk-induced poverty, there is a clear scope for insurance targeted at the poor. In the next section, risks that can be addressed by providing insurance to the poor are identified in more detail, which is followed by a discussion of the type of insurance products that could be offered. A number of successful experiences are presented as well, focusing on strategies to deal with the particular challenges of selling insurance to the poor. Based on this analysis, it can be argued that unsubsidized insurance for the poor is unlikely, the only exception being life insurance. The State should still have an important role to play in this regard, since it is its responsibility to create a regulatory environment that fosters insurance and financial intermediation. Furthermore, evidence suggests that the best method for offering insurance to the poor is the partner-agent model, in which an established insurer, possibly with public sector support, cooperates with local microfinance institutions. This points to the importance of existing informal institutions as potential agents, a point that is discussed in the last sections of this report.

Insurance involves the pooling of risk over a large number of similar units and is most appropriate for uncertain and high losses, which are greater than what a household can save for or repay. When the loss and the degree of uncertainty decrease, insurance loses out to credit and saving. Insurance therefore involves exchanging the uncertainty of large losses for the certainty of small regular payments. Policyholders pay for the losses incurred by others, while the costs and risk are assumed by the insurer. For less uncertain or smaller losses, savings or credit may be more appropriate.⁸

Brown and Churchill (2000) suggest that there is scope for insurance provision only when the following criteria are met: (i) a large number of similar units exposed to risk; (ii) limited policyholder control over the insured event; (iii) the existence of insurable interest; (iv) losses can be identified and measured; (v) losses should not be catastrophic: reinsurance becomes increasingly difficult with increasing covariance across people (such as a hurricane or a flood); (vi) availability of historical information on a sufficiently large number of people or property exposed to the same risk so that probability of loss can be estimated; and (vii) premiums are affordable. They propose a rule of thumb by which if the probability of a loss exceeds 40 percent, premiums will definitely be too high to be affordable.

There are numerous examples of insurance schemes that have been introduced without meeting these criteria, one of the most infamous examples being the crop insurance programs introduced in the early 1980s in different parts of the world. Many of the criteria included above apply to poor and rich insurance clients. However, some of them make it particularly difficult to

⁸ This feature may also explain why the poor in Latin America may be unwilling to purchase some of the existing ‘formal’ insurance products available and instead prefer to rely on ‘autarkic solutions’, including self-insurance, since the lack of appropriately targeted and designed products would make existing products relatively too costly for the poor, possibly outweighing the benefits.

profitably insure the poor. The need for premiums to be economically affordable often means that the policy portfolio cannot actually be covered by contributions, or that insured amounts are so small that they make little difference to the vulnerability of the poor. SEWA, an Indian health and life insurer, is a case in point, with payouts so low that they only cover about 10 percent of losses caused by illness-related shocks. Insurance to the poor is traditionally fraught with high per-unit transaction costs, because premiums need to be small and collected frequently, while the total amounts of policies are also small. Problems such as moral hazard and adverse selection are not necessarily more damaging among the poor, but the higher transactions costs in dealing with them may mean that these issues make insurance unprofitable. Nonetheless, a number of small-size (microfinance) institutions, including some in Latin America, already cater to the poor. Their successful experiences may help to develop some best practice guidelines for potential entrants into the small-scale insurance market that want to target the poor.⁹ Some of these lessons are discussed in the fourth and fifth sections.

A key lesson is that ex-ante measures, in the form of a savings, credit and insurance system, may provide substantial protection to the poor, but ultimately they cannot fully insure individuals and families. In short, some ex-post measures that entail transfers to those affected by uninsured risk would still be necessary as part of a comprehensive system to protect the poor against risk. Insurance products for the poor need to be simple, insuring only specific, highly observable risks with measurable losses, while high-risk groups may need to be excluded by design for the scheme to be sustainable.

All self-protection strategies require some outlay beforehand, and self-insurance fails if shocks occur in successive periods. Credit as a substitute for insurance may not be available either. Certain highly covariate and rare events are very difficult to insure. This means that some 'natural' risks, such as catastrophes, may not be easily covered by a pure insurance system. Other risks require that other types of measures be applied and market-based insurance products are unlikely to be the most sensible or only response. 'Social' risks such as crime or enforcement of property rights are examples. While it is possible to design products that insure against the consequences of these risks, they only address part of the problem.

But even if there are clear limits to insurance provision for the poor as a solution for their vulnerability to risk, insurance is definitely an option worth focusing on. In particular, life and health insurance, as well as forms of property and asset insurance are within the possibilities, and even insurance against some covariate risks, such as drought or, in general, weather insurance. In the next few sections, a strategy to implement such insurance schemes is discussed in more detail.

⁹ The survey by Brown and Churchill (2000) provides a number of examples.

Implementing Insurance for the Poor

Some key issues pertaining to insurance management need to be addressed when implementing insurance programs for the poor. This section addresses institutional arrangements and issues such as financial management, premium calculation, distribution of services and reinsurance, with a particular focus on targeting the poor.

It is paramount that agents involved in insurance schemes have very close contact with the poor. This is unlikely to be achieved by either government agencies or by standard private insurance providers. As such, institutions with close links to grassroots organizations or NGOs may be ideal agents, for example, microfinance institutions (MFIs), which are relatively widespread within developing countries. But, since purchasing insurance involves a payout only in the case of an adverse shock, it is critical that insurance customers clearly know and understand the benefits they are entitled to. This requires a simple and clearly stated policy, swift processing of claims and careful financial management of the insurance portfolio by the insurance provider. To inspire trust among the clientele, adequate reserves need to be held and financed through underwriting, reinsurance and investment. To be financially viable, insurers need to have a sufficiently diversified investment portfolio. This is something that MFIs or other institutions working closely with the poor may often find hard to achieve.

A partner-agent arrangement, in which a local institution or the MFI undertakes only the distribution of insurance services, linked with a private or possibly public sector insurance provider, may therefore be more appropriate when targeting poor customers. One of its advantages is that it eliminates agent risk and allows the institutions involved to focus on their particular strengths. It also allows local institutions and MFIs to offer greater benefits to policyholders at a similar cost. The most important drawback of this model is the limited availability of potential partners. Fostering these relationships is an issue that public policy should address, by providing a clear institutional and regulatory environment. This point is discussed in further detail in the sixth session. Within the context of a partner-agent arrangement, mutual insurance funds may overcome some of the resistance against insurance, since they mimic features of informal insurance arrangements in which funds are often distributed back to members at regular intervals. Exiting informal arrangements may, however, become a part of an MFI's established set of procedures.

Turning to the issue of premium setting, most of the existing insurers surveyed by Brown and Churchill (2000) calculated their premiums either in house or by partnering with an established insurer to gain access to the required expertise. Brown and Churchill also found that MFIs that cooperate with established insurers are usually able to offer coverage at better prices. IFOCC in Peru searched for partners with the actuarial expertise they lacked, but they were unable to find an established insurer willing to provide a product to the low-income market. Instead, they used their own simple calculations based on historical mortality statistics within their credit portfolio. ASA in Bangladesh, however, followed a different and far more risky approach and based their premiums on customer demand, starting out with very high premiums on their mandatory insurance policy. Numerous complaints were received from their clients, so premiums were then lowered successively until complaints stopped. While this ensures that clients are able to

afford premiums and are satisfied with the rates offered, it obviously entails a higher risk than the calculation of premiums based on actuarial principles.

As Rutherford (1999) points out, one of the most important demands the poor make on their financial services is easy access and regular small payments, which impose the necessary payment discipline. An agency employing home service distribution and collecting premiums on a weekly basis would be well suited to the needs of low-income households, although it may incur high transaction costs. Integrated distribution, as practiced by SEWA in India, where life insurance is distributed through already existing fixed deposit accounts, could help to curb these costs.

Reinsurance is one element that is almost completely absent in micro-insurance and similar insurance institutions focused on the poor . One of its many benefits is that it can improve the ability of insurers to grow, helps to stabilize financial results, protects against catastrophic losses and improves underwriting expertise. Reinsurance in low-income markets can also open up markets for some of the large-scale covariant risks such as many natural disasters (Skees et al., 2004). However, to attract reinsurance, it is of critical importance that primary insurers have sound pricing policies and control against abuse. According to respondents in the Brown and Churchill survey, all partner institutions in partner-agent arrangements and some cooperative insurers were likely to have reinsurance contracts. However, few of the MFIs and other smaller organizations in their study have reinsurance, which leaves them highly exposed to sudden increases in claims and prevents them from having access to a potentially valuable source of expertise.

Insurance Products for the Poor

This section focuses on four types of products, their strengths and problems. In particular, it discusses life, health, property-related and weather insurance. *Life insurance* is a relatively low-risk product and the one most widely available to the poor. Most existing schemes offer mandatory term-life insurance as part of an outstanding loan or savings account, thus minimizing their distribution costs. The majority of the institutions surveyed by Brown and Churchill (2000) also limit coverage to only those policies that are not in arrears when the policyholder dies. Certain causes of death are also excluded, for example, AIDS. While such life insurance for outstanding loans with simple terms works reasonably well, it is important to note that it often protects the MFI more than the client, since many MFIs would otherwise write off losses due to death regardless of the availability of insurance.¹⁰ Additional benefits, such as insurance tied to savings rather than credit, and stand-alone term and endowment policies offer coverage that is more focused on the needs of the policyholder rather than the institution. ACODEP's life saving insurance in Nicaragua is a good example, since their policies provide a benefit that is double the amount held in savings to the client's beneficiaries. In Venezuela, COOPERAR's basic product provides a benefit equal to the amount held in savings with the option of increasing the coverage to double the amount for an increased premium. In this sense, and although their availability is limited, these are better options for the promotion and development of insurance for the poor.

In theory, endowment life insurance can provide low-income households with complete protection against death risks and, through a saving and loan component, partial insurance against other risks and needs during their life cycle. Delta Life in Bangladesh has been a pioneer in marketing this kind of product to the poor. However, Delta Life has experienced difficulties in managing its loan portfolio, potentially jeopardizing its ability to pay out the promised bonuses as the policies mature. Such a product requires that larger reserves be held and more sophisticated actuarial expertise in its management. Still, Delta Life's case is an interesting one, and the promotion of such products could be worthwhile. But, once again, it should be stressed that a partner-agent model with a sufficiently strong partner is the best option.

An important question when offering insurance to the poor is whether this can be done profitably. All life insurers surveyed by Brown and Churchill are profitable, but it was evident that institutions with the benefit of access to actuarial expertise in calculating premiums appear to offer greater value for lower premiums. Reserve holdings differed greatly from 1.9 times the level of claims to several hundred times for very similar policies. Ten to twenty times annual claims may be an advisable reserve holding. All insurers had expense ratios well below 60 percent (claims expenses + operating costs / annual premium revenues). For example, IFOCC (Peru), used 44 percent of its premium income to cover claims and, just 5 percent to cover operating expenses (due to integration within its credit operations). Thus it seems reasonable that various forms of outstanding balance insurance can be profitable in low-income

¹⁰ It is in fact plausible that if MFIs used reinsurance properly, the cost of mandatory life insurance linked to outstanding loans would be much lower for customers than it is at present. In many ways this form of insurance is a cost that derives from inefficiency, and not a benefit for customers.

communities. The following table, taken from Brown and Churchill (2000) gives some preliminary performance guidelines for institutions offering life insurance.

Table 8. Guidelines for Institutions Offering Life Insurance

	Claims Ratio	Distribution Costs	Reserves	Claim-Processing Time
Preferred Range	< 60 % of annual premiums	< 10 % of annual premiums	> twice annual claims level	< 10 days

Insuring *health risks* poses different and more complex challenges for providers than offering life insurance outright. Insurance of health risks may suffer from adverse selection and moral hazard and usually entails the provision of health care. To avoid moral hazard and adverse selection, various mechanisms are in use. For example, two Ugandan health insurance institutions, UHC and FINCA Uganda, require that more than 60 percent of the members of a group agree to enroll before coverage is extended to a cooperative, trade union, MFI, or to a village bank. COHI Benin charges a small initiation fee to new members and has a one-month waiting period after receiving the first premium before policyholders can receive health care coverage. To control for escalating treatment costs, some insurers implement mandatory reference systems that encourage patients to use the lowest cost treatment facility first. Few of the institutions surveyed required formal underwriting before a family purchases a policy. But some providers have not designed their schemes properly. ASSABA in Guatemala (see box 1) did not manage to enforce the requirement that all members of a family be enrolled, so some enrolled only those members most likely to be ill, with a high negative impact on the sustainability of the scheme. It did not impose any waiting time before policyholders could benefit from in-patient care.

To provide the right incentives to the service provider, various payment mechanisms can be used. When good quality control is in place, one form of payment that works well is capitation payment: the insurance scheme pays the provider a fixed amount per member and the provider agrees to provide care, as defined in the policy, for any member who needs it during the period. By paying for the number of people instead of the number of services offered, the scheme reduces the provider's incentive to provide more, possibly unnecessary services. ASSABA in Guatemala used this scheme. However, it also places risk solely on the provider if there is excessive usage and the provider is unwilling to agree to such a scheme. Therefore, fee for service may be more practical. Alternatives are fixed cash subsidies given to each member to pay for health expenses regardless of actual claims.

Three different methodologies are employed to fund health-care services provided for by their policies: salaried service provision, dedicated health-care facilities and indemnity coverage. Naturally, there are strengths and weaknesses to each of these approaches. Salaried service provision, whereby health services are provided by staff working exclusively for the health plan, often provides the most convenient access. ASSABA used this system. However, many types of health care services cannot be provided in a cost-effective manner by salaried personnel serving only members of a certain health plan. If they are provided locally, dedicated

health-care facilities can offer convenient quality care, but this approach requires a higher degree of administration to monitor the services provided and how members use services covered by the policy. Indemnity coverage reduces administrative costs for the health plan, but gives it less control over the quality of care. Also, it may not provide effective coverage for members who cannot afford to pay for services up front and receive reimbursement later.

Unfortunately, health insurance schemes targeted at relatively low-income customers are often liable to serious losses. For their survey, Brown and Churchill (2000) had access to financial information for four providers. They found that three out of those four providers were not covering their costs. One had expense ratios of 216 percent, which reflected the challenge of profitably offering health care insurance to low-income households. Only COHI (Benin) was able to avoid losses, since it only offers very limited coverage with many exclusions and restrictions.

Box 1. ASSABA, Guatemala

In poor rural communities, access to basic health care is often severely limited, a problem that is being addressed by community initiatives to generate health care financing through voluntary prepayment schemes. The example of the Asociación por Salud de Barillas (ASSABA) in Guatemala (Ron, 1999) helps to shed light on this issue. Ron compared the ASSABA experience with a study of a similar scheme (the ORT Health Plus Scheme, OHPS) in the Philippines that was more successful.

ASSABA started a community health financing scheme in 1994 following suggestions from the World Health Organization. Preliminary estimates were made on current costs and out-of-pocket health care expenditures in public and private facilities. The concept involved the identification of a contribution level that would be affordable to the vast majority of families, as opposed to a contribution that would cover all the costs of an optimal benefit package. Donor funding was then mobilized to cover start up costs. Limitations on benefits were imposed, and particular illnesses that were not considered 'emergencies' were excluded.

ASSABA, as a grass-roots, participatory community association created to improve the health of its members, was better organized when compared to similar schemes in other places, such as the Philippines. However, at the design stage, ASSABA was not yet established as an administrative body. By the time it was finally registered as a legal entity, local conflicts made progress difficult, since the local Catholic Church — also a health care provider — contested the capitation contract of ASSABA with a hospital sponsored by the Protestant Church in the United States. Furthermore, ASSABA, was attempting to provide community health insurance before the national authorities in Guatemala had come out with a clear policy. Although ASSABA implied that all members of a family needed to register, this was not stated explicitly in the registration rules, exposing the ASSABA scheme to adverse selection. The design of the benefits package also posed a serious disincentive to potential members. In contrast to the original design, inpatient care was limited to 3 days. Additional charges would fall on the patients, who in the majority of cases would not be able to afford them. This clearly contributed to the failure. Successful schemes strictly enforced their registration rules and did not allow individual family members to register, but also did not change benefits.

One of the lessons that can be drawn from the ASSABA experience is that the regulatory framework needs to be firmly established, and that potential problems at the local level should be taken into account before setting up a scheme. The benefits package should be designed with the needs of potential members in mind, while contributions should be kept sufficiently low. Rules for registration (group or family membership) need to be strictly enforced, while a minimum period of membership prior to service can also be helpful in protecting against adverse selection.

Source: Ron (1999).

Another product is *property insurance* – including against fire or theft. Few providers have experience with type of insurance. This is unfortunate as property loss is a big risk especially for the urban poor in Latin America. A key issue is likely to be insufficiently defined property rights and titles that are difficult to enforce. If assets are identifiable, their value is likely to be relatively low, which would increase valuation costs relative to the value of the policy. The experience of La Equidad in Colombia may nonetheless be helpful when designing new products. La Equidad offers comprehensive coverage on many types of risks after conducting substantial market research about the needs of its clients. As a consequence, its property insurance is not tied to an outstanding loan. Policyholders themselves determine the value of the asset. Since the premium is tied to the insured value of the asset, policyholders have an incentive to state the true value. This mechanism simplifies the sales process greatly. La Equidad determines premiums according to the risk exposure of their clients and their type of business: service, trade related or manufacturing.

In the case of property insurance for the poor, premiums are not adjusted according to the preventive measures that might be in place, most likely because of obvious enforcement problems. Instead, La Equidad offers regular group meetings for policyholders to train them about basic preventive they could take. To prevent against moral hazard, two mechanisms are used: deductibles and claims inspectors. However, all insurers indicated that sending inspectors was too expensive for small claims. There is little information on the financial performance of property insurance since it is so rare. Also, and more than with other types of insurance, low-income households appear to be slow to embrace the idea of purchasing insurance on their valuable assets. This may be because property risk is less certain, in contrast to death or the health problems that clients may have to deal with eventually.

Another insurance product, which is not often offered but is receiving much attention, is—*weather insurance*. It is receiving much attention (see e.g. Skees et al., 2004). Risks in agriculture that relate to drought or other weather events remain some of the most important ones facing the poor. In general, systems to insure crops have generated high costs and have, however, failed. So there is a continued interest in finding alternative insurance mechanisms. Many factors are responsible for those failures, but moral hazard and the high costs of the loss verification process after specific weather events are key in this regard. The high covariance involved in agricultural risks and reinsurance compound these problems.

However, there have been innovative theories for the design of systems that may not be so liable to some of these problems. The idea is to supply insurance based not on the assessment of crop losses, but on weather indexes. Given the observability of weather indexes, such a system could avoid moral hazard and adverse selection issues, and in general save on transactions costs. The recent evolution of international markets for unusual and catastrophic risk suggests that reinsurance by international markets may become feasible (Skees et al., 2004).

Experience in Mexico with agricultural insurance over the last few decades may help to illustrate the potential and possible drawbacks of weather insurance to provide protection to the poor whose livelihood depends on agricultural activities. In this country, there have been

various systems of agricultural insurance since the 1940s. Most have been largely unsustainable due to the recurring serious financial problems that caused their collapse. The system in place since 1990 has been more stable, providing cost-effective crop insurance. For example, the loss ratio (the ratio of payouts relative to premiums) has been rather high – often above 80 percent. AGROASEMEX, a government-owned insurance and reinsurance company, was in charge of managing the system. Until 2001 it provided direct insurance to farmers, although it now focuses largely on providing reinsurance to *fondos*. A *fondo* is a group of farmers in a more or less homogenous area, providing mutual insurance to each other. An important portion of insurance and reinsurance is effectively linked to credit operations as well. But its relative success is largely due to its focus on the highly productive and financially viable sector of large-scale commercial agriculture, as its key mechanism to save on costs on transactions and monitoring of moral hazard and adverse selection. The system is, though, not suitable for providing insurance to the poor. For small-scale and poor farmers, FONDEN is the only available scheme, which is a simple disaster-relief scheme functioning as a safety net since these relatively small farmers do not have access to credit or formal insurance (Ibarra, 2003).

It has been suggested that weather-indexed bonds could encourage agricultural insurance systems to start offering services to poor and small farmers. In this case, problems of asymmetric information are largely resolved and, for example, insurance could be based on small mutual insurance groups that can obtain rainfall reinsurance through these bonds. The bonds could be priced for reinsurance, since historical data on rainfall are available and they could even be traded internationally. Even without reinsurance by international markets, there is still a case for reinsurance through governmental budget and assistance: the fact that an instrument may be available that can be provided at low transaction costs to poor farmers supports the idea of subsidizing for equity, and possibly efficiency, reasons.

One should nevertheless be careful not to idealize the benefits of rainfall insurance. To reach the poor, substantial transactions costs will surely be involved, while, to be effective, the correlation between rainfall measured at reliable stations and local yields will need to be high. The latter is not necessarily guaranteed since rainfall stations are not very common in agricultural areas with low potential and limited commercial farming interests. Also, the sustainability of the scheme will depend on the relative predictability of certain events. While they affect pricing, some weather phenomena, such as global warming or El Niño, are not well understood. The high covariance involved will require premiums with high frontloading (adding an extra sum to the premium to handle the non-zero probability of the scheme failing), making insurance more expensive for the poor. Overall, however, such new products deserve experimentation and further analysis to understand the possibilities for effective delivery of weather-related insurance to the poor. Indeed, programs being implemented in Mexico for the use of weather-based indexes will provide helpful insight, as will current experimentation in other countries, such as India (Skees et al., 2004).¹¹

¹¹ Price insurance is not explicitly considered in this paper, even though forms of price stabilization have often been implemented for their insurance value, while **futures contracts** effectively provide insurance to farmers in an increasing number of countries. Pure price insurance schemes are less common, but they might yield good results if they are properly designed. Since price shocks are **highly covariate** some of the issues related to **designing and delivering insurance?????** are similar to those related to weather insurance. Collier (2004) discusses the possibility of price insurance offered to producers of internationally traded commodities, whereby, given its private and social (growth) benefits, donors could underwrite this insurance and subsidize administrative costs. Collier argues that the

benefits of such price insurance schemes may well be larger than weather or other quantity insurance schemes. Experimentation with these types of schemes would be highly beneficial.

Regulation for Insurance Provision to the Poor

The previous section identified a number of products that could be successfully offered to the poor. The partner-agent model was identified as the best mechanism for these products to effectively reach the poor. . This model takes advantage of the strengths of the different parties involved in insurance provision to the poor. The ‘partner’ is an established insurer, with experience and interest in broadening its insurance portfolio to include products suitable for the poor. In order for it to be a successful operation, it will need to design contracts that provide the appropriate incentives for the insurance arrangements to be sustainable, while also being credible to agents and its clients. Earlier, the argument was made that the problems related to risk-induced poverty traps implied a preference for subsidized insurance, efficiency being the main argument. This does not mean that its implementation is straightforward: the case for subsidies or other government intervention opens in itself opportunities for rent-seeking on the part of the ‘partner’ toward the government, not least given the **political economy consequences????** of a scheme focused on service provision to the poor. The ‘agent’ will need to be provided with the appropriate incentives to maintain the sustainability of the portfolio. These agents are likely to be financial institutions with close contacts with the lower-income segments of the market. Microfinance institutions have been established with this purpose, although their involvement in the insurance segment has been limited. Existing microfinance institutions could be encouraged to branch out into more widespread insurance, or assistance could be given to certain microinsurance providers for them to enhance their products.

There is substantial scope for the government to effectively support the insurance market serving the poor. A favorable policy environment can support the proliferation of insurance services among the poor by facilitating the establishment of local (micro) finance institutions, and making insurance provision to the low-income segment of the market more attractive to established insurers. The strategy is unlikely to involve large-scale subsidies, but government spending will need to be directed toward establishing the necessary infrastructure, institutions and regulatory environment to promote this segment of the market. Unfortunately, such a policy environment does not exist in Latin America, and, in fact, some of the existing regulations actually present a bias against the use of finance and insurance products targeted to the poor.

In a report by Jansson and Wenner (1997), the following regulatory requirements have been identified as biased against small-scale (micro) insurance providers in Latin America: high capital requirements, high capital adequacy standards, ownership restrictions and the requirement of new financial institutions to be capitalized by cash contributions.

Capital requirements in Latin America are often prohibitively large for MFIs, although actual requirements differ widely. Even if the required sum could be raised, few MFIs would be able to gather a client base large enough to fully leverage their capital. In Colombia, regulated insurers are required to maintain a minimum investment of US\$3.2 million as well as additional paid-in capital based on the size of their insured portfolios. Recent surveys among insurance executives, including some in Colombia, revealed that they did not serve the low-income market because they did not believe they could achieve the volume of business required to earn a sufficient return on their investment (Brown and Churchill, 2000). As governments increase minimum capital requirements over time to maintain a financially stable insurance industry,

insurers with healthy finances and serving low-income markets can be chased out of business. In Bolivia, recent government demands for insurers to increase minimum capital led to the dissolution of Crucena, an insurer that served low-income Bolivians for 24 years and that, in 1997, had a pretax profit of US\$640,000. To get around this, some Latin American countries have created different institutional forms for MFIs, but these are often severely limited in the type of activities they are allowed to undertake. Alternatively, low-income insurers sometimes offer insurance, as member benefits, through cooperatives or credit unions, which are financed through interest payments on outstanding loans. However, the risk is that such institutions may no longer have any external requirements for maintaining financial integrity. Regulation in the form of capital requirements is required to ensure sustainability but, in its current state, does not take into account the specific needs and problems of microfinance institutions. Alternative arrangements, such as agent-partner relationships with established insurers providing reinsurance to MFI's portfolio, could result in the same degree of sustainability and protection.

A second issue that is important for local MFIs when trying to enter the market and forming a new financial institution is the requirement of capitalization by cash contributions. This is an obstacle, since MFIs are usually established by NGOs with existing loan portfolios, and insurance is in the first instance offered as part of existing credit relations. In these cases, NGOs are required to transfer cash and clients to the new institution, which in turn is required to repay individual loans to the NGOs making the creation of an MFI extremely expensive. Jansson and Wenner (1997) suggest that a possible way to facilitate the set-up of a new MFI would be to allow NGOs to use the net present value of the existing loan portfolio to capitalize the new institution, as long as this value is adequately and independently evaluated.

Restrictions on ownership of financial institutions can also be an important obstacle to the creation of regulated microfinance entities. In Honduras, for example, institutional ownership is not permitted, so NGOs cannot own MFIs.

It is clear from this discussion that existing regulation hampers the provision of financial services to the poor. Often it does not even achieve the desired result of ensuring the financial stability of MFIs, but instead forces them to circumvent regulation and avoid external portfolio auditing. It may therefore be advisable to adapt some of the existing regulation, for example by lowering capital requirements for microinsurers, allowing NGOs to be owners of MFIs, and loosening the requirement to be capitalised fully by cash contributions.

This is not to suggest that the accountability and financial health of MFIs should in any way be compromised, but rather that regulation needs to take account of the different needs of MFIs and their customer base. But substantial financial regulation makes sense when viewed in the context of providing stability and credibility to the entire financial system, even if it appears to go against the needs of a niche in the system. While some efforts to adapt regulation to the circumstances of the MFIs are necessary, lifting all these regulations would not be advisable, even if MFIs typically would consider these rules as being against their interests. The same degree of sustainability and credibility for microinsurers could be achieved by relaxing some of the rules for MFIs, in combination with incentives and possibly requirements for MFIs to foster links with established insurers as part of partner-agent institutional models. In any case, even in the current regulatory climate, careful use of the partner-agent model could provide a solution

for MFIs to properly expand their activities by following the requirements imposed by the regulator.

Local Institutions and Insurance Provision to the Poor

One should however be careful not to idealize the ability of MFIs to easily and effectively provide insurance to the poor. While they may be a crucial intermediary for established insurers to enter the low-income segments of the market, their own ability to effectively reach the poor should not be taken for granted. Their record of reaching the poor is not always impressive. Formal institutions have typically difficulties in reaching poor communities and individuals, who end up being largely dependent on their own risk-coping strategies, even if seemingly appropriate alternatives are available. Any program aimed at including the poor should be sensitive to these problems.

One route to consider would be trying to mobilize existing ‘informal’ savings and insurance institutions to assist in ‘crowding in’ financial services, including insurance, into these communities. A plethora of local informal institutions run by their members such as Rotating Savings and Credit Associations (ROSCAs) and Accumulating Savings and Credit Associations (ASCAs) exist, which provide an opportunity for credit, saving and insurance, while the existence of more ‘informal’ groups – such as mutual support networks and funeral associations— have been identified throughout the world. The key issue is whether they can be integrated into more formal insurance projects as potential local agents in a partner-agent framework with the following hierarchical structure: an established insurer that contracts a microfinance institution, which in turn involves a local ‘informal’ institution dealing with the clients. The key advantages of mobilizing these local informal institutions are their local expertise, reputation and informational advantage on the local community.

It is worth to carefully discuss how this may work. Two points are crucial here. First, it may be that offering insurance or other products from outside the local community can be done more effectively using these local institutions, resulting in net benefits to the community. However, it may also be that the introductions of outside agents may crowd out any local ‘informal’ insurance or other beneficial interactions. These incentives need to be discussed, focusing on the overall benefits of the scheme.¹² Note that these concerns could be present even if the model is simply an agent with close contact in the local community (the MFI) directly trying to introduce formal insurance on behalf of the established insurer, although in the discussion below the focus is on the existence of informal but explicit interactions between people at the local level, such as in the form of informal risk-sharing.

Several studies examine the possible interaction of explicit incentives— those that can be externally verified and thus become the basis of a contract — and implicit incentives in principal-agent contracts. This can help to understand how credit contracts could be designed in the presence of local informal risk sharing. Conning and Kevane (2004) discuss the case of obtaining a loan to undertake a risky project whose success — observed by the financial

¹² It is sometimes argued that crowding-out of local institutions, such as credit and insurance systems, should be avoided at all cost. However, as Morduch (1999) argued, the key issue is the overall welfare benefit of the scheme: the benefits to individuals from ‘formal’ financial intermediation should outweigh the costs of the disappearance of informal mechanisms. Note however that there may be distributional effects as well (other people benefit from those that lose), which require careful consideration, not least if the poor suffer more.

institution — depends on the amount of effort (unobservable to the outside financial institution) that is exerted by the borrower. As with all problems of moral hazard, any contract that is to implement diligence must offer the agent a higher expected utility under project success than under failure, so as to give him an incentive to want to raise the probability of success via diligence. For this to be the case, the villager, who is assumed to be risk-averse, must be made to bear the risk. The feasibility of such a contract between the villager and the financial institution thus depends on the cost of diligence. Conning and Kevane show that if agents in the village have the ability to enter into side-contracts for the purpose of mutual insurance which are based on observed effort, the set of feasible contracts is increased since the side-contract can provide more risk-smoothing to the agent who took out the loan without disrupting incentives because the other agents' monitoring keeps the latter diligent in circumstances where the individual incentive compatibility constraint would not be satisfied. This is an example where local informal insurance can crowd in outside financial intermediation. This rests on the assumption that monitoring is costless, that local agents have better information than outside agents and, most importantly, that they do enter into an insurance side-contract.

Literature on self-enforcing contracts however shows that this need not be the case. Since informal insurance is not enforceable, contracts have to be self-enforcing, which requires that the one-time gain from deviation is smaller than the expected benefit of continuing in the arrangement. This means that informal insurance is not always feasible and furthermore its feasibility is affected by the pay-off from renegeing on the agreement, which in turn is affected by the availability of outside financial intermediation. However, even if the pay-off from renegeing is increased through the access to outside credit, this may not necessarily lead to a break-down of existing informal insurance arrangements. Introducing an outside safety net or other form of insurance that is well targeted not only increases utility in autarky but it also affects the distribution of wealth in a community, hopefully making it more equal and facilitating reciprocal transfers, where before income differences would have been too large to make risk-sharing possible (Coate and Ravallion, 1993). Even better results can be achieved when the availability of outside financial services is made conditional on participation in a local informal risk-sharing arrangement (Attanasio and Rios-Rull, 2000). In other words, this implies that there could be ways to increase informal risk sharing by extending formal financial services, including insurance.

While the above has focused on bilateral risk-sharing, local informal institutions where they exist usually comprise larger groups (albeit rarely the whole community) and often hold substantial amounts of assets.¹³ Genicot and Ray (2003) in fact show that these informal groups will always be of limited size because of the requirement for self-enforcing arrangements in the absence of legally binding contracts. This opens up the possibility of offering reinsurance to such groups. This would have a direct beneficial effect of reducing the claim variance an informal institution faces and, since the size of such groups is constrained by the possibility of deviation during periods of illiquidity, an indirect benefit may be that larger groups achieve stability thus increasing diversification against risk within the informal institution. An added benefit of offering reinsurance to existing groups is that it does not change the payoffs in autarky but only affects those of remaining in the group, so that there is strict complementarity between informal and formal insurance. Furthermore, funds of such informal institutions may

¹³ Burial insurance, which is a simple type of life insurance, is often organized in this manner.

be used as collateral to crowd in loans from outside financial institutions as suggested by Conning and Kevane (2004). In short, these theoretical arguments suggest a number of avenues in which extending financial services such as formal insurance to local communities and through local institutions could have substantial benefits. But all these models include restrictions on the type of contracts and arrangements between MFIs and the local community that are in fact possibilities for improving welfare. To put it simply, schemes may still result in overall negative welfare effects. Furthermore, if there are different levels of wealth among villagers, the benefits and costs may well be borne by different people, adding further complexity to the evaluation. In any case, it points to the need for a careful design of insurance products and their delivery that should take account of the functioning of existing local mechanisms. The analysis above suggests that sensible directions for integrating local informal schemes into broader insurance provision to the poor could include offering group policies or reinsurance to existing groups, using their funds as collateral for loans, while also making use of their local expertise in reducing transaction costs and asymmetry of information.

Conclusions

The poor in Latin America face substantial risk, in the form of natural, health, social and economic risks, and are also more likely to be affected by them. The high degree of urbanization and commoditization in the countries makes Latin America different from other developing regions. In general, the poor use sophisticated mechanisms to cope with this risk, which is not enough. The welfare losses are substantial: the coping mechanisms themselves come at an additional cost in terms of long-term welfare. As such, risk and how the poor respond to it contribute to the persistence of poverty. There is a clear need for further policy work to reduce risk and its consequences, as current systems do not provide sufficient protection. Indeed, there may well be an *efficiency* argument for providing subsidized insurance and protection, given risk-induced poverty traps.

This study has argued for fostering insurance provision, not as panacea to solve all problems, but as part of a comprehensive system. The current focus on ex-post measures in the form of some safety net is not cost-effective or sufficient to reach the poor. Other components of such a system would be ex-ante measures to stimulate and protect self-insurance through savings, reducing risk and fostering credit for the poor as a form of insurance and to allow a stronger asset base to grow out of persistent vulnerability to risk. These efforts need to be supplemented by a careful and well-designed safety net since some risks should not be addressed by ‘ex-ante’ insurance-related mechanisms – examples are certain covariate economic or catastrophic risks. A high proportion of risk, including economic and social risk, is also largely man-made, and reducing their impact requires actions to address the causes of these risks – inflation, crime or waste-related risks are examples. Providing only protection against the consequences of these risks is unlikely to be cost-effective.

In terms of the basic institutional setup for insurance provision, the partner-agent model appears to be the most suitable, so that an established insurer (the partner, from the private sector, possibly in partnership with the public sector) links up with an institution with local financial connections, such as a microfinance institution (MFI). The advantage is that this would include a mechanism to provide easy access and terms to the poor, while costs are reduced and sustainability is protected by reinsurance and contracting with an established insurer. Judging from case studies, it appears that a number of products might be suitable for promotion, including life, property, health, weather or price insurance, possibly linked with credit. By its covariate nature, weather or price insurance requires mechanisms of reinsurance either internationally or through budget or aid, but much progress has been made in recent years to develop workable models.

One should be cautious about the likely success of these schemes. In terms of types of coverage, the experience of existing insurers catering to the poor shows that it is difficult to offer profitable comprehensive coverage to low-income households. In part, this can be explained by the financial capacity of clients and the lack of opportunities for diversification. Term life insurance is the most sustainable type of insurance, but the support of governments, donors and NGOs is necessary to branch out into other profitable products. Product features should include group policies, mandatory insurance and incentives to cope with moral hazard

and adverse selection, for example by rewarding members who do not submit any claim during the year.

As an indirect benefit, the provision of sustainable insurance services creates natural incentives for insurance companies to encourage risk prevention as in the case of La Equidad, in Colombia. Many existing schemes proved costly but also clearly lacked expertise and reinsurance mechanisms to reduce costs. The partner-agent model is therefore likely to be the most efficient way to proceed.

While subsidized insurance for the poor can be an attractive option on efficiency grounds, an important role for the government would be to establish a more effective regulatory framework to foster the establishment of microinsurers at the local level, while maintaining overall stability and credibility of the entire financial system. While relaxing entry requirements for MFIs to enter the insurance market may be beneficial, incentives should be also provided so that MFIs partner with established insurers, through the partner-agent modality.

MFIs can easily and effectively provide insurance services to the poor, but it is important to acknowledge the presence of **local** insurance and other finance-related institutions. There is a clear scope for involving these institutions as intermediaries in insurance provision, since they possess knowledge of local conditions and an established reputation.

Finally, objectives should be clearly defined when providing more insurance to the poor. Uninsured risk means that poverty is perpetuated, with the possibility that a risk-induced poverty trap might occur. More insurance, as part of a credible comprehensive system of 'social protection,' should allow the poor to sustain their assets and to enter into more profitable, risky activities. In short, it would allow the poor to focus on long-term strategies to get out of poverty

Of critical importance are the credibility and sustainability of insurance provision as part of a broader social protection system . The issue is not who should provide the services as part of the system: different agents, including NGOs, community organizations or the private sector could play a significant role. There is a key role, however, for the government in the development of and support to an appropriate regulatory and institutional framework for such programs, and sustainable and transparent institutions to monitor these activities.

This issue cannot be underestimated. Often, institutions in developing countries, including those in Latin American and the Caribbean, are not transparent or sustainable, and therefore well-intentioned measures may lack the credibility and public support to succeed. Credibility cannot be easily acquired, and governments face an uphill struggle in this regard. The important role for aid and the donor community is to support and ensure the enforcement of these measures so that the benefits of insurance products targeted to the poor can be improved by enhancing their long-term effect on poverty.

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